



Pulled Forward

Pandemic-Led Structural Shifts Accelerate Long-Term Credit Risks

Related Research

Global Economic Outlook - December 2020 (December 2020)

The Next Phase: Change Accelerated (June 2020)

Fitch Ratings Coronavirus Scenarios : Baseline and Downside Cases — Update (December 2020)

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Structural Shifts Pose Long-Term Risks

For several key economic sectors, the coronavirus pandemic has accelerated and amplified structural shifts that may cause some permanent weakening to their operating environments, thereby accentuating longer-term pressures on credit metrics.

In this report, Fitch Ratings identifies the sectors and issuers that are most at risk from such impairments and the execution risks they may face as they adapt to their respective "new normal" environments.

In cases where the sector (such as discretionary retail) entered the crisis in a weak position, the acceleration of long-term trends, such as the migration of commerce online, will make it challenging for already-weak, laggard retailers to recover.

Other heavily affected sectors – such as airlines, lodging, leisure, oil and gas (O&G), and parts of commercial real estate – also face a prolonged recovery and the need to adapt to structural changes precipitated by the pandemic. These include the shift to online, rising ESG-related considerations and the transition to a low-carbon economy, which will challenge their operating environments longer term.

These challenges will have cascading impacts on the US public finance and infrastructure sectors, disrupting revenue and the provision of services.

For some sovereigns, weak balance sheets from huge stimulus packages reduce their ability to navigate the impact of the crisis. This could put pressure on banks' asset quality and profitability, even though banks entered the crisis in a position of relative strength.

Future credit differentiation will therefore depend on the resilience and adaptability of issuers in sectors and regions that face operating challenges as the pandemic recedes and structural realignments gather pace, especially when policy support lapses. Major Asian economies appear better placed for a more resilient recovery, supporting issuers in the region.

Vaccine to Dictate Pace of Recovery

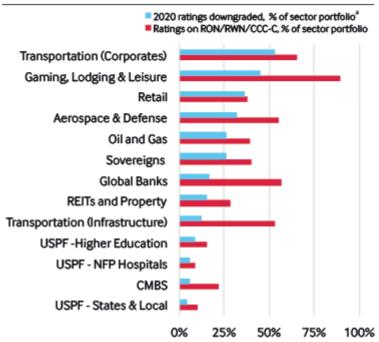
Our ratings portfolios across major asset classes currently signal further downgrade risk, based on the balance of Outlooks and Ratings Watch Negative (RWN). The conversion rate for this unprecedentedly high level of Negative Outlooks and Watches may well, however, turn out lower than historical averages.

The most important factor determining the pace of stabilisation will be the roll-out and take-up of vaccines and renewed restrictions. Should these drag meaningfully into 2H21, this would clearly undermine the economic recovery and prolong the pressure on ratings.



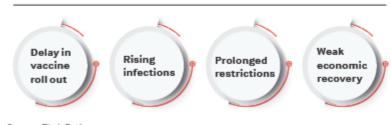
Pandemic-Led Structural Shifts Accelerate Long-Term Credit Risks

2020 DOWNGRADES AND NEGATIVE SIGNALLING



*Ratings downgraded indicate % of sector portfolio in a lower rating level at the end of 2020 compared to 1 January 2020. L-T Public IDRs, except for CMBS, Infrastructure & USPF = Public Long Term Rating: Data as of 22 December 2020. Source: Fitch Ratings

2021 DOWNSIDE RISKS



Source: Fitch Ratings

STRUCTURAL SHIFTS - SELECT AREAS OF POST-PANDEMIC CREDIT RISK

Sovereigns

- · Larger role for governments with higher debt
- Lasting economic scars
- · Pressure on fiscal and monetary policy frameworks

Banks

- Lasting economic scars
- "Lower-for-longer" policy interest rates



Special Report | 11 January 2021 fitchratings.com



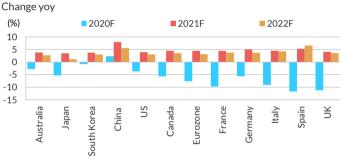
Asia Better Placed for Recovery Over West

A post-pandemic credit trend that will transcend asset classes will be the divergence in the speed and quality of recoveries between major Western and Asian (particularly north Asian) economies. This trend may lead to a longer-lasting divergence in economic and credit dynamics in favour of China and other developed Asian economies, which generally appear better placed for a faster and stronger recovery.

For major Asian economies, particularly China, better control of infection in the early stages of the pandemic enabled a resumption of more normalised economic growth in 2020 compared to Europe and the US, which are both suffering a second wave of infection.

China's GDP is now more than 3% higher than pre-crisis levels and growing swiftly, helped by on-balance-sheet fiscal easing and a rise in credit growth. Boosted initially by infrastructure, property and export activity, the expansion has recently broadened to the consumer sector, with retail sales up by more than 4% yoy as of October 2020. GDP figures for other major Asian economies also reveal a milder recession compared to the West in 2020.

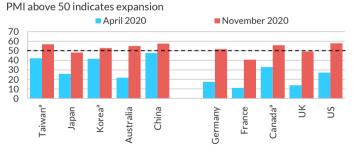
Real GDP Growth



Source: Fitch Ratings

Purchasing Managers' Index (PMI) data reveal a similar picture, with a recession recorded across the board in April but a milder contraction in China and other major Asian economies compared to the West, setting these economies up for a more robust recovery.

Composite PMI



^a Manufacturing PMI only Source: Fitch Ratings, IHS Markit, Haver Analytics

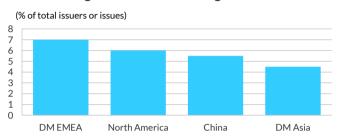
Unemployment figures also reveal more resilience in Asia compared to Europe and the US, albeit within a historical trend of structurally lower unemployment figures. We forecast median unemployment amongst major Asian economies (excl. India) in 2021 will be 3.9%, down from 4.2% in 2020, compared to 7.6% in

2021 for Western Europe and North America, up from 6.9% in 2020.

This macroeconomic divergence has also been reflected in our ratings actions and Outlooks in 2020 for the same group of countries.

We downgraded nearly 7% of our EMEA developed-market (DM) rated portfolio and 6% of our North American portfolio in 2020, compared to 5.5% of our China rated portfolio and 4.4% of our Asia DM portfolio.

Portion of Regional Portfolio Downgraded in 2020



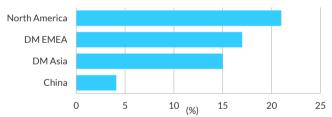
Note: Portfolio includes IDRs for sovereigns, corporates and financial insitutions, and issue ratings for structured finance (ABS and CMBS).

Source: Fitch Ratings

This regional divergence is reflected in our Outlooks. Major Asian economies have the lowest proportion of issuers on Negative Outlook or RWN, suggesting that the number of issuers that may be downgraded in the coming 12 to 18 months will be more moderate compared to other regions.

Outlooks Show Asia's Relative Resilience

Share of regional portfolios on Negative Outlook or RWN or rated 'CCC'



Note: Portfolios include IDRs for sovereigns, corporates and financial institutions, and issue ratings for structured finance (ABS and CMBS).

Source: Fitch Ratings

The relative resilience among Asian issuers partly reflected the higher proportion of ratings in the region that are driven by sovereign support, particularly in China (A+/Stable). However, the more effective containment of the pandemic also played an important role, and this may pave the way for a sustained divergence in underlying credit fundamentals between regions.

Issuers in the major economies of Asia, may experience a prolonged period of relative stability as they remain unencumbered by the severity of dealing with the aftermath of this pandemic.



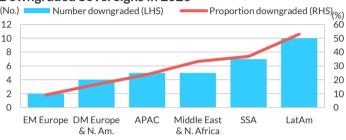
Sovereigns

A Record Year for Sovereign Downgrades

The economic impact of the pandemic and governments' resulting policy responses led to a broad deterioration in sovereign credit profiles in 2020.

By end-December, we had downgraded 33 sovereigns, making 2020 a record year for downgrades by a large margin. The previous record was 21, in 2016.

Downgraded Sovereigns in 2020



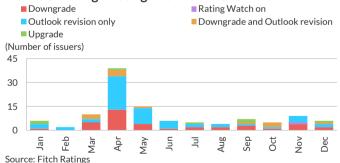
Note: Argentina and Ecuador included in 2020 downgrade calculations; their LT IDRs were downgraded to 'RD' before being upgraded to 'CCC' and 'B-', respectively, following completion of distressed debt exchanges. Source: Fitch Ratings

Downgrade rates were higher in emerging-market (EM) regions with lower-rated sovereigns, reflecting lower fiscal headroom, weaker policy frameworks and records and, in some cases, restricted access to financing, which made them more vulnerable to the economic shock. That said, we also downgraded six DM sovereigns in 2020, in most cases to reflect deterioration in public finances.

Outlooks Indicate Further Downgrades in 2021

The pace of negative actions eased from June 2020 but the high proportion of sovereigns on Negative Outlook or RWN, reflecting continued risks from the crisis's immediate and longer-term economic impact, suggests that further downgrades are likely in 2021

Fitch's Sovereign Rating Actions in 2020



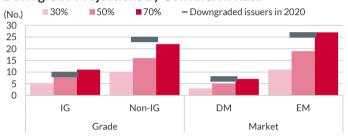
A third of the rated portfolio (39 sovereigns) were on Negative Outlook or RWN at end-December, down from August's all-time high of 40% but still above the pre-pandemic peak of 25% in 2009.

Of the sovereigns on Negative Outlook or RWN, 23 are non-investment-grade (non-IG) and 16 are investment-grade (IG). We do not assign Outlooks to the nine sovereigns rated 'CCC' to 'C', given that these ratings are, in any case, highly volatile.

In 2000-2019, the average conversion rate (the share of Negative Outlooks or RWN statuses that are followed by a downgrade) was 63%. If we apply this rate to the current portfolio, it suggests that 25 of the sovereigns that are on Negative Outlook or RWN will be downgraded. However, the actual conversion rate may be lower because Negative Outlooks assigned during a systemic or global crisis typically reflect not just risks to sovereign credit metrics but also heightened uncertainty around those risks.

The chart below shows hypothetical downgrades projections for 2021 based on three scenarios for conversion rates from ratings on Negative Outlook or RWN or in the 'CCC' to 'C' category. Even with a 30% conversion rate, 2021 would still be an active year for downgrades.

Downgrade Projections by Conversion Rate



Note: Argentina and Ecuador included in 2020 downgrade calculations; their LT IDRs were downgraded to 'RD' before being upgraded to 'CCC' and 'B-', respectively following completion of distressed debt exchanges. Source: Fitch Ratings

Uncertainty has fallen since the initial months of the pandemic, which may allow Fitch to stabilise some Negative Outlooks where our baseline forecasts for macroeconomic performance and public finances remain consistent with the current rating.

Covid-19 Remains Central Downside Risk in 2021

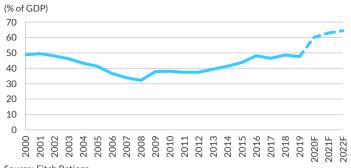
The rate at which Negative Outlooks and RWN convert to downgrades in 2021 will mostly reflect the pace and success of efforts to contain the pandemic and re-open economies. Our latest *Global Economic Outlook* predicts a more sure-footed global recovery from mid-2021 as vaccines are distributed. That said, the pandemic is likely to only slowly recede, with varying degrees of persistence across countries.

In general, we expect the return to positive economic growth, the unwinding of automatic stabilisers and the withdrawal of some discretionary measures to lead to lower fiscal deficits in 2021.

We forecast median fiscal balances by rating category to improve in 2021. Debt dynamics are also likely to be more favourable than in 2020, with median public debt ratios still likely to increase across all regions but more slowly than in 2020. We estimate that median public debt-to-GDP ratios rose by 12 percentage points across all rated sovereigns in 2020.



Median Government Debt



The path of the economic recovery will be a key factor determining fiscal outcomes and prospects for consolidation, with governments continuing to respond flexibly to "stop-start" economies, at least during the early part of 2021. This means that, as well as being the key downside risk to our GDP forecasts, problems or delays in rolling out vaccines could also undermine our near-term fiscal projections.

The credibility of fiscal consolidation plans will be an important rating consideration. Evidence that policy credibility or commitment to public finance sustainability is weakening, for example if fiscal rules are indefinitely suspended or medium-term fiscal consolidation plans are not forthcoming, could be negative for ratings.

Funding conditions for EM sovereigns in 2021 appear broadly favourable. Central banks in DMs will keep global benchmark interest rates low. Central banks in EMs will also be in no hurry to raise rates. Multilateral development banks will continue to provide support, and the G20 Debt Service Suspension Initiative is available in 2021, covering official bilateral debt obligations at least.

However, favourable funding conditions will not prevent pockets of acute EM stress and possible defaults in 2021. The rise in EM external debt in the years leading up to the pandemic has increased vulnerabilities.

Economic Scars and High Debt Hinder Longer-Term Consolidation

Looking further ahead, a more sure-footed global economic recovery should provide a stronger backdrop for sovereigns to repair their finances. However, there are reasons to think consolidation will be slow, and that governments will continue to play a larger economic role backed by higher levels of debt in the medium term.

Firstly, there is a growing policy consensus that there will be an ongoing need for fiscal support, even as economies begin to strengthen. Our sovereign credit assessments will include both the direct fiscal impact of this support and its effectiveness at promoting a broad-based recovery over time.

Many economies are likely to remain below their pre-crisis path for years to come. The large rupture in the jobs market will increase long-term unemployment and the drop in investment will slow the growth of capital stock, which, together, will hinder growth. Some sectors, such as labour-intensive, customer-facing services, are likely to experience prolonged periods of sub-par growth and

employment, especially if self-imposed behavioural changes continue to affect demand.

Secondly, the uneven impact of the crisis has amplified social and income inequalities, which had already been increasing before the pandemic.

The World Bank has estimated that the pandemic would push 88 million-115 million more people into extreme poverty in 2020, rising further in 2021, while IMF research has shown that the pandemic has had a disproportionate impact on the poor. Against this backdrop, some governments may defer fiscal consolidation for fear of triggering social instability, or find their efforts to formulate and implement a fiscal policy agenda hampered by political polarisation. Some governments are also taking a larger role in addressing environmental concerns.

Thirdly, the ultra-loose policy settings adopted by major central banks have increased the availability of cheap funding, which has contained immediate fiscal pressures but also reduced the urgency of the need to shrink deficits.

Higher public debt and reduced fiscal space will limit sovereigns' ability to respond to future shocks and will make them more sensitive to increases in funding costs. Even in 2022, we forecast that median budget balances will be 2.2pp weaker than in 2019. Consolidation is still likely to be sufficient to stabilise the debt ratios of most sovereigns by 2022, but it could be years until ratios return to pre-crisis levels. Indeed, following the global financial crisis of 2007-2008, the global median government debt ratio continued to increase until 2017.

We also expect governments to be cautious in withdrawing non-fiscal support measures, such as loan guarantees, even if more of this support will be directed to "zombie" companies that are unlikely to survive. This could ultimately drag on productivity growth and increases the risk of contingent liabilities crystallising on sovereign balance sheets.

Weaker public finances and slower potential growth will weigh on the public finance and macroeconomic pillars of our sovereign ratings, including through our medium-term public debt dynamic projections.

Pressure on Policy Frameworks

Finally, there is a risk that the blurring of lines between fiscal and monetary policy during the crisis becomes more normal. Notably, governments were a primary focus of many central bank interventions in 2020, rather than indirect beneficiaries. Moreover, increased medium-term public debt sustainability challenges create incentives for fiscal authorities to pursue a strategy of high inflation and financial repression, which would have adverse long-term consequences for economies.

The risks to macroeconomic stability and policy credibility from using unconventional monetary policies, including quantitative easing, are greatest in EMs, particularly those with poor records of keeping inflation in check, a lack of central bank independence, weak fiscal frameworks and uncertain sustainability of public finances. Deterioration in fiscal and monetary frameworks could affect structural indicators relating to government effectiveness and policy credibility in our SRM, but will also be captured in our qualitative assessment.



Related Research

G20 DSSI Debt Relief Impact on Sovereigns (July 2020)

Coronavirus Sovereign Rating Shock Subsides, Prolonged Stress Ahead (August 2020)

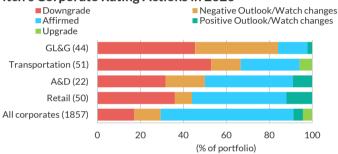
Global Perspectives: The Growing Inequality in Global Government Debt Burdens (January 2021)

Corporates

Downgrades Demonstrate Impact of Restrictions

The impact that the pandemic and associated restrictions has had in the most severely affected sectors – gaming, lodging and leisure (GL&L), transportation (mainly airlines), aerospace and defense (A&D), and retail – is evident from the scale of downgrades in these sectors. Across these four portfolios, 42% of issuers were downgraded on average in 2020, compared to an average of 17% for the entire corporates portfolio.

Fitch's Corporate Rating Actions in 2020



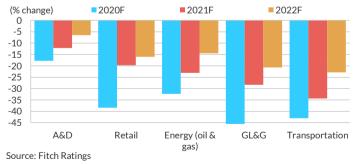
Note: Braceted numbers show public IDRs. Source: Fitch Ratings

Acute stress on cash flows and profitability, combined with a steep increase in debt to improve liquidity buffers or (more concerningly) as a result of cash-burn during the crisis, have been common themes for corporates during the pandemic, and particularly for these four severely affected sectors.

Every day lost to revenue generation in the worst affected sectors is a day of further capitalized losses, which roll up into leverage burdens that will long outlive the pandemic.

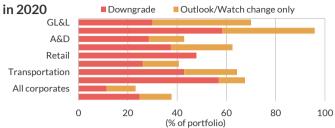
Median EBITDA

Change between pre-pandemic and post-outbreak forecasts



Downgrades were more prevalent among non-IG entities, reflecting their lower ability to withstand external shocks, especially one the scale of the pandemic.

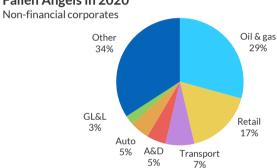
IG and Non-IG Corporate Negative Rating Actions



Note: For each sector, the top line represents IG issuers and the second line represents non-IG issuers. Data as of 1 January 2020, meaning Fallen Angels in 2020 are captured in in the IG category. Source: Fitch Ratings

While non-IG issuers were overall more susceptible to downgrades, the extent to which the pandemic shock reverberated across the IG portfolio is nonetheless reflected in the year's new "Fallen Angels" (entities that have fallen from IG status). In 2020, the corporate portfolio included 41 Fallen Angels, clustered in areas facing the most acute pandemic-related stress within retail, airlines, A&D and O&G.

Fallen Angels in 2020



Source: Fitch Ratings

In a recent retrospective analysis of corporate Fallen Angels in 2010-2019 (see A Decade of Pre-Pandemic Fallen Angels, published November 2020), Fallen Angels whose ratings were driven down by industry-wide declines or loss of relative competitive positions within the industry were less likely to recover IG status. They are also more likely to default than issuers downgraded for purely financial reasons or due to a particularly severe cyclical downturn. Of the 85 Fallen Angels examined in our analysis, 50% regained IG status while 13% defaulted, of which one third were associated with issuers facing secular decline either at an industry-wide level or within the industry.

For the Fallen Angels for which the pandemic has accelerated structural trends with potentially negative implications, these findings suggest that they may find it more difficult to regain IG status in the coming years.

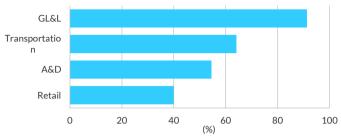
Negative Outlooks Indicate Further Downgrades Risks

The rating trajectory for these four sectors is skewed to the downside, with an average of 63% of rated entities in these four sectors on Negative Outlook or RWN or rated 'CCC-C' as of end-2020

Cross Sector Global

Balance of Outlooks Skewed to the Downside

Share of issuers on Negative Outlook/RWN or rated 'CCC-C' at end-2020



Source: Fitch Ratings

2020 was a record year for downgrades in the corporates portfolio, although the arrival of vaccines means we expect the conversion of negative outlooks to downgrades to be meaningfully lower than our long-term historical average of 50%-60%.

For these four more affected sectors, vaccine news has been a particularly strong positive development, promising an eventual end to the restrictions that have been especially punitive for their operations. Nonetheless, we still expect quite a few more months of restrictions, sustaining the uncertainty and the pressure on issuers' cash flows. Conversion rates will depend on the extent of cash-burn during the coming months and issuers' liquidity positions while activity remains weak.

Any delay in the roll-out of vaccines, extending the duration of restrictions, is the primary risk for these sectors in 2021. considering the disproportionally negative impact they suffer from such restrictions.

Downgrade Projections by Conversion Rate

Based on public IDRs currently on Negative Outlook/RWN or rated 'CCC' and below 30%



Source: Fitch Ratings

In this scenario, the conversion rate could be at the higher end of the scale. For instance, a hypothetical conversion rate of 70% could mean downgrades for 26% of the retail portfolio and 45% of the transportation portfolio, although such percentages would still be below the 36% and 53% figures, respectively, of 2020.

Structural Shifts Create Long-Term Risks

Companies from the most affected sectors will exit the pandemic with various level of economic scarring. They'll also face the need to adapt to a "new normal", where competing forces - from shifts in supply chains, the low-carbon transition and digital transformation

- will create a need for higher capex if companies are to transition, compete and grow.

More permanent pressure from these structural shifts on these sectors' operating environments could increase rating pressure down the line. This would especially be the case for issuers that have already been downgraded and therefore have less financial flexibility to adjust and repair their business models at a time of rising execution risks to business transformation.

Travel Restrictions Hangover and Shifting Business Travel Trends to Affect Airlines, Lodging and Leisure

Globally, travel remains highly restricted, sustaining the devastating pressure on travel and leisure industries, and hampering the broader resumption of business and other economic activities that rely on the unencumbered flow of goods and people.

According to data by online travel aggregator Kayak¹, nearly 70% of countries, including all major economies, have partial or full border restrictions.

Vaccines will play a crucial role in the easing of such restrictions. We expect restrictions to be lifted gradually and cautiously, favouring regional travel first before long-haul international routes.

In addition, EMs, which have accounted for a growing share of international travel in recent years, will likely take longer to acquire and distribute vaccines, prolonging restrictions and a recovery in these sectors in those markets.

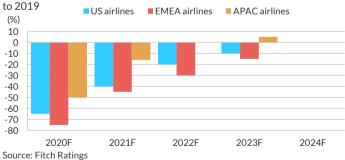
Airlines

Secular travel trends suggest the risk of a split between leisure travel and business travel. The recovery in leisure travel may be tempered by the economic impact of the pandemic. However, we expect these effects to be at least partly offset by pent-up demand. Caution about Covid-19 will likely continue to pressure international travel, as travellers will continue to prefer to stay closer to home until infection rates are under control.

Our base-case forecasts assume somewhat normalised volumes for airlines by 2024. but with some pressure from business travel.

Airline Growth Forecasts

Change in forecasted growth in revenue per passenger kilometre relative



Business travel is most at-risk of a post-pandemic secular decline, facing headwinds from the proliferation of working from home and video conferencing. Given the higher profit margins that business travel delivers for airlines, even a small but permanent reduction in

¹https://www.kayak.co.uk/travel-restrictions



demand (replaced by video conferences) could still have a material cumulative impact on the profitability of airlines and other sectors that rely on business travel, such as business hotel operators.

The ratings of airlines that have typically relied on business travel and long-haul travel for a portion of their business, mainly legacy network carriers, will be most disadvantaged by such a secular shift. They would face higher execution risks than budget, leisure-focused airlines as they restructure their operational bases.

Intensifying competition will also affect the longer-term recovery in profitability for airlines, especially if there is a shift in focus towards leisure-related travel. The recent decision by three US network carriers, led by United Airlines, Inc. (BB-/Negative), to drop fees related to ticket changes is indicative of the measures that carriers are willing to take to increase their share of the reduced traveller base.

Lodging and Leisure

Threatened by the same travel-sector secular shifts that affect airlines, the lodging and leisure sector (particularly hotels) will not only continue to face higher competition in the leisure segment from disruptors such as Airbnb, but will also face higher competition for a smaller amount of corporate travel, reducing pricing power and profit margins. This is particularly the case for hotels in central business districts that focus on business travel traffic and corporate events.

We expect some permanent hotel closures, especially from highly leveraged owners whose assets were already struggling or in oversupplied markets pre-pandemic. For the surviving hotels, this may mitigate the reduction in demand.

Lodging Growth Forecasts



We reflected the threat that digital transformation poses to these two sectors in a recent assessment (see *The Next Phase: Corporate Credit Risks Shift as Pandemic Amplifies Secular Trends*, published November 2020). For both airlines and GL&L, the pandemic has accelerated the impact of digital transformation due to the proliferation of remote working and resultant reduction in demand for travel.

The most affected credit drivers in these sectors are likely to be industry structure, competitive landscape, growth trajectory and operating efficiency.

Overall Credit Impact of Digital Transformation

	Coming 12 months	Next five years	Beyond five years
Airlines	Medium	Medium	Medium
GL&L	Medium	Medium	Medium
Source: Fito	ch Ratings		

Impact of Digital Transformation on Key Credit Drivers

	Industry structure (no. of competitors)	growth	Operating efficiency	Reg. shifts	Capex intensity	Financing availability
Airlines	Medium	Medium	Medium	Low	Low	Low
GL&L	Medium	Medium	Medium	High	Medium	Low

Source: Fitch Ratings

For gaming operators specifically, the shift online will also increase regulatory scrutiny, reflected by the high score in the table above.

Alongside the impact on demand for travel, the airlines industry will also need to adapt to other major secular trends.

The transition to a low-carbon economy though stalled temporarily due to the pandemic has not been derailed. The "green" strings attached to some airline bailouts, albeit primarily and selectively applied to some European carriers, could be a forewarning of more ambitious sector regulation.

The longer-term possibility of more robust regulatory intervention to curb airline emissions could affect airline credit drivers, from capex to operational efficiency. We have reflected this in our credit impact assessment for the low-carbon transition in the coming years.

Overall Credit Impact of the Low-Carbon Transition

	Coming 12 months	Next five years	Beyond five years	
Airlines	Low	Medium	High	
Source: Fitch Ratings				

Impact of the Low-Carbon Transition on Key Credit Drivers for Airlines

	Industry structure (no.	Industry				
	of competitors)	growth trajectory	Operating efficiency	_	Capex intensity	Financing availability
Next five						
110050	Laur	Low	Laur	Madium	Laur	Lance
years	Low	LOW	Low	Medium	LOW	Low
Beyond	LOW	LOW	LOW	Medium	LOW	Low
		High	Medium	High	Medium	Medium

Aerospace

Sectors directly tied to the aviation industry have also been affected, evidenced by the negative rating actions on issuers in the aerospace industry.



A weakened aviation industry, with intensifying competition, reduced demand and pressured profitability, could erode future demand for aircraft. However, large aircraft manufacturers have a good backlog in the coming years to buttress their earnings, as only a few airlines cancelled orders in 2020 while many requested delays in deliveries.

Furthermore, related to the low-carbon transition, the aerospace sector could be affected by airlines' moves towards greater offsetting of and control over emissions. Longer-term growth, beyond the next several years, may increasingly depend on aircraft vendors' ability to meet demand for more fuel-efficient aircraft. Airlines' appetite for models that fill this need, such as Airbus' A320neo and Boeing's 737 MAX, shows that this trend is already underway. Further innovation will require substantial R&D expenditure, including by aircraft engine manufacturers.

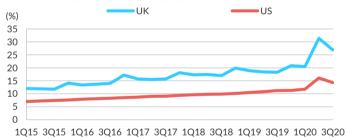
Expenditure will be offset by opportunities for original equipment manufacturers and suppliers to support long-term growth trends for air travel. However, more ambitious regulatory action on emissions or a shift in passenger behaviour could affect demand for aircraft.

E-Commerce and Sustainability Trends Affect Retail

E-commerce will continue to be a key driver of credit differentiation between retail companies, with those with strong and well developed omnichannel capabilities gaining market share.

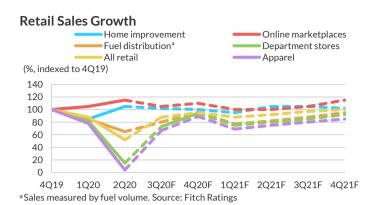
The Rise in E-Commerce

E-commerce as a share of total retail sales



Source: Fitch Ratings, UK ONS, US Census Bureau

Department stores and specialty apparel retailers, which have faced years of secular competitive pressures and balance-sheet attrition, have been particularly badly affected by the pandemic, given reduced demand and the closure of non-essential stores. Our sales and EBITDA forecasts suggest that such retailers face a long and uncertain recovery.



Our recent credit-impact assessments reflect the highly disruptive effect that digital transformation, especially e-commerce, will have on retailers, particularly non-food retail, for years to come.

Overall Credit Impact of Digital Transformation

	Coming 12 months	Next five s years	Beyond five years
Retail (non-food)	High	High	High
Retail (food)	Medium	Medium	Medium

Source: Fitch Ratings

Impact of Digital Transformation on Key Credit Drivers

	Industry structure (no. of competitors)	J	Operating efficiency	•	Capex intensity	Financing avail- ability
Retail (non-food)	Medium	Low	High	Medium	High	High
Retail (food)	Medium	Low	Medium	Low	Medium	Low
Source: Fito	h Ratings					

Retail companies with existing scale and strong suites of assets including physical locations and robust supply chain are in the best position to invest in digital capabilities and defend or expand market share longer term.

Given the significant expense required to build and maintain omnichannel models, strong incumbents with healthy cash flows and robust supply chains should continue to benefit from market-share consolidation.

Conversely, physical retailers that are lagging in their online expansion and/or those with weakened financial capabilities to develop their omnichannel presence will continue to face secular pressure.

Digital transformation is not the only secular shift that will affect retailers. Consumer attitudes are also changing as younger generations begin to direct consumer spending, placing increasing importance on brands' social and environmental credentials.

Before the pandemic, there was an acceleration in the trend for more responsible sourcing, recycling, and transparency over emissions from operations and supply chains. We expect these



trends to resume post-pandemic due to the increased focus on social and environmental issues.

A 2019 survey by KPMG² found that 44% of younger generations (specifically Millennials and Gen Z) were "very supportive" of sustainable fashion, compared to 29% of older generations. However, just 13% of respondents (all age groups) were willing to pay more for sustainable garments, reflecting the slow conversion from aspiration to action.

This trend for sustainable fashion is not as significant a credit driver as e-commerce and will play out over a longer timeframe. However, its increasing importance meanthat sector issuers, as well as issuers in sectors such as fast-moving consumer goods and other consumer categories, will need to invest in reducing direct and indirect emissions related to packaging, and the use of water resources and transportation. This is particularly the case for mass-market categories with faster inventory rotations or seasonal sales patterns.

The ability to meet sustainability objectives may be increasingly hindered by the rising prevalence of e-commerce, which requires significant levels of packaging and transportation, including vast fleets for "last-mile" deliveries. This may result in even higher costs associated with e-commerce expansion, from the sourcing of more sustainable packaging to the wider use of alternative-fuel vehicles for last-mile deliveries.

Related Research

The Next Phase: Corporate Credit Risks Shift as Pandemic Amplifies Secular Trends (November 2020)

A Decade of Pre-Pandemic Fallen Angels (November 2020)

Vaccine Removes 'Bridge to Nowhere' Risk for Corporates; Immediate Benefits Muted (December 2020)

Global Travel Update: Pandemic Pressures Transcend Asset Classes (November 2020)

What Investors Want to Know: European Retail Companies and Coronavirus (September 2020)

Global Commercial Aircraft Production Pressures Persist (October 2020)

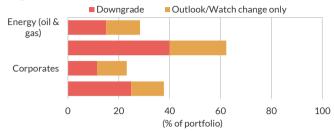
Oil & Gas

US Issuers Dominate 2020 Downgrades

The collapse in oil demand sent prices to record lows in 2020, although the stabilisation in the sector's outlook and oil prices, as well as the ongoing control of supplies by OPEC+, has in turn stabilised the pace of rating actions following a wave of negative rating actions in March and April 2020.

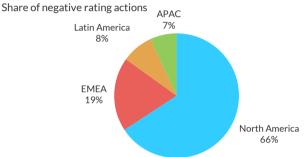
Of Fitch-rated non-IG O&G issuers, 40% were downgraded in 2020, compared to 15% of IG issuers. These were concentrated in the US, albeit this is more a factor of size, with coverage outside the US dominated by much larger oil companies, often in state ownership.

Negative Rating Actions in 2020



Note: For each sector, the top line represents IG issuers and the second line represents non-IG issuers. Data as of 1 January 2020, meaning Fallen Angels in 2020 are captured in in the IG category. Source: Fitch Ratings

Oil & Gas Negative Rating Actions in 2020



Source: Fitch Ratings

The O&G sector has had the largest share (17%) of downgrades in our corporates portfolio, dragged down by acutely affected US issuers. As we recently discussed in our report *Vaccine Removes 'Bridge to Nowhere' Risk for Corporates; Immediate Benefits Muted*, published in December 2020, this is due to the O&G sector's relatively high share of capital-market debt and its fragmented issuer base, rather than a relative indicator that the sector fared worse than other heavily affected sectors, like leisure or transport.

The O&G sector accounts for the largest share (30%) of corporate Fallen Angels in 2020. The sector's high leverage also meant that almost 40% of Fallen Angel debt in the US and EMEA DMs since 1 March 2020 is accounted for by US O&G companies.

Issuers Face Fragile Demand and Price Volatility

The ratings of nearly 40% of O&G issuers are currently on Negative Outlook or RWN or rated 'CCC' and below. News of vaccines and associated optimism that economic activity should normalise in 2H21 will end some of the more extreme volatility of 2020.

Our base-case oil-price forecasts suggest that 2020 will remain the low point for average oil prices for several years, although they will remain subdued and below 2019 levels, when Brent averaged USD65/bbl and WTI USD57/bbl, reflecting ongoing weakness in sector fundamentals.

 $^{^2}$ https://assets.kpmg/content/dam/kpmg/cn/pdf/en/2019/01/sustainable-fashion.pdf



Oil Price Assumptions

(USD/bbl)	2021	2022	2023	Long term
Base case - Brent	45	50	53	53
Stress case - Brent	35	40	45	48
Base case - WTI ^a	42	47	50	50
Stress case - WTI	32	37	42	45

^a West Texas Intermediate. Source: Fitch Ratings

The sector's recovery in 2021 will depend on a broader recovery in economic activity and global mobility, as well as the ongoing commitment by OPEC+ to ensure market stability.

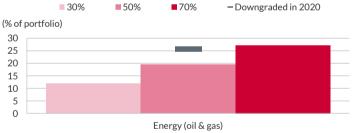
The main downside risks therefore revolve around a worse-than-expected economic recovery and lapses in the commitment of OPEC+ to manage the market. Changes in either factor could lead to further volatility and declines in oil prices, in turn renewing cash flow pressure, especially among the weaker non-IG issuers with minimal or no access to capital markets.

Our hypothetical downgrade projections show what portion of the O&G portfolio would face downgrades following Negative Outlooks under different conversion rates.

Like other corporate sectors, we expect the pace of downgrades for O&G issuers to moderate in 2021 as issuers focus on deleveraging and capex reductions to bolster free cash flow (FCF). Given the evolution in oil prices, we also expect the conversion rate to be well below the long-term average of 50-60%.

Downgrade Projections by Conversion Rates

Based on ratings on Negative Outlook/RWN or rated 'CCC' or below at end-2020 $\,$



Source: Fitch Ratings

In a steep downside scenario where 70% of issuers on Negative Outlook or RWN or rated 'CCC' and below are downgraded, this would mean 27% O&G issuers would be downgraded – nearly the same proportion as in 2020.

We estimate that nearly USD130 billion of debt from EMEA and US DM O&G issuers could be at further risk of transition to sub-IG levels, of which USD70 billion is at higher risk, if market conditions worsen in line with our downside scenario. For an explanation of our methodology regarding Fallen Angel conversion risks, see our Fallen Angels site).

Structural Changes Create Demand Uncertainty

Structural demand trends in the aftermath of the pandemic will increasingly be driven by decarbonisation and electrification. Regulations and policies to reduce emissions will present a

challenge to the sector, incrementally reducing demand, especially in DMs, in the coming decades.

The pandemic has temporarily stalled decarbonisation efforts. However, a recent resurgence of government pledges to reach netzero carbon emission in the long term, including by China, Japan and South Korea, and the commitment by US President-Elect Joe Biden to re-join the Paris Agreement set the path for long-term and consistent efforts to reduce emissions.

The increasing electrification of vehicles and rising efficiency standards for internal-combustion engines (ICEs) will be a crucial determinant of demand, as passenger vehicles account for 28% of global oil demand. This will play out over many years as rising electric-vehicle (EV) sales will take time to materially replace the existing ICE fleet, especially in markets that are slower to create incentives or adopt new standards or technology.

Momentum will accelerate in the US if the incoming Biden administration's ambitious emission-reduction agenda and likely reinstatement of California's Corporate Average Fuel Economy standards increases EV battery and hybrid demand and the expansion of EV infrastructure accelerates the adoption of EVs.

The increase in recent years in upcoming bans on the sale of ICE-powered vehicles (the earliest come into force in 2030) indicate long-term demand-destruction for gasoline volumes.

On the production side, shifting capex priorities for integrated oil companies (IOCs) signals the wider shift towards electrification.

BP plc (A/Stable) aims to lead the way among IOCs by making a tenfold increase in its investment in low-carbon technology and reducing its share of emissions from fossil fuels by 40% compared to 2019 production levels, all by 2030. European producers, in line with the continent's ambitious low-carbon transition, are more advanced in similar endeavors compared to peers in the US and national oil companies in the Middle East and Asia.

We reflect the disruption that the low-carbon transition could have on the O&G industry in the long term in our recent assessment of the credit impacts of major trends over the coming decade (see *The Next Phase: Corporate Credit Risks Shift as Pandemic Amplifies Secular Trends*, published November 2020).

We deem the negative impact of the low-carbon transition as "high" for the sector. This suggests that negative rating actions are likely for industry issuers if mitigating actions are not taken. Mitigating steps are likely to be more complex to implement with more execution risk or requiring a significant change in industry practice.

Overall Credit Impact of the Low-Carbon Transition

	Coming 12 months	Next five years	Beyond five years	
Oil & gas	Medium	Medium	High	
Source: Fitch Ratings				



Low-Carbon Transition's Impact on Key Credit Drivers

	Industry structure (no. of competitors)	Industry growth trajectory	Operating efficiency	Reg. shifts	Capex intensity	Financing availability
Next five years	Medium	Medium	Medium	Medium	Medium	High
Beyond five years	Medium	High	High	High	Medium	High

Source: Fitch Ratings

While the outlook is more favourable for producers that rely more on natural gas than crude oil, decarbonisation presents acute risks to the sector as a whole. The O&G industry's relatively high debt levels make the risks from decarbonisation pertinent from a credit standpoint.

Our assessment also indicates that financing availability for O&G could tighten as ESG considerations gain relevance in investor mandates, increasing production costs. In addition, any tightening of financing for sectors (such as refining and petrochemicals) that are further downstream, and have large carbon footprints or other negative environmental impacts, could also dampen future sources of demand for the O&G industry.

While execution risks will rise as decarbonisation initiatives progress, we expect a long-term advantage for companies that successfully make the transition.

Related Research

The Next Phase: Corporate Credit Risks Shift as Pandemic Amplifies Secular Trends (November 2020)

Fitch Ratings 2021 Outlook: Global Oil and Gas (December 2020)

U.S. 2020 Election and Climate Policy (November 2020)

Real Estate

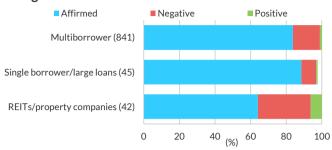
Sufficient Cushion Limits Negative Rating Actions for CMBS and Property Companies

A majority (60%) of all commercial mortgage-backed securities (CMBS) negative rating actions in 2020 were in the placement of multi-borrower transactions on Negative Outlooks or RWN. These pools are more diversified by property type than most REITs or property companies and benefit from asset classes that have been less affected by the pandemic.

Downgrades (42% of all CMBS negative rating actions) were typically multi-notch movements, and were primarily for non-IG classes.

In contrast to CMBS, approximately half of negative rating actions on REITs and property companies were downgrades, and most of these downgrades were single-notch rating actions. These downgrades were primarily for issuers with portfolios skewed towards the mall and lodging segments, which have been the most exposed to pandemic-related restrictions.

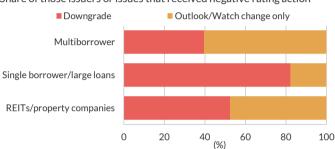
Rating Actions in 2020 as a Share of the Portfolio



Note: Bracketed numbers show negatively affected issues or issuers. Source: Fitch Ratings

Negative Rating Actions in 2020

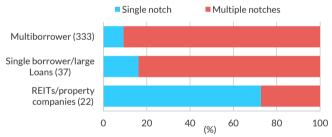
Share of those issuers or issues that received negative rating action



Source: Fitch Ratings

Negative Rating Actions in 2020 by Notches

Share of issues or issuers that were downgraded



Note: Bracketed numbers indicate downgraded issues/issuers Source: Fitch Ratings

Higher Downgrade Risk Ahead for CMBS

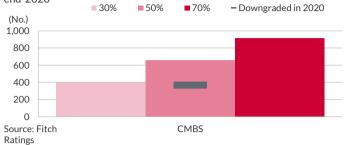
For CMBS transactions, the large number of ratings on Negative Outlook or RWN (around 22% of the portfolio) signals that the number of downgrades in 2021 could well exceed those in 2020.

Under a hypothetical 30% conversion rate, downgrades would roughly equal those taken in 2020, whereas a 70% conversion rate would result in more than double the number of downgrades compared to 2020. Downgrades would be roughly evenly split between IG and non-IG rating categories. For REITs, downgrades are unlikely to exceed 2020 levels, unless the conversion rate rises above 50%.



Downgrade Projections by Conversion Rate





Downgrade Projections by Conversion Rate

Issuers on Negative Outlook/RWN or rated 'CCC' and below at end-2020



Source: Fitch Ratings

terro and property/rearestate

Several property segments within commercial real estate (such as lodging, retail, and office) remain, to varying degrees, vulnerable to ongoing social-distancing measures and the pandemic's impact on travel. This exposure could result in continued low cash flow, high cash flow-based leverage levels, defaults and significant losses. Prolonged lockdowns or a slower-than-expected economic recovery that results in increased loss expectations or weaker performance by "loans of concern" could result in a higher conversion rate.

Lodging, retail and healthcare properties have been the most negatively affected by the pandemic so far. We expect leisure-related lodging demand to ultimately recover. However, business travel may not fully return to pre-pandemic levels due to changes in corporate travel behaviour from greater use of technology as well as growing ESG concerns, creating the risk of further negative rating actions for the sector. REITs or CMBS exposed to lower-quality offices and retail properties with tenants facing larger e-commerce threats would be most vulnerable to long-term negative rating pressure due to the potential for secular-driven reductions in cash flow and valuations.

Post-pandemic, a shift in the use of space will in turn transform many commercial real estate segments, with long-term consequences for property performance and financing.

The Impact of Remote Working

We expect remote working to be adopted more widely following the pandemic, which has led to an acceleration in plans to upgrade multifamily buildings to attract more mobile, short-term tenants. Apartments have historically had capex as a low percentage of net operating income, but we expect costs to increase in the long term, putting pressure on margins. Remote working will reduce the

importance of home and office proximity, and people are increasingly leaving urban centres for more affordable and spacious locations for families and home offices in the suburbs.

During the pandemic, multifamily properties in cities have been experiencing steep declines in rental rates due to the drop in demand, and vacant holiday or corporate lettings have been placed on the regular housing market. While cities will remain attractive places to live, the prime renter cohort of younger professionals without children is growing more slowly, indicating a slow return to strong demand for city rentals.

As remote working becomes routine for some employees, office tenants are likely to reduce their overall leased space in the medium to long term. In the near term, while office space demand will be cushioned by social-distancing requirements, offsetting the likely reduction in average daily onsite headcount, tenants are also deferring meaningful leasing commitments by reducing lease tenors.

Class B office properties that are in markets with a large remoteworking employment base and are costly to retrofit could become obsolete or less financeable. Retrofitting office space to adhere to local health and safety department guidelines – and ever-rising energy efficiency and other ESG standards – will increase differentiation between building classes and lead to a flight to quality as tenants seek space with higher standards. Factors such as proximity to mainline rail stations will also become more important given the higher number of employees who have moved further out of city centres and will commute to the office.

The increase in remote working also means that both multifamily properties and office spaces will need to adapt in order to appeal to tenants who have specific space and amenity requirements. Office owners will need to invest in space reconfigurations to adjust to density expectations, although fewer people will be working onsite at one time. In the near term, landlords will likely need to offer concessions in the form of free rent or greater property improvements to entice tenants to enter into new leases or renewals. Owners of higher-quality office property will likely need to adjust to shorter lease terms, as users of large spaces avoid long-term commitments.

Property-level cash flows and leverage will be most affected by short- and long-term structural shifts in commercial real estate. In the short term, multifamily properties in suburban markets will continue to outperform urban and US coastal portfolios, measured by property-level cash flow and value growth. Urban markets are experiencing lower occupancies and double-digit rent declines. In the long term, we expect tenant demand to incrementally increase in these affordable suburban markets, with a protracted recovery for urban core properties.

For office properties, we expect near-term cash flows to remain under pressure as companies focus on rebuilding lost occupancy from 2020, with a high degree of uncertainty regarding the trajectory of long-term rents given the pressure on fundamentals from the likelihood of more flexible work arrangements. Valuations will likely decline in both the short and long term due to higher levels of uncertainty around cash flow, as well as shorter-term leases leading to negative lender sentiment, thus reducing the availability of debt financing.



Short- and Long-Term Impact on Major Commercial Real Estate Asset Classes

	Likely Short- to Medium-Term Impact (Next Three Years)	Possible Long-Term Impact (More than Three Years)
Multifamily	New lease activity slows. Exodus from cities to suburban housing reverses as cities reopen.	Marginal demand to more affordable suburban and "Sunbelt" markets. Urban core subject to shorter leases and more seasonal demand from highly mobile workforce.
Office	Decreases in occupancy and rent. Sub-lease space places further pressure on rents and values.	Sustained reduction in demand and valuation declines due to acceleration in remote working.
Retail	Higher vacancies and lower rents. "Back-filling" vacant mall anchor space becomes more challenging.	E-commerce share gains accelerate unabated. Second-tier malls repurposed to industrial distribution centres and co-working. Necessity-based grocery-anchored properties continue to cater to services that cannot be replaced by e-commerce.
Industrial	Increased e-commerce demand balanced by supply-chain disruptions.	Protectionism/de-globalisation could result in more on-shoring, increasing demand

Source: Fitch Ratings

Retail Pressures Intensify Property Cash Flow Volatility

The secular shift from physical to online retail started over a decade ago, negatively affecting mall traffic and forcing bricks-and-mortar stores to develop their online presence. The pandemic is further altering the retail landscape, leading to more retailer bankruptcies and property cash flow volatility due to uncertainty over the long-term value of non-core properties. We expect some trophy malls will eventually benefit as secondary malls and weaker competition close and are repositioned over time.

In some cases, secular shifts will result in some asset classes (such as B-malls and lower-quality offices) being unable to adapt and demolished or repurposed as a result. Substantial increases in vacancy rates would force second-tier malls and "big box" power centres to close or, at significant financial investment, be repositioned as industrial warehouses, distribution centres, or suburban offices, for example. Retail centres with the best demographics (in regards to per capita income and population density) will be best suited for repositioning and most capable of managing the secular shift in how goods are traded.

In contrast to the challenges facing physical retail, the significant growth in e-commerce will bolster long-term demand for big-box and last-mile distribution space, benefiting properties related to supply-chain management and the distribution of products directly to businesses and consumers. New industrial development will increase, although this will be constrained in higher-value urban areas. Some obsolete second- and third-tier malls and retail parks may be repurposed to industrial uses although we do not expect this trend to be widespread.

Related Research

U.S. Commercial Real Estate Coronavirus Implications (September 2020)

Pandemic Accelerates Remote Working Trend, Raises US Office REIT Cash Flow Risk (September 2020)

Framing U.S. REIT Coronavirus Risk (March 2020)

US Public Finance and Infrastructure

The Covid-19 pandemic triggered a dramatic immediate revenue shock for many state and local governments in 2020, resulting in an estimated consolidated revenue decline of 5.5% according to the Brookings Institute³. A broad range of activities ground to a halt as the virus spread in March 2020, with higher education campuses emptying due to the switch to virtual at-home education, hospitals suspending elective surgeries to preserve capacity and airports falling empty as travel restrictions came into force.

The USD2 trillion federal stimulus bill provided critical direct and indirect aid across all sectors of the US economy. The CARES Act directed USD150 billion in aid to state and local governments, USD100 billion to hospitals, USD25 billion to public transit, USD14 billion to higher education and USD10 billion to airports. These federal funds were used to offset lost revenues and pay incremental costs to maintain critical public services. The indirect impact of federal stimulus measures, particularly enhanced unemployment benefits, was equally important for state and local governments as they helped to sustain economically sensitive sales and income tax.

Ratings Broadly Resilient Amidst a Negative Trend

Ratings have mostly been resilient to the pandemic given significant federal support, generally strong liquidity buffers and expectations that business models, and credit profiles, will rebound to close to pre-pandemic levels once the crisis eases.

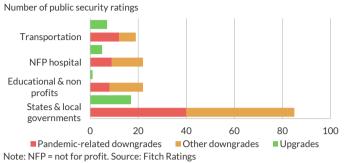
Nonetheless, deteriorating fundamentals prompted rating activity to skew negative for US public finance (USPF) in 2020, with the ratio of downgrades to upgrades at 1.8x; a stark contrast to the 2019 ratio of 0.6x.

Rating action momentum also reversed in the US infrastructure sector, with the ratio of downgrades to upgrades rising to 2.7x over 2020 following years of upgrades exceeding downgrades. Pandemic-related negative rating actions were more frequent for states and local governments, which were hit by both reduced revenue from slower economic activities and higher demand for public services. The transportation, higher education and hospital sectors were directly affected, with their daily operations significantly curtailed by policy mandates that restricted mobility.

³ Brookings Institute Q&A



2020 Rating Actions in Select USPF and Infrastructure

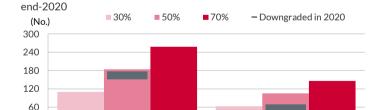


Signals Show Downward Bias Remains

The downward bias in rating actions is likely to continue in 2021, given the large number of rated securities that are now on Negative Outlook. As of 31 December 2020, 11.1% of USPF rated securities across all USPF sectors were on Negative Outlook, compared with only 2.8% at the beginning of 2020. Even more starkly, the share of rated securities in the US infrastructure sector on Negative Outlook increased to 40% from 2.5% over the same period. For entities in the US transportation sector, 50% of ratings were on Negative Outlook or RWN at end-2020, reflecting the vulnerability to the volume recovery and to the vaccine deployment.

The USPF and US infrastructure sectors have typically had a downgrade conversion rate of around 45% in recent years. A hypothetical conversion rate of 50% would suggest a slight increase in USPF downgrades over the next rating review cycles, but could portend a significant rise in downgrades across US infrastructure. Transport assets that focus on passengers, as opposed to goods, are most vulnerable. The downgrade risk is especially acute for airports, where average airport traffic across the US was down 71% in 3Q20 relative to 3Q19. In contrast, toll road traffic was only down by 25%.

Downgrade Projections for Securities by Converstion Rate Securities on Negative Outlook/RWN or rated 'CCC' and below at



Source: Fitch Ratings

US public finance

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Downside Risks

The key downside risk for state and local governments is the pace of the recovery in employment and the wider economy.

US infrastructure

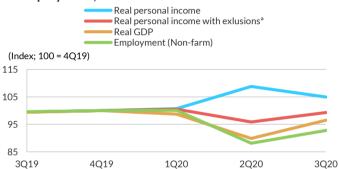
While we forecast US GDP to return to pre-pandemic levels by end-2021, we expect unemployment levels to remain well above the 4.4% annual average of 2014-2019 in the medium term. We forecast a gradual decline in the unemployment rate towards 5.6%

in 2022 from 6.7% in November 2020. The Fitch-adjusted unemployment rate was 9.2 as of November 2020.

A slower-than-expected job recovery and persistently high labour-force losses would depress the personal income, consumer spending and property valuations that drive tax revenue performance. A slower recovery would force state and local governments to choose between cost-cutting to balance their operating budgets, which would exacerbate economic weakness, or taking less sustainable action that could negatively affect credit quality.

Policy approaches would have to carefully balance economic, financial and societal consequences, but societal pressure seems likely to limit governments' ability to cut essential services in light of ongoing economic hardship.

US Employment, Real GDP & Real Personal Income



^a Excludes state unemployment insurance and other personal transfers. Source: Fitch Ratings, BEA, BLS

While our expectations for GDP growth incorporate about \$1 trillion of incremental federal stimulus, ratings in the USPF sectors generally do not assume the direct receipt of new, material federal aid in 2021

However, some state and local governments would be at risk of downgrade if incremental federal aid fails to materialise. Further timely and substantial federal action that offsets the likely deep economic and revenue declines that states will face in the next few months could support stabilisation of rating Outlooks. Such action could take the form of significant direct aid for revenue losses or sufficient economic stimulus that supports a rapid rebound in economic activity.

Credit profiles in the not-for-profit healthcare sector, notably acute-care hospitals, are also sensitive to the pace of job recoveries as a longer period of unemployment would weaken the payor mix toward less-profitable self-pay and Medicaid users as opposed to commercially insured users. Incremental rating downgrades in this sector could occur if, contrary to current expectations, profitability margins fail to return to historic levels and support rebuilding of balance sheet strength. Hospitals serving areas that are reliant on tourism, transportation or oil production face greater risk.

A more immediate risk for hospitals is further waves of Covid-19 cases leading to capacity constraints and renewed, extended curtailment of non-emergency services. According to a May 2020

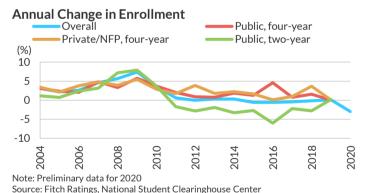


report by KauffmanHall⁴, hospital median operating margins would have fallen to -1.6% for the period from January to October 2020 if they had not received CARES Act funding. The 2.4% median achieved with such funding in that period remains around 6% lower than in 2019. We view smaller (often single-site) hospitals as less able to manage the impact of spikes in Covid-19 cases in their service areas.

We anticipate challenging conditions for higher education institutions in 2021 and beyond as the pandemic heightens preexisting enrolment volatility and affordability pressure. Freshman enrolments declined by 13.1% in autumn 2020 due to health and safety concerns, as well as lower perceived value of the remote learning experience, while overall enrolments declined by 2.5%. If family incomes fail to rebound, tuition pricing and discounting pressures could add to the enrolment headwind.

Online learning programs, accounting for about 20% of undergraduate students pre-pandemic, were a rare growth area with undergraduate enrolments rising by 5% in Fall 2020. However, the growth of online learning is rarely additive to an institution's overall profitability given the cannibalization from higher priced inperson programs and the challenges to reducing legacy physical assets and obligations. Significant pressure on international enrolment, while a relatively minor percentage of total students, could have a disproportionately large impact on the revenues of some institutions.

After a largely benign state budget cycle in 2020, public institutions are seeing flat or reduced funding in 2021 as states address budgetary gaps. Deeper mid-year cuts and reductions in subsequent budget cycles could pressure revenue. This would put pressure on ratings, as few public universities have sufficiently large endowments to offset severe fluctuations in state funding.

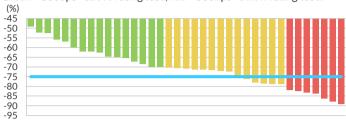


Any delay in the distribution of effective Covid-19 vaccines and therapies is the key downside risk for the recovery in demand for the US transportation sector, with assets focused on passengers (rather than goods) being most vulnerable. While all transportation sectors have been affected, the pandemic's effect on airport traffic and revenues has been unprecedented. Strong fee-setting flexibility and liquidity still hold for most airport credit profiles but ongoing waves of infection, lockdowns or travel restrictions extending well into 2H21 pose a material downside risk.

⁴ National Hospital Flash Report

Performance of a Selection of US Airports

3Q20 performance in relation to Fitch's rating case (in blue). Green = 500bps+ above rating case, red = 500bps+ below rating case.



Source: Fitch Ratings

In contrast, delays in vaccine rollout and an extension of the Centers for Disease Control and Protection no-sail order would have a modest impact on the credit profile of most rated ports since few rely on cruise activities for a meaningful portion of their revenues, and the essential nature of cargo has resulted in a modest 9% volume decline in 1H20.

Shift Online Puts Pressure on USPF and Infrastructure

The shift to remote working for a large portion of the office-based population during the pandemic will likely precipitate more flexibility and a greater shift to hybrid models.

Greater flexibility in remote working, if sustained, could make jurisdictions that have lower taxes or are farther away more appealing, resulting in regional shifts in residential preferences. The rise of virtual alternative to in-person meetings has likely reduced some of the competitive advantages of cities, but jurisdictional tax issues restrict individuals' ability to move and maintain their existing employment. Population shifts directly affect location-specific income and sales tax revenue, with knock-on effects on property values and property tax revenue over time. Such shifts also affect demand for services such as power, water, education and healthcare.

Rent Is Falling in High-Rent Cities

(% change yoy as of October 2020)



 $Source: Fitch\ Ratings, Zillow.com$

The pandemic has had a dramatic effect on public transit usage, with daily transit numbers declining to a trickle in New York, Chicago and most other large US cities. Even a modest increase in remote working from 2019 levels would create pressure to raise fares, raise the taxes that support such infrastructure, and/or increase transfers from state and local governments, to offset the decline in passenger fares given the already precarious budgets of most public



transit systems. With issues of income inequality and racial injustice at the fore, this could lead to a struggle between wealthier tax payers that don't use public transit and those who can't afford to pay higher fares but must use such transit.

Furthermore, with the rise in e-commerce, the closure of traditional retail businesses affected by loss of business can negatively affect both sales tax and property taxes, particularly for locations that receive a significant amount of taxes from retail centres such as shopping malls.

The pandemic has led to consumers relying on the virtual delivery of education and healthcare services to an extent that would have been hard to imagine at the start of 2020. A broad long-term rebalancing of in-person and virtual activities is inevitable, with the ultimate mix likely to be determined by demand and innovation. For example, while ad-hoc virtual delivery of education is not considered to have similar efficacy as in-person learning and may exacerbate achievement gaps between high- and low-income students, better-developed alternatives may eventually address such a need in some areas. Similarly, while "telehealth" (remote or virtually delivered healthcare) is not appropriate for many types of medical needs, increased use of virtual options, where feasible, may shift healthcare delivery business models and physical footprints over time. A November 2020 report⁵ in the Harvard Business Review suggests that most specialties will be able to sustain virtual operations for at least 50% of their services post-pandemic.

Similarly, the pandemic is forcing a re-evaluation of the purpose and necessity of business travel. While technology is not likely to eliminate the need to meet with customers and clients face-to-face, virtual business meetings are likely to permanently replace a proportion of previously in-person business travels. A decline in business travel could disrupt the overall pricing and demand model of the aviation industry as business travellers generally subsidise high-volume but low-profit leisure travellers.

A decline in the affordability of air travel could accelerate a shift to local travel, previously motivated by rising environmental concerns about mass foreign tourism. Strong fee-setting flexibility under long-term agreements with airlines provide airports with a buffer to short-term demand volatility, but may not be sufficient if the recovery in passenger traffic is slow. We do not expect overall airport traffic to recover to pre-pandemic levels until 2024.

Related Research

The Next Phase: How Coronavirus-Related Changes Could Permanently Alter the Global Public Finance and Infrastructure Landscape (October 2020)

Global Infrastructure Recovery Uncertain While Coronavirus Vulnerability Remains (November 2020)

U.S. States' Path to Economic Recovery (December 2020)

US Higher Education Revenue Pressures Accelerated by Coronavirus (October 2020)

Federal Aid, Local Markets Drive Uneven NFP Hospital Financials (October 2020)

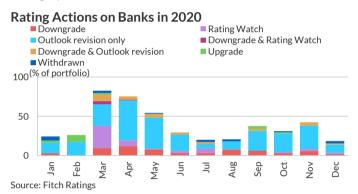
US Airport and Toll Road Traffic Declines Ease but Still Severe (December 2020)

Fitch Updates its U.S. Transportation Sector Coronavirus Assumptions (November 2020)

Global Banks

Limited Downgrades but a Rise in Negative Outlooks

The balance of Rating Watches and Outlooks on banks turned sharply negative after the onset of the pandemic, reflecting downside risks to many banks' ratings. As of end-2020, 53% of global bank ratings were on Negative Outlook and another 1% on RWN. This compares with only 13% of bank ratings on Negative Outlook or RWN at end-2019. Despite the considerable increase in ratings on Negative Outlook or RWN, only 16.6% of banks (at the parent banking group level) have been downgraded from January through year-end 2020.



This reflects the significant support from central banks in stabilising market conditions and boosting banking-system liquidity, and the relative strength of many banks entering the pandemic, particularly with regard to capital and liquidity levels. Such levels have been further strengthened since the onset of the pandemic due to regulatory restrictions on capital distributions and banks' decisions to curtail distributions. Moreover, government stimulus and unemployment insurance benefits have been executed expediently and in amounts that have dwarfed prior crisis-era efforts.

These rating Outlooks could remain well into 2021 as government support to economies and borrowers is gradually removed, and as impaired loans rise over a potentially longer period. The risk of a setback in either the efficacy or successful distribution of vaccines, undercutting confidence, adds to the uncertainty.

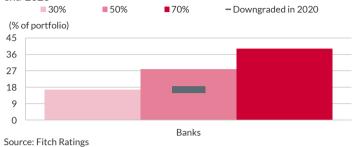
Bank downgrades have been fairly muted, especially compared to historic conversion rates from RWN or Negative Outlook of 60%-65%. Assuming that 30% of banks that are on RWN, Negative Outlook or rated 'CCC'-'C' are downgraded in the coming 12 to 18 months, this would entail 74 additional banks downgraded, or 16.6% of the portfolio; a similar proportion to 2020. Under a hypothetical conversation rate of 50% or 70% on this same subset of entities, the share of downgrades would increase to 28% or 39%, respectively.

⁵ Balancing Virtual and In-Person Health Care



Downgrade Projections for Banks by Conversion Rate

Based on bank parent issuers on Negative Outlook/RWN or rated 'CCC' at end-2020



Rating Outlooks Stabilising; End of Fiscal Stimulus Key

While we expect conversion rates from Negative Outlook/RWN to be lower than historic levels given government stimulus and regulatory relief, Negative Outlooks could still persist in 2021 as support to borrowers is gradually removed.

In many countries, it could still take several quarters of results for underlying asset quality to become clear, given the masking effect created by payment holidays and regulatory forbearance on asset classification. To the extent that borrowers are not able to bring obligations current, following the end of their forbearance periods, banks could see sharp increases in impaired loans, delinquencies or credit losses.

Supportive funding markets are also affording corporate and commercial borrowers vital access to liquidity, but also leading to record corporate debt levels in some countries. This central bank-supported access to capital is likely masking the quality of underlying corporate creditworthiness, particularly in vulnerable sectors such as retail, lodging, and travel.

As support measures are unwound, this could begin to pressure bank asset quality, particularly for banks with concentrations in affected sectors. Asset quality deterioration in excess of Fitch's base case scenario represents a key downside risk to bank ratings in 2021.

Further pandemic waves or the lack of widespread vaccinations, as in our downside scenario, could also pressure ratings.

Where support underpins ratings, Negative Outlooks can also be a function of Negative Outlooks on sovereign ratings (especially in parts of the Middle East, Asia Pacific and Africa) or parent bank ratings. As a result, weakening operating environments or sovereign downgrades could also be key rating triggers in 2021.

Material risk-weighted asset growth from credit migration is a further risk.

Select EM Banking Systems

Country	Sovereign rating	BSI ^a score	Operating environment
India	BBB-/Negative	bb	bb/Negative
Brazil	BB-/Negative	bb	b+/Stable
Mexico	BBB-/Stable	bbb	bb+/Negative
South Africa	BB-/Negative	bb	bb-/Negative
Turkey	BB-/Negative	b	b+/Negative

Select EM Banking Systems (continued)

Country	Sovereign rating	BSI ^a score	Operating environment
Russia	BBB/Stable	bb	bbb-/Negative
China	A+/Stable	bb	bb+/Stable

^aBanking SystemIndicator score.

Source: Fitch Ratings, as of 30 November 2020

Rates and Economic Scarring Pressure Earnings Longer-Term

Financial institutions face two key structural shifts: lasting economic scars from the unprecedented levels of fiscal support; and policy interest rates that remain low for an even longer duration. These structural trends will have a medium negative rating impact unless mitigated.

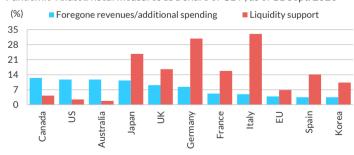
More challenging operating environments over an extended period tend to suppress borrowing or capital-market activities, which in turn tends to negatively affect earnings. This leads to a negative impact of medium severity for banks across most regions in the medium and long term.

This is particularly the case for DM-based bank sectors, over a timeframe of more than five years. Smaller banks are more likely to face a negative rating impact than the largest systemically important banks given their weaker cost efficiency and greater reliance on net interest income However, the impact on bank ratings will vary according to size, region they operate in, and the extent of government fiscal support to underlying obligors.

The pandemic's enormous fiscal cost will keep government funding needs elevated in the medium term, particularly against a backdrop of limited progress in reducing public debt following the global financial crisis. We expect jurisdictions will have more limited buffers and resilience to navigate the pandemic's impact. This may lead to negative rating actions for banks where sovereign support is an important factor for Issuer Default Ratings, particularly in parts of Latin America , EM-EMEA and Asia Pacific.

Key Fiscal Measures Among DMs

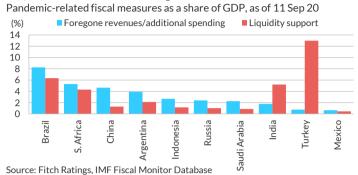
Pandemic-related fiscal measures as a share of GDP, as of 11 Sept. 2020



Source: Fitch Ratings, IMF Fiscal Monitor Database



Key Fiscal Measures Among EMs



Driven by continued weakness in economic growth, pre-pandemic "lower for longer" interest-rate trends are likely to be intensified and extended across major DMs, even across many APAC DM jurisdictions that have more successfully navigated the pandemic. This will make debt more affordable, underpin house prices, and may support capital markets, benefitting consumer and corporate borrowers.

However, low rates have encouraged significant increases in private debt ratios in some jurisdictions over the past decade. A worsening in this trend will increase risks around the sustainability of sovereign debt and the effects on other areas of the economy. Persistently low interest rates and the search for yield could result in asset-valuation bubbles, increasing systemic financial risks.

These structural headwinds will require banks to adapt through consolidation, digitisation and other cost-saving measures. Banks' earnings will be pressured in the long term unless they can adapt to a structurally lower interest rates. Other risks to bank fundamentals include excessive risk-taking in response to persistently low interest rates, as banks seek returns to earn the cost of capital and weaker capital-generation capabilities that can could pressure bank ratings over time.

Two further structural trends will influence financial institutions in the long term, as we discuss in our report *Financial Institutions Ratings Face Four Long-Term Megatrends*, published November 2020. Digital transformation, as automation and online activities are maximised, will have a low or medium positive rating impact across most bank ratings. Policies associated with a shift to more sustainable economies are likely to have a medium negative impact.

Trends' Impact on Banks by Region and Size

Where red = high and negative; orange = medium and negative; grey = low; blue = medium and positive; green = high and positive.

	Lasting economic scars		Lower interest rates		Digital transfor- mation		Sustainability	
(Years)	1-5	5+	1-5	5+	1-5	5+	1-5	5+
Region								
APAC								
N. America								
LatAm								
WE ^a								
EM EMEA								
Size								
GSIBs/ DSIBs ^b								
Large DM								
Large EM								
Small								
Policy/ state								
^a Western Eur	rope. ^b Glo	bal syste	emically	importan	t banks a	nd domes	tic system	ically

 $^{^{\}rm a}$ Western Europe. $^{\rm b}$ Global systemically important banks and domestic systemically important banks Source: Fitch Ratings

Related Research

Global Financial Institutions: Pandemic Ratings Update (December 2020)

The Next Phase: Megatrends and Financial Institutions' Ratings (November 2020)

Forbearance Distorts Developed Market Bank Credit Costs (October 2020)

Potential Fallen Angels – Bank Debt (September 2020)



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