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ADVISERS

MAY 2020

THOUGHT LEADERSHIP:
INFRASTRUCTURE’S RESILIENCE IN UNCERTAIN TIMES

MARKET SNAPSHOT

How quickly things can change in a few weeks.

The world seems to have changed yet again since our April 2020 article (An Oil Price War Amid A Global Pandemic), where we explored how global markets were responding to two contiguous crises: a severe self-inflicted global economic dislocation in response to the fast-spreading COVID-19 pandemic and the collapse of oil markets and OPEC+.

March was a historic month for virtually all asset classes, including listed infrastructure, which found several underlying sectors directly on the front line of this shock: primarily airports, toll roads and rail. Listed equities price action in March had all the hallmarks of a liquidity crisis, while mobility restrictions enacted globally to slow the spread of COVID-19 shocked the demand and the supply side of the global economy, causing what will be a steep near term recession.

While most expected a continuation of March's extreme volatility, April was a month of mixed signals. Decisive action from central banks globally combined with hopeful developments in the battle against COVID-19 triggered a sharp relief rally, with the S&P 500 and the MSCI World Index rising 27% and 21%, respectively over three weeks from March lows. Listed infrastructure also regained lost ground with the FTSE Developed Core Infrastructure Index rising 27%.

Unlike equity and credit markets, oil continued its decline despite a historic supply cut by a newly established OPEC+ cooperation, which failed to offset the demand destruction from COVID-19. The steep contango in oil markets helped the fuel storage sector to record utilisation. Vopak, the world's largest independent storage business, recently announced its worldwide capacity was virtually full. With fuel storage in the US nearing capacity, futures holders unable to accept physical delivery of contracts settling on 21 April were forced to liquidate their positions at any price, forcing oil prices for West Texas Intermediate crude to -US$37.63/barrel , a first in the history of oil. Seaborne Brent crude fared slightly better, briefly falling below US$16/barrel, its lowest level since mid-1999. At the time of writing, crude storage remains in short supply in the US and expectations of another dip into negative territory are rising.

It's clear COVID-19 will have an overwhelming impact on virtually every aspect of the global economy and its citizens. Transport infrastructure sectors, widely viewed as defensive, have not been immune to market volatility, and to say that airports and toll roads are experiencing softening revenue would be a gross understatement. COVID-19 will cause material disruptions for transport assets, with a recovery inextricably linked to the removal of mobility restrictions as well border openings. To their credit, companies in these sectors have responded decisively, shoring up liquidity, slashing operating expenditure (opex), deferring dividends, and if possible, capital expenditure (capex) too. And while the timing and shape of a recovery is uncertain, and despite the extraordinary short-term shock, it's important to note that infrastructure assets are long dated in nature. Airport and toll road concession can be up to 99 years in length, enabling investors to look-through short-term volatility. And while a recovery to pre-COVID-19 levels of demand may take several years, we believe the essential nature of the services provided ensures demand will return to trend, as it has done through various exogenous shocks in the past.

Regulated assets, such as water utilities and electricity transmission and distribution, performed relatively well due to their provision of inelastic essential services which are subject to extensive regulatory protection. Sectors in between regulated assets and demand-linked assets have been mixed, while tower asset operators are expected to benefit from secular headwinds from rising demand for enhanced connectivity and data as a result of global mobility restrictions, midstream assets which transport fuel and other liquids were heavily sold off as the oil-price crash raised concerns over counterparty credit risk.

It may be too soon to say if we have passed the peak of infections, however, it's clear an economic crisis has already begun, and uncertainty and volatility are likely to remain high for the foreseeable future. We continue to believe that the infrastructure asset class' defensive story remains intact, leaving the asset class well positioned to deliver strong absolute returns as it has through prior economic shocks, notably given the long-dated nature of infrastructure assets and their provision of essential services.

In this month's article, we revisit infrastructure's defensive characteristics, its performance through the initial phase of the COVID-19 dislocation, and how recession risks are impacting the outlook for infrastructure. Finally, we look at how infrastructure has performed during previous exogenous shocks, concluding that while this shock is unprecedented, infrastructure's uniquely defensive characteristics have enabled the asset class to: (i) deliver strong absolute returns that have been characteristically resilient in challenging economic environments; and (ii) the asset class is well placed to weather this crisis given the demand for services in many sectors is inelastic and cash flows are relatively predictable.

REFRESHER ON INFRASTRUCTURE

Infrastructure companies own and operate assets that provide essential services to the community. While they often share similar characteristics such as high barriers to entry, stable and predictable cash flows and provision of essential services, infrastructure assets can typically be further categorised as:

- Availability-based or regulated; and
- Demand or GDP-linked.

Availability-based or regulated

Availability-based and regulated assets receive a fixed return as long as the asset is 'available for use' as opposed to a return that is based on actual utilisation. Social infrastructure assets such as schools, hospitals, courthouses and certain toll-roads are examples of availability assets, where the concession grantor, often a government entity, pays a fixed charge as long as the asset is available for use. Electricity transmission and distribution and water utilities are examples of regulated assets where a regulator determines the costs an asset operator may charge its customers. These regulated charges are set at regular intervals often every five or seven years. Due to the essential nature of the services provided, availability-based and regulated assets are consequentially more stable and resilient to economic shocks and volatility, with equity cash flows almost debt-like in certainty and timing. As such, these assets, typically located in strong investment grade jurisdictions are particularly attractive during economic downturns, offering stable yield relative to other asset classes.
While riskier, assets with highly contracted revenues with creditworthy counterparties are also included in this category. For example, pipeline infrastructure where commercial customers enter into long-term 'take or pay' agreements, agreeing to pay a fixed, often inflation-indexed, charge regardless of the capacity it uses.

Demand or GDP-linked

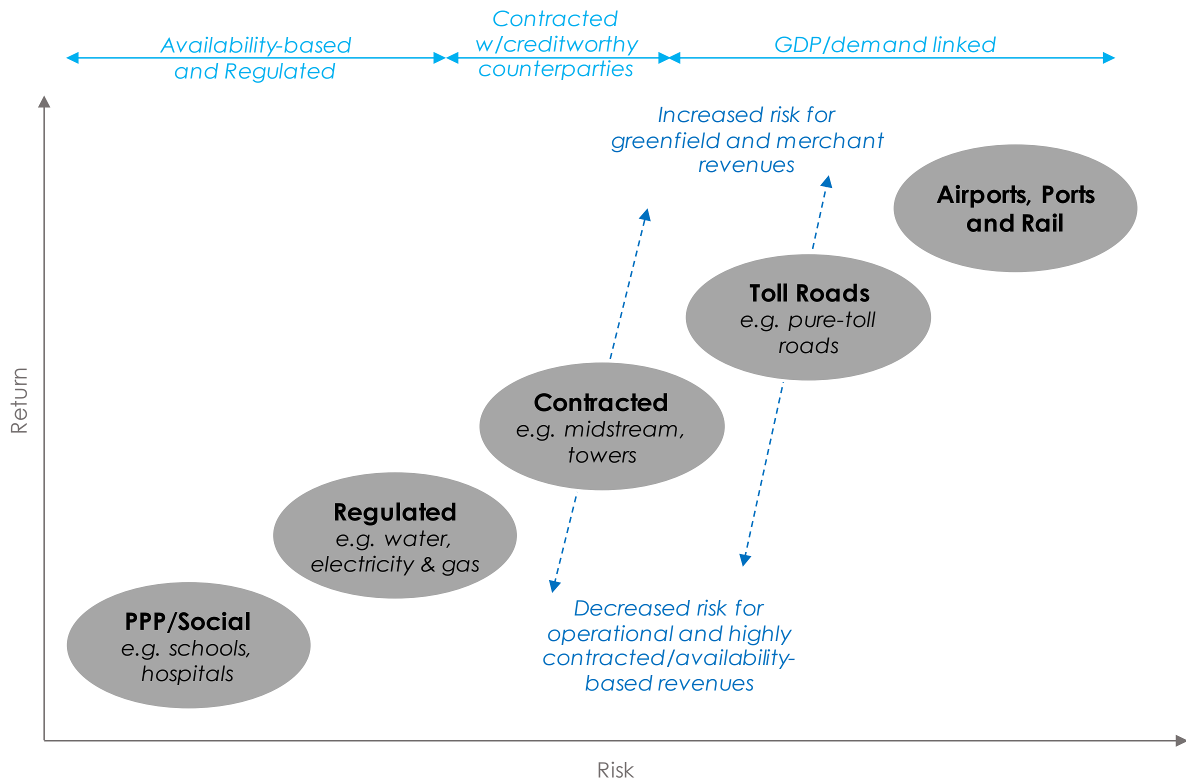
Owners of demand or GDP-linked assets bear revenue risk for the asset, for instance revenues generated through patronage or usage of the asset. Airports, rail, ports, per-use toll roads, and to an extent, shadow-toll roads are examples of demand or GDP-linked assets. These assets are positively correlated to GDP and broader economic activity. For example, airport patronage is likely to increase in times of economic expansion and contract during periods

of low or negative GDP growth as consumers and businesses scale back discretionary spending on holidays or business trips, respectively.

Risk and Return profiles

As noted above, while the infrastructure asset class is generally defensive, there can still be differences in the risk and return profile of assets within the infrastructure spectrum. An illustrative risk and return profile is shown below.

Chart 1: Illustrative Risk and Return Profile by Infrastructure Sector



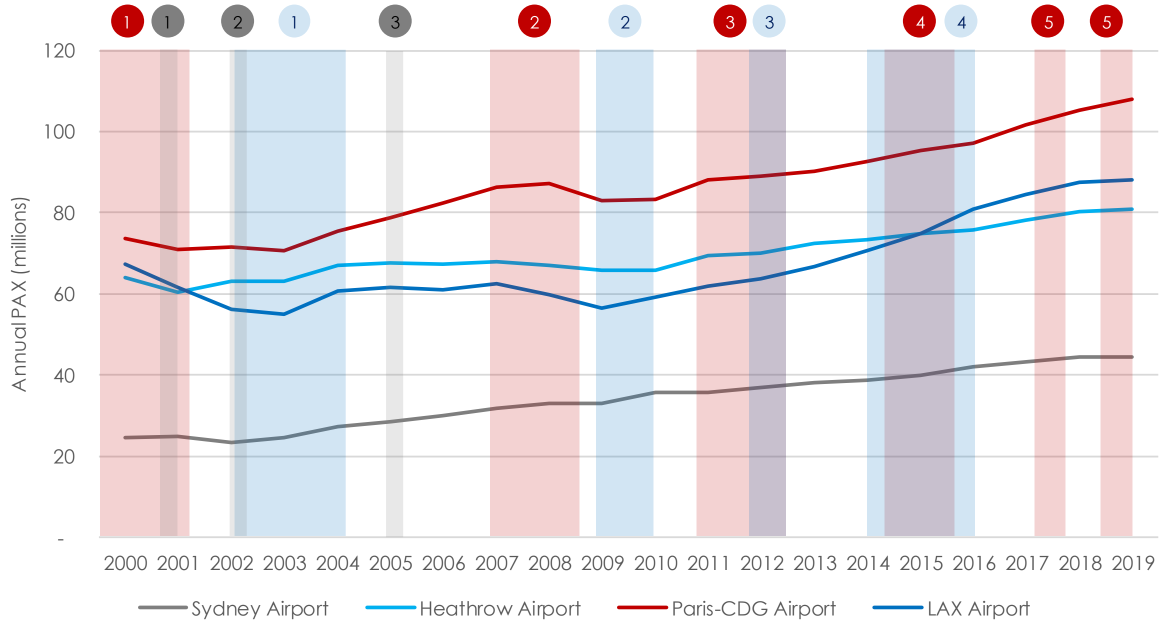
Note: for illustrative purposes only.

Has COVID-19 changed the assessment of risk for GDP/demand-linked assets?

It depends. It is unclear whether COVID-19 will have a lasting impact on consumption behaviour, or whether it will be a sharp and short shock, with consumption to recover quickly as the economy comes back online. However, the more prolonged the crisis, the more damage it will do. For airports, an extended crisis is likely to alter the airline industry for the foreseeable future. The airlines that do survive will return substantially restructured, initially with reduced capacity.

Over the past two decades air travel has increased substantially and has proven to be reasonably resilient to shocks, economic, health and terrorist attacks. While these shocks caused disruptions over the short to medium term, patronage growth tended to revert to trend (Chart 2). Notwithstanding, we believe pandemic shock testing will become a part of an investor's risk assessment toolkit from here onwards.

Chart 2: Airport Traffic Globally Has Remained Resilient During Prior Shocks



KEY EVENTS

Financial Shocks	Terrorist Attacks	Health crises
1 Dot-com crash	1 9/11	1 SARS outbreak
2 GFC	2 London bombings	2 Avian flu outbreak
3 European sovereign debt crisis	3 Bali bombings	3 MERS outbreak
4 The great China sell off		4 EBOLA outbreak
5 Market corrections >10%		

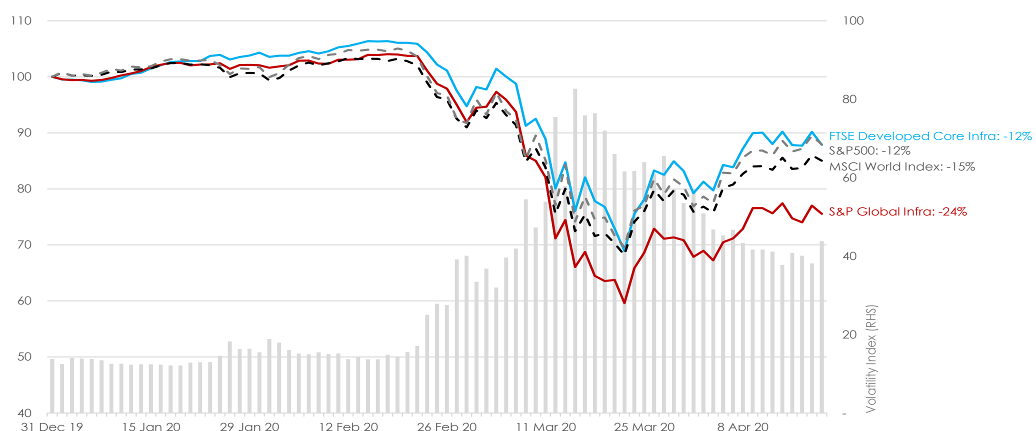
Source: Sydney Airport, Heathrow Airport, ADP, LAX Airport and Whitehelm Capital.

THE IMPACT ON INFRASTRUCTURE SECTORS SO FAR

Listed infrastructure assets have not been immune to the recent broad sell-off in equities, particularly demand-linked sectors such as airports, toll-roads and ports and energy adjacent assets such as midstream infrastructure. While listed infrastructure indices participated in the initial drawdowns, the defensive characteristics, particularly of core regulated infrastructure sectors, was protective from mid-March. The FTSE Developed Core Infrastructure Index which tracks global listed infrastructure companies in developed countries, performed in line with the S&P500 and outperformed the MSCI World index (Chart 3), a reasonable performance despite a c.34% allocation to transport and midstream sectors. The S&P Global Infrastructure index on the other hand, substantially underperformed as a result of exposure to oil and gas midstream and pipeline infrastructure, a 40% exposure to the transportation assets and a 20% allocation to listed infrastructure companies from emerging markets.

Chart 3: Equity Market Indexes Performance

YTD, rebased to 100

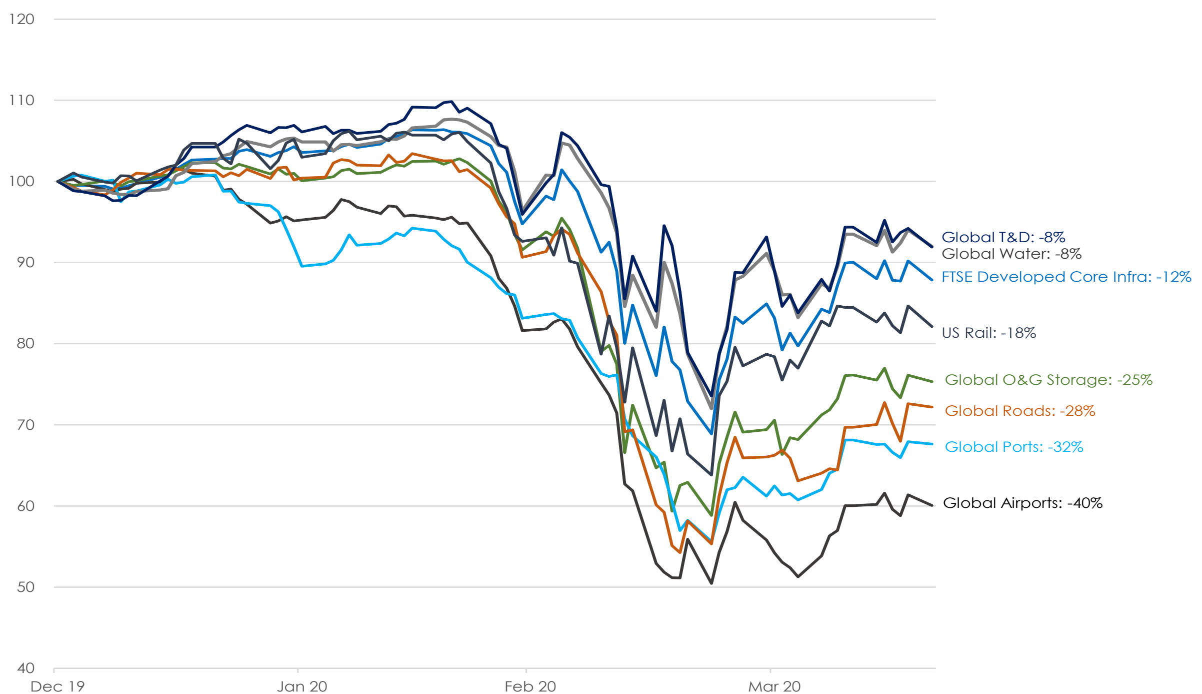


Source: *Bloomberg, Whitehelm Advisers.*

Within the listed infrastructure universe, performance varied significantly across sectors, with demand and GDP-linked assets heavily impacted (Chart 4).

As expected, regulated and availability-based assets (water utilities and electricity T&D) have outperformed other infrastructure sectors as well as the broader equity markets due to their defensive nature and provision of inelastic essential services.

Restrictions on travel and requirements to shelter in place have impacted airports, passenger rail and toll roads globally, while ports and freight railroads have sold off due to the disruption to trade and weak commodity markets.



Source: Bloomberg, Whitehelm Advisers

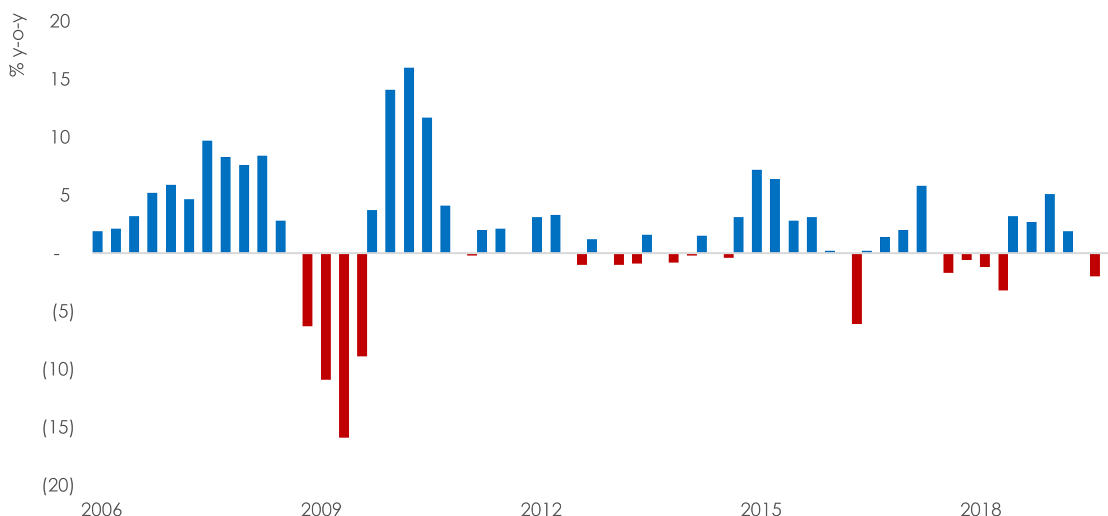
We provide a brief overview of each sector below.

Demand/GDP-linked Assets

Airports (-40% ytd): the airport sector has been the hardest hit, with the airports index falling approximately 50% by late March. At the time of writing, the sector, along with the broader market, has recovered some lost ground, still closing down 40% for YTD. Enhanced border measures comprising extensive restrictions on domestic and international travel, extensive capacity cuts from airlines, have resulted in steep reductions in passengers (PAX) as well as air cargo. For example, Frankfurt Airport, the principal asset of Fraport (-51%) , reported a 62% yoy decline in PAX for the month of March 2020, however, with extensive border closures introduced globally in mid-March, the decline in PAX accelerated in late March, continuing into April. PAX for the week ending 19 April had fallen 97.3% yoy. Similarly, Sydney Airport (-35%) reported a 45.1% reduction in total traffic for the month of March 2020, while the first 16 days of April indicated a 96.1% and 97.4% yoy decrease in international and domestic PAX traffic, respectively. In the next section we discuss initiatives being implemented by airport operators globally to remain solvent as long as travel restrictions remain in place.

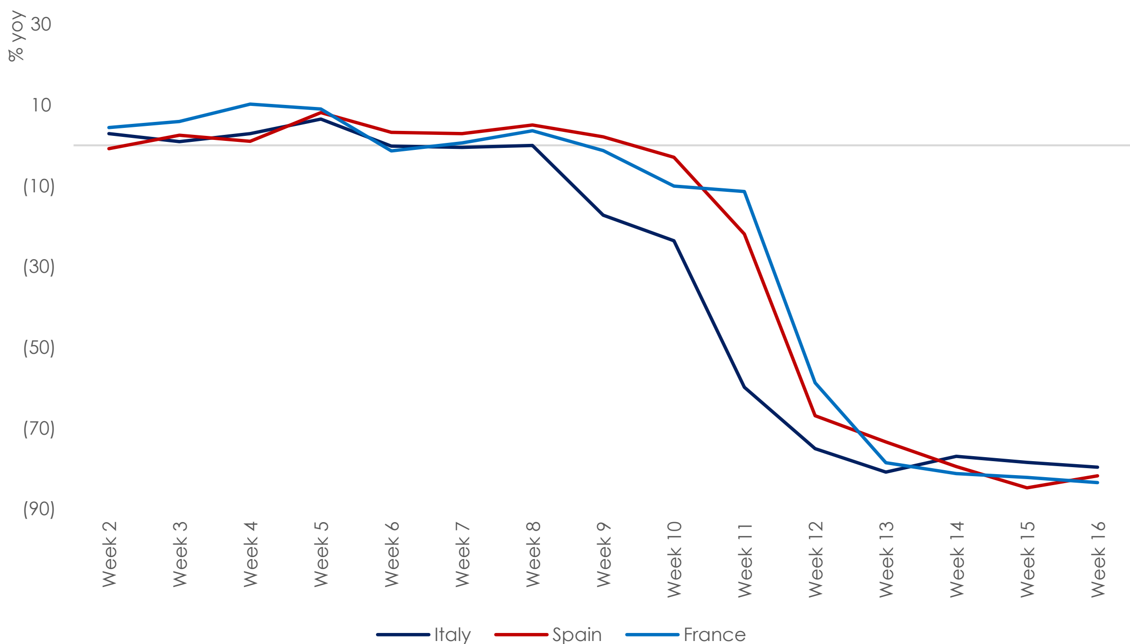
Ports (-32% ytd): disruption in domestic and global supply chains and lower forecast discretionary consumer spending has caused an overhang on the share price of port operators. While the full impact of COVID-19 on container and bulk trade is currently unknown, a significant increase in blank sailings in recent weeks suggests Q2 2020 is likely to see a material contraction in trade volumes. While several port operators expect to see a decrease in volumes in core markets such as oil & gas and industrial markets such as automotive, uncertainty regarding the impact of COVID-19 has resulted in several operators withdrawing guidance for the remainder of 2020. One of the largest ports globally, Port of Rotterdam (not listed), recently reported a significant decline in cargo volumes (Chart 5).

Chart 5: Quarterly Change in Cargo Volumes at Port of Rotterdam



Source: Société Générale. Port of Rotterdam Authority, Wall Street Journal

Toll Roads (-28% ytd): Mandated telecommuting, school closures and limitations on public gatherings severely impacted toll road patronage with congestion relief/expressways the hardest hit. For example, Transurban (-17%) recorded a 47% reduction in traffic for the week commencing 5 April. Transurban's North American operations were hardest hit across the group, recording a 69% yoy reduction in traffic, owing to less usage of its expressways due to a lack of congestion on the adjacent general-purpose lanes as a result of the lockdowns in the Greater Washington area. Transurban's other operations in Australia also recorded deteriorating traffic numbers through the month of March with Victorian traffic down 43%. NSW 27% and Queensland 27% yoy. In Europe, Atlantia (-35%) which operates approximately 7,000km of toll roads across Italy, France and Spain, recorded significant falls across its road network (Chart 6) given its core markets were particularly hard hit by the outbreak.



Source: Atlantic Group Weekly Traffic Performance, 22 April

Rail (-18% ytd): early signs of the impact of COVID-19 are becoming observable, with a number of underlying markets heavily impacted by the current crisis, notably oil, automotive and passenger rail. U.S. based freight rail operator, CSX (17%) reported a 5% decline in total volumes over Q1 2020, however, declines in key markets such as automotive, coal and energy accelerated over March as lockdowns were implemented across the U.S. in mid-March. Morgan Stanley believes that as with other railroad companies, the volume pain is yet to come given coal, energy, automotive and industrial markets account for 64% of CSX's YTD volumes. On the commuter rail side, Japanese rail operators Central Japan Railway (-18%) and East Japan Railway (-14%) experienced significant drops in passenger numbers as a result of stay at home orders from local municipalities to slow the spread of

COVID-19. While concerns regarding Japan's GDP contraction existed prior to COVID-19, fears over the uncertain impact of lockdowns and social distancing on passenger numbers has directly impacted revenues and created an overhang on the share price.

Availability-based / Regulated Assets

Storage and Midstream (-25% ytd): this sector is itself a story of two halves; midstream assets have suffered declines of around 50%, while storage assets have actually benefitted of an oversupply of oil and gas. Although notionally having minimal demand or commodity price risk, midstream assets have significant counterparty risk, and have experienced a steep decline in share price in tandem with falling oil prices. Demand destruction stemming from COVID-19 has accelerated supply cuts, notably in the US. As a result, producer counterparty risks have increased materially, in particular for midstream companies operating closer to upstream production, notably high cost shale oil in the US. Fitch Ratings estimated that the forecast loan default rate for 2020 among energy companies is 18%, while nearly 20% of all energy corporate bonds are trading below 70 cents on the dollar, indicating distress. In contrast, larger pipeline players contracting with a diversified pool of investment-grade customers or operating monopolistic transmission infrastructure will be best positioned to weather this crisis and have been relatively unscathed. For example, APA Group (-1% ytd), an owner and operator of 15,000km of gas transmission and 29,000 km of gas distribution assets across Australia, has performed well during this crisis, as a result of 90% of its revenue being either contracted or regulated, with a diversified pool of customers of which >90% are investment-grade. Storage companies have also benefited from the steep contango in the crude oil market, notably in the US where a sharp drop in refinery runs and weakening export demand has caused inventories to build at a record pace. Royal Vopak (+4.6% ytd), one of the largest independent oil storage companies, has seen a spike in occupancy in its crude oil and refined products storage, with little to no capacity remaining.

Regulated Utilities (-8% ytd): benefit from the provision of essential services which have relatively inelastic demand, and a regulatory framework which insulates these assets from short-term economic fluctuations. As such, regulated utilities have performed relatively well through this phase of the correction. Transmission volume reductions in electricity and natural gas have so far ranged from 5% to 20%, with wide differences depending on the proportion of supply to industrial and commercial customers. Those utilities serving predominantly household demand have reported very limited impacts on volumes.

Importantly, in many jurisdictions, regulated revenues are decoupled from volumes, and the utility will recoup revenue shortfalls. For example, National Grid (-2% ytd), whose portfolio includes electricity transmission networks in the UK, Wales and the US, is expected to experience lower energy demand, however, these shortfalls are recoverable under the regulatory framework. Furthermore, National Grid will continue to benefit from a major capex program as the majority of it relates to mandated safety and reliability of the grid, which when completed will be incorporated to the regulatory asset base upon which National Grid earns a regulated return.

Tower Companies (+16% ytd): communication towers primarily derive revenue through leasing tower space to telecommunications providers via long-term leases (typically 5 -10 years or longer) which are subject to annual fixed or inflation -linked escalation. High capital cost and uneconomic replication provide high barriers to entry. Tower Co's have benefitted from the continued heavy investment in 4G networks to keep pace with growth in data demand, and the launch of mass-market 5G over the next several years will also be a growth driver. Moody's notes that deployment of 5G is just getting started, and there is a long runway of growth from that generation of technologies for tower operators. Crown Castle (+16%), SBA Communications (+28%) and Cellnex (+27%) all performed well, amid rapid growth in data usage as a result of increased remote working and need for connectivity.

How about unlisted infrastructure?

As valuations for the March 2020 quarter begin to flow through, it is clear that unlisted infrastructure valuations have also been impacted by the uncertainty stemming from COVID-19 - albeit posting much less dramatic declines than comparable listed peers.

The MSCI Australia Private Infrastructure Fund Index, which tracks a global portfolio of approximately 324 unlisted infrastructure assets managed by Australian-domiciled investment managers (note, Whitehelm Capital is a contributor to this index) which as at 31 March 2020 had a combined net asset value of A$98 billion , reported a 7.0% decline for the quarter; the single largest decline the index has reported since its inception in 2001. This result was largely in line with other unlisted indexes such as the EDHECinfra Infra300 equity index, which tracks 300 unlisted infrastructure assets globally, which reported a decline of 6.4% for the quarter. Unlisted sector valuations have remained more resilient than comparable listed valuations due in part to the sector's unique institutional investor base, which generally seeks long-tailed investments to match liabilities of a similar tenor (for example life insurance companies and defined benefit schemes). These institutional investors have the ability to look through short term dislocations - consequentially valuations tend to be more stable for unlisted infrastructure assets. Listed markets on the other hand tend to focus more on near term earnings outlook, which often drives price action and sentiment. The illiquidity of unlisted assets also means that the valuations are not caught up in the short-term momentum of markets, while more easily liquidated listed equity positions are often the first assets sold to raise cash when investor panic. While listed transport infrastructure may have taken the short-term pain, unlisted transport assets are likely to play catch up the longer lockdowns remain in place and as the economic crisis deepens.

Unlisted assets are generally valued on a quarterly basis by independent third-party valuers and hence do not exhibit daily mark to market volatility of listed stocks. That is not to say that valuers do not consider how comparable peers are trading, indeed this is one of several cross checks' valuers apply when conducting a valuation, the most important of which is a long-term discounted cash flow analysis. For the Q1 2020 valuation, in addition to considering recent financial market volatility, independent valuers have applied a combination of a temporary increase in equity risk premiums to reflect uncertainty stemming from COVID-19 and a downward revision of near-term cashflows. The latter being particularly relevant to GDP and demand linked assets.

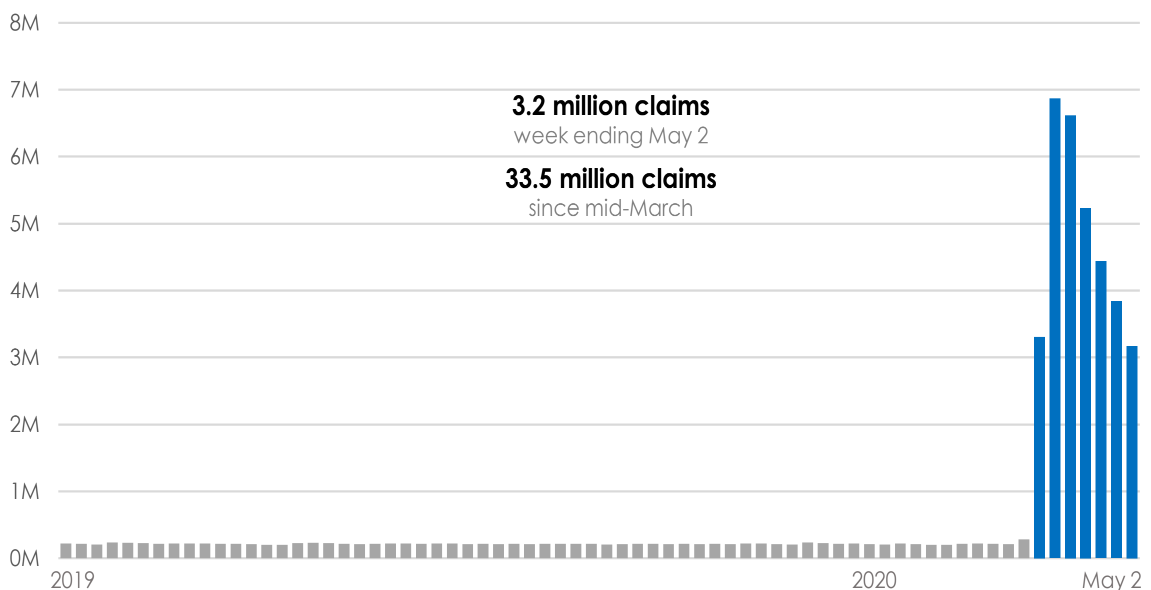
HOW WILL INFRASTRUCTURE NAVIGATE THIS UNPRECEDENTED SHOCK?

While the global economy was in the later stages of the economic cycle prior to this crisis, nobody could have predicted at the start of this year that large parts of the global economy would be brought to an abrupt halt by the COVID-19 pandemic.

The implications of global lockdowns are becoming apparent, notably unemployment which has soared globally. In the U.S. first-time unemployment claims have surged since the introduction of mobility restrictions in mid-March. Since then a total of 33.5 million first-time claims have been lodged, representing 20.6% of the U.S. civilian labour force (Chart 7). Fortunately, after peaking in the last week of March, the first-time claims have fallen on a weekly basis.

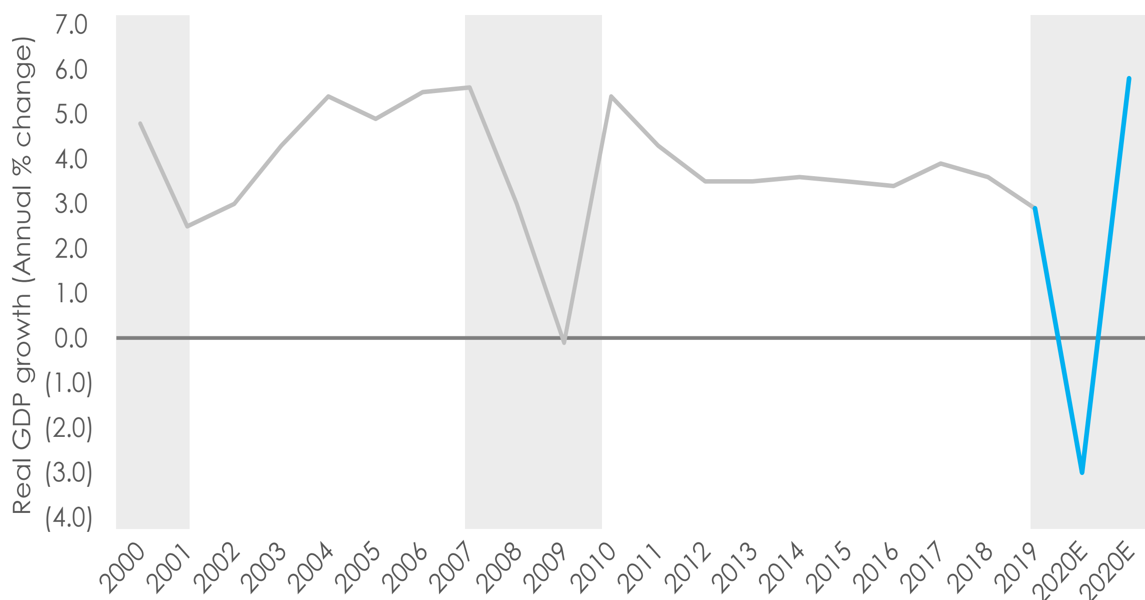
Chart 7: Unemployment Claims in the U.S. have Surged Since the Outbreak

initial (or first-time) unemployment claims (millions)



Source: Federal Reserve Bank of St Louis

The question is now how deep and long the lockdowns and the economic recession will be. In mid-April, the IMF released its World Economic Outlook which projected a contraction of the global economy of 3% for the year, well below the GFC and well below the January 2020 review which had forecast an expansion of 3.4%. This contraction is expected to be followed by an above-trend expansion in 2021 of 5.8% as the global economy normalises, helped by policy support and stimulus. The rebound in 2021, however, will depend critically on successful containment of the outbreak in the second half of 2020, thereby allowing containment efforts to be gradually scaled back. Furthermore, an economic recovery will need to be set against many factors that have amplified the dislocation, including a significant increase in unemployment, a weak commodity market, large scale reductions in investment and capex and weak financial markets.



Source: IMF, International Economic Outlook, April 2020

Ultimately, even these dire forecasts may prove to be too conservative. In the case of the UK, recently the Office of Budget Responsibility, an independent watchdog established in the wake of the GFC to provide independent and authoritative analysis of the UK's public finances, believes the UK's GDP will contract by 13% in 2020, well above the IMF's forecast of a 6.5% contraction.

In light of these challenging circumstances, we believe global listed infrastructure will benefit from its defensive positioning, but while availability-based and regulated assets should remain resilient, a recovery in GDP/demand linked assets is linked to a wind back of restrictions.

We have highlighted our assessment on how recession risk is weighing each sector below.

Contracted Assets (Tower Co's, contracted power generation, etc.)

Counterparty credit risk will need to be managed carefully. Sufficiently creditworthy counterparties are unlikely to face distress, however, those on the front-line of this crisis such as energy, may experience distress. TowerCo's should continue to see strong leasing demand due to secular tailwinds.

Oil and Gas Midstream and Storage

Counterparty credit risks have increased materially, in particular for midstream companies operating in the upstream sector. From a midstream perspective, contractual take-or-pay commitments offer protection from lower volumes, notably for downstream transmission projects which tend to be large networks underpinned by long-term customer commitments. Midstream assets closer to the wellhead do not tend to have long-term capacity agreements and hence are likely to be immediately at risk of volume declines.

User Pay Toll Roads

Impact will vary by asset, location and composition of traffic (commercial vs. passenger traffic), however, prolonged restrictions will keep traffic at current lows and while toll roads benefit from relatively low ongoing opex and capex requirements. Sufficient liquidity is key to ensure short term financial liabilities are adequately covered. Sources of liquidity include cash reserves, debt service reserve accounts, available debt capacity and financial support from sponsors. Companies operating a geographically diversified portfolio as opposed to a single-asset toll road will be more resilient. The timing of restriction wind backs will be key to a recovery.

Railroad (cargo and passenger rail)

Freight railroad companies will experience a drop across key markets such as oil, automobiles and to an extent, cargo as a result of supply chain disruptions and reduced economic activity. These end-markets should recover once economic activity normalises in 2021, as per the IMF's forecast. Maintaining adequate liquidity to absorb temporary disruptions in underlying markets will be essential. Passenger rail will continue to be impacted as long as social distancing and lockdown measures are in place.

Ports (bulk and container ports)

The World Trade Organization (WTO) believes global trade is likely to fall between 13% and 32%[1], the latter being based on a steeper initial decline and a more prolonged and incomplete recovery. The WTO believes a 2021 recovery in trade can be expected, but dependent on the duration of the outbreak and the effectiveness of the policy responses. Port operators will need to ensure adequate liquidity is available, and where possible defer capex projects to maintain liquidity.

Airports

Liquidity is key. While the impact has been severe across the entire sector, liquidity levels vary significantly and select balance sheets will be tested. As long as mobility restrictions and travel bans remain in place, airports will need to carefully manage their liquidity, and flexibility to defer near term capex and significantly reduce opex is critical. Noting the long-term strategic nature of these assets, lenders and investors have remained

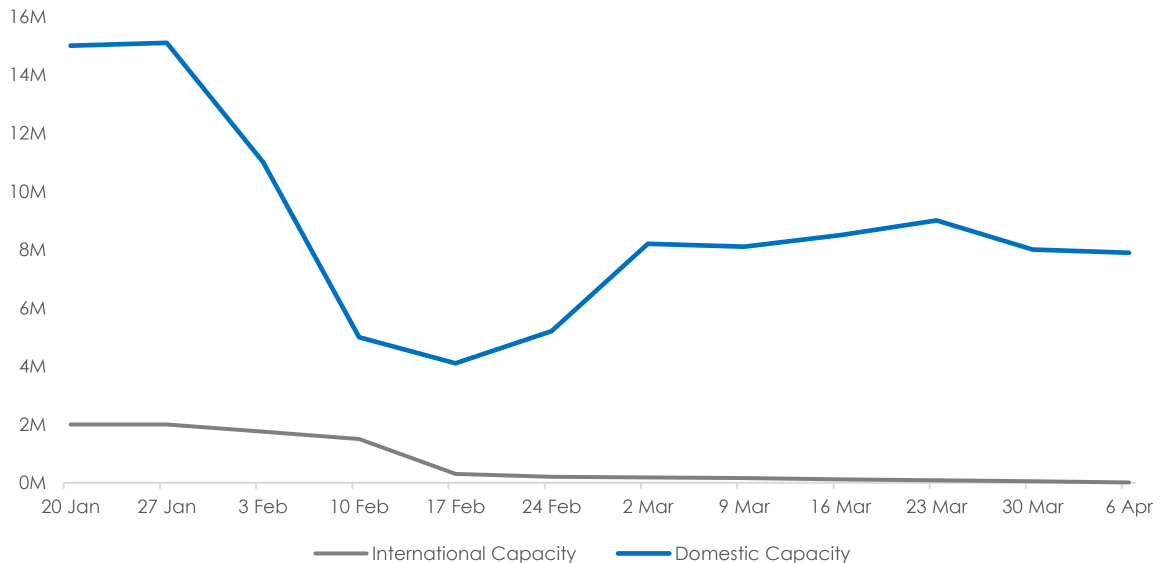
[1] WTO, TRADE SET TO PLUNGE AS COVID-19 PANDEMIC UPENDS GLOBAL ECONOMY, 8 APRIL 2020.

supportive with several airports successfully shoring up liquidity in the midst of the crisis, e.g. Auckland International Airport (-33% ytd) recently raised NZ$1.2 billion through a rights issue and also secured a debt covenant extension to 31 December 2021.

We expect to see a slow recovery in air traffic, with domestic to travel to recover first as restrictions are eased domestically at first, while international recovery will be linked to opening borders. With countries pursuing different strategies to contain the spread of COVID-19, global borders will not be able open at once. While a number of countries including Australian and New Zealand appear to be in similar stages in the containment of COVID-19, other regions such as Brazil, are just still experiencing surging infection rates. In Brazil confirmed cases have risen over 250% over the last two weeks, crossing 100,000 confirmed cases.

In terms of a recovery in domestic travel, preliminary data on domestic travel post reopening in China has not been particularly encouraging, with scheduled domestic airline capacity recently plateauing following a moderate recovery (Chart 9). While this dataset cannot be extrapolated globally, those hoping for a quick return to normal on domestic flights should view this data with caution, as a meaningful recovery may take longer than anticipated. Furthermore, consumer confidence is also likely to be weak until consumers can be sure that flying and traveling are safe again. The short-haul leisure segment is likely to see a timely and modest rebound as many passengers may want to get away on trips after being housebound for weeks or months. International travel will remain challenging in the absence of herd immunity and vaccines, and the residual risk of rolling lockdowns, which are likely to heavily disrupt appetite for international and long-haul travel.

Finally, another challenge facing the airport industry in its return to some form of pre-COVID-19 normality will be the state of the airline industry when services resume. Presently, most airline operators are seeking financial assistance to maintain solvency, and those that do eventually emerge will be substantially restructured with reduced capacity and a focus on profitable routes. For example, in the U.S. as part of the US$2 trillion economic relief package, the federal government has offered approximately US$60 billion in loans and grants to airlines and may hold an equity stake until the loans are repaid. Lacking such state support, a number of airlines have already declared bankruptcy or have entered voluntary administration. Australia's second largest airline, Virgin Australia, is a prime example, recently entering voluntary administration after failing to secure Australian state and federal assistance.



Source: OAG and Hamilton Lane

How has infrastructure performed over prior crises?

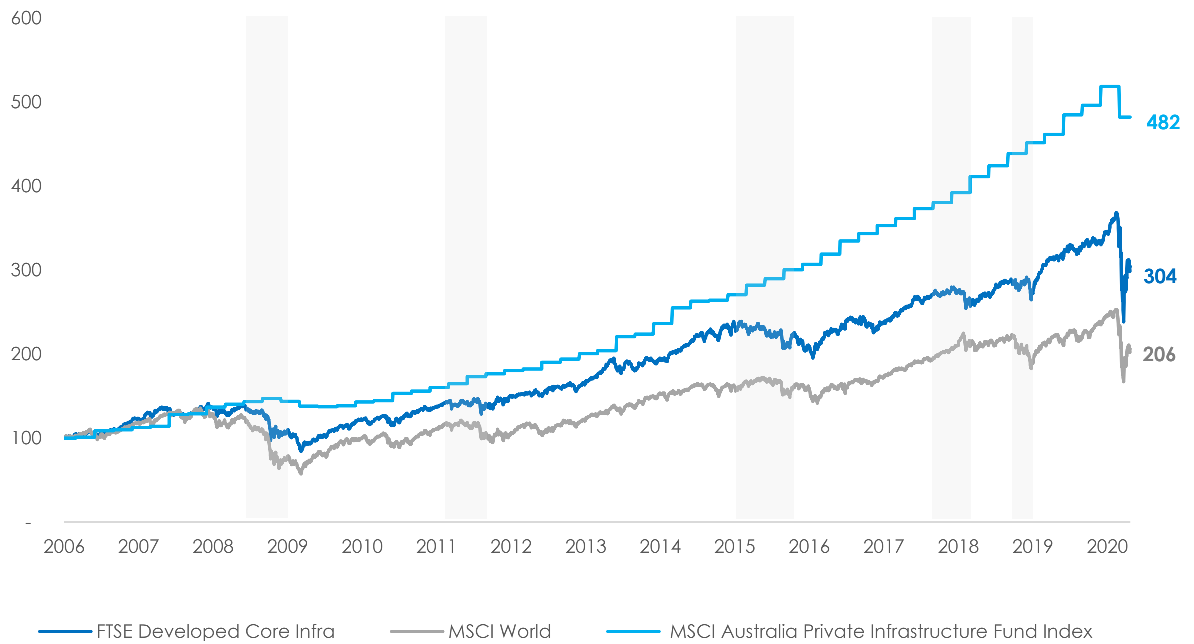
While the depth of the economic crisis and the timing and shape of the recovery are highly uncertain, during prior economic shocks and corrections, listed and unlisted infrastructure have delivered strong absolute returns. This demonstrates the asset class' resiliency during downturns and challenging market conditions (Chart 10), in addition to materially outperforming the broader equity markets over the time horizon shown below.

While fixed income and cash have been a key focus for institutional investors seeking to defensively position for a potential downturn, based on the analysis below, we believe that listed and unlisted infrastructure provide a number a benefits over traditional safe haven asset classes, notably low correlation with other asset classes, lower volatility (notably for unlisted infrastructure) and perhaps a superior risk adjusted return during challenging economic environment.

Infrastructure's past performance is also a timely reminder of the importance of diversification – we believe, an ability to maintain an infrastructure portfolio that is diverse across multiple subsectors and geographies is a critical element to delivering sustainable performance through economic downturns.

Chart 10: Historic Performance

Market corrections shaded



Source: Bloomberg, MSCI and Whitehelm Capital

CONCLUSION

COVID-19 is an unprecedented challenge to the global economy and health system, a challenge that has been met with an unprecedented response. And while it is too early to say when and what shape a recovery may look like, it is clear there are many hurdles to overcome before a recovery can start in earnest. Fortunately, infection and mortality rates appear to be slowing in the hardest hit regions, including the U.S. and parts of Europe, which has prompted calls for progressive economic re-openings globally. However, in the absence of herd immunity, mass testing or a vaccine for COVID19 - none of these are likely in the near term – it's unclear how re-openings can be undertaken without a re-escalation of infection rates, which risks the introduction of rolling-lock downs which may cause further disruption.

Furthermore, it is unlikely regions around the world will re-join the global economy in tandem. A number of regions remain in lockdown, while others are only beginning to experience the first wave of infections. This progressive reengagement with the global economy will likely result in a prolonged recovery, impacting a range of industries in trade. Similarly, borders globally will not open at once, with a staggered approach more likely. Opening borders to neighbouring countries may be the first step towards easing border restrictions, for example, Australia and New Zealand are contemplating a travel corridor between the two nations as both appear to be on a similar containment trajectory. This type of arrangement, if successful, may be introduced in other regions. While these steps are positive, they yet again reinforce the extent of the prolonged economic recovery ahead of us.

GDP-linked infrastructure sectors, notably airports, ports and freight rail, will remain under sustained pressure until an economic recovery is underway. Until then, these sectors will need to carefully manage and preserve liquidity noting that these conditions may persist until either a vaccine has been approved, herd immunity has been reached or mass testing can be undertaken.

Following these milestones, however, these assets will prove essential in facilitating a global economic recovery to pre-COVID-19 levels.

In contrast, availability and contracted infrastructure assets are expected to remain resilient through this crisis and provide a high degree of defensibility given their low correlation to other asset classes, superior revenue certainty due to the essential nature of services provided, and attractive risk-adjusted return.

Over the longer run, the infrastructure asset class has demonstrated, and in our view continues to exhibit, defensive investment characteristics of relatively low volatility and sustained long-term returns. We believe one of the critical elements to sustaining performance through a potential downturn is the ability to maintain an infrastructure portfolio that is diverse across multiple subsectors and geographies.

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