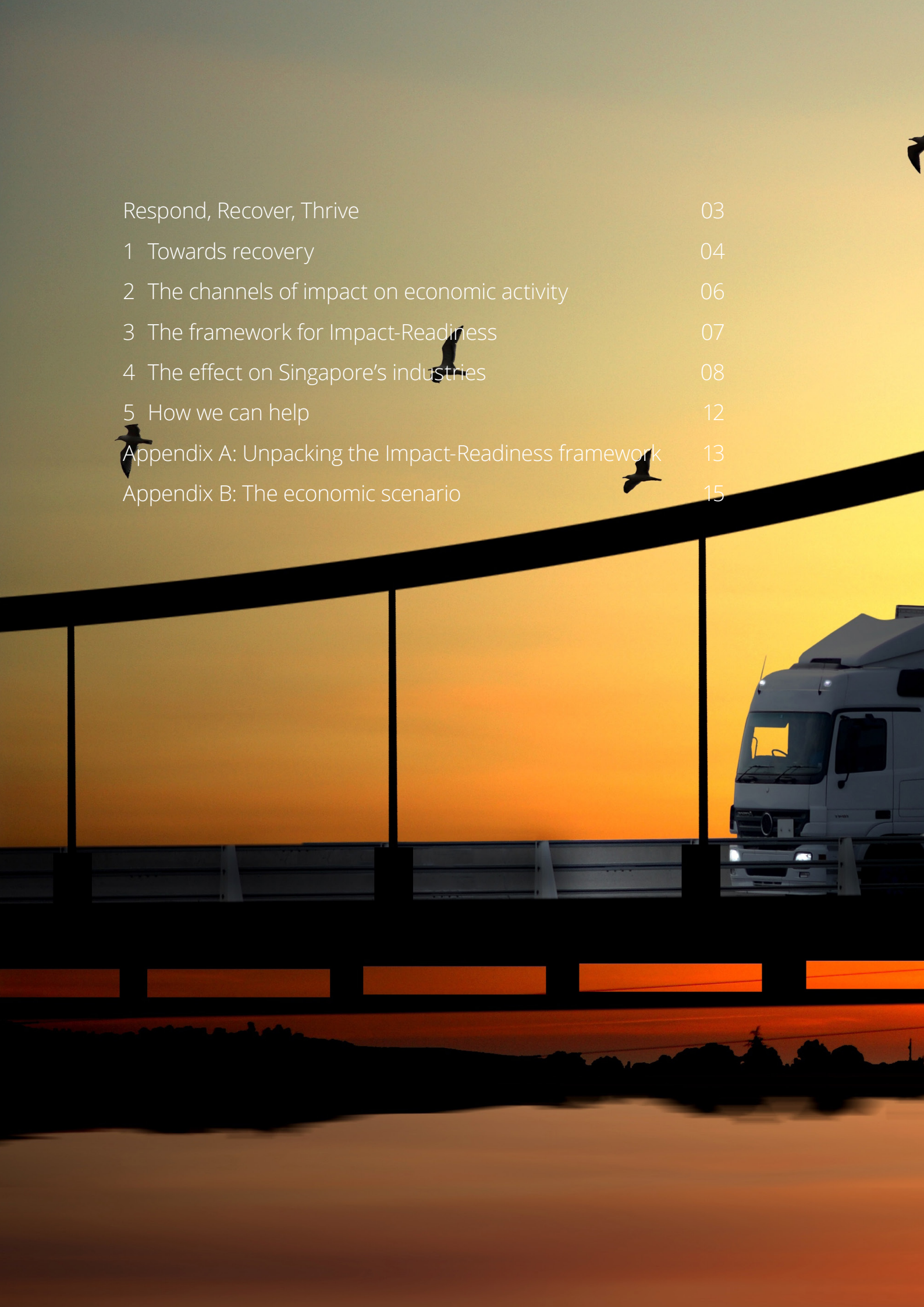


Local industry

The impact of COVID-19
and readiness for the
new normal



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Respond, Recover, Thrive

The outbreak of COVID-19 has necessitated the implementation of stringent policy measures, setting off a global economic crisis of unprecedented magnitude.

As part of Deloitte's commitment to support our clients, we have implemented a COVID-19 recovery framework to help businesses and governments navigate these extremely uncertain times. This framework consists of three facets: **Respond** (how to react to the crisis); **Recover** (how to position for a potential rebound); and **Thrive** (how to ensure success in the post-COVID-19 world).

Making the right decision at the right time has never been more important than now, and good decisions are based on good information. While nobody can be certain about what the future holds, it is important to consider what the future could look like so that we can make the best decisions for society, for our organisations, and for our families today.

In light of this extraordinary uncertainty, we suggest that leaders take a scenario planning approach to their strategic decisions. Such an approach is particularly helpful in the current climate of extreme volatility and elevated uncertainty regarding the future. Scenario-based strategic planning, when executed against a range of plausible future pathways, allows organisations to prepare for various outcomes, helps executives identify key decision points, and positions the organisation to take advantage of opportunities during an eventual recovery.

Such exercises will be made more valuable by having a better understanding of the possible channels of impact from the health and economic crisis. With this in mind, Deloitte Southeast Asia's Economics Advisory team has developed a high-level framework to help clients think through the channels of impact on the economy and on different industries.

This document presents the high-level results of the framework being applied to Singapore, taking into account the specific circumstances of its economic structure and the characteristics of each industry.

The results reflect the unfolding of one scenario—one of the possible economic pathways as the COVID-19 crisis evolves—for the Singapore and global economies, designed around three key variables:

1. The effectiveness of the public health response and public compliance
2. The effectiveness of government economic support
3. Global economic conditions

This scenario is not a prediction about what will happen, but it represents hypotheses about what could happen and what could be the effect on different industries. This document serves as a starting point to help businesses and policymakers think through the potential implications for your organisations and economies. It is designed to frame planning discussions.

Business and governments have managed **Respond**, but in order to make strategic decision on how best to **Recover** and **Thrive**, scenario planning remains an indispensable tool.

1 Towards recovery

The COVID-19 coronavirus disease was first identified in Wuhan, People’s Republic of China (PRC), in early January 2020. COVID-19 belongs to the same family of corona viruses that caused the outbreaks of the Severe Acute Respiratory Syndrome (SARS) in 2003 and the Middle East Respiratory Syndrome (MERS) in 2012.

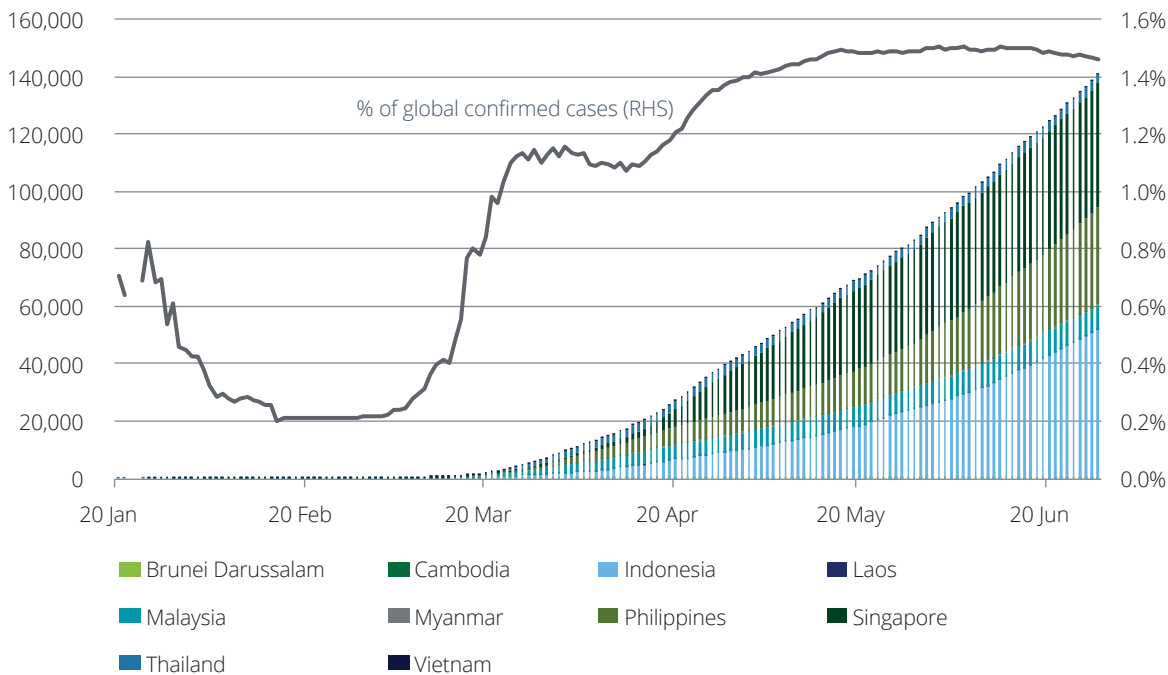
So far, its mortality rate (number of deaths relative to number of cases) has been significantly lower than SARS and MERS, but much higher than the seasonal flu. On the other hand, the infection rate of COVID-19 appears higher than seasonal flu and MERS.

The virus that causes the COVID-19 disease rapidly spread to other countries outside of PRC. Global cases emerged following the Chinese Lunar New Year holidays and the mass population movement associated with the festive period. The Chinese Government quickly implemented travel ban on the city of Wuhan on 23 January 2020 as well as other social distancing policies to help contain the spread of the disease.

The outbreak of COVID-19 has necessitated economic centers around the world implementing their own Wuhan-style lockdowns. Nonetheless, the number of confirmed COVID-19 cases globally has increased significantly since late January. As of 20 May 2020, the World Health Organisation reported that COVID-19 has infected 4,801,202 people in over 200 economies, with a global death toll of 318,935. The United States of America now accounts for the majority of confirmed cases (31%) and total fatalities (28%).

Over the same period, the total number of confirmed cases in Southeast Asia reached 69,842 which represented 1.5% of the global tally (Chart 1.1), with Singapore (41%), Indonesia (25%), and the Philippines (18%) accounting for the largest proportions of confirmed cases in Southeast Asia.

Chart 1.1: Cumulative confirmed COVID-19 cases, Southeast Asia (as of 28 June 2020)



Source: CEIC, Deloitte, World Health Organisation

Significant work is underway globally to develop vaccines and treatments, however, there currently remains no readily available vaccines to prevent the virus nor anti-virals to treat it. At this stage, containment remains the top priority for governments around the world, even as some lockdowns are easing. Measures to mitigate the public health impacts of the pandemic has necessarily required governments to put economies on hold, and put in place mechanisms to ensure that people, households, and businesses are supported through this period.

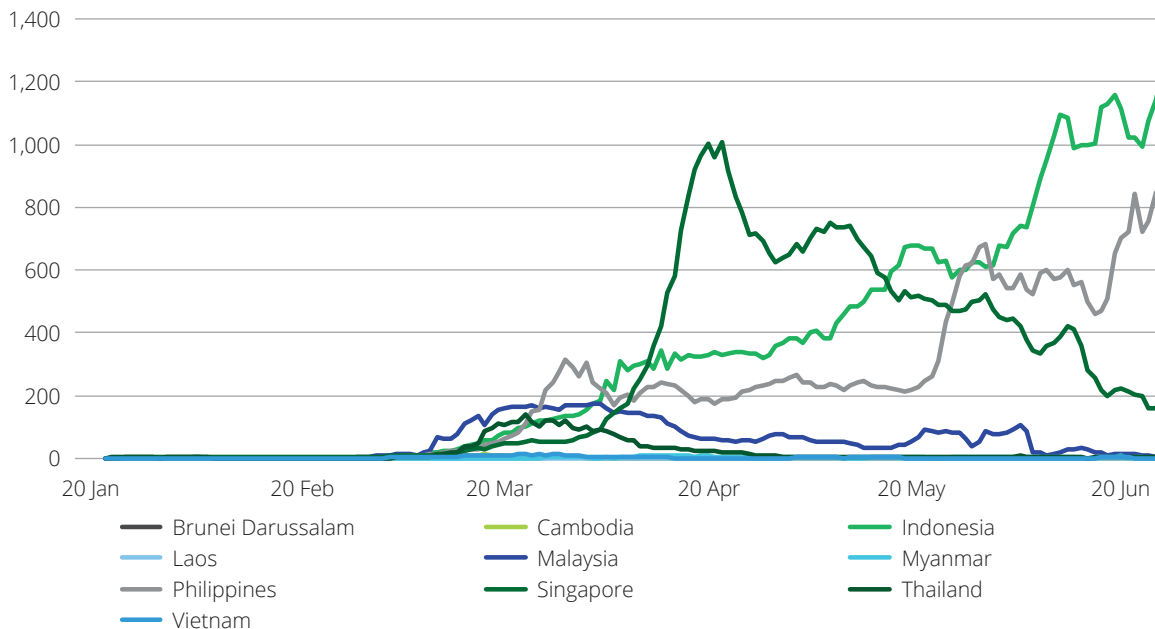
Retail and hospitality has experienced sharp declines in consumption due to stay-at-home and lockdown policy measures, but businesses could see consumer activity return quickly as such measures are lifted. Global manufacturing has further declined, as businesses with international supply chains have been operating with significant uncertainty from border controls and due to logistics services disruptions. Tourism and related businesses have been directly impacted by border closures and quarantine requirements, and some businesses will not survive this period.

Stock markets in Europe, Asia, and America plunged after the number of COVID-19 cases surged in Italy and South Korea, the world’s 8th and 12th largest economies. The UN trade agency estimates that COVID-19 is likely to cost the global economy USD 1 trillion during 2020.

The economic disruption will be severe. How deep a recession will depend on the effectiveness of government support mechanisms and a period of disruption that does not drag out. How long such a period is likely to last will be determined by the effective containment of the virus—“flattening the curve”—or the successful production of vaccines and treatments.

Most recently, the growth of new confirmed COVID-19 cases in Southeast Asia has slowed for some countries (Chart 1.2).

Chart 1.2: New COVID-19 cases, ASEAN-5 (7-day moving average)



Source: CEIC, Deloitte, World Health Organisation (as of 28 June 2020)

Singapore has seen the flattening of the curve as well as declining rates of community transmission. The government announced on 19 May 2020 a phased approach to ending its “Circuit Breaker” lockdown period. The very gradual resuming of activities began from 2 June 2020, starting with activities which do not pose high risks of transmission. Those economic sectors which were last to enter the lockdown will likely be first to exit. Phase 2 of the “unlocking” commenced from 19 June 2020, with retail, food and beverage activities resuming under strict social distancing rules.







As we seek to move from respond to recover and thrive, businesses will need to address remaining vulnerabilities as well as adjust to lasting changes.

2 The channels of impact on economic activity

The unprecedented nature of the dual health and economic crises mean that governments, businesses, and communities are operating in situations of high uncertainty. In this context, a structured framework for thinking through the channels of impact on the economy is important.

Our framework assumes that economic activity will be affected through the following channels:

Table 2.1: The channels of impact on the economy

Channel of impact	Temporary effect	Structural change
 Decline in business and private tourism-related international travel.	✓	✓
 A sharp but temporary decline in domestic consumption in the economy, with business investment also weaker as businesses take a cautious view about future activity. All sectors of the economy will emerge from this crisis with higher debt levels.	✓	
 Spillovers of softer demand to other sectors and economies through trade and production linkages.	✓	
 Supply-side disruptions to production and trade, including due to social distancing measures and lockdown measures impeding supplier production capacity and logistics service provision.	✓	
 Effects on health such as increased disease and mortality, with impacts on labour force productivity, as well as shifts in health care spending.	✓	✓
 Long-lasting effects on business investment and private consumption behaviour, including attitudes towards supply chain resilience, international travel, technology adoption and e-commerce use.		✓

The breadth and depth of COVID-19's impact through each channel will largely depend on the structure of the economy and the effectiveness of the government's crisis response.

COVID-19 will have severe temporary impacts on economic activity, similar to external shocks like 9-11 and SARs. Economic activity is expected to rebound gradually once infection rates are under control, but weakness could be protracted if business failures become more prevalent due to liquidity issues, lack of credit, the loss of income, and ongoing weak business and consumer confidence. Governments' decisions to ease social distancing measures and exit from lockdown will be a necessary balancing act between the risks to public health and the risks to the economy.

The Singapore Government has responded strongly to support positive public health outcomes and mitigate business failures. However, Singapore's openness will make it more exposed to likely longer-lasting softness in global trade conditions. Although the unfolding recovery of China could cushion broader global weakness. This experience will also drive structural change. Consumers may re-evaluate their travel preferences, their attitudes towards crowds, and health consciousness. At the same time, characteristics of this crisis may change the way we work in future, including businesses placing greater scrutiny over their global supply chains, increased use of technology to replace business travel, and permanent work from home arrangements for employees. The accelerated use of technology may support the recovery and higher productivity in the long term.

3 The framework for Impact-Readiness

Deloitte’s Impact-Readiness framework considers COVID-19’s effect on Singapore industries by looking through three lenses: ¹

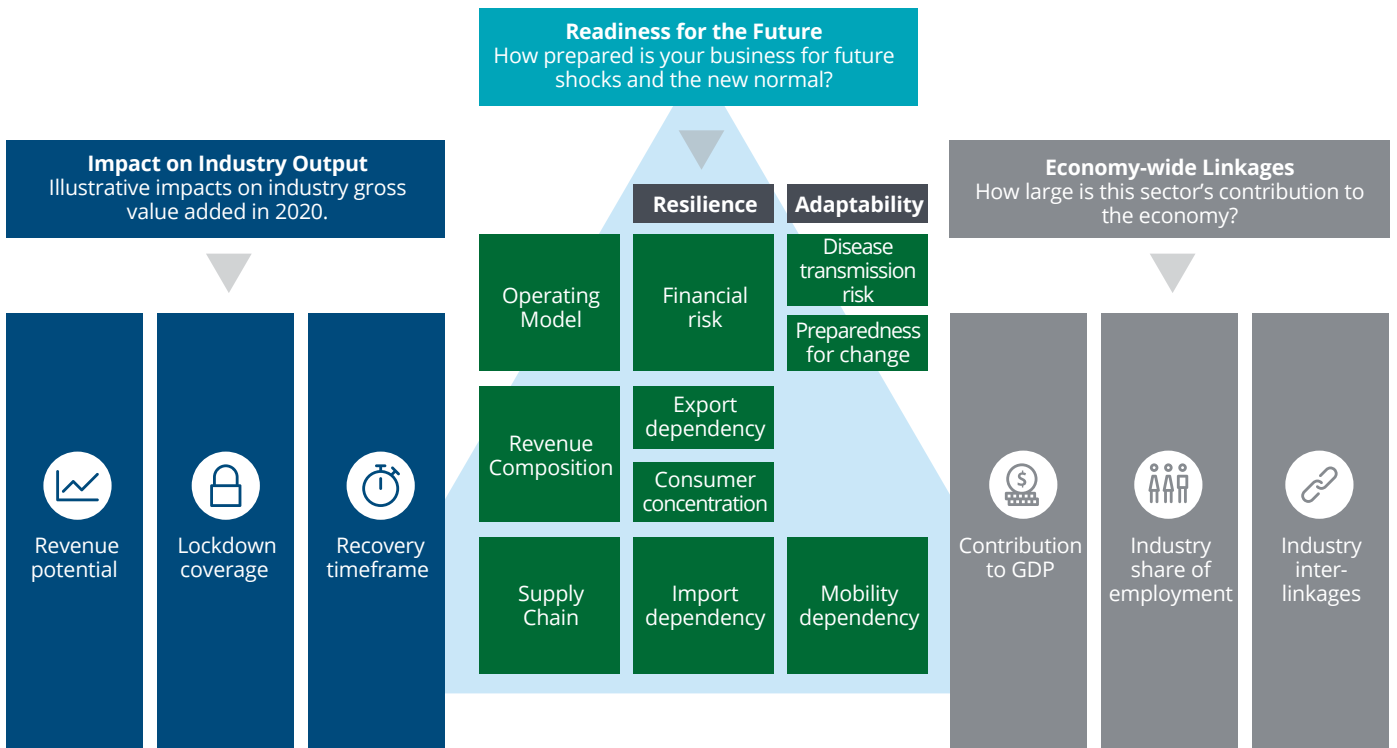
1. Readiness for the Future
2. Impact on Industry Output
3. Economy-wide Linkages

The resilience and adaptability of firms within each industry are the foundation for assessing their level of **Readiness for the Future**. The degree to which firms within each industry are resilient to future external shocks and adaptable to the structural changes (i.e. “the new normal”) resulting from COVID-19 are determined by the vulnerabilities inherent in their operating model, revenue composition, and supply chain structure. These vulnerabilities determine how far they are from a theoretical “Readiness Frontier”. The determinants are explained in Table 5.1.

Firms within industries that have low Readiness for the Future and have experienced a high Impact on Industry Output have a burning platform for change. Impact on Industry Output is an illustration of the potential loss of industry gross value added due to the lockdown and the weaker economic activity in the near-term. The drivers are explained in Table 5.2.

Economy-wide Linkages considers the perspective of a policymaker. This dimension identifies industries that contribute more to the economy, through the value of its own activities or because of its deep local supply chain. For example, in deciding the sequencing of sector re-opening or determining public sector support, it will be important to maximise the gains to the economy for a given change in health risk. The determinants are explained in Table 5.3.

Figure 3.1: Overview of the Impact-Readiness framework



¹ The performance of each industry according to these three lens’ are based on a Deloitte model that incorporates official statistics from the Singapore Department of Statistics, EDB, IMDA, and the Ministry of Manpower, survey findings from the World Economic Forum, industry representative bodies, and private sector organisations, and analytical datasets from O*NET OnLine.

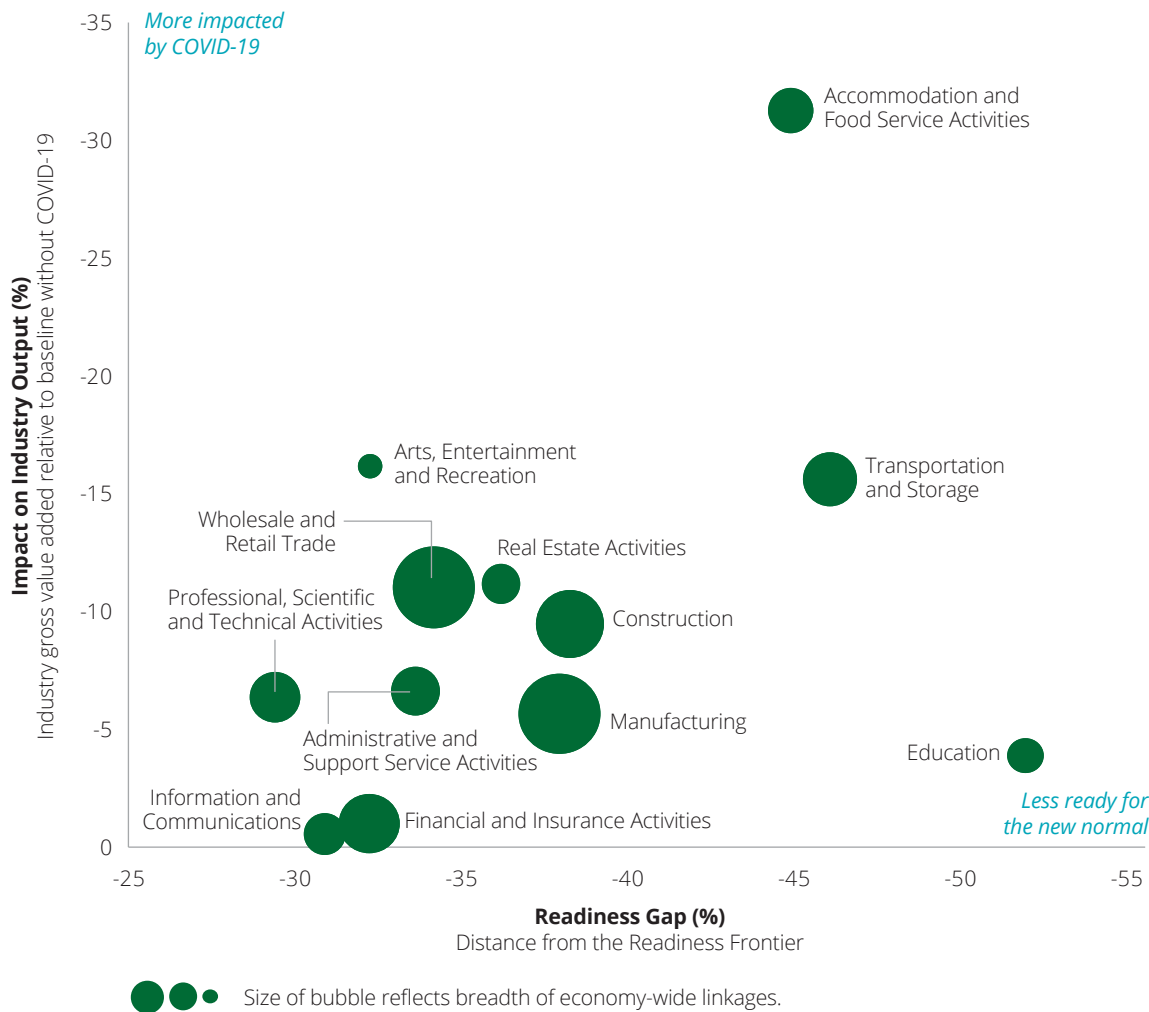
4 The effect on Singapore's industries

4.1 The impact-readiness of Singapore industries

A significant share of industries are estimated to experience negative growth in output over 2020 due to COVID-19, reflecting the widespread impact of the current health and economic crisis as well as the broad reach of the Singapore Government's "Circuit Breaker" policy. Industries considered "non-essential" during the Circuit Breaker period, that are less able to make use of e-commerce and digital delivery, and less prepared to support work from home strategies are more impacted.

Figure 4.1 shows the performance of each industry in terms of their estimated growth in industry output (Y-axis)—measured as a year-on-year change in industry gross value added—and industry readiness for the new normal (X-axis). The latter is presented as an industry's distance from the "Readiness Frontier", with a higher score reflecting a lack of readiness. Industries positioned towards the top right of the figure are most significantly impacted and least prepared for the future.

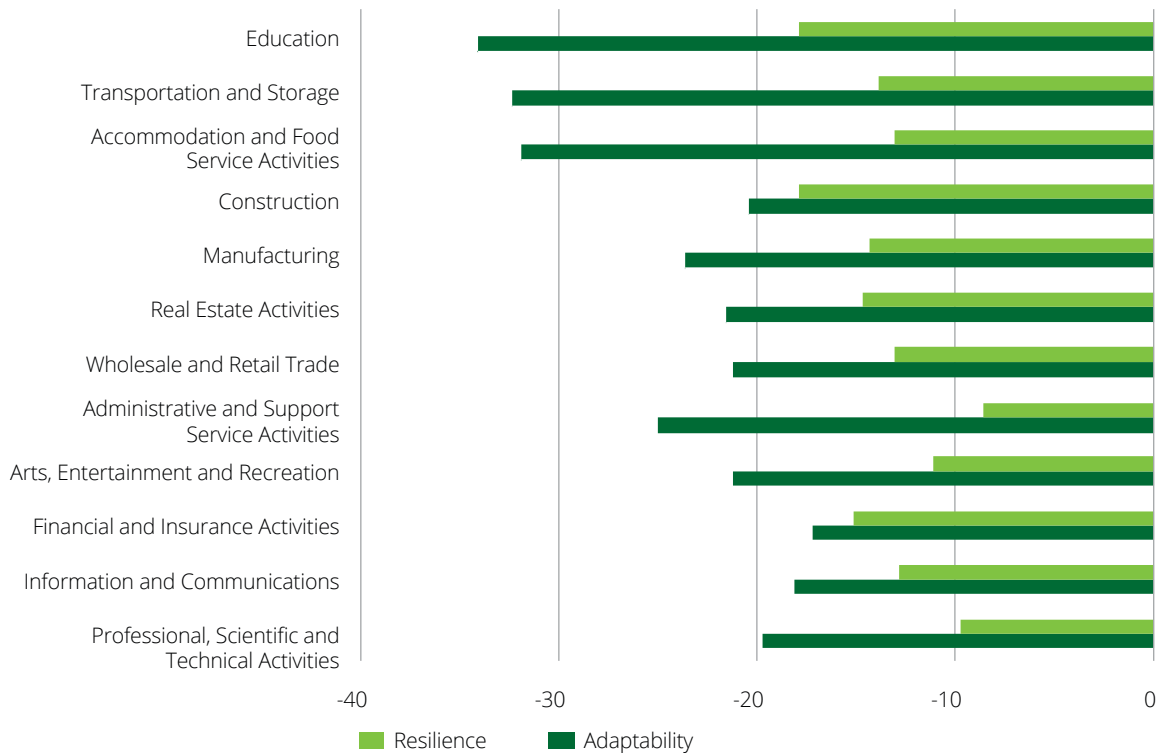
Figure 4.1: Singapore industry's impact-readiness scores (SSIC section-level)



4.2 Addressing the readiness gap

The firms within industries most impacted should have greater impetus to take decisive action to address their vulnerabilities and ready themselves for the future. These actions could involve diversifying the sources of revenue or sales channels to strengthen resilience to external shocks, such as that currently being experienced, or investing in workforce training and new technologies to improve adaptability to the structural changes that will define the new normal. Chart 4.1 shows the readiness gaps of each industry with respect to their resilience and adaptability to the new normal.

Chart 4.1: Readiness Gap (%)

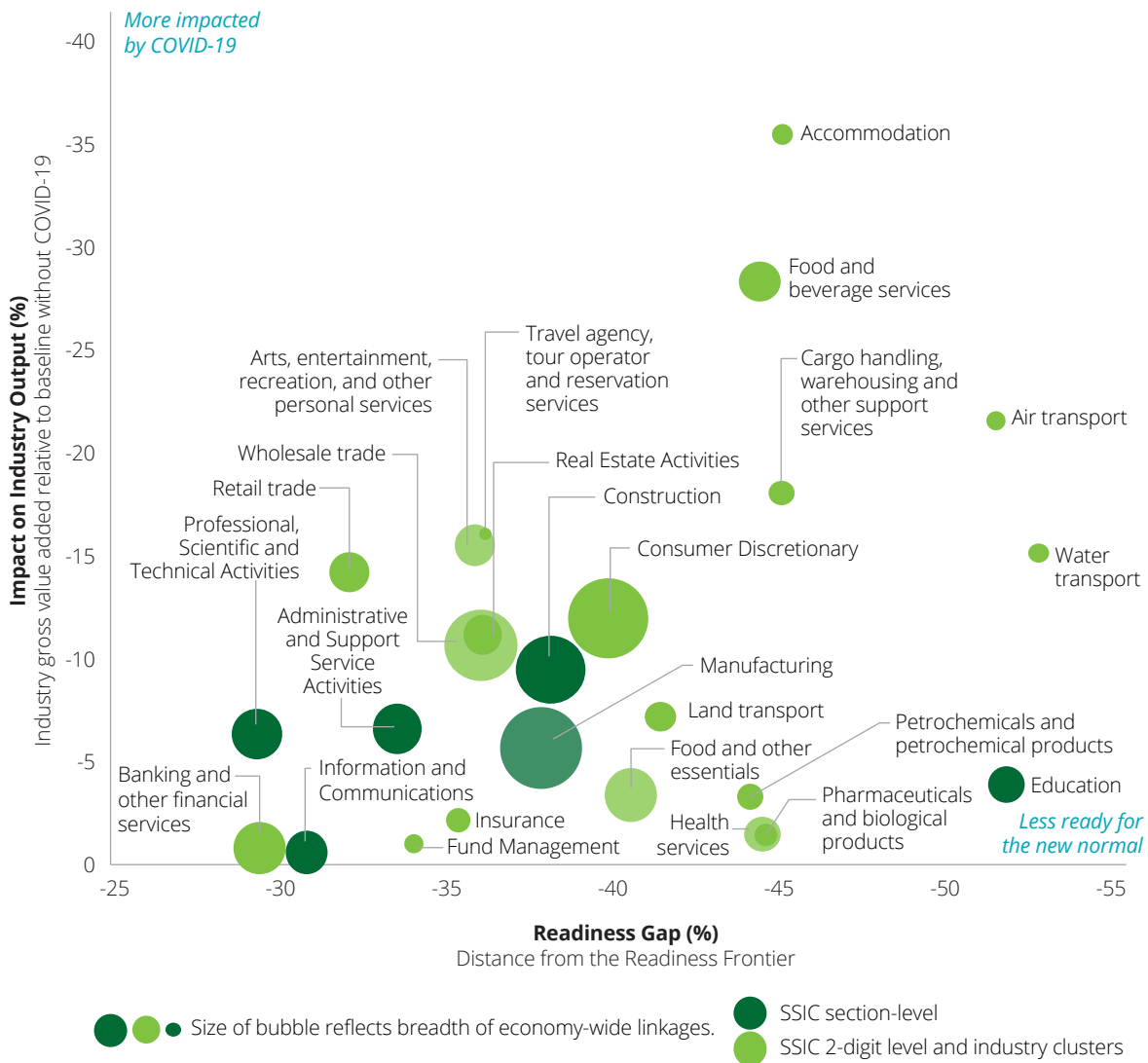


Note: An industry with a readiness gap of '0' reflects that is at the Readiness Frontier.

4.3 A deeper dive into industry performance

The impact-readiness scores are presented for narrower industry groups (e.g. food and beverages services) as well as broader industry clusters (e.g. Consumer Discretionary) in Figure 4.1. The impact on the tourism sector, which is significantly affected by COVID-19, is captured across a number of industries, including accommodation, air transport, arts, entertainment and recreation, food and beverages services, retail trade, and travel agencies. On the other hand, industries such as pharmaceuticals, banking and insurance, as well as food and other essentials are less impacted as they comprise a higher share of essential activities.

Figure 4.2: Singapore industry's impact-readiness scores (SSIC division-level and industry clusters)



4.4 Top 5 impacted industries

The Industry Impact Index ranks industries that have the highest Impact on Industry Output and furthest Distance from the Readiness Frontier (Table 4.1). The Policymaker Priority Index adds the dimension of Economy-wide Linkages, which scales the most impacted industries by their degree of integration with the broader economy (Table 4.2). Industries that contribute more to economic growth, support more jobs, and are more integrated with other industries may be higher priority for receiving government support.

Table 4.1: Industry Impact Index

Rank	Industry	Index
1	Accommodation and Food Service Activities	100
2	Transportation and Storage	51
3	Arts, Entertainment and Recreation	37
4	Real Estate Activities	29
5	Wholesale and Retail Trade	27

Table 4.2: Policymaker Priority Index

Rank	Industry	Index
1	Accommodation and Food Service Activities	100
2	Wholesale and Retail Trade	87
3	Transportation and Storage	76
4	Construction	58
5	Manufacturing	49

Note: An index score of 100 reflects the most impacted and highest priority industry.

A consumer products and retail perspective

“In the new normal, consumer products and retail companies can no longer linearly compete for market share by controlling channels and occupying shelves. With the increased reliance on e-commerce expected to persist as a permanent structural change in our post-COVID future, companies should re-imagine their omni-channel consumer experience by considering what we call “24-hour consumer moments”. Specifically, they will need to think about how they can connect socially and experientially with the Singaporean consumer at specific moments throughout their entire day – for example, when they wake up, during their commute, or while they are at work – by leveraging digital capabilities to deliver resounding value propositions.”

Pua Wee Meng, Consumer Industry Leader, Deloitte Southeast Asia

A travel, hospitality, and leisure perspective

“Travel, hospitality and leisure businesses have been hit especially hard by the COVID-19 pandemic, because of the simple fact that such businesses are untenable without the physical presence of their consumers – whether tourists, hotel guests, business conference attendees, sports spectators, or arts fans – and even the return of domestic tourism will do little to address this. In Singapore, for example, the Formula One Grand Prix in September has been cancelled as a result of restrictions on mass gatherings and travel. In the long run, however, we expect Singapore to bounce back to recovery, given its strong track record of hosting major international events and effective implementation of safety measures to curb the spread of the virus – which would assure travellers, event organisers, and investors on their decision to host potential marquee sports, business and leisure events here.”

James Walton, Travel, Hospitality & Leisure Sector Leader, Deloitte Southeast Asia

An industrial products and construction perspective

“Despite generous government support in the form of rebates, waivers, and the enhanced Jobs Support Scheme, manufacturing and construction companies in Singapore’s outward-oriented sector continue to grapple with supply chain disruptions and a plunge in global demand, with small and medium enterprises bearing the brunt of the impact. But there is also a growing recognition and consensus that the future lies in Industry 4.0 technologies – including the use of digital finance, enterprise resource planning, cloud and other analytical tools. While the adjustments will be painful in the interim as companies have to bear the high costs of innovating their work process, upgrading equipment, and training their workforce in the face of lower revenues, these steps are crucial and necessary to ensure that the sector continues to remain a key driver of Singapore’s economy in the future.”

Chris de Lavigne, Industrial Products & Construction Sector Leader, Deloitte Southeast Asia

5 How we can help

Economics can help us understand the impacts of the crisis and better plan for the recovery



Scenario planning

Prepare for recovery and reposition for growth

- Scenario planning can help business leaders systematically think through the possible futures and how they could affect your business.
- We can help businesses develop scenarios that consider the specific circumstances of your industry and your organisation.
- Business leaders can use the lessons from the scenario planning exercise to inform strategic decisions on how their business can best prepare for the downside risks and be in a better position to take advantage of upside potential.



Economic and social impact assessments

Articulate your social impact to investors, consumers, and constituents

- Economic and social impact assessments can help businesses and government understand the implications of their business investment and public policy decisions on macroeconomic variables and socioeconomic outcomes.
- Customers and communities will become increasingly conscious of the social impacts of their consumption activities in a post-crisis world. At the same time, investors with broader mandates in sustainability and impact investing will play a bigger role in financing the future.
- We can help businesses and governments demonstrate the broader social benefits of their investment opportunities and policy decisions to make the right decisions and tap into new financing.



Programme monitoring and evaluation

Optimise the outcomes of the initiatives and programmes you undertake and invest in

- Programme monitoring and evaluation (M&E) applies various structured evaluation approaches to help businesses, government, and non-government organisations to distinguish between worthwhile social impact initiatives and community programmes from ineffective ones.
- As we emerge from the COVID-19 crisis and need to deal with its devastation to social and public health outcomes, decisions to invest in or support specific initiatives and programmes will need to be accompanied by strong governance, which includes M&E.
- Demonstrating a robust approach to measuring impact will be important for impact investors as they look to allocate their capital.
- We can help design frameworks to monitor, and undertake reviews of programmes to ensure they continue to deliver value and achieve their desired outcomes.



Policy design and analysis

Identify the public policy priorities to needed to support the recovery

- The objective of policy design and analysis is to support evidence-based policymaking. It involves the use of cost-benefit analysis, regulation impact assessments, and assessments of economic, social, and environmental impacts, to help policymakers decide between policy options.
- As the global economy slows down, international institutions such as the IMF have called for substantial stimulus to support the global recovery from COVID-19. Governments will need to deploy targeted fiscal measures to stimulate growth in the sectors disproportionately affected by the crisis.
- We can help with policy design, drawing on empirical evidence, and undertake analysis to estimate the impact of different government policies on key metrics—GDP, productivity, private investment—and how these measures can support the economic recovery.

Appendix A: Unpacking the Impact-Readiness framework

Table 5.1 : Determinants of Distance from the Readiness Frontier

	Resilience to future shocks	Adaptability to the new normal
Operating Model vulnerability	<ul style="list-style-type: none"> • Financial risk captures the firms' financial resilience by observing their levels of indebtedness. 	<ul style="list-style-type: none"> • Disease transmission risk captures the degree to which the activities of firms within these industries require their workers and customers to be physically proximate to each other. This implies that such industries will need to go through more pain to change the way they operate in the 'new normal' world within which we will choose to avoid close contact. • Preparedness for change captures the readiness of firms to adopt both demand-side and supply-side technologies which will likely be needed for them to be successful in the 'new normal' world.
Revenue Composition vulnerability	<ul style="list-style-type: none"> • Export dependency captures the degree of firms' revenues from export demand, which are more subject to declines in trade openness. • Consumer concentration captures the concentration of firms' revenues across different sectors of the economy. The less diversified the firm's customer base, the higher the risk of a shock affecting its sustainability. 	
Supply Chain vulnerability	<ul style="list-style-type: none"> • Import dependency captures firms' reliance on imported supplies in its production, which are more subject to declines in trade openness as well as logistics disruptions due to customs and border protection. 	<ul style="list-style-type: none"> • Mobility dependency captures how reliant firms are on business travel for their production, meaning that more highly dependent they are currently, the more adjustment is required for them to be ready for a future with less in-person business being conducted.

Table 5.2: Drivers of Impact on Industry Output

Revenue potential	<ul style="list-style-type: none"> This starting point to assess the impact of COVID-19 on industry output is to understand the industry's growth trajectory if COVID-19 never happened. This serves as the baseline scenario.
Lockdown coverage	<ul style="list-style-type: none"> The coverage of the lockdown is defined by policymakers. Estimating the impact of the lockdown on industry-level activity involves assessments of each industry's: (1) provision of essential services; (2) use of e-commerce; (3) ability to adopt work from home policies; (4) need for physical proximity between workers and with clients in order to perform its activities; and (5) access to government support.
Recovery timeframes	<ul style="list-style-type: none"> Economic forecasters debate the potential for V-shaped, U-shaped, W-shaped or even L-shaped outcomes for the economy, depending on the speed of recovery. The outlook for specific industries vary greatly, and this in turn has differing implications for the local economy (see Appendix B). The economic recovery scenario modelled in this paper follows the trajectory depicted in the chart to the right. It is not a prediction of the future, but one potential pathway.

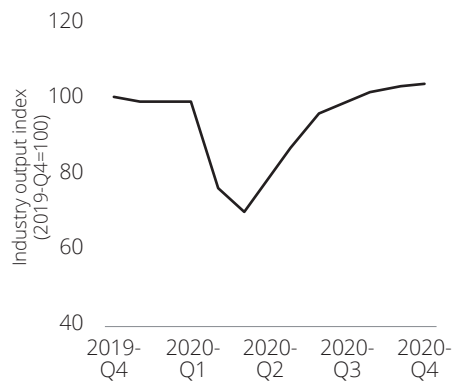







Table 5.3: Determinants of Economy-wide Linkages

Contribution to GDP	<ul style="list-style-type: none"> Measured as industry gross value added as a share of GDP, that is, the value of an industries' output less the value of its intermediate consumption (i.e. the output from its suppliers).
Industry share of employment	<ul style="list-style-type: none"> Measured as industry employment as a share of total employment in the economy.
Industry inter-linkages	<ul style="list-style-type: none"> Proxied using the gross output multiplier, which describes the additional economic activity generated in the economy for every dollar spent by the industry. This is based on Singapore's 2016 Input-Output Tables.

Appendix B: The economic scenario

Impact on Industry Output is estimated based on the scenario described below. This scenario represents one of a range of possible economic circumstances as the COVID-19 crisis evolves.

Scenario parameters	
	<p>Timing the start of the recovery</p> <ul style="list-style-type: none"> • Between June to November 2020.
	<p>Health</p> <ul style="list-style-type: none"> • The pandemic curve flattens, with the new cases peaking in May / June 2020. • COVID-19 vaccines do not enter mass production, nor are anti-viral medications readily available until at least 2021.
	<p>Travel bans</p> <ul style="list-style-type: none"> • Travel restrictions continue to be enforced, but are expected to ease in the second half of 2020 for countries that have flattened the curve. • Short-haul business travel gradually returns from 3Q2020. International business travel remains flat until 4Q2020. • Tourism demand remains soft until 2021 with travel within Asia picking up before other regions.
	<p>Domestic economy</p> <ul style="list-style-type: none"> • The Singapore Government's unprecedented economic support packages shores up the domestic economy – wage subsidies prevent significant job losses and risk-sharing of loans to affected sectors mitigate wide-spread business failures. • The mitigation of wide-spread business failures helped supply chains (including regional) to remain resilient over the crisis period, which enables supply-side production activity to resume more quickly to meet recovering demand. • Households emerge with higher debt, but low interest rates mean that pressure on household balance sheets are manageable. Previously deferred consumption activity gradually returns. • Businesses emerge with higher debt, but survive without needing significant layoffs. This means production activity can ramp up more quickly, although demand remains subdued. • The government emerges with a weaker fiscal balance due to the implementation of unprecedented economic support packages. Nonetheless, the recovery of economic activity (which is faster than without government support) will help keep fiscal metrics in check.
	<p>Global economy</p> <ul style="list-style-type: none"> • Timely handling of the crisis by governments in Asia means that this region is expected to be first to exit lockdown, which sees Asia leading the global recovery. • Trade with China picks up, but soft international trade conditions persist elsewhere. • Low oil prices and subdued inflation provides additional relief.

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