

COVID-19 Economic Assessment

Introduction

Leading industry research company IBISWorld has published an in-depth breakdown of how the COVID-19 pandemic is affecting every subdivision in the economies of Australia and New Zealand. This report, compiled by a team of senior industry analysts, classifies the level of disruption for each subdivision and provides analysis on the key factors that have determined performance over 2019-20, and will affect each subdivision in 2020-21 and beyond.

The ongoing COVID-19 pandemic has had a significant and growing influence on domestic and international economic activity. Australia and New Zealand have been relatively successful in containing COVID-19 compared with other regions. However, supply chain disruptions and ongoing travel and tourism restrictions continue to hinder Australia and New Zealand. Overall, the virus has had a highly damaging effect on economic activity, prompting the first technical recession in Australia since 1991-92.

'IBISWorld has classified the degree of impact for each subdivision as moderate, high or very high. The level of disruption depends on the degree of exposure to international trade, and the impact on business and consumer confidence,' said Senior Industry Analyst Matthew Reeves.

COVID-19 has negatively affected the Australian and New Zealand economies by disrupting consumer demand and business supply. However, economic conditions have now improved in both countries following the successful containment of the COVID-19 outbreak. As at 22 January, only eight cases of COVID-19 were acquired locally in Australia over the prior week. In New Zealand, there has been no local community transmission of COVID-19 since 18 November 2020. The near-elimination of COVID-19 has enabled a significant relaxation of social distancing restrictions over the past two months, including the reopening of major state borders. Face masks remain mandatory in some situations in Victoria.

Households scaled back discretionary spending during the first months of the pandemic due to fears relating to rising unemployment and economic uncertainty. Household consumption expenditure is expected to decline by 0.4% in 2020-21. However, household spending is anticipated to strengthen in the first half of 2021, as the reopening of interstate borders and relaxation of social distancing measures encourage economic activity.

Many businesses have abandoned or postponed investment in new productive capacity to retain cash and provide a liquidity buffer to survive the COVID-19 pandemic. Supply chain disruptions in Australia, New Zealand and foreign markets continue to hinder business activity, dampening the economic recovery.

Some subdivisions have outperformed during the COVID-19 pandemic. Social distancing has pushed many consumers to online channels for shopping, communication, food purchases and working arrangements. This trend has driven a surge in sectors such as online shopping, postal services,

and data storage services. Some industries in the Mining subdivision have benefited from declining operating costs associated with lower fuel prices. Other industries have suffered direct negative effects, but have also seen positive factors, such as rising demand for repairs and maintenance services replacing new purchases.

Ratings methodology

Exposure ratings are determined by assessing an industry's reliance on international trade, supply chain risks and other industry-specific factors. Ratings are assigned in comparison with the rest of the economy. While almost all industries are experiencing dramatic effects due to the COVID-19 pandemic, IBISWorld's ratings system will result in some industries being deemed to have lower exposure to COVID-19.

Australia and New Zealand Impact Levels

Code	Title	Australia Impact	New Zealand Impact	Code	Title	Australia Impact	New Zealand Impact
Agriculture, Fishing and Forestry				Transport, Postal and Warehousing			
A01	Agriculture	High	Very High	I46	Road Transport	Very High	Very High
A02	Aquaculture	Moderate	N/A	I47	Rail Transport	Very High	High
A03	Forestry and Logging	Very High	Very High	I48	Water Transport	Very High	Very High
A04	Fishing, Hunting and Trapping	Very High	Very High	I49	Air and Space Transport	Very High	Very High
A05	Agricultural, Forestry and Fishing Support Services	Moderate	High	I50	Other Transport	Very High	Very High
Mining				Information Media and Telecommunications			
B06	Coal Mining	Very High	Very High	I51	Postal and Courier Pick-up and Delivery Services	High	High
B07	Oil and Gas Extraction	Very High	Very High	I52	Transport Support Services	Very High	Very High
B08	Metal Ore Mining	High	Very High	I53	Warehousing and Storage Services	High	High
B09	Non-Metallic Mineral Mining and Quarrying	High	Moderate	Financial and Insurance Services			
B10	Exploration and Other Mining Support Services	Very High	Very High	K62	Finance	Moderate	Moderate
Manufacturing				Rental, Hiring and Real Estate Services			
C11	Food Product Manufacturing	Very High	Very High	L66	Rental and Hiring Services	Very High	Very High
C12	Beverage Manufacturing	High	High	L67	Property Operators and Real Estate Services	Very High	Very High
C13	Textile, Leather, Clothing and Footwear Manufacturing	Very High	High	Professional, Scientific and Technical Services			
C14	Wood Product Manufacturing	High	Very High	M69	Professional, Scientific and Technical Services	High	High
C15	Pulp, Paper and Converted Paper Product Manufacturing	High	Moderate	M70	Computer System Design Services	Moderate	High
C16	Printing	Moderate	Moderate	Administrative and Support Services			
C17	Petroleum and Coal Product Manufacturing	Very High	N/A	N72	Administrative Services	Very High	High
C18	Basic Chemical and Chemical Product Manufacturing	High	Moderate	N73	Building Cleaning, Pest Control and Other Support Services	High	High
C19	Polymer Product and Rubber Product Manufacturing	Moderate	Moderate	Public Administration and Safety			
C20	Non-metallic Mineral Product Manufacturing	High	N/A	O76	Defence	Moderate	Moderate
C21	Primary Metal and Metal Product Manufacturing	High	High	O77	Public Order, Safety and Regulatory Services	Moderate	Moderate
C22	Fabricated Metal Product Manufacturing	High	High	Education and Training			
C23	Transport Equipment Manufacturing	Moderate	High	P80	Preschool and School Education	Moderate	High
C24	Machinery and Equipment Manufacturing	High	High	P81	Tertiary Education	High	High
C25	Furniture and Other Manufacturing	Moderate	Moderate	P82	Adult, Community and Other Education	Moderate	Moderate
Electricity, Gas, Water and Waste Services				Health Care and Social Assistance			
D26	Electricity Supply	High	High	Q84	Hospitals	Moderate	Moderate
D27	Gas Supply	Moderate	Moderate	Q85	Medical and Other Healthcare Services	High	High
D28	Water Supply, Sewerage and Drainage Services	Moderate	Moderate	Q86	Residential Care Services	High	High
D29	Waste Collection, Treatment and Disposal Services	High	High	Q87	Social Assistance Services	Moderate	High
Construction				Arts and Recreation Services			
E30	Building Construction	High	High	R89	Heritage Activities	Very High	High
E31	Heavy and Civil Engineering Construction	Moderate	Moderate	R90	Creative and Performing Arts Activities	Very High	Very High
E32	Construction Services	Moderate	High	R91	Sports and Recreation Activities	Very High	Very High
Wholesale Trade				Personal Services			
F33	Basic Material Wholesaling	High	Moderate	S94	Repair and Maintenance	Moderate	Moderate
F34	Machinery and Equipment Wholesaling	Moderate	Moderate	S95	Personal and Other Services	Moderate	High
F35	Motor Vehicle and Motor Vehicle Parts Wholesaling	High	High				
F36	Grocery, Liquor and Tobacco Product Wholesaling	High	Moderate				
F37	Other Goods Wholesaling	High	Very High				
Retail Trade							
G39	Motor Vehicle and Motor Vehicle Parts Retailing	Moderate	Moderate				
G40	Fuel Retailing	High	High				
G41	Food Retailing	Moderate	High				
G42	Other Store-Based Retailing	Very High	Very High				
Accommodation and Food Services							
H44	Accommodation	Very High	Very High				
H45	Food and Beverage Services	Very High	Very High				

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Australia

Agriculture, Forestry and Fishing

A01 Agriculture: High

The COVID-19 outbreak is expected to significantly affect the Agriculture subdivision in Australia due to the export-oriented nature of many agricultural industries and their downstream markets. Although Australia's agricultural production more than satisfies domestic demand, economic disruption in downstream markets poses a risk to agriculture firms. For example, sales of fruit and vegetables shifted to retail and wholesale markets as public health restrictions on movement and gatherings caused demand from food-service industries to decline. Smaller producers that normally sell their produce to food-service businesses and at fresh produce markets could encounter difficulty in accessing retail and wholesale markets, which typically favour large-scale producers. In addition, demand declined for high-value agricultural produce primarily consumed in restaurants, such as premium cuts of beef. However, these pressures are easing as state and territory governments continue to lift restrictions on movement and gatherings across Australia.

Farms are also anticipated to face labour shortages as Australia's international borders remain closed to temporary visa holders, which will likely affect output for labour-intensive commodities. As of 1 July 2020, the Federal Government has expanded Harvest Labour Services into 16 regional areas with the aim of helping farmers secure labour. Nevertheless, industry associations are calling on the Federal Government to issue visas to migrant labourers to support upcoming harvest periods. However, border restrictions imposed by state and territory governments are anticipated to further constrain the available labour pool for farms that require manual harvesting. While the states and territories have agreed on an Agricultural Workers' Code for cross-border movement, ongoing international border restrictions mean that labour availability will likely remain limited. For example, while Pacific labour schemes restarted in August 2020, only 1,500 workers have arrived in Australia as at January 2021. In addition, the Federal Government has announced a relocation assistance program that would pay Australians \$6,000, and eligible temporary visa holders \$2,000, to relocate to a regional area for work. However, only 350 Australians have signed up to the program as at January 2021. Furthermore, labour shortages are anticipated to place upward pressure on fruit and vegetable prices.

Falling incomes both locally and globally are anticipated to place downward pressure on some agricultural commodity prices over the medium term, presenting a threat to subdivision operators' revenue. For example, global demand for cotton and wool is anticipated to decline as retail sales fall, which will likely reduce prices and therefore revenue generated by Australian growers. In September 2020, the Australian Bureau of Agricultural and Resource Economics (ABARES) reported that while the COVID-19 pandemic has had less of an effect on agricultural trade, the value of Australian agricultural exports declined by 4% in the first half of 2020 compared with the first half of 2019. As food is an essential good, both local and export demand for Australian produce has remained largely resilient compared with other goods and services. Nevertheless, rising demand for mining commodity exports has supported an appreciation of the Australian dollar in the second half of 2020, making Australian agricultural exports less competitive in global markets. This factor is anticipated to constrain the agriculture sector's performance in 2020-21.

Federal, state and territory governments have introduced several measures to support agricultural producers during the pandemic. In April 2020, the Federal Government announced a \$110.0 million International Freight Assistance Mechanism to reduce shipping costs and support exporters of high-

value and perishable goods, such as rock lobster. In July 2020, the Federal Government announced that it would extend the air freight scheme until the end of 2020, at a cost of \$240.0 million. In October 2020, the Federal Government announced an additional \$317.1 million in funding for the scheme, which has been extended to mid-2021. The NSW Government has also announced a \$140.0 million support package for agricultural firms affected by the summer 2020 bushfires. These measures, along with other federal and state government stimulus measures, are anticipated to provide significant support to operators across the Agriculture subdivision.

The COVID-19 outbreak has had mixed effects on export markets for Australian meat and dairy products. Sheep, beef and dairy cattle farmers have benefited from strong domestic retail demand for lamb, beef and dairy products, which has partly offset declining demand from the food-service sector. Over the first half of 2019-20, exports of beef and lamb to China surged from a high base following an outbreak of African swine fever that cut China's pig herd in half. In June 2020, ABARES reported that livestock prices have remained high due to continued strong demand from other countries in Asia. Nevertheless, the value of livestock production is anticipated to fall in 2020-21, as improved environmental conditions encourage livestock farmers to rebuild their herds and flocks. In addition, as international demand moderates, ABARES forecasts saleyard prices to fall from high levels over the second half of 2020-21.

Trade tensions between Australia and China are also affecting agricultural exports, with China limiting beef imports and imposing heavy tariffs on Australian barley in May 2020. In September 2020, the Chinese Government announced that it would perform enhanced inspection on imports of Australian wheat, creating potential risks for wheat exporters. In November 2020, the Chinese Government introduced anti-dumping security deposits on imports of Australian wine, significantly reducing exports. While some wine exports will likely be diverted to other markets, China's prominence as a market for premium Australian wine means that the security deposits are anticipated to significantly affect the Wine Production industry. Overall, China's trade measures are expected to constrain the Agriculture subdivision's performance in 2020-21.

A02 Aquaculture: Moderate

The Aquaculture subdivision is expected to be moderately affected by the COVID-19 outbreak. The Aquaculture industry is not heavily exposed to international trade, with industry exports accounting for less than 5% of all seafood exports by value. Nevertheless, declining demand from the domestic food service sector is anticipated to place downward pressure on prices and revenue for aquaculture firms over the short term. Furthermore, ongoing trade tensions with China could negatively affect sales if China restricts imports of additional Australian agricultural products after placing restrictions on beef and heavy anti-dumping tariffs on barley. However, as the subdivision does not export significant volumes of seafood, any restrictions would not significantly affect the subdivision's performance.

Declining domestic demand from the food-service sector placed downward pressure on seafood prices, negatively affecting industry revenue. Aquaculture producers without established links to processors or retailers face moderate risks from reduced demand and prices. For example, oyster farmers in South Australia have reported difficulty getting their product to market as demand from food-service businesses has contracted sharply. These pressures are anticipated to ease as state and territory governments across Australia continue to relax restrictions on movement and gatherings. Salmon producer Huon Aquaculture reduced its targeted harvest in 2019-20 due to lower demand but anticipates demand to recover in 2020-21.

A03 Forestry and Logging: Very High

The COVID-19 outbreak is expected to significantly affect the Forestry and Logging industry. The 2019-20 summer bushfires significantly affected areas designated for timber production, with ABARES reporting that approximately 8.5 million hectares of forests were likely affected. The COVID-19 pandemic is anticipated to compound the difficulties faced by forestry and logging businesses. Lower global economic activity is anticipated to affect demand for timber over the short term, placing downward pressure on the domestic price of timber. Anticipated declines in new house construction are also forecast to negatively affect timber demand and prices. Additionally, in November 2020, Chinese authorities announced that shipments of timber from Victoria would be suspended due to detection of a pest in a recent shipment. This measure is anticipated to negatively affect the industry in the current year, as China is a significant source of export demand for Australian timber. Nevertheless, overall demand for timber is anticipated to rise over the medium to long term as global economic activity recovers, and greater environmental concerns regarding plastics boost demand for substitutes made from timber.

The federal and state governments have announced multiple financial support packages to support subdivision firms. In April 2020, the NSW Government announced a \$140.0 million package for agricultural sector firms affected by the bushfires. The Victorian Government has extended Regional Forest Agreements covering native forest logging until 2030, which has allowed harvesting activity to continue in the state. In June 2020, the Federal Government announced an additional \$86.0 million in funding for forestry businesses to support recovery efforts in bushfire-affected regions. This funding includes \$40.0 million to help timber mills prepare for future wood supply shortages through innovation and diversification. In its 2020-21 Budget, the Federal Government announced a \$65.0 million bushfire support package, which includes a \$40.0 million Forestry Recovery Development Fund, a \$10.0 million Salvage Log Storage Fund and a \$15.0 million Forestry Transport Assistance Fund.

A04 Fishing, Hunting and Trapping: Very High

The Fishing industry is the only industry included in this subdivision, and the COVID-19 outbreak has already had a substantial negative effect on industry revenue. Seafood exports account for over two-thirds of revenue for the Fishing industry due to the popularity of high-value produce, such as rock lobsters and abalone, in export markets. Rock lobsters are the industry's largest export item by value, with over 95% of the catch in Western Australia and South Australia usually destined for China and other Asian countries, while 99% of Queensland's coral trout is exported to China. Reduced demand from export markets and food-service businesses has significantly affected rock lobster sales, with prices falling as producers attempt to sell their catch to other domestic markets. Nevertheless, the Federal Government's freight subsidy is supporting continued rock lobster exports. In addition, exports to other markets, which account for approximately 13% of the Fishing industry's revenue, are expected to decline due to COVID-19's global economic disruption. Overall, as fresh fish and seafood items are highly perishable, reduced demand and freight availability have significantly affected commercial fishing operations. Nevertheless, the Federal Government's International Freight Assistance Mechanism has supported exports of fresh seafood, bolstering industry revenue.

The COVID-19 outbreak has also significantly affected seafood demand and prices in domestic markets. In particular, falling demand from restaurants and other food-service establishments has placed strong downward pressure on prices. In April 2020, Coles announced that it would sell sashimi-grade tuna typically used by fine-dining restaurants for half the price it would normally cost at such restaurants. This trend exemplifies the substantial shift in demand and prices for the Fishing industry's produce as a result of COVID-19. However, demand is expected to partly recover

as state and territory governments ease restrictions on movement and gatherings across Australia. In June 2020, the Federal Government announced \$4.0 million in funding for a national advertising campaign promoting Australian seafood in a bid to boost demand. In September 2020, the SA Government opened the rock lobster fishing season two weeks early to help fishing businesses recoup losses caused by the COVID-19 pandemic. In addition, the Federal Government has funded the International Freight Assistance Mechanism through to mid-2021, supporting fishers of high-value seafood.

A05 Agricultural, Forestry and Fishing Support Services: Moderate

Weaker global economic activity is expected to constrain demand for timber. As a result, logging and timber processing activity declined in 2019-20, limiting demand for forestry support services. Nevertheless, logging and timber processing activity is forecast to rise over the next five years as economic activity recovers. Australia's comparative success in suppressing COVID-19 means that local forestry support services face lower risks of disruption than many overseas competitors.

Demand for other agricultural support services, such as shearing and cropping, will also depend on primary producing and growing activities. The COVID-19 outbreak is forecast to only lightly affect cropping activity over the short term, as producers will likely proceed with harvesting crops as normal. Cropping activity would only be significantly affected if farmers reduce future plantings. A similar trend is anticipated for cotton ginning. Farms will still process current cotton crops in the short term, but may reduce future plantings as global economic disruption will likely reduce global demand for cotton over the medium term. In July 2020, shearing contractors reported concerns related to labour shortages as border closures mean that shearers based in New Zealand will likely be unable to travel for the spring shearing season. This shortage poses both financial and animal welfare risks for sheep farmers. While some shearers have travelled to Australia under the bubble arrangement with New Zealand, continued quarantine requirements in New Zealand mean that many shearers will not travel to Australia. Shearing activity is anticipated to decline over the medium term as falling incomes negatively affect global demand for wool.

Mining

B06 Coal Mining: Very High

The COVID-19 outbreak has significantly affected the Coal Mining subdivision. Most black coal mined in Australia is exported, with China and Japan the largest markets, typically accounting for approximately 50% of exports. While operators in the Coal Mining subdivision continued producing while lockdowns were in place, quarantine measures throughout the global economy resulted in supply chain disruptions, which hindered manufacturing activity and reduce demand for coal. As a result, global demand for black coal from Australia fell in 2020 and is anticipated to remain weak in 2021. Due to weakening demand, metallurgical coal prices fell to a four-year low in 2020, with Australian premium hard coking coal averaging US\$125 per tonne over 2020, down almost 30% on the previous year. The Office of the Chief Economist (OCE) forecasts prices to recover slightly, rising by 7.3% to average \$134 per tonne over 2021. However, metallurgical coal export volumes are forecast to fall by about 5%.

Thermal coal producers are also anticipated to cut production in response to price weakness, with the Newcastle benchmark price expected to average US\$57 per tonne over 2020, down by over 25% from the previous year. The OCE also forecasts the value of thermal coal exports to fall by almost 30% in 2020-21. Consequently, revenue in the Coal Mining industry is expected to fall sharply in 2020-21.

Some countries, such as China, may also seek to increase reliance on their own coal production to stimulate their economy amid a downturn caused by the COVID-19 pandemic.

Coal producers have also been negatively affected by the deteriorating trade relationship between Australia and China. Australian coal producers have faced deteriorating demand conditions due to restrictions placed on Australian coal imports by China. In the short term, Australian coal exports are expected to be redirected to other markets, such as India and Japan, with Indonesian coal producers expected to increase sales to China. However, Australian exporters have limited capacity to redirect sales to alternative markets, particularly given the ongoing shift towards renewable energy sources. Furthermore, in September 2020, China announced plans to shift towards a carbon neutral economy by 2060. With approximately 60% of electricity in China generated by coal-fired power stations, plans to reduce the country's carbon emissions will likely constrain demand for Australian coal exports over the long term. The International Energy Agency forecasts global demand for coal to rise by only 2.6% in 2021, following a 5.0% decline in 2020. As the COVID-19 pandemic continues to disrupt global markets, reduced global manufacturing activity could potentially intensify a supply glut, further weighing on coal prices.

B07 Oil and Gas Extraction: Very High

The Oil and Gas Extraction subdivision has been heavily affected by the COVID-19 outbreak. A slowdown in global economic activity reduced demand for both crude oil and natural gas, leading to a sharp decline in prices. The subdivision is heavily exposed to export markets, with exports accounting for over 80% of revenue in a typical year. As a result, weakening global demand has weighed heavily on prices, with Australian LNG export prices falling to record lows in 2020. Due to price weakness, revenue for the Oil and Gas Extraction industry is anticipated to fall by 32.6% in 2020-21. The Office of the Chief Economist expects Australian exports of LNG to fall by about 35% to \$31.0 billion in 2020-21. In response to price weakness, many firms are anticipated to significantly reduce capital expenditure and delay investment decisions for new projects. Major oil and gas producers have also lowered their long-term oil price expectations, leading to significant write-downs in the value of oil and gas assets. However, Asian LNG spot prices rose sharply over the two months through January 2021, due to cold weather in China, Japan and South Korea, and LNG transport constraints.

Declining demand for oil led to a breakdown in negotiations between OPEC and Russia. In early March 2020, both Saudi Arabia and Russia announced plans to significantly increase oil output, amid declining demand due to COVID-19. Oil prices have since heavily declined, which is expected to significantly undermine the performance of major oil and gas extraction firms in Australia. On 12 April 2020, OPEC+ agreed to a staged reduction in oil production, starting with a two-month reduction of approximately 10% (9.7 million barrels a day) from 1 May 2020. OPEC's oil production fell to its lowest level in June 2020 since May 1991 during the Gulf War. OPEC+ announced plans to reduced cuts to 7.7 million barrels a day from August 2020 in response to stabilising demand conditions. OPEC+ intends to ease production cuts from January 2021. However, global oil prices will likely remain under pressure due to subdued demand in parts of the world struggling to contain the COVID-19 outbreak.

B08 Metal Ore Mining: High

The Metal Ore Mining subdivision has been highly affected by the COVID-19 outbreak. Demand for some industrial commodities, such as copper, mineral sands and nickel, has weakened due to subdued economic activity during the pandemic. The disruption of global supply chains is expected to exert downward pressure on manufacturing activity, lowering prices for these commodities. For example, copper prices fell to a low of US\$4,620 a tonne in March 2020. However, copper prices have

since recovered, supported by Chinese economic stimulus measures. Declining global vehicle sales have also constrained demand for aluminium, negatively affecting some operators in the subdivision. Aluminium prices fell by almost 6.2% in 2020. In Australia, new vehicle sales fell by 13.7% in 2020, compared with sales in the previous year. However, vehicles sales bounced back strongly in the last two months of the year, rising by 12.4% in November and 13.5% in December 2020.

Operators in the Iron Ore Mining industry are anticipated to benefit from more severe supply chain disruptions in other major iron ore producing countries. A decline in steel manufacturing output was forecast for China, which accounts for over 80% of Australia's iron ore exports. However, as China has moved to stimulate their economy coming out of COVID-19 lockdowns, steel manufacturing activity has improved. This coincided with supply disruptions in Brazil, the world's second largest iron ore producing country. The COVID-19 outbreak is projected to constrain Brazilian iron ore supply, providing some relief for Australian iron ore producers over the year. As a result, global iron ore prices rose by almost 25% in May 2020. According to the Office of the Chief Economist (OCE), Australian iron ore exports exceeded \$100 billion in 2019-20, rising by over 30% on the previous year. Growing export volumes and high prices supported iron ore producers over the year. Precious metals producers will likely benefit from growing investor demand for safe-haven assets. The price of gold reached record highs, rising to over \$2,000 USD per ounce in August. This rise is expected to significantly benefit Australian gold miners. As a result, revenue for the Gold Ore Mining industry is anticipated to increase by 4.8% in 2020-21, as gold production rises. Lower oil prices will likely exert downward pressure on operating costs, assisting the viability of metal ore miners.

B09 Non-Metallic Mineral Mining and Quarrying: High

The Non-Metallic Mineral Mining and Quarrying subdivision has been highly affected by COVID-19. Exports of some commodities, such as lithium, will likely be disrupted by the closure or reduced output of factories across the globe. Other industries in this subdivision, such as the Gravel and Sand Quarrying industry, have a primarily domestic focus and are therefore less likely to be directly affected by international trade conditions. However, a slowdown in domestic construction activity, particularly in the residential sector, is anticipated to affect demand for some operators in the subdivision. Operators in this subdivision may benefit from domestic spending on infrastructure projects or initiatives to support residential construction activity, as federal and state governments seek to support economic activity. For example, the Victorian Government announced a \$2.7 billion infrastructure package and assembled the Building Victoria's Recovery Taskforce to support activity in the construction sector during the COVID-19 outbreak and encourage economic activity. Furthermore, in June 2020, the Federal Government announced plans to fast-track 15 major infrastructure projects to support Australia's economic recovery, including the Brisbane-Melbourne inland rail project. The Federal Government also announced support for the residential construction sector through the HomeBuilder program, which provides grants for some new homes and renovations. The Federal Budget released in October allocated \$14.0 billion towards national infrastructure projects. This included \$7.5 billion for transport infrastructure, \$4.5 billion for NBN upgrades and \$2.0 billion for road safety initiatives. These initiatives are expected to boost demand for some areas of the subdivision. Weak oil prices are also expected to exert downward pressure on operating costs, assisting the viability of firms in this subdivision.

B10 Exploration and Other Mining Support Services: Very High

The COVID-19 pandemic has had a major impact on mineral and petroleum exploration firms. Fluctuations in the global prices of commodities such as oil, natural gas and iron ore have significantly affected this subdivision. In the short term, subdued commodity prices are expected to discourage

mining firms from investing in exploration. Major oil and gas producers are anticipated to reduce capital expenditure in response to weak prices. These cuts may also include reducing expenditure on exploration, which could significantly affect demand for the subdivision. As a result, revenue for the Petroleum Exploration industry is expected to fall by 23.0% in 2020-21. However, strong iron ore and gold prices are anticipated to support expenditure on mineral exploration over the year. Contract mining service providers may be hindered in the short term as large miners of some commodities, such as coal, curtail output due to low prices, or place some mines into care and maintenance.

Weak global oil prices are expected to significantly discourage new petroleum exploration expenditure, which may have a large impact on petroleum exploration firms. The extent of this damage depends on how long oil prices remain low, which will be determined by the output of foreign oil producers, such as Saudi Arabia and Russia. On 12 April 2020, OPEC+ agreed to reduce oil production from 1 May 2020, which is anticipated to provide some support for oil prices in the short term. In June, despite some countries not meeting their reduction targets, OPEC oil production fell to its lowest level since 1991. Despite OPEC starting to relax cuts in August 2020, ongoing price volatility will likely constrain expenditure on exploration activities and limit demand for the subdivision. Major oil and gas companies have also significantly lowered their long-term oil price expectations. Economic activity is anticipated to increase as the government relaxes lockdown restrictions, creating more stable demand conditions. This factor may support greater activity in the subdivision. However, businesses are anticipated to remain cautious until the COVID-19 outbreak is resolved.

Manufacturing

C11 Food Product Manufacturing: High

The COVID-19 outbreak has had a significant impact on the Food Product Manufacturing subdivision in Australia. This impact has been both positive and negative. A large proportion of the subdivision's products is exported, particularly to China. Global travel restrictions have caused significant logistical challenges. The flow-on effects of government measures to slow the spread of the virus have also affected demand from domestic and overseas markets.

Government restrictions limiting establishments' ability to serve on-premise meals since the end of March have severely reduced demand from hospitality businesses. Processors have had to sell redirected produce to the retail market at heavily discounted prices. Since May 11 2020, state and territory governments have begun loosening restrictions on the food-service sector's ability to trade. Limited on-premise dining has been allowed in all states and territories since June. As of the start of July 2020, rules were relaxed further across most of the country. This factor will provide a small boost to food product manufacturers that supply these businesses. However, a return to stay at home directions across Victoria from July through to the end of October 2020 negatively affected subdivision businesses that supply to food service businesses in these areas. While sales have risen for some food product manufacturers that supply the retail market, various government-enforced social distancing measures have restricted output at several processing facilities during 2020-21.

Exporters in this subdivision were negatively affected by the initial COVID-19 outbreak in China, which is a key export market for many food product manufacturers. Demand for food products such as beef, lamb, dairy, flour and grain all declined due to the closure of food-service businesses as the country entered quarantine. This factor affected supply, as many products became stuck in ports with no one to unload them. However, this issue had been resolved by the end of March 2020. Beef exports to China reached 121,181 tonnes over the first half of 2020. This amount is about 3% higher than volumes reached over the same period in 2019. However, due to a combination of trade disputes and a self-described onerous COVID-19 testing regime in China, exports have since

declined substantially. Over the year through October 2020, beef exports to China fell by about 27% compared with the previous year.

During the COVID-19 pandemic, the Chinese Government temporarily banned seafood imports. China is the largest market for Australian seafood and particularly for premium produce such as rock lobster and abalone. Seafood processors that offloaded their excess stock domestically caused local seafood prices to decline. Prices received by the upstream Fishing and Aquaculture industries fell by up to one-third. As the COVID-19 outbreak has affected the volume and value of seafood exports, exports in the Seafood Processing industry fell by an estimated 3.5% in 2019-20.

The spread of COVID-19 globally has further suppressed demand, especially for downstream food service providers. For example, over the first 10 months of 2020, beef exports to the United States fell by about 11% compared with the same period last year, as most beef is used to produce burger patties. However, even for export markets that have continued to demand Australian produce, local businesses have had difficulty exporting their goods. This difficulty has largely been due to travel restrictions by governments around the world, including Australia. These restrictions have reduced the number of commercial flights, which are a key mode of transport for subdivision goods. Furthermore, weak global economic conditions have led to an oversupply of certain commodities such as dairy. As a result, prices have fallen and compounded the effects of constrained demand.

The Federal Government announced a freight assistance package worth a \$110.0 million dollars at the start of April 2020 to help exporters of perishable goods, such as dairy, meat and seafood. This package has allowed firms to reopen export channels to key markets affected by disruptions to global freight movements, including China, Japan, Hong Kong and Singapore. The Federal Government has since added an extra \$559 million in funding to this program, extending it until the middle of 2021. According to the Federal Government, over 160,000 tonnes of goods have been exported to 66 overseas destinations.

The COVID-19 outbreak is anticipated to most significantly affect food manufacturers that depend on the local food-service sector or overseas markets. Businesses that earn up to \$50 million will be eligible for three-year government guaranteed loans of up to \$250,000. Most Australian food manufacturers earn less than \$5 million per year and therefore qualify for this scheme. Additionally, businesses that have demonstrated a fall in revenue of at least 30% have been eligible for the Federal Government's JobKeeper wage subsidy program. This subsidy has allowed employers to retain more of their staff, despite revenue declines. Despite this program, many businesses have had to let go of staff or cut their hours significantly.

Restrictions on business operations in Victoria from the beginning of August 2020 have affected food manufacturers in the state. While operations were allowed to continue on-site, firms had to do so in a reduced capacity. Non-poultry meat processors with over 25 workers and seafood processors with over 40 workers had to reduce their workforce capacity by 33.0%. Poultry processors that meet the same criteria had to cut their workforce by 20.0%. Over half of all processors in Victoria fit these criteria, including the vast majority of seafood processors. This factor is therefore expected to have significantly limited output. However, these restrictions have been gradually eased and, since 8 November 2020, all regional and metropolitan abattoirs and processors can now operate at full capacity.

However, it is not all bad news for Australian food manufacturers. Domestic demand has increased for many food products due to consumer stockpiling behaviour. Strong demand for products such as pasta, meat, frozen vegetables, pasta sauce, baked beans, canned spaghetti and milk has resulted in major supermarkets placing restrictions on these items at various points in time. This trend is expected to boost the performance of relevant industries, such as the Milk and Cream Processors, and Fruit and Vegetable Processors industries. Infant formula has also been a strong seller, with Bubs

Australia recording a 34.0% increase in local sales during the March quarter 2020. However, due to this prior strong growth, sales in this market fell in the June quarter 2020. In a sign that consumers in China are starting to once again demand high-quality foreign produce, Bubs Australia's sales in China increased by 104.0% over the same period, although from a lower base. The company's sales increased further in the June and September quarters in 2020. A weak Australian dollar is also helping local food produce exports, supporting the price competitiveness of Australian goods in overseas markets.

C12 Beverage Manufacturing: High

The COVID-19 outbreak has substantially affected this subdivision in several ways. In positive terms, retail alcohol sales in Australia have surged since March 2020. According to the ABS, revenue for liquor retailing increased by about 31% over the seven months from March to November 2020, compared with the same period in 2019. Despite ongoing restrictions on pubs, bars and other licensed venues, weekly credit card spending data from the Commonwealth Bank showed a total increase in alcohol sales between March and September 2020 compared with the previous year. However, lower sales to licensed venues have caused profit margins for alcoholic beverage manufacturers to decline.

Other beverage manufacturers have also endured negative effects related to the COVID-19 outbreak. Coca-Cola Amatil's (CCA) sales volumes in the June quarter declined by about 23% across the whole company compared with the same time last year. Sales volumes in the September quarter 2020 fell by 5.4% compared with the same period in 2019. These falls were largely due to a significant decline in the company's on-the-go channel. Its on-the-go channel accounted for approximately 40% of the company's sales by volume in 2019. However, retail sales have also declined, following an initial rise due to consumer stockpiling behaviour. Concerns relating to a lack of artificial sweeteners at the start of the pandemic, due to manufacturing plant closures in China, never materialised.

Wine producers are also taking a massive hit from the COVID-19 pandemic. In 2018-19, China was the largest consumer of Australian wine products, at 36.6% of export revenue. Events in China were initially cancelled and postponed in early 2020, limiting wine consumption. Exports of wine to China declined by 15% over the six months through June 2020 compared with the same period in 2019. However, due to strong sales in late 2019, they were up slightly overall in 2019-20. Exports of wines to other international markets are expected to benefit from a weaker Australian dollar in 2019-20. For example, wine exports to Singapore and the United Kingdom rose by about 13% and 3%, respectively, during 2019-20. However, the overall value of exports fell slightly in 2019-20, primarily due to sales volumes falling by about 9%. While exports began to recover in early 2020-21, an ongoing trade dispute has resulted in tariffs exceeding 100% and even 200% being placed on Australian wine in China.

Domestic wine sales were significantly affected by the closure of restaurants, bars and wineries to the public in March 2020. Sales through these channels have improved over 2020-21, but have remained limited by ongoing dining and travel restrictions. Domestic cellar door sales have also been severely affected by the COVID-19 pandemic, due to heavy restrictions on international tourism and limits on domestic tourism. As state governments ease travel restrictions within and between certain states and territories, producers will benefit from demand opportunities. Some operators have turned to virtual wine tasting events in an attempt to boost sales. Profit has also fallen for producers of wine and other alcoholic beverages, partly due to significant declines in sales to the hospitality sector. The largest wine producer in the country, Treasury Wine Estates, announced a global profitability decline of 21% during 2019-20.

State and territory governments moving to open up cafes, restaurants, pubs and bars has supported this subdivision. Beer manufacturer Lion sent 75,000 litres of beer to the Northern Territory following

the government's announcement that it was reopening pubs on 15 May 2020. Wine producer Accolade Wines replaced for free all its wines sold in venues around Australia over the first month of trading. The new lockdown conditions in Victoria did not place workforce capacity restrictions on beverage manufacturers. However, the conditions negatively affected beverage manufacturers that have supply contracts with businesses in the state. The gradual removal of restrictions on on-premise dining in Victoria since the beginning of November 2020 has provided a significant boost to manufacturers that supply this market.

C13 Textile, Leather, Clothing and Footwear Manufacturing: Very High

The COVID-19 pandemic has had a significant influence on the Textile, Leather, Clothing and Footwear Manufacturing subdivision. This subdivision involves significant international trade and supply disruptions have substantially affected the subdivision. For example, the Leather and Leather Substitute Product Manufacturing industry is heavily export-oriented, as many leather manufacturers outsource initial hides and skins to China for further processing. Tanned hides return to Australia in the form of uncut hides or manufactured products, such as jackets or shoes.

Constrained logistics, travel restrictions and a shortage of labour in China initially made it difficult for tanneries to deliver goods. In addition, declining consumer demand has negatively influenced the Leather and Leather Substitute Product Manufacturing industry. The COVID-19 pandemic has prevented people from travelling and shopping, weakening demand for leather products such as shoes and bags. In Australia, an absence of tourists buying luxury retail items has caused demand to fall for leather and leather substitute products.

Demand was further affected as the COVID-19 outbreak spread across Europe. Demand from Italy and Spain collapsed as tanning operations closed due to wider government shutdowns. As a result, leather prices crashed and many Australian producers were faced with the prospect of dumping their unwanted supplies in landfill. Some producers held on to their stock and waited for trade to resume. Prices across most hide types have recovered strongly, but are yet to reach the highs seen in January and February 2020. Demand from key European markets has begun to recover, with car and furniture manufacturers leading the way. However, demand from footwear and accessories manufacturers remains subdued.

Similarly, a significant proportion of clothing and footwear products are imported from China, potentially affecting domestic supply. Larger manufacturers can potentially source clothing and footwear from other manufacturing nations such as Bangladesh, Vietnam and India. Despite supply disruptions, a decline in consumer sentiment and rising unemployment following the COVID-19 outbreak, combined with low wage growth over the past five years, will likely have more severe long-term effects on the subdivision.

The Federal Government's stimulus measures have significantly helped this subdivision. The JobKeeper wage subsidy and small business loans have been crucial for these businesses to stay afloat and retain their employees. In addition, over 130 clothing and textile manufacturers offered to pivot production towards personal protective equipment, such as scrubs, gowns and masks. In response, the Therapeutic Goods Administration loosened regulations to allow these businesses to produce items that aren't on the Australian Register of Therapeutic Goods.

Under the lockdown restrictions announced in Victoria at the beginning of August 2020, manufacturing of all subdivision products was ordered to cease in metropolitan Melbourne, except for personal protective equipment manufacturing. These restrictions were removed on 28 September 2020. Manufacturers in metropolitan Melbourne can now operate at full capacity. Manufacturers across Victoria make up between one-quarter and half of all businesses in this subdivision.

C14 Wood Product Manufacturing: High

The COVID-19 pandemic significantly affected the Wood Product Manufacturing subdivision. While supply from China was significantly disrupted over the short term, businesses have been able to source wood products domestically and from other countries that export wood products, such as Malaysia and Indonesia. While these businesses have been somewhat disrupted, affecting global supply chains, over 60% of wood product manufacturers in Malaysia have now resumed their exporting operations. However, supply chain problems caused by the COVID-19 pandemic are anticipated to have a more severe effect on log exporters, as warehouses and factories overseas have been affected by government lockdowns, influencing production. If factories remained closed, log exporters will be forced to reduce their harvesting rates. Reduced demand from China and Japan has also negatively affected wood chipping operations.

Local demand for this subdivision has been sustained by the Construction division in Australia, which continues to operate as an essential service. This factor has had positive flow-on effects for the subdivision. However, demand from construction firms has been significantly affected by weakness across the wider economy and limits on immigration. Dwelling commencements fell by 16.6% during 2019-20, and are expected to fall to lower levels in 2020-21, resulting in reduced demand for subdivision products. In May 2020, AKD Softwoods, one of the largest players in the subdivision, slowed milling operations at four of its sites in anticipation of a substantial decline in orders from the construction sector. As a result, 800 of its employees were forced to take leave.

Businesses in this subdivision, including many major players, will benefit from changes to the instant asset write-off scheme. The government has increased the threshold from \$30,000 to \$150,000, and businesses earning up to \$500 million are now eligible to use it. In June 2020, the Federal Government extended the scheme to December 2020. Furthermore, the Federal Government's HomeBuilder scheme, which is open until 31 March 2021, is anticipated to provide a boost for the subdivision.

Most manufacturers in this subdivision could remain open in metropolitan Melbourne during the Stage 4 lockdown in 2020, except for those classified as other wood product manufacturers. These included manufactures of products such as wooden packing crates, parquetry materials, and wooden tools and handles. While negatively affecting businesses that manufacture these products, Stage 4 lockdown did not substantially affect the wider subdivision, with less than 10% of revenue generated from these products. Restrictions have eased since 28 September 2020, with final capacity restrictions removed in November 2020.

C15 Pulp, Paper and Converted Paper Product Manufacturing: High

This subdivision has been heavily influenced by the COVID-19 outbreak, as demand for products has varied substantially. While household stockpiling behaviour prior to the official social distancing restrictions created excess demand for some subdivision products, this trend has now largely abated. Supermarkets initially had difficulties maintaining adequate supplies of toilet paper and other sanitary paper products. Supermarkets therefore limited customers to a certain amount of toilet paper per transaction to cope with the recent spike in demand. Local sanitary paper product manufacturer ABC Tissue Products reported a 15.0% increase in demand over the two weeks through 12 March 2020. Additionally, at the beginning of April, Woolworths announced that sales of toilet paper, tissues and paper towel had collectively risen by over 50% compared with the same time in 2019. This factor has since caused demand to fall, with Woolworths subsequently announcing a significant drop in sales. Some panic buying of these products occurred again when metropolitan Melbourne and Mitchell Shire were placed into Stage 3 lockdown at the beginning of July 2020. Stage 4 restrictions in metropolitan Melbourne did not place any restrictions on operations.

Manufacturers of paper and paperboard products that target food and beverage manufacturers have had mixed results. Firms that manufacture products used to package certain goods sold in supermarkets have benefited from consumer stockpiling behaviour. However, operators that focus on the food services sector have not been as fortunate. Reduced demand from cafes and other takeaway outlets has affected sales for these companies. As a result, Detmold Group announced in March 2020 that it was pivoting production away from the industry and towards manufacturing facemasks. Over the next twelve months, the company will produce 100 million surgical and respiratory masks for the national stockpile, and 45 million for the SA Government. The company hired 160 new employees for these new operations.

The country's gradual return to work will stimulate demand for meals purchased outside the home during work hours. Food-service outlets will also have greater flexibility to operate. Consequently, demand is anticipated to rise for manufacturers in this subdivision that supply cafes and restaurants. Paper stationary manufacturers, which were affected by work from home mandates and the temporary closures of education facilities, will also benefit from the reopening. However, demand across the subdivision will not likely to return to levels seen prior to the COVID-19 outbreak until 2021-22.

Some companies in the subdivision haven't been able to benefit from increased demand or by manufacturing new items. The government's changes to depreciation deduction rules and the instant asset-write off threshold will help these firms manage reduced demand or higher input prices.

C16 Printing (Including the Reproduction of recorded media): Moderate

The COVID-19 pandemic is projected to have a moderate effect on the Printing subdivision. The subdivision conducts a low level of international trade, as transporting printed products across long distances is inefficient and costly due to the low per-unit value and high cumulative weight of large paper shipments. While Australia imports recorded media from China, supply chain disruptions are unlikely to affect domestic supply, as digital media sales have surpassed physical media sales since 2013. However, reduced discretionary spending and an increased shift to online media are expected to affect downstream demand for finished products. As a result, revenue for the Printing industry fell by an estimated 7.5% in 2019-20 and is expected to fall a further 1.1% in the current year. Stage 4 lockdown measures in Victoria, introduced at the start of August 2020, did not directly affect subdivision operations. However, the closure of some of the subdivision's major markets in Victoria, such as wholesalers and publishers, limited demand for services in the state. Consequently, easing restrictions have boosted demand for this subdivision.

C17 Petroleum and Coal Product Manufacturing: Very High

This subdivision is made up of the Petroleum Refining and Petroleum Fuel Manufacturing industry and Lubricants and Other Petroleum Product Manufacturing industry. The COVID-19 outbreak is expected to significantly affect revenue for this subdivision, largely due to falling demand for aviation fuel due to widespread travel restrictions. State and territory governments have begun to lift interstate travel restrictions. However, international travel restrictions are likely to remain in place for the foreseeable future. Additionally, many individuals are working from home and reducing other non-essential travel, which has constrained demand for automotive fuel.

Approximately 50% of production capacity is reserved for petrol, with 30% for diesel and 20% for jet fuel. The petroleum refining process cannot be easily adapted for changes in demand between these product types. Furthermore, if overall capacity for refineries drops below 60%, then the associated costs can be prohibitive to production and imports can become more attractive.

Falls in the world price of crude oil have exacerbated recent revenue declines. While prices have

rebounded since lows in April, they are still down significantly from last year. In addition, production among OPEC countries has fallen to the lowest level since 2002. While many international refineries are based the Asia-Pacific region, logistics disruptions related to the COVID-19 pandemic will also affect this subdivision. Most domestic refined petroleum product imports are sourced from Singapore, Japan and South Korea. Overall, revenue for the Petroleum Refining and Petroleum Fuel Manufacturing industry is expected to fall at an annualised 11.1% over the two years through 2020-21.

Alimentation Couche-Tard of Canada withdrew its takeover offer for major player Ampol (formerly Caltex), attributing its decision to the financial downturn. Government support for players in this subdivision, including Ampol and other major players such as BP and Viva Energy, mainly comes through JobKeeper payments. However, as these companies earn over \$1 billion in annual revenue, they will have to demonstrate a 50% decline in revenue due to the pandemic to qualify.

Petroleum and coal manufacturers in Victoria were able to continue on-site work throughout the Stage 4 restrictions in metropolitan Melbourne. However, the ongoing influence to the wider economy, particularly restrictions on travel, has significantly affected this subdivision. Viva Energy announced that its Geelong oil refinery, one of only four left in the country, may shut down without government support. As restrictions in Victoria were eased further in November 2020, the refinery is now able to operate at full capacity. On 14 September 2020, the Federal Government announced a subsidy program for refiners as part of a wider \$2.3 billion national fuel security support package. To receive the subsidy, subdivision businesses must commit to continue operating in Australia. Revenue for the Lubricants and Other Petroleum Product Manufacturing industry is expected to grow by 1.1% in 2020-21, largely due to rising demand for bitumen. This trend has been aided by government stimulus measures targeting transport infrastructure such as roads and bridges.

C18 Basic Chemical and Chemical Product Manufacturing: High

The COVID-19 pandemic has heavily influenced the Basic Chemical and Chemical Product Manufacturing subdivision. While some chemical manufacturers have benefited from lower crude oil prices, disruptions in global supply chains have affected many manufacturers. A considerable proportion of imports from this subdivision are derived from China.

China is the main manufacturer of both ready-made pesticides and the active ingredients that form the base of pesticide products formulated in Australia. Disruption in the Chinese manufacturing supply chain has already resulted in some shortages, which could potentially affect the Agriculture subdivision when these firms start planting Australian winter crops. For example, significant supply shortages of glyphosphate in China have already been announced. Australia sources between 70% and 80% of its year-round supply of this herbicide from China. However, Australian fertiliser and explosives manufacturer Incitec Pivot has announced that it has increased production of fertiliser due to increasing demand from the agriculture sector following improved rainfall. Production in 2019-20 was up by 45% compared with 2018-19.

The Pharmaceutical Product Manufacturing industry is export-oriented, with revenue derived from exports anticipated to total \$6.0 billion in 2019-20. Of this figure, approximately half is derived from exports of non-prescription pharmaceuticals, such as vitamins and dietary supplements. The COVID-19 outbreak has increased demand for vitamins and dietary supplements in China. However, travel bans on Chinese tourists are anticipated to cause a temporary decline in demand from Chinese tourists stocking up on vitamins before returning to their home country. Pharmaceutical product manufacturers have also faced short-term volatility due to supply chain disruptions related to the COVID-19 pandemic, with difficulties exporting products to China.

Domestically, fears related to the COVID-19 pandemic initially prompted consumers to panic purchase over-the-counter medicines, such as paracetamol and cold medicine. Demand for pharmaceuticals manufacturing products is anticipated to rise over the short term, as both consumers and healthcare providers require medicine supplies. India and some European countries banned exports of certain medicines following supply shortages. This factor, along with other disruptions caused by the pandemic, resulted in shortages of over 600 medicines in Australia. In recognition of the heightened strain on the industry, the ACCC has granted a conditional interim authorisation for the Biosimilar Medicines Association and Medicines Australia, and their members to work together to supply essential medicines during the pandemic.

Revenue for the Soap and Cleaning Compound Manufacturing industry increased by 13.3% in 2019-20, largely driven by the COVID-19 pandemic. Revenue is anticipated to grow by a further 1.5% in the current year. Both individuals and commercial cleaners have been purchasing higher volumes of soap and cleaning compounds in an attempt to slow the spread of COVID-19. Many supermarkets and pharmacies reported selling out of hand sanitiser and household cleaning products in March and April 2020. Demand for commercial cleaning services will likely remain high as businesses aim to ensure a healthy workplace for workers and customers.

Businesses in this subdivision were permitted to remain open for on-site work during the Stage 4 lockdown in Victoria. This factor has been crucial for the performance of these industries. Many large players have all or a large proportion of their manufacturing facilities in Victoria, such as GlaxoSmithKline, CSL and Incitec Pivot.

C19 Polymer Product and Rubber Product Manufacturing: Moderate

The spread of COVID-19 is anticipated to have a moderate effect on the Polymer Product and Rubber Product Manufacturing subdivision, as these firms manufacture products for a range of markets, including manufacturers, wholesalers, retailers and construction companies. Demand has substantially increased for manufacturers of protective equipment, such as gloves. The Glove Company, a firm based in New South Wales, tripled its monthly sales in March. In addition, consumer and industrial product packaging manufacturer Pact Group has announced that they are moving into manufacturing hand sanitiser. The company plans to produce two million units per month.

Demand for many plastic products has undergone a resurgence, as previously discouraged items such as disposable coffee cups, shopping bags and takeaway meal packaging are viewed as more hygienic. For this reason, some major countries have suspended bans of single-use plastic bags and containers. In Australia, demand for takeaway meals has also accelerated. Revenue in the Plastic Bag and Film Manufacturing industry rose by an estimated 1.4% in 2019-20, representing the industry's strongest growth since 2015-16.

Some manufacturers import packaging supplies from China and other nearby nations with low-cost manufacturing costs. The COVID-19 outbreak led to some temporary shortages in packaging supplies, components and tools due to factory closures in China and other countries. However, as this subdivision relies on other markets, declining demand from other markets due to the COVID-19 pandemic could cause demand to fall for this subdivision's products. For example, revenue in the Plastic Pipe and Plastic Packaging Material Manufacturing industry is expected to have fallen by 5.1% in 2019-20 due to reduced demand from other manufacturers, construction companies and wholesalers.

During Stage 4 lockdown measures in metropolitan Melbourne, subdivision businesses operating in these locations were only allowed to maintain skeleton staff. This means they were only able to carry out manufacturing activities that support the operations of downstream businesses that have

been permitted to continue operating. As a result, revenue and profit margins for these businesses are anticipated to decline. Since 28 September 2020, these restrictions started easing, with final workforce capacity restrictions removed in late November.

C20 Non-metallic Mineral Product Manufacturing: High

The COVID-19 pandemic is expected to significantly affect this subdivision. Its greatest risk comes from reduced demand from the construction sector due to increasing economic uncertainty. As a result, cement and plaster product manufacturer Boral Ltd announced a reduction in capital expenditure of between 15% and 20% over the second half of 2019-20. Slowed production due to pandemic-related on-site closures also affected its performance, with the company's revenue in Australia falling by approximately 5% during the period. Furthermore, James Hardie has announced the closure of its formwork manufacturing facility in Cooroy, QLD. This closure is one of three of the company's plants that it is closing globally as demand has dramatically shrunk. However, the company is also shifting its New Zealand fibre cement manufacturing business to two facilities in Australia. Dwelling commencements by fell over 16% in 2019-20, and another double-digit decline is expected in 2020-21.

While the subdivision is exposed to moderate import penetration, manufacturers import from several different countries. While concrete product manufacturers import substantial volumes from China, industry operators have significant manufacturing capacities in neighbouring countries, such as Indonesia and Thailand, which could readily supply the Australian market. Supply from Indonesia could potentially be compromised if the outbreak situation becomes more severe in the country. However, as China has largely reopened its economy, supply concerns will become less of an issue.

The Federal Budget, announced at the beginning of October, increased infrastructure spending by \$10 billion over the next ten years, supporting demand for subdivision products. The Federal Government also announced its HomeBuilder scheme in June, which will likely benefit the subdivision. State governments are also expected to spend more in this area.

As a result of lockdown measures imposed by the Victorian Government at the beginning of August 2020, businesses in this subdivision were not permitted to open for on-site work until 28 September 2020. As of 23 November 2020, no workforce capacity restrictions remain in place. Manufactures in this subdivision have substantial facilities in Melbourne, as it is the construction and manufacturing hub for the state. Consequently, this temporary shutdown is expected to heavily influence the overall performance of these industries during 2020-21.

C21 Primary Metal and Metal Product Manufacturing: High

This subdivision is expected to be substantially disrupted by COVID-19, with the outbreak leading to reduced global manufacturing activity. Industries in this subdivision derive most of their production inputs domestically, and therefore have a lower risk of production disruption due to insufficient supply from overseas. This subdivision's output is used in a range of manufacturing applications. Due to the severity of global supply chain disruptions and demand contractions, demand for this subdivision's output is expected to fall. For example, production of copper tubes, steel pipes and steel would decline amid a recession in global manufacturing. Australia's largest steel manufacturer BlueScope Steel announced in April that it was reducing its capital expenditure for the second half of financial year 2020 by 17%. Copper prices fell to a three-year low in early March 2020 due to weaker demand. While prices have since recovered from these lows, they are still down 5% year-on-year since January. As more economies reopened around the world, prices improved at the beginning of July. With miners decreasing their activity, this trend is expected to continue over 2020-

21. Demand and prices for nickel also declined significantly at the end of 2019-20, but are expected to recover during 2020-21. While oil prices have recovered from their lows in April 2020, they remain below where they were 12 months ago. This factor has exerted downward pressure on operating costs, providing some relief for firms in this subdivision. This subdivision will also benefit from any government stimulus spending on infrastructure.

Stage 4 restrictions introduced in August 2020 resulted in the temporary suspension of most operations for primary metal and metal product manufacturers in metropolitan Melbourne. These businesses could only maintain minimum staffing numbers to carry out work for other industries that were permitted to continue operating. These restrictions have been gradually rolled back between 28 September and 23 November 2020.

C22 Fabricated Metal Product Manufacturing: High

This subdivision is expected to be significantly affected by the COVID-19 pandemic. This industry has a low reliance on imported inputs and is therefore well equipped to maintain production amid faltering economic activity outside Australia. In addition, industries in this subdivision typically face strong import competition from manufacturers in Asia. If the COVID-19 outbreak curtailed output across Asian factories, some Australian producers may benefit from enhanced export opportunities as global markets seek out alternative suppliers. However, as the outbreak continues to affect the local economy, demand for the subdivision's products is expected to fall. Players in affected industries will be able to use various government stimulus measures, such as the accelerated depreciation allowances and the higher instant asset write-off threshold, to support their business. On the other hand, some manufacturers in this subdivision, such as Victoria-based Almec, have pivoted towards manufacturing medical equipment required to treat COVID-19.

During the Stage 4 lockdown in metropolitan Melbourne, this subdivision shut down all on-site operations in metropolitan Melbourne between August and September 2020. Between one-quarter and one-third of all businesses in this subdivision have operations in Victoria. Consequently, restrictions are expected to significantly affect the performance of these industries. The final restrictions on workforce capacity were eased in late November 2020.

C23 Transport Equipment Manufacturing: Moderate

Transport equipment manufacturers are expected to be moderately affected by the COVID-19 pandemic. Many of their customers are from the government sector, which purchase equipment for public transport and the military. This encompasses all three arms of the military, land vehicles, naval ships and aircraft. The Australian Government's contract for nine anti-submarine warfare frigates is keeping operations open at the Adelaide's Osborne Naval Shipyards. As the project ramps up, employment is set to increase from 700 to 1,000 by the end of the year. This factor is expected to have positive flow-on effects for employment in other related industries. At the start of May 2020, ASX-listed Austal Ltd was awarded a \$324 million Federal Government contract to build six patrol boats. This is the largest contract in the company's history.

Industries that are more exposed to aircraft manufacturing will suffer negative effects due to the downturn associated with the COVID-19 pandemic. Travel restrictions and other government measures limiting transport activity have affected demand for air travel services. World air travel, both domestic and international, has slumped to low levels. Even as the government lifts restrictions, international and domestic travel will most likely be among the last areas to return to normal. Most states are now allowing interstate travel. In November 2020, states such as South Australia and New South Wales have opened their borders to Victoria. Outbreaks over the Christmas-New Year period

led to the closure of the border between Victoria and New South Wales, but reopening began in the second half of January. A limited travel bubble has also been set up with New Zealand. Only heavy truck manufacturers, public transport equipment manufacturers, and firms that manufacture spare parts for other industries deemed critical were allowed to continue operating in metropolitan Melbourne during the Stage 4 lockdown. This measure remained in place until 28 September 2020.

Manufacturers of transport equipment typically rely on both domestic and imported inputs for production. Supply chain disruptions in Asia will likely hinder some manufacturers in this sector, as supply of some production inputs becomes limited. In particular, specialised components may be difficult to source from alternative suppliers in the short term. When the COVID-19 outbreak passes, some firms in this subdivision may seek to diversify their supply chains to multiple regions in an effort to reduce exposure to future supply shocks.

C24 Machinery and Equipment Manufacturing: Moderate

This subdivision is expected to be disrupted by supply chain shocks, which will likely have a significant effect on revenue and profit. Many industries in this subdivision rely heavily on components manufactured in Asian economies. The closure of factories in China's Hubei province reduced the supply of electrical components, disrupting multiple supply chains in this subdivision. As China's production facilities have reopened, supply pressures have eased. However, if similar COVID-19 outbreaks occur in other Asian economies such as Vietnam, the supply disruption for manufacturers in this subdivision would be extensive and prolonged. Imports in the Power Automation and Other Electrical Equipment Manufacturing industry have been affected by manufacturing plant closures and supply chain disruptions due to the COVID-19 pandemic. In 2020-21, imports are expected to fall by 5.1%. Australian manufacturers in this subdivision would have a limited capacity to benefit from weakened import competition, as any outbreak that significantly reduced foreign manufacturing would almost certainly also reduce local manufacturing activity. The lower price of oil is expected to exert downward pressure on operating costs, assisting the viability of firms in this subdivision. This subdivision is anticipated to suffer substantially from wider impacts across the domestic and global economies. Demand for machinery from the mining and construction sectors is expected to fall significantly as these businesses postpone or cut back on projects. The Stage 4 lockdown measures introduced in metropolitan Melbourne did not affect subdivision businesses, with on-site work allowed to continue.

The COVID-19 outbreak is also expected to have significant short-term and long-term effects on the Medical and Surgical Equipment Manufacturing industry. The industry heavily relies on imports, which account for close to 75% of domestic demand. Global supply chain disruptions have occurred as many countries have scrambled for supplies, meaning that local manufacturers have had to step up their capabilities. Prior to the outbreak, Med-Con was the only Australian manufacturer of surgical face masks. The company has an annual production capacity of two million. They have now expanded their operations to produce 50 million masks over the next 12 months. Additionally, medical device manufacturer ResMed announced plans to triple its production of ventilators. The company also signed a contract with the Federal Government to provide 5,500 ventilators for the national stockpile. Furthermore, the Federal Government tasked a consortium of local businesses with manufacturing a further 2,000 ventilators for the national stockpile.

C25 Furniture and Other Manufacturing: Moderate

This subdivision will likely be moderately disrupted by the COVID-19 pandemic. Most industries in this subdivision rely primarily on locally sourced inputs for production, reducing exposure associated with supply shocks in Asia. However, firms in this subdivision were hindered by weak consumer

sentiment, which lead consumers to postpone large purchases, such as for furniture, mattresses or jewellery. Revenue for the Wooden Furniture and Upholstered Seat Manufacturing industry declined by 6.0% in 2019-20. However, sales of desks and chairs have increased, as many employees are working from home and children are studying from home. This trend has benefited some local manufacturers. While toy and sporting goods manufacturers were expected to benefit from the outbreak, as families spent extended periods of time indoors, rising import competition and logistical delays have hampered their performance. However, Stage 4 lockdown measures in metropolitan Melbourne implemented from the start of August to the end of September 2020 resulted in all businesses in this area closing for on-site work. The final restrictions of operations ended on 23 November 2020.

Electricity, Gas, Water and Waste Services

D26 Electricity Supply: High

The downturn in global economic conditions is expected to cause thermal coal prices and world crude oil prices to fall. These commodities are key inputs in the Fossil Fuel Electricity Generation industry. As a result, falling prices are expected to reduce the operating costs for fossil fuel generators and lead to a decline in the electricity service price. This trend is expected to reduce revenue across the subdivision, as electricity generators will be forced to accept lower prices for their product. Additionally, the expected slowdown in Australia's manufacturing sector is expected to reduce demand for electricity, further contributing to a decline in the electricity service price and reducing subdivision revenue.

While declines in the electricity service price are anticipated to contribute to declining revenue and profitability in Australia's Wind and Other Electricity Generation industry, the reduction in input costs is expected to improve the competitiveness of Australia's fossil fuel generators and slow the country's transition towards renewable energy sources. While electricity generated from renewable sources does not require fuel costs, the costs of construction can be significant. The decline in the electricity service price is expected to reduce returns on investment for renewable electricity projects, and contribute to increased demand for fossil fuel electricity. The sharp drop in business confidence caused by the ongoing pandemic is expected to intensify this trend.

On 11 May 2020, the AEMC announced that the planned implementation of a five-minute settlement rule would be delayed due to concerns regarding energy security caused by the COVID-19 pandemic. This rule would align operational dispatch and financial settlements at five minutes, rather than the current 30 minutes. The AEMO requested a delay of 12 months in this rule change, to allow operators to focus on the ongoing supply of electricity as an essential service. However, in July 2020, the AEMC announced the rule change would come into being from 1 October 2021, and will likely benefit renewable generators with installed battery capacity.

Overseas manufacturers feature heavily in the supply chain of many companies operating in the Wind and Other Electricity Generation industry and the Solar Electricity Generation industry. Disruptions to these supply chains caused by the COVID-19 outbreak are likely to reduce the ability of operators to carry out capacity upgrades, construct new projects, or source parts necessary for maintenance.

D27 Gas Supply: Moderate

The downturn in global economic conditions as a result of the ongoing COVID-19 pandemic is expected to reduce demand for natural gas. Australia exports most of its domestically produced natural gas. Reduced demand from exports markets is expected to contribute to an oversupply

of natural gas in the domestic market, and a steep drop in domestic prices. The largest domestic market for natural gas is the Australian manufacturing sector, which accounts for approximately 60% of industry revenue. Households represent the second largest market for natural gas supply, making up approximately one-quarter of industry revenue. The slowdown of the manufacturing sector due to reduced demand and social distancing restrictions is expected to substantially constrain demand from this market. While demand from households is likely to increase due to growth in the number of people working and studying from home, this demand is unlikely to fully offset the reduced demand from the manufacturing sector and from exports. The expected drop in natural gas prices is anticipated to contribute to a steep fall in industry revenue over the course of the pandemic. A recovery across the domestic economy is anticipated to support an increase in business confidence, and drive higher demand for natural gas.

D28 Water Supply, Sewerage and Drainage Services: Moderate

The Water Supply, Sewerage and Drainage Services subdivision is expected to be minimally affected by the ongoing COVID-19 virus pandemic. Most services provided by the subdivision are considered essential, and are expected to continue as normal. In Western Australia, the state government has passed measures that disallow subdivision operators from cancelling services to households suffering financial hardship due to the COVID-19 outbreak. The forecast rise in the national unemployment rate will likely lead to an increasing number of Australian households being placed under financial pressure, and could cause a spike in the number of households unable to pay utility bills, negatively affecting industry revenue. Additionally, the decline in business confidence as a result of the outbreak will likely cause private capital expenditure to decline, and lead to upgrade and expansion projects being cancelled or postponed.

D29 Waste Collection, Treatment and Disposal Services: High

The ongoing COVID-19 pandemic is expected to have a high impact on the Waste Collection, Treatment and Disposal Subdivision. The virus is expected to result in a sharp increase in demand for hazardous waste disposal services. Hospitals and other medical facilities will likely require an increase in hazardous waste collection services, to properly dispose of contaminated personal protective equipment and items such as bed linen. Waste that could potentially be contaminated with the virus must be disposed of as clinical waste.

However, the slowdown in the domestic economy is expected to have a negative impact on the subdivision. Manufacturers and retailers make up a substantial source of demand for waste collection services. The closure of companies across the economy is expected to result in a decline in commercial waste, contributing to a fall in subdivision revenue. However, on the 8 May 2020, the Federal Government announced its 3-Step Framework for a COVIDSafe Australia, which outlined the process of easing restrictions. However, the speed at which this framework is implemented has differed between the various states and territories. All states and territories have started reopening, which is expected to improve business activity. Demand for commercial waste services is therefore expected to rise. However, an anticipated decline in household incomes is expected to result in subdued demand for manufacturers and retailers, which will correspondingly limit demand for subdivision services.

Construction

E30 Building Construction: High

The spread of COVID-19 is anticipated to highly affect the building construction industries. International trade is not applicable to building construction industries, as they exclusively operate domestically. However, building construction is highly labour-intensive, and relies heavily on contract labourers. Building construction firms also require equipment and materials. Firms have experienced disruptions in supply chains, which has restricted construction activity. Lower interest rates are anticipated to stimulate demand for some building construction. However, reduced foreign investment in projects will likely negatively affect the subdivision. Low oil prices may lower operating costs for some firms, assisting business viability. Weak demand for new housing is also anticipated to negatively affect residential building construction industries, as many people are electing to delay purchasing or moving into new homes. A survey conducted by Master Builders Australia revealed that over 70% of respondents reported major declines in planned projects, with residential building firms among the most affected. The Federal Government's three-step plan to ease restrictions is not anticipated to significantly affect this sector's activities, as these businesses have been able to operate throughout lockdown conditions. However, the easing of restrictions may boost demand for new buildings from other sectors.

Stage 4 restrictions implemented in metropolitan Melbourne and the return to Stage 3 restrictions for the rest of Victoria from 2 August 2020 delayed a boost in demand for the state. Operators had to abide by rules that limited the number of employees permitted on a site and the number of sites they could work at. However, Victoria has since contained the second wave, which is anticipated to boost construction activity across the state. However, future outbreaks in any state or territory have the potential to significantly disrupt activity in the subdivision.

The Federal Government's HomeBuilder scheme will provide grants of \$25,000 for new houses being built, or for substantial renovations to existing homes. These grants will be available for homeowner-occupiers with annual incomes of under \$125,000. This scheme is anticipated to slightly boost demand for the residential construction sector.

E31 Heavy and Civil Engineering Construction: Moderate

The COVID-19 outbreak is anticipated to have a moderate effect on heavy and civil engineering industries. Many heavy and civil engineering projects depend on public funding. Consequently, these firms are less vulnerable to declines in demand from downstream sectors. Heavy and civil engineering construction industries are labour-intensive and often use contract labourers. These firms also require equipment and machinery. Disruptions in the equipment supply chain would negatively affect the subdivision. However, this may be partially offset by a decline in oil prices, which have somewhat reduced operating costs. The Federal Government and the Master Builders Association of the ACT have identified construction, specifically of infrastructure, as an industry that could be ramped up to help create jobs. For example, the Federal Government has fast-tracked fifteen major infrastructure projects, boosting demand for the subdivision. In addition, the Federal Government has pledged an extra \$1.5 billion to smaller infrastructure projects, further stimulating demand for the subdivision. The Stage 4 restrictions implemented in metropolitan Melbourne did not substantially affect these industries. These industries were exempt from restricted operating targets, but are still required to implement a High Risk COVID Safe Plan. The subsequent easing of restrictions in Victoria has therefore also had a minimal effect on the subdivision.

E32 Construction Services: Moderate

The COVID-19 pandemic is anticipated to have a moderate effect on construction services. These services are not exposed to international trade and focus entirely on the domestic market. Operators in these industries require materials such as nails, screws, adhesives, concrete, steel and timber, and equipment. In addition, these industries are highly labour-intensive. Any disruption in materials or labour supply has the potential to negatively affect the subdivision. Operators that service construction firms are anticipated to fare better than operators that service consumers, as negative consumer sentiment is discouraging people from having expensive, discretionary work done, such as painting and decorating services. Furthermore, operators that service infrastructure or institutional building construction firms are anticipated to fare better than those that service residential building construction firms, largely due to weak demand for new housing. Many of these firms have been able to operate throughout lockdown conditions. However, the Federal Government's three-step plan to ease restrictions will likely boost demand for construction services by improving the financial situations of downstream consumers and businesses. The Federal Government's HomeBuilder scheme is anticipated to boost demand for construction services, especially for renovations to existing homes. Firms that operate exclusively in Victoria faced difficult conditions relative to those that operate in other states and territories, as metropolitan Melbourne entered Stage 4 restrictions from 2 August and the rest of the state returned to Stage 3 restrictions. However, as Victoria has contained the second wave, restrictions have been eased and demand for these firms is projected to recover. Any future outbreaks and subsequent lockdowns across Australia have the potential to significantly disrupt the subdivision.

Wholesale Trade

F33 Basic Material Wholesaling: High

The COVID-19 outbreak is anticipated to have a high impact on the Basic Material Wholesaling subdivision. Foreign metal and mineral buyers represent 64.3% of the market for the Metal and Mineral Wholesaling industry, with a large proportion of these buyers being in China. Reduced construction activity limits demand for minerals such as iron, which is anticipated to have a significant negative effect on this industry.

Wholesalers of wool and cereal grains also rely heavily on demand from export markets. Wool wholesalers often act as trading agents, facilitating international trade. China receives approximately two-thirds of Australia's wool exports, which are then used in textile manufacturing. Italy also represents a significant market for Australian exported wool. A combination of supply chain constraints, workplace restrictions and weakened consumer demand have had a strong negative effect on the Wool Wholesaling industry.

Export markets account for approximately 55% of revenue for the Cereal Grain Wholesaling industry, with many wholesalers acting as exporters. However, adverse rainfall conditions over the past five years and the 2019-20 bushfire season have negatively affected the upstream Grain Growing industry, reducing exports over the period. China accounts for approximately 24% of Australian grain exports. Consequently, shipping and logistics delays could negatively affect demand for grain exports.

Stage 4 restrictions implemented in metropolitan Melbourne further disrupted basic material wholesalers. All basic material wholesalers were forced to temporarily close for on-site work from 2 August 2020, other than firms that wholesale critical supplies to a permitted service. Businesses that operate exclusively in these regions are expected to have underperformed businesses that operate across the country. However, Victoria has since eased restrictions as the second wave has been

contained, supporting a recovery for operators in the state.

F34 Machinery and Equipment Wholesaling: Moderate

The COVID-19 outbreak is anticipated to moderately affect the Machinery and Equipment Wholesaling subdivision. Machinery and equipment wholesaling firms provide the mining sector with construction equipment, and mining and industrial machinery. Consequently, wholesalers of these products are exposed to declines in demand from mining industries that rely heavily on export activity. Firms that primarily service infrastructure markets are anticipated to perform well, as the Federal Government has identified infrastructure construction as a sector that can be ramped up to bolster the economy. Government stimulus measures for residential and infrastructure construction are anticipated to boost demand for the sector.

Efforts to contain the COVID-19 pandemic are expected to boost demand for the Medical and Scientific Wholesaling industry. Scientific researchers studying the virus require specific equipment and instruments. Consequently, rising requirements for specialised tools are anticipated to boost demand for this industry.

Stage 4 restrictions implemented in metropolitan Melbourne from 2 August 2020 further disrupted machinery and equipment wholesalers. Machinery and equipment wholesalers were forced to close for on-site work unless they supplied critical products to a permitted service. Businesses that operate exclusively in metropolitan Melbourne are therefore expected to underperform compared with firms that operate across the country. These restrictions were lifted on 28 September 2020, when metropolitan Melbourne shifted to the second step in their reopening roadmap, boosting activity in the subdivision.

F35 Motor Vehicle and Motor Vehicle Parts Wholesaling: High

The COVID-19 outbreak is anticipated to have a high effect on the Motor Vehicle and Motor Vehicle Parts Wholesaling subdivision. Passenger vehicles have not been manufactured in Australia since 2017. As a result, wholesalers purchase all passenger vehicles from overseas. Disruptions to manufacturing activities in major vehicle-producing countries such as Japan, South Korea, Germany and the United States are expected to significantly inhibit wholesalers' ability to source vehicles. Negative consumer sentiment is expected to weaken retail demand for new vehicles and therefore weaken demand for new vehicle wholesalers. However, consumers will still need parts for existing vehicles, maintaining demand for retailers and servicers that acquire parts from wholesalers.

Firms in the Motor Vehicle New Parts Wholesaling industry also source a significant proportion of products from the United States, China, Japan and Thailand. Reduced global manufacturing activity and logistic delays are anticipated to negatively affect wholesalers' ability to source parts.

Easing restrictions are anticipated to boost consumers' movement and use of vehicles, driving demand for new cars and parts from retailers. This demand is anticipated to flow through to wholesalers. However, Stage 4 restrictions implemented in metropolitan Melbourne and a return to Stage 3 restrictions for the rest of Victoria delayed a boost in consumers' movements and use of vehicles, hindering demand for cars and parts from retailers in late 2020. Operators in metropolitan Melbourne faced further disruptions, as they were forced to close for on-site work. However, as Victoria has contained the second wave of COVID-19, restrictions have eased since 28 September 2020, boosting consumer movement. The removal of the border between metropolitan Melbourne and the rest of the state on 9 November 2020, alongside borders between some other states, further supported demand for the subdivision. However, potential future outbreaks and subsequent border closures would negatively affect the industry, slowing the recovery from the pandemic.

F36 Grocery, Liquor and Tobacco Product Wholesaling: High

The COVID-19 outbreak is anticipated to highly affect the Grocery, Liquor and Tobacco Product Wholesaling subdivision. Over the first several weeks of the lockdown, many consumers bought large quantities of non-perishable items including pasta, canned foods and other pre-packaged items. This behaviour significantly increased demand for operators in the Soft Drink and Pre-Packaged Food Wholesaling industry. Major supermarkets Coles and Woolworths had reported empty shelves due to consumers stockpiling goods and increasingly shifting to cooking at home rather than eating out. Supermarkets are anticipated to rely heavily on wholesalers to source highly sought-after products.

Easing restrictions have reduced the strain on the grocery supply chain, as consumers have largely ceased stockpiling activity. In addition, the gradual opening of cafes and restaurants across states and territories is anticipated to boost demand for food wholesalers from the food service sector, while moderating demand from supermarkets. The opening of pubs and bars is anticipated to increase demand from the hospitality sector. The implementation of Stage 4 restrictions in metropolitan Melbourne and the return to Stage 3 restrictions for the rest of Victoria initially offset these trends in Victoria in 2020. Consumers had resumed panic buying after new restrictions were announced, boosting demand for the Grocery, Liquor and Tobacco Product Wholesaling subdivision. However, the easing of restrictions in Victoria has stopped panic purchasing trends. In addition, Victoria has begun following trends across the rest of Australia, as demand from cafes and restaurants has risen as social distancing restrictions have eased. Any future outbreaks or lockdowns are anticipated to cause panic purchasing behaviour, as shown by the temporary short-term lockdown in Brisbane during early January.

F37 Other Goods Wholesaling: High

The COVID-19 outbreak is anticipated to heavily affect the Other Goods Wholesaling subdivision. Wholesalers of textile products, clothing, footwear, paper products, furniture and floor coverings, jewellery and watches, kitchen and diningware, and recreational goods source many of their products from overseas markets. In particular, the Knitted Product Manufacturing industry exhibits the highest exposure to imports from China of all Australian manufacturing industries. Consequently, logistical delays and reduced manufacturing activity in China, particularly in the first three months of 2020, are anticipated to strongly inhibit wholesalers' ability to source low-cost goods. A weak retail environment has also negatively affected demand for wholesalers over the March and June 2020 quarters.

Restrictions on non-essential shopping are being eased under the Federal Government's three-step plan. This change is anticipated to boost demand from the downstream retail sector. However, demand from retailers will likely remain weak as high unemployment and declining incomes discourage consumers from shopping. Weakness in this subdivision was further exacerbated by metropolitan Melbourne entering Stage 4 restrictions and the rest of Victoria returning to Stage 3 restrictions on 2 August 2020. These restrictions limited activity in the subdivision by preventing onsite work for metropolitan Melbourne businesses. However, metropolitan Melbourne shifted to the second step of Victoria's roadmap to reopening on 28 September 2020, allowing onsite work and supporting the subdivision's performance. Further easing of restrictions is projected to boost demand for the subdivision.

Retail Trade

G39 Motor Vehicle and Motor Vehicle Parts Retailing: Moderate

The COVID-19 pandemic is expected to have a moderate effect on Australia's Motor Vehicle and Motor Vehicle Parts Retailing subdivision. In value terms, China, the United States and Germany make up over 50% of imported motor vehicle parts in Australia. The temporary closure of many motor vehicle and motor vehicle parts manufacturing facilities in these countries is anticipated to disrupt supply lines and potentially raise the price of aftermarket components. Furthermore, declines in consumer sentiment associated with the COVID-19 outbreak suggest that some consumers may delay major purchases, including cars and motorcycles, causing subdivision demand to fall slightly.

G40 Fuel Retailing: High

The Fuel Retailing industry is the sole industry in this subdivision. Due to the COVID-19 pandemic, global manufacturing activity and motor vehicle travel have fallen, placing downward pressure on global demand for crude oil and causing petrol prices to decline in Australia. Furthermore, lower global tourism activity has reduced oil consumption by airlines, further decreasing global demand for crude oil. As a result, global oil prices declined significantly over the first three months of 2020. In April 2020, US crude oil prices became negative due to limited storage capacities and weak demand globally, which led to a significant sell-off of crude oil. However, OPEC+ reached an agreement to reduce crude oil production by approximately 10% (9.7 mb/d), which came into effect on 1 May 2020. This is expected to provide relief to oil prices and place upward pressure on domestic retail fuel prices in the short-term. Prices in the Fuel Retailing industry are anticipated to follow similar trends to those of global oil prices. Although petrol prices are expected to remain low in the short-term, decreasing oil production will likely moderate the severity of price falls. Overall, falling petrol prices are anticipated to reduce industry revenue, but have little effect on profit. Although over 55% of refined petroleum sold in Australia is imported, the pandemic is not anticipated to significantly affect supply chains.

G41 Food Retailing: Moderate

The Food Retailing subdivision has been moderately affected by the COVID-19 pandemic. During the initial outbreak in late 2019-20, demand surged as consumers began to stockpile groceries and other essential products. Many retailers reported increased demand for canned food and toiletries, such as toilet paper. Additionally, many households shifted to home-cooked meals while restaurants were restricted to takeaway during the two-month lockdown period in 2019-20. This trend supported demand for speciality food retailers and grocery stores during the COVID-19 pandemic, with revenue for the Supermarkets and Grocery Stores industry expected to rise by 4.6% in 2019-20. However, the COVID-19 pandemic has constrained global demand for Australian meat and produce, encouraging Australian food manufacturers to divert stock to the domestic market rather than export markets. Consequently, domestic supply of fresh food is likely to increase during the COVID-19 pandemic, placing downward pressure on food retail prices, unless retailers do not pass on lower costs to consumers.

G42 Other Store-Based Retailing: Very High

The Other Store-Based Retailing subdivision is expected to be highly affected by the COVID-19 outbreak. The Federal Government restricted all non-essential services and activities from 23 March 2020. As a result, many non-essential retail stores have closed due to these restrictions. Although

some retailers will still be able to operate through online retail channels, many smaller stores without online retail capabilities will be forced to temporarily cease trading. Employee numbers and wage costs are expected to fall, as many non-essential retailers reduce staff as stores are unable to open for a prolonged period.

However, the Federal Government has provided assistance to retail businesses affected by COVID-19. On 22 March 2020, the second stage of the stimulus package was announced, providing up to \$100,000 to small and medium sized enterprises (SMEs) and not-for-profits that employ people with an annual wage of \$20,000 or more. This is expected to boost cash flow for SME retailers, allowing businesses to pay fixed operating costs and retain staff during the downturn period. Additionally, on 30 March 2020, the Federal Government implemented the JobKeeper payment scheme, which aims to support staff retention for businesses affected by COVID-19. This scheme will provide fortnightly payments to significantly affected businesses of up to \$1,500 per eligible employee for a maximum of six months. In July 2020, the Federal Government announced a six-month extension to the JobKeeper payment scheme until the end of March 2021. However, the wage subsidy will be changed to a two-tier payment system offering employees that work over 20 hours per week a fortnightly payment of \$1,200, and employees that work under 20 hours per week a fortnightly payment of \$750. This payment is expected partially offset the drop in employee numbers from affected businesses in the Other Store-Based Retailing subdivision, as operators can keep paying employees while stores are temporarily closed. On 9 October 2020, the Federal Government announced a tax relief package, which is anticipated to support growth in consumer expenditure and demand for other store-based retailers.

On 8 May 2020, the Federal Government announced a 3-Step Framework for a COVIDSafe Australia, which provides guidance to state governments on how to loosen restrictions. The Federal Government expects states to lift most restrictions by July 2020. All states have begun to initiate the framework. As a result, retail stores and shopping centres have started to reopen, with store managers developing COVIDSafe plans to minimise risk of infection. This change is expected to provide relief to bricks-and-mortar retail stores and support a gradual rebound in retail sales. Victoria had a significant spike in cases in late June 2020, with metropolitan Melbourne and Mitchell Shire going into Stage 3 lockdown for six weeks, threatening the recovery of retail establishments located in Victoria. In August 2020, the Victorian Government moved to Stage 4 restrictions for metropolitan Melbourne and Stage 3 for rural Victoria, as COVID-19 cases continued to climb. In late October 2020, restrictions in Victoria were lowered to allow brick-and-mortar retail store to reopen. This factor is expected to provide relief for this subdivision, as Victoria accounts for approximately 26.2% of turnover for other store-based retailers. On 2 January 2021, non-essential businesses located in the Northern Beaches area in Sydney had to temporarily close for one week due to an outbreak. This temporary closure included retailers in this division, constraining industry turnover.

Supply disruptions related to the COVID-19 pandemic will likely significantly affect the Other Store-Based Retailing subdivision, as only a small proportion of subdivision products are produced domestically. Supply from the United States, Europe and Asia is expected to be significantly disrupted in the short-term, as manufacturers have had to temporarily shut down or reduce productivity over the outbreak period. For example, a significant proportion of electronics products sold in Australia are imported from China. Supply will therefore likely be affected for industries such as the Computer and Software Retailing industry, the Domestic Appliance Retailing industry, and the Electrical and Lighting Stores industry. Other industries are generally more diversified regarding the origin of imported products. Declining consumer sentiment during the COVID-19 outbreak is expected to weaken demand for subdivision products. Declines in demand have negatively affected the retail sector's already weak performance in 2019-20 and early 2020-21.

Accommodation and Food Services

H44 Accommodation: Very High

The Accommodation subdivision, as part of the wider tourism sector, has been significantly affected by the COVID-19 outbreak. The Federal Government's ban on overseas visitors entering Australia from 20 March 2020 has removed a key market for industry operators. Only Australian citizens, residents and their immediate family members may enter Australia, and all arrivals are required to enter quarantine for 14 days following their arrival. This trend is expected to significantly reduce demand for industry services.

Demand from domestic tourism is also expected to decline sharply due to travel restrictions imposed on Australians. All state and territory governments have implemented border restrictions during the pandemic. Additionally, governments across Australia have implemented restrictions on a multitude of non-essential activities, such as visiting hotels, except for essential reasons. Consumers have faced substantial fines for making unessential journeys. These restrictions are anticipated to significantly limit demand from domestic tourists, driving further declines in industry revenue.

On 8 May 2020, the Federal Government announced its 3-Step Framework for a COVIDSafe Australia, outlining the process of easing restrictions. While all states and territories have begun reopening their economies, significant restrictions remain. Australia's borders are expected to remain closed to international tourists for the foreseeable future, limiting growth in demand for industry services. However, restrictions on interstate travel have begun being eased. While most of Australia's internal borders have reopened, restrictions remain in place. Queensland remains closed to travellers who have recently been in parts of Greater Sydney. Additionally, any traveller who has been in New South Wales since 11 December 2020 must complete a border declaration. Victoria currently operates a travel permit system, where all interstate travellers require a permit to enter Victoria. Travellers from declared orange zones must be tested within 72 hours of arrival and isolate until they receive a negative result. Travellers from declared red zones are not permitted to enter Victoria without an exception. Travellers from parts of Greater Sydney are not permitted to enter the Australian Capital Territory without an exception. Those travelling to Tasmania from Greater Sydney, and those who have recently visited declared locations in Victoria must quarantine for a period of 14 days. Travellers to Western Australia from Victoria are required to self-quarantine for a period of 14 days, while travellers from New South Wales are not permitted entry. Travellers cannot enter South Australia from parts of Greater Sydney without an exemption, while those who have recently been in Greater Brisbane or New South Wales require a negative COVID-19 test. Travellers from declared hotspots must self-quarantine for a period of 14 days before entering the Northern Territory.

From 17 October 2020, permitted travellers from New Zealand have been allowed to enter Australia without quarantining under a travel bubble arrangement. This travel bubble is anticipated to provide some support to operators in parts of Australia by supporting a slight recovery in international tourism. Despite forecast heavy revenue declines across the subdivision, employment is anticipated to remain relatively steady during the pandemic. The Federal Government's JobKeeper program provides eligible businesses with \$1,500 per person employed. Businesses are legally required to pass this payment on to their employees.

H45 Food and Beverage Services: Very High

The COVID-19 outbreak is expected to significantly affect operators in the Food and Beverage Services subdivision. On 23 March 2020, the Federal Government announced several measures aimed at slowing the spread of COVID-19 in the Australian community, which mandated the closure

of all food and beverage service operators, with the exception of those offering delivery or takeaway services.

Additionally, on 20 March 2020, the Federal Government implemented a ban on all non-Australian citizens and residents entering the country. International tourists make up a key market for subdivision operators. These restrictions are expected to contribute to a sharp downturn in revenue for subdivision operators in 2019-20 and 2020-21.

While demand for takeaway services is anticipated to rise, it is not expected to outweigh the loss of revenue from people eating at restaurants. The forecast rise in unemployment and the consequent decline in household discretionary incomes are expected to reduce the number of Australians willing to make discretionary purchases, such as takeaway food. Additionally, takeaway services are increasingly being conducted through operators in the Online Food Ordering and Delivery Platforms industry. These operators can charge commissions on orders of over 30%, which can substantially reduce the margins available to operators. Consequently, subdivision revenue and profitability are expected to decline sharply over the course of the pandemic.

On 8 May 2020, the Federal Government announced its 3-Step Framework for a COVIDSafe Australia, outlining the process for easing restrictions. All states and territories have begun easing restrictions, allowing most food and beverage service providers to open if they have sufficient space to maintain four square metres per individual. However, some states and territories have diverged from this framework. As of 1 July 2020, operators in Victoria, Queensland, South Australia and Western Australia are allowed to open to an unlimited number of patrons, while adhering to a capacity limit of one person per two square metres. Operators in Tasmania and the Australian Capital Territory are allowed to open for a maximum of 250 and 500 patrons, respectively. Operators in Greater Sydney are permitted to open to a maximum of 300 patrons, while adhering to a maximum of one person per four square metres. Operators in the rest of New South Wales are restricted to one person per two square metres. Despite restrictions easing across much the country, many states and territories remain closed to international and interstate travellers. Tourists make up a significant market for subdivision operators. Additionally, declines in discretionary incomes are anticipated to limit demand for discretionary food and beverage purchases. Consequently, revenue for these operators is expected to remain subdued.

Despite the anticipated contraction in subdivision revenue and profitability due to the COVID-19 outbreak, industry employment is expected to remain largely stable. The Federal Government's JobKeeper program provides eligible businesses with \$1,500 per person employed. Businesses are legally required to pass this payment on to their employees.

Transport, Postal and Warehousing

I46 Road Transport: Very High

Most of Australia's non-bulk freight is transported by road. Operators in the Road Freight Transport industry are considered an essential service, and play a key role in transporting essential goods throughout the country. However, operators generate a substantial portion of their revenue transporting goods for downstream manufacturers and retailers, many of which have been forced to close due to the COVID-19 pandemic. Additionally, operators play a key role in transporting goods to and from export markets. The World Trade Organisation expects the ongoing pandemic to reduce global trade by up to 30%. Consequently, Australia's domestic freight task is expected to decline over the course of the pandemic, reducing the amount of goods requiring transport on Australia's roads. This trend is expected to contribute to a downturn in demand for road freight

transport services, driving a decline in industry revenue and profitability. However, on 8 May 2020, the Federal Government announced its 3-Step Framework for a COVIDSafe Australia, which outlines how restrictions will be eased. While progress has varied between states and territories, all states and territories have begun reopening their economies to some degree, which is expected to support business activity and increase demand for road freight services.

Demand for road passenger transport is expected to decline significantly during the pandemic. Social distancing restrictions have led to a sharp increase in the number of Australians working remotely, reducing demand for commuter bus services and taxi services. Easing restrictions across Australia, as states and territories implement the Federal Government's 3-Step Framework for a COVIDSafe Australia, have increased demand for road passenger transport services in Australia's major cities. This demand is expected to rise further as governments continue to lift restrictions and Australians return to work. However, demand remained subdued in Victoria, one of the largest markets for the Road Passenger Transport industry, until late 2020 due to restrictions to contain the second wave.

A slowdown across the global economy is expected to result in a sharp drop in the world price of crude oil, with the price per barrel falling below negative for the first time in history. The Road Transport subdivision competes fiercely against the Rail Transport subdivision, with road transport generally more fuel intensive than rail transport. Consequently, declines in the world price of crude oil are expected to provide a competitive advantage to the road transport subdivision, somewhat limiting the decline in subdivision revenue. A slowdown in Australia's international trade will significantly affect the Road Freight Transport industry by reducing the amount of freight requiring transport services.

I47 Rail Transport: Very High

Rail freight transport dominates the movement of Australia's non-bulk freight. Australia is a net exporter of commodities. The Rail Freight Transport industry provides a key service in aiding Australia's mining and agricultural sectors to transport products to export markets. Australia's largest export to China is iron ore. Demand from this market fell substantially in early 2020, due to the initial outbreak in China. However, demand from this market has recovered slightly, as restrictions have largely been lifted across most of China. Nevertheless, demand from other major markets, such as the United States, Europe and India, is expected to contract significantly in 2020-21. These trends are anticipated to substantially reduce revenue and profitability during the pandemic.

While the Rail Freight Transport industry dominates Australia's bulk freight task, it competes heavily against the Road Freight Transport sector in non-bulk segments. The slowdown in the global economy has caused the world price of crude oil to sharply decline, with the price per barrel becoming negative in April 2020 for the first time in history. Road transport is generally more fuel intensive than rail transport. Consequently, declines in the world price of crude oil are expected to provide a competitive advantage for the road transport subdivision, intensifying revenue declines for the Rail Freight Transport industry.

The Rail Passenger Transport industry is also expected to be negatively affected by the pandemic. Social distancing restrictions and more Australians working from home have substantially reduced demand for commuter rail passenger transport. Overall, subdivision revenue and profitability are forecast to decline due to the COVID-19 pandemic. However, restrictions eased across most of the country from late April 2020, encouraging increased business activity and consequently demand for rail passenger transport services as more Australians return to work. Demand in Melbourne, a city with one of the largest rail passenger transport networks in Australia, remained subdued due to strict restrictions from 9 July through to 1 November 2020. From 18 January 2021, the Victorian Government has permitted private sector workers to return to offices at 50% capacity. This reopening

is expected to contribute to increased demand from commuters, driving growth in demand for subdivision services.

I48 Water Transport: Very High

Australia's status as an island nation ensures all of its international trade is carried out by air or sea. Air Freight Transport is generally expensive, and only suitable to high-value, time-sensitive products. Consequently, most of Australia's international trade is carried by the Water Freight Transport industry. The downturn in the global economy due to the COVID-19 pandemic is expected to result in a decline in international trade. The World Trade Organisation estimates global trade to contract by up to one-third over the course of the pandemic. Additionally, declines in household discretionary incomes are expected to reduce demand for consumer goods. These trends are anticipated to cause domestic demand for overseas goods to fall. Furthermore, a downturn in the global economy will likely reduce demand for Australia-produced goods exported to overseas markets. Consequently, demand for water freight transport services is expected to decline significantly in the current year, constraining industry revenue and profitability.

Additionally, the Water Passenger Transport industry is expected to struggle with declining passenger numbers during the COVID-19 outbreak. Government restrictions on non-essential travel and growth in the number of Australians working from home are anticipated cause demand to decline for water passenger transport services such as commuter ferries. Additionally, on 15 March 2020, the Federal Government implemented a ban on all cruise ships docking in Australia. Negative media coverage of passengers stranded on cruise ships and the speed at which the virus spread on these vessels is expected to significantly reduce demand for cruise travel over the medium term.

I49 Air and Space Transport: Very High

The COVID-19 outbreak is expected to substantially reduce demand for air transport. On 20 March 2020, the Federal Government implemented a ban on all non-Australian citizens or residents from entering the country. Additionally, all arrivals into Australia had to undergo forced quarantine for a period of two weeks. These restrictions have substantially reduced demand for air travel and led to Australia's airlines grounding most of their fleet. In late March 2020, many Australian state governments closed their borders to interstate tourists, further reducing demand for air travel. While most states and territories have reopened their borders to interstate travellers, many restrictions remain. Reopening borders are expected to support increased domestic tourist activity, causing demand to rise for domestic air passenger transport.

Australia's two largest airlines, Qantas and Virgin, are no longer operating international flights. On 16 April 2020, the Federal Government announced a \$165 million support package for Qantas and Virgin to continue some domestic flights between Australia's capital cities and regional centres. This support aims to allow Australians who have recently arrived from overseas to return to their home state, and is expected to have minimal influence on subdivision revenue. On 21 April 2020, Virgin Australia, Australia's second largest airline, entered voluntary administration due to its poor financial position. Additionally, Australia's largest airline Qantas announced the forced redundancies for 6,000 employees in late June 2020, as the company attempts to remain viable through the pandemic. On 25 August 2020, Qantas announced the redundancies of a further 2,400 employees, as the company outsourced baggage handling operations at multiple major airports. From 17 October 2020, eligible travellers from New Zealand have been permitted to enter Australia without quarantine requirements. The return of New Zealand travellers is expected to aid subdivision operators. Australia's internal borders have largely reopened. The reopening of state borders is anticipated to support demand for interstate air transport services, benefiting subdivision operators.

Australia's existence as an island ensures all international trade is carried by air or sea. Air freight transport is generally expensive and reserved for high-value, time-sensitive products. The slowdown in Australia's international trade is expected to reduce demand for air freight services. However, increased demand for time-sensitive imports of personal protective equipment and other medical supplies has limited declines in demand for industry services. Additionally, on 2 April 2020, the Federal Government implemented a \$110 million scheme aimed at improving agricultural exports via air. This scheme is also expected to limit declines in demand for air freight services.

I50 Other Transport: Very High

On 20 March 2020, the Federal Government implemented a ban on all non-Australian citizens and permanent residents entering Australia. This trend is expected to result in a sharp decline in international tourism. Additionally, demand from domestic tourism is also anticipated to decline sharply due to travel restrictions. The Scenic and Sightseeing Transport industry relies heavily on tourists for revenue. Consequently, declining tourist numbers are expected to result in a sharp drop in revenue for subdivision operators. Additionally, the slowdown in the economy has resulted in many manufacturers and retailers closing their businesses, reducing demand for natural gas and oil. These trends are expected to negatively affect the Pipeline Transport industry. However, restrictions have been eased across much of the country since 11 May 2020, increasing business activity and supporting demand across the subdivision. The return to Stage 3 restrictions across Victoria from 5 August, and Stage 4 restrictions in metropolitan Melbourne from 2 August 2020 caused revenue declines for businesses operating in Victoria. Restrictions were eased significantly in regional Victoria from 24 September 2020, with Metropolitan Melbourne following suit on 1 November 2020. This reopening increased business activity in Victoria, driving increased demand for industry services.

I51 Postal and Courier Pick-up and Delivery Services: High

The COVID-19 outbreak is expected to have a mixed effect on the Postal and Courier Pick-Up and Delivery Services industry. The global economy is expected to enter a downturn due to the ongoing pandemic. The closure of many businesses is expected to reduce demand for subdivision services from commercial markets. These markets contribute a significant amount to industry revenue. Additionally, household discretionary income and consumer sentiment are anticipated to decline in the current year. These trends are expected to contribute to Australians making fewer discretionary purchases, subsequently reducing demand for consumer goods.

The Federal Government's restrictions on non-essential travel have prompted many Australian retailers to close their physical locations due to lack of foot traffic, but continue operating online. These restrictions are expected to boost demand from online shopping when Australians need to make purchases. Products purchased online are generally delivered by subdivision operators, boosting demand for industry services. Rising demand for online shopping has sharply increased the volume of parcels requiring delivery. This trend has prompted Australia Post to announce its intention to reduce metropolitan letter deliveries to once every second day, allowing the company to focus on parcel delivery. Additionally, the company has also announced that it would no longer commit to next-day delivery services. Australia Post is the dominant player in the subdivision. Consequently, company revenue and profit are expected to improve in the current year. Overall, increased demand from consumers is expected to offset reduced demand from commercial clients.

On 8 May 2020, the Federal Government announced its 3-Step Framework for a COVIDSafe Australia, outlining how restrictions would be eased. All states and territories have begun reopening their economies, allowing retailers with a COVIDSafe plan to reopen. Consequently, demand for bricks-and-mortar retailers is expected to rise, limiting growth in demand from online shopping. Loosening

restrictions are therefore expected to somewhat reduce demand for industry services.

I52 Transport Support Services: Very High

The Transport Support Services subdivision provides several services to the wider transport sector. A slowdown in international trade is expected to reduce demand for freight transport services and consequently subdivision operators. Declining demand for services provided by the Water Freight Transport industry is expected to reduce demand for stevedores, and other industries based around ports that rely on international trade. The World Trade Organisation has estimated that global trade will decline by up to 30% in the current year, due to the expected slowdown in global economic conditions.

Operators providing freight forwarding services are expected to face a decline in demand, associated with many businesses closing and a decline in international trade. Reduced demand for freight services is anticipated to cause domestic freight rates to fall, contributing to declining revenue and profitability for Australia's freight forwarders.

I53 Warehousing and Storage Services: High

Subdued international trade between Australia and its major trading partners is expected to disrupt supply chains across the economy. The Warehousing and Storage Services subdivision generates significant revenue from providing storage services for products waiting for export and imports awaiting customs clearance. The World Trade Organisation has estimated that global trade may decline by up to 30% over the course of the pandemic. This trend is expected to reduce the volume of products being imported and exported into Australia, and consequently the volume of goods requiring storage.

However, government regulations on social distancing prompted some retailers to close their physical operations and instead focus on online operations. Additionally, the expected decline in consumer sentiment and discretionary incomes is anticipated to reduce demand for consumer goods. Consequently, retailers are expected to struggle to clear existing stock, boosting demand for subdivision services. Restrictions are being eased across the country, in line with the Federal Government's 3-Step plan for a COVIDSafe Australia, allowing retailers that develop a COVIDSafe plan to open. Loosening restrictions across much of the country are expected to increase retail activity and reduce demand for storage services. Overall, the COVID-19 pandemic is expected to have a net negative effect on the Warehousing and Storage Services subdivision.

Information Media and Telecommunications

J54 Publishing (Except Internet and Music Publishing): High

The Publishing subdivision is expected to be highly affected by the COVID-19 pandemic. Demand for print newspapers and magazines is anticipated to decline as many consumers limit their spending on discretionary goods. Rising demand for home entertainment options is expected to bolster demand for books. Nevertheless, travel restrictions are anticipated to reduce demand for educational books used in higher education settings, as many international students remain abroad and will likely suspend their studies during the pandemic.

Newspaper publishers have reported significant declines in advertising revenue due to the COVID-19 outbreak, with News Corp Australia announcing that it would close 60 regional newspapers. In May 2020, News Corp Australia announced that most of its regional and community newspaper titles

would move to online-only publication. Regional media publisher Australian Community Media (ACM) announced in mid-April that it would stop publishing several of its newspapers and close some of its printing facilities due to falling revenue. The day after ACM's announcement, the Federal Government announced a \$50.0 million support package for public interest journalism in rural and regional areas. The package aims to bolster regional and remote TV broadcasters, newspapers and radio stations. In June 2020, the government announced that 107 organisations will receive funding from this support package in 2020-21, with \$18.0 million in funds slated to support publishing businesses. ACM also announced in June that it would resume publishing some of its regional titles, citing the support package and the JobKeeper wage subsidy scheme.

Declines in advertising spending have also affected magazine publishers, with spending on print advertising falling by approximately 45% in the June 2020 quarter. In April 2020, Bauer Media announced that it would temporarily suspend publication of some of its magazine titles. Bauer Media subsequently sold its Australian magazine operations to private equity fund Mercury Capital in June 2020. Mercury Capital announced that it would cease publication of eight former Bauer titles in July 2020, citing a substantial drop in advertising revenue precipitated by the COVID-19 pandemic. However, some magazines targeted at niche audiences, such as NextMedia's frankie and ABC Gardening Australia, have reported increased sales due to stronger consumer demand for home entertainment options. Improving economic conditions have led new operators to relaunch some magazine titles, with Paragon Media planning to relaunch former Bauer Media titles Women's Health and Men's Health in 2021.

Other magazine publishers have ceased print publication of certain titles, with GQ Australia (published by News Corp) announcing in October 2020 that it would cease publishing a print edition of its magazine from 2021 onwards.

The Software Publishing industry is anticipated to be largely unaffected by the COVID-19 pandemic. Software developers can work remotely, removing the risk of the virus spreading through office collaboration. The largest industry risk comes from software purchases by downstream industries. Software has become a vital part of many industries across the economy, supporting demand for industry products. While orders for some software may decline, orders are expected to surge for software that can help businesses overcome disruption caused by the COVID-19 outbreak, such as software that enables easier remote working operations, counteracting any potential declines in demand. Nevertheless, declining business confidence may constrain demand for software over the medium term.

J55 Motion Picture and Sound Recording Activities: Very High

The Motion Picture and Sound Recording Activities subdivision is anticipated to be heavily affected by the COVID-19 outbreak. Film and video production and distribution activity was largely halted by restrictions on public gatherings as continued production creates a high risk of spreading COVID-19. Production delays will likely lead to weaker demand for post-production services over the short term, particularly for movies. Some productions have since resumed in compliance with public health guidelines, with Fremantle Australia resuming production of its soap opera Neighbours in late April 2020. Film production activity is resuming across Australia as state and territory governments gradually lift restrictions on movement and gatherings, with production of Baz Luhrmann's Elvis film resuming production in Queensland in late September 2020. Other major film productions have commenced in Australia, such as Thor 4, as Australia's success in managing the pandemic facilitates production activities that cannot be undertaken elsewhere. Sound recording activities are anticipated to be affected to a lesser extent, as they require fewer staff and can be undertaken while still following public health guidelines.

On 27 April 2020, the Victorian Government announced a \$16.8 million package for workers in creative fields, such as film and television production, to mitigate the decline in activity caused by the COVID-19 pandemic. Domestic film and TV productions are anticipated to increasingly resume as state and territory governments lift restrictions on movement and gatherings across Australia. However, film and TV producers have flagged difficulties in acquiring insurance that would cover potential future disruptions related to the pandemic and allow them to resume production. In addition, declining advertising revenue at the major free-to-air broadcasters is anticipated to limit demand for local film and TV productions as commissioning budgets fall. In June 2020, the Federal Government announced a \$250.0 million support package for the arts sector. This package includes \$90.0 million in funding for loans to help fund new productions and a \$50.0 million grant to Screen Australia to help local film and TV producers secure finance for projects.

The Cinemas industry is anticipated to be the most affected in the subdivision, as public health restrictions forced cinemas across Australia to close temporarily. Consumer demand for SVOD services, such as Netflix and Stan, is expected to rise as social gathering restrictions mean that individuals spend more time at home. Cinemas across Australia are gradually reopening, albeit under capacity and hygiene guidelines, as state and territory governments relax restrictions. However, restrictions imposed in metropolitan Melbourne in July 2020 and extended to all of Victoria in August forced cinemas to close. Cinemas in Victoria were permitted to reopen, subject to capacity restrictions, in November 2020. Although restrictions on public gatherings are anticipated to continue easing over the coming months, cinemas will likely need to continue enforcing physical distancing and hygiene requirements while community transmission of COVID-19 persists. In addition, global film studios are delaying major film releases due to the pandemic. This factor is affecting major cinema markets, such as the United States and United Kingdom, limiting the number of first-run films available to local cinemas. This factor is anticipated to constrain Australian box office receipts in 2020-21, limiting revenue for the Cinemas industry.

J56 Broadcasting (Except Internet): High

The Broadcasting subdivision is expected to be significantly affected by the COVID-19 pandemic. Advertising revenue is anticipated to decline substantially as the economic downturn leads businesses to re-evaluate demand from consumers and advertising expenditure. However, more viewers are expected to tune in to TV and radio broadcasts due to restrictions on movement and social gatherings. Nevertheless, falling advertising revenue, production delays for new content, and postponements and cancellations of numerous major sporting leagues and events are all expected to negatively affect revenue for broadcasters. Demand for advertising is anticipated to recover moderately as state and territory governments lift restrictions on movement and gatherings, boosting demand from advertisers.

In response to declines in advertising revenue, the Federal Government has suspended content quotas for broadcasters in 2020. These quotas require commercial free-to-air broadcasters to program 55.0% Australian content between 6.00 am and midnight. Pay-TV broadcasters are required to spend 10.0% of their program expenditure on Australian content. The quota suspensions will likely encourage networks to purchase more broadcast rights to content produced overseas rather than invest in locally made content. The Federal Government has indicated that it would consider extending the quota suspension through to the end of 2021 should broadcasters require further support. No extension to the quota suspension has been officially announced as at January 2021.

J57 Internet Publishing and Broadcasting: High

The COVID-19 outbreak is expected to have a significant effect on the Internet Publishing and

Broadcasting industry. Some industry segments, such as online property listings, were moderately disrupted due to temporary restrictions on in-person property auctions and public inspections. Restrictions on property inspections and auctions are gradually being lifted across Australia, supporting demand for online property advertisements. The Stage 4 restrictions imposed in metropolitan Melbourne in August 2020 placed significant restrictions on property inspections and auctions, negatively affecting demand for online property advertisements. However, demand from the Melbourne market is anticipated to rise as the Victorian Government continues to relax restrictions on movement and gatherings. Online-only media publishers have been significantly affected by declining advertising revenue, with BuzzFeed announcing in May 2020 that it would close its Australian news operations. In the same month, Network 10 also announced that it would close its 10daily online news site.

Other segments of the industry, such as SVOD services, are anticipated to benefit from stronger demand as consumers spend more time at home. In addition, falling discretionary incomes are expected to support SVOD providers, as they have lower pricepoints than traditional pay-TV broadcasters. For example, SVOD provider Netflix has doubled its subscriber forecast for Australia as consumers have flocked to the service in response to government restrictions on movement and gatherings. Pay-TV provider Foxtel has sought to capitalise on rising demand for SVOD services by launching a new SVOD service, called Binge, in May 2020. In addition, several arts organisations, such as Opera Australia, have launched online streaming platforms in response to restrictions on live performances.

J58 Telecommunications Services: Moderate

Telecommunications services are anticipated to be moderately affected by COVID-19. Telecommunications networks rely far more heavily on technology than labour and are therefore not significantly affected by restrictions on movement and gatherings. The greatest potential risk is a shortage of labour for repairs, which could render elements of a network inoperable. However, even in an extreme scenario, disruptions to telecommunications networks remain unlikely.

Demand for telecommunications services is anticipated to rise as more individuals work remotely, increasing call and data volumes. In addition, the shift to remote learning in the early months of the pandemic boosted demand for mobile data services, particularly for students without access to sufficient home internet services. The Stage 4 restrictions imposed in metropolitan Melbourne in August 2020 prompted a return to remote learning for most students, increasing demand for mobile data services. As Victorian students gradually returned to on-site learning from October 2020, demand for mobile data services is anticipated to ease slightly.

J59 Internet Service Providers, Web Search Portals and Data Processing Services: High

The Internet Service Providers, Web Search Portals and Data Processing Services subdivision is anticipated to be highly affected by the COVID-19 outbreak. Internet service providers and data processing services are expected to largely benefit from more individuals working from home, boosting demand for broadband and cloud storage services. Players in the Data Storage Services industry could face challenges from the COVID-19 pandemic if demand rises rapidly, as the resources used to construct and operate data centres are largely sourced from overseas.

Internet service providers (ISPs) may also be negatively affected by the COVID-19 outbreak, as the NBN pricing model for data charges is based on total bandwidth used. A spike in the number of individuals working remotely could place additional strain on service providers' networks, forcing

them to pay overage charges to NBN and resulting in a net deficit despite greater demand for broadband services. According to NBN Co, network demand has increased by approximately one-quarter due to the COVID-19 outbreak. On 17 April 2020, NBN Co announced a \$150.0 million assistance package for internet service providers to support customers that require home internet services for educational and business purposes. In July 2020, NBN Co agreed to continue offering a 40% capacity boost to ISPs at no cost until 19 September 2020, as broadband use remained high across the country. In September 2020, NBN Co extended this arrangement through to 30 November 2020. NBN Co plans to taper off the capacity boost in December 2020 and January 2021, with retailers being offered a credit for additional capacity required beyond what they used before the pandemic.

J60 Library and Other Information Services: Moderate

The COVID-19 outbreak is expected to have a moderate effect on the Library and Other Information Services subdivision. Although demand for libraries and public archives fell as restrictions on social gatherings caused these venues to close in the fourth quarter of 2019-20, this subdivision is largely publicly funded. Consequently, a short-term decline in demand is unlikely to have any long-term negative effects on operators in this subdivision. These venues have largely reopened as state and territory governments have gradually lifted restrictions on public gatherings.

Financial and Insurance Services

K62 Finance: Moderate

The Finance subdivision is anticipated to be indirectly affected by volatility in financial markets and changes to the cash rate. The RBA's decision to make an emergency cash rate cut to 0.10% in November 2020 was largely due to the risk posed by the COVID-19 pandemic to domestic economy growth. Several other central banks and governments abroad have also lowered interest rates and announced stimulus packages to protect their economies from the effects of the pandemic. These decisions to further ease monetary policy are anticipated to lower interest revenue earned by banks and other lenders as they pass on the rate cuts to borrowers. Furthermore, the profitability and net interest margins of lenders are likely to be squeezed.

Volatility in financial markets has also affected operators in the Financial Asset Investing industry. Sharemarkets both locally and abroad reached record highs before posting some of the largest declines in the last week of February 2020. While the economy is gradually recovering, many local companies remain conservative on their earnings forecasts and have warned of the ongoing impact to their earnings. Investors have increasingly preferred safer assets such as bonds and this trend is expected to limit the returns of operators over the current year.

K63 Insurance and Superannuation Funds: Moderate

During the early stage of the COVID-19 pandemic, travel insurers have faced enquiries regarding trip cancellations and business interruptions. Investment revenue for insurers is expected to remain volatile in the current year due to fluctuations in equities, lower returns in both fixed interest investments and indirect investments.

Many insurers classed the pandemic as a known event at the end of January 2020, so insurance taken up after those dates are unlikely to cover claims related to the COVID-19 pandemic. Furthermore, exclusions apply to many standard travel insurance policies where the insurer does not provide

cover for pandemic, epidemic and virus outbreaks. However, many insurers that cover an epidemic or pandemic have cut off cover for claims resulting from COVID-19 from around 21 January 2020 for travel to China and 31 January 2020 for travel worldwide.

Australia's international travel ban has been extended until 17 March 2021. Travel restrictions associated with the pandemic have severely affected travel plans, with these effects likely to continue. Demand for travel insurance is anticipated to gradually return if and when the trans-Tasman bubble is expanded. Consequently, revenue growth for the Travel Insurance industry in Australia is anticipated to fall by 29.4% in 2020-21.

Health insurers have not been significantly affected by the COVID-19 pandemic. Elective surgeries were put on hold across Australia from March to April 2020, as the COVID-19 outbreak resulted in hospitals cancelling elective surgeries. Similarly, the second wave in Victoria led to elective surgeries in the states being put on hold between July and October 2020. Despite this factor, insurance premiums have remained the same. As the pandemic has largely been contained in Australia, many private health insurers have resumed implementing increases in premiums.

General insurers that provide business and commercial insurance offer business interruption (BI) policies. Many policyholders whose businesses were affected by the COVID-19 pandemic suffered significant losses, resulting in many claims under BI policies. However, many standard BI policies may not provide cover for claims related to the COVID-19 pandemic. Businesses may find it difficult to make claims, especially as exclusions may include diseases and viruses, and claims are often related to property damage or physical loss.

However, a landmark business interruption insurance court case was filed in NSW Supreme Court in August 2020. In the United Kingdom, the High Court ruled in favour of policy holders' in a Financial Conduct Authority's (FCA)'s business interruption insurance test case. The UK High Court ruled that most businesses that held BI insurance and were forced to close due to the COVID-19 pandemic are entitled to be compensated by insurers. The NSW Supreme Court may follow this ruling as it has set a persuasive precedent. This factor is anticipated to significantly affect general insurers' revenue and profit. In November 2020, Australian insurers lost a test case on coverage for businesses that closed due to the pandemic, potentially opening the door to hundreds of millions of dollars in payouts.

The pandemic is not expected to substantially affect life insurers and reinsurers unless the pandemic situation escalates significantly. However, investment returns are a key component and driver of revenue for insurers. Insurers will likely see declines in investment returns over the current year due to fluctuations in the equity markets.

Despite significant volatility in financial markets, the Superannuation industry will likely be relatively unaffected compared with other financial and insurance services operators. The focus on long-term performance by superannuation funds, given the objective of planning for retirement, is anticipated to help operators withstand sharemarket fluctuations.

K64 Auxiliary Finance and Insurance Services: Moderate

The Auxiliary Finance and Insurance Services subdivision is anticipated to be mostly unaffected by the COVID-19 outbreak. Operators in this subdivision are not expected to be directly affected by the pandemic, and demand and activity for auxiliary finance and insurance services will likely remain unchanged. Current forecasts will likely remain unchanged as the industry is largely serviced-based and does not face major supply chain disruptions.

Rental, Hiring and Real Estate Services

L66 Rental and Hiring Services (Except Real Estate): Very High

The COVID-19 outbreak has had a significant impact on the Rental and Hiring Services subdivision. The outbreak is expected to significantly affect the Passenger Car Rental and Hiring industry. Travel restrictions have had a significantly negative influence on industry operators, as firms rely on both domestic and international travellers. Significant declines in global tourism and travel restrictions are expected to cause demand for short-term vehicle rental services to fall. Demand from business customers, which account for approximately 45% of revenue for the Passenger Car Rental and Hiring industry, is anticipated to be less severely affected, as many of these vehicles are operated on long-term leases. However, demand from new businesses is anticipated to heavily decline, and some existing customers may cancel leases or have difficulty meeting their lease obligations. On 8 May 2020, the Federal Government announced a 3-Step Framework for relaxing domestic restrictions. This framework may support increased demand for some operators in the subdivision, with local and regional travel allowed at step one and some interstate travel allowed at step two. However, despite some states moving to relax lockdown restrictions earlier than others, demand is anticipated to remain subdued as restrictions on international visitors remain in place. Easing restrictions in Victoria and moves to open state borders provided some support for industry demand during the summer holiday period in 2020-21. However, the potential for further state and territory border restrictions when new outbreak occur will likely to constrain interstate travel and limit demand for some subdivision services.

Other industries in the subdivision are less exposed to tourism markets. However, a slowdown in general economic activity is anticipated to lower subdivision demand. Construction activity is anticipated to be heavily affected by the COVID-19 outbreak, with dwelling commencements projected to fall by 13.8% in 2020-21. Weak demand for new housing and project delays are expected to reduce demand for transport equipment, machinery and scaffolding rentals. However, increased infrastructure spending is anticipated to provide some relief for the subdivision, as the federal and state governments seek to support economic activity. For example, the Victorian Government announced a \$2.7 billion infrastructure package and assembled the Building Victoria's Recovery Taskforce to support activity in the construction sector during the COVID-19 outbreak and encourage economic activity. The Federal Government also announced plans to fast-track 15 major infrastructure projects, which are anticipated to generate \$72 billion in public and private investment. The government also introduced support for the residential construction sector through the HomeBuilder program, which provides grants for building new homes and undertaking renovations. Furthermore, in October 2020, the Federal Budget allocated \$14.0 billion to national infrastructure projects, including \$7.5 billion for transport infrastructure, \$4.5 billion for NBN upgrades and \$2.0 billion for road safety initiatives. As economic activity picks up, some commodity prices may recover and support demand for transport equipment and machinery rentals. Strong iron ore and gold prices are also anticipated to support demand for subdivision services from the mining sector.

L67 Property Operators and Real Estate Services: Very High

Australia's property management subdivision has been heavily affected by COVID-19. Social distancing measures and the general slowdown in economic activity reduced revenue for many retail and commercial businesses, making it difficult for some firms to meet their rental obligations. Following the outbreak, many commercial businesses were able to renegotiate rental agreements, constraining revenue for retail property operators. As employers embrace flexible working arrangements due to social distancing measures, demand for office space may fall. This factor may

lead to ongoing changes in the way businesses operate, with some firms shifting permanently to flexible working arrangements for employees, adversely affecting office property operators. While industrial property operators are anticipated to be less severely affected, slowing economic and international trade activity may create issues for some tenants. The move to relax restrictions on businesses is anticipated to provide some support for the subdivision. However, some firms may have to make alterations to buildings or floor plans to ensure that they can effectively implement social distancing measures in their properties.

In response to the COVID-19 outbreak, the National Cabinet introduced the Mandatory Code of Conduct for SME Commercial Leasing Principles, which relates to commercial tenancies. The code, which applies from 3 April 2020, seeks to balance the interests of landlords and tenants, with the stated objective 'to share, in a proportionate, measured manner, the financial risk and cashflow impact during COVID-19'. The code applies to businesses eligible for the Government's JobKeeper assistance scheme with an annual turnover of up to \$50.0 million. The code provides guidelines for rent reductions, freezes on rent increases and prohibits the termination of leases for non-payment of rent. The code also outlines that tenants must remain committed to the terms of their lease to continue receiving protections under the code.

At the height of the outbreak, restrictions on auctions and inspections significantly constrained property transaction volumes, reducing demand for real estate services. On 8 May 2020, the Federal Government announced a 3-Step Framework to relax domestic restrictions, with states and territories relaxing restrictions at different rates. While residential property transaction volumes are anticipated to remain low, the resumption of physical inspections and auctions is anticipated to support increased activity in the subdivision. However, the Victorian market faced ongoing restrictions, with the state facing further lockdown conditions. From 19 October 2020, physical property auctions resumed in Melbourne with a limit of 10 attendees, and one-on-one commercial property inspections are able to take place. In March 2020, banks began providing relief on mortgage repayments for those affected, which provided support property prices. Some banks also offered a further four-months of relief for eligible customers. Residential housing prices have come under pressure, with national prices falling by approximately 1.1% in the September quarter of 2020. However, with Victoria facing tighter restrictions than other parts of the country, Melbourne house prices fell by 3.3% during the September quarter. Victorian restrictions were relaxed further in November 2020, providing a boost to housing markets. As government support initiatives such as JobKeeper are wound back, and the banks end their mortgage pauses, residential housing prices may come under increased pressure. Housing prices have remained resilient so far, although many residential property landlords have had to reduce their rent, as tenants have experienced financial difficulty amid higher unemployment. A decline in international visitors is also anticipated to reduce demand for short-term property rentals, leading to some Airbnb properties likely being offered as longer-term leases. This factor, combined with rising unemployment and a fall in net migration, is anticipated to weigh on rental prices for residential properties and adversely affect operators in the Residential Property Operators industry.

Professional, Scientific and Technical Services

M69 Professional, Scientific and Technical Services: High

The Professional, Scientific and Technical Services subdivision has been highly affected by the COVID-19 outbreak. In June 2020, the ABS reported that about 73% of businesses in the subdivision were still operating under modified conditions and that 62% of subdivision businesses had made changes to their workforce, including changing work locations, reducing hours or staff numbers or placing staff on paid leave. Operators in the Architectural Services industry and the Engineering

Consulting industry are expected to contend with reduced foreign investment as a result of the COVID-19 outbreak. This factor may limit future expansion of larger projects that require foreign investment.

Some construction projects are anticipated to have difficulty attaining funding or be postponed due to economic uncertainty, which may further reduce demand for architectural and engineering services. However, operators may benefit from government efforts to support economic activity through increased infrastructure spending. For example, the Federal Government announced plans to fast-track 15 major infrastructure projects, including the Brisbane-Melbourne inland rail link. These projects are anticipated to generate \$72 billion in public and private investment, and create over 65,000 jobs. In the Federal Budget handed down in October 2020, the Federal Government also allocated \$14.0 billion to infrastructure projects. These types of initiatives are anticipated to support demand for some operators in the subdivision. The Federal Government also introduced the HomeBuilder program to support residential construction activity, which provides grants for some new homes and renovations. State governments are also anticipated to introduce support measures. For example, the Victorian Government announced a \$2.7 billion infrastructure package and assembled the Building Victoria's Recovery Taskforce to support activity in the construction sector during the COVID-19 outbreak. The taskforce has the ability to fast-track planning approvals through ministerial powers, and has a mandate to investigate options for boosting activity over the short, medium and long term.

The Management Consulting industry and the Legal Services industry are expected to be heavily affected by the COVID-19 pandemic. As businesses across most sectors seek to reduce costs in the face of economic uncertainty, demand for consulting services is anticipated to decline. Demand for discretionary services, such as strategy and change management, is expected to remain subdued in 2020-21. As a result, revenue for the Management Consulting industry is expected to fall by 2.8% in 2020-21. Some large professional services providers, including consulting and law firms, were forced to reduce staff hours and pay in response to slowing business activity and falling utilisation rates. Some major consulting firms also announced staff cuts, and reduced or delayed the start date for their 2020 graduate intakes. However, some businesses exposed to international markets, particularly in their supply chains, are expected to need advice on mitigating costs associated with the COVID-19 pandemic. This factor will support some demand for consulting services. Government initiatives targeted at supporting businesses, such as lifting the instant asset write-off threshold, may also support demand for accounting services. On 8 May 2020, the Federal Government announced a 3-Step Framework to relax domestic restrictions, with the states and territories moving to ease restrictions at different rates. As restrictions ease, an increase in the number of firms seeking to structure themselves to benefit from a recovering economy may support subdivision activity. Despite subdued conditions in the wider subdivision, some major consulting firms reported solid results for 2020, supported by demand for consulting and audit services.

Demand for scientific research services is expected to increase during the pandemic, particularly in medical and biological research sectors, as firms work on a vaccine for COVID-19. Revenue for the Scientific Research Services industry is expected to grow by 4.8% in 2020-21, due to increased capital expenditure by the government, and research into COVID-19 and potential vaccines. Both public and private funding for scientific research relating to COVID-19 are expected to increase. For example, the Federal Government provided an additional \$66 million in funding to support research into a potential COVID-19 vaccine, investigate possible antiviral therapies, conduct clinical trials of potential COVID-19 treatments and improve the health system's response to future pandemics.

M70 Computer System Design Services: Moderate

The COVID-19 outbreak is expected to moderately affect the Computer System Design Services subdivision. The subdivision is services-based, with IT consultants largely being able to work remotely for the duration of the COVID-19 outbreak. The subdivision may benefit from increased demand for IT services as more businesses create an online presence and allow employees to work remotely. According to the ABS, approximately 40% of Australian businesses have changed how they provide products or services, such as shifting to online services. However, many businesses are also likely to reduce expenses, such as consulting costs, in response to a slowdown in economic activity. Companies that focus on computer design and hardware could be moderately affected. Most computer parts, components and hardware are manufactured overseas. As a result, interruptions to international trade may adversely affect supply chains for operators in the subdivision. Demand for future software development projects is forecast to decline slightly as firms delay investment in new projects in an uncertain economic environment. However, as the government announced its 3-Step Framework to relaxing restrictions on 8 May 2020 and economy activity starts to recover from the effects of COVID-19, businesses will likely invest more in technology to improve their digital capabilities. This factor is projected to provide some support for subdivision demand.

Administrative and Support Services

N72 Administrative Services: Very High

Most industries in the Administrative Services subdivision are anticipated to be significantly affected by the COVID-19 outbreak. However, the Travel Agency and Tour Arrangement Services industry is expected to be highly affected, due to the Federal Government closing borders to international arrivals and banning Australians from international travel. In addition, state governments have imposed border closures and restrictions in a bid to reduce the spread of COVID-19, restricting domestic travel. In July 2020, New South Wales closed its border with Victoria in response to high infection numbers, effectively halting all but essential travel between the states. While state borders have largely reopened, recurring outbreaks have forced state and territory governments to close their borders to residents living in areas with ongoing outbreaks. The unpredictability of outbreaks can deter interstate travel, as consumers cannot be sure if they will need to return from their trips early. In addition, restrictions on corporate travel already enforced by many businesses have significantly reduced business travel activity, further reducing revenue and margins for travel agencies.

Although travel restrictions are largely expected to remain in place over the medium term, demand for domestic travel is gradually returning as state borders reopen. However, weak economic conditions are expected to place significant downward pressure on demand. Travel to New Zealand may also resume under a trans-Tasman bubble arrangement between the two countries, with any arrangement allowing Australians to travel to New Zealand only likely to emerge in 2021. While New South Wales, Victoria, the Northern Territory and the Australian Capital Territory allow quarantine-free arrivals from New Zealand, quarantine requirements on return to New Zealand mean that demand for leisure travel will likely remain limited. Loosened restrictions on domestic travel will likely provide some support for travel agencies over the medium term.

Demand for tour arrangement services is expected to decline significantly due to COVID-19, as operators heavily depend on international tourists. Bans on international travel to Australia will likely cause many tour arrangement operators to suspend or end operations, with Australia's international borders likely to remain closed at least through the first half of 2021. As a result, revenue and profitability for tour arrangement service operators are anticipated to fall sharply in 2019-20 and 2020-21.

The economic disruption caused by the COVID-19 pandemic is anticipated to negatively affect demand for job placement and recruitment services. Many employers have frozen or suspended hiring processes in response to lower demand, with ANZ reporting that job advertisements fell by over 50% in April 2020, following a 10% decline in March. In June 2020, employment listing website SEEK reported that while online job advertisements increased over the month, they remained below pre-pandemic levels. The Stage 4 restrictions imposed in metropolitan Melbourne in August 2020 limited hiring activity in the area, constraining demand for job placement and recruitment services. Hiring activity in Victoria is anticipated to rise as restrictions on movement and gatherings ease across the state. Overall job advertisement numbers have gradually risen from lows recorded in April, providing support for job placement and recruitment firms.

N73 Building Cleaning, Pest Control and Other Support Services: High

The COVID-19 outbreak is expected to significantly affect the Building Cleaning, Pest Control and Other Support Services subdivision. COVID-19 is anticipated to negatively affect demand for building cleaning, pest control and gardening services, as deteriorating economic conditions and many employees working from home lead to building operators reducing or postponing scheduled services. However, this trend is expected to be partly offset by additional cleaning requirements from businesses that remain open. Demand for subdivision services is anticipated to rise as state and territory governments gradually ease restrictions on movement and gatherings, enabling more businesses to reopen. Stage 4 restrictions in metropolitan Melbourne between August and October 2020 prohibited nonessential services provided by this subdivision, significantly limiting activity for businesses operating in Melbourne. However, the Victorian Government has gradually eased restrictions on business activity, supporting demand for subdivision services.

Subdivision operators are expected to be minimally exposed to supply chain disruptions. However, players in the Commercial Cleaning Services industry could potentially face supply constraints relating to hygiene products such as disinfectants and hand sanitiser. Greater demand for cleaning supplies is anticipated to increase operating costs for building cleaning services companies. However, supply chains have largely adapted to increased demand for these products.

Public Administration and Safety

O76 Defence: Moderate

The COVID-19 pandemic has so far had a minor impact on the Australian Defence industry. However, in the event of a significant disruption to the economy as a result of the pandemic, the effect on the Defence industry would be substantial. Australian Defence Force resources could be required to assist in quarantine measures, to transport medical supplies, and to assist police and firefighting efforts. Military operations could also be directly affected if COVID-19 spread through defence personnel. Australian participation in multi-lateral military exercises may be reduced in an effort to contain the spread of COVID-19. To help contain the spread of the second outbreak, Victoria requested help from the Australian Defence industry. The defence force will assist with border checkpoints, testing and enforcing isolation. Other states will likely request similar help from the Australian Defence industry if future outbreaks occur.

O77 Public Order, Safety and Regulatory Services: Moderate

This subdivision has so far been minimally disrupted by the COVID-19 pandemic. However, certain industries in this sector may be at a higher risk of disruption. The Correctional and Detention Services

industry may be at a high risk of COVID-19 exposure, given the close proximity of inmates in jails. Police and firefighting services may be called on to assist in quarantine maintenance, or to deliver first aid in alternative health emergencies if health resources are pre-occupied with COVID-19 cases. On 2 August 2020, a state of disaster was declared across Victoria and new restrictions including a curfew were imposed across metropolitan Melbourne. The state of disaster provided greater police power, allowing police to enforce the curfew, stop protests and move along large crowds.

Education and Training

P80 Preschool and School Education: Moderate

Preschool and education establishments have been moderately affected by the COVID-19 pandemic. During the early stages of the pandemic, fears regarding the spread of the virus led to many parents keeping their children at home, reducing demand for preschool services. To support the industry, the Federal Government announced temporary funding for childcare. The funding begun from 6 April 2020, regardless of whether the children are attending childcare services. The Federal Government has also announced \$453.2 million funding for preschools in 2021. However, families are expected to pay for childcare fees from 13 July 2020, as the Federal Government moves to end the free childcare subsidy.

While international students account for smaller shares of the student population in this subdivision compared with higher education, bans on overseas travellers are making it difficult for international students to attend Australian schools. However, the Australian Government announced on 22 February 2020 that it has offered limited exemptions from the travel ban for Year 11 and 12 students that remain in China. These students must hold a current visa, have not travelled through the Hubei Province, are not currently unwell and must self-isolate at home for 14 days before attending school. While students have studied online for the most of 2020, most students are expected to resume face to face lessons in 2021. However, sporadic outbreaks could lead to temporary study from home arrangements.

P81 Tertiary Education: High

The Tertiary Education subdivision has been highly affected by the COVID-19 pandemic. On 20 March 2020, the Federal Government put a travel ban on all non-citizens and non-residents. Non-residents with student visas who are not in Australia will be unable to enter the country until the travel ban has been lifted. Australia's international borders are likely to remain close for most of 2021, further affecting the Tertiary Education subdivision.

Australia's border closure since March 2020 has put significant pressure on Australia's higher education sector. When the border closure was initially implemented, almost 100,000 international students were restricted from entering the country. China is a key source of international students and revenue for domestic universities. From the estimated 950,000 international student enrolments in 2019, over one-quarter of students came from China. As international students account for 24.8% of the \$34.0 billion in revenue for the University and Other Higher Education industry, the downturn in Chinese student numbers has significantly constrained the finances of several domestic universities. As international students are a key source of income for many domestic universities, many have made arrangements to allow students to study remotely. As a result, most domestic universities have ramped up their online learning capabilities. Some international students that are currently in Australia are facing financial difficulties as many temporarily lost employment due to the COVID-19 outbreak. International students who have been in Australia for more than 12 months

and are in financial hardship during this period will be able to access their superannuation funds. International students who are working in aged care and nursing will be able to work for up to 40 hours per fortnight.

In April 2020, the Federal Government announced a higher education relief package that includes \$18.0 billion for domestic students, \$100.0 million in regulatory relief for education providers, and funding for new short courses for the unemployed. Additionally, 20,000 places in short courses will be offered in areas such as nursing, teaching, health, IT and science. While the Federal Government has indicated assistance will not be provided to international students, some universities and state governments are working on ways to support students facing hardship during this period by setting up emergency student funds. State governments across Australia have announced varying amounts of fund to support international students. Support packages include one-off payments, help with food and shelter, and mental health support.

Despite efforts from state government and universities to assist international students in financial hardship, universities are anticipated to face difficulties in admitting international students in 2021. International travel restrictions mean that new students cannot enter the country to begin their tertiary education. Additionally, trade tension between Australia and China are expected to significantly affect the tertiary education sector's growth over 2020-21. China's Ministry of Education has issued warnings to Chinese students to reconsider their studies in Australia. While this factor is not likely to severely affect students that are currently enrolled in the higher education sector, the number of new enrolments from China is expected to fall over the next year. As a result, some universities will likely turn to massive open online courses (MOOCs) for revenue.

In September 2020, the NT Government brokered a deal with the Federal Government and Charles Darwin University to fly international students to Darwin. The initial pilot plan involved a batch of up to 70 students travelling to Darwin from four countries that have permission to transit through Singapore.

Following Victoria's success in containing the second outbreak, several state governments, including New South Wales, Victoria, South Australia and Australian Capital Territory, are working closely with the Federal Government on a similar plan to bring international students back. These plans are expected to lead to 300 international students returning to South Australia, and 350 to the Australian Capital Territory. New South Wales is expected to allocate 1,000 quarantine places per week for international students and temporary migrants.

In a bid to support the regional international education sector, the Australian Government announced an extension of post-study work visa rights for international students who have studied and lived in regional areas. From 2021, Temporary Graduate visa (TGV) holders (Subclass 485) who have obtained their degrees from a regional educational institution and have lived in regional Australia on their first TGV will be eligible for a second TGV.

P82 Adult, Community and Other Education: Moderate

The COVID-19 pandemic is anticipated to have a moderate effect on the Adult, Community and Other Education subdivision. These establishments primarily service the domestic market and do not have large numbers of international students. However, providers of English language intensive courses for overseas students have faced lower demand from international students due to the travel ban.

Health Care and Social Assistance

Q84 Hospitals: Moderate

At this stage, the Hospitals subdivision is expected to be moderately affected by the COVID-19 outbreak. The greatest challenges facing the Hospitals subdivision in the early stage of COVID-19 in Australia were potential supply shortages, particularly for basic medical supplies such as surgical masks and hand sanitiser. The mass buying of these goods by the general public, combined with disruptions in the supply chains of these goods from China, resulted in a run on inventory in many stores and warehouses. Hospitals delayed elective surgeries and prioritised COVID-19 patients, particularly those experiencing severe symptoms, in an effort to control the outbreak and lower the risk for all patients.

On 27 April 2020, the Australian Health Protection Principal Committee (AHPPC) advised that, in addition to Category 1 elective surgeries, Category 2 and some Category 3 elective surgeries were permitted. This factor provided relief for private hospitals that have a greater focus on elective surgeries. On 15 May 2020, the Federal Government suggested that states reopen elective surgery in a three-stage incremental process, which was completed by July 2020. This transition is expected to support a gradual recovery in demand for elective surgery practices performed at hospitals. However, the Victorian Government reintroduced restrictions on hospitals in August 2020, as cases sharply increased. Metropolitan Melbourne moved to Stage 4 restrictions and rural Victoria moved to Stage 3 restrictions, resulting in all Category 3 and non-urgent Category 2 surgeries being placed on hold until restrictions were lowered in October 2020. These restrictions on Victoria are expected to limit the recovery of this subdivision in 2020-21, as Victorian hospitals make up a sizeable share of turnover.

The Federal Government assisted this subdivision during this initial outbreak period in an attempt to provide enough support and infrastructure if cases began to significantly rise. On 11 March 2020, the Federal Government announced a \$2.4 billion health package, which is expected to support primary health services, including hospitals. This funding will allow hospitals to increase internal capacities for the expected increase in demand for industry services. In addition, hospitals will receive \$500 million in funding from the Federal Government to help treat COVID-19 patients and contain the COVID-19 outbreak. On 31 March 2020, the Federal Government also announced a partnership with the private health sector to secure 30,000 hospital beds and 105,000 staff to help combat the COVID-19 outbreak. Revenue is expected to remain relatively stable, due to state and federal funding programs. However, funding and resources are expected to be pushed heavily towards COVID-19 treatment and containment measures.

Q85 Medical and Other Healthcare Services: High

The Medical and Other Healthcare Services subdivision is expected to face significant challenges due to the COVID-19 outbreak. A shortage of basic medical supplies initially disrupted the General Practice Medical Services industry, as GPs struggled to supply basic medical services without sufficient protection for both themselves and patients. Other industries in the subdivision have also faced challenges related to the pandemic, as many patients delayed unnecessary medical appointments. This subdivision also includes allied and secondary healthcare services, such as physiotherapists, which are not supported by the \$2.4 billion health package. Due to expected slow demand, rising medical equipment costs and minimal government support, this subdivision's profit margins are expected to fall in the current year.

Q86 Residential Care Services: High

The Residential Care Services subdivision is expected to face heavy disruption related to the COVID-19 pandemic. Aged care residential facilities are particularly vulnerable to COVID-19 outbreaks, and staff are expected to respond accordingly to minimise risk for themselves and residents. Shortages of preventative medical supplies, such as face masks and hand sanitiser, would negatively affect these facilities, as preventative measures are more difficult to implement without access to these basic supplies. On 11 March 2020, the Federal Government announced a health package valued at \$2.4 billion, which is expected to support primary health services, including aged care facilities. In particular, \$101.2 million in funding has been announced to educate and train aged care workers in infection control, and to enable aged care operators to hire additional nurses and workers.

Q87 Social Assistance Services: Moderate

The Social Assistance Services subdivision is expected to be moderately disrupted by the effects of the COVID-19 pandemic. The Child Care Services industry may face challenges, as potential outbreaks may require facilities to temporarily close. However, these facilities may instead face a surge in demand if schools are shut in response to COVID-19 outbreaks, without a corresponding response from business. Demand for personal welfare services may also rise, as workers, particularly self-employed or contract workers, may accrue debt during mandated isolation periods.

On 6 April 2020, the Federal Government implemented the Early Childhood Education and Care Relief Package. This package aims to support families and the Child Care Services industry. Until the end of 2019-20, the Federal Government provided weekly payments directly to early childhood education and care services instead of the Child Care Subsidy. This relief package is expected to help retain employees and keep early childhood operators open during this period. Furthermore, families were not charged fees for early childhood education services during this period. This package is expected to support growth in demand and help retain staff despite the current challenging operating conditions. On 8 May 2020, the Federal Government announced a 3-Step Framework that guides state governments on how to loosen restrictions. All states have begun implementing the framework. As a result, all childcare centres have reopened, supporting increased demand for the Child Care Services industry. However, metropolitan Melbourne moved into Stage 4 restrictions in August 2020, which led to the temporary closure of childcare centres. These restrictions were then lowered at the end of September 2020, supporting a recovery in demand from this subdivision in 2020-21.

Arts and Recreation Services

R89 Heritage Activities: Very High

The COVID-19 outbreak is anticipated to have a very high effect on the Heritage Activities subdivision. Local visitors make up the main markets for most industries in the subdivision. Heritage institutions such as museums, galleries and libraries are slowly beginning to reopen. For example, New South Wales is reopening museums without tour groups and requiring a 24-hour quarantine for returned library books. Heritage institutions rely largely on public funding. Consequently, easing restrictions are not anticipated to significantly boost revenue for free services such as libraries. However, museums may benefit from ticket and merchandise sales.

Zoos and wildlife sanctuaries, which incur wage and animal feed costs even when closed to visitors, have reported that they are at risk of becoming unviable. Many of these businesses have largely had to rely on the JobKeeper stimulus and community donations to continue animal care. However, in

late April, the Federal Government offered \$95 million in support for zoos, aquariums and wildlife parks to help cover the costs of animal care and facilities upkeep. Zoos have reopened across the country, which is anticipated to boost revenue and help cover necessary costs such as animal care. Zoos in Victoria reopened in late October 2020, as the state begun containing the second wave. In addition, Werribee Open Range Zoo is set to receive \$84 million from the Victorian Government to upgrade its facilities. These factors are anticipated to increase demand and activity in the subdivision. Easing restrictions under the Federal Government's framework are anticipated to boost public use of nature reserves and botanical gardens, as gatherings at these locations are now permitted. However, these institutions generally derive revenue from public funding rather than consumer spending. Consequently, increased visits are not anticipated to significantly affect revenue for the Zoological and Botanical Gardens industry, or the Nature Reserves and Conservation Parks industry.

R90 Creative and Performing Arts Activities: Very High

The COVID-19 outbreak is expected to significantly affect operators in the Creative and Performing Arts Activities subdivision. Subdivision operators have faced more cancellations or rescheduling of performance and concert dates, especially from international artists and acts. The subdivision also sources a proportion of revenue from international travellers, which will be affected by travel restrictions, but this share is anticipated to be small. Cancellations and postponements are expected to constrain demand for the subdivision and could mean lost revenue and significant costs for operators. Concert venues are able to open with 20 people or fewer in step two. However, clubs must remain shut until step three. Several states and territories are allowing larger crowds at these venues, which has the potential to boost demand for small performances. In addition, nightclubs in most states have reopened with capacity restrictions. However, the recent outbreak in New South Wales in late December has limited demand for nightclubs in the state, as venues are not permitted to allow dancefloors.

Victoria has lagged behind other states and territories due to the second wave that affected the state. As a result, many venues closed or remained closed during the latter half of 2020, limiting demand across Victoria. These restrictions have been gradually eased as the state has contained the second outbreak, subsequently boosting demand in Victoria. The Federal Government has announced \$250 million in funding for creative arts, including grants and loans to facilitate work on new productions.

R91 Sports and Recreation Activities: Very High

The majority of the Sports and Recreation Activities subdivision is expected to be significantly affected by the COVID-19 outbreak. The Sports and Recreation Facilities Operation and the Sports Administrative Services industries are expected to contend with mandatory cancellations of large public events in several states and territories. Several sporting leagues such as the AFL and NRL have resumed, and the Federal Government has announced that large crowds will be able to attend games. For example, just under 50,000 people attended the State of Origin finale at Suncorp Stadium in Brisbane. Despite this, Victoria had effectively no sporting and recreation activity in late 2020, and all Victorian AFL teams left the state due to the spike in cases and lockdown restrictions. However, as the state has contained their second wave, sporting events and crowds have returned. The resurgence of ticket sales is anticipated to significantly boost revenue for the sports sector. For example, the Australian Open is occurring in January, which is likely to boost demand for the sector. However, capacity constraints will limit demand, as it is set to operate at a 50.0% capacity. This is similar to the cricket Test series between Australia and India, which has allowed crowds at a reduced capacity. For example, the test match in New South Wales had a capacity of 25.0%.

Easing social distancing restrictions through the Federal Government's 3-Step Framework are

anticipated to somewhat boost revenue for the subdivision, as small group outdoor exercise and non-contact recreational activities are now permitted. Some operators in the Sports and Physical Recreation Clubs industry will therefore be able to resume operations. Gyms and fitness centres reopened from as early as 15 May 2020 in the Northern Territory to as late as 22 June 2020 in Victoria. Reimposed lockdown restrictions across Victoria from early July until October 2020 negatively affected businesses in the state. However, these restrictions are gradually being eased as COVID-19 is contained. For example, gyms and indoor sports can operate with capacity constraints and contact sport is allowed for all ages.

R92 Gambling Activities: Very High

Certain segments of the Gambling Activities subdivision are expected to be heavily affected by the COVID-19 pandemic. The Casinos industry will likely face significant revenue declines, as operators have been required to close for several months due to social distancing requirements. Casinos, which are beginning to reopen across most of the country, must comply with relevant state and territory social distancing restrictions. Casinos in Victoria have returned to being closed or have remained closed due to lockdown restrictions. However, as Victoria has largely contained the second COVID-19 wave, casinos across the state have begun reopening with capacity constraints. The major players in the industry had already recorded declines and faced challenging conditions in VIP programs for the first half of 2019-20, although Star Entertainment Group recorded an increase in VIP turnover for the period. Both domestic and international visitation declined in 2020 due to travel restrictions. The remainder of the subdivision is unlikely to be affected as services are provided domestically, with a large proportion of services delivered through digital channels. The resumption of sporting seasons is expected to have boosted demand for sports betting.

Personal Services

S94 Repair and Maintenance: Moderate

Operators in the Repair and Maintenance subdivision service the domestic market, so demand is not expected to be directly affected by the COVID-19 pandemic. The uncertainty surrounding outbreaks and will likely deter businesses from investing in new capital. Consequently, demand for services from industries such as the Heavy Machinery Repair and Maintenance industry and the Motor Vehicle Engine and Parts Repair and Maintenance industry may increase.

Shortages are anticipated for machine parts and tools used by operators, as the subdivision relies on imports from China, the United States and Germany, which have endured heavy outbreaks. Many manufacturing facilities in these countries had to temporarily shut down or reduce production during the initial outbreak period. On a value basis, 58.3% of power automation and other electrical equipment imports are sourced from China, the United States and Germany. Furthermore, 55.9% of imported machine tools and parts originate from these three countries. Parts and tools shortages could pose a problem if factories remain closed or cannot operate at full capacity.

S95 Personal and Other Services: Moderate

The Personal and Other Services subdivision is expected to be only moderately affected by the COVID-19 pandemic. Industries in the subdivision are service based and domestically oriented. Therefore, they do not rely as heavily on overseas countries for inputs as industries in other subdivisions, which minimises supply-chain interruptions. However, one of the first confirmed cases of infection in Australia was from a beautician in Queensland. Due to the close-contact nature of

these services, this may reduce demand.

On 23 March 2020, the Federal Government announced the temporary shutdown of non-essential activities and business. This affected some industries in this subdivision, such as the Hairdressing and Beauty Services industry, constraining revenue. As a result, non-essential businesses affected by these regulations reduced employee numbers to minimise operating costs. However, the Federal Government has provided some relief for subdivision businesses significantly affected by the pandemic through a stimulus package for SMEs and not-for-profit businesses. The package provides additional cashflow to affected businesses to pay fixed operating costs and retain staff. Businesses can receive up to \$100,000 in government support. Additionally, on 30 March 2020, the Federal Government implemented the JobKeeper Payment Scheme. The scheme helps businesses, such as hairdressers, retain staff while operations slow down or are temporarily closed. In July 2020, the Federal Government announced a six-month extension to the wage subsidy support, allowing more time for operators in this subdivision to recover. The Federal Government also switched to a two-tier payment system from 28 September 2020. According to this new wage subsidy system, employees that work 20 hours or more on average are paid \$1,200 and employees that work less than 20 hours are paid \$750.

On 8 May 2020, the Federal Government introduced a 3-Step Framework to loosen restrictions. All state governments have begun implementing the framework. As a result, hairdressers are expected to be fully operational and will have to record contact details of customers in case of infections. On 1 June 2020, beauty service businesses, such as nail salons, have been allowed to reopen with strict social distancing measures in place. This factor is expected to provide relief to this subdivision and allow demand to gradually recover over the next few months. However, Victoria had a spike in COVID-19 cases in late June 2020, with the Melbourne metropolitan area and Mitchell Shire going into lockdown for six weeks. In August 2020, Victoria moved to Stage 4 restrictions for metropolitan Melbourne and Stage 3 restrictions for regional Victoria. As a result, Victorian hairdressing and beauty services establishments had to remain closed for over four months in 2020-21, limiting the recovery of this subdivision. In late October, Victorian hairdressers and beauty service establishments were allowed to reopen with COVIDSafe practices, providing some relief to operators in this subdivision. On 2 January 2021, New South Wales placed the Northern Beaches area into lockdown for one week due to a COVID-19 outbreak, resulting in the temporary closure of non-essential personal service businesses. Furthermore, beauty service businesses and hairdressers located in Greater Sydney have had customer capacity restrictions put in place, constraining turnover for this subdivision in 2020-21.

New Zealand

Agriculture, Forestry and Fishing

A01 Agriculture: Very High

The COVID-19 pandemic is expected to have a significant effect on agricultural producers in New Zealand. Operators in agriculture industries rely significantly on sales to export markets for their revenue. Global economic disruption related to the spread of COVID-19 is expected to negatively affect export revenue as demand declines. Approximately 30% of New Zealand's agricultural exports are bound for China. Both fruit and vegetable growers and livestock farmers, whose meat and dairy products are sold by downstream processors, are heavily exposed to Chinese trade. Exports of kiwifruit account for most revenue earned by kiwifruit and berry growers. The largest national export market for the Kiwifruit and Berry Growing industry is China, accounting for approximately 23% of total exports. Kiwifruit producer Zespri has reported strong demand for its products in China, with the company's first shipments departing for China and Japan as planned. Zespri has also signed an agreement with China's largest online retailer, JD.com, to provide 1.2 million trays of kiwifruit in 2020. Fruit exports remained resilient through the early stages of the COVID-19 pandemic, rising by 54% in March 2020 compared with the previous year. Fruit exports remained strong throughout 2020, remaining above 2019 levels through December 2020. In May 2020, the New Zealand Government (Te Kawanatanga o Aotearoa) announced a \$330.0 million International Air Freight Capacity scheme designed to support shipments of high-value exports. This scheme is anticipated to support growers of highly perishable and premium commodities, and is funded through to March 2021.

The COVID-19 outbreak is anticipated to also significantly affect livestock farmers. New Zealand exports significant quantities of meat, particularly sheep meat, and dairy products to China. Lamb and mutton exports and export prices grew strongly during 2019 following an outbreak of African swine fever in China, which led to the destruction of over half of the country's pig herd. Demand for meat raised in New Zealand has remained strong despite the pandemic. According to Statistics New Zealand (Tatauranga Aotearoa), the value of meat exports has largely remained in line with levels recorded in 2019 through December 2020.

Exports of milk powder, butter and cheese have remained strong through December 2020, despite some supply chain disruptions, supporting local dairy farmers. New Zealand's dairy and livestock farmers are forecast to benefit from stronger demand over the long term, as demand for high-quality food and beverages is forecast to increase. New Zealand agricultural produce has a strong global reputation, which will continue to benefit local producers. However, the continued closure of New Zealand's international borders is anticipated to affect labour supply for agricultural businesses, with many agricultural workers on resident visas still effectively barred from re-entering the country. This potential labour shortage could affect output, particularly for dairy farmers and other agricultural businesses that require substantial manual labour. Labour shortages may also place upward pressure on the prices of fruit, vegetables and dairy products.

Restrictions on movement and gatherings imposed by the New Zealand Government affected domestic demand for agricultural produce. In particular, restrictions placed on the food-service sector meant that agricultural producers that primarily service this market, either directly or through wholesalers, had to find alternative markets for their produce. This trend will likely intensify price competition as more farms seek to sell their produce to other wholesale and retail channels. While these pressures were alleviated as New Zealand gradually relaxed restrictions through early June 2020, the return to Alert Level 3 in Auckland and Alert Level 2 across the rest of the country in August 2020 indicates

that agricultural producers still face significant volatility when outbreaks occur. However, Auckland moved to Alert Level 2 on 30 August and back to Alert Level 1 on 8 October 2020, enabling food-service businesses to resume normal operations and supporting demand for agricultural produce.

The New Zealand Government's 2020-21 Budget, announced in May 2020, includes several provisions to support agricultural producers. These measures include \$19.3 million to attract and train unemployed individuals to the primary sector, and \$45.3 million to boost growth for horticulture growers. The budget also allocates \$10.0 million for drought relief, as much of New Zealand is currently affected by a large-scale drought. In June 2020, the Central Government announced support for a \$27.0 million project to boost sustainable horticulture production.

A03 Forestry and Logging: Very High

The Forestry and Logging industry is expected to be highly affected by the COVID-19 pandemic. New Zealand is one of the world's largest forestry and logging product producers, with local businesses relying significantly on exports. Exports account for over half of industry revenue, with exports to China making up over 70% of total exports. Many logs and other timber products that have already been shipped to China have been held up in ports, and shipments from the key port of Gisborne were temporarily suspended. As a result, exports of forestry products fell by 35% in March 2020 compared with a year earlier. According to Statistics New Zealand (Tatauranga Aotearoa), the value of forestry exports has remained below 2019 levels through December 2020.

A decline in global economic activity is anticipated to negatively affect demand for timber, placing downward pressure on prices and industry revenue. Industry production ceased temporarily under the Alert Level 4 restrictions, as industry businesses were deemed non-essential and were therefore required to close. These businesses have since reopened following New Zealand's move to Alert Level 3 on 28 April 2020. Shipments of logs from South Canterbury also resumed following the move to Alert Level 3 on 28 April 2020, with two freighters leaving with logs bound for South Korea and China the following week. Weak global economic conditions have affected industry firms, with fluctuations in log prices and the value of the New Zealand dollar affecting revenue. Nevertheless, despite low log prices, ships transporting logs were booked through December 2020, indicating continued demand for New Zealand timber.

A04 Fishing and Aquaculture: Very High

The Fishing and Aquaculture subdivision heavily relies on exports. Almost 40% of combined revenue from fishing and aquaculture operators derives from exports, and approximately 64% of export revenue comes from China. As a result of the COVID-19 outbreak, China temporarily imposed a ban on seafood imports. Consequently, seafood exports fell by \$40 million over the first two months of 2020, to \$30 million, compared with the same period in 2019. China subsequently allowed some seafood imports to resume, supporting fish and seafood exporters. However, a reduction in international flights has caused freight capacity to fall, making it difficult to transport seafood to export markets. Overall, seafood exports have remained below 2019 levels through December 2020. Furthermore, an oversupply of rock lobsters, which account for over 90% of the value of exports to China, has reduced prices in the domestic market. Fishing firms are also struggling with labour requirements due to New Zealand's strict quarantine rules, which may negatively affect output. Nevertheless, the New Zealand Government (Te Kawanatanga o Aotearoa) has granted exemptions to fishermen coming to work for New Zealand companies, who must still complete a 14-day quarantine on arrival.

Oversupply conditions have also put downward pressure on prices for other fish and seafood products in domestic markets, placing additional pressure on industry operators. However, the Central

Government's \$330.0 million International Air Freight Capacity is expected to support exporters of high-value seafood products. The move to Alert Level 2 restrictions on 14 May 2020 allowed restaurants and cafes to reopen, boosting domestic demand for seafood products. The removal of restrictions under the move to Alert Level 1 in early June 2020 further boosted demand for seafood. While the return to Alert Level 3 in Auckland in August 2020 constrained demand for seafood, the effect is not expected to be significant. The Central Government's 2020-21 Budget includes a \$20.2 million package designed to help rural and fishing communities recover from the economic effects of the pandemic. In June 2020, the government announced an additional \$20.0 million infrastructure investment that aims to boost New Zealand's mussel farming capacity.

A05 Agricultural, Forestry and Fishing Support Services: High

The Agricultural, Forestry and Fishing Support Services subdivision consists largely of shearing, cropping and other livestock support services. The COVID-19 outbreak is expected to have a significant influence on these operators. Many agricultural support services were required to close under the Alert Level 4 restrictions, significantly affecting revenue. These operators have resumed operations following New Zealand's move to Alert Level 3 on 28 April 2020. Nevertheless, global economic disruption caused by the COVID-19 pandemic is anticipated to have lingering effects on agricultural support service providers, due to potentially weaker global demand for commodities grown in New Zealand. In addition, the travel restrictions imposed to curb the spread of COVID-19 have limited the supply of migrant workers that traditionally perform agricultural support tasks, such as shearing. The return to Alert Level 3 restrictions in Auckland means that the New Zealand Government (Te Kawanatanga o Aotearoa) will be less likely to allow migrant labour into the country. While all of New Zealand has returned to Alert Level 1 as of 8 October 2020, the country's international borders remain closed to migrant workers without an exemption from the New Zealand Government. Nevertheless, the government announced a \$19.3 million package in the 2020 Budget to boost employment in the primary sector, which is anticipated to provide some support for businesses facing labour shortages.

Shearing services are anticipated to be moderately affected by the outbreak, and were able to continue under the Alert Level 4 restrictions as an essential service. In July 2020, the New Zealand Shearing Contractors Association flagged potential labour shortages affecting traditional shearing routines, as border closures prevent shearers arriving from overseas to assist in the process. Nevertheless, global demand for wool has declined due to the economic effects of the COVID-19 outbreak, as retail clothing sales have fallen substantially. In addition, wool auctions in New Zealand were halted under the Alert Level 4 restrictions. Auctions later resumed following the move to Alert Level 3 restrictions on 28 April 2020. Furthermore, demand growth for wool, particularly from China, has been slowing in recent years, as trends have shifted away from heavy wool products. In July 2020, the New Zealand Government announced an action group to examine development opportunities for the country's wool sector.

The COVID-19 pandemic is less likely to affect cropping services, at least in the short term, as vegetable and grain crop exports to China are minimal, and as apple and kiwifruit growers have largely proceeded with their operations as normal. Cropping services will only likely be significantly affected if future planting is reduced, although any reductions are unlikely at this stage.

Mining

B06 Coal Mining: Very High

Coal mining in New Zealand is anticipated to be heavily affected by a slowdown in global economic

activity caused by the COVID-19 pandemic. While coal mining was seen as an essential activity, with production continuing throughout the lockdown period, demand is anticipated to fall heavily for the subdivision due to weaker global manufacturing activity and subdued global energy demand. For example, the International Energy Agency predicts global coal demand to rise by only 2.6% in 2021 following a fall of 5.0% in 2020. Export markets were anticipated to account for over 60% of revenue for coal miners in 2020-21, with India, Japan and China typically accounting for over 80% of New Zealand's coal exports. As demand for coal falls, oversupply conditions are expected to cause export prices to decline, reducing revenue for coal miners in New Zealand. Countries such as China may also seek to replace coal imports from New Zealand with domestically sourced coal to stimulate their economy and ensure energy security during the downturn associated with the COVID-19 pandemic. Coal miners in New Zealand have a limited capacity to redirect exports to alternative markets, as coal usage is declining across many global economies as they shift towards clean renewable energy. However, New Zealand's coal exporters may benefit from ongoing trade hostilities between Australia and China, with China placing restrictions on imports of Australian coal.

In New Zealand, coal is primarily used to generate electricity. A slowdown in manufacturing across New Zealand due to the COVID-19 outbreak is anticipated to result in lower electricity consumption, further dampening demand for coal. However, with the Central Government (Te Kawanatanga o Aotearoa) relaxing restrictions, electricity consumption is anticipated to slowly recover. Revenue for the Coal Mining industry in New Zealand has sharply declined over the past decade, as the country has transitioned to cleaner forms of energy. The COVID-19 outbreak is anticipated to hasten the industry's decline. Weak global oil prices may also further drive declines in demand for coal. However, if oil prices remain low for an extended period, some coal users may switch to cheaper oil substitutes, leading to a further decline in demand.

B07 Oil and Gas Extraction: Very High

Oil and gas extraction firms in New Zealand are set to be heavily affected by the COVID-19 outbreak. In 2020-21, exports are expected to account for 14.3% of revenue in this subdivision. Almost all of these exports are shipped to Australia and Singapore, with only a small share shipped to South Korea. Producers in this subdivision remain exposed to the risk of a downturn in global prices for oil and gas. Lower demand for these commodities will likely exert downward pressure on prices throughout global markets. Pre-existing difficult conditions for firms in this subdivision make a downturn more likely, as New Zealand is rapidly transitioning towards a 100% renewable energy target by 2035. The availability of alternative electricity generation options in New Zealand, such as hydro and geothermal power, has limited growth for this subdivision.

The downturn in global oil prices is expected to place strain on oil producers in New Zealand, especially those with debt obligations. A major collapse in prices will likely lead to significantly lower revenue and profit margins, potentially leading to the exit of many firms. The outlook for oil prices beyond the COVID-19 pandemic depends on oil production volumes for foreign producers such as Saudi Arabia and Russia. On 12 April 2020, OPEC+ agreed to a staged reduction in oil production, starting with a two-month reduction of approximately 10% (9.7 mb/d) from 1 May 2020. In June 2020, OPEC's oil production fell to its lowest level since 1991. OPEC+ relaxed cuts to 7.7 million barrels per day in August 2020, with plans to further reduce cuts from January 2021 as demand conditions stabilise. The reduction of Alert Level restrictions allowed affected firms to resume mining activity. However, subdued demand caused by the COVID-19 outbreak will likely continue to weigh on global oil prices and subdivision performance.

B08 Metal Ore Mining: Very High

This subdivision includes the Iron Ore Mining industry and the Gold Ore Mining industry. Exports are expected to account for 47.2% of revenue in the Iron Ore Mining industry in 2020-21. As virtually all exports from the industry go to China and Japan, a slowdown in manufacturing activity in both these countries limited demand for iron ore, contributing to a significant decline in exports. As China accounts for over 95% of New Zealand's iron ore exports, reduced production from Chinese steel mills represents a major threat for iron ore producers in New Zealand. Despite an expected slowdown in Chinese steel production, supply constraints in Brazil due to the COVID-19 outbreak have supported higher global iron ore prices. This recovery in prices and robust demand for iron ore in export markets are anticipated to provide some support for subdivision revenue in 2020-21.

In contrast, firms in the Gold Ore Mining industry may benefit from the effects of COVID-19 driving up gold prices. Increasing investor fears associated with the outbreak have increased demand for precious metals such as gold, silver and palladium. Growth in the price of gold is anticipated to support New Zealand miners in 2020-21, although it is unclear how long gold prices will remain at elevated levels. The global price of gold has reached record highs in July and August 2020, rising above \$2,000 USD per ounce. Weak oil prices are expected to lower operating costs, assisting the viability of some metal ore miners. However, due to restrictions on non-essential businesses, some mines are anticipated to go into care and maintenance while restrictions remain in place. As New Zealand moved from Alert Level 4 to Level 3 restrictions on 28 April 2020, mining operations that were required to shut down were able to reopen. For example, OceanaGold announced that it was resuming mining and development activity at its Martha and Macraes mine sites. The removal of remaining restrictions is anticipated to support increased economic and subdivision activity. Gold producers are anticipated to increase production in response to high gold prices over the year.

B09 Non-Metallic Mineral Mining and Quarrying: Moderate

This subdivision includes the Gravel and Sand Quarrying industry. This industry has a low exposure to international trade, with exports only expected to account for 1.4% of revenue in 2020-21. Imports of gravel and sand are negligible. As this industry has a domestic focus, it only has indirect exposure to economic downturns overseas, with the COVID-19 pandemic and associated closure of non-essential businesses anticipated to have a moderate influence on operators in the subdivision. Weak business confidence in New Zealand in response to the COVID-19 outbreak may cause an associated downturn in manufacturing and construction activity. This downturn would likely lower demand for gravel and sand. However, fiscal stimulus measures may assist this industry through funding for construction projects. For example, in May 2020, the Central Government (Te Kawanatanga o Aotearoa) allocated an additional \$3 billion towards shovel-ready infrastructure projects and committed to building 8,000 new state houses over the next five years in its 2020 Budget. New Zealand moved from Alert Level 4 to 3 on 28 April 2020, allowing operators to resume mining activity. The subsequent relaxing of restrictions has allowed businesses to reopen, which is anticipated to provide some support for subdivision demand. However, demand for many commodities will likely remain subdued until global manufacturing activity recovers.

B10 Exploration and Other Mining Support Services: Very High

This subdivision includes the Mining Support Services industry in New Zealand. The COVID-19 pandemic is expected to significantly disrupt this industry, with declining oil, gas and coal prices limiting demand for mining support services. As a result, revenue for the Mining Support Services industry is anticipated to fall by 14.2% in 2020-21. The industry has struggled due to low prices and difficult operating conditions over the past five years. As a result, most firms in the industry

have already pared back mining support services to only vital operations, which are unlikely to be cancelled even if commodity prices decline. Weakness in the price of oil is expected to cause petroleum exploration activity to decline, leading to many firms exiting the subdivision. The extent of this collapse depends on how long oil prices remain subdued, which depends on oil output volumes from foreign producers. The production cuts agreed to by OPEC producers, which came into effect on 1 May 2020, are anticipated to provide some support for oil prices in the short term. OPEC reduced production cuts in August 2020 and is expected to further reduce cuts from January 2021 as demand conditions stabilise. However, weakness in global demand for oil is anticipated to continue weighing on oil prices for some time. The reduction of restrictions on 28 April and 14 May 2020 allowed firms that were required to shutdown to resume exploration and mining support activities, with the removal of remaining restrictions expected to support increased business activity. However, exploration activity is anticipated to remain subdued over the rest of 2020-21 due to price weakness among some key commodities.

Manufacturing

C11 Food Product Manufacturing: High

The COVID-19 pandemic has significantly influenced the Food Product Manufacturing subdivision. International trade plays a key role in this subdivision. Supply chain disruptions initially made it difficult for perishable food to be exported out of New Zealand. Additionally, overall demand for food consumption in key export markets such as China has significantly changed since the COVID-19 outbreak. The closure of many food service businesses for two and half months significantly reduced consumption of meat, seafood and dairy products. Many meat products, such as lamb and mutton, remained on wharves and in cold storage facilities in China as port and dock workers entered quarantine. Industries that heavily rely on selling to the food service sector in China have been affected by short-term disruptions to demand. Firms that export seafood to China were particularly affected. Many seafood markets were closed at the initial stages of the outbreak, and New Zealand seafood shipments were cancelled. In addition, prices for premium seafood products have been affected.

As restaurants are reopening and ports are back at full capacity in China, demand has increased. Port workers cleared 15,700 tonnes of New Zealand beef during March 2020, including products initially diverted to other nearby countries during the height of the port closures. Additionally, Air New Zealand have been running daily cargo flights to China since the end of March, signalling that demand is recovering for New Zealand's goods, including food products exported to China.

At-home consumption of meat and dairy products in China has increased substantially during the pandemic. Furthermore, consumers in China have increasingly looked for high quality and healthy produce. This trend will likely benefit New Zealand dairy and meat product producers, due to their clean and green reputation. Producers that have struggled with lower demand have redirected perishable food to alternative markets where demand is strong, albeit at a discounted price. This trend put downward pressure on prices early in 2020. However, domestic meat prices are expected to rise over the remainder of 2020-21, as demand recovers in domestic and overseas markets and supports meat processors.

Some meat product manufacturers were significantly affected by the four-week lockdown that the country entered in March 2020. All food-service businesses were unable to trade, with many processors attempting to divert sales to the retail market where possible. Furthermore, butchers were not included as an essential service. Small manufacturers that do not have contracts with supermarkets were unable to earn revenue during the Alert Level 4 restrictions. However, New

Zealand's transition to Alert Level 3 restrictions on 28 April 2020 allowed butchers to reopen. Food-service establishments were also able to resume trading through takeaway services, benefiting producers of high-quality food usually destined for these markets. The country transitioned to Alert Level 1 from 8 June 2020, removing restrictions on food service establishments and gatherings, including at concerts and sporting events. This factor is expected to significantly support food product manufacturers.

The move to Alert Level 3 in Auckland and Alert Level 2 across the rest of the country triggered a return to panic buying behaviour at supermarkets. This trend was particularly prevalent in Auckland and the rest of the North Island, which is home to three-quarters of the country's population. Panic buying typically results in a surge in demand for meat, pasta, and processed fruit and vegetable products. Independent grocery stores in Auckland also had to close, further boosting demand for processed fruit and vegetables. The country's move back to Alert Level 1 gradually removed restrictions on food-service establishments, benefiting subdivision manufactures that supply these businesses.

C12 Beverage Manufacturing: High

The COVID-19 pandemic is expected to have a substantial impact on the Beverage Manufacturing subdivision. Some beverage manufacturers are not anticipated to be affected by overseas COVID-19 outbreaks, as they rely on domestic consumption. However, wine producers have seen a decline in wine consumption due to the closure of food service establishments. According to industry association New Zealand Wine Growers, over half of its members applied for the government's wage subsidy program. Consumption of wine in key export markets, such as the United States, United Kingdom, Australia and Canada, has not been affected by COVID-19 restrictions in these countries. In fact, exports to these countries increased by nearly 7% over the five months through July 2020, compared with the same period in 2019. Unlike their Australian counterparts, New Zealand wine producers have limited exposure to the Chinese wine market. While exports to China fell by over 50% in February and March 2020, wine exports to China account for less than 2% of total exports. The suspension of inbound travel is expected to significantly affect domestic sales of wine, as tourist visits to wineries account for a significant share of revenue. The move to Alert Level 1 did not alter travel restrictions. Wine and beer manufacturers have been significantly affected by subdued exports and the temporary closure of hospitality businesses, as sales to these channels offer higher margins than retailers. The removal of restrictions at these establishments has supported revenue for these businesses since the initial months of the COVID-19 pandemic.

Off-premise alcohol sales have grown significantly since the beginning of the outbreak. Data from Stats NZ shows that off-premise beer sales grew by 9.4% over the first six months of 2020, compared with the same period in 2019. However, this trend has not been enough to support all producers. Online sales were particularly strong in lead up to the Alert Level 4 lockdown in the last week of March 2020. Some businesses suspended delivery services to restock. Craft beer manufacturers have lower exposure to the retail segment and are expected to struggle more significantly compared with the larger brewers. However, beverage manufacturers are expected to increasingly benefit from the country's lockdown restrictions easing. Demand recovered following the country's move to Alert Level 1, with licensed establishments able to operate at full capacity.

The reintroduction of Alert Level 3 in Auckland for two weeks in August 2020 is expected to have had a minor impact on beverage manufacturers. In Auckland, food-service establishments were only open for takeaway and delivery, and could not sell alcohol. However, supermarkets were able to continue trading, and other liquor retailers were permitted to remain open for pick-up and delivery. Due to increased instances of panic buying behaviour, sales for non-alcoholic beverage manufacturers are

anticipated to rise, particularly for long-life milk.

The move to Alert Level 2.5 at the end of August 2020 put Auckland in a similar position to the rest of the country. Licensed establishments were allowed to re-open, but capacity restrictions of up to 100 people and rising consumer risk averseness likely limited demand. Furthermore, group bookings could not exceed 10 people. These restrictions had the most significant effect on wineries and craft beer brewers, as they rely substantially on on-premise transactions. However, Auckland moved back to Alert Level 1 on 8 October 2020, the same as the rest of the country, supporting the performance of these businesses.

C13 Textile, Leather, Clothing and Footwear Manufacturing: High

The Wool Scouring industry is the main industry in this subdivision. The COVID-19 pandemic is anticipated to have a heavy impact on this industry, as China is the industry's largest single export market. Industry operators are expected to face supply chain disruptions related to the pandemic. Downstream retailers in New Zealand reported a slowdown in sales and orders, with reduced foot traffic at shopping malls prior to the government-imposed lockdown. Additionally, constrained logistics, labour shortages due to travel restrictions, and factory closures also created disruptions in the supply chain for delivery of goods. On 27 March 2020, Cavalier Wool Corporation (CWC) announced that it had closed all its New Zealand facilities in compliance with the lockdown orders. Only employees that could work from home were able to continue working. Wool auctions also did not go ahead during the month-long lockdown and CWC applied for \$2.8 million of the wage subsidy provided by the Central Government (Te Kawanatanga o Aotearoa). Online auctions were able to resume when the country entered Alert Level 3 on 28 April 2020. Manufacturing facilities have also reopened. However, downstream demand has been subdued due to the weakened global economy, and prices have fallen significantly. In late September 2020, CWC reported a revenue decline of 13% over the year through June 2020.

However, some manufacturers are taking the opportunity to improve their local manufacturing capabilities. For example, The New Zealand Sock Company has reduced its reliance on China and is manufacturing more at its facility in Ashburton, Canterbury. It is also one of around 100 textile product manufacturers that have begun manufacturing face masks, in this instance using merino wool. Demand for facemasks increased following the reintroduction of Alert Level 3 restrictions in Auckland and Alert Level 2 restrictions across the rest of the country. While Auckland moved to Alert Level 2.5 at the end of August 2020, face mask have been made compulsory on public transport and by taxi and ride-sharing drivers, boosting demand for these products. Face masks are not compulsory at Alert Level 1.

C14 Wood Product Manufacturing: Very High

The COVID-19 pandemic is projected to have a significant impact on the Wood Product Manufacturing subdivision. The subdivision is exposed to a high level of trade with China. Logistic disruptions are expected to have a more severe effect on log exporters, as warehouses and factories would be unable to start production. As manufacturing was temporarily stopped in China, demand for wood products declined. Additionally, Chinese ports were initially unable to handle imports due to a shortage of labour. This factor caused exports to China to slow in the short term, which could reduce harvesting activity in the short to medium term. Furthermore, timber mills were not deemed an essential business by the New Zealand Government (Te Kawanatanga o Aotearoa) during the Alert Level 4 lockdown, severely limiting supply. These businesses were able to reopen following the move to Alert Level 3 on 28 April 2020.

Sawn timber exports fell by 79% in April 2020, but demand began to pick up in the second half of May. Revenue derived from timber exports was higher than the same time last year, boosted by higher prices. However, demand will likely remain subdued due to the worsening global situation since March 2020. As a result, revenue is expected to fall across all industries during 2020-21. Many businesses in this subdivision will therefore likely benefit from the government's wage subsidy program and business tax changes. On 18 May 2020, as part of its 2020 Budget proposals, the Central Government announced \$3.3 billion in infrastructure spending, increasing demand for subdivision products. The wage subsidy was also extended for eight weeks, and then extended further following the reintroduction of lockdown measures in August 2020. The construction sector, one of the largest downstream markets for this subdivision, was allowed to continue operating under the Alert Level 3 restrictions in Auckland and Alert Level 2 restrictions currently in place. Therefore, the gradual move back to Alert Level 1 in Auckland has not substantially affected the performance of this subdivision.

C15 Pulp, Paper and Converted Paper Product Manufacturing: Moderate

This subdivision is expected to be moderately affected by the COVID-19 pandemic. Chinese demand for New Zealand's pulp and high-quality paper has grown over the past five years. Manufacturers faced supply chain disruptions, with manufacturing activity in China affected by government-imposed quarantine measures in early 2020. A shortage of labour due to travel bans is also expected to have contributed to a short-term slowdown in this subdivision's exports to China. Consumer stockpiling behaviour is expected to have benefited manufacturers of food product packaging for supermarkets. However, manufacturers supplying cafes and other food-service establishments will likely face significantly reduced demand.

The country's move to Alert Level 3 on 28 April 2020 benefited some manufacturers, with the government permitting sales of takeaway food. Demand will increase from restaurants and bars that previously did not offer takeaway services. With more people returning to work following the moves down to Alert Level 1, demand from food-service establishments will increase. Furthermore, restrictions on patron numbers and increased consumer risk averseness resulted in heightened sales of takeaway meals. The return to Alert Level 3 restrictions in Auckland boosted demand for these products, with food-service establishments only able to offer takeaway and delivery services. The move to Alert Level 1 across the whole country will likely also encourage greater demand for these products. However, exports represent the largest market, at just over 60% of revenue. Any new restrictions on manufacturing capabilities would therefore have the strongest effect on this subdivision.

C16 Printing: Moderate

The Printing industry is the only industry in this subdivision. International trade in this subdivision is low, as printing firms mostly service the domestic market, and transporting printed products overseas is inefficient and costly. Competition from digital media is likely to have a greater effect on the Printing industry. The COVID-19 pandemic has accelerated the move to online operations for many downstream businesses, reducing demand for printing services. Furthermore, the month-long lockdown in April 2020 hastened the exit of magazine publisher Bauer Media from New Zealand. As the publisher of a number of well-known magazine titles, an inability to find a buyer could have severely affected the Printing industry. However, on 17 June 2020, Australia-based private equity firm Mercury Capital announced that it had acquired Bauer Media Australia, including Bauer New Zealand's mastheads. Mercury Capital owns the New Zealand printing company Blue Star. The new restrictions introduced in August 2020 did not significantly influence operations in this subdivision, as manufacturing activity was allowed to continue. Consequently, Auckland's move to Alert Level 2.5

is not expected to have a substantial influence. Overall, revenue for the Printing industry is expected to decline by 6.4% in 2020-21.

C18 Basic Chemical and Chemical Product Manufacturing: Moderate

The Basic Chemical and Chemical Product Manufacturing subdivision is anticipated to be moderately affected by the COVID-19 pandemic. This subdivision is made up of the Synthetic Resin and Synthetic Rubber Manufacturing industry, and the Veterinary Pharmaceutical and Medicinal Product Manufacturing industry. Both industries exhibit a moderate to high level of international trade, and will therefore likely face similar logistical challenges as other industries, due to global supply chain disruptions. Exports in the Synthetic Resin and Synthetic Rubber Manufacturing industry are expected to decline by 7.5% in 2020-21. However, a weak world price of crude oil is expected to benefit synthetic resin and rubber manufacturers, significantly reducing purchase costs. The move to Alert Level 3 and Alert Level 2 restrictions in August 2020 did not substantially affect this subdivision. Consequently, the move to Alert Level 1 will not influence the subdivision. However, any tightening of restrictions that affect the operations of the wider economy would likely reduce downstream demand.

C19 Polymer Product and Rubber Product Manufacturing: Moderate

The spread of COVID-19 is anticipated to have a moderate effect on polymer product and rubber product manufacturing industries, as this subdivision manufactures products for a range of markets, including manufacturers, wholesalers, retailers and construction companies. Revenue is anticipated to significantly rise for manufacturers in this subdivision that focus on protective equipment such as gloves. At the start of the outbreak, many individuals began wearing gloves on trips to the shops in an effort to protect themselves from the virus. Certain businesses are also increasingly using them in their day-to-day activities. Manufacturers that import products or parts from China or Malaysia faced initial short-term disruptions in supply due to logistics challenges in these countries. Additionally, factory closures in China and other countries have led to temporary shortages in packaging supplies. However, as this subdivision relies on other markets, falling demand from other markets due to the COVID-19 pandemic is expected to decrease demand for this subdivision's products. Falling demand from households and construction firms has significantly affected the subdivision's revenue performance in 2020-21. Businesses in this subdivision were able to continue operations under the return to Alert Level 3 and Alert Level 2 restrictions in August 2020. The gradual move back to Alert Level 1 across the country is therefore not expected to substantially affect the operations of these industries.

C21 Primary Metal and Metal Product Manufacturing: Very High

This subdivision includes the Non-Ferrous Metal Product Manufacturing industry in New Zealand, which is expected to be substantially affected by the COVID-19 pandemic. Exports account for a significant share of industry revenue, but are expected to decline by 12.9% in 2020-21, as a downturn in global manufacturing activity reduces demand for production inputs. Furthermore, the industry's largest export market, India, has suffered one of the largest outbreaks in the world.

Local demand fell away almost entirely during March and April 2020, with most construction activity ceasing due to Alert Level 4 lockdown measures. While the country's move to Alert Level 3 allowed construction activity to resume, the weak economic environment has significantly limited demand for subdivision products. The Central Government (Te Kawanatanga o Aotearoa) has announced a \$3.3 billion increase in infrastructure investment in its 2020 Budget in an effort to stimulate the economy.

This factor will benefit businesses in this subdivision supplying to the construction sector. The move back to Alert Level 3 in Auckland and Alert Level 2 across the rest of the country has not affected construction activity. Consequently, the move to Alert Level 2.5 in Auckland at the end of August 2020 and subsequent return to Alert Level 1 is not expected to influence subdivision operations.

C22 Fabricated Metal Product Manufacturing: High

The COVID-19 pandemic is expected to have a major impact on this subdivision. While industries in this subdivision do not typically rely on inputs supplied from overseas and were therefore well placed in this regard, they have been affected by lockdowns across New Zealand. These businesses were not exempt from the Alert Level 4 restrictions, severely affecting trade at the start of 2020-21. However, they have been allowed to reopen since the end of April 2020, along with many other parts of the economy.

Demand from local and overseas customers will remain substantially subdued due to the weak global economic environment. An anticipated downturn in domestic construction, caused by weakness across the economy, will continue to place substantial pressure on the industry throughout 2020-21. Industries in the subdivision typically face strong import competition from Asian economies. The local manufacturing environment may reorient itself towards local products, which may present an opportunity for local firms to recapture market share from imports over the long term. Increased government infrastructure spending outlined in the 2020 Budget will also help support industries in this subdivision enduring weaker demand from the private sector. The restrictions introduced in August have not significantly affected demand. Similarly, the move back to Alert Level 1 will not substantially influence subdivision operations.

C23 Transport Equipment Manufacturing: Very High

Transport equipment manufacturers in New Zealand are expected to be significantly affected by the COVID-19 pandemic. Some aircraft manufacturers may have a higher exposure to risk, as New Zealand exports account for a moderate share of revenue for the Aircraft Manufacturing and Repair Services industry. Demand in New Zealand and export destinations is expected to fall significantly during the pandemic, with air transport services still affected by international travel restrictions. A limited travel bubble with Australia commenced in mid-October 2020, which represents the first step in easing these restrictions. However, some companies in these industries have significant government defence contracts that will not be affected by the pandemic. Shipbuilders, boatbuilders and motor vehicle manufacturers may suffer from supply chain disruptions, as many of these firms secure key components and parts from manufacturers in China, Japan and South Korea.

Once the effects of the COVID-19 pandemic fade, some players in this subdivision may seek to expand their supply chains to other regions in an attempt to limit risks associated with future supply disruptions. As a result of a new outbreak and restrictions implemented in August 2020, a travel bubble with neighbouring countries was delayed, negatively affecting downstream demand. Furthermore, most travel to and from Auckland was restricted. However, the move back to Alert Level 2.5 in Auckland at the end of August removed these restrictions. On 8 October 2020, Auckland moved back to Alert Level 1, in line with the rest of the country. On 16 October 2020, New Zealanders were allowed to travel quarantine-free to New South Wales and the Northern Territory in Australia. Other Australian states have since opened their borders to New Zealand. As more travel locations open up and more New Zealanders travel overseas, demand for aircraft manufacturing and repair services is expected to increase.

C24 Machinery and Equipment Manufacturing: High

Machinery and equipment producers are expected to be substantially affected by the COVID-19 pandemic, due to the globalised nature of their supply chains. Most firms in this subdivision source key components from offshore suppliers, exposing local firms to the risk of supply disruption. Consequently, while the spread of COVID-19 has largely been controlled in New Zealand, the global economic downturn will hinder firms in this subdivision. The closure of factories in China's Hubei province, which is a major producer of electrical components, significantly affected a range of supply chains in this subdivision. Firms in New Zealand are limited in their ability to secure supply from alternative countries, particularly as these firms would be competing against larger global firms seeking the same production inputs. Although these firms may benefit from weaker import competition due to the influence of the pandemic, this benefit is expected to only be temporary and will likely be outweighed by the negative effects of supply chain disruption. Furthermore, demand for many subdivision products is expected to be low during much of 2020-21. Due to weakness in the local and global economic environments, businesses are less likely to make new capital purchases of expensive subdivision machinery and equipment. Alert Level 3 and Alert Level 2 restrictions would likely have a negative effect on the economy and downstream demand for subdivision products if restrictions were extended or tightened beyond the initial two-week timeframe. The move back to Alert Level 1 at the start of October 2020 reduced the threat of further tightening restrictions in the short term, benefiting the subdivision.

The Medical and Surgical Equipment Manufacturing industry has outperformed other industries in this subdivision. Fisher & Paykel Healthcare has seen a surge in global demand for its respiratory humidifiers and ventilation devices. To meet demand, they have ramped up production schedules at their manufacturing plants in New Zealand and Mexico. The company is expected to substantially outperform the wider industry, which posted a revenue decline in 2019-20 and is projected to do so again in 2020-21. The company's revenue over the six months to September 2020 rose by 59% compared with the same period in 2019. Additionally, the depreciating New Zealand dollar has boosted the company's profit margins. Over the six months to September 2020, the company's profit margins increased by nearly 500 basis points, compared with the same period in 2019.

C25 Furniture and Other Manufacturing: Moderate

The COVID-19 pandemic is unlikely to directly disrupt furniture manufacturing in New Zealand to a significant extent. Firms in this subdivision primarily source production inputs from local suppliers, reducing the risk associated with supply disruptions. However, these firms remain exposed to demand shocks, which will likely arise as consumer sentiment and business confidence weaken. The products offered by this subdivision tend to be expensive and discretionary purchases, which consumers tend to postpone in favour of saving money during economic downturns. Fiscal and monetary stimulus measures may partially alleviate demand shocks, although demand for furniture and other goods is expected to be subdued as consumers focus on goods deemed more necessary. The move down to Alert Level 1 will likely ease consumer fears about job security and the wider economy, minimising changes to discretionary spending on goods such as those produced by this subdivision.

Electricity, Gas, Water and Waste Services

D26 Electricity Supply: High

The COVID-19 outbreak is expected to significantly affect the Electricity Supply subdivision. Government-mandated lockdowns led to decline in business activity and a sharp reduction in overall

demand for electricity. While an increase in the number of New Zealanders working and studying from home increased demand for electricity from residential markets, this trend was insufficient to offset the drop in demand from commercial markets. Declining demand led to an oversupply of electricity in New Zealand and has driven wholesale electricity prices lower over the course of the pandemic.

The decline in wholesale electricity prices has negatively affected the country's Fossil Fuel Electricity Generation industry. While reduced global demand for commodities has led to sharp declines in the cost fossil fuel inputs, including coal and oil, fossil fuel electricity generation remains more expensive than renewable sources of electricity. This factor is expected to hasten the demise of the Fossil Fuel Electricity Generation industry in New Zealand.

D27 Gas Supply: Moderate

A slowdown across the global economy due to the COVID-19 outbreak is forecast to reduce global demand for and the world price of natural gas. On 25 March 2020, the New Zealand Government (Te Kawanatanga o Aotearoa) increased the COVID-19 lockdown restrictions to Alert Level 4. This resulted in all non-essential activities being banned, and many manufacturers and businesses closing. As commercial clients account for a large share of subdivision revenue, their closure has contributed to a downturn in subdivision revenue and profitability. However, a higher number of consumers remaining at home has contributed to rising demand for gas from households. However, this rise in demand is not expected to outweigh declines in demand from commercial markets. The majority of restrictions related to COVID-19 were lifted from 10 June 2020, which is expected to increase business activity and demand for natural gas, benefiting subdivision operators. The return to Alert Level 3 restrictions in Auckland, and Alert Level 2 restrictions for the rest of the country from 12 August 2020 unlikely to significantly affect the subdivision. Restrictions were eased in Auckland, with the city moving to Alert Level 2.5 restrictions at the end of August 2020. If the outbreak situation deteriorates and the government reimposes Alert Level 4 restrictions across the country, subdivision revenue will likely decline.

D28 Water Supply, Sewerage and Drainage Services: Moderate

The Water Supply, Sewerage and Drainage Services subdivision is expected to be only moderately affected by the COVID-19 outbreak. Operators in the subdivision provide essential services to New Zealand consumers, demand for which is largely immune to economic downturns. Business confidence is expected to decline as a result of the COVID-19 outbreak, reducing private capital expenditure and encouraging subdivision operators to delay expansion projects.

D29 Waste Collection, Treatment and Disposal Services: High

The COVID-19 outbreak in New Zealand has greatly increased the amount of potentially contaminated waste from hospitals and other medical facilities. It has also boosted the amount of personal protective equipment New Zealand consumers use, further increasing the volume of potentially contaminated waste. These trends are likely to boost demand for hazardous waste management services and increase government regulation of the subdivision.

On 25 March 2020, the New Zealand Government (Te Kawanatanga o Aotearoa) implemented Alert Level 4 restrictions, which resulted in the mandated closure of a number of non-essential businesses across the economy. These businesses include manufacturers, retailers and food and beverage service operators. These businesses represent a key market for subdivision operators, so their closure has reduced demand for subdivision services. Restrictions were lowered to Alert Level 3 from 28 April

2020, and to Alert Level 2 on 14 May, allowing many businesses to reopen and boosting demand for commercial waste handling services. Most restrictions were lifted from 10 June 2020, increasing demand from commercial markers. However, demand from the manufacturing and retail sectors is expected to remain subdued, as domestic economic conditions remain subdued, limiting any rises in subdivision revenue as a result of the loosening of restrictions.

Alert Level 3 restrictions were reimposed in Auckland in August 2020, with Alert Level 2 restrictions reimposed across the rest of the country. Restrictions in Auckland were eased at the end of August, with the city moving to Alert Level 2.5. These restrictions are unlikely to significantly affect the subdivision, as most business activity can still take place. However, if the outbreak spreads further and the government reimposes Alert Level 4 lockdown restrictions, demand for subdivision operators will likely decline significantly.

Construction

E30 Building Construction: High

The COVID-19 pandemic is anticipated to have a significant effect on building construction activity in New Zealand. Construction firms do not engage in international trade and derive demand from the domestic market. Construction activities are highly labour-intensive, and require input materials, machinery and equipment. Consequently, any disruption in the supply chains of required inputs or reduced labour availability have the potential to negatively affect the subdivision. Lower oil prices may positively affect this subdivision by reducing operating costs. New Zealand moved to Alert Level 3 from 28 April 2020, allowing all construction firms to operate, providing that they follow health and safety regulations. While the transition in alert levels will allow current projects to proceed, subdivision operators are still expected to face weak project pipelines, especially relating to residential building construction. The move to Alert Level 1 on 8 June 2020 did not significantly affect this sector, as construction projects were able to proceed under Alert levels 2 and 3. Likewise, the shift to Alert Level 2.5 from Alert Level 3 for the Auckland region and Alert Level 2 for the rest of New Zealand is expected to have a minimal effect on building construction. The Central Government (Te Kawanatanga o Aotearoa) has allocated \$3 billion for spending on infrastructure in the 2020 Budget, with a focus on building public housing. This factor is anticipated to boost demand for residential construction.

E31 Heavy and Civil Engineering Construction: Moderate

The COVID-19 pandemic is anticipated to moderately affect the Heavy and Civil Engineering Construction subdivision. Firms in this subdivision do not engage in international trade and derive demand from the domestic market. Construction activities are highly labour-intensive, and require input materials, machinery and equipment. Consequently, any disruption in the supply chains of required inputs has the potential to negatively affect the subdivision. Firms often rely on government funding to undertake projects in this subdivision. As a result, the government diverting funds towards preventing or containing the COVID-19 outbreak has the potential to negatively affect the subdivision. Despite this factor, lower oil prices may assist business viability. Currently, Auckland is at Alert Level 2.5 and the rest of New Zealand is at Alert Level 2. However, many businesses in this sector are essential and have been able to operate through all Alert Levels. The 2020 Budget has allocated \$3 billion for spending on infrastructure. These funds are projected to help boost employment in the Heavy and Civil Engineering Construction industry.

E32 Construction Services: High

The COVID-19 pandemic is anticipated to highly affect the Construction Services subdivision. Subdivision firms service the domestic market and do not engage in international trade. This subdivision includes a range of activities that require different machinery, equipment and materials. Disruptions to supply chains of necessary inputs have the potential to negatively affect construction firms. New Zealand moved to Alert Level 3 from 28 April 2020, significantly expanding the activities that the subdivision can undertake. However, construction services operators often service construction industries, and are therefore subject to demand fluctuations in these downstream markets. For example, reduced demand for new homes would also weaken residential building construction and negatively affect subdivision firms that primarily service this market. The move to Alert Level 1 is not expected to significantly alter the services that can be provided by this sector. Likewise, the current Alert Level 2.5 restrictions in Auckland from 30 August 2020 and Alert Level 2 for the rest of New Zealand from 12 August 2020 are unlikely to significantly affect construction service activity. The 2020 Budget's allocation of additional funding for construction is anticipated to flow through to providers of construction services that undertake work on federally funded projects.

Wholesale Trade

F33 Basic Material Wholesaling: Moderate

The COVID-19 pandemic is anticipated to have a moderate effect on the Basic Material Wholesaling subdivision. Wholesalers of materials such as wool, metal and minerals sell a significant proportion of domestically produced materials to overseas buyers, particularly in China. For example, foreign metal and mineral buyers account for approximately 21% of revenue for the Metal and Mineral Wholesaling industry. Reduced manufacturing activity in China during early 2020 has the potential to constrain demand for these raw materials, negatively affecting wholesalers that focus on export markets. New Zealand wool has a global reputation for being high quality. Therefore, wool wholesalers focus strongly on export markets. Reduced demand for wool from Italy and the United States may have a significant negative effect on the subdivision. The move to Alert Level 1 from 8 June 2020 is expected to boost demand for this sector as downstream local manufacturers resume operations without any social distancing restrictions. The reduction of restrictions to Alert Level 2.5 from 30 August 2020 in Auckland and the continuation of Alert Level 2 for the rest of New Zealand are expected to continue threatening demand for basic material wholesalers, as downstream operators face social distancing restrictions.

F34 Machinery and Equipment Wholesaling: Moderate

The COVID-19 pandemic is anticipated to have a moderate effect on the Machinery and Equipment Wholesaling subdivision. Declining production in affected areas is anticipated to negatively affect wholesalers that source products from overseas, such as desktop computers, household appliances, telecommunications and electrical equipment. Exports account for approximately 38% of revenue for the Iron Ore Mining industry, with approximately 97% of this revenue attributable to China. Consequently, machinery and equipment wholesalers that service these mines are exposed to risks associated with weakened demand for minerals. The move to Alert Level 1 from 8 June 2020 is expected to boost demand for this sector by widening the pool of downstream industries that can operate. However, the move to Alert Level 2.5 for Auckland from 30 August 2020 and Alert Level 2 for the rest of New Zealand from 12 August 2020 is anticipated to restrict demand for this sector, as downstream industries will likely face tougher operating conditions due to social distancing measures.

F35 Motor Vehicle and Motor Vehicle Parts Wholesaling: High

Firms in the Motor Vehicle and Motor Vehicle Parts Wholesaling subdivision heavily depend on imports. Consequently, the COVID-19 pandemic is anticipated to have a significant effect on the subdivision. New cars are primarily sourced from Japan. Consequently, decreasing production in Japan would negatively affect wholesalers' ability to source vehicles. Wholesalers of new parts primarily source goods from countries such as China, Japan and the United States. Reduced manufacturing activity in China has the potential to negatively affect wholesalers' ability to source low-cost parts.

Wholesalers of used vehicles and parts are not anticipated to be strongly affected by the outbreak, as they operate primarily in the domestic market. Servicers and retailers that source parts from wholesalers are anticipated to experience reduced demand, as decreased driving activity will likely reduce the rate at which consumers require replacement parts. In addition, households are expected to delay purchases of new motor vehicles until consumer sentiment returns to positivity. The move to Alert Level 1 is expected to boost distances driven as New Zealanders increasingly leave their homes. Consequently, demand is expected to increase for new cars and parts from retailers, boosting demand for wholesalers. However, Alert Level 2.5 restrictions in the Auckland region from 30 August 2020 and Alert Level 2 for the rest of New Zealand from 12 August 2020 are anticipated to slightly delay this recovery. While New Zealanders can still travel regionally with these restrictions, travel has been discouraged. This factor is anticipated to negatively affect demand for the subdivision.

F36 Grocery, Liquor and Tobacco Product Wholesaling: Moderate

The COVID-19 pandemic is anticipated to moderately affect operators in the Grocery, Liquor and Tobacco Product Wholesaling subdivision. The move to Alert Level 1 reduced consumers' reliance on grocery stores. Consequently, demand from retailers largely moderated and returned to pre-stockpiling levels. However, the recent move to Alert Level 2.5 restrictions in the Auckland region from 30 August 2020 and Alert Level 2 for the rest of New Zealand from 12 August 2020 encouraged more consumers to eat at home until restrictions eased, reducing demand for food service operators. This factor is anticipated to cause food service operators to decline slightly as a share of subdivision revenue.

F37 Other Goods Wholesaling: Very High

The COVID-19 pandemic is anticipated to strongly affect the Other Goods Wholesaling subdivision. Firms that wholesale textile products, clothing and footwear, toy and sporting goods, and paper products source a significant proportion of these goods from overseas. Consequently, reduced manufacturing activity, particularly in China, is anticipated to inhibit these firms' ability to source goods. In addition, reduced retail activity is expected to weaken demand for these goods from retailers. The move to Alert Level 1 is expected to significantly boost consumer shopping activity, increasing demand for wholesalers from the retail sector. However, the recent move to Alert Level 2.5 from Alert Level 3 in the Auckland region and the continuation of Alert Level 2 for the rest of New Zealand is anticipated to continue limiting consumer shopping activity and weakening demand for wholesalers from the retail sector. Lower global oil prices may assist wholesalers in this subdivision by reducing purchase costs, due to the widespread use of oil across most supply chains.

Retail Trade

G39 Motor Vehicle and Motor Vehicle Parts Retailing: Moderate

The COVID-19 pandemic is expected to have a moderate effect on the Motor Vehicle and Motor Vehicle Parts Retailing subdivision. The United States and China were the largest sources of imported motorcycles in 2018-19. Therefore, declining manufacturing activity in these countries due to the pandemic threatens the supply chain of motorcycle retailers. Similarly, motor vehicle parts retailers are expected to report supply disruptions. In 2018-19, New Zealand imported \$69.0 million of parts and accessories from China, and \$57.5 million from the United States, representing the third and fourth largest suppliers for the year. However, the value of these imports is minimal compared with motor vehicles.

Imports of cars from China totalled only \$55.4 million in 2018-19. Comparatively, New Zealand imported \$1.7 billion worth of vehicles from Japan, \$505.5 million from Germany, and \$402.2 million from the United States during the same period. Motor vehicle manufacturers in Japan, Germany and the United States have also temporarily closed manufacturing facilities or reduced production due to the outbreak of COVID-19. This factor is expected to create supply constraints and increase prices for subdivision products in the short term. Price increases, combined with weak consumer sentiment, are expected to constrain demand from this subdivision in 2020-21, as many consumers postpone major purchases due to global economic uncertainty.

G40 Fuel Retailing: High

Retail petrol prices are anticipated to decline as a result of the COVID-19 outbreak. A decline in global demand for oil, particularly from its manufacturing sector, is expected to place strong downward pressure on oil prices. Furthermore, decreased aviation activity will reduce demand from the fuel-intensive global aviation sector. In April 2020, US oil prices became negative, as capacity constraints and weak demand caused a significant sell off of oil. However, OPEC+ has reached an agreement to curtail crude oil production by approximately 10% (9.7 mb/d) from 1 May 2020. This factor is expected to increase crude oil and domestic retail fuel prices in the short-term, partially offsetting the price declines over the three months through April 2020. Overall, revenue is expected to decline in this subdivision in 2020-21, as weakening demand and an oversupply of crude oil cause oil prices to fall.

G41 Food Retailing: High

As economic activity slows, weaker demand for premium food products, particularly from China, is expected to affect New Zealand's food supply chain. As exports decrease from food-focused industries, such as the Meat Processing industry and the Vegetable Growing industry, supermarkets and grocery stores will likely report an increase in supply. The COVID-19 outbreak will therefore likely constrain growth in export revenue. In response, exporting companies are expected to divert supply to the domestic market, causing prices to fall. While lower prices are anticipated to limit revenue in the Supermarkets, Grocery Stores and Convenience Stores industry, this trend is expected to be offset by increased stockpiling of non-perishable goods by consumers in early 2020. While the COVID-19 outbreak is projected to significantly disrupt supply chains for food retailers, it is expected to have minimal effect on revenue for supermarkets, grocery stores and convenience stores.

Conversely, the Liquor Retailing and Specialised Grocery Retailing industries are expected to be significantly affected by the pandemic. On 23 March 2020, the Central Government (Te Kawanatanga o Aotearoa) enacted an Alert Level 4 lockdown, which required all specialised grocery retail stores,

such as butchers and liquor retail stores, to close for four weeks. This lockdown was extended for another week, and the Central Government loosened restrictions to Alert Level 3 on 28 April. This allows operators to trade with no physical contact with customers or customers on the premises, limiting services to delivery or pick-up. On 14 May 2020, the Central Government moved to Alert Level 2, which allows business premises to open for staff and customers, provided the business meets the public health and safety requirements. The Alert Level was lowered to Level 1 on 8 June, which removed all restrictions on food retailing businesses. Despite specialised food retail stores being temporarily closed for over two months, demand is expected to recover quickly as stores become fully operational and consumer sentiment improves. However, the Central Government announced on 12 August 2020 that the Auckland region would return to Alert Level 3 restrictions for two weeks and the rest of New Zealand would remain at Alert Level 2. Restrictions in Auckland were lowered to Alert Level 2.5 on 30 August, allowing all food retailers to reopen with additional requirements. Food retailers based in Auckland are required to display NZ COVID Tracer QR code posters, and customers and staff are required to wear a mask. On 5 October 2020, restrictions were lowered to Alert Level 1, supporting the recovery of this subdivision. The Central Government has provided some relief to significantly affected operators during this lockdown period. A \$5.1 billion wage subsidies scheme is expected to support short-term job retention and partially offset a decline in employment. Furthermore, on 15 April 2020, the Central Government provided additional support to small and medium-sized businesses. This included changes to tax loss continuity rules, more flexibility for tax obligations and a \$3.1 billion tax loss carry-back scheme. These changes are expected to increase business cash flows for affected retailers, and allow businesses to meet growing fixed costs during the lockdown period. On 14 May 2020, the Central Government unveiled a \$50 billion COVID-19 Response and Recovery Fund, which is expected to provide additional funding to affected businesses. Major funding includes a \$3 billion extension to the wage subsidy scheme.

G42 Other Store-Based Retailing: Very High

The COVID-19 pandemic is expected to significantly affect the Other Store-Based Retailing subdivision. A significant proportion of electronics products retailed in New Zealand are produced in China. Disrupted supply lines and lower manufacturing output in China due to the outbreak of COVID-19 in early 2020 may therefore result in shortages for some products. However, retail price rises are expected to be modest and competition in the consumer goods retailing sector is anticipated to remain robust. Companies will likely maintain prices to gain market share, rather than raising prices to boost margins. In addition to electronics products, clothing and footwear are common imports from China, and some disruptions in these supply chains are also expected.

On 25 March 2020, the New Zealand Government (Te Kawanatanga o Aotearoa) announced that all non-essential businesses must remain closed during the Alert Level 4 lockdown period. This was revised to Alert Level 3 on 28 April. The lockdown period is expected to significantly affect many industries in this subdivision that are considered non-essential retailing. However, the restrictions are expected to have less of an effect on retailers with online stores, as these retailers remained able to make sales during the lockdown period. Employee numbers and wage costs are expected to fall in 2020-21, as retail businesses, such as clothing retailers, have reduced staff to meet growing operating costs and weak demand conditions. At Alert Level 4 and 3, retail stores were not be able to have business premises open to customers, resulting in many operators exiting. However, the Central Government moved to Alert Level 2 on 14 May 2020, allowing retail stores to open for staff and customers, as long as the business meets public health and safety requirements. Furthermore, the Alert Level was changed to level 1 on 8 June, removing all remaining restrictions on retail stores. As a result, bricks-and-mortar retail stores are expected to recover once consumer sentiment improves. However, on 12 August 2020, the Auckland region returned to Alert Level 3 and the rest of New

Zealand shifted to Alert Level 2 for two weeks, as new COVID-19 cases appeared. Establishments in the Auckland region remained closed over this two-week period. On 30 August, Auckland moved to Alert Level 2.5, which allowed other store-based retailers to reopen with strict rules. Retailers based in Auckland are required to display a least one NZ COVID Tracer QR code poster, and staff and customers must wear masks. On 5 October 2020, restrictions were lowered to Alert Level 1, supporting a recovery in demand for Auckland-based retailers.

The New Zealand Government has announced a stimulus package supporting affected retail businesses. This support package will offer \$5.1 billion in wage subsidies to affected businesses, which is expected to support short-term job retention in this subdivision and partially offset expected declines in employment. On 15 April 2020, the Central Government announced new measures for small and medium-sized businesses to help increase cashflow and business confidence. These measures included a \$3.1 billion tax loss carry-back scheme and a \$60.0 million annual saving to businesses each year due to changing tax loss continuity rules. These changes are expected to increase cashflows for affected retailers and allow businesses to continue to meet growing fixed costs while temporarily closed. On 14 May 2020, the Central Government announced an additional \$50 billion in COVID-19 funding. Major initiatives include an additional \$3 billion to be used on the wage subsidy scheme and \$400 million to support tourism. This funding is expected to provide further relief to affected retailers.

Accommodation and Food Services

H44 Accommodation: Very High

The New Zealand Accommodation subdivision will likely be highly affected by the outbreak of COVID-19. On 20 March 2020, the New Zealand Government (Te Kawanatanga o Aotearoa) implemented a ban on non-New Zealand citizens and residents entering the country. As the Accommodation subdivision, as part of the wider tourism sector, relies on international travellers, the ban on overseas visitors entering the country is significantly constraining demand. In particular, international leisure travellers account for over 30% of the Hotels and Resorts industry's revenue. As a result, restrictions on overseas visitors will significantly constrain revenue for many capital city establishments. Smaller accommodation providers in regional areas will also likely be affected, as many rely on catering to large groups of Chinese tourists and domestic travellers on package holidays.

On 24 March 2020, the Central Government announced an Alert Level 4 lockdown, which mandated the closure of all non-essential businesses. Subdivision operators are permitted to stay open to provide services to essential workers. However, operators are not allowed to offer services to tourists, who make up their largest source of revenue. On 28 April, New Zealand Government restrictions were eased to Alert Level 3, with this downgrade having little impact on subdivision operators. On 14 May, New Zealand moved to Alert Level 2, allowing subdivision operators to provide services if they adhere to social distancing restrictions. From 10 June 2020, New Zealand moved to Alert level 1, essentially lifting all restrictions on subdivision operators. Loosening restrictions are expected to increase demand for subdivision services. Despite being allowed to open, the lack of international travel is expected to severely limit demand for subdivision services. Additionally, domestic economic conditions are expected to remain subdued and limit demand for subdivision services from domestic travellers.

From 12 August 2020, Alert Level 3 restrictions were reimposed in the Auckland region, with the rest of the country returning to Alert Level 2 restrictions. The Alert Level 3 restrictions imposed in Auckland are expected to severely limit the ability of Auckland-based firms to operate. While

subdivision firms could operate at Alert Level 2, restrictions reduced demand for subdivision services. Auckland moved to Alert level 2.5 at the end of August. Restrictions on operators at Alert Level 2.5 are the same as for Alert Level 2.

Despite the expected contraction in subdivision revenue, subdivision employment is expected to remain largely steady. The New Zealand Government has announced a wage subsidy package. This package pays eligible businesses up to \$585.80 per week, per person employed. This subsidy is expected to limit declines in subdivision employment.

H45 Food and Beverage Services: Very High

The Food and Beverage Services subdivision is expected to be highly affected by the outbreak of COVID-19. On 22 March 2020, the New Zealand Government (Te Kawanatanga o Aotearoa) announced the closure of pubs and restaurants, including for takeaway services. This factor has resulted in a significant decline in revenue for operators, which were forced to cease trading.

On 20 April 2020, the New Zealand Government announced that Alert Level 4 restrictions would be relaxed from 28 April. From this date, food and beverage services operators were permitted to open for takeaway services, while remaining closed for dine-in services. On May 14, these restrictions were relaxed further, with the country moving to Alert Level 2. Under Alert Level 2, food service operators were permitted to open, while adhering to some social distancing restrictions. From 10 June, New Zealand moved to Alert Level 1, allowing subdivision operators to open with essentially no restrictions. The relaxation of restrictions is expected to increase demand for subdivision services.

From 12 August 2020, Alert Level 3 restrictions were reimposed in Auckland, with the rest of New Zealand moving to Alert Level 2 restrictions. Under Alert Level 3 restrictions, operators may only open for takeaway services. Consequently, revenue is anticipated to fall for operators in Auckland. Operators across the rest of New Zealand are able to continue providing dine-in services. However, these businesses must adhere to relevant social distancing regulations. Auckland moved to Alert Level 2.5 at the end of August, with the same restrictions now applying across the country.

An anticipated rise in the unemployment rate will likely cause household incomes to fall, reducing the amount of money available to consumers for discretionary purchases of takeaway food. Additionally, delivery services are increasingly being provided by online food ordering and delivery platforms. These platforms can charge food and beverage providers substantial commissions for their services. Greater demand from these services is expected to reduce subdivision profitability during the pandemic.

Additionally, in an effort to support subdivision operators, the New Zealand Government has announced a wage subsidy package. This package pays eligible businesses up to \$585.80 per week, per person employed. Despite the expected sharp contraction in subdivision revenue, declines in subdivision employment are therefore expected to be less severe.

Transport, Postal and Warehousing

I46 Road Freight Transport: Very High

New Zealand's lack of an extensive rail network means that the majority of the country's freight task is transported by road. On 25 March 2020, the New Zealand Government (Te Kawanatanga o Aotearoa) announced the country would enter Alert Level 4 lockdown restrictions, mandating the closure of all non-essential businesses. Consequently, several manufacturers, wholesalers and retailers have been forced to close. This trend has reduced demand for road freight services, and

contributed to a decline in subdivision revenue. However, New Zealand's move to Alert Level 1 on 10 June 2020 has allowed many businesses to reopen across the economy, increasing demand for freight services. Alert Level 3 restrictions were reimposed in Auckland from 12 August 2020, with the rest of the country moving to Alert Level 2 restrictions. The return to restrictions is expected to reduce business activity in Auckland, limiting demand for subdivision services in this region. Auckland moved to Alert Level 2.5 at the end of August 2020. Loosening restrictions are expected to improve demand for industry services.

The downturn in the global economy is expected to reduce international trade, with the World Trade Organisation estimating that global trade could contract by 30% during the pandemic. The Road Freight Transport industry generates significant revenue from transporting products to and from export markets. Contractions in global trade are expected to reduce revenue generated by these services.

The global downturn associated with the outbreak of COVID-19 caused a steep contraction in the world price of crude oil. The price of crude oil per barrel became negative on 21 April 2020 for the first time in history. This decline is expected to improve the competitiveness of the Road Freight Transport industry against the Rail Freight Transport industry. This trend is expected to limit declines in subdivision revenue. Additionally, demand for road passenger transport is expected to fall due to decreased tourist activity and domestic travel restrictions. However, restrictions were removed from 10 June 2020, supporting increased business activity and encouraging demand for passenger transport services.

I47 Rail Freight Transport: High

Operators in the Rail Freight Transport subdivision dominate the movement of New Zealand's non-bulk freight task. The COVID-19 outbreak is expected to limit demand for commodity exports, reducing New Zealand's domestic freight task. Additionally, the World Trade Organisation estimates that global international trade will contract by 30% over the duration of the pandemic. This slowdown is expected to reduce the volume of non-bulk freight requiring transport across New Zealand, further reducing demand for rail freight services.

The decline in the world price of crude oil is expected to reduce the competitiveness of rail freight and passenger transport against road transport, further reducing subdivision revenue. Additionally, demand for rail passenger services is expected to fall, as tourist activity declines due to government travel restrictions. However, as social distancing restrictions are loosened, rising business activity is expected to increase demand for rail passenger transport as more people return to work. The return to Alert Level 3 restrictions in Auckland from 12 August 2020 is expected to cause business activity to decline, reducing demand for subdivision services in this region. Auckland's restrictions were downgraded to Alert Level 2.5 from the end of August. This factor is expected to improve business activity and demand for rail freight transport services.

The Central Government (Te Kawanatanga o Aotearoa) outlined plans to invest \$1.1 billion in the country's infrastructure in the 2020 Budget. This investment includes increased maintenance and track renewal, and locomotive upgrades. This investment is expected to improve the competitiveness of rail freight, supporting a recovery in subdivision revenue.

I48 Water Transport: Very High

As New Zealand is an island nation, all of its imports and exports arrive via air or sea. Air freight transport is primarily used for high-value or time-sensitive products, due to its expensive nature. Consequently, most of New Zealand's international trade is conducted by sea. The World Trade

Organisation estimates that COVID-19 will reduce global trade by up to 30% during the pandemic. The slowdown in international trade is expected to limit demand for water freight transport services.

Declining household discretionary incomes and restrictions on non-essential activities during the COVID-19 outbreak are expected to reduce demand for consumer goods in New Zealand. New Zealand imports and demand for water freight services are also anticipated to fall. However, the 2020 Budget outlined increased investment in interisland ferry services. This includes \$399.5 million to replace capital assets. This investment is expected to support a recovery in subdivision revenue over the next five years.

Additionally, demand for water passenger services is expected to decline during the pandemic, as tourist numbers fall and consumers were required to remain at home in early 2020. On 25 March 2020, the New Zealand Government (Te Kawanatanga o Aotearoa) banned cruise ships from docking at its ports. Additionally, negative media coverage regarding the spread of the virus is expected to discourage New Zealanders from taking cruise trips. This factor is expected to contribute to a steep decline in revenue for the Water Passenger Transport industry.

I49 Air and Space Transport: Very High

On 20 March 2020, the New Zealand Government (Te Kawanatanga o Aotearoa) implemented a ban on all non-New Zealand citizens and residents entering the country. Consequently, demand for international air travel is forecast to decline substantially, with New Zealand's airlines grounding much of their fleets. IBISWorld expects revenue for the Airlines industry to decline by more than one-third during 2020-21. This revenue decline is expected to cause industry profitability to fall during 2020-21. While domestic flights are allowed to resume, New Zealand's geography means that this accounts for a small share of subdivision revenue.

New Zealand's status as an island nation ensures that all imports and exports travel by sea or air. Air freight is generally expensive, and only used to carry expensive or time-sensitive products. Increased demand for personal protective equipment and other essential products has boosted demand for air freight services. New Zealand's largest airline, Air New Zealand, has converted passenger jets to freight jets to capitalise on this increased demand. This trend is expected to limit declines in subdivision revenue over the course of the pandemic.

I50 Other Transport: Very High

On 20 March 2020, the New Zealand Government (Te Kawanatanga o Aotearoa) implemented a ban on all non-New Zealand citizens or residents entering the country. This trend is expected to significantly reduce international tourism. Additionally, on 25 March 2020, the government implemented Alert Level 4 restrictions on non-essential activities. These restrictions had a severely negative effect on the Scenic and Sightseeing Transport industry. Restrictions were reduced to Alert Level 1 from 10 June 2020, allowing industry operators to reopen without any major restrictions. However, Alert Level 3 restrictions were reimposed on Auckland from 12 August, with the rest of the country moving to Alert Level 2 restrictions. These restrictions are expected to slightly reduce business activity and demand for subdivision services. A return to Alert Level 4 restrictions would significantly affect subdivision revenue. Auckland moved to Alert Level 2.5 from the end of August 2020, supporting business activity and contributing to increased demand for industry services. The closure of New Zealand's borders and deteriorating domestic economic conditions are expected to limit demand from international and domestic tourists. Additionally, declines in the world prices of natural gas and crude oil are expected to reduce revenue for the Pipeline Transport industry.

I51 Postal and Courier Pick-up and Delivery Services: High

The COVID-19 outbreak is forecast to have a high impact on the Postal and Courier Pick-up and Delivery Services subdivision. On 25 March 2020, the New Zealand Government (Te Kawanatanga o Aotearoa) enacted Alert Level 4 lockdown restrictions, mandating the closure of all non-essential businesses across the economy. Operators in the subdivision generate significant revenue from commercial clients. Consequently, the closure of these businesses reduced demand for subdivision services, as well as revenue. However, the country moved to Alert Level 3 on 28 April, and then to Alert Level 2 from 14 May, allowing some businesses to reopen and boosting demand for subdivision services. Alert Level 2 was reduced to Alert Level 1 on 10 June, further increasing business activity across the economy and supporting commercial demand. From 12 August 2020, the government reimplemented Alert Level 3 restrictions on Auckland, with the rest of New Zealand moving to Alert Level 2.

The closure of many retailers across the economy increased demand for online shopping during the COVID-19 outbreak. Products purchased online are generally delivered by subdivision operators. Expected growth in demand from households is forecast to outweigh the decline in demand from commercial markets. Consequently, this trend is expected to somewhat limit the decline in subdivision revenue. However, New Zealand's move to Alert Level 1 on 10 June 2020 has allowed many retailers to reopen, increasing demand for bricks and mortar retailers, and limiting demand for online shopping. However, Alert Level 3 restrictions were reimposed in Auckland from 12 August, with the rest of the country moving to Alert Level 2. Auckland moved to Alert Level 2.5 from the end of August. Under Alert Level 3 restrictions, only essentially retailers can operate. Consequently, demand for online shopping is expected to rise in Auckland during August 2020, driving increased demand for subdivision services.

I52 Transport Support Services: Very High

The Transport Support Services subdivision provides several services to the wider transport sector. The slowdown of New Zealand's international trade is expected to reduce this demand. IBISWorld estimates that the total value of New Zealand's merchandise trade imports and exports will decline by 8.6% in 2020-21. As most of New Zealand's international trade is conducted via sea, fewer ships arriving at New Zealand's ports is expected to reduce demand for a number of subdivision operators that provide ancillary services to the Water Freight Transport industry. For example, reduced demand for water freight transport is expected to negatively affect operators of port and water transport terminals. The easing of restrictions from 10 June 2020 is expected to support business activity, driving increased demand for subdivision services. However, the temporary return to restrictions from 12 August 2020 negatively affected business activity in New Zealand and reduced demand for subdivision services.

I53 Warehousing and Storage Services: High

The COVID-19 outbreak is expected to reduce the volume of international trade between New Zealand and its trading partners. IBISWorld estimates that the total value of New Zealand's merchandise trade will fall by 8.6% in 2020-21. As most of New Zealand's international trade is conducted by sea, products awaiting export generally spend time in storage at ports. Additionally, imports generally spend time in storage while awaiting customs clearance. The forecast decline in international trade is therefore expected to contribute to a decline in revenue for warehousing and storage firms.

Declines in consumer sentiment and household discretionary incomes are expected to discourage New Zealand consumers from making discretionary purchases in 2020-21. Additionally, the New

Zealand Government (Te Kawanatanga o Aotearoa) enacted Alert Level 4 restrictions on non-essential activities on 25 March 2020, mandating the closure of many retailers. This resulted in retailers being unable to clear stock, increasing their demand for warehouse services. However, restrictions returned to Alert Level 1 on 10 June 2020, allowing retailers to reopen and reducing demand for storage services.

From 12 August 2020, Auckland moved to Alert Level 3 restrictions, with the rest of the country moving to Alert Level 2. Under Alert Level 3 restrictions, non-essential retailers are unable to open their physical locations, driving increased demand for subdivision services from retailers in this area. Restrictions in Auckland were reduced to Alert Level 2.5 from the end of August. Alert Level 2 and 2.5 restrictions allow retailers to continue operating. Consequently, demand from operators across all areas outside of Auckland is not expected to have been heavily affected by these restrictions.

Information Media and Telecommunications

J54 Publishing (Except Internet and Music Publishing): High

The COVID-19 outbreak is expected to significantly affect the Publishing subdivision. Demand for certain products, such as print newspapers, is expected to decline as consumers spend less on industry goods. In addition, weakening economic activity has reduced demand for advertising, negatively affecting newspaper and magazine publishers. Magazine publisher Bauer Media ceased printing its publications in April 2020 due to sharp declines in advertising revenue. Bauer Media subsequently sold its magazine operations to Australia-based Mercury Capital, which resumed publication of several titles in July 2020. Furthermore, New Zealand Media and Entertainment has announced that it would cut 200 jobs and reduce salaries in response to a sharp decline in advertising revenue. Some publishers may benefit from an \$11.1 million fund set aside by the New Zealand Government (Te Kawanatanga o Aotearoa) to provide targeted assistance to media companies. In addition, regional publications are set to benefit from \$4.0 million in funds from the Central Government's \$50 million media support package.

The Software Publishing industry is unlikely to be significantly affected by the COVID-19 pandemic. The nature of software publishing allows for easy remote working operations, minimising disruptions to business operations caused by the five-week Alert Level 4 lockdown. However, downstream industries that demand software may reduce their needs if business confidence declines further.

J55 Motion Picture and Sound Recording Activities: Very High

The Motion Picture and Sound Recording Activities subdivision is anticipated to be significantly affected by the COVID-19 pandemic. Demand for video production and post-production services is anticipated to decline as filmmakers both domestically and abroad delay production activities due to public health measures that have restricted movement and public gatherings. In addition, the spread of COVID-19 has delayed film and video production globally, negatively affecting demand for post-production services rendered in New Zealand.

Video production and post-production activities largely returned to normal following New Zealand's move to Alert Level 1 on 8 June 2020, which largely removed restrictions on movement and gatherings. However, the return to Alert Level 3 restrictions in Auckland in August 2020 is anticipated to interrupt some television production activities. The move to Alert Level 2.5 for Auckland on 31 August means that production activity can largely resume, subject to distancing and hygiene guidelines. Production activity has subsequently returned to normal following Auckland's move back to Alert Level 1 on 8 October 2020.

New Zealand's success in suppressing COVID-19 has made it an attractive destination for global film producers seeking to undertake production work. The New Zealand Government (Te Kawanatanga o Aotearoa) has granted special dispensation for film workers to enter New Zealand on economic grounds, subject to a mandatory 14-day quarantine. This special dispensation for these filmmakers indicates the government's interest in boosting the local film sector at a time when global production largely remains disrupted. New Zealand's official policy towards eradicating COVID-19 is anticipated to continue supporting the film sector over the medium term, as the comparative lack of restrictions on movement and gatherings provides the country's film sector with a competitive advantage.

On 23 April 2020, the New Zealand Government announced a \$50.0 million support package for media companies. These funds include a six-month waiver of transmission fees for radio and television broadcasters, along with funds to reduce media companies' contribution to content produced by New Zealand on Air. The 2020 Budget includes a \$146.0 million boost to the New Zealand Screen Production Grant to encourage international productions to film in New Zealand. In July 2020, the Central Government announced a further recovery support package for the film and TV sector. The package includes \$73.4 million in funding for a Screen Production Fund to ensure productions halted by COVID-19 will resume. An additional \$25.0 million over four years has been allocated to NZ On Air to boost production of Pacific, student and disability broadcast media.

Public health measures have significantly affected the Cinemas industry, as cinemas were required to close under Alert Level 4 restrictions. Cinemas were allowed to reopen following the move to Alert Level 2 restrictions on 14 May 2020, albeit at reduced capacity in line with strict physical distancing and hygiene guidelines. These restrictions were subsequently lifted following the move to Alert Level 1 on 8 June, enabling cinemas to operate as normal. The return to Alert Level 3 in Auckland and Alert Level 2 across the rest of the country in August 2020 has reimposed operating restrictions, causing cinemas in the Auckland area to close. Cinemas in Auckland were subsequently permitted to reopen, subject to capacity and distancing restrictions, following the move to Alert Level 2.5 on 31 August. Auckland's move to Alert Level 1 on 8 October means that cinemas in the region are no longer significantly restricted in their operation.

The COVID-19 pandemic is anticipated to have long-term effects on the Cinemas industry. As restrictions on movement and gatherings drove increased demand for SVOD services, which generally have a monthly subscription cost lower than that of a cinema ticket, cinemas will need to attract consumer expenditure despite weak economic conditions. Disruptions to global film production and release schedules will also likely limit demand for cinemas over the short term, as first-run film availability remains limited. Global film production studios are delaying major film releases as the pandemic continues to significantly affect major markets overseas, such as the United States and the United Kingdom, making blockbuster titles scarce for local cinemas. Consequently, revenue for the Cinemas industry is anticipated to remain below pre-pandemic levels over the medium term.

J56 Broadcasting (Except Internet): High

The Broadcasting subdivision is anticipated to be highly affected by the COVID-19 pandemic. Broadcasters are expected to face significant pressure from declines in revenue received from advertisers. Many firms reassessed their advertising needs, as some businesses, such as restaurants and cinemas, pause trading or operate at reduced capacity due to physical distancing restrictions. However, advertising undertaken by other businesses, such as pharmacies, is expected to increase, partly offsetting declines in demand for advertising space. The move to Alert Level 1 on 8 June 2020 is expected to boost economic activity and support a rise in demand for advertising. However, the pandemic's effects on consumer sentiment and business confidence are anticipated to constrain overall demand from advertisers.

While more viewers are expected to watch TV as lockdowns and restrictions on travel and social gatherings encourage individuals to stay indoors, New Zealanders are increasingly turning to SVOD services rather than free-to-air and pay-TV broadcasts. Furthermore, economic disruption and falling advertising revenue represent substantial threats to broadcasters. The New Zealand Government (Te Kawanatanga o Aotearoa) announced a \$50.0 million support package for media companies in late April 2020, which includes a six-month waiver of transmission fees for commercial radio and television broadcasters.

J57 Internet Publishing and Broadcasting: Moderate

The Internet Publishing and Broadcasting subdivision is expected to be moderately affected by the COVID-19 pandemic. Although some products and services, such as online sales listings, are anticipated to be negatively affected, greater demand for other products and services is expected to partly offset this trend. However, falling demand from advertisers is anticipated to significantly affect online news and content publishers that rely on advertising revenue to support their operations. Consumer demand for SVOD services, such as Netflix and Neon, is anticipated to rise sharply as individuals spend more time at home. While the New Zealand Government (Te Kawanatanga o Aotearoa) has largely lifted restrictions on movement and gatherings, demand for SVOD services is anticipated to remain strong as the COVID-19 pandemic limits film and television production activity globally.

J58 Telecommunications Services: Moderate

Telecommunications services are anticipated to be moderately affected by the COVID-19 pandemic. Call centre support services may experience disruptions, particularly for services that use offshore call centres based in areas with larger outbreaks of COVID-19. However, underlying demand for telecommunications services is expected to remain largely stable, despite wired and wireless telecommunications networks being used more heavily under the Alert Level 4 and 3 restrictions. While most installations and infrastructure construction activities were halted under the Alert Level 4 restrictions, they were permitted to resume following New Zealand's move to Alert Level 3 on 28 April 2020.

J59 Internet Service Providers, Web Search Portals and Data Processing Services: High

The COVID-19 outbreak is expected to have mixed effects on the Internet Service Providers, Web Search Portals and Data Processing Services subdivision. Data storage service providers are anticipated to benefit from growing demand for their services, as businesses shift more operations to the cloud and encourage more remote working to minimise disruptions to business operations. However, the technology used to operate and construct data centres is almost exclusively sourced from international manufacturers, and local providers may struggle to ramp up their domestic offerings if demand rises sharply.

Demand for internet service providers is expected to increase as the lockdown restrictions have led to many individuals working from home. This trend is anticipated to benefit internet service providers, with some consumers upgrading their existing internet plans to handle the greater volumes of data required for activities such as remote working and online video streaming, particularly for larger families and whanau. The government's gradual lifting of restrictions on movement and gatherings is not anticipated to significantly reduce demand for internet service providers, as most individuals will likely continue using their existing service plans.

J60 Library and Other Information Services: Moderate

This subdivision consists of libraries and other archives, which are expected to be moderately affected by the COVID-19 pandemic. Demand for libraries and publicly accessible archives will likely fall substantially, as the Alert Level 4 lockdown forced these venues to close temporarily. These venues remained closed under Alert Level 3 restrictions, but have reopened following the move to Alert Level 2 restrictions on 14 May 2020. Libraries and other archives can now largely operate as normal following the move to Alert Level 1 on 8 June. However, the return to Alert Level 3 in Auckland in August 2020 forced libraries and other archives in the region to close again. These venues were subsequently permitted to reopen, subject to some restrictions, after Auckland moved to Alert Level 2.5 restrictions on 31 August. These restrictions have been removed following Auckland's move to Alert Level 1 on 8 October. As subdivision activities are largely operated through public funding, the short-term fall in demand is unlikely to have any substantial negative long-term effect on the subdivision.

Financial and Insurance Services

K62 Finance: Moderate

The COVID-19 pandemic has moderately affected the Finance subdivision through volatility in financial markets and the increased likelihood of further cuts to the Official Cash Rate (OCR) by the RBNZ. Prior to the pandemic, the RBNZ was expected to keep the OCR unchanged for 2020 as the economic outlook was positive. However, as the COVID-19 outbreak escalated and extended to countries outside of China, risks to both the domestic and global economy increased. In March 2020, the RBNZ cut the OCR by 75 bps to 0.25%. On May 2020, the RBNZ has indicated the OCR will remain at 0.25% until at least early 2021. Despite this, the RBNZ signalled that a negative OCR could be an option if further stimulus is required. The RBNZ has been in discussions with major financial institutions about their ability to operate in a negative interest rate environment.

Rate cuts are expected to reduce interest revenue for banks and non-bank lenders. Additionally, profit margins are anticipated to narrow, as lenders pass on interest rate cuts to borrowers. However, negative interest rates are unlikely to affect retail products, such as mortgages and saving deposits. Negative interest rates are far more common in money markets. For example, the Euro Interbank Offered Rate (Euribor) and the Swiss Average Rate Overnight (SARON) are currently negative. Volatility in financial markets is also expected to affect investment returns for firms in the Financial Asset Investing industry and may prompt investors to move their funds to safer assets.

K63 Insurance and Superannuation Funds: Moderate

The COVID-19 pandemic has moderately affected the Insurance and Superannuation Funds subdivision. Claims are not expected to rise significantly for general insurers due to exclusions on standard travel and business interruption policies. Most insurers have exclusions relating to pandemic and virus-related claims. Customers may be insured if they purchased travel insurance prior to the COVID-19 pandemic becoming a known event. Life insurers and reinsurers are not expected to be affected as New Zealand has successfully contained the pandemic. However, investment income is a key revenue driver for many insurance companies and investment revenue is expected to be volatile for insurers over the current year. The pandemic is expected to have a short-term effect on investment returns for superannuation funds, but the long-term nature of investing in superannuation means these operators are better able to withstand volatility in sharemarkets than other market participants.

K64 Auxiliary Finance and Insurance Services: Moderate

The COVID-19 outbreak has moderately affected the Auxiliary Finance and Insurance Services subdivision. Demand for subdivision services will likely remain largely unchanged given its service-based nature. Subdivision operators also primarily provide services domestically and to local clients, limiting their exposure to international demand volatility. As a result, current trends and forecasts are expected to remain largely unchanged.

Rental, Hiring and Real Estate Services

L66 Rental and Hiring Services (Except Real Estate): Very High

This subdivision includes the Passenger Car Rental and Hiring industry, which is anticipated to report a significant decline in demand as inbound international tourism declines. International tourists were expected to account for approximately 25% of industry revenue in 2020-21, representing a key driver of industry expansion. However, this is now anticipated to be significantly lower due to the outbreak of COVID-19. Restrictions on domestic travel and the closure of non-essential businesses are also expected to reduce demand for rental vehicles. As a result, industry revenue is anticipated to fall by 15.9% in 2020-21, with major car rental companies closing most locations while Alert Level 4 restrictions remained in place. The Central Government (Te Kawanatanga o Aotearoa) relaxed restrictions to Alert Level 3 on 28 April 2020 and Alert Level 2 on 14 May, followed by Alert Level 1 on 8 June, allowing many business locations to reopen and domestic travel to resume. Demand is anticipated to remain subdued as international travel restrictions remain in place.

The remainder of the subdivision is primarily focused on the domestic market, with firms providing transport, heavy machinery, scaffolding, and furniture and appliance rentals to businesses and consumers across New Zealand. As these firms rely less on tourism for demand, the COVID-19 outbreak is anticipated to have a less severe and drawn out impact on some of these industries. However, weakening economic conditions and subdued construction activity are anticipated to weigh heavily on demand. Revenue for the Heavy Machinery and Scaffolding industry is therefore anticipated to fall by 14.2% in 2020-21. Alert Level 4 restrictions significantly affected subdivision activities, with most businesses closing or only providing rentals to essential services. Reduced restrictions are anticipated to provide some support for industry firms as mining and construction activity begin to recover. To promote New Zealand's economic recovery, the government's 2020 Budget announced increased spending on infrastructure. An additional \$3 billion was allocated for shovel-ready infrastructure projects and the government committed to building 8,000 new state houses over the next five years. This support for construction activity is anticipated to provide some demand for subdivision services. Some operators in the subdivision may also benefit from the Business Finance Guarantee Scheme, which supports the provision of bank loans up to \$5.0 million to eligible businesses, with the government assuming 80% of the default risk of the loan.

L67 Property Operators and Real Estate Services: Very High

The subdivision's two industries, the Commercial Property Operators industry and the Real Estate Services industry, are expected to be significantly affected by the COVID-19 outbreak. Due to the general slowdown in economic activity and closure of non-essential businesses during the height of the pandemic, businesses are anticipated to face difficulty meeting rent obligations. This factor is expected to significantly affect commercial property operators. As a result, revenue in the Commercial Property Operators industry is anticipated to fall by 8.0% in 2020-21. Retail customers are anticipated to account for almost one-third of revenue for the Commercial Property Operators industry in the

current year. Retail activity has fallen sharply, while industrial output is also anticipated to decline due to weaker consumption, as consumers were forced to remain at home for the duration of the lockdown. Declining international trade activity may also affect the business performance of industrial tenants. In response to deteriorating economic conditions, the Central Government (Te Kawanatanga o Aotearoa) introduced increased protection for tenants by limiting tenancy terminations for the duration of the COVID-19 outbreak. However, weakening economic conditions are anticipated to weigh on commercial rental prices.

The move to relax restrictions has provided some relief for businesses, enabling them to make rent payments. However, retail activity is expected to remain weak due to economic uncertainty, constraining the performance of retail property operators. While retail card spending rose by almost 80% in May 2020 compared with April 2020, as the government eased lockdown restrictions, spending remained 6.0% below levels in May 2019. This included a 35% fall in spending on fuel and 41% decline in card spending on hospitality compared with the previous year. Retail card spending has since returned to more normal levels. However, the closure of some hospitality businesses is anticipated to weigh on the performance of commercial property operators over the year.

The Real Estate Services industry is also anticipated to be significantly affected by the COVID-19 outbreak. Residential property transfer volumes are anticipated to come under pressure due to uncertainty in the wider economy. For example, in May 2020, house sales numbers were down almost 50% compared with May 2019. As a result, revenue for the Real Estate Services industry is anticipated to fall by 15.7% in 2020-21. Operators in the subdivision benefited from some pent-up demand caused by the restrictions imposed during the pandemic. As a result, strong property sales numbers were recorded later in the year.

The number of New Zealand citizens repatriating is anticipated to rise, providing further support for house prices. However, the unemployment rate is expected to rise as wage subsidies are wound back. As a result, some residential tenants may face difficulty meeting lease obligations, while mortgagees may also struggle to make payments. As a result, the major banks have offered customers support through payment deferrals. Lowered restrictions on 28 April and 14 May 2020 allowed most subdivision activities to resume. For example, auctions and open for inspections resumed with limits on the number of people in attendance. High touch areas in properties must also be regularly cleaned and real estate agents must be able to contact trace attendees. Despite restrictions being relaxed further, activity in the subdivision is anticipated to remain subdued as rising unemployment, weak consumer sentiment and slowing population growth limit the number of housing transfers.

Professional, Scientific and Technical Services

M69 Professional, Scientific and Technical Services: High

The Professional, Scientific and Technical Services subdivision has been highly affected by the COVID-19 pandemic. Despite restrictions easing, international travel restrictions remain in place, which are expected to continue constraining some business-related activity in this subdivision. While many businesses in the subdivision are equipped to provide flexible work arrangements for employees, demand for services is anticipated to fall as clients seek to reduce costs. As a result, revenue for the Accounting Services industry is expected to decline by 5.6% in 2020-21, while revenue for the Legal Services industry is anticipated to fall by 8.1%. Some cities, such as Christchurch, have introduced business support subsidies to help small businesses seek professional advice. These initiatives are anticipated to support demand for some subdivision services, including business continuity planning, finance and cashflow planning, and HR services. However, as businesses seek to reduce costs in the face of economic uncertainty, demand for consulting services is likely to fall. Due to the broad

range of services offered by firms in the subdivision, some areas will perform better than others. For example, demand for discretionary services such as strategy consulting is anticipated to weaken, while demand for other services such as restructuring advice may remain more robust. Due to falling demand, some large professional and legal services providers have been forced to reduce staff hours and wages or cut staff in response to slowing business activity.

The COVID-19 outbreak has caused disruptions to business supply chains and international trade. Businesses affected by these supply disruptions are expected to seek advice on mitigating costs and exposure, which could boost demand for some management consulting services. However, restrictions on non-essential businesses and declines in economic activity may reduce demand for professional services from some sectors. Other operators in the subdivision, such as vet clinics, were able to provide services for emergency and urgent treatment under Alert Level 4 restrictions. The move to relax restrictions is anticipated to support demand for operators in the Veterinary Services industry. Demand for biological and medical research services is expected to rise, as global demand for a vaccine remains high. Funding for COVID-19 research programs from both the private and public sector is expected to increase. In February 2020, New Zealand's Health Research Council launched a \$3.0 million rapid research response, funding research into threats from COVID-19 and preparation for future outbreaks. In the 2020 Budget, the Central Government (Te Kawanatanga o Aotearoa) allocated additional funding to research, science and innovation as part of the COVID-19 Response and Recovery Fund, bringing total funding to \$401.3 million over four years. Additional funding due to the COVID-19 outbreak is anticipated to boost turnover for the Scientific Research Services industry over 2020-21.

M70 Computer System Design Services: High

The COVID-19 pandemic has had a high impact on the Computer System Design Services subdivision. Due to subdued economic activity, weak business confidence and the closure of non-essential businesses in early 2020, revenue for the Computer System Design Services industry is anticipated to fall by 8.8% in 2020-21. However, as businesses seek to improve their online presence and equip themselves to provide flexible work arrangements for employees, demand for some IT consulting services is anticipated to remain more robust, such as demand for labour-based computer assistance. Furthermore, IT consultants were largely able to work remotely at the height of the outbreak, reducing the risk of exposure for employees in this subdivision. However, in response to economic uncertainty, businesses are anticipated to seek cost reductions and cut back on consulting services, constraining subdivision demand. As a result, demand for software and app development services is expected to decrease, as firms wait until economic conditions improve. The removal of lockdown restrictions is anticipated to support demand for some operators, as some businesses seek out IT services to help resume activities.

Administrative and Support Services

N72 Administrative Services: High

As a service-based subdivision, the Administrative Services subdivision is expected to be significantly affected by the COVID-19 pandemic. The Travel Agency and Tour Arrangement Services industry is expected to be heavily affected by the pandemic, as the closure of New Zealand's international borders has stopped all non-essential travel to and from New Zealand. Travel bans are anticipated to significantly reduce demand for tour arrangement services, with revenue for the Travel Agency and Tour Arrangement Services industry set to decline substantially. Travel agencies will also be affected by uncertainty regarding when travel restrictions will be relaxed, as governments around the world

impose significant travel restrictions in a bid to curb the spread of COVID-19. As restrictions on most international travel will likely remain in place through most of 2021, demand for travel agencies and tour arrangement services is anticipated to remain low.

Domestic travel resumed following the move to Alert Level 2 restrictions on 14 May 2020, providing some support for travel agencies and tour arrangement services. However, the return to Alert Level 3 restrictions in Auckland and Alert Level 2 restrictions elsewhere in August 2020 limited domestic travel. While Australia has agreed to allow travellers from New Zealand to enter New South Wales and the Northern Territory without having to quarantine from October 2020, New Zealanders would be required to quarantine on their return. The scheme was subsequently expanded, with travellers from New Zealand now permitted to enter more states and territories without quarantine. Nevertheless, travel to and from Australia is anticipated to remain limited until New Zealand lifts quarantine requirements for travellers arriving from Australia. Such an arrangement is not expected until mid-2021, provided further episodes of community transmission do not occur in Australia.

Demand for employment placement and recruitment services is expected to fall due to the COVID-19 pandemic, as declines in economic activity reduce job vacancies and advertisements. Treasury modelling has indicated that New Zealand's unemployment rate could rise as high as 13.0%, which would significantly affect demand for employment placement services. However, government stimulus packages, such as those in the 2020-21 Budget, are expected to limit the rise in unemployment, supporting firms that provide job placement and recruitment services.

N73 Building Cleaning, Pest Control and Other Support Services: High

The COVID-19 outbreak is expected to have a moderate effect on the Building Cleaning, Pest Control and Other Support Services subdivision. As this subdivision is service-based, demand for subdivision services has fallen following the government-imposed Alert Level 4 restrictions. New Zealand's move to Alert Level 3 on 28 April 2020 allowed some subdivision businesses to resume operations, albeit under strict conditions. Subdivision activity is anticipated to rise significantly following the move to Alert Level 2 on 14 May, which allowed many businesses to resume operations under particular health restrictions. The move to Alert Level 1 on 8 June has allowed businesses to largely operate as normal, further supporting demand for subdivision services. While the return of Alert Level 3 restrictions in Auckland and Alert Level 2 restrictions in the rest of New Zealand in August 2020 limited subdivision operations, the return to Alert Level 1 in Auckland from 8 October means that restrictions have been lifted across New Zealand. As a result, demand for subdivision services is expected to rise as economic activity recovers.

Most industries in the subdivision are expected to face minimal supply chain disruptions as a result of the COVID-19 outbreak. However, global supply shortages of some products, such as hand sanitiser, which is stocked in many building toilet facilities, will likely affect the Commercial Cleaning Services industry. Supply issues are anticipated to place upward pressure on prices for hygiene products, such as soap and hand sanitiser, increasing operating costs for the industry.

Public Administration and Safety

O76 Defence: Moderate

This subdivision includes the Defence industry in New Zealand. The New Zealand Defence Force (NZDF) consists of three services, the Royal New Zealand Navy, the Army and the Air Force. The COVID-19 pandemic has not affected the NZDF so far. However, if new outbreaks were to occur in New Zealand, the NZDF would likely be relied on to help maintain quarantine controls, deliver

medical supplies, or support police and firefighting operations. Medics and health staff in the NZDF could also be called on to support civilian efforts to control the spread of COVID-19.

O77 Public Order, Safety and Regulatory Services: Moderate

This subdivision is expected to experience no significant disruption due to the COVID-19 pandemic. Police and firefighting services may be called as first responders for normal medical emergencies, while medical resources are occupied with COVID-19 patients. Correctional facilities may be at a higher risk of contracting and spreading the disease. Inmates in these facilities have a higher chance of spreading the infection as they live in close proximity.

Education and Training

P80 Preschool and School Education: High

The New Zealand Preschool and School Education subdivision was significantly affected by the COVID-19 pandemic. The New Zealand Government (Te Kawanatanga o Aotearoa) had put the country on Alert Level 4 on 21 March 2020 to manage the outbreak, with all domestic schools closed for five weeks from 25 March. As the number of community cases declined, the country moved to Alert Level 2 from 14 May. During Alert Level 3, preschools and domestic schools reopened to students who could not be cared for at home. As the country progressed to Alert Level 2, all children were required to return to school. In New Zealand, children between the ages of 6 and 16 are required to attend schools. Unless any significant outbreaks occur in 2021, students in New Zealand are expected to continue face-to-face learning.

The effort to contain COVID-19 has significantly affected New Zealand's economy, including the education sector. To assist industry operators, the education sector has been allocated \$813.6 million across early learning and schooling. Additionally, the budget includes \$100.4 million to meet increased demand in early learning, \$122.7 million in early learning subsidy rates, \$105.2 million for a general 1.6% increase in schools' operations grants, and \$79.7 million to meet rising costs and demand pressures in learning support. It also includes \$200 million to support Maori learners and whanau in education following the outbreak of COVID-19, and to strengthen the integration of the Maori language into the education system.

The budget also includes \$100.0 million to support Kohanga Reo, an early childhood education centre where all education is delivered in the Maori language. A \$151.1 million pay rise will also be given to qualified teachers in education and care services. The Free and Healthy School Lunches programme is also being expanded through the budget. This program will target disadvantaged students and is estimated to feed around 200,000 students by Term 3 in 2021.

P81 Tertiary Education: High

The Tertiary Education subdivision in New Zealand has been highly affected by the COVID-19 pandemic. New Zealand's ban on non-citizen and non-resident travellers from mid-March 2020 has affected the Tertiary Education subdivision. Strict travel bans have negatively affected the Universities industry, as international students account for 14.8% of the Universities industry's revenue of \$4.5 billion. The downturn in Chinese student numbers is expected to limit the finances of several domestic universities in the short term. Tuition fees from Chinese students provide a key source of income for some New Zealand universities. The travel ban has negatively affected the sector in the short term, and potentially in the longer term.

Figures from Immigration New Zealand reported a decline in number of international students. In late April 2020, 51,580 international students had a valid study visa in the country. This number was 14.5% lower than in mid-March, when New Zealand had 60,438 foreign students in the country. Universities could face difficulties in admitting international students in the new semester due to travel restrictions. The \$4.4 billion industry will likely face a decline in revenue, following a reduced number of international student enrolments.

The government's 2020 Budget focuses heavily on the education sector, with targeted funding for trades training and apprentices. The \$1.6 billion investment in education and training is anticipated to provide many people, particularly younger demographics, with opportunities to reskill. According to the Ministry of Social Development (Te Manatu Whakahiato Ora), job losses have disproportionately affected younger people, and retraining is expected to help people in this demographic get back into the job market. The budget is also anticipated to help universities and colleges recover from financial losses as a result of the outbreak.

For tertiary education, key funding includes \$334.1 million for tertiary education enrolments, \$320.0 million in funding for targeted training and apprenticeship fund, and \$141.0 million for a general 1.6% increase to tertiary education tuition to meet rising cost pressures. The government will also provide up to \$412.0 million in support for employers to retain and train their apprentices.

In 2020, only one cohort of international students has been approved to enter New Zealand since international border closure. This cohort consists of 250 postgraduate students who had visas to study in New Zealand at doctoral or master's level. New Zealand's border is likely to reopen to some international postgraduate students in the future. However, the selection criteria is strict, as only students with studies involving practical component such as medicine, veterinary, engineering and laboratory sciences will be considered. This is because students in these areas cannot progress or complete their studies unless they are in New Zealand. However, Education NZ has floated the possibility of allowing 500 international students into New Zealand's borders every month in 2021.

P82 Adult, Community and Other Education: Moderate

The COVID-19 outbreak is expected to have a moderate effect on the Adult, Community and Other Education subdivision. Establishments in this subdivision primarily service the domestic market, which means that their international student numbers are typically low. However, providers of English Language Intensive Courses for Overseas Students have faced weaker demand from international students, due to the travel ban. The Central Government (Te Kawanatanga o Aotearoa) has announced that funding of \$16.0 million will be provided to help adult and community education providers meet the increased need for training and upskilling following the COVID-19 outbreak.

Health Care and Social Assistance

Q84 Hospitals: Moderate

The Hospitals subdivision is expected to be moderately affected by the COVID-19 pandemic. The largest challenge facing New Zealand hospitals is a shortage of medical supplies, such as surgical masks and hand sanitiser. The disruption of supply chains of these goods from China has exacerbated the issue, with wholesalers and retailers finding it difficult to restock these products. Consequently, this shortage of supplies can restrict a hospital's ability to contain and minimise the spread of infection, and cause serious potential risk to patients and hospital staff alike. In the event of COVID-19 further spreading into the general population, hospitals are anticipated to delay or even cancel elective surgeries and prioritise COVID-19 cases. On 8 June 2020, the country had zero

active cases and shifted to Alert Level 1, increasing demand for elective surgeries as the remainder of restrictions lifted. However, the Central Government (Te Kawanatanga o Aotearoa) announced that the Auckland region would return to Alert Level 3 for two weeks from 12 August 2020, while the rest of New Zealand would move to Alert Level 2. As a result, many elective surgeries in Auckland were postponed over this two-week period. Restrictions in Auckland were lowered to Alert Level 2.5 on 30 August, allowing most elective surgeries to resume with some additional rules. Hospitals in Auckland will be required to display at least one NZ COVID Tracer QR code poster, and staff and patients must wear masks at Alert Level 2.5. On 5 October 2020, the Central Government moved to Alert Level 1, lifting the remainder of restrictions on this subdivision.

On 17 March 2020, the New Zealand Government allocated \$500 million to support health services. These funds are expected to support the subdivision's infrastructure and medical supply capacities if cases rise significantly. On 14 May 2020, the Central Government announced an additional \$50 billion in funding through its 2020 Budget, with \$3.3 billion expected to be spent on health and education. This funding would provide additional relief if a second wave of infections occurs.

Q85 Medical and Other Healthcare Services: High

The Medical and Other Healthcare Services subdivision is expected to face several challenges due to the COVID-19 outbreak. General medical practitioners are expected to struggle to obtain basic medical supplies, disrupting their ability to provide services to patients afflicted with COVID-19. Other industries in the subdivision are also expected to be exposed to declining demand, as patients are likely to delay medical appointments due to fears about catching the virus during the lockdown period. The Central Government (Te Kawanatanga o Aotearoa) has also recommended that non-contact consultations should be used where possible, such as virtual consultations, to minimise the risk of spreading COVID-19.

On 8 June 2020, the Central Government transitioned to Alert Level 1 as the country had no active cases remaining. As a result, the remainder of restrictions on this subdivision were removed and demand is expected to recover. However, on 12 August, the Auckland region returned to Alert Level 3 restrictions and the rest of New Zealand moved to Alert Level 2 for two weeks, as new COVID-19 cases appeared. As a result, many establishments shifted to remote consultations wherever possible and many patients located in the Auckland region had appointments postponed, constraining demand over the period. On 30 August, Auckland shifted to Alert Level 2.5, which allowed all medical and other healthcare service providers to operate with strict rules. Healthcare operators will be required to display at least one NZ COVID Tracer QR code poster, and clients and staff must wear a mask. On 5 October, the Alert Level was lowered to level 1, lifting the remainder of restrictions on healthcare establishments. On 14 May, the Central Government unveiled a \$50 billion COVID-19 Response and Recovery Fund in its budget, with \$3.3 billion expected to be spent on health and education. Some of this funding is anticipated to support healthcare services that were temporarily closed during lockdown.

Q86 Residential Care Services: High

Operators in the Residential Care Services subdivision are expected to face heavy disruption due to the COVID-19 pandemic. Aged care residential facilities are particularly vulnerable to COVID-19 outbreaks, and staff will be expected to respond accordingly to minimise risk for themselves and residents. Shortages of preventative medical supplies, particularly hand sanitiser, will likely also cause issues for these facilities, as preventative measures will be more difficult to implement without access to these basic supplies. On 8 June 2020, the Central Government (Te Kawanatanga o Aotearoa) moved to Alert Level 1, removing remaining restrictions on this subdivision and supporting a gradual

recovery in demand.

Q87 Social Assistance Services: High

The Social Assistance Services subdivision is expected to be highly disrupted by the COVID-19 pandemic. Operators in the Child Care Services industry may be forced to temporarily shut their facilities if the virus re-emerges. However, demand for these facilities may surge instead if schools are closed in response to an outbreak without a corresponding response from businesses. On 25 March 2020, the Central Government (Te Kawanatanga o Aotearoa) moved to Alert Level 4, which led to all child care facilities temporarily closing and engaging in distance learning only. These facilities have been allowed to reopen since the Central Government moved to Alert Level 3 from 28 April. Demand for child care services has declined as many parents kept their children at home and used online learning platforms over the lockdown period. On 8 June, the Central Government shifted to Alert Level 1, removing the remaining restrictions on this subdivision and supporting a recovery in demand. However, on 12 August, the Auckland region moved back to Alert Level 3 and the rest of New Zealand was placed on Alert Level 2 restrictions for two weeks, as new COVID-19 cases appeared. Although child care establishments remained open over this two-week period, many parents kept their children at home, constraining demand. Auckland shifted to Alert Level 2.5 on 30 August, which requires operators to display at least one NZ COVID Tracer QR code poster, and staff and parents to wear a mask. On 5 October, all of New Zealand was placed at Alert Level 1, lifting the remainder of restriction on this subdivision and supporting a gradual recovery in demand, particularly for Auckland-based establishments. On 14 May 2020, the Central Government announced an additional \$50 billion in funding through its budget, with \$3.3 billion expected to be directed towards health and education. This factor will help support child care businesses that were severely affected by the lockdown.

Arts and Recreation Services

R89 Heritage Activities: High

The Art Galleries and Museum Operation industry is the sole industry in the subdivision and is expected to be significantly affected by the COVID-19 outbreak. Public venues were required to shut under Alert Levels 3 and 4, but are allowed to open without social distancing restrictions under Alert Level 1. Public venues have re-opened in Auckland as the region has entered Alert Level 2.5 restrictions from 30 August 2020. The rest of New Zealand has maintained Alert Level 2 restrictions. Public venues can have up to 100 customers in a defined space, with physical distancing, contact tracing and hygiene measures in place. However, travel restrictions have severely reduced international visitor numbers, which represent a significant source of revenue for this sector.

R90 Creative and Performing Arts Activities: Very High

The COVID-19 outbreak is anticipated to severely affect the Creative and Performing Arts Activities subdivision. All performances and live events were cancelled due to social distancing restrictions in early 2020. Delays and cancellations significantly reduced revenue for the subdivision. Some operators may face lost revenue and significant expenses for changes in event scheduling. However, arts activities that take place in the digital space, such as livestreaming concerts, could continue performing. The transition to Alert Level 1 is expected to positively affect this subdivision, as live public events are allowed with no limits on number of attendees. This easing is anticipated to significantly boost demand for events such as theatre and concert productions. The move from Alert Level 3 to Alert Level 2.5 restrictions in Auckland from 30 August 2020 benefited businesses in the

region, as became able to reopen. However, restrictions relate to the number of people allowed in venues. The rest of New Zealand maintained Alert Level 2 restrictions implemented from 12 August 2020, which means they could open with reduced capacity. The subsequent return to Alert Level 1 conditions is anticipated to support the subdivision.

R91 Sports and Recreation Activities: Very High

The COVID-19 outbreak is expected to severely restrict the Sports and Recreation Activities subdivision. Sports and fitness activities with unlimited attendees are able to resume under Alert Level 1, and are not required to adhere to social distancing restrictions. NZ Super Rugby and ANZ Premiership Netball are allowed to resume with spectators under this alert level. The 2020 Budget has allocated \$265 million to support sports. This includes \$83 million for immediate relief allocated to organisations affected by the COVID-19 outbreak, \$104 million for rebuilding over the next few years, and \$78 million for innovation in sports over the long term. This funding will be available to both professional and community clubs. The government also announced \$25 million in funding to support grassroots clubs in May 2020. The move to Alert Level 2.5 from Alert Level 3 in Auckland from 30 August boosted demand for the Sports and Recreation Activities subdivision. Professional sporting leagues were permitted to start again, while community sports were limited to groups of 100 in a defined space. The rest of New Zealand continued with Alert Level 2 restrictions, meaning sport and recreation activities were allowed, but were subject to conditions on gatherings, record keeping and physical distancing when possible. The return to Alert Level 1 conditions has supported this subdivision.

R92 Gambling Activities: High

Certain segments of the Gambling Activities subdivision are expected to be affected by the COVID-19 outbreak. Travel restrictions on Chinese visitors have negatively affected the Casinos industry. According to SkyCity, patronage is primarily made up of local clients. However, casinos were unable to operate under Alert Levels 3 and 4. Public venues are allowed to open without physical distancing measures under Alert Level 1. The resumption of sports activities is anticipated to help boost revenue for this sector. The shift to Alert Level 2.5 from Alert Level 3 in Auckland from 30 August 2020 is anticipated to boost demand for operators in the subdivision, as casinos in Auckland are allowed to reopen. The rest of New Zealand has continued with Alert Level 2 restrictions. As a result, all businesses in the subdivision are allowed to operate, subject to restrictions on the number of people allowed in venues, maintaining record keeping and enforcing physical distancing where possible. These factors are expected to hinder demand for operators until restrictions ease.

Personal Services

S94 Repair and Maintenance: Moderate

The Repair and Maintenance subdivision is expected to be largely unaffected by the COVID-19 outbreak. Operators in these industries service the domestic market, and risk for contracting the virus is low for people travelling exclusively within New Zealand's borders. Furthermore, businesses are less likely to purchase capital equipment such as trucks and heavy machinery during periods of uncertainty. Consequently, demand for repair and maintenance services may increase, depending on the duration and severity of the virus.

The only potential threat to the industry comes from the supply of tools and parts required by businesses in this subdivision. Around 42.4% of imports of machine tools and parts originate from

the United States, Germany and China, on a value basis. Many manufacturers from these countries are expected to have temporarily closed or reduced production. This factor is expected to limit supply of tools and parts in the short-term, which may affect the ability of repair and maintenance service firms to generate revenue.

S95 Personal and Other Services: High

The COVID-19 outbreak is expected to highly affect the Personal and Other Services subdivision. These services rely on the domestic market and therefore have not been affected by travel restrictions. However, the New Zealand Government (Te Kawanatanga o Aotearoa) enforced strict lockdown rules, moving to Alert Level 4 lockdown measures on 23 March 2020, which required non-essential businesses to close temporarily. Alert Level 4 was expected to last four weeks, but was extended for another week. Lockdown measures significantly affected this subdivision, as many operations, such as firms in the Hairdressing and Beauty Services industry, are considered non-essential and remained closed over the Alert Level 4 period. Closures of non-essential business limited revenue over this initial period and decrease employment as operators looked to minimise costs.

Although the Central Government lifted Level 4 restrictions from 28 April 2020, many operators remained unable to operate at Alert Level 3. At Alert Level 3, no physical contact with customers was allowed and no customers were allowed in business premises. As a result, demand for the Hairdressing and Beauty Services industry sharply declined over the lockdown period. On 14 May 2020, the Central Government moved to Alert Level 2, allowing the Hairdressing and Beauty Services industry to resume operations. Furthermore, New Zealand transitioned to Alert Level 1 on 8 June, which removed the remaining restrictions on this subdivision. Despite being temporarily closed for over two months, demand for hairdressers and beauty services is expected to recover over the next few months, as consumer sentiment improves and disposable incomes recover. On 12 August, the Central Government announced that the Auckland region would return to Alert Level 3 restrictions and the rest of New Zealand would move to Alert Level 2 for two weeks, as new COVID-19 cases appeared. As a result, most operators in this subdivision were required to remain closed over this two-week period. On 30 August, the government lowered restrictions in Auckland to Alert Level 2.5, allowing all businesses to reopen with strict rules. All operators in Auckland are required to display at least one NZ COVID Tracer QR code poster, and customers and staff must wear masks while on the business premise. On 5 October 2020, remaining restrictions were lifted on this subdivision as Alert Level 1 was reinstated. Lowering restrictions are expected to support a gradually recovery in demand for personal services establishments based in Auckland.

The New Zealand Government has provided some relief to affected businesses in this subdivision through a stimulus package. In particular, the package offers \$5.1 billion in wage subsidies to affected businesses, allowing these businesses to retain staff while being remaining temporarily closed. This scheme is expected to partially offset employment declines in 2020-21. In addition, on 15 April 2020, the Central Government announced new measures to support small-and medium-sized businesses. These new relief measures include greater flexibility to affected businesses to meet tax obligations, a \$3.1 billion tax loss carry-back scheme and \$60 million in annual savings to businesses each year due to changes to the tax loss continuity rules. These measures are expected to increase cashflow to affected businesses and help them meet fixed cost obligations while lockdown measures are in place. On 14 May, the Central Government announced an additional \$50 billion in COVID-19 funding through its 2020 Budget. Major spending includes an extension of \$3 billion to be used on the wage subsidy scheme, which will assist with job retention while business confidence and consumer sentiment slowly recover.

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