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Glossary

ABS	Australian Bureau of Statistics
ANZSIC	Australia and New Zealand Standard Industrial Classification
GDP	Gross Domestic Product
GRP	Gross Regional Product
GSP	Gross State Product
GVA	Gross Value Added
TRA	Tourism Research Australia

References to cities refer to the Greater Capital City Statistical Area (GCCSA). More information on the Australian Statistical Geography Standard can be found here: https://www.abs.gov.au/ausstats/abs@.nsf/Latestproducts/89DE0953464EE050CA257801000C651B?opendocument

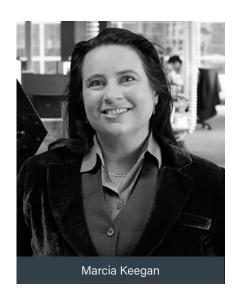
01 Introduction

SGS Economics and Planning (SGS) is an employeeowned public policy consultancy and certified B Corp. Our evidence-based insights help government, business and community leaders understand how places and economies function, assess what projects and programs work, and plan future places and precincts. Beyond advisory services, we hold workshops and courses to share knowledge collaboratively.

For the past ten years, SGS has published Australia's Economic Wellbeing (formerly Economic Performance of Australia's Cities and Regions) to fill a void in economic policy research. The publication shows small area estimates of Gross Regional Product (GRP) of every major city and region in Australia (a regional breakdown of the more familiar Gross Domestic Product (GDP) calculations) and highlight the economic challenges they face.

This latest edition provides an update with data for the 2019-20 financial year and preliminary estimates for the second half of 2020 based on modelled GRP of Melbourne and regional Victoria. An update is planned for the end of 2021 which will include data for the 2020-21 financial year.

This research project is self-funded by SGS and managed by Marcia Keegan, Julian Szafraniec and Kishan Ratnam.







Economic development is measured in terms of income and employment as well as improvements in education, health, culture, community wellbeing and the environment. Our research methodology recognises that economic development is a continuous process of growing an area's level of income and capital and how this income and capital are distributed among the community. This is a focus on economic wellbeing. The data reports on the performance of cities and regions and the implication of the overall wellbeing of places, communities and economies.

Economics is about enhancing people's wellbeing

The primary purpose of economics is to enhance wellbeing of persons.¹ For most of the 20th and 21st centuries, economists have assumed levels of employment and production within an economy to be the best markers for determining the overall welfare of its population. The use of these indicators has presided over significant improvements in living standards and reductions in rates of absolute poverty across the world. As a result, "although wellbeing may be the ultimate objective, policy priorities typically focus on achieving higher economic growth as the best means for expanding wellbeing in the long-term."²

However, it is increasingly recognised that although improvements to GDP, unemployment, productivity for example are suitable for measuring material progress, they are less capable of accounting for people's welfare beyond the marketplace.³

Immediately following the Global Financial Crisis, "The Commission on the Measurement of Economic Performance and Social Progress" was formed in France to identify the limits of GDP as a comprehensive measure of economic and social progress. This appointment was made in response to a growing deficit between standard measures of socio-economic progress and widespread perceptions, deemed universal enough to be unexplained simply by money illusion.⁴

The Commission's report provides several potential reasons for this misalignment (summarised on page 8 of the report). One of the report's key conclusions is that we make decisions based on what we measure, how good our measurements are, and how well we interpret them.⁵

From this, wellbeing economics has developed as a framework for better measuring socio-economic progress and the overall prosperity of a society, using new metrics to complement traditional measures of macroeconomic progress.

Wellbeing economics

Wellbeing economics is foremost about measuring societal success and representing the true civic interest in policymaking decisions.

The wellbeing economics agenda is not anti-growth; as stated by Stiglitz et al. (2018), the use of a better 'dashboard' of indicators would likely result in higher GDP growth rates.

Existing examples of indicators/indexes which offer more 'wellbeing' focussed alternatives to standard economic measurements:

- The UN's Human Development Index (HDI) which combines life expectancy, education and GNI per capita indexes.⁶
- The OECD's 'Better Life Index' which accounts for a range of topics, including housing, employment, education and environment.⁷

This report has focused on economic wellbeing, as measured by GDP (Australia-wide) and GRP (regional economic performance). This is because the economic impacts of COVID-19, and the policy response, have been the most significant shock to the economy in decades and are worthy of focus on their own.

¹Fox, J 2012, 'The Economics of Well-Being', *Harvard Business Review*, https://hbr.org/2012/01/the-economics-of-well-being

²Bache, I, Scott, K, Allin, P 2018, 'Wellbeing in Politics and Policy', https://link.springer.com/content/pdf/10.1007%2F978-3-319-93194-4.pdf

³Stiglitz, J, Fitoussi, J & Durand, M 2018, 'Beyond GDP: Measuring What Counts for Economic and Social Performance', OECD, https://doi.org/10.1787/9789264307292-en.

"Stiglitz, J, Sen, A & Fitoussi, JP 2009, 'Report by the Commission on the Measurement of Economic Performance and Social Progress', http://files.

⁵Stiglitz, J, Sen, A & Fitoussi, JP 2009

⁶United Nations Development Programme 2020, *Human Development Index (HDI)*, http://hdr.undp.org/en/content/human-development-index-hdi

OECD n.d., 'What's the Better Life Index?', http://www.oecdbetterlifeindex.org/about/better-life-initiative/

02 National snapshot

On New Year's Day 2020, the sun rose over thousands of scared Australians sheltering from advancing walls of fire. Millions of hectares had already burnt in what would become known as the Black Summer bushfires, and 24 million hectares would burn before the summer was over.

Thirty-three people died in the fires⁸, hundreds died due to the thick smoke that blanketed the eastern state capital cities, sometimes for weeks on end⁹, and billions of animals lost their lives. Three thousand homes were destroyed. Towns heavily dependent on summer tourism lost their tourism season, and prime agricultural, horticultural and cropland were destroyed.

Just as the fires dissipated and Australians started picking their way through the wreckage, it got worse.

A new coronavirus was spreading worldwide. In response, the Australian federal government imposed restrictions on some international arrivals. By early March, countries worldwide were imposing lockdowns to slow down the spread of the virus.

In the last two weeks of March, the federal government imposed more restraints on public gatherings, starting with banning groups of more than 500 people in mid-March to closing all restaurants, churches and gyms by 23 March¹⁰. Australians were encouraged to work from home, and non-essential businesses ordered to close.

Soon after, the federal government banned all but citizens and permanent residents from entering Australia, and all new arrivals were required to quarantine in hotels for two weeks.

The impacts on the Australian economy were immediate and harsh. The ASX All Ordinaries fell from a high of 7289 in mid-February to 4429 in mid-March¹¹. By Anzac Day, nearly 800,000 new people had applied for Jobseeker, nearly doubling the previous number of people reliant on unemployment assistance.¹² Australia fell into its first recession in thirty years, with Gross Domestic Product (GDP) falling by 0.3 per cent in the December-March quarter and 7.0 per cent in the March quarter. Overall, Australian GDP declined by 1.1 per cent over the 2020 calendar year.

⁸Wood, R (2020) Australian Bushfires One Year On: How Black Summer Of Death And Destruction Erupted, Https://Www.9news.Com.Au/National/Australian-Bushfires-Black-Summer-One-Year-Anniversary/4b61f48a-9b80-44b8-8f35-A57749f974ah

⁹Hitch, G (2020) Bushfire Royal Commission Hears That Black Summer Smoke Killed Nearly 450 People Https://Www.Abc.Net.Au/News/2020-05-26/Bushfire-Royal-Commission-Hearings-Smoke-Killed-445-People/12286094

¹⁰Ting, I; Palmer, A (2020) One Hundred Days Of The Coronavirus Crisis Https:// Www.Abc.Net.Au/News/2020-05-04/Charting-100-Days-Of-The-Coronavirus-Crisis In-Australia/12197884?Nw=0

¹¹Commsec (2021) All Ordinaries 3 Year Price Chart, Www.Commsec.Com.Au
¹²Storen, R., Corrigan, N. (2020) COVID-19: A Chronology Of State And Territory
Governemnt Announcements (Up Until 30 June 2020) Parliamentary Library,
Https://Www.Aph.Gov.Au/Parliamentary_Business/Committees/Senate/Covid-19/
Covid19/Additional_Documents?Doctype=Tabled%20documents



2.1 Australia's economic activity has not yet recovered from COVID-19

In December 2019, Australia was close to hitting 30 years without a recession – generally defined as two consecutive quarters of negative GDP (Gross Domestic Product) growth. COVID-19 and the subsequent lockdowns and social restrictions resulted in Australia's first recession since the early 1990s in the first six months of 2020, with-0.3 per cent growth in the March 2020 quarter and a whopping-7.0 per cent growth in the June quarter¹³. Meanwhile, financial concerns and a lack of activities to spend money on resulted in a large jump in the national savings rate —increasing from 3.9 per cent to 10.3 per cent according to ABS data between the 2018-2019 and 2019-20 financial years.

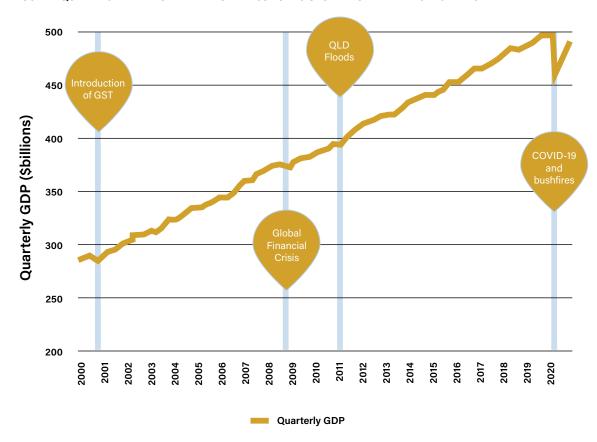
Since then, the economy has started growing again, but with international trade halted and fresh outbreaks triggering new lockdowns and restrictions, Australia has not yet reached pre-COVID-19 activity levels. Growth in the September and December 2020 quarters was 3.4 per cent and 3.1 per cent, respectively – not quite enough to bring December 2020 GDP to the level of that of December 2019.

Compared to the economic shock of COVID-19 and the 2019-20 Black Summer bushfires, the other negative growth quarters are barely noticeable over the last twenty years at the national level.

At the city and regional level, the story is very different than the national scene. Regional economies have experienced varying levels of economic growth. For example, since 2000, many parts of Australia experienced economic contraction (or what could be described as a recession). The recovery from COVID-19 will be felt differently across the communities within each state, driven by the local mix of industries – such as manufacturing, tourism, agriculture, health and education.

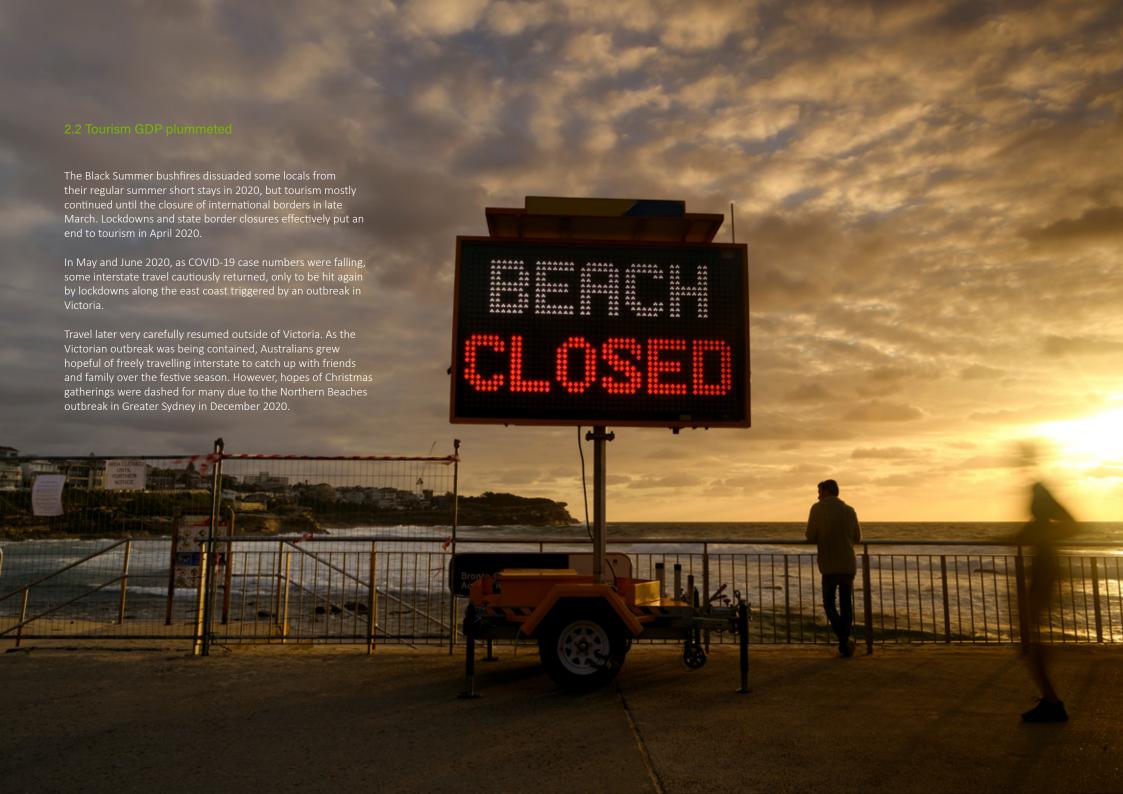
The aspiration for national economic growth, should be pursued with a clear focus on enhanced wellbeing and improvements in living standards across all communities. Economic recovery from COVID-19 should have a focus on building back better, not just returning to previous levels of GDP growth.

FIGURE 1 QUARTERS WITH NEGATIVE NATIONAL ECONOMIC GROWTH OVER THE LAST 20 YEARS



Source: ABS (2021) Australian National Accounts: National Income, Expenditure and Product, December 2020 https://www.abs.gov.au/statistics/economy/national-accounts/australian-national-accounts-national-income-expenditure-and-product/latest-release

¹³Australian Bureau of Statistics (2021) Australian National Accounts: National Income, Expenditure and Product, December 2020 https://www.abs.gov.au/statistics/economy/national-accounts/australian-national-accounts-national-income-expenditure-and-product/dec-2020

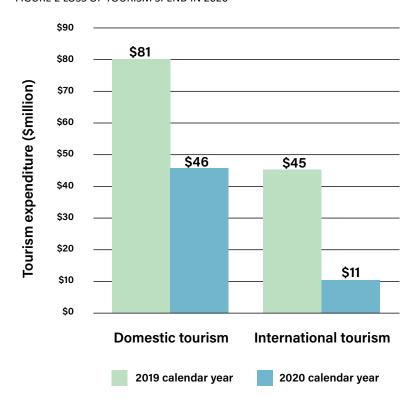


Australia welcomed over 8.7 million international visitors to its shores in the 2019 calendar year, bringing in \$45.3 billion of revenue to Australia's economy¹⁴. In the same year, Australians spent over 400 million visitor nights and \$81 billion travelling around Australia ¹⁵.

In 2018-19, tourism directly added \$109 billion to Australia's economic output and \$56 billion to its GDP. The following year, 2019-20, tourism's contribution to GDP fell by \$10 billion – nearly a 20 per cent fall due to a combination of bushfires and COVID-19 restrictions forcing cancelled holidays and events, closed international and state borders and economic uncertainty¹⁶.

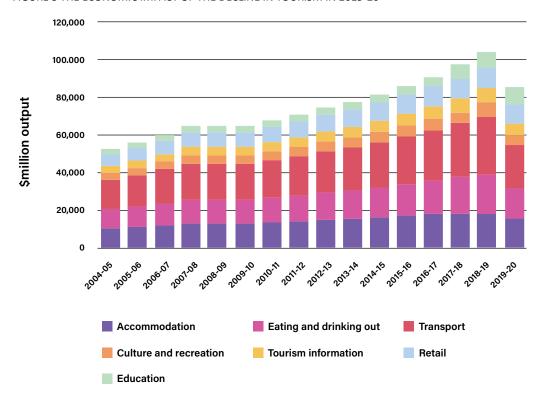
It is important to note that this significant fall in tourism occurred even with tourism functioning normally in most regions across Australia for at least eight of the twelve months of 2019-20.

FIGURE 2 LOSS OF TOURISM SPEND IN 2020



Source: Tourism Research Australia (2021) International Visitor Survey Results December 2020; National Visitor Survey Results December 2020

FIGURE 3 THE ECONOMIC IMPACT OF THE DECLINE IN TOURISM IN 2019-20



Source: Australian Bureau of Statistics (2020), Australian National Accounts: Tourism Satellite Account, https://www.abs.gov.au/statistics/economy/national-accounts/australian-national-accounts-tourism-satellite-account/latest-release

¹⁴Tourism Research Australia (2021) International Visitor Survey Results December 2020 https://www.tra.gov.au/data-and-research/reports/international-visitor-survey-results-december-2020/international-visitor-survey-results-december-2020

¹⁵ Tourism Research Australia (2021) National Visitor Survey Results December 2020, https://www.tra.gov.au/data-and-research/reports/national-visitor-survey-results-december-2020/national-visitor-survey-results-december-2020

¹⁵ Australian Bureau of Statistics (2020), Australian National Accounts: Tourism Satellite Account, https://www.abs.gov.au/statistics/economy/national-accounts/australian-national-accounts-tourism-satellite-account/latest

2.3 Some states struggled more than others

The states and territories were not all affected evenly by the Black Summer bushfires and COVID-19. The more populous states of New South Wales (NSW), Victoria (VIC) and Queensland (QLD) were hit the hardest, with Brisbane and regional Victoria showing the largest falls in GRP (Gross Regional Product).

The economic shock to these states is unsurprising. According to Tourism Research Australia¹⁷, they represented 82 per cent of international tourism nights, 84 per cent of international tourism expenditure and 74 per cent of domestic tourism expenditure in 2019. The loss of about three-quarters of this amount in the calendar year of 2020 cost these states around \$20 billion in international tourism revenue and \$27 billion in domestic tourism.

The less populated states suffered less of an impact. The Northern Territory (NT) and regional Western Australia (WA) showed strong growth of 5.3 per cent and 3.6 per cent, respectively, primarily thanks to the solid economic performance of iron ore and oil and gas mining. Mining contributed to 1.8 per cent of WA's economic growth and a massive 8.6 per cent in NT. The Australian Capital Territory's (ACT) comparatively robust performance is attributable to the demand for new staff to administer government services to respond to the COVID-19 pandemic.

The economic downturn appears a lot harsher when looked at on a per capita basis.

The regions with the largest GRP (Gross Regional Product) per capita — regional WA with \$265,000, NT with \$106,000, and ACT with \$95,000 — are also the only areas to show growth in per capita GRP in 2019-20. Brisbane showed the greatest decline in per capita GRP with a 5.3 per cent fall, followed by regional Victoria with a 3.1 per cent fall, and Sydney with a 2.4 per cent fall.

There is no evident pattern across states of capital cities performing better or worse than regional areas.

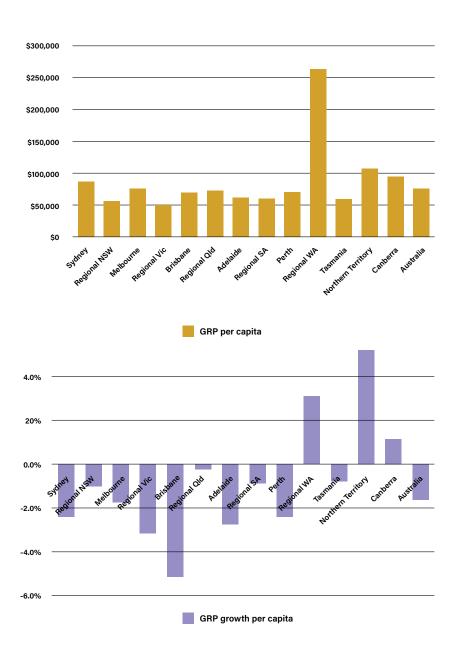
TABLE 1 GROSS STATE PRODUCT, 2019-20 % CHANGE

	Gross Regional Product 2019-20 (\$millions)	GRP Growth	Share of GDP
Sydney	\$470,310	-0.8%	24%
Regional NSW	\$158,807	-0.2%	8%
Melbourne	\$381,125	-0.2%	20%
Regional Vic	\$80,123	-1.9%	4%
Brisbane	\$179,774	-3.4%	9%
Regional Qld	\$187,694	1.1%	10%
Adelaide	\$86,133	-1.6%	4%
Regional SA	\$23,709	-0.5%	1%
Perth	\$150,170	-0.6%	8%
Regional WA	\$138,055	3.6%	7%
Tasmania	\$31,993	0.3%	2%
Northern Territory	\$24,830	5.3%	1%
Canberra	\$39,956	2.4%	2%
Australia	\$1,952,680	-0.3%	100%

Source: SGS Economics and Planning, based on ABS (2020) Australian National Accounts, State Accounts 2019-20 financial year

¹⁷International Visitor Survey and National Visitor Survey, Tourism Research Australia

FIGURE 4 GROSS REGIONAL PRODUCT PER CAPITA, PER CAPITA GRP GROWTH



2.4 The population services sector hit hardest

Impacts have not been spread evenly across industries.

The Australia and New Zealand Standard Industrial Classification (ANZSIC) classifications used for industry groups by the Australian Bureau of Statistics (ABS) can be broadly grouped into four categories with similar working characteristics – knowledge workers, population services, health and education, and traditional industrial.

TABLE 2 INDUSTRY CLASSIFICATIONS

ANZSIC 1 digit industry name	Shortened name	Industry grouping
Professional, Scientific and Technical Services	Professional	Knowledge services
Financial and Insurance Services	Finance	Knowledge services
Public Administration and Safety	Public Admin	Knowledge services
Information Media and Telecommunications	Teleco/Media	Knowledge services
Administrative and Support Services	Admin Services	Knowledge services
Rental, Hiring and Real Estate Services	Real Estate	Knowledge services
Health Care and Social Assistance	Health	Health and education
Education and Training	Education	Health and education
Accommodation and Food Services	Hosp/Accom	Population services
Retail Trade	Retail Trade	Population services
Construction	Construction	Population services
Arts and Recreation Services	Arts/Rec	Population services
Other Services	Other Services	Population services
Transport, Postal and Warehousing	Logistics	Traditional Industrial
Manufacturing	Manufacturing	Traditional Industrial
Wholesale Trade	Wholesale	Traditional Industrial
Electricity, Gas, Water and Waste Services	Utilities	Traditional Industrial
Mining	Mining	Traditional Industrial
Agriculture, Forestry and Fishing	Agriculture	Traditional Industrial



Knowledge services

Knowledge services covers professional, scientific and technical services, finance, information technology, rental, hiring and real estate services, public administration and administrative services. These jobs typically involve using specialist knowledge and expertise to support the efficient operation of other businesses. These have been growing as a share of all jobs, particularly in capital cities.

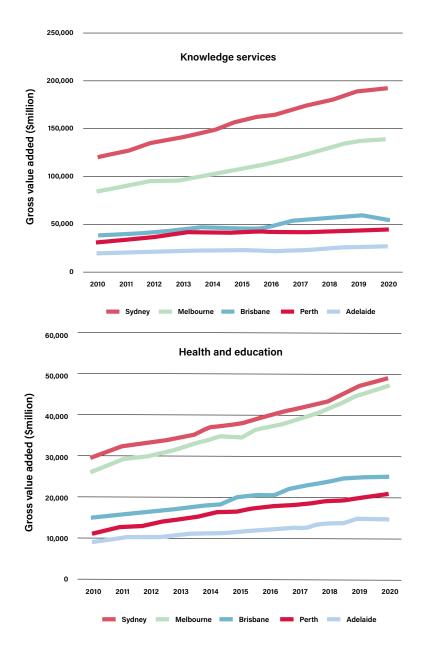
Knowledge services had a significant advantage compared to other industry groupings. Most of these service providers could do their jobs from their kitchen benches with a laptop and a video communications account. In Sydney, Melbourne and Perth, knowledge industries only showed slow growth in 2019-20, rather than a decline in overall economic activity.

Health and education

The health and education sectors both faced significant shocks in 2020. The health industry ramped up economic activity most likely to manage an expected influx of sick people in hospitals, calling up retired health workers to rejoin the workforce and setting up temporary wards supported by government funding.

School holidays were brought forward and online learning introduced by state and territory education ministers to reduce the spread of COVID-19 among children and school staff in March and April 2020, with gradual returns to the classroom commencing in May. Some States and Territories supported this by providing laptops for students, online learning platforms and other measures. The shift to online learning supported economic activity in education¹⁸.

Perhaps unsurprisingly, the health and education industry in major capital cities continued to grow as the rest of the economy fell. Gross Value Added (GVA) growth for 2019-20 in these industries was over 4 per cent in Sydney and Melbourne, 2.4 per cent in Adelaide and Perth and 0.2 per cent in Brisbane.



¹⁸Storen, R., Corrigan, N. (2020) COVID-19: a chronology of state and territory governemnt announcements (up until 30 June 2020) Parliamentary library, https://www.aph.gov.au/Parliamentary_Business/Committees/Senate/COVID-19/COVID19/Additional_Documents?docType=Tabled%20 Documents

AUSTRALIA'S ECONOMIC WELLBEING

Population Services

16

Population services was the sector hardest hit in 2019-20. The lockdowns beginning in March 2020 effectively or actually closed 'non-essential activities and businesses' have which meant that many businesses in the arts and recreation sector, other services, and hospitality and accommodation service sectors had to close doors. Further, the face-to-face nature of many of these services made it difficult or impossible for them to operate online in the way that knowledge services could.

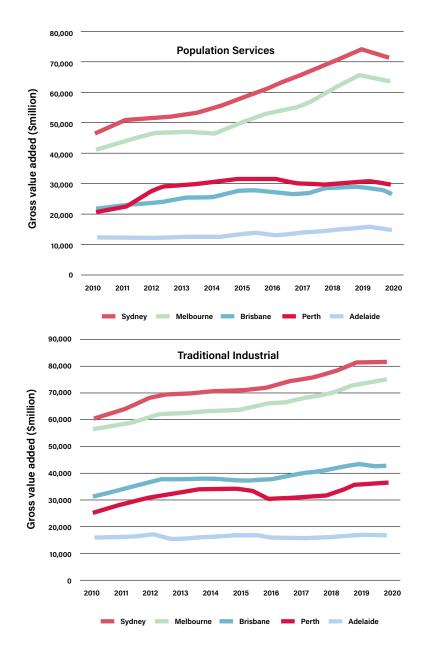
Towards the end of June 2020, some of these industries were permitted to offer limited services, and some restrictions were lifted. Sydney and Melbourne's population services' GVA for 2019-20 declined by around 3 per cent, Brisbane and Adelaide's by 5 per cent and Perth's by 2 per cent.

The downturns caused by economic shocks in just a third of the year were more than enough to wipe out the growth that had happened earlier in 2019-20.

Traditional industrial

Agriculture, forestry and fishing sectors were hit hard by the bushfires but less affected by COVID-19 as essential services could still function. Utilities, wholesaling and postal services continued to operate as essential services. The subsection of traditional industrial most affected by COVID-19 was the transport industry, as passenger transport, particularly interstate and international transport, was heavily restricted.

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2.5 The recovery is not yet complete; uneven growth across Australia

The second half of 2020 showed a return to economic growth across Australia, but this was not spread evenly across the country.

Melbourne was still in the economic doldrums in the second half of 2020

Melbourne's punishing second wave of COVID-19, sparked when cases of COVID-19 spread from hotel quarantine workers out into the general public, saw an exhausted Victoria return to lockdown restrictions. Other states closed their borders to Victoria. While the rest of Australia returned to more than 3 per cent growth, Melbourne and Victoria's GVA fell again compared to the first half of the year.

Despite the rebound in the rest of Australia in the second half of 2020, it still did not achieve the same level of GVA as seen in the last six months of 2019.

Many industries have not yet returned to pre-COVID levels of growth

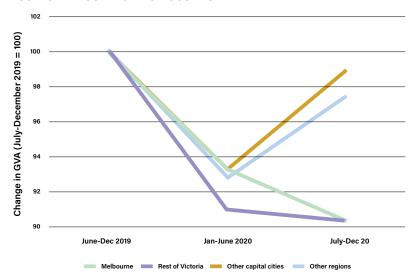
Some industries were still showing substantially lower GDP in the December 2020 quarter than the December 2019 quarter. Industries dependent on tourism were still struggling in particular, with the transport sector showing 16 per cent less economic activity in the December 2020 quarter compared to December 2019. Administrative services, accommodation, food services, and the arts were all still producing much less than they had at the end of 2019.

Some of this decline was offset by the growth in the agriculture, fisheries and forestry sectors. After drought and bushfires heavily affected output in the December 2019 quarter, good rainfall throughout the second half of 2020 allowed for 33 per cent higher production compared to the previous quarter.

Food and beverage services, sports and recreation and creative and performing arts suffered the most immediate hit, with employment falling a massive 25 per cent in just two weeks²⁰— in part due to the heavy casualised nature of employment in these industries. These industries have started to recover as lockdowns have lifted and local tourism and recreation have returned. The accommodation and transport sectors did not see the same immediate hit, but in recent times, these industries had at least 10 per cent fewer people than mid-March last year.

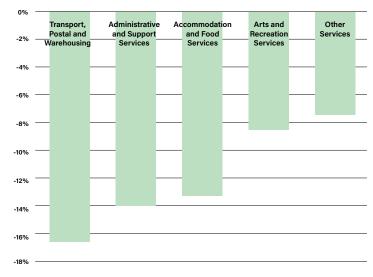
²⁰ABS (2021) Weekly Payroll Jobs and Wages in Australia- Payroll jobs index by Industry Subdivision, https://www.abs.gov.au/statistics/labour/earnings-and-work-hours/weekly-payroll-jobs-and-wages-australia/latest-release#data-download

FIGURE 5 MELBOURNE STILL STRUGGLING



Source: SGS Economics and Planning, 2021

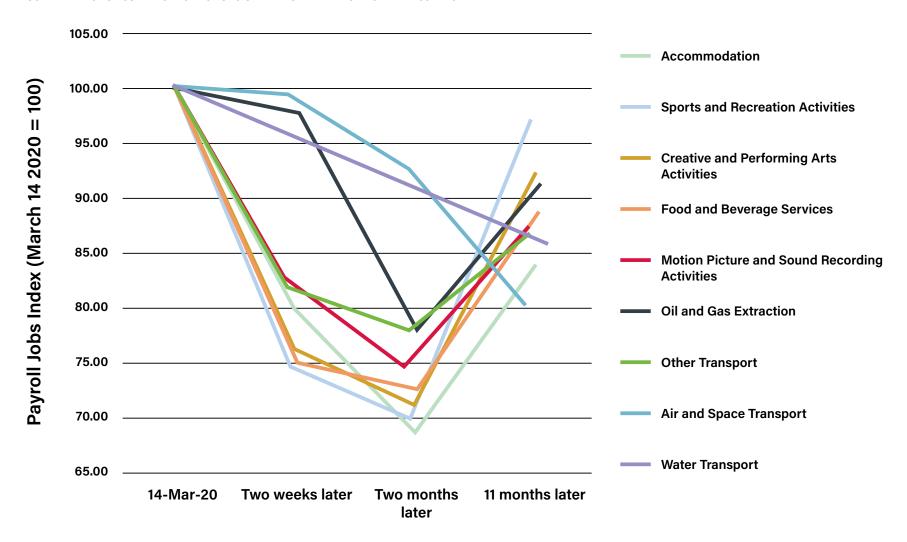
FIGURE 6 DECEMBER 2020 QUARTER GDP COMPARED TO DECEMBER 2019



Source: SGS Economics and Planning, 2021

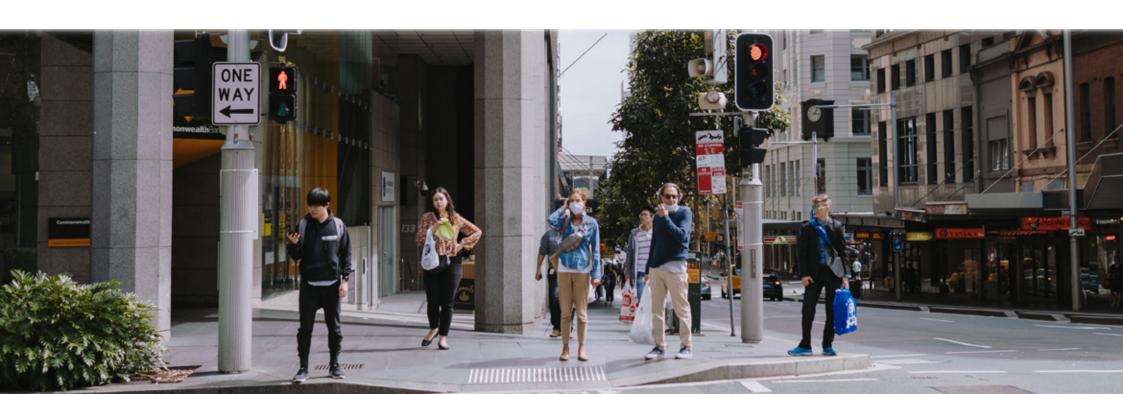
Even by February 2021, employment in these key tourism and recreation businesses had not returned to their pre-COVID levels. Tourism and recreation dependent industries have not yet returned to their pre-COVID levels. Some of these may not recover until international borders open.

FIGURE 7 IMPACT OF COVID-19 RESTRICTIONS ON EMPLOYMENT IN SELECTED INDUSTRIES



03 State analysis

The fall in GRP (Gross Regional Product) experienced by Australia's cities and regions for 2019-20 balances one wholly and one partly COVID-19-affected 2020 quarter with the two pre-COVID 2019 quarters, lessening the magnitude of the decline. Therefore, all data reported in this period should be seen as representing all of the impacts of the 2019-20 Black Summer bushfires and only part of the impact of COVID-19.





3.1 New South Wales

SYDNEY

Australia's most populous city and the largest contributor to Australia's economy saw a fall in GRP of 0.8 per cent in 2019-20 compared to the previous year – a greater decline than NSW or Australia as a whole.

However, upon further analysis, Sydney's economic performance reflects several interesting trends, both exclusive to the city and the state and national economies. For instance, household consumption fell 3.8 per cent in NSW during the period, driven lower by significant falls in transport (15 per cent) and hotels and cafes (19 per cent) consumption.

FIGURE 8 SYDNEY'S GROSS REGIONAL PRODUCT, 20 YEARS TO 2019-20

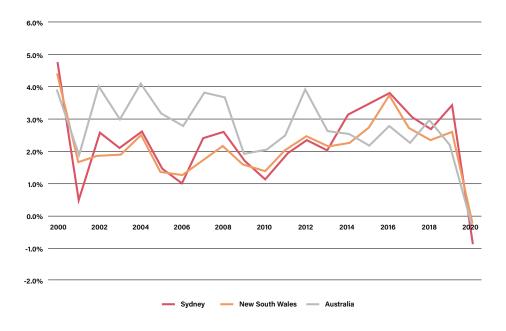
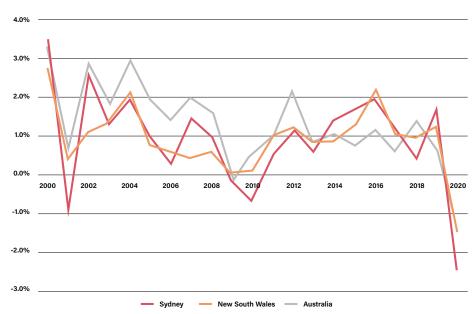


FIGURE 9 SYDNEY'S PER CAPITA GROSS REGIONAL PRODUCT



Sydney's GDP (Gross Domestic Product) per capita fell by 2.5 per cent in the 2019-20 period, significantly larger than both the corresponding figure for NSW (1.4 per cent) and Sydney's aggregate GDP fall (0.8 per cent). This reflects Sydney's population growth during the 2019-20 financial year.

Considering the industry structure of Sydney's economy, we can evaluate several social narratives regarding post-COVID-19 working life. For instance, the rise of 'working from home' (WFH) can be seen clearly in the data on sectoral contributions to growth. Sectors well-suited to WFH largely avoided declines (financial +0.5 per cent, professional services +0.3 per cent, public administration +0.1 per cent, media and telecom at zero per cent) and those which did fall faced only small decreases (admin services -0.1 per cent).

By contrast, the sectors unsuited to WFH faced steep declines (transport-0.5 per cent, manufacturing-0.3 per cent, accommodation and food services-0.3 per cent). The declines were likely to happen after travel restrictions were announced in NSW in March 2020.

Two notable outliers to this trend are health care (+0.3 per cent) and education (+0.1 per cent); both traditionally in-person sectors which experienced growth despite lockdown. The health care sector was a special case during the early stages of COVID-19, being an essential service needed to fight the virus despite its primarily face-to-face nature. And the education trend likely reflects the sector's transition to remote-learning in the early stages of the pandemic.

The financial and professional services sector contributed more to Sydney's GDP than the health care sector during a global pandemic. This finding is best evaluated when considering the total share of each sector in the economy.

Figure 11 shows that these two sectors comprise over a quarter of Sydney's GDP, and as such, have an outsized contribution to growth. The fact that the size of the health care sector in GDP did not change dramatically is notable and likely reflects that Sydney's hospitals were not overwhelmed by the COVID-19 pandemic and that many non-essential medical procedures, like elective surgeries, were postponed.

FIGURE 10 INDUSTRY CONTRIBUTIONS TO GRP GROWTH IN SYDNEY, 2019-20

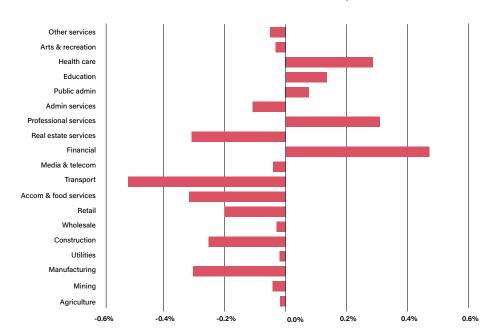
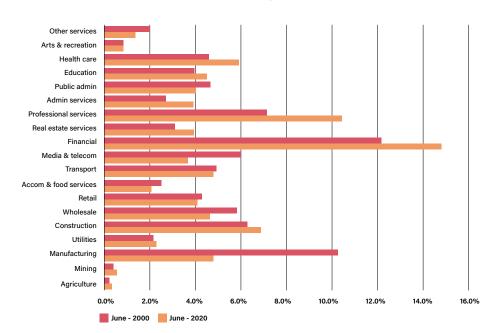


FIGURE 11 THE STRUCTURE OF SYDNEY'S ECONOMY, 2000 TO 2020



REGIONAL NSW

Regional NSW showed similarly negative results to Sydney, with total GRP falling by 0.2 per cent compared to 2018-2019, and per capita GRP falling by 1 per cent. Unlike Sydney, regional NSW has had some bad years over the last 20 years – the shock of the Black Summer bushfires and COVID-19 was the fourth negative per capita growth year in the past 20 years. However, it was the first time that overall GRP had fallen below zero.

Part of this decline was due to a 10 per cent fall in GRP in agriculture due to the drought and the bushfires. Some of this fall was offset by a 7 per cent increase in mining and a 13 per cent increase in public administration and safety. Accommodation and food services took a hit of 7 per cent, but retail trade did not – possibly because people who previously travelled to greater Sydney for work were now working from home. Arts and recreation services, other services and accommodation and food services also showed significant declines, of at least 13 per cent.

FIGURE 12 GROWTH IN GROSS REGIONAL PRODUCT, REGIONAL NSW

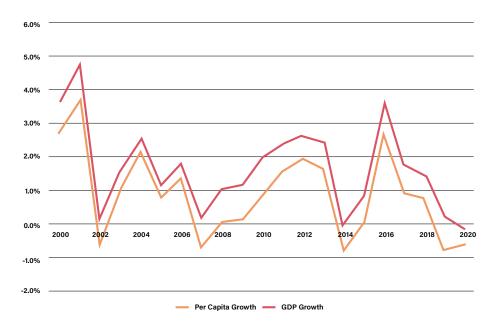
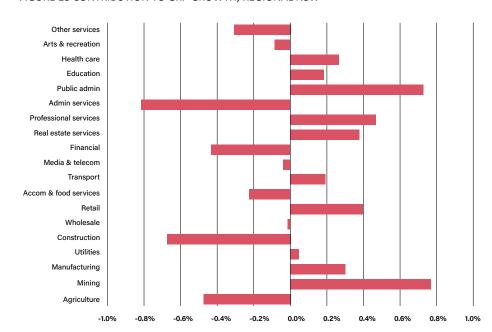


FIGURE 13 CONTRIBUTION TO GRP GROWTH, REGIONAL NSW





3.2 Victoria

MELBOURNE

Since 2015, Melbourne and the rest of Victoria have generally performed more strongly than the rest of Australia, but this did not hold in 2019-20. Melbourne's economy contracted in the 2019-20 financial year, falling by 0.2 per cent. It is important to note that this analysis is likely to understate the full impact of the COVID-19 pandemic, as COVID-19 posed minimal threat to the Australian economy in the first two quarters of the 2019-20 financial year.

Melbourne's GDP per capita fell by 1.8 per cent in 2019-20, slightly less than the 2 per cent fall seen in Victoria as a whole and slightly more than Australia's per capita fall of 1.6 per cent. Similar to Sydney, this trend reflects Melbourne's population growth during 2019-20.

FIGURE 14 MELBOURNE'S GRP, 2000-2020

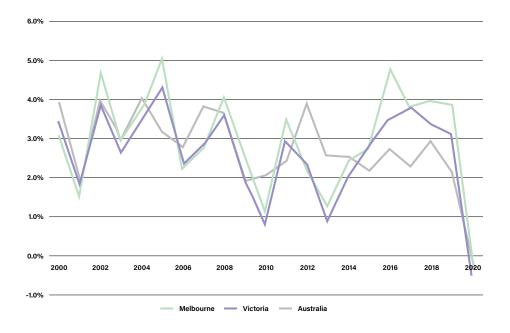
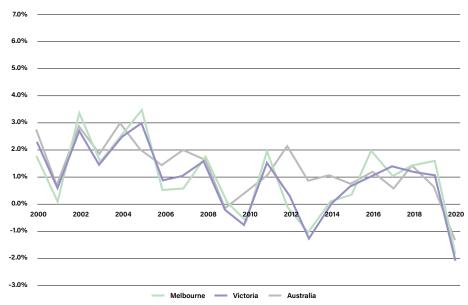


FIGURE 15 MELBOURNE'S GRP PER CAPITA



Melbourne's industry structure presents several trends similar to those seen in Sydney. The transition to 'working from home' (WFH) is again seen clearly in the data. WFH-friendly sectors mostly record positive contributions to growth (public administration +0.4 per cent, professional services +0.3 per cent, financial +0.2 per cent, media and telecom at zero per cent. Likewise, WFH-unfriendly sectors faced declines (transport-0.3 per cent, manufacturing-0.3 per cent, accommodation and food services-0.2 per cent). Health care (+0.5 per cent) and education (zero per cent) were again outliers to this trend.

The small increase in agriculture may represent a transfer in agriculture-related jobs from regional Victoria to Melbourne, as agriculture declined for the state and declined significantly for regional Victoria.

Melbourne's economy also presented new trends, notably its health care sector.

The first of these is the dominance of the health care sector relative to the financial sector. As seen in Figure 17, these two sectors represent a similar proportion to overall GDP as they do in Sydney (approximately 5 per cent and 11 per cent respectively).

Melbourne's health care sector proved extremely resilient-Melbourne' health care sector contributed 0.5 per cent to GDP growth in 2019-20, representing roughly 6 per cent growth.

FIGURE 16 INDUSTRY CONTRIBUTIONS TO GROWTH, MELBOURNE, 2019-20

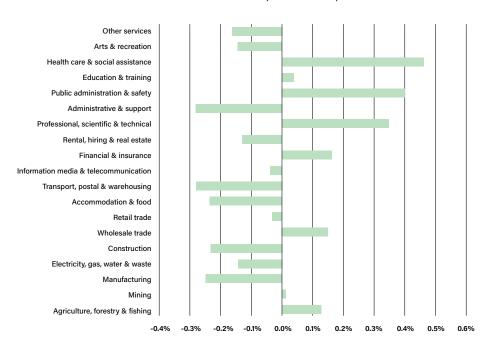
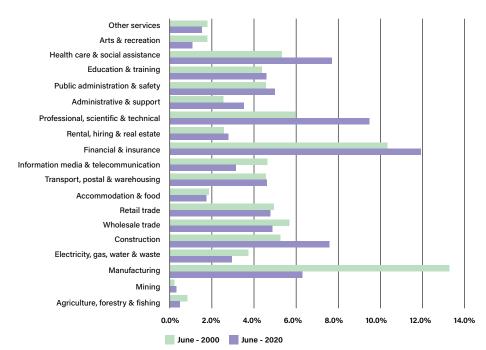


FIGURE 17 THE CHANGING STRUCTURE OF MELBOURNE'S ECONOMY



REGIONAL VICTORIA

Regional Victoria was hit much harder in 2019-20 than Victoria. GRP declined by 1.9 per cent, and GRP per capita fell by 3.1 per cent- the largest fall across regional Australia. This was partly due to droughts and the Black Summer bushfires, which hit areas of Victoria such as East Gippsland hard, and partly due to COVID-19 restrictions on travel.

The decline in agriculture in Victoria was the largest contributor to the fall in GRP, falling by 1.3 per cent, while wholesale trade fell 0.7 per cent. Part of agriculture's decline was due to a transfer in jobs from regional Victoria to Melbourne. Administrative and support services were among the few industries to show notable growth, at 0.8 per cent.

FIGURE 18 REGIONAL GRP AND PER CAPITAL GRP GROWTH, REGIONAL VICTORIA

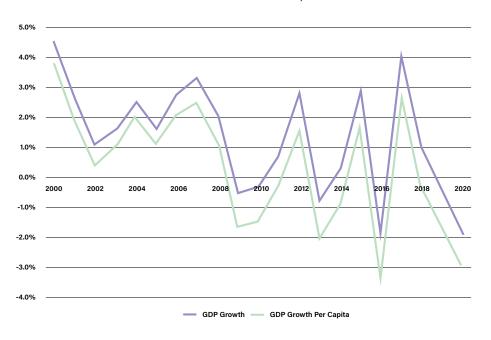
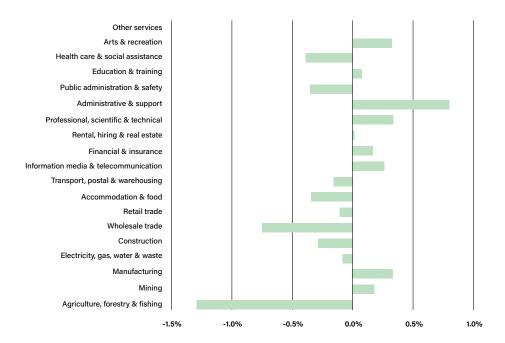


FIGURE 19 CONTRIBUTION TO REGIONAL VICTORIA GRP GROWTH, 2019-20





3.3 Queensland

BRISBANE

Brisbane was the hardest hit capital city in 2019-20.

The mining boom kept Brisbane in positive economic territory for most of the past 20 years, but Brisbane's GRP fell by 3.4 per cent in 2019-20.

In 2019, Queensland received almost 20 per cent of Australia's international visitor spend and 24 per cent of its domestic visitor spend, despite generating less than 10 per cent of Australia's GDP. Like other tourism-dependent cities, it saw significant declines in GRP in accommodation and food services (9 per cent), rental, hiring and real estate services (10 per cent) and arts and recreation services (8 per cent).

Construction and professional, scientific and technical services continued to fall in Queensland due to reduced liquefied natural gas and coal mining investment and an oversupply of high-density apartments, dampening demand. The financial services sector showed a sharp decline in Brisbane, which is offset by an increase in financial services in regional Queensland – potentially reflecting a transfer to these jobs outside of Brisbane. It should be noted that financial sector employment in Brisbane tends to fluctuate.

FIGURE 20 GRP GROWTH, BRISBANE, 2019-20

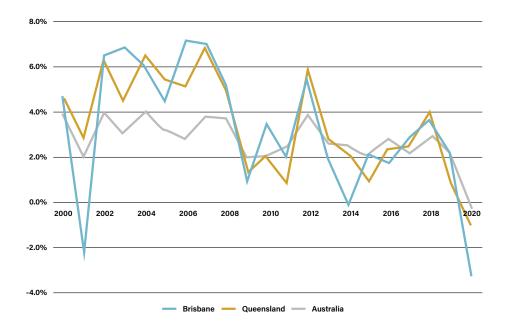
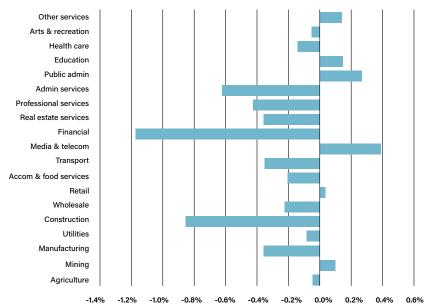


FIGURE 21 CONTRIBUTION TO GROWTH, BRISBANE, 2019-20



REGIONAL QUEENSLAND

Despite a series of natural disasters and COVID-19, regional Queensland managed to show positive economic growth of 1.1 per cent for 2019-20, against the decline of 1.1 per cent for Queensland as a whole.

The loss of tourism was a drag on economic growth in regional Queensland in 2019-20, with accommodation and good services, transport, arts and recreation and other services all showing falls. Droughts, fires and floods all had their impacts on agriculture output.

These downturns were partly offset by the contribution of a boost to health and aged care services as part of the COVID-19 management effort. The financial services sector contributed a surprising 1.2 per cent to growth in regional Queensland. As discussed, this may be due to financial jobs moving from Greater Brisbane to the rest of Queensland, but employment in this sector tends to fluctuate.

FIGURE 22 REGIONAL QUEENSLAND GRP GROWTH, 2000-2020

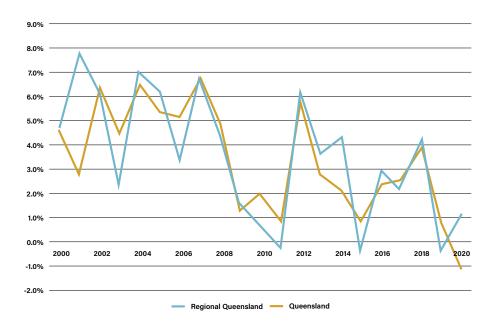
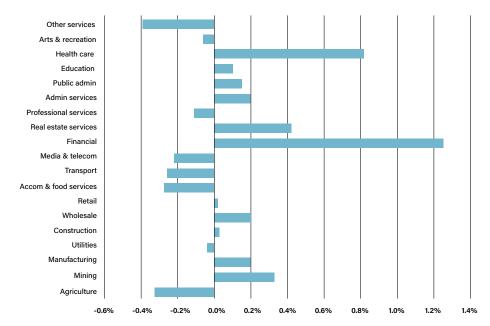


FIGURE 23 CONTRIBUTION TO REGIONAL QUEENSLAND GROWTH, 2019-20





3.4 South Australia

ADELAIDE

South Australia was the hardest hit state in 2019-20.

Over the past 20 years, Adelaide's economy has been a steady but not outstanding performer – rarely reaching the heights of mining-heavy or professional services-heavy cities but managing to avoid any falls in GRP – until COVID-19 hit Australian shores. In 2019-20, Adelaide's GRP declined by 1.6 per cent, slightly more than the 1.4 per cent decline for South Australia as a whole.

Adelaide showed similar industry drivers as many other capital cities. Construction was a major contributor to the decline. COVID-19 related restrictions resulted in falls in transport and accommodation and food services.

Health care showed a modest contribution to growth and industries in which working from home is feasible, including professional services, public administration and financial services, which all showed modest growth.

FIGURE 24 ADELAIDE GRP GROWTH, 2000-2020

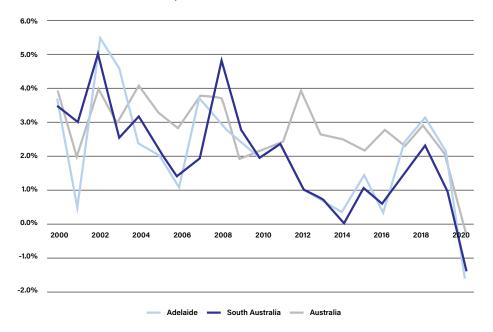
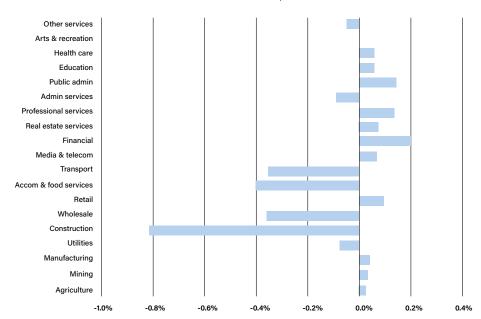


FIGURE 25 CONTRIBUTION TO ADELAIDE GRP GROWTH, 2019-20



REGIONAL SOUTH AUSTRALIA

Regional South Australia has shown slower economic growth than the rest of the country over the last ten years, including negative economic growth over the previous four years. In 2019-20, Regional SA's GRP declined by 0.5 per cent- only slightly larger than the rest of Australia and a smaller fall than Adelaide.

The driver behind regional SA's decline in economic growth is declining agricultural production, which was matched by an increase in health care spending. Most other industries remained flat.

FIGURE 26 REGIONAL SOUTH AUSTRALIA GRP GROWTH, 2000-2020

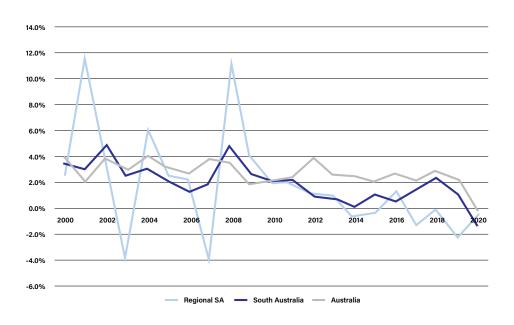
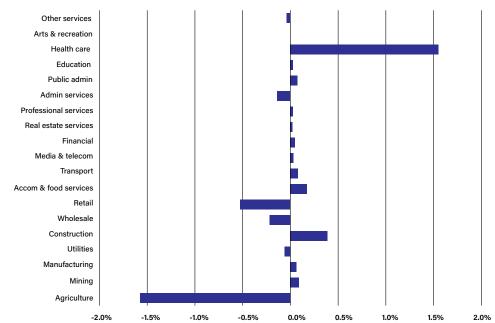


FIGURE 27 CONTRIBUTION TO REGIONAL SOUTH AUSTRALIAN GROWTH, 2019-20





3.5 Western Australia

PERTH

Although Western Australia (WA) experienced a growth of 1.4 per cent in 2019-20, Perth experienced a small decline in growth of 0.6 per cent. The mining industry – in particular iron ore, oil and gas – kept the state growing strongly. However, much of the mining industry's revenue accrued in regional WA and not Perth city.

As with most other capitals, Perth saw declines in accommodation and food services, transport and arts and recreation services. The largest contributor to the fall in GRP was construction due to the ongoing weakness in the residential housing market, particularly apartments, and the transition of large mining projects from the construction to production phase.

As with other cities, part of this fall in economic activity in other sectors was offset by solid growth in health care and social assistance from the COVID-19 management effort.

FIGURE 28 PERTH GRP GROWTH, 2000-2020

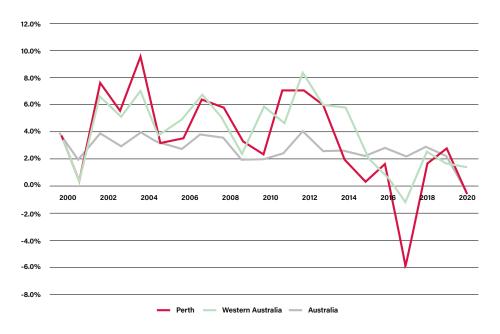
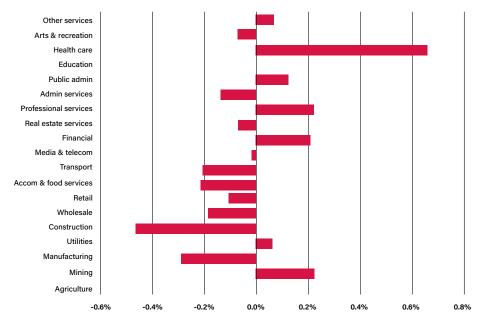


FIGURE 29 CONTRIBUTION TO PERTH GRP GROWTH, 2019-20



REGIONAL WESTERN AUSTRALIA

Regional WA's economic fortunes have had a solid link to the mining industry over the past 20 years, and 2019-20 was no exception. Regional WA showed 3.6 per cent growth in GDP in total, or 3.1 per cent growth per capita. The only year of negative economic growth in regional WA was 2016, due to a hollowing out of the iron ore price.

The industry story of regional WA's economic growth is predictable – the growth was almost entirely due to the strong mining industry. The most important contributor to WA's mining industry is iron ore, followed by oil and gas, with other minerals such as gold, alumina and nickel also contributing. Iron ore prices were higher in 2019-20 than they were in the previous year, driving up returns from iron ore, along with increasing production volumes.

FIGURE 30 REGIONAL WA GRP GROWTH, 2000-2020

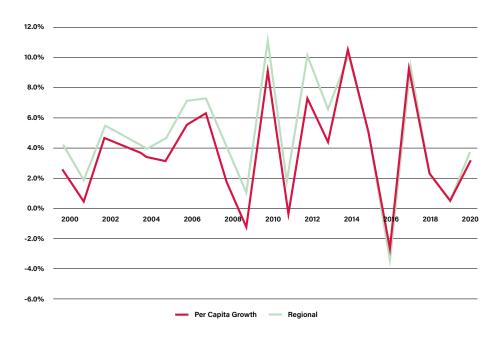
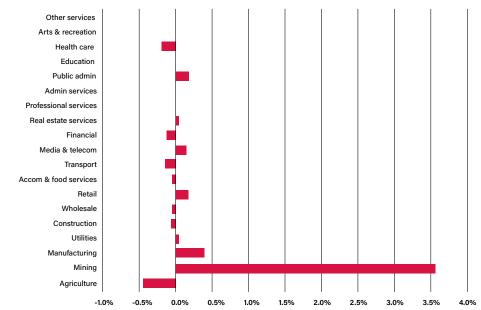


FIGURE 31 CONTRIBUTION TO GROWTH, REGIONAL WA, 2019-20





3.6 Tasmania, Australian Capital Territory and the Northern Territory

TASMANIA

Tasmania managed to avoid a decline in GRP, showing growth of 0.3 per cent in 2019-20, although GRP per capita showed a decline of 0.8 per cent.

Tasmania's agricultural industry was a drag on its growth during 2019-20, and accommodation and transport both suffered falls due to loss of tourism from the mainland and overseas due to COVID-19 restrictions. Increased economic activity in health care and public administration in managing the pandemic's health and economic outcomes was enough to offset the downturn in other industries' activity.

FIGURE 32 TASMANIAN GRP GROWTH, 2000-2020

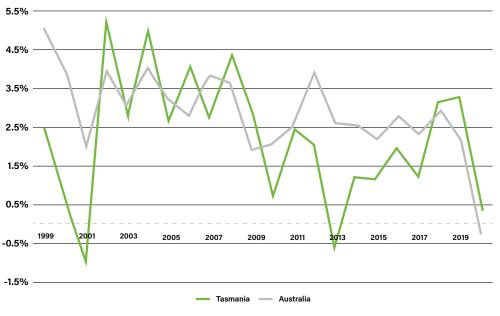
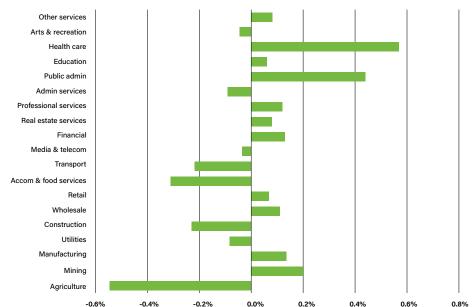


FIGURE 33 CONTRIBUTION TO TASMANIAN GRP GROWTH, 2019-20



CANBERRA

Canberra's economy is one of the more stable economies due to its heavy reliance on the public service and minimal contribution from internationally exposed industries such as mining and agriculture. Public Administration and Safety economic activity tends to move in line with political decisions rather than economic cycles.

Canberra's GRP grew by 2.4 per cent in 2019-20 or 1.2 per cent per capita. While this was a strong positive result compared to the rest of Australia, it was the second-worst GRP result for Canberra over the last 20 years.

Public administration was the major contributor to economic growth in the ACT, contributing 1.1 per cent. This growth is most likely due to government departments boosting staff to handle the new applicants for JobSeeker, implement stimulus programs such as JobKeeper and coordinate COVID-19 response efforts. Professional services contributed 0.4 per cent to ACT's economic growth, as its staff typically contribute expertise to the public service effort. As with other states, health care showed growth and accommodation and transport declined.

FIGURE 34 ACT GRP GROWTH, 2000-2020

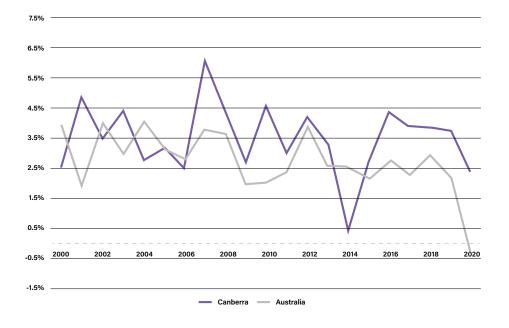
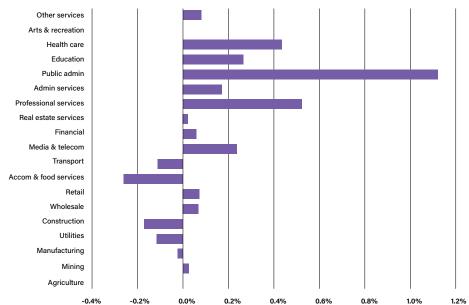


FIGURE 35 CONTRIBUTION TO ACT GRP GROWTH, 2019-20



NORTHERN TERRITORY

The Northern Territory had the strongest performance of all the cities, regions and states, with economic growth of 5.3% over 2019-20, substantially above the Australian average of -0.3%. NT's growth has been lower than Australia's since 2014 because its economy is strongly tied to the mining industry – generally speaking, when mining has performed well, so has the NT economy.

Mining added 8.6 percentage points to the NT's economic growth in 2019-20 due to the transition from construction to production of LNG in the NT. Every other industry in the NT either stayed flat or declined, except for Health Care and Social Assistance and Public Administration and Safety – the two heavily government supported industries that grew to manage the pandemic.

Without the mining industry, NT's economic growth would have been negative for the year.

FIGURE 36 GRP GROWTH 2000-2020, NORTHERN TERRITORY AND AUSTRALIA

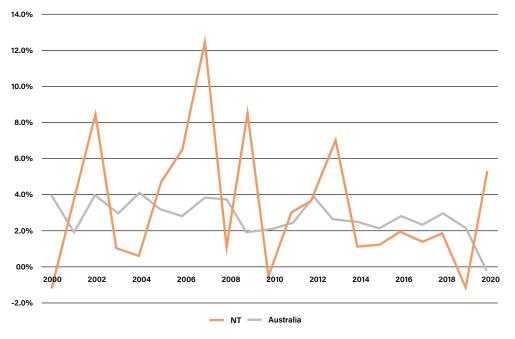
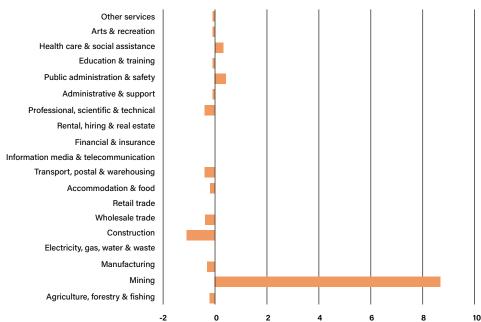


FIGURE 37 CONTRIBUTION TO GRP, NORTHERN TERRITORY, 2019-20





Much of Australia's economic wellbeing over the next two years remains uncertain.

Now is the time to continue to shift how we understand and build societal health and prosperity, looking beyond economic growth to collective wellbeing and environmental sustainability. Our focus should be on building back better, not just economic growth.

Until COVID-19 is effectively suppressed globally, Australia's borders will likely remain tightly managed and local economies will continue to be subject to short term restrictions. These limits on activities could have enduring impacts, re-shaping Australia's places, communities and economies.

In 2019-20 Australia experienced its first national recession in almost 30 years with a fall in GDP of 0.3% in financial year and

a 1.1% decline in the 2020 calendar year. This current report has shown that these changes were not experienced evenly across the national economy. Regional WA and the NT showed relatively strong economic growth per capita, and the ACT's GRP per capita grew as the public service got to work implementing JobSeeker, JobKeeper and other programs to support Australian communities. Sydney, Melbourne, Brisbane, Adelaide and Perth all showed declines in GRP over 2019-20, as did regional NSW, VIC and SA.

The population services sector was hardest hit in the major cities. Many of these jobs, including hospitality, retail, arts and recreation, and other services, were impacted from a lack of tourist trade and lockdowns. In contrast, workers in the knowledge services and education sectors were able to switch to working from home, and traditional industrial jobs were mostly able to continue with social distancing restrictions in place.

The health sector experienced growth from an investment in services to respond to the pandemic; while there was a decline in some health service provision as communities postponed non-essential care and elective surgeries.

As Australia's national economy continues to recover, we should keep in mind how the health and environmental shocks of 2019 and 2020 have affected Australia's vulnerable communities and work towards healthy and resilient communities that address underlying spatial inequalities.

This report quantifies the state and regional economic performance during 2019-20. Our next report will track economic wellbeing in our cities and regions, within the framework of economic, social and environmental sustainability. We'll continue to explore the data to distinguish the spatial, sectoral and industry changes that impact on economic activity, and therefore broader wellbeing.

05 Method

5.1 Approaches to measuring Gross Domestic Product

There are three approaches to measuring Gross Domestic Product:

- The Production Approach: the sum of the Gross value added for each of the industries and taxes, less subsidies on products:
- The Expenditure Approach: measures final expenditure on goods and services; and
- The Income Approach: sum of income generated by all factors of production.

At the Australian level, the Production, Expenditure and Income approaches are averaged by the ABS to produce an estimate of GDP. However, at the State level, a lack of data on trade between the states results in the Expenditure and Income approaches being combined and averaged with the Production approach. The hybrid Expenditure and Income estimates of Gross State Product (GSP) have been published since the 1990s. The Production approach has only been estimated and published as part of the *Australian National Accounts: State Accounts* since 2007.

In developing GDP²¹ estimates for each major capital city (as defined by the cGreater Capital City Statistical Areas (GCCSA)), the Production approach is used. This is used firstly because of the lack of data on interstate trade, and secondly because the data available to calculate the Production approach is more robust (and hence requires fewer assumptions to be made) than that available for the Expenditure or Income approaches. For each industry, wherever possible, the same data sources that have been used to produce industry gross value added at the state level are used to produce industry gross value added at the city level. Some of these data sources include:

- Agricultural Commodities, Australia;
- Regional Population Growth, Australia; and
- Labour Force, Australia, Detailed.

Via the use of the implicit price deflation technique, the Chain Volume Measures of the industry gross value added are converted into current prices. This method overcomes the non-additivity issue with the Chain volume measure and allows the aggregation of industry estimates of GVA to overall GDP. In order to maintain consistency with the wider National Accounts, the Production Approach estimate of city GDP is benchmarked to the state GDP.

For deriving labour productivity, SGS combined these estimates with Australian total hours worked for each industry in each capital city and region based on its share of total hours worked from the *Labour Force, Australia, Detailed.*

5.2 Industry methods

The gross value added for each industry for Australia is derived in the annual supply and use tables using the double deflation technique. That is, subtracting estimates of intermediate input from estimates of output. Where possible the same data has been used in estimating State level industry gross value added. The details of this estimation method are outlined in "Information paper: Gross State Product using the Production approach GSP(P)". In estimating the Capital City level industry gross value added, where possible, the same data sources have been used.

²¹GDP (Gross Domestic Product) refers to Australia, GSP (Gross State Product) refers to a State, while GRP (Gross Regional Product) refers to specific regions or cities. GRP is most generally used through this report.

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