2020

Research paper

Building economic resilience in Queensland

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Preamble

The coronavirus (COVID-19) pandemic and the subsequent health response have resulted in a sudden and severe impact on economic activity across the globe. While the current focus, quite rightly, is on the immediate health response and relief to support the economy, there is a growing discussion of the need for broader changes to support stronger economic growth and resilience to future shocks. This discussion is being driven internationally, nationally and at the state level, including through the new National Federation Reform Council (part of the National Cabinet).

A resilient economy tends to endure shorter and less severe downturns. This benefits the community by ameliorating the worst impacts of economic shocks—income losses and unemployment. Resilience also has longer-term consequences for economic growth, through its impact on employment and investment. And from a policy perspective, there is a strong correlation between those policies that support resilience and those that support productivity growth, which ultimately improves the living standards of Queenslanders.

This research paper contributes to this discussion in Queensland. It provides a high-level framework to guide consideration of policy approaches to support a more productive and resilient Queensland economy. It sets out what economic resilience means and why it matters, the performance of the Queensland economy pre-COVID-19 and the initial economic impact of the COVID-19 response. It concludes by identifying some broad principles for building resilience and productivity and discusses the main (state-level) areas of policy that can be harnessed to improve resilience.

The Commission would like to acknowledge the authors of this paper—Angelina Bruno, Matt Clark, Jeff Lassen and Nick Monroe.

The Commission intends to supplement this high-level research paper with more detailed work over the coming year. We welcome feedback on this publication.

About the Queensland Productivity Commission

The Queensland Productivity Commission is an independent statutory body that provides policy advice on complex economic and regulatory issues.

The Commission has an advisory role and operates independently from the Queensland Government—its views, findings and recommendations are based on its own analysis and judgments.

Further information on the Commission and its functions can be obtained from the Commission's website www.qpc.qld.gov.au

Contents

Preamble i

Key points 1

1. Introduction 2

2. Economic resilience 4

2.1 Why resilience matters 4

2.2 Economic reform and resilience 5

3. The Queensland economy before COVID-19 6

4. The likely effects of the COVID-19 pandemic 9

4.1 The impacts so far 9

4.2 The impacts are likely to be long lasting 13

5. Principles for building productivity and resilience 17

5.1 Efficient regulation 19

5.2 Tax policies to encourage flexibility 21

5.3 Infrastructure that supports resilience 22

5.4 Resilient labour markets 25

5.5 An effective industry policy 27

5.6 Minimising policy uncertainty through strong public sector governance 31

6. Improving service delivery 34

6.1 Opportunities to enhance government service delivery 34

6.2 Unlocking improvements to service delivery 34

References 36

Key points

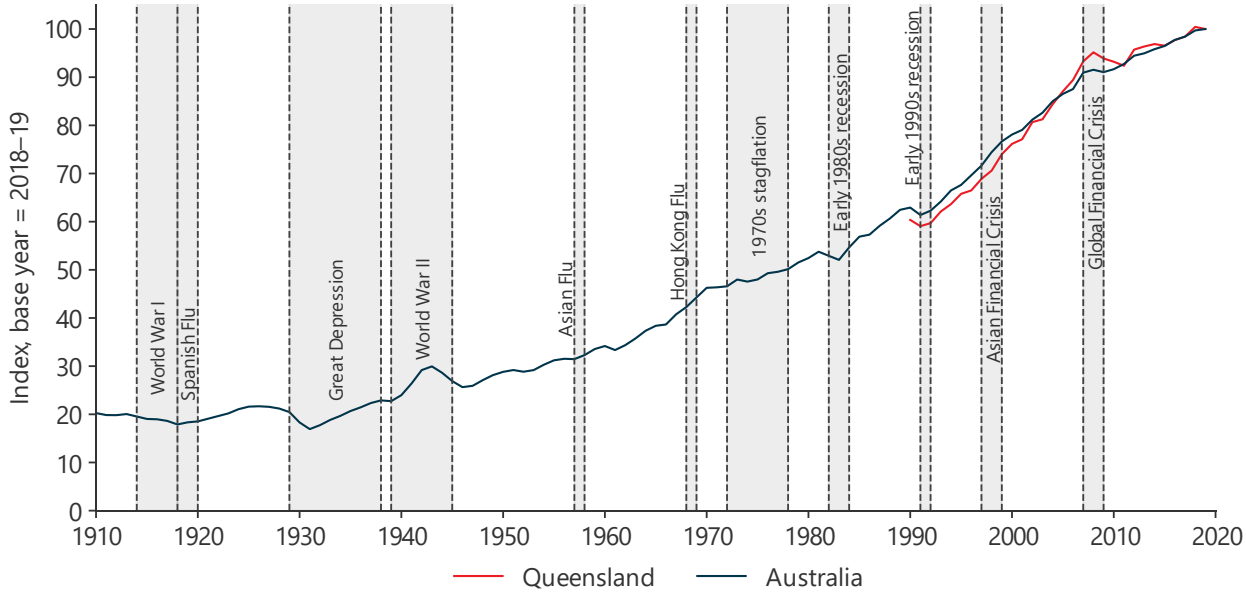
- Economies are frequently subject to external shocks—from global events (such as the global financial crisis (GFC) and the dot-com crash) to localised natural disasters (such as cyclones and bushfires).
- Microeconomic and macroeconomic reforms commencing in the 1980s worked to remove protection and open the economy to competition. These reforms led to widespread market-driven transformation, increased productivity and improved the resilience of the state and national economies. Prior to these reforms, the economy was much more volatile, experiencing, on average, one quarter of negative growth in each year.
- Following the reforms, state and national economies have been remarkably resilient to economic shocks, including the GFC, the dot-com crash, large shifts in the terms of trade and numerous natural disasters.
- In the last decade, however, the pace of market reform has slowed, if not stalled. Queensland has experienced slower productivity growth, underutilised labour and stagnant (or even falling) living standards for several years.
- The latest shock, from the COVID-19 pandemic, has caused widespread economic losses in Queensland. While significant uncertainty remains, the Commission estimates the economic impacts will continue at least through next year, with effects lingering for many years.
- Beyond the immediate relief effort, policy needs to consider how to transform the Queensland economy to foster stronger productivity growth and increased resilience—a return to pre-crisis economic growth will leave the economy running below its potential, limiting growth in the living standards of Queenslanders.
- This paper sets out some broad areas and key principles to consider in developing policy to move the Queensland economy to a stronger growth path which is more resilient to future shocks. This research suggests:
  - there are strong positive links between the efficiency (and flexibility) of structural policy settings and economic resilience and growth—establishing the right settings for regulation, tax, infrastructure and labour markets promotes agility and enables stronger growth and builds resilience
  - industry policy needs to carefully consider the application of ongoing support for industry which can introduce rigidities, discourage innovation and adaptation, and prop up uncompetitive businesses, that, in turn, can reduce resilience and retard productivity growth
  - efficient and effective human services, such as health and education, can improve resilience by building human capital and enabling economic participation
  - strong public sector governance is important for supporting confidence, maintaining efficient and effective service delivery and delivering reforms when they are needed.

1. Introduction

Economic shocks are frequent and have been a regular feature of Australia's economic history (Figure 1.1).

The ability of the economy to respond, adapt and recover from these shocks—its resilience—is a key determinant of how they affect the community. When shocks harm the economy, they can result in long periods of unemployment and declining living standards. For example, in Queensland, per capita output, a measure of living standards, took around three years to recover from the 1991 recession (Figure 1.1); the recovery of the state's labour market took nine years.

Figure 1.1 The impact of historic crises on output per capita, Queensland and Australia



Source: Bergeaud et al. 2016; ABS 2019 cat. nos. 5220.0, 5204.0.

Although Queensland has avoided a significant downturn for almost 30 years, the COVID-19 pandemic has now hit the global, national and state economies hard. Significant uncertainty remains about the timing of the recovery, but it seems that the impacts have some time to play out. The disproportionate impact on younger workers, in particular, is likely to have long-term implications—young people entering a weak labour market often experience damage to their career prospects and reduced lifetime earnings (Kahn 2010; PC 2020a).

Prior to the crisis growth in the Australian and Queensland economies had slowed—over the past decade, output per capita had been growing at around 0.94 per cent per annum nationally and 0.96 per cent in Queensland, compared with average rates of 1.59 per cent and 1.66 per cent over the period since 1970. A return to pre-crisis growth will leave the Queensland economy short of its potential, limiting growth in incomes, employment and living standards. As noted by Ross Garnaut:

> *[Crises] change what is possible in economic policy. Responses to the great crash of 2020 will change our political and economic system and the quality of our lives for a long time into the future. Whether these changes are for good or for ill depend on the policies that we and our partners in the international community choose in the period immediately ahead. (Garnaut 2020)*

Prior to the crisis, several commentators had raised concerns about a lagging reform effort in Australia and a rise in protectionism internationally, arguing that these factors were undermining the economy's growth and resilience (for example, see Banks 2018; Di Leito 2018).

While expansionary fiscal and monetary policy have been used by governments globally to support economic activity in response to the pandemic, macroeconomic policies focused on supporting demand cannot deliver sustainably higher growth over the long-term. In other words, the traditional economic policy responses used to manage severe shocks need to be supplemented by structural policy that is designed to increase the economy's productivity and growth potential.

The aim of structural policy is to make changes to the supply-side of the economy that enable businesses and workers to increase their adaptability and productive capacity. In that way it enhances resilience, long-term productivity and economic growth beyond the immediate crisis. Lifting productivity growth is the only way to raise economic growth and living standards in a sustainable way. The ability of an economy to withstand shocks is also strongly related to productivity. A more efficient and productive economy can produce more with fewer resources, mobilise and shift resources in response to shocks and compete more strongly in times of crisis (ABS 2013, cat. no. 1370.0).

There is growing momentum for reform to facilitate structural change and increase economic growth, as echoed by the Governor of the Reserve Bank of Australia:

> *What we can do is reform … And the list of areas where we should be doing reforms is well known: they include tax, infrastructure, human capital, industrial relations, regulation, entrepreneurship and R&D [research and development] …if we don't address those areas then I think we'll just meander along with kind of mediocre growth … (Lowe 2020)*

This paper sets out some broad areas and key principles to consider in developing policy to move the Queensland economy to a stronger growth path which is more resilient to future shocks. It examines policy areas to improve resilience over the medium to long term that are within the jurisdiction of, or can be influenced by state governments.

The paper does not consider emergency measures, or fiscal and monetary policy settings implemented to alleviate the immediate economic impacts of COVID-19.

The paper is set out as follows:

- Chapter 2 examines resilience and growth and how reforms pursued during the 1980s and 1990s, which opened the economy to competition and introduced new flexibility, seemed to increase economic resilience, with Australia (and Queensland) experiencing greater economic stability after the reforms.
- Chapter 3 shows that living standards in both Queensland and Australia have been largely stagnant over the past decade.
- Chapter 4 presents analysis of the current crisis, which shows that the effects are likely to continue to be felt for many years.
- Chapter 5 sets out key policy principles for building resilience and identifies key areas of state government level policy that affect private sector productivity and resilience.
- Chapter 6 focuses on government service delivery and governance as an enabler of productivity and resilience.

2. Economic resilience

Economic resilience is the ability of the economy to withstand an economic shock and to recover from it.[1] A resilient economy is one that can avoid a downturn (or minimise the size of a downturn when a shock happens) and quickly return to long-run growth and full employment once the shock has passed.

The ability of an economy to recover from shocks is driven by its flexibility (or adaptability). A flexible economy is one in which labour and capital can quickly realign to changing economic conditions. For example, the ability to manage production with scarcer resources would make an economy more resilient to natural disasters (Rose & Krausmann 2013). In the current crisis, the ability of firms and households to adapt has softened the economic impacts; activities such as working from home and changing hospitality business models have helped some ordinary economic activities continue despite the disruption caused.

This section sets out the importance of economic resilience, its broad drivers and whether there is a trade-off between growth and resilience. It also examines evidence on the resilience of the Australian and Queensland economies and shows how resilience appears to have increased following the reforms implemented during the 1980s and 90s.

2.1 Why resilience matters

A resilient economy tends to endure shorter and less severe downturns. Both households and firms benefit by minimising their income losses. Resilience also has longer-term consequences for economic growth through its impact on containing the loss of employment and investment.

A resilient economy is better placed to limit the long-term scarring effects downturns have on employment. A scarring effect on employment can come about as a result of an increase in long-term unemployment after severe economic shocks. Those who become unemployed during a downturn can remain unemployed afterward. This can lead to skills deterioration, causing difficulty finding work, and discouragement from the job-search process (Cahuc & Zylberberg 2004, pp. 476–481). The more severe a downturn is, the greater the number of people who become unemployed; the lengthier the downturn, the longer those who are unemployed remain so, risking permanent detachment from the labour force (Gustavsson & Osterholm 2007, p. 160).

Most empirical work finds a negative relationship between volatility and economic growth (Hnatkovska & Loayza 2005; Kim et al. 2016; Lin & Kim 2014; Martin & Ann Rogers 2000; Ramey & Ramey 1991). For example, Ramey and Ramey (1991) concluded that nations with higher economic volatility have lower average economic growth.[2]

There are also important human costs associated with economic downturns. For example, beyond financial costs, loss of unemployment has been linked to adverse effects including a loss of security, self-esteem, isolation and health (Hiswåls et al. 2017). Resilient economies that can minimise these losses are likely to support higher levels of community wellbeing than those that are less resilient.

Briguglio et al. (2008) suggest economic resilience can be increased through good governance, sound macroeconomic management and market efficiency, all of which equally could be said to drive economic growth. However, in considering approaches to building resilience, policy needs to recognise there can be trade-offs between resilience and growth. For example, while some research has suggested that while general trade openness has been associated with higher long-run economic growth, for small economies with a reliance on a small number of traded goods, it can increase volatility (Bjørnskov 2016; Caldera-Sanchez et al. 2016; Haddad et al. 2013). Some macroprudential regulation also falls into this category—household mortgage lending rules, for example, can improve financial stability but can come at the expense of construction industry growth (RBA 2018).

[1] While this definition suffices for the purposes of this paper, there are several competing definitions used in academia, and no single one has been uniformly accepted. Modica & Reggiani (2015) provide a discussion of the definitions and concepts associated with resilience.

[2] The main criticism of any empirical work in this area is that growth and volatility are endogenously and jointly determined.

Where a trade-off does exist, care needs to be taken that one is not sacrificed unduly for the other:

> *[I]n looking for answers, policymakers need to be mindful of the potential long-term growth impact of risk-mitigating measures…Insofar as the risk-mitigating measures can involve a trade-off between growth and crisis risk, combinations of policies that avoid or ease the trade-off need to be identified. (Caldera et al. 2017)*

2.2 Economic reform and resilience

Over the past 30 years, the Australian economy has shown resilience to external shocks, withstanding a range adverse events to record a remarkable run of largely uninterrupted growth.[4] Until COVID-19, none of these shocks had caused a recession, and only three resulted in a single quarter of negative growth—the dot-com crash (Q4, 2000), the GFC (Q4, 2008) and the Queensland Floods (Q1, 2011).

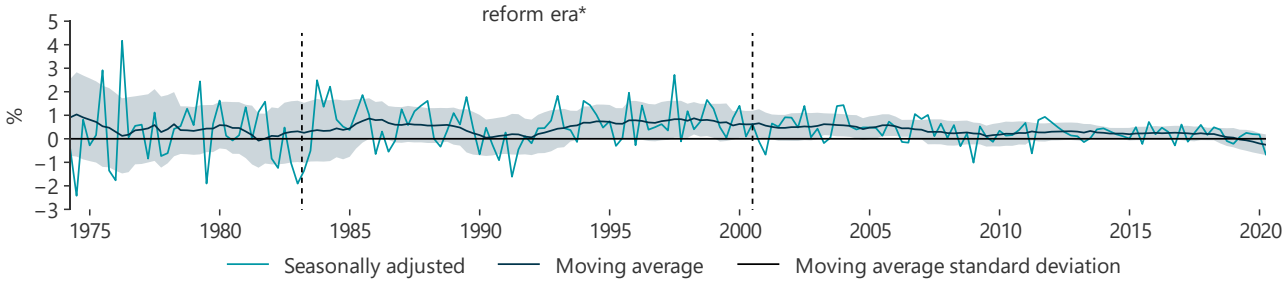
State and national economies were not always this resilient. Prior to the macro- and microeconomic reforms undertaken by state and federal governments through the 1980s and 1990s the Australian economy experienced an average of one quarter of negative GDP growth per year, compared to one every six years afterwards.

The reforms of that era largely focused on opening markets to increased competition. These reforms led to market-driven transformation and significant structural change, encompassing monetary and fiscal policies, capital markets, industry assistance, taxation, government enterprises, industrial relations, competition policy and innovation (Berger-Thomson et al. 2018). Australia progressed from a relatively closed and regulated economy to an efficient, flexible and open economy, with much of strong productivity performance in the 1990s widely attributed to the combined effect of these micro and macroeconomic reforms (Dolman 2009).

The microeconomic reforms that improved the competitiveness and productivity of the Australian economy were supported by macroeconomic and financial reforms that led to greater macroeconomic stability, such as the floating of the dollar, opening the capital account, deregulating the banks and establishing independent monetary policy. The overall combination of these reforms, rather than one particular reform, has been critical to transforming the Australian economy and building economic resilience in recent decades.

Reduced volatility in real output per capita growth provides some evidence of how the resilience of the economy has improved following the reforms of the 80s and 90s (Figure 2.1).

Figure 2.1 Real GDP per capita growth and volatility, Australia, 1973–present



Notes: Moving average and variances are computed with a width of 16 quarters. The variance of real per capita is a simple measure of output volatility adapted from Easterly et al (2000). The indicated timeframe of the 'reform era' is approximate, shown from March 1983 (floating of the Australian dollar) to June 2000 (introduction of the GST).
Sources: ABS 2020 cat. no. 5206.

[4] Including the Asian Financial Crisis (1997), the dot com crash (2000), the GFC (2007-08), several natural disasters and volatile terms of trade cycles.

3. The Queensland economy before COVID-19

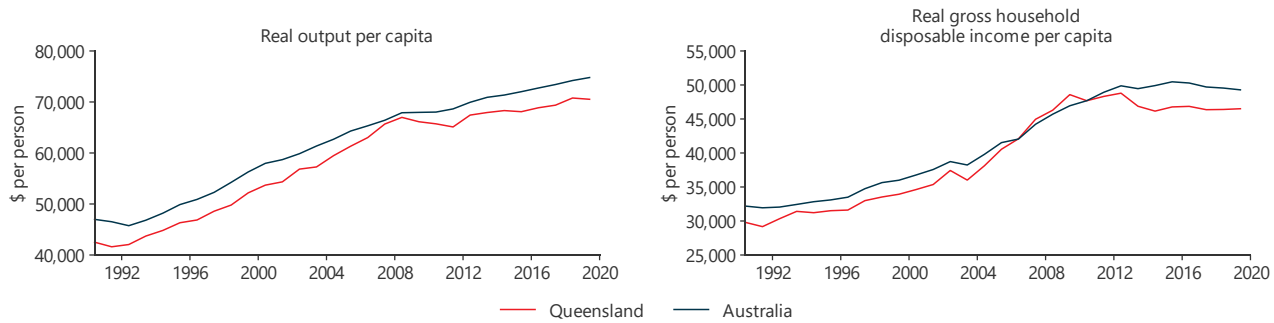
Queensland's economy has been buoyed by mining activity over the most recent 15 years, but this has masked slowing income growth, declining labour utilisation, slowing investment in the non-mining sectors and weak multifactor productivity growth (MFP).

Output and income growth have slowed

Two key measures of economic performance are growth in real output per capita and growth in real gross household disposable incomes per capita. The former captures growth in total income (to workers and owners of capital) and the latter captures the ability of households to make purchases and save for the future. Both are important indicators of changes in living standards.[5]

Figure 3.1 shows that real per capita output in Queensland almost reached parity with the national average in 2008 before growth slowed substantially with the onset of the global financial crisis. Real per capita gross household disposable income in Queensland has also deteriorated significantly since 2008 and is yet to recover. These declines suggest that average living standards in Queensland have fallen from their peaks in 2008 after around 16 years period of sustained growth.

Figure 3.1 Output per capita and gross household disposable income per capita, Queensland and Australia, 1992–present



Sources: ABS 2019 cat. nos. 5206.0; 5220.0, 3101.0; ABS 2020 cat. no. 6401.0; QPC estimates.

The three key factors that drove the slowdown in incomes were a fall in the terms of trade, declining labour utilisation and weak labour productivity growth.

A fall in the terms of trade undermined income growth

The boom in mining commodity prices saw the terms of trade for both Queensland and Australia grow strongly from 2000 to its peak in 2010, increasing per capita incomes (Figure 3.1). When commodity prices fell and the terms of trade declined (from around 2011 to 2015), this had the effect of reducing income growth, despite increases in output. From around 2016 commodity prices began to increase again, although not to the peaks they had reached before 2011.

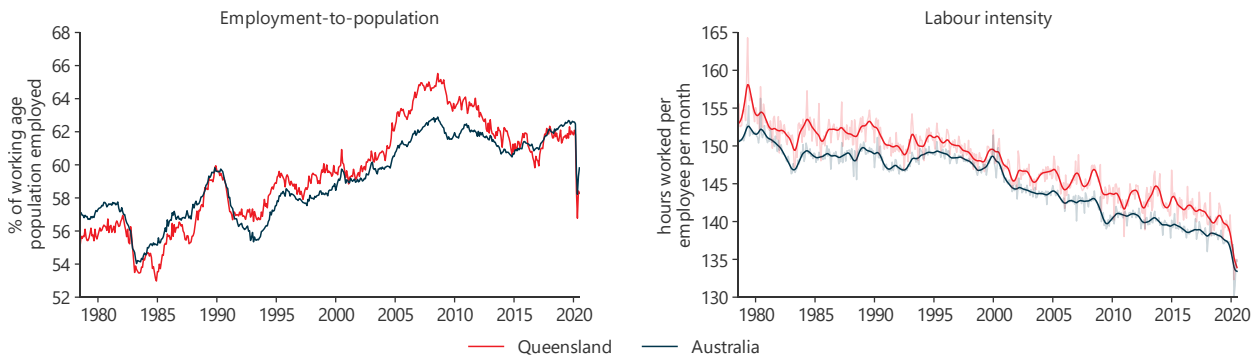
Falling labour utilisation contributed to weaker growth

The second cause of relatively weak output and income growth was declining labour utilisation. Labour utilisation can be decomposed into the proportion of the working age population employed (employment-to-population) and the average hours worked by each employee (labour intensity).

[5] 'Output' is the value of all final goods and services produced in an economy over a given period. Gross household disposable income is income accruing to households less taxes, consumer debt interest and other current transfers payable by households (ABS 2015, '*Australian System of National Accounts: Concepts, Sources and Methods*' cat. no. 5216.0, p. 660).

In the last five years, Queensland has experienced an employment-to-population ratio well below its pre-GFC peak levels, slipping below the national average for the first time since the early 1990s. Both Queensland and Australia have also seen labour intensity trend downward for as long as the series has been collected (Figure 3.2).

Figure 3.2 Employment-to-population and labour intensity, Queensland and Australia, 1978–present



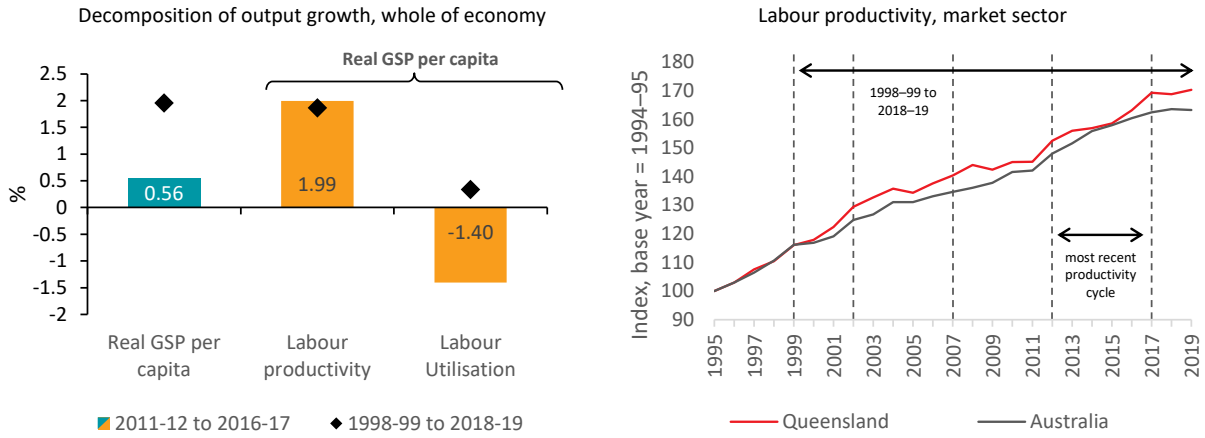
Notes: For visual clarity, labour intensity has been overlaid with a simple trended series. While appropriate for broad historical comparisons, trend data should not be relied upon for recent periods, as the COVID-19 related shock affects trended data in previous periods.
Sources: ABS 2020 cat. no. 6202.0; QPC estimates.

Declines in employment-to-population and labour intensity have resulted in a 10.9 per cent decline in labour utilisation from June 2008 to March 2020 (pre-crisis). Falling labour utilisation weighed on income growth in the two most recent productivity cycles.[6] If falling labour utilisation is not at least offset by growing labour productivity, output, incomes and (consequently) living standards will decline.

Productivity growth has been slowing, particularly outside of the mining sector

Figure 3.3 provides a decomposition of output growth in Queensland over the most recently completed productivity cycle (2011–12 to 2016–17). It shows that labour productivity over this cycle was close to the average since 1998–99, with declining labour utilisation contributing most to slowing output growth. In contrast, labour productivity after 2016–17 has been flat with growth well below historical averages.

Figure 3.3 Decomposition of output growth and labour productivity, Queensland



Notes: Dashed lines indicate peaks in MFP growth and mark the beginnings and endings of productivity cycles. Data in this figure, and further information about them, were originally published in the QPC productivity update for 2018–19 (QPC 2020b).
Sources: ABS cat. nos. 5260.0.55.002, 6202.0; QPC estimates.

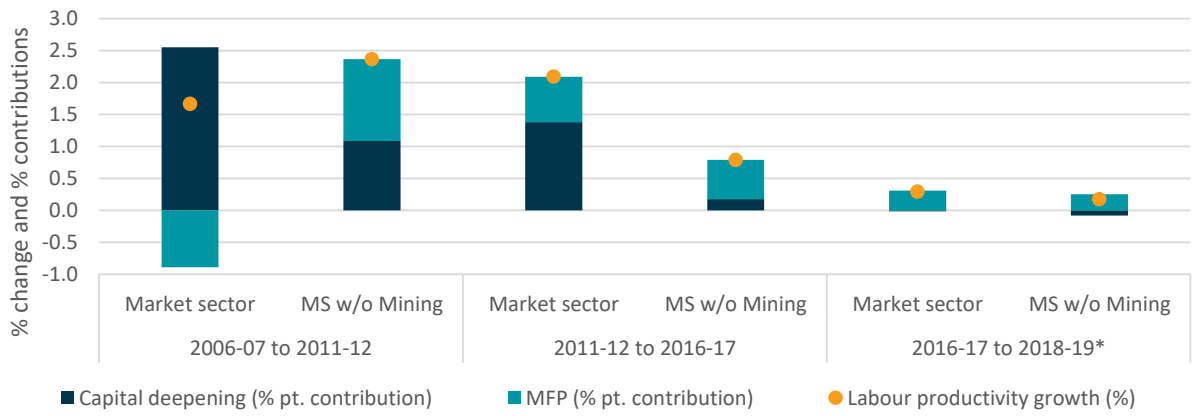
[6] A productivity cycle is defined as the period between two peaks in multifactor productivity growth. More information can be found in the QPC productivity update for 2018–19 (QPC 2020b).

While Figure 3.3 paints a relatively positive picture of productivity growth (at least for the 2011–12 to 2016–17 productivity cycle), it conceals some of the structural weakness in the economy outside of the mining sector.

A decomposition of market sector labour productivity growth in Queensland with and without the mining sector (Figure 3.4) shows the following:

- A large proportion of the growth in the state's aggregate productivity has been driven by capital deepening during the mining investment boom[7]—this boom appears to have run its course (see also Figure 4.3).
- During the 2011–12 to 2016–17 cycle, the mining industry transitioned into its production phase. Outputs increased faster than inputs, increasing MFP growth and pushing market sector labour productivity growth up from the previous cycle. This overshadowed weaker performance in the non-mining sector.
- Labour productivity growth outside the mining sector has been slowing for some time.
- Slowing investment is dragging on productivity growth, both in the mining and non-mining sectors.
- In the current cycle, technical progress (as measured by MFP) is slow both within and outside the mining sector.

Figure 3.4 Labour productivity growth decomposition, Queensland, market sector with and without mining



*Notes: * denotes an incomplete productivity cycle. This figure was originally produced in QPC (2020b).*
Sources: ABS cat. nos. 5520.0, 5260.0.55.002; QPC estimates.

Since 2016–17, both the mining and non-mining sectors have contributed little to labour productivity growth in Queensland. A more comprehensive discussion of Queensland's productivity growth can be found in QPC (2020b).

[7] Mining operations require a large amount of capital investment and can take several years to establish. There is therefore a lag between when investment occurs (the 'investment phase') and when output is produced (the 'output phase'). Over the 2006–07 to 2011–12 cycle, mining investment contributed over half of the effect of capital deepening's on labour productivity but because this capital expansion was not accompanied by an increase in output, it drove down market sector MFP. Over this cycle, non-mining market sector industries performed strongly in terms of both capital deepening and MFP growth (Figure 3.4) and the net effect of the mining industry was to reduce labour productivity growth.

4. The likely effects of the COVID-19 pandemic

The full extent, magnitude and duration of the economic impacts triggered by the COVID-19 pandemic are uncertain. It is also difficult to assess how policy makers and individuals might respond to any new outbreaks. Nevertheless, it is possible to make some assessment of the impacts and possible future outcomes from information available today. Importantly, the data and results presented in this section are not forecasts. Rather this section provides context for the policy responses to build resilience.

4.1 The impacts so far

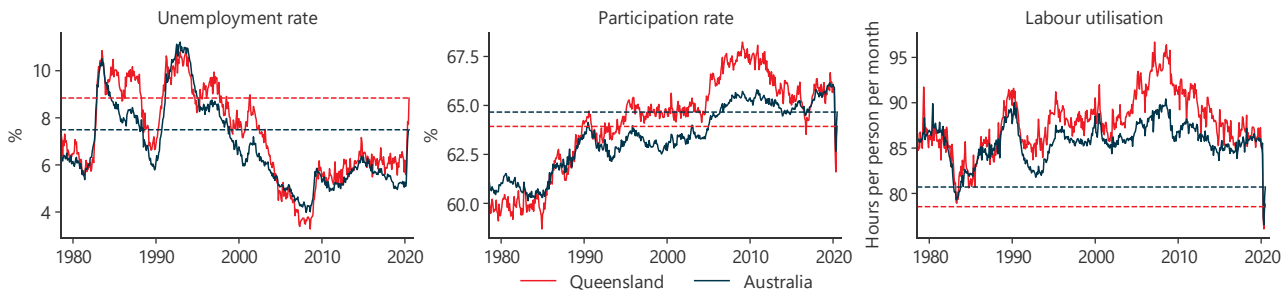
COVID-19 has caused both an international health and economic crisis, which will likely cause Australia's first recession in almost 30 years. The *direct health impacts* in Australia have been relatively small to date; while there have been around 420 deaths (to 17 August 2020) caused by COVID-19, approximately 430 Australians (85 Queenslanders) die every day from all causes (ABS 2018, cat. no. 3303.0).

Data showing the economic impacts of COVID-19 are being progressively released. The available data show that there have been large impacts on employment, labour utilisation, consumer and business confidence, retail sales business entry and capital formation. At least in terms of the immediate impacts, all available evidence suggests this is the most severe economic contraction in Australia since the Great Depression.

Employment measures have collapsed, and utilisation is at its lowest level on record

Both employment and labour utilisation have sharply declined over the past few months. Figure 4.1 shows that unemployment in Queensland is at its highest level since 2002, and the participation rate remains well below its 20 year average.[8] A contracting workforce has been coupled with a fall in hours worked by those still employed, causing labour utilisation in Queensland to fall to its lowest level since records began in 1978.

Figure 4.1 Unemployment, participation and labour utilisation, Queensland and Australia, 1973–present



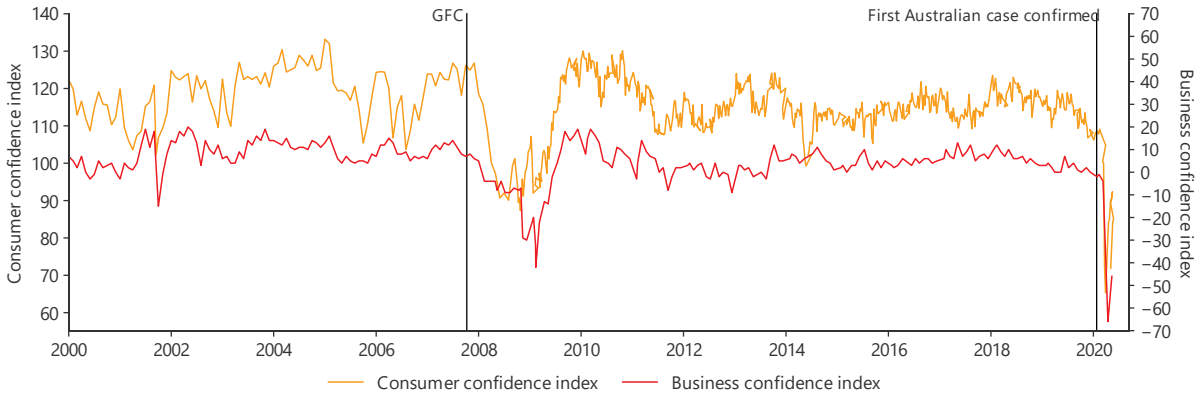
Notes: Labour utilisation is based on the working age population. Dashed lines represent the most recent values.
Source: ABS 2020, cat. no. 6202.0.

[8] The 'real' unemployment rate (the proportion of willing and able workers of workers unable to find work) can diverge from the official unemployment rate when potential workers become discouraged and stop looking for work. This causes them to no longer be counted as part of the labour force and is reflected in a falling participation rate.

Consumer and business confidence has fallen

Business and consumer confidence had been slowly declining prior to COVID-19, but has since fallen sharply to their lowest levels in 20 years. While the most recent surveys show signs of improvement, confidence remains at or below the levels experienced during the GFC (Figure 4.2).

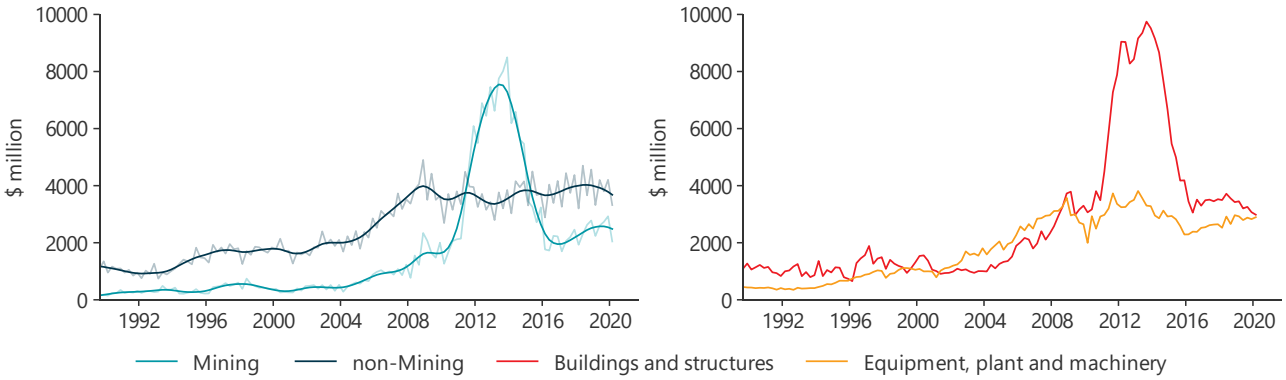
Figure 4.2 Consumer and business confidence, Australia, 2000–present



Sources: ANZ & Roy Morgan 2020; Hunt 2020; NAB 2020.

The number of new business entries (measured in terms of registered ABNs) has also declined year-on-year, although the decline in Queensland has been smaller than in the rest of Australia (19.4 per cent compared to 22.0 per cent) (REMPLAN 2020). Actual capital expenditure has also declined, though the fall has been more modest to date than some had forecast (Cranston 2020a).

Figure 4.3 Actual capital expenditure, Queensland, mining and non-mining (left) and by type (right)



Note: A simple trended series has been overlaid over mining and non-mining series and is illustrative only. Expenditure by type is seasonally adjusted by the ABS.
Source: ABS 2020 cat. no. 5625.0.

Consistent with the fall in consumer confidence and developments in the labour market, the available data suggest household investment is also weak. New home sales fell by 21.3 per cent in Queensland in the two months after the introduction of social distancing restrictions (Sweeney 2020).

The services sector has been disproportionately affected

While employment losses have been felt across most industries, they have been particularly pronounced in the services sector, notably retail trade, restaurants and cafes and tourism-related industries as a result of restrictions imposed to contain the spread of COVID-19. The global aviation industry has warned it will take at least three years to recover to 2019 levels, with holiday and business air traffic set to lag well behind any economic recovery (IATA 2020).

While the Australian Government's support packages have worked to reduce employment losses, there have been large declines in some industries (Table 4.1). Impacts have been worst in arts and recreation services and accommodation and food services (ABS 2020, cat. no. 6291.0.55.003).

Employment losses have been proportionately greater in Queensland, compared to the rest of Australia. This outcome is likely explained by the relatively high importance of tourism activity to the Queensland economy.[9]

Table 4.1 Percentage change in employees from the first to the second quarter of 2020, by industry, Queensland and Australia

Sector	Qld.	Aust.	Sector	Qld.	Aust.
Arts & recreation services	–42.12	–36.45	Information media & telecommunications	–5.46	–11.20
Accommodation & food services	–28.28	–29.69	Education & training	–4.38	–5.55
Transport, postal & warehousing	–17.18	–14.21	Mining	–1.50	–4.68
Administrative & support services	–16.79	–12.75	Health care & social assistance	–1.05	–3.73
Rental, hiring & real estate services	–12.87	2.88	Public administration & safety	4.21	2.15
Wholesale trade	–11.85	0.95	Manufacturing	5.22	–4.86
Other services	–10.79	–10.21	Financial & insurance services	7.58	3.24
Retail trade	–10.04	–6.23	Electricity, gas, water & waste services	11.37	23.83
Construction	–7.60	–0.21	Agriculture, forestry & fishing	15.50	7.18
Professional, scientific & technical services	–6.93	–5.38	All industries	–7.15	–6.30

Source: ABS 2020 cat. no. 6291.0.55.003.

[9] Direct tourism accounts for a relatively large share of GSP (3.7 per cent) and employment (5.8 per cent) in Queensland, compared with the rest of Australia. Nationally, direct tourism is worth 3.1 per cent of GDP and 5.2 per cent of employment (Austrade 2020).

Young workers, female workers and lower skilled workers have experienced the greatest fall in employment

Figure 4.4 shows the decomposition of the change in employment by age and gender in Queensland and Australia. It clearly shows that people aged under 35, have suffered the bulk of overall job losses, though Queensland males between 25 and 35 have fared better than their female counterparts. In Queensland, females in the 25-34 age group have been most heavily affected by employment losses.

Figure 4.4 Change in employment, January 2020 to May 2020, by gender, Queensland (bottom) and Australia (top)

Notes: The scale for Queensland is a fifth of the scale for Australia, approximately equal to its proportion of the Australian population.
Source: ABS 2020 cat. no. 6291.0.55.001.

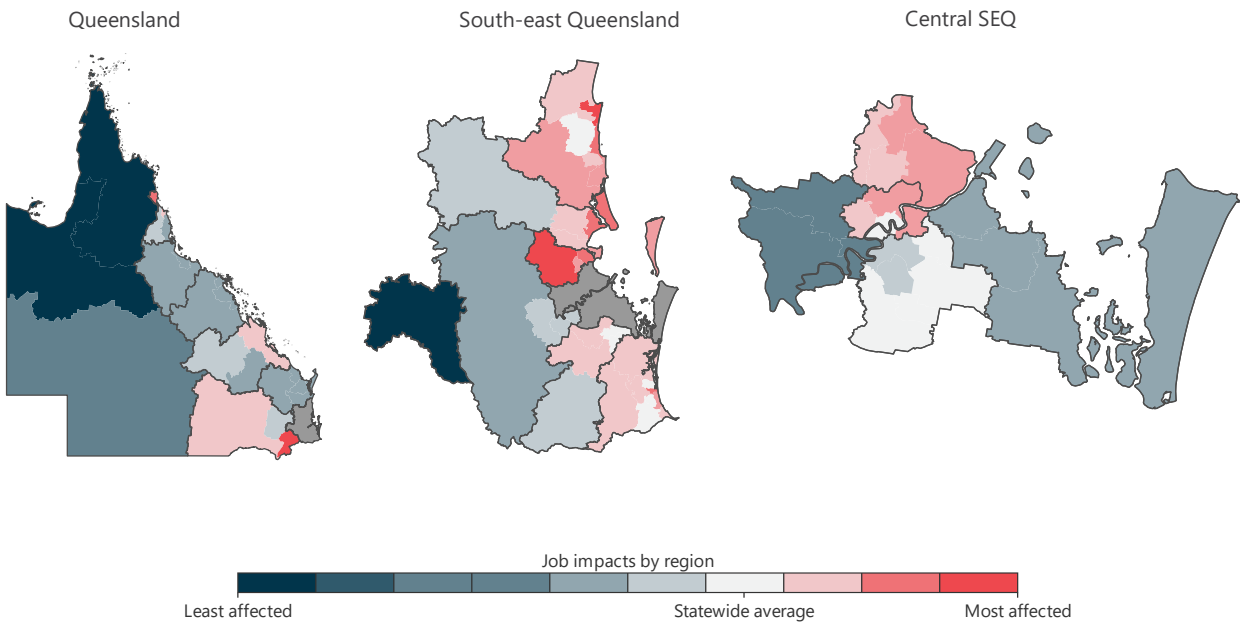
This is consistent with the fact the younger people and females make up a larger proportion of the workforce in the most affected industries (such as accommodation and food services) and are more likely to be employed either casually or part-time (ABS 2020 cat. no. 6291.0.55.003). The disproportionate impact on young people is likely to have long-term implications, as young people entering a weak labour market can experience damaging consequences for their career, resulting in reduced overall career earnings (Kahn 2010).

Tourism dependent regions have recorded the worst job losses

The economic impacts of COVID-19 are likely to vary widely by region reflecting differences in industry structure. Regions with a large tourism presence are likely to be most affected. While the ABS has published labour impacts on a labour market region basis (ABS 2020, cat. no. 6160.0.55.001), these cover large and often diverse areas, particularly in regional Queensland. For example, both the mining town of Moranbah and the tourism dominated Whitsundays fall within the same statistical area. The Commission has developed its own small area employment impacts (Figure 4.5).[10]

[10] The estimate combined the published SA4 payroll impacts, the industry specific industry impacts (in Table 4.1) and the industries of employment data from the most recent census.

Figure 4.5 Experimental estimates of small area employment impacts



Notes: Areas in blue are affected less than the state average, while areas in red are affected more than the state average. A description of the construction of the index can be found in Appendix B. Grey lines indicate SA4 boundaries.
Source: ABS 2020 cat. no. 6160.0.55.001; ABS 2016 Census Data, cat. no. 1270.0.55.001; QPC estimates.

These estimates highlight that the largest adverse employment impacts have been felt in tourism-dominated areas, with the worst affected areas being Port Douglas-Daintree, Surfers Paradise, Maroochy, Noosa and Broadbeach-Burleigh. Cairns and Brisbane's Inner East have also been heavily affected.

4.2 The impacts are likely to be long lasting

Restrictions may continue until a vaccine is developed

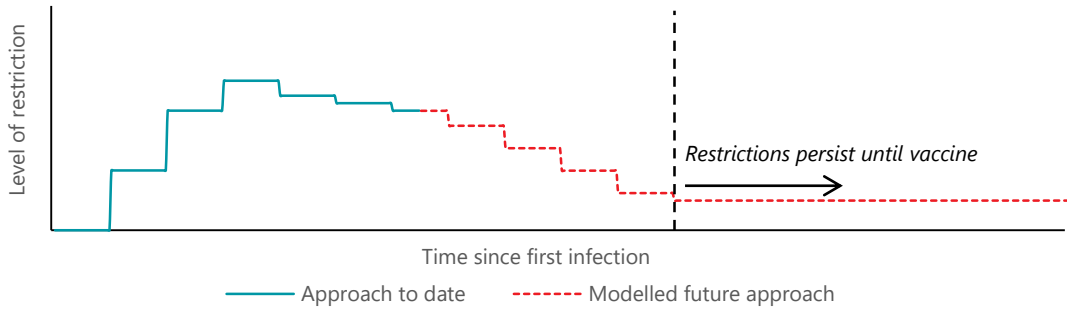
The domestic response aimed to stop the spread of infections by introducing strict social distancing measures, prohibiting some business and community activity and tightly controlling the movement of people. Significant uncertainty remains about future domestic control measures, including when and how international travel may be allowed, and the likelihood of future outbreaks and how governments might respond to them.

In order to understand how future domestic policy might play out, the Commission has constructed a simple epidemiological model[11] based on international literature. The model parameters are based on available literature and have been adjusted to fit the existing government and community responses in Queensland.[12]

The modelling suggests that, under current policy settings, to minimise the risk of significant loss of life some level of restrictions on economic and community activity will be imposed until a vaccine is widely available. The modelled approach suggests that restrictions will continue to be imposed until the virus can be contained to the greatest feasible extent. After containment, restrictions will be reduced, but not fully wound back to avoid a novel outbreak (Figure 4.6).

[11] A technical description of the model can be found in Appendix A. Note that the model is relatively simple and does not account for all factors. For example, no provision was made for either the ongoing health impacts of the virus or for mental health impacts of isolation. Model parameters are based on evidence available at the time of writing.
[12] Commission analysis suggests that decision makers are implicitly using a statistical value of life that exceeds that recommended for use in standard cost-benefit analysis (PMC 2014).

Figure 4.6 Stylised depiction of activity restrictions over time



Notes: Figure is a stylised depiction of one set of modelling outcomes; it represents the path if the controls implemented remain successful.
Source: QPC estimates.

While it is difficult to make any precise estimates given the uncertainties around key parameters, the modelling suggests that to avoid any significant loss of life, decision-makers may impose ongoing restrictions—the combined cost of the virus and the restrictions could be in the order of 6 per cent of GSP under worst case scenarios.

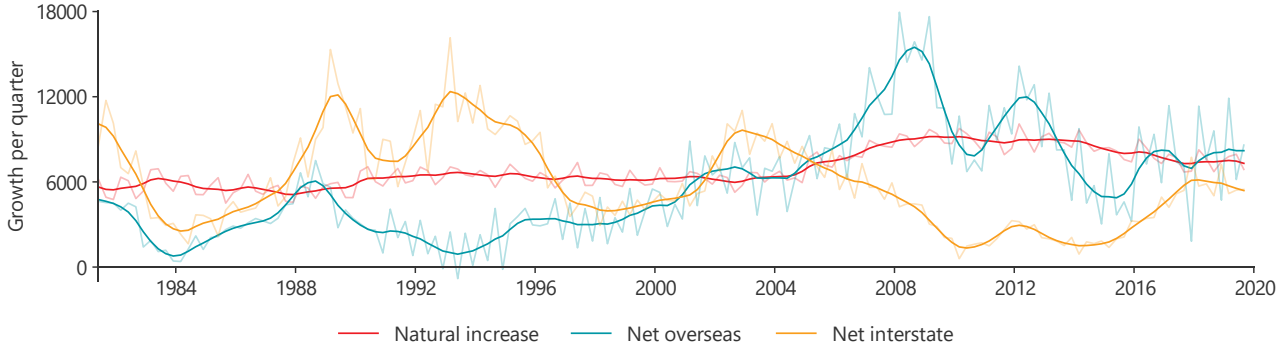
Population growth will be significantly lower while restrictions continue

The impact of COVID-19 is likely to significantly reduce overseas immigration while restrictions are in place, as well as significantly dampen interstate migration.

Migration is a major contributor to population growth in Queensland. Over the three most recent years of data, overseas and interstate migration has driven around 38 and 26 per cent of net population growth in Queensland, respectively (Figure 4.7). Given the likely decline in migration, this indicates net population growth in Queensland is likely to be lower for the foreseeable future.

Nationally, the Australian Treasury has forecast both natural and migration population growth to fall but remain positive. The forecast growth of 1.2 per cent in 2020–21 and 0.6 per cent in 2020–21 would represent the lowest rate since 1916–17 (Australian Treasury 2020, p. 27).

Figure 4.7 Net population growth by source, Queensland, 1981–2019



Notes: Trends have been added for visual clarity and are illustrative only.
Source: ABS 2020 cat. no. 3101.0; QPC estimates.

Reduced levels of migration will reduce growth in general household consumption and investment demand. The reduction in skilled migration also poses a risk to productivity growth. Research shows Australian firms that sponsor temporary skilled migrants perform better than non-sponsoring firms, in terms of growth in turnover, employment and labour productivity (Rafi & Talgaswatta 2018).

Since population growth is a key driver of dwelling investment it is likely that the building and construction industry will be affected—nationally, the expected drop off in population growth will equate to around 80,000 fewer houses demanded over this and the next financial year (Mellor, quoted in Cranston 2020b).

Forecasts suggest recovery will be challenging

The most recent forecasts of global growth suggest the downturn will be large, with a slow recovery:

- In its most recent forecast (June 2020), the World Bank predicted GDP to decline by 5.2 per cent worldwide and 7.0 per cent in advanced economies. They predict that the COVID-19 induced recession will be more severe than any since World War II. The economies of Australia's two largest trading partners, China and Japan, are both expected to slow significantly, with forecasts for 2019–20 being 1.0 and -9.1 per cent, respectively. Previous forecasts have been repeatedly downgraded and the World Bank has noted that there is a strong chance of further downgrades (World Bank 2020).
- The OECD (June 2020) suggested that any global recovery will be gradual and vulnerable to the effects of new waves of infection. They considered two scenarios, depending on whether a second wave is avoided. Over 2020, in the single-hit and double-hit scenarios respectively, world GDP is forecast to decline by 6.0 or 7.6 per cent and OECD GDP by 7.5 or 9.3 per cent. Even in the 'single-hit' scenario, the OECD suggested five years of income growth will be lost by 2021. They further note that 'scarring impacts from job losses are likely to be felt particularly by younger and low skilled workers' (OECD 2020a).
- The IMF (June 2020) has predicted that world GDP will decline by 4.9 per cent in 2020, and grow 5.4 per cent in 2021, though it has noted a 'higher than usual' level of uncertainty surrounding forecasts. Advanced economies are forecast to see the largest contractions, with growth of –8.0 per cent on average in 2020 and 4.8 per cent in 2021. Chinese GDP is predicted to grow by 1.0 and 8.2 per cent in 2020 and 2021. The IMF also forecast an 11.9 per cent contraction is global trade (IMF 2020).

Both the Reserve Bank of Australia (RBA) and the Australian Treasury projected large and protracted downturns in the Australian economy:

- In August, the RBA reported that the Australian economy is experiencing the biggest economic contraction since the 1930s. Under its baseline scenario, the Australian economy is expected to contract by about 6 per cent over 2020, before growing by about 5 per cent over 2021 and 4 per cent over 2022. The unemployment rate is expected to peak at around 10 per cent by the end of 2020, consumption is estimated to have contracted by 10 per cent over the first half of 2020 and business investment is expected to decline significantly this year. The RBA notes the nature of the speed of the economic recovery remains highly uncertain and depends on the containment of the virus (RBA 2020).
- The Australian Treasury (July 2020) has projected GDP to fall 7 per cent over the June quarter (the largest quarterly contraction on record) and 3.75 per cent over 2020. The unemployment rate is expected to peak at 9.25 per cent in the December quarter and will 'remain elevated for some time.' Treasury further commented that the 'evolution of health crisis will shape recovery trajectory' (Australian Treasury 2020).
- The Australian Treasury (July 2020) has stated that the large declines in tax receipts and increases in payments has seen a major deterioration in the budget position, with estimated deficits of $85.8 billion in 2019–20 and $184.5 billion in 2020–21.
- Queensland is forecast to have an operating deficit of $5.9 billion in 2019–2020 and $8.5 billion in 2020–21 (Dick 2020).

Evidence from previous crises suggests the recovery could be slow

Although the current crisis is different from those that have preceded it, some inferences may be drawn by examining how long it took for economic activity to recover from previous crises.

Table 4.2 shows the time taken for several economic indicators to recover from both the 1990's recession and the GFC. Past experience suggests that the economic recovery from COVID-19 will take some time—for example, the employment-to-population ratio[14] took around almost a decade to recover after the 1990's recession and did not ever fully recover after the GFC.

Table 4.2 Time taken for selected economic indicators to recover, Queensland and Australia

Indicator	Crisis	Pre-crisis peak	Time taken to recover
Private capital expenditure[1]			
Queensland	90s recession	Dec-1989	4 years, 1 quarter
	GFC	Dec-2008	2 years, 1 quarter
Australia	90s recession	Jun-1989	1 years, 2 quarters
	GFC	*No clear decline*	—
Employment-to-population ratio[2]			
Queensland	90s recession	Dec-1989	9 years, 1 month
	GFC	Aug-2008	*Not recovered*
Australia	90s recession	Nov-1989	13 years, 1 month
	GFC	Aug-2008	*Not recovered*
Real GDP per capita[3]			
Queensland	90s recession	1989–90	≥ 3 years
	GFC	2008–09	4 years
Australia	90s recession	1989–90	3 years
	GFC	2007–08	2 years

1 'Private capital expenditure' is seasonally adjusted chain-weighted index for all assets provided quarterly. 2 Employment-to-population is seasonally adjusted series and monthly. 3 Real GDP per capita is annual. The GSP series for Queensland only begins in 1989–90, which is taken as the pre-crisis peak as it corresponds to the national equivalent.
Note: 'Recovered' refers to reversion to their pre-crisis peak.
Sources: ABS 2019 cat. nos. 5625.0; ABS 2020 cat. no. 6202.0.

Commission modelling suggests only 20-30 per cent of a shock is recovered each year

The Commission has developed experimental estimates of the rate at which Australia's state (and national) economies return to trend GDP after a deviation. The modelling was undertaken using an error correction model (ECM) on industry level data for each state and territory from the early 1990s onwards. That modelling suggests that nationally and in Queensland between 20 and 30 per cent of potential output is recovered in the year following the shock. By the end of the third year after the shock, between 49 and 66 per cent of output is recovered.

[14] Note that while this is a broad measure of the both labour force participation and employment, it can be influenced by demographic changes over long periods of time—for example, through the 1960s and 70s, the employment to population ratio systematically declined for men and increased for women.

5. Principles for building productivity and resilience

The health response to COVID-19 has resulted in severe economic impacts affecting both the ongoing viability of businesses and resulting in significant job losses. Governments have responded with short-term stimulus packages to ameliorate these impacts. However, as the health crisis passes the attention of policy will shift from supporting the economy to calibrating longer-term economic responses. A key question for this policy debate will be what can be done to improve the resilience of the economy to future shocks and improve long-term productivity and economic growth, and ultimately, living standards. As noted earlier, resilience concerns how readily firms and households recover and adapt after an economic shock.

Achieving flexibility with which economic resources move between different uses is a key objective in framing longer-term measures to boost resilience. Flexibility builds resilience by enhancing the ability of the economy to adapt to shocks and improve productivity growth. A more flexible economy will move resources faster between industries and produce the outputs most valued by the community, thereby minimising the length of time resources are left unemployed and lessening the impact on confidence and consumer and business investment.

Flexibility is designed to enhance the functioning of markets. There are circumstances in which markets are unable to function in the best interests of the community (market failure). In such circumstances, direct intervention by government may be warranted where it can improve outcomes. However, to be successful, direct intervention requires an accurate diagnosis of the market failure and a timely and proportionate policy response. This is difficult to achieve in practice and requires a great deal information that is typically not available or is difficult to interpret.

Like productivity and economic growth more broadly, firms, workers and the community are the fundamental drivers of a resilient economy. That said, the ability of firms and workers to respond to market changes and shocks is strongly influenced by governments, through the rules and practices applied throughout the economy that govern the exchange of goods and services, and also through taxing and spending decisions.

Government can influence the resilience of the economy through three main channels (adapted from Banks 2012):

- flexibility—the ability to make changes, adapt and innovate
- capability—the human capital, infrastructure, knowledge systems and institutions to devise productivity-enhancing changes and support them effectively
- incentives—a policy environment that encourages firms to be competitive and innovative, while not inhibiting better performers prevailing over weaker ones.

In addition to influencing private sector decisions, government also directly controls a significant proportion of economic resources. One of the lessons from earlier economic reforms in Australia was that change affecting the private sector needs complementary reform in public sector. How revenue is raised, the timeliness and location of infrastructure investment and the efficiency and effectiveness of delivering government services, whether directly or under contract, all affect productivity and resilience.

Building resilience will be supported by removing or changing rules and practices that impede flexibility and impose costs without any significant public benefit. The endpoint will be a more resilient and productive economy. A set of principles for building productivity and resilience is presented in Box 5.1.

Box 5.1 Building productivity and resilience

- Supporting a competitive business environment:
  - Regulation is limited to those areas where it is the necessary, effective and efficient option.
  - Taxes minimise distortions to markets—unless designed to correct market failures.
  - Infrastructure supports resilience and delivers a net benefit to the community (either through improved utilisation or efficient investment).
  - Industry policy fosters a competitive business environment, encourages innovation, and limits firm-specific assistance.
- Removing unnecessary impediments to business activity, employment and investment:
  - Transaction costs and other impediments to the flow of capital and labour are removed or minimised to support business transformation and resilient labour markets.
  - Policy and regulation is designed to:
    - directly target policy problems and account for costs to business and the community
    - provide a stable, robust and transparent policy environment
    - support the effective operation of markets through sharing of data and information.
- Ensuring effective and efficient government spending and service delivery:
  - Service delivery is based on incentives to deliver outcomes to consumers (the community), transparency, accountability, evaluation and continuous improvement.
  - Government procurement processes foster competition and reduce the cost of transacting with government.

The remainder of this paper identifies some key areas where these principles could be applied by state governments. It is not intended to be exhaustive or identify specific policy actions, which have been assessed, or should be assessed, in other reports and inquiries.

5.1 Efficient regulation

Regulation is an important mechanism for ensuring that markets operate in the interests of the community. Where regulation addresses a market failure (such as limiting monopoly power or correcting information asymmetries), regulation can work to increase economic growth and help to build resilience.

While regulation can provide a range of social and economic benefits, it is costly—the available evidence suggests the costs to Queensland businesses of complying with state-based regulatory requirements is equivalent to around 1-2 per cent of GSP (or $3.5 to $7 billion per year).[15] It is also expensive to make, administer and enforce regulation—the Commission estimates it costs between $2.6 and $3 billion (before deducting fees) to administer and enforce regulation in Queensland.[16] Moreover, the volume of regulation is growing—in 2013, Queensland had over 72,000 pages of regulation and 265,000 regulatory requirements (QCA 2013). An additional 300 Acts and 1,600 pieces of subordinate regulation have been passed since (Queensland Government 2020b).

Given the significant costs regulation imposes, care needs to be taken to ensure that it is efficient, fit for purpose (in achieving its objective) and remains relevant. If it is not, the key economic coordination mechanism of our economy (that is, markets) will not work as effectively in the interests of the community. Modest improvements in the efficiency of regulation can boost resilience (Box 5.2).

Box 5.2 Increasing the efficiency of regulation can boost economic resilience

In a cross-country comparison of crises Bjørnskov (2016) found that countries with more efficient regulatory regimes are more likely to experience smaller economic contractions and shorter recoveries. The author argues this occurs because crises cause significant disruption to normal activity, making existing capital and labour resources temporarily redundant. Efficient regulatory regimes allow resources to be rapidly reallocated to respond to the crisis, or be redeployed to newly productive opportunities, thereby limiting the economic and social costs of the crisis.

Business licensing is a significant source of state government regulation that imposes rules and requirements on many businesses. It includes licenses, registrations, notifications, authorisations, accreditations, permits, approvals and certifications. Licensing schemes not only burden businesses with compliance activities but they also impose large economic costs on the broader community. This was the case for the taxi industry, where excessive regulation resulted in restrictions on both the supply and flexibility of transport services (Box 5.3).

[15] Commission estimates based on studies by (Australian Government 2014; Australian Treasury 2014; DAE 2014; PC 2006; QCA 2012).
[16] Commission estimates based on a review of regulatory agency annual reports.

Box 5.3 Taxi regulation—a case of excessive regulation

Until recently, the taxi industry was heavily regulated in Australia. Regulations covered the number of taxis, prices, industry structure and service quality. Many of these regulations were retained, despite numerous Australian and international reviews finding that the taxi industry was over-regulated and, in particular, that the barriers to entry the taxi licence system created came at a net cost to the community (Abelson 2010; Henry et al. 2010; OECD 2007; Office of Fair Trading 2003; PC 1999).[17]

Restrictions on the number of taxi licences meant that the industry was unable to respond to demand and resulted in over-inflated licence values—in 2014 standard taxi licences in Brisbane were selling for an average of more than half a million dollars (Minifie 2015). The PC (1999) found that while some regulation to specify minimum levels of safety and service quality were warranted, most of the existing regulation did not have a strong rationale, and the costs resulting from restricting barriers to entry were heavily borne by consumers — for example, excess fares in Sydney were almost $300 million per year (Abelson 2010).

There are several mechanisms that can be used to reduce the costs of regulation. These include:

- Market-based approaches, such as taxes, auctions, and tradeable permits, have been shown to impose a lower economic cost than prescriptive interventions (Abito 2019; Muller & Mendelsohn 2012; Raufer 1996). For example, the Victorian Government's BushTender approach, initiated in 2001, is an auction-based approach to vegetation management on private land that was found to be robust, relatively simple to apply and delivered more cost-effective allocations of public funding than other grant mechanisms (Rolfe et al. 2017).
- Non-regulatory measures, such as voluntary codes or government information provision, allow consumers, employees and businesses to directly manage risks and can deliver desired regulatory outcomes with reduced compliance costs. They have led to large changes in behaviour. For example, education campaigns have been shown to be effective at reducing plastic waste in marine environments (Willis et al. 2018)
- Improvement of the administration of regulation by adopting leading regulatory practices, such as streamlined approval processes, and better targeted, risk-based compliance checking and enforcement processes have also been used successfully to reduce regulatory burden.

While the payoffs are likely to be large, improving existing regulation is challenging and is likely to require a comprehensive approach to address the issues raised by business. Reports from the Productivity Commission, Queensland's Better Regulation Taskforce in Queensland, and business groups such as the Queensland Chamber of Commerce and Industry have all identified broad challenges for business such as the complexity of regulation, difficulties in identifying and understanding regulatory obligations, cumulative burden and delays and other problems with the administration of regulation (BRT 2017; CCIQ 2013; PC 2011).

[17] Following the National Competition Policy review, only one jurisdiction (the Northern Territory) deregulated entry into the taxi industry, then reregulated at a later stage (Nicholls 2011).

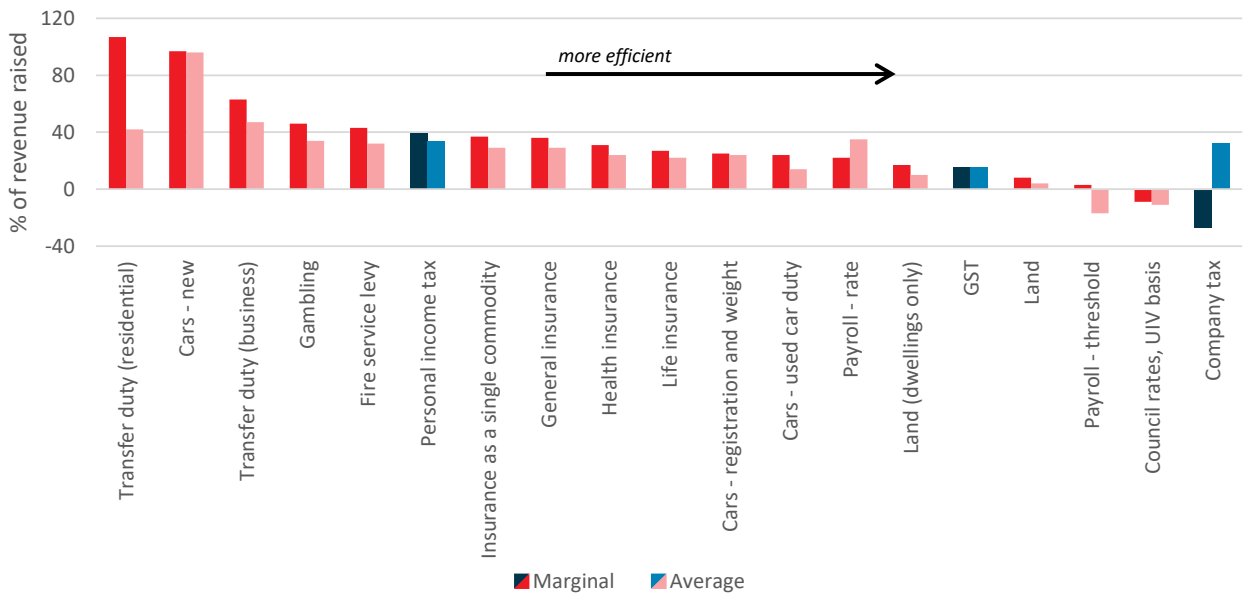
5.2 Tax policies to encourage flexibility

Taxes affect resilience when they reduce labour and capital market flexibility. Taxes reduce flexibility in capital and labour markets by increasing transaction costs, such as the cost of transferring assets, ultimately making adjustment to shocks more costly.

By distorting investment and labour market (e.g. hiring) decisions, taxes result in inefficiencies.[18] There have been several attempts to understand how taxes affect welfare (for example see Henry et al. 2010; Nassios et al. 2019), with these studies showing that different taxes have widely varying impacts (Figure 5.1).

States have access to some efficient tax bases but make relatively little use of them. Most states and territories, including Queensland, rely heavily on transfer duties, despite it being one of the least efficient taxes. In contrast, land tax is one of the most efficient taxes, though it is not heavily utilised by state governments.[19]

Figure 5.2 Reduction in excess burden associated with tax reform



Notes: State taxes are in red, federal taxes are in blue. Excess burden refers to the economic loss associated with a dollar of revenue raised; average excess burden is the overall excess burden relative to revenue, marginal excess burden is the excess burden with each additional dollar. Excess burdens were estimated in a NSW context; in a Queensland context, they should be seen as general indicators of the excess burden of a tax, rather than point estimates. The negative excess burden associated with company tax is due to an increase in domestic incomes owing to taxes on foreign corporate entities.
Source: Nassios et al. 2019.

A general shift towards a more efficient tax base would increase growth and improve resilience. Research shows that removing transaction taxes will have the greatest impact.

Transfer duties such as conveyancing duty on property, impose a tax on the transfer of major capital items (including houses, cars and businesses). Because they increase the cost of transferring assets, they impose rigidities on capital markets, and in the case of conveyancing duties, decrease labour mobility (Henry et al. 2010). Recent research from Victoria University found there were large excess burdens for both commercial and residential property transfers, with each additional dollar of revenue raised resulting in a loss of welfare equivalent to $0.63 and $1.07, respectively (Nassios et al. 2019).[20] The Henry Tax review made a similar finding, suggesting that transfer

[18] The exception is when taxes are used to internalise an externality, such as in the market for pollution.
[19] The ACT is the exception.
[20] The same study estimates that each additional dollar of land tax raised would reduce welfare by only $0.08.

duties should be replaced with a broad-based land tax (Henry et al. 2010). The NSW and Victoria governments are currently considering replacing stamp duty with land tax, in response to calls for broader tax reform in light of the COVID-19 pandemic (Durkin 2020).

While there is long-standing evidence that the composition of state taxes could be improved to increase their efficiency, there has been limited change in the last two decades. Most significant improvements in state tax bases occurred when the Commonwealth and the states reached agreement on a package of reforms which included abolition of some inefficient state taxes in 2000.[21] In the absence of nationally agreed reforms to state taxes, reform efforts that focus on general principles of tax reform—broadening tax bases, lowering rates and raising a greater proportion of revenue from taxes with lower economic costs—may prove fruitful.

5.3 Infrastructure that supports resilience

Public infrastructure can support resilience by increasing productivity, for example by reducing travel time or providing efficient access to inputs such as energy, water and technology (PC 2014c). Infrastructure can also support resilience by ensuring continuity of service during a crisis, and by enabling flexibility and adaptability—for example, by enabling competition or encouraging technological progress (Jotzo et al. 2020). Under Australia's leadership, the G20 has developed a quality infrastructure agenda which considers issues of building resilient infrastructure against disaster risk and environmental change (G20 2019).

Governments have traditionally taken responsibility for a range of public infrastructure where market failures mean there may otherwise be under-provision or where there are equity considerations. When the right projects are selected, government can help to both support resilience and economic growth. In contrast, poor investment decisions can be a burden to the community, as unnecessary or poorly designed infrastructure requires further investments to be made to maintain or replace it.

While there has been increased involvement of the private sector investing in and operating public infrastructure, for the most part projects are funded through increased taxation or borrowing. Even where private financing is used, ultimately the community must pay, either through user charges and/or taxes when governments provide guarantees or concessions (PC 2014c). This means that investment decisions impose costs on the community, which need to be offset by any benefits they provide.

Public infrastructure investment is complex — projects that do not have a strong business case, established through a rigorous and independent assessment, run the risk of undermining productivity in the long run.

Large infrastructure projects are vulnerable to large cost overruns. Research on large infrastructure projects have found that they tend to suffer from optimism bias, with assumptions during project planning typically underestimating costs and overvaluing benefits, resulting in poor value for money (see Box 5.4) and completed projects that often fail to realise net benefits to the community.

The Grattan Institute examined all Australian transport infrastructure projects over $20 million between 2011 and 2016. It found that nearly a quarter of projects had significant cost overruns, totalling $28 billion. The primary cause of these overruns was announcements made before a full analysis had been completed—only 32 per cent of projects were announced early, but these accounted for 74 per cent of the total value of cost overruns (Terrill 2016).

[21] Not all states adhered to the timetable for the abolition of certain state taxes, as agreed in the Intergovernmental Agreement Implementation (GST) Act 2000 (Garnaut 2020; Novak 2011).

Box 5.4 The Building Education Revolution Program

The Building Education Revolution (BER) Program was a $16.2 billion component of the second economic stimulus package announced in response to the GFC in 2009. The aim was to stimulate employment growth and improve school infrastructure throughout Australia (Australian Government 2010).

Multiple assessments of the BER found issues of value for money and cost blowouts:

> *[T]he BER Program represents a 'case study' of how governments should not pursue large-scale public expenditure programs… the "value for money" criterion was not defined in the revised 2009 BER Program Guidelines nor was it a requirement for education authorities to report on "value for money" or the "quality" of the built outcomes (Lewis et al. 2014)*
>
> *When the cost and timeliness of state and territory projects are considered as a whole. … it is clear value for money has not been achieved in the government systems (Orgill 2011)*
>
> *It is clear that the NSW Government placed too great an emphasis on the rapid delivery of P21 projects, to the detriment of the quality and cost of these projects. The result is that value for money has not been achieved in numerous NSW public schools (Parliament of New South Wales 2010)*

In a survey[22] of school principals, less than half agreed that the use of BER funding represents value for money (ANAO 2010, p. 192).

Further, the BER program's economic stimulus purpose was limited, given that the expenditure occurred after the worst of the impact of the crisis had already hit the Australian economy.[23] An ANAO audit found there was a delay in commencement of construction activity, reflecting the ambitious targets for the program (ANAO 2010).

Bringing forward infrastructure spending has long been the response of decision makers to a crisis, and it is likely that governments will look to do so for the current crisis.

Evidence from previous downturns suggests that infrastructure projects that meet a genuine economic need aid economic recovery and create employment. They can provide an opportunity to improve productivity, social outcomes and future resilience (Bice & O'Connell 2020; Jotzo et al. 2020).

This means that robust project selection during crises is essential to promoting Queensland's long-run economic growth and resilience (Anderson et al. 2019; Mossop 2020). A robust and transparent project selection process is likely to improve the chances of success.[24]

[22] Sample size of 610.

[23] A significant portion of the BER program expenditure occurred during restrictive monetary policy (Lewis et al. 2014).

[24] Several state and national processes aim to support infrastructure decision-making. For example, Infrastructure Australia's Infrastructure Priority List, updated in August 2020, considered the pandemic's effect on the use of infrastructure and identified priority investments to grow the economy (Infrastructure Australia 2020). Building Queensland develops business cases for major infrastructure projects and helps government determine infrastructure priorities, and the Queensland Reconstruction Authority's Resilience and Mitigation Investment Framework provides guidance on effective investment decision-making and prioritisation to support disaster resilience and mitigation across Queensland (QRA 2019, p. 7).

Box 5.5 Possible criteria for assessing infrastructure investment during crises

Evidence from previous downturns suggest that robust project selection is crucial to ensure that projects selected during a crisis will not only help recovery, but also work to lift productivity, foster sustainable growth and build resilience. Criteria likely to increase success include:

- Clear net public benefit—first and foremost, there must be a demonstrable net benefit from proposed infrastructure projects. This assessment should include all relevant costs and benefits, with a focus on long-term impacts. For example, benefits might include:
  - Social benefits—improving equality such as equal access to public services, improving health outcomes etc.
  - Resilience—to natural disasters, climate change, possible outbreaks of COVID-19 and other shocks
- Timeliness—spending measures have been shown to be most effective during the peak of a crisis, rather than during the recovery. This means any infrastructure projects that have short lead times (so-called shovel-ready projects) are most likely to provide effective stimulus in a crisis.
- Right response—not every crisis is the same and so responses may need to vary. As discussed earlier, the COVID-19 pandemic has had a disproportionate impact on the services sector. This means that infrastructure spending alone may not be as effective at returning the economy to full capacity—accountants, flight attendants and bartenders whose jobs have been lost are unlikely to make a swift transition to a traditional building site due to different skill requirements.
- Relevance—to ensure they will support future needs, projects need to be assessed against likely future conditions, including changes induced by a crisis—for example, the COVID-19 pandemic is likely to slow population growth (see, Figure 4.7, p. 14), meaning projects that assume a rapidly expanding population may no longer stack up. Moreover, projects which fail to accommodate persistent changes in consumer and business behaviour may lose relevance in the post COVID-19 economy.
- Robust—projects are likely to be successful where a range of reasonable alternative proposals have been assessed and tested—this means that fast tracking a project that has already been socialised and been through a rigorous evaluation program will minimise risk of failure.
- Risks—have been identified and costed, including transition risks where changes in technology, policy or sentiment may occur.

Governance is also important—covering transparency and accountability, community engagement, publicly reporting on the assessment and prioritisation of projects.

Adapted from Hijzen et al. 2017; Infrastructure Australia 2017; Jotzo et al. 2020.

Improved management and utilisation of existing assets, particularly as an alternative to new infrastructure spending, has potential for increasing efficiency, growth and resilience. A key approach used to maximise the efficiency of infrastructure utilisation is to ensure that user charges reflect the cost of service provision. As noted by Infrastructure Australia (2013), user charges have:

> *reduced the call on government funding and led to more efficient management of infrastructure assets. Correctly applied, user charges can help to balance supply and demand and improve the identification of real infrastructure needs as distinct from 'wishes'.*

There are also a number of non-price strategies that can be used to maximise asset utilisation, including enhancing peak capacity and effective throughput, applying demand management and optimising availability (or reducing downtime) (World Economic Forum 2014).

Infrastructure Australia has identified several reforms that would increase the productivity of existing infrastructure (Box 5.6).

Box 5.6 Five key reforms to increase infrastructure efficiency

Independent modelling commissioned by Infrastructure Australia shows that progressing vital infrastructure reforms could help unlock significant economic potential. Infrastructure Australia analysed the economy-wide impacts on GDP and taxation revenue of five indicative reforms well suited to an incentive-based funding approach:

- Introducing road user charging.
- Reforming the urban water sector.
- Reforming the electricity market.
- Reforming land tax.
- Franchising public transport services.

Infrastructure Australia found, if implemented in full, these reforms could deliver an estimated $66 billion increase in GDP by 2047, and a $19 billion (4 per cent) ongoing increase in tax revenue for the Australian Government and state and territory governments.

Source: Infrastructure Australia 2018.

5.4 Resilient labour markets

Labour market policies and institutions are important for resilience since they shape the sensitivity of employment and earnings per worker to aggregate shocks. They affect the degree to which firms absorb declines in demand through lower profits (by hoarding labour) and/or adjustments in wages and hours worked.

The OECD examined how labour market policies affected resilience after the GFC and found that:

- stricter labour protection makes unemployment more sensitive to shocks and reduces the number of workers hired on permanent contracts during recovery
- coordination of collective bargaining can help to reduce unemployment impacts by facilitating adjustments in wages and working arrangements to avoid layoffs—however, there was no relationship between resilience and the share of workers covered by collective bargaining
- investments in active labour market programs such as job-search assistance, hiring subsidies and training are effective at reducing unemployment in downturns, provided they can be quickly scaled up (Hijzen et al. 2017).

While there has been significant reform to labour market flexibility since the 1990s, several commentators have suggested that the industrial relations (IR) system in Australia is constraining growth. For example, Gary Banks, former chair of the Productivity Commission, has named IR as one of the two policy areas[25] critical for the COVID-19 recovery, judging that Australia's 'idiosyncratic and highly prescriptive system for regulating workplaces impedes firm adjustment and job creation in ways that have become too costly to ignore' (Banks 2020). For example, complex awards can reduce flexibility and increase the costs, without necessarily improving outcomes for workers.

The 2015 inquiry into workplace relations identified major deficiencies in Australia's award system, noting that the system is highly prescriptive, consisting of 122 industrial awards prescribing in detail the pay rates, job

[25] The other policy area is regulatory impediments to innovation.

classifications and work rules across most of Australia's workforce (PC 2015c). While industrial relations policies are largely under the direction of the Australian Government, there are several policy areas that come under the direct purview of state governments that can influence labour market resilience. These include

- occupational licensing,
- procurement policy,
- skills formation.

Occupational licensing

Twenty per cent of workers in the economy are required to be licensed or registered, while there are in excess of 800 licences in manual trades across states and territories (Burton 2020). In 2008, Queensland had the highest number of occupational licensing schemes in Australia with around 70 licensing regimes (PC et al. 2008, p. 491). While changes have occurred since—some reducing and some increasing occupational licensing requirements—evidence suggests the coverage of occupational licensing in Queensland is substantial. For example, there are more than:

- 84,000 licenses registered to the Office of Fair Trading for 13 license classes as of April 2020 (Queensland Government 2020a)
- 90,000 licensees across over 120 license class types registered with the Queensland Building and Construction Commission (Queensland Government 2019).

While occupational licensing can provide assurance to consumers and help to ensure competence, it can also introduce rigidity into labour markets when it unnecessarily restricts market entry. A number of studies have found that the benefits of occupational licensing are questionable or outweighed by the anticompetitive impact of barriers to entry (Bona 2011; Cox & Foster 1990; Kleiner 2006). Occupational licensing has been blamed for falling rates of productivity growth in the United States (Kleiner & Soltas 2019).

Occupational licensing has been identified as an area where there is considerable scope to reduce burdensome regulation, noting occupational licensing contributes to reduced labour mobility across state borders (Harper et al. 2015; PC 2008, 2014b; QCA 2015). More recently in response to the pandemic, Australian Treasury has announced it will be working with the states to simplify occupational licensing and promote national recognition of qualifications (Burton 2020).

Procurement policy

The way government procures services can influence labour market flexibility, change behaviours and affect competition. For example, given the scale of public infrastructure projects, minimum conditions can affect negotiations on private projects. The QCA (2015, p. 336) found that preferential procurement policies can reduce labour productivity and increase the cost of labour and capital. And poor infrastructure procurement processes have been estimated to cost governments approximately $239 million a year (DAE 2015). While preferential or conditional procurement policies may provide benefits, understanding their costs is essential to ensure they do not result in unintended consequences.

Skills formation

Education and training that is responsive to changes in market demand for skills has a key role in building resilience. The existence of a flexible, multi-skilled labour force acts as a shock absorber to external shocks, enabling a smooth shift of resources from one sector to another (Briguglio et al. 2008; Green et al. 2019). Having a wide range of occupations and skills can make it easier for economies to reorganise around new activities to allow growth (Martin 2016). Skills formation is strongly linked to productivity growth, and as such can improve standards of living.

The Productivity Commission argues that, given rapid technological change and an ageing population, the education and training system needs to be responsive and agile enough to teach new skills quickly and efficiently in order to avoid unemployment, underemployment and lower income growth (PC 2017b). It argues there are reform opportunities to:

- Ensure that the schooling system delivers strong foundations for employment after school, but also for lifetime learning
- Establish systems that better recognise non-formal forms of education that allow faster, cheaper and more flexible methods of acquiring skills and knowledge
- Improve the provision of information to support individuals to gain the right skills and knowledge to connect to future employment opportunities.

Skills formation following a crisis is also important for resilience. Retraining workers following structural change (whether this is in response to an economic shock or is the result of technological change or shift in production) can help build resilience when it allows these workers to re-enter the labour market and prevent the erosion of human capital (OECD 2020b; PC 2017c). Given each crisis tends to affect workers differently, retraining options need to be flexible enough to adapt. For example, unlike other shocks, the current crisis has disproportionately affected workers in retail, arts and recreation and accommodation and food services.

Retraining can be provided through a range of options including formal educational and training or more informal on-the-job opportunities.

While there has been little post-program monitoring of labour market programs, the PC (2017c, p. xxiii) found that wage subsidy schemes appear to perform better than other schemes at getting people back into the workforce. This is because wage subsidy schemes recognise that low-skilled or inexperienced workers may not have the productive capacity that would justify employment at award rates of pay and so work to reduce the cost to employers of hiring and training unemployed workers.

Formal vocational training can also be used to retrain workers, although it has modest success—around 40 per cent of graduates from VET programs do not see any improvement in their employment status after training (QAO 2019, p. 29).

In June 2020, the Productivity Commission released a draft report on the National Agreement for Skills and Workforce Development that supported the creation of a national training entitlement, promotion of 'user choice' led competition and the expansion of access to income contingent loans (PC 2020b).

5.5 An effective industry policy

Governments can provide industry assistance in many ways, including through tariffs on imported goods, direct grants, tax concessions and regulatory restrictions on competition. While this assistance benefits the firms or sectors that receive it, it can impose costs on other parts of the economy (PC 2020c).

Subsidies or concessions provided to one industry need to be paid for through taxes, which increase costs on the rest of the economy. Similarly, protections afforded to industry have been shown to significantly reduce efficiency of protected industries, resulting in higher costs and/or lower quality of goods and services (Warwick 2013).

Industry assistance may dampen the transition of resources into more efficient uses by protecting incumbent firms and impeding business dynamism. Entrepreneurship and entry of new firms into the market are important drivers of job creation and long-term economic growth. Entrepreneurs and new firms also have an important role in absorbing unemployed resources in the recovery period following a crisis during which firms and jobs may have been lost. New firms that are more productive and more innovative intensify competition and displace less competitive incumbents (creative destruction).

Despite the long-term decline in entrepreneurship in Australia (and other advanced economies[26]), job creation among small young firms is increasing, while medium and large firms have been contributing less to net job creation (Bakhtiari 2019b, p. 4, 2019a, p. 114). This trend signifies the growing important of business dynamism in Australia. Industry assistance impedes this necessary restructuring, ultimately becoming a drag on productivity and job creation. Because of these risks, it is generally accepted that governments should only intervene in markets when it is clear that market failures exist (QCA 2015; Warwick 2013). While market failures may provide a rationale for direct industry assistance measures, it is common for advocates to fail to establish a clear rationale for intervention (Banks 2008).

Even where a clear rationale can be established, it has often proven to be beyond the capacity of governments to intervene effectively in the market (Warwick 2013). For example, a review of government interventions conducted by the World Bank found that there was little empirical evidence to support the use of activist government policies, with government policy playing a limited, if any, role in any industry successes (Pack & Saggi 2006).

The are several reasons that industry policies are difficult to successfully implement in practice:

- Governments often lack the information and capability to assess the need for industrial policies, inviting rent-seeking behaviour from industry (QCA 2015).
- Direct or indirect subsidies aimed at attracting firms with mobile capital to specific locations have typically resulted in bidding wars between jurisdictions (and countries), firms gaming the system to maximise incentive payments and/or attracted firms out-competing existing businesses for skilled labour with little impact on net business activity, but leading to significant costs to government and the community (Banks 2002).
- 'Picking winners' is difficult and getting it wrong can change the structure of the economy—there is little evidence that industry assistance has been able to successfully affect the factors that drive economic growth, such as physical and human capital improvements, technological progress or innovation (QCA 2015).
- Export subsidies have been shown to play little role in facilitating export growth (IC 1990, p. 63).
- Increasing employment or activity in one industry tends to draw labour and resources from other industries (this is especially true of skilled labour), leading to lower production in those affected industries (Henry 2007).
- Protection from competition has been shown to lead to inefficiency, ultimately leading the industry (or firm) to require ongoing support (PC 2014a).

[26] The US and some OECD countries (Decker et al. 2014, 2016; OECD 2016).

Box 5.7 Assistance to Australian Industry—some cautionary tales

The automotive industry benefitted from long-lived trade protection, spanning over 100 years.[27] Despite $30 billion in assistance provided between 1997 and 2012 (PC 2014a), the industry was not viable without ongoing taxpayer support. The last remaining motor vehicle producer in Australia closed in 2017 (DIIS 2020). Despite the closure of their manufacturing operations, the three former motor vehicle producers[28] have all retained ongoing R&D capabilities in Australia and retained highly skilled workers such as engineers, designers and technicians (DIIS 2020). Automotive supply chain companies have also transitioned to other industries, such as truck and bus manufacturing, agriculture and medical technologies (DIIS 2020, p. 23).

In 2001, the Queensland Government provided incentives for Berri Fruit Juice to relocate some of its manufacturing operations from New South Wales and South Australia to Queensland. Earlier, the South Australian Government had similarly provided incentives to Berri to retain manufacturing operations in its state, after the company had been persuaded to shift its headquarters to Victoria. Berri no longer operates in either South Australia or Queensland. Berri closed its manufacturing operations in South Australia in 2010. In 2013, Berri's parent company, Lion Co., announced it would be closing its juice manufacturing site in Queensland and transferring its production to New South Wales due to lower costs.

In 2001, the Australian Magnesium Corporation (AMC) planned to establish the world's largest magnesium smelter near Rockhampton in central Queensland, but had difficulty raising capital from the private sector given uncertainty about the viability of the technology. To assist the $1.3 billion project, the Queensland Government provided up to $354 million in assistance, and the Australian Government provided a loan guarantee of up to $100 million and a $50 million contribution through CSIRO. Work on the project ceased in June 2003 due to significant project cost overruns. The Australian Government was required to fulfil its loan guarantee obligation and pay $90 million to the ANZ Bank. The Queensland Audit Office reported that the Queensland Government lost $70 million in taxpayer funds.

The Home Insulation Program was a $2.4 billion program, as part of wider fiscal stimulus measures introduced in 2009, that provided financial incentives for homeowner-occupiers to have insulation installed. The program was terminated prematurely in 2010 following safety and compliance concerns, and the death of four young workers. Following the termination of the program, the Government introduced several remediation programs, at an estimated cost of $425 million, involving safety inspections, removal and/or repair of insulation. It also provided industry with $56 million in adjustment assistance. Reports identified significant problems with program design and governance as well as instances of non-compliance and potential fraud. In the year following the closure of the program, around 4000 potential cases of fraud were identified, with 100 cases referred for further investigation.

Sources: PC 2011c; QCA 2015

Industry assistance during a crisis

Industry assistance provided during downturns is likely to be most effective when it is targeted during the immediate crisis and is short-lived. OECD research shows fiscal measures that stabilise demand reduce the risk of hysteresis (lags in unemployment that cause downturns to persist), thereby helping to reduce the length of downturns (Hijzen et al. 2017). The same research, however, suggests that fiscal supports are most effective in the immediate aftermath of a shock, rather than during recovery.

[27] The QCA (2015, p. 38) provided a concise history of automotive assistance in Australia.
[28] Ford, Toyota and Holden.

The OECD has recommended that measures targeted at businesses and sectors experiencing the most disruption as a direct result of the pandemic will be the most constructive (OECD 2020b).

The QCA's inquiry into industry assistance found that selective and ongoing industry assistance is generally not a successful policy to generate economic growth (QCA 2015). Because it is difficult to target industry assistance effectively, there is strong risk that longer-lived support that changes behaviour would have unintended consequences—for example, a poorly targeted policy which assists the most affected businesses could give those businesses a competitive advantage against less affected competitors. As a result, the more vulnerable (and therefore more affected) businesses could fare relatively better as a result of the crisis and expand, leaving the industry more exposed to future crises.

Industry assistance for building resilience

Several proponents have argued that industry policy can assist to build resilience by protecting supply chains. For example Jeanne Johns (CEO of chemical manufacturer Incitec Pivot) argues that a domestic gas reservation policy is required to support domestic manufacturing (Evans 2019). While such as policy may assist to avoid some supply chain disruptions, it is likely to increase costs (Box 5.8).

Fully understanding these costs and benefits is critical for ensuring that policies work as intended and do not result in unintended consequences. Poorly planned or implemented policies intended to boost resilience may lower growth and even harm long-term resilience.

Box 5.8 Gas reservation policy

The gas reservation policy provides another example of the trade-off between resilience and growth.

A gas reservation policy sets aside a certain quantity of domestically produced LNG for domestic use. Proponents argue that this supports low and stable gas prices for 'gas-based' manufacturing industries and guarantees a stable supply of a strategic good. At the time of writing, only Western Australia has a gas reservation policy.

Gas reservation policies require producers to sell domestically at lower prices, rather than export at the higher international prices. This means that the extra income that would have been earned through export is foregone, in turn reducing the flow of income to Australian workers and firms involved in gas production. Poorer expected returns on investment for gas producers also weaken the incentive for LNG exploration and development, such that a gas reservation policy may not only reduce income, but also reduce the availability of domestically produced LNG in the long term.

Sources: Aurecon 2020; Barnett 2020; Evans 2019; PC 2015b.

The evidence above suggests that caution is required when considering policies to assist recovery or to build resilience. To avoid creating industry policy that inadvertently harms other industries or firms, results in higher prices for consumers, stifles competition and productivity or fails to achieve its objective, the research suggests:

- Industry policy measures that minimise any distortions to economic activity are likely to have fewer unintended consequences—where possible, industry policy should focus on establishing framework conditions that support activity (including temporarily relaxing regulations) rather than being actively involved in supporting individual firms or sectors.
- Framework conditions that encourage or support firms to adapt and innovate in response to shocks are likely to build economic resilience. Conversely, policies that reduce flexibility or prop up inefficient firms are likely to reduce resilience and make the economy more prone to external shocks.
- Where it is considered that there are valid policy rationales for industry assistance, clear policy frameworks that establish how assistance is intended to work can help improve policy design. For example, when considering

new policies to support future resilience, a full and transparent business case that assesses how the policy would support or hinder future resilience to shocks and what other factors have been considered, can help to ensure that the policy will provide a net benefit.

- Risks associated with selective industry assistance can be minimised through a 'soft' form of industry policy, based on a facilitative, co-ordinating role for government—'While not immune to the dangers of government failure, such an approach, if carefully designed and implemented, has a much higher chance of success than the costly and distortionary selective-defensive industrial policy interventions of the past' (Warwick 2013).
- Transparent reporting of industry assistance measures (and their objectives) can encourage accountability and allow the success or failure of policy to be tested.

5.6 Minimising policy uncertainty through strong public sector governance

Policy uncertainty is associated with increased volatility, thereby hindering resilience (Baker et al. 2016). The ability of government to act reliably and minimise policy uncertainty is necessary to build trust in government. Conversely, trust in government has been shown to improve policy effectiveness and is especially critical in crisis situations, such as natural disasters, economic crisis or political unrest—in the aftermath of major disasters, lack of trust may hinder recovery efforts (OECD 2013).

Public sector governance has been recognised as critical for continuously improving living standards (PC 2017b), and building a resilient economy (Briguglio et al. 2008). Public sector governance refers to the process of decision-making, the exercise of power and the implementation of activities, and encompasses the responsibilities, practices, policies and procedures exercised by an agency (APEC 2011; APSC 2018).

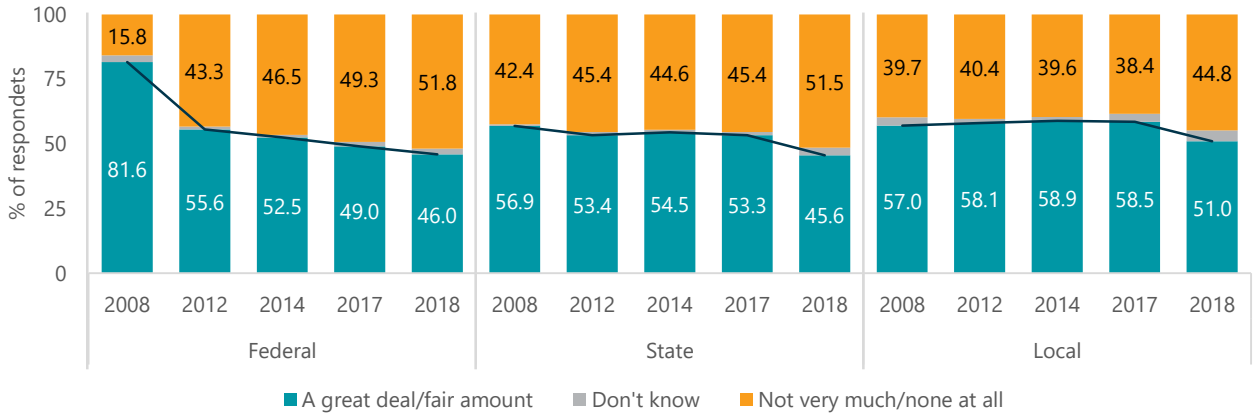
> *[P]olicymaking is a creature of governments, whose institutions, capabilities, rules, operational methods, norms and interactions determine the scope and content of policies. If the fundamentals of governments are not functioning well — say intergovernmental relations or the capabilities of the public sector — then it is hard for even the most proficient of governments to achieve reforms. (PC 2017b)*

Australia has consistently ranked highly on governance indicators relative to other high income OECD countries (World Bank 2013).[29]

Trust in government is important for the effective functioning of government institutions and the implementation of long-term structural reforms (OECD 2013). There has historically been a positive relationship between trust in governments and economic growth (PC 2017b). Some recent research has shown that public confidence and trust in all levels of government has fallen over the last decade (Figure 5.2).[30]

[29] The World Bank's Worldwide Governance Indicators include Voice and Accountability; Political Stability and Absence of Violence; Government Effectiveness; Regulatory Quality; Rule of Law; Control of Corruption.
[30] Other domestic surveys suggest perceptions of lack of integrity and clear guiding values by elected representatives, and disaffection with the adversarial nature of parliaments.

Figure 5.3 Trust and confidence in different levels of government, Australia, 2008–2018



Notes: The question asked in 2008 was 'How would you rate the performance of each of the following levels of Government?' The question asked in all other years was 'Overall, how much trust and confidence do you have in each of the following levels of government to do a good job in carrying out its responsibilities?'
Source: Adapted from Brown et al. 2018

There is a general recognition that the challenges faced by the public service are more difficult than ever, with policy problems becoming more complex, requiring cross-agency collaboration and coordinated solutions (Noceck & Glover 2019; PMC 2019). At the same time there is rising concern about the capability and capacity of the public service to deal with these problems, with several independent reviews finding the public service is progressively losing capability to provide the evidence-based policy advice on which good political decision-making depends (Althaus & McGregor 2019; Banks 2018; Coldrake 2018; IPAA 2012; Per Capita 2019; PMC 2019).

> *There is an irony that, at a time when the role of government as an institution is under assault, and the fabric of the public sector is also itself challenged, the reliance and expectations of the community on government to provide services and tackle problems, especially here in Queensland, have never been greater. (Coldrake 2018, p. 2)*

Banks (2002) suggests that when there is political pressures on public service managers, combined with a lack of scrutiny over decision-making, this can lead to poor decision-making:

> *More generally, when public scrutiny is hindered, there is more risk that an ethos of "can do" managerialism will swamp more cool-headed "should we do?" decision-making.*

In their review of the Australian Public Service's responsiveness to local needs, Althaus & McGregor (2019) found that incentives created by political pressures can create a culture where services fail to respond to local requirements. They found that these pressures tend to increase siloed approaches, a lack of responsibility for failures and culture that leads 'to a tendency to recreate the same solution, or 'throwing the baby out with the bath water' in response to failure, instead of sharing the design hubs and data analytics which could have wider benefits' (Althaus & McGregor 2019, p. 16).

There is a range of processes in place in the Queensland public service that provide the basis for sound governance. For example, the Government's Project Assessment Framework and the Regulatory Impact Assessment system aim to ensure that large infrastructure projects and new regulation, respectively, are informed by evidence and follow best practice.[31]

Notwithstanding this, evidence suggests there is opportunity for improvement:

[31] Other key processes include the Cabinet Handbook, Performance Management Framework and Program Evaluation Guidelines.

- The Commission's inquiry into imprisonment and recidivism found that there was a general lack of transparency around the management of Queensland's prison system. For example, there were few published evaluations of Queensland's in-prison program, and little reporting on outcomes in the publicly operated prisons. The Office of the Chief Inspector of prisons (operating within Queensland Corrective Services) had not published its assessments of prison care since 2013.
- The Queensland Audit Office examined 90 government contracts and found Queensland Government departments were falling short on activities aimed at increasing transparency and accountability of Queensland Government procurement activities, such as the lack of reporting on contract spending (QAO 2018a, p. 4). Out of the contracts examined:
  - 25 per cent were appropriately disclosed.
  - 54 per cent were partially disclosed.
  - 21 per cent were not disclosed at all.

6. Improving service delivery

The efficiency and effectiveness of government provided (or funded) services is an important determinant of economic resilience.

Effective health and education services (among others) play a crucial role in maintaining a cohesive community, building human capital and enabling participation in economic activity—all factors that improve resilience (Briguglio et al. 2008; Hijzen et al. 2017; Kitsos et al. 2019). The effectiveness of government service delivery, including the way services are delivered and respond to changes in need, can have an especially large impact on the resilience of vulnerable communities. Government service delivery, for example, has been a crucial determinant of the resilience of Indigenous communities (QPC 2017; Swiss Re Institute 2019).

The cost of service delivery has an impact on resilience, since government expenditures come at the expense of private sector output—the majority of human services, which make up around 20 per cent of the economy[32] (King 2019) are funded, regulated or provided by government. The costs of service delivery can also affect the ability of government to provide future services making the efficient delivery of services imperative to ensure services can continue to be funded into the future without compromising community living standards and fiscal sustainability.

6.1 Opportunities to enhance government service delivery

Public sector efficiency and service delivery effectiveness in Australia compares well when benchmarked against other developed countries; in 2019, Australia ranked fifth-most effective civil service in the world (BSG 2019).Nevertheless, numerous inquiries and research papers have found that there is opportunity to improve the efficiency and effectiveness of government provided or funded services. For example:

- The Productivity Commission identified significant scope to improve the efficiency of the health system, with a range of health interventions found to be duplicative, irrelevant or excessive (PC 2015a).
- User satisfaction with the Department of Human Services online systems are very low, with almost half of users expressing dissatisfaction with their experience (Australian Government 2019)
- The Commission's inquiry into service delivery in Queensland's remote and discrete Aboriginal and Torres Strait Islander communities found that fundamental reforms, such as community level decision-making and accountability through agreements, were required to improve service delivery outcomes (QPC 2017).
- The Commission's inquiry into imprisonment and recidivism found that there was significant room to improve the operation of the criminal justice system (QPC 2020a).
- A Commission staff research paper on school education output and productivity found while there is evidence of marginal productivity gains in Queensland schooling, further research is required to understand what is driving productive or unproductive uses of inputs in the sector (Cornell-Farrow 2019).
- The Review of the National Disability Insurance Scheme (NDIS) Act 2013 found that many participants experienced difficulties transitioning to the NDIS and 29 recommendations were made to improve participant experience (Tune 2019).

6.2 Unlocking improvements to service delivery

While it is beyond the scope of this paper to examine any specific area of service delivery, there are several common issues that cut across all government service delivery. Understanding these issues, and how they affect community outcomes, can provide opportunities for improving the way services are provided to the community (Commonwealth of Australia 2019; QAO 2018b).

[32] Excluding housing.

This is particularly so in markets for human services that have not been subject to competitive reforms and are subject to a high level of regulation; and are often, directly provided by governments. This can mean that:

> *[f]or many human services, consumers are disempowered, competition—if it exists—is managed, and incentives are distorted. In some areas, markets have been designed for the benefits of providers, rather than consumers, and innovation is discouraged. Funding is often based on inputs or block grants rather than outcomes, and where markets involve multiple levels of government, services either overlap or are missing. (King 2019)*

Research suggests that legislative/regulatory frameworks and financing mechanisms can be improved by:

- Ensuring that there is a clear separation between policy design, regulation and service delivery—having a single agency as both designer, regulator and deliverer (or funder) can reduce competition (and efficiency) and result in actions that focus on those areas that are highly visible rather than the most effective (King 2019).
- Improving incentives for providers—misalignment of incentives is a common problem with service delivery, with poorly designed incentives linked to poor outcomes for clients (UNDP 2006). For example, under the Australian Government's JobActive program, conflicting objectives have been found to create barriers to providers finding employment for their clients (King 2019). A greater focus on outcomes, rather than process, combined with transparent reporting has been shown to improve service delivery effectiveness (PC 2017a).
- Building consumer choice into service delivery design, through policies to encourage competitive markets populated with innovative and responsive providers (Harper et al. 2015). Consumers are usually best placed to make decisions about their needs—governments can assist by ensuring equitable access, minimum quality standards and the availability of relevant information to help consumers exercise choice (PC 2011a).
- Creating the right incentives for users—poorly designed service delivery can create incentives that either encourage overuse of services (for example where there is no price signal to encourage rationing) or discourage individuals from taking action to address the root causes of problems.
- Aligning decision-making, funding and accountability—this can happen most effectively where decision-making is concentrated at the level of government closest to users, and where responsibilities result in genuine accountability to service users, communities, government and taxpayers (Joshi 2010).
- Improving information flows between government, service providers and service users—it empowers consumers to make choices and improves decision making by providers.

Well-designed evaluations are an essential tool for public sector agencies to strengthen the efficiency of program delivery and to demonstrate effectiveness in generating outcomes. The existing Queensland Government Program Evaluation Guidelines (Queensland Treasury 2014) provide guidance for conducting evaluations, suggesting they need to be embedded from the start of a program delivery cycle.

A consistent theme across previous Commission inquiries is the need for a change in the service delivery framework that will better support robust, transparent and effective evaluation. Further, even where evaluation occurs, policy design needs to allow for learnings to be taken on board and for service delivery to engage in adaptive practice.

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