# Table of contents

1. Australia Rebooted overview .................................................. 2

2. How COVID-19 infected the economy too ................................. 9

3. Forces of change shaping our future ......................................... 12

   3.1 Government involvement: Invest, protect, reform .................. 14

   3.2 Debt and capital: Growing with a debt hangover ................. 15

   3.3 Consumption behaviour: A new generation of cautious consumers 17

   3.4 Accelerated digitalisation and data reliance: Tech at the forefront of change 18

   3.5 Productive, flexible and distributed working: No going back now 20

   3.6 Resilient supply chains: Local, national and global .............. 21

   3.7 Industry consolidation: Resetting the basis for competition .... 23

   3.8 Migration: Destination Australia ....................................... 25

   3.9 Tax reform: A new contract with the public ....................... 25

4. What should we aim to be post-COVID-19? ............................... 27

   4.1 Fortress Australia .......................................................... 30

   4.2 Enterprise Australia ....................................................... 31

5. Post-COVID-19 economic outcomes ......................................... 32

   5.1 National income ............................................................ 33

   5.2 Industry ........................................................................ 36

   5.3 Household consumption .................................................. 39

   5.4 Employment .................................................................. 43

6. Let’s Reboot Australia ................................................................ 44
1.1 What just happened?

On 25 January 2020 authorities confirmed the first case of COVID-19 on Australian soil. By March, there were so many unemployed workers registering online for welfare support (100,000+ in a single morning) that some mistook it for a cyber attack.¹ Now, only a few months after the crisis first hit Australia, the International Monetary Fund (IMF) has warned we could be one of the worst-hit economies in the Asian region, with the Australian economy forecast to shrink 6.7% this year.²

While businesses, government and society more generally are naturally focussing on the immediately relevant ‘shock’ and ‘management’ phases (see Figure 1), it is important to look beyond to consider what the economy and nation will look like in a post-COVID-19 world.

There is a risk that Australians will quickly move forward together in the hope that we return to something similar to our previous ‘normal’ after the ‘recovery’.

Such nostalgia would be a mistake; the pace and scale of the shock caused by COVID-19 means that Australia has already changed, and further change is inevitable.
1.2 Nine forces of change will shape Australia, whether we like it or not

The pace of change triggered by COVID-19 is unprecedented in peacetime. Some changes are undoubtedly temporary, but there exist a series of forces that will shape our nation over the coming years. How these forces manifest themselves in practice - nature, scale and scope - is in large part a function of the choices that governments, businesses and individuals make over the next months and years. The key forces are described below.

- **Greater government involvement:** In recovery, the government will exert more influence over our lives and the economy than it has in decades; but what form will this take - investor/owner, regulator, or reformer?

- **Debt and capital:** Increased levels of government support lead to higher government debt and interest payments. Access to private capital may also be limited given the uncertain situation; we grow with a debt hangover.

- **Consumption behaviour:** The ‘new way of living’ will impact consumption behaviours with consumers becoming more cautious and digital. Consumption will reflect changed priorities and new realities. There will be a new generation of cautious consumers emerging.

- **Accelerated digitalisation and data reliance:** Accelerated demand for ecommerce and e-services. Businesses that have or are rapidly able to build robust digital capabilities will be in an enviable position as technology is at the forefront of change.

- **Productive, flexible and distributed working:** Unemployment is high, and workplace flexibility is a new norm. Increased technological competency means new high-tech skills will be required over traditional low-skill work and productivity must remain high. There’s no going back.

- **Resilient secure supply chains:** Significant disruption affected nearly all layers of the supply chain, highlighting vulnerabilities and revealing exposures of the current local, national, and global supply chains.

- **Industry consolidation:** With such large changes to business models likely, industry structure changes will follow. Some businesses will survive, some will not, and some will fundamentally change - resetting the basis for competition.

- **Tax reform:** The Great Lockdown has undermined the ability of governments to raise revenue given the disruption to business and personal incomes, and changed consumption and saving behaviours. With additional government expenditures to support the economy, governments will be challenged to reinvent their tax systems without stifling economic growth.

- **Migration:** Australia will be a more desirable destination to live and work due to our relatively successful management of COVID-19, but it is not clear to what extent we will remain open to recent migration levels. The quantum and ‘quality’ (skilled versus unskilled) of migrants will shape productivity outcomes, and affect demand for housing and infrastructure.

1.3 Australia must think beyond shock and management

The nine forces of change, outlined above, can play out in a variety of ways. The future of Australia’s economy will ultimately depend on how governments, businesses, communities and individuals respond. We have modelled two scenarios, representative of distinct directions Australia could travel after COVID-19.
COVID-19 will cost Australia $279 billion in national income, and no further action costs $127 billion more

To understand the trade-offs and relationships between the forces of change and economic outcomes, we need to use a consistent set of COVID-19-related assumptions across scenarios.

In the short term, there is an alphabet of possible economic paths facing Australia: U, V, W and L. Ultimately the management phase’s ‘exit point’ will be determined by how long and what type of economic activities need to be restricted and the spread of the virus. To provide comparable outcomes for our post-COVID-19 economic scenarios, the scenarios assume a consistent exit path, namely:

- the Australian economy will formally enter recession in Q2 2020
- a second wave of cases, with the same or greater severity than first, does not occur
- restrictions are progressively loosened from the middle of 2020 and are substantially relaxed by summer, except restrictions on international travel
- public health and survival packages will prevent substantial, structural economic damage
- a return to growth in Q3 2020 and a bounceback from there, without the need for future ‘survival’ packages.

This ‘best case’ exit path sees a recovery to pre-COVID-19 GDP levels in little over two years (see Figure 4.2). In this period, lost national income of $279 billion is largely fixed and determined by our assumptions on the shutdown in response to COVID-19. However, without conscious policy changes, we could expect to lose another $127 billion from 2022 to 2030, taking the total COVID-19 losses to $406 billion.³

Policymakers face the challenge of minimising this cost and impact to citizens, while industry leaders are tasked with growing businesses in this smaller, divergent economy.
Post-COVID-19 economies

After the management phase, from 2021 onwards, each scenario is a distinct combination of plausible industry and government positions in response to the forces of change.

Decision-makers economy-wide face difficult trade-offs impacting growth, productivity, living standards, government intervention, risk appetite, digital investment, security, nationalism, international trade and more. The scenarios deliberately span the broad spectrum of choice facing Australian governments, businesses and communities. These scenarios are:

1. **Fortress Australia**, characterised by nation-first decisions and higher levels of federal and/or state intervention in industry.

2. **Enterprise Australia**, where smarter regulation and digitisation enables private industry to grow Australia out of the crisis.

The first scenario reflects the desire for insurance against future problems like those that the COVID-19 pandemic has exposed. We have seen similar insurance-driven policy responses emerge from other major crises:

- The millennium drought (1997-2010): some Australian state governments invested billions of dollars in building excess capacity into our system through desalination, effectively vowing to never again be exposed to the risk of their capital cities running out of water.

- SARS outbreak (2003): Singapore invested heavily in building excess capacity in terms of infrastructure (e.g. a 330-bed purpose-built infectious disease management facility) and stockpiles of personal protective equipment (PPE), critical medications and vaccines for up to six months.4

The second scenario reflects a ‘go for growth’ mentality that does not seek to strongly adopt the insurance mentality of the first scenario.

1.4 The actions we take have longer-term growth and security implications

Our modelling demonstrates that a post-COVID-19 recovery can be driven by business and consumers under an Enterprise Australia scenario. Yet we should be alert to the risks of the global forces of aversion and retraction. Other countries may have been less competent in their approaches to pandemic management. This has driven their own nationalistic agendas, or broader global unrest driven by a lack of trust. In turn, this may mean we face a Fortress Australia scenario not of our choosing. Both scenarios will require trade-offs, but as we lean into the recovery phase, there are some changes that should stick or be considered no regrets.

**No-regrets actions**

Australia’s response to COVID-19 has clearly accelerated consumer uptake of digital platforms for shopping and doing business, and has forced businesses and governments to scramble to be more digitally nimble internally and externally. It is difficult to see these reverting entirely back to pre-COVID-19 ways.

The agility shown by government and business in responding to the challenge of COVID-19 should be embraced as the default. While reflection and a slower pace of change would be welcomed by all, we should not revert unconsciously.

We will need to see a continued focus on reducing persistent unemployment and underemployment, specifically with unemployment - particularly youth unemployment - likely to be stubbornly higher for years. Governments and businesses will need to embrace
a new round of digital upskilling to equip people for the jobs of today, let alone the jobs of
tomorrow. The Future of Work has been a discussion topic for the last few years, but what
appears now to be clear is that this future is now very soon, if not here already. Market
forces will drive people to this employment future, but for the unemployment challenge
to be met, governments will need to address workplace reform to support employers,
particularly small business and build a skills or tertiary education system that can fill skills
gaps and assist the unemployed.

A broader conception of risk needs to be embedded into corporate and public policy
planning. COVID-19 has exposed breaches in our health infrastructure and economy,
reliance on international supply chains and global markets for education, tourism and key
exports, deficits in national technology architecture, and dependence on skilled migration
to supplement skill gaps among other aspects. Now these risks have been identified,
realised or partially realised, they should continue to be addressed through policy and
business investment.

**Make decisions on balancing growth with other outcomes**

The challenge for the community is fundamentally one of finding a balance between a
‘go for growth’ mindset, which ultimately maximises community incomes and economic
welfare, with the desire to address concerns about our future resilience in respect of our
national self-sufficiency.

As outlined above, our assumed exit path sees a recovery to the levels seen immediately
prior to COVID-19 in little over two years (shown in Figure 1.3).
Enterprise Australia is the only scenario which gets Australia back to its previous trajectory and, by 2025, surpasses our pre-COVID-19 trajectory. While the economy has recovered, the lost activity between now and then - the consumption, investment and trade, which would have occurred without COVID-19 - results in potential additional losses of $127 billion reduced to $63 billion and total losses of $342 billion.

Fortress Australia has a detrimental impact on economic growth. Lost activity from 2022 increases from $127 to $400 billion, resulting in total losses of around $680 billion to 2030.

In the long run, GDP in Enterprise Australia will be $1100 per person higher than under Fortress Australia. This lower-growth outcome reflects the economic inefficiencies associated with bringing economic activity from high-cost offshore delivery and investing in consumptive (i.e. not productive) defence activities.
1.5 Let’s Reboot Australia

COVID-19 is a human tragedy and it is critical we ensure there is sufficient and equitable access to medical infrastructure and services for all Australians to prevent loss of life and livelihoods. PwC’s results help decision-makers across government and industry understand the key trade-offs and their ramifications for businesses, communities and individuals in a post-COVID-19 economy.

Targeted, smarter regulation and workplace reform, enabling industry to upskill the labour force, digitising operating models and improving our supply chains can drive productivity and economic growth.

Immediate societal pressures will likely pressure decision-makers to make choices that look inwards and push us towards creating a more secure, self-sufficient nation. These choices come with an economic cost.

We believe Australia can grow its way to economic recovery, and use this growth to help pay the premium required to build a more resilient Australia.

Whether you’re an individual respecting social distancing laws, an intensive care department treating COVID-19 patients, a financial institution finding space to help mortgage holders, a business adapting to new ways of working, a community organisation embracing new technology, or a policymaker deciding on economic and public health outcomes, as a nation we can choose to Reboot Australia to drive prosperity for all.
From late January 2020 when the first case of COVID-19 on Australian soil was reported, to March when there were so many unemployed workers registering online for welfare support that it was initially thought to be a cyber attack, it’s clear COVID-19’s impact reaches far beyond health. Now, only a few months on, the IMF has warned Australia could be one of the worst-hit economies in the Asian region. They forecast the Australian economy will shrink by 6.7% this year.
Starting in a fragile environment

The COVID-19 pandemic exposed some pre-existing vulnerabilities in the Australian economy:

- Australia’s economic performance pre-pandemic was sluggish with an outlook that was not much better. As PwC reported in the Australia Matters series, heading into 2020 Australia sustained its worst economic growth figures this century. Average real GDP growth was down to 2.6%, and forecast to fall to 2.3% for 2020-2040.

- While we were in a relatively good position fiscally, with relatively low government debt and a Commonwealth budget almost back in surplus, we have a tax system ill-equipped to manage a downturn given the reliance on personal and company tax at the Commonwealth level and property transactions in the states.

- Our export strength was built upon the sale of commodities to Asia, chiefly resources, education and tourism. Prior to the pandemic, nearly one-third of Australian exports were shipped to the People’s Republic of China (PRC).

- Australia’s domestic manufacturing was all but diminished in the face of cheap imports.

- Banks faced trust issues post the Hayne Royal Commission and were increasingly scrutinised.

- Levels of household and, to a lesser extent, corporate debt were high relative to other economies.

- Technology and digital investment was progressing, but not enough to support an immediate digitisation.

- Recent hospitality, tourism and entertainment sector growth relied on ‘normal’ behaviours (prior to restrictions) and larger household spend post Global Financial Crisis (GFC).

COVID-19 brought these fragilities into the light and affected some of our core industries.

Education and tourism were the first industries to suffer massive hits in the wake of government-imposed COVID-19 restrictions. Prior to the crisis, international students made up 25% of Australian university enrolments.

The Tourism and Transport Forum forecasts monthly average losses of $2 billion nationally post-March 2020, with job cuts of up to 20% across the sector. In hospitality, the Australian Bureau of Statistics (ABS) reported more than three-quarters of businesses in accommodation and food services experiencing adverse business impacts in March, and 96% expecting further hits in coming months. Social distancing restrictions have seen demand drop off for pubs, clubs, cafes and restaurants.

As PwC reported in its Australia Matters series, the Australian level of research and development (R&D) spending already had room for improvement pre-COVID-19, with the country spending only 1.9% of GDP on R&D. This figure is on the lower end compared with other similar economies and is below the Organisation for Economic Co-operation and Development (OECD) average. With many businesses facing financial strain due to the COVID-19 pandemic, R&D investments risk being deprioritised on CEOs’ strategic agendas. This is especially important as the private sector contributes more than 56% to Australia’s R&D investment.

As a positive aspect, compared to many markets in the world, Australia’s financial institutions are well-capitalised and well-regulated, with superannuation invested in long-term capital. Access to a AAA-rated Commonwealth government with full control over a sovereign currency that holds confidence and demand globally, provides many levers to ensure financial stability through this crisis and beyond, notwithstanding appropriate concerns surrounding debt.

Past pandemics show that it can take several years for a nation to return to its pre-pandemic level of GDP. With weak fundamentals, this task tends to be more difficult and longer.

Government responses

The speed and scale of government intervention during the COVID-19 pandemic has been remarkable, in terms of both social and economic measures.

In response to the crisis, the Australian, state and territory governments introduced unprecedented social distancing restrictions. National and state borders were closed, travel was forbidden, beaches and businesses were closed, and health procedures and routines were established, among other initiatives. Meanwhile, the public had to comply with heavily enforced and rapidly changing restrictions to their personal freedoms designed to reduce the infection rate.
Federal, state and territory and council governments have invested in economic stimuli, and on health and digital health initiatives, such as online medical consultations, to ensure the economy does not collapse and citizens have uninterrupted access to healthcare.

A series of record-breaking stimulus packages were announced. On 12 March, the Australian Government announced an economic stimulus package worth $17.6 billion. Ten days later, a second rescue package was hot on its heels, taking total government spending to $189 billion, or 9.7% of GDP. By the end of March, it had already reached $320 billion or 16.4% of GDP (and counting) over two years.

The shock of the pandemic has precipitated new government spending on multiple programs and incentives. Billions of dollars worth of welfare payments were deployed via the MyGov website. Among other initiatives, we have seen a cash flow boost for employers, apprenticeship and traineeship wage subsidies, an increased instant asset write-off, and increased income support payments, such as JobSeeker.

Globally, there are similar spikes in state stimulus which - as a percentage of GDP - have only been seen in times of conflict. On top of this spending, governments are flexing their social policy muscles in an attempt to keep their citizens safe.

The COVID-19 policy response has shown the public there is a much broader range of options available to the government than previously suggested. Australian society has shown flexibility and the community has tolerated these options more readily than anticipated.
The Australian Bureau of Statistics (ABS) reports that two in five businesses (38%) have already changed how they deliver their products or services, including shifting to online services since the crisis emerged.

**Industry response**

Industry leaders have rapidly reconfigured their organisations, trying to cope with the rapid changes in the economy, social measures and consumer behaviour to stay alive.

Pre-pandemic, in early 2020, PwC identified in the 2020 Global Digital IQ report that only 5% of companies are doing all it takes to get payback from digital investment. Fast-forward several weeks to the COVID-19 crisis, and the rate of digitisation has been accelerating. Consumers have been quick to embrace digital channels, remote working, e-learning, and virtual socialising, while rapid-fire innovation will see all industries invest further in robotics and artificial intelligence (AI). The Australian Bureau of Statistics (ABS) reports that two in five businesses (38%) have already changed how they deliver their products or services, including shifting to online services.17

Change is arriving in such rapid waves right now that it’s washing away industry boundaries. In response to the COVID-19 crisis, whisky distillers are making hand sanitisers18 and airline staff are being redeployed to stock supermarket shelves. Even an icon of Australian motoring, Holden, has indicated a move into manufacturing medical ventilators.19

Businesses have also taken financial and organisational measures. Multiple initiatives were established to reduce costs and secure liquidity, including lay-offs, restrictions on non-essential costs and requests of subsidies. Employees were also forced to work from home, adapt their professional routines to the new context and use digital resources.

While Australian industries were showing signs of diversification and increased work flexibility before the COVID-19 crisis, it’s taken a global pandemic for some organisations to truly become agile, enter new sectors, and to embrace cross-industry collaboration.

It is too early to declare victory? These sound responses are far from permanent. The big question is how will Australian governments and industries look as we reboot our economy post COVID-19?
Change has been a theme of our collective responses to the COVID-19 pandemic. To understand the nature of the changes, we have distilled nine core forces of change that will shape the economy’s recovery phase. These forces of change have been identified from emerging trends (nationally and globally), as well as from discussions with industry leaders and government experts.

These forces are not intended to specifically predict what will happen five years from now. Rather, like levers that can be pushed or pulled, they will dictate the shape and nature of how our economy will evolve over the coming years.
3.1 Government involvement: Invest, protect, reform

During recovery, governments at all levels must make long-term decisions around how they invest, what protection (or support) is needed, and what regulatory reform to adopt. The question is: what form will this government involvement take?

Will our economy revive fastest if the government acts as investor/owner, regulator or reformer? The solution lies in finding the right combination of all three.

Future-proofed infrastructure investment

Infrastructure investments, particularly spending on health infrastructure, has the dual benefit of stimulating the economy in the short term, while future-proofing against a viral resurgence in the long run. (In this vein, post-SARS epidemic Singapore invested in hospitals’ capacities and digital capabilities, enabling broader management of infectious diseases.)

So which infrastructure is most likely to get government support post COVID-19?

To date, the target has been health systems and this is set to continue. Social isolation, in some form, is on the cards for the foreseeable future and so the Australian Government has the incentive to ensure that the NBN is operating effectively and other digital technologies are supported. In remote areas, investment in water infrastructure (e.g. dams) and energy infrastructure as identified in our Future of Energy report will still be a priority. And while transport and sport infrastructure may appear less important, they continue to be revenue-generating for state and federal governments, and are unlikely to come off the table.

What could suffer financially, at least in the short term, is existing infrastructure public-private partnerships (PPPs).

PPPs have been used for rapid response during the crisis. For instance, the government has partnered with the private hospital sector to secure beds and nurses to fight the pandemic. But supply-side shortages, including shortages of raw materials and labour, threaten these partnerships in the short run, while limited access to finance, and schedule disruption, threaten their viability in the medium term.

Post-COVID-19, there is likely to be new opportunities as the PPP market recalibrates, with increased need to leverage innovative strategies that are productive and resilient. We expect PPPs to become more important as a recovery tool post-COVID-19.

The energy and climate nirvana for most energy sector commentators in Australia has been how to see Australia stabilise power prices so that they underpin a growing economy and also to set in place a positive trajectory on carbon emissions over the next 20 years. Every state and territory has adopted a net-zero emissions target for 2050 or earlier. COVID-19 presents the opportunity to accelerate the move to renewable energy across the country and gives the nation every opportunity to tackle the power price versus emissions challenge.

It is important that national and state and territory governments are clear about where they will invest, what they will continue to own and the role they will play in markets. Without this clarity, we may find a private sector that is hesitating to invest at the scale required for fear that government policy could be inadequate or change from election to election.

‘Too small to fail’

Small-and-medium sized enterprises (SMEs) have suffered dramatically as a result of social isolation measures, and the government has recognised this through its $1.3 billion stimulus to support small businesses to retain apprentices/trainees, and the JobKeeper payment, enabling businesses to continue paying their employees.

In recovery, these SMEs in pain will not instantly return to profitability and viability, and ongoing government support will be required. More than half the Australian workforce is employed by SMEs, contributing 55% of industry value added to Australian GDP, and the government cannot afford to let them fail.

Smart regulation

History tells us long-term regulatory reform is in store. Post-GFC, governments around the world focused their regulatory responses on the financial services industry, reforming prudential frameworks and enhancing financial institution supervision. In the current instance, regulatory measures appear to be broader in scope, matching the breadth of the COVID-19-led economic downturn.

How the economy recovers from COVID-19 will shape what the reform agenda looks like.

Will the emphasis be on providing more protection and regulation for adversely affected sectors, critical infrastructures and activities? Or will it take a reformist and deregulatory bent? There are a few options available. The Reserve Bank of Australia (RBA) has already recommended a growth and productivity agenda featuring tax reform, particularly though increased GST and land tax, and lowered income taxes.
In addition, industrial relations reform, investigation into infrastructure, and training/reskilling for a modern workforce were tabled.\textsuperscript{28} The Australian Government also proposed the upcoming October Federal Budget will be guided by tax cuts and aggressive deregulation.\textsuperscript{29}

In this environment, regulatory and legislative levers become increasingly important as ways the government can influence the shape and composition of the economic recovery.

The trade-off? The consequence of increased government support is higher government debt levels and interest payments.

### 3.2 Debt and capital: Growing with a debt hangover

Post-pandemic, government debt levels will balloon, and a debt hangover will linger for future generations of Australians who will feel the economic aftershock of COVID-19 for some time.

But that’s not to say there’s no opportunity to grow; only, that there’s an additional fiscal burden to manage.

Capital will be required long into Australia’s recovery phase, and higher government debt levels, combined with potentially limited access to private capital (foreign and domestic), means tough choices lie ahead for managing debt and growth.

**Growth in a high public debt environment**

The government will need to balance spending now, to save people’s lives and livelihoods, at the cost of burdening future Australians with high debt.

One option is to rapidly bring the budget back into balance through austerity. Think reduced government spending and/or increased tax.

In this situation, expect to see a reduction in the size of public service; a push towards low-cost service delivery; higher levels of tax for high net-worth or older Australians; and a broader rollback of benefits and incentives to businesses and individuals. The risk? If too austere, this approach could wipe out essential funds underpinning growth, stalling the economy, and necessitating further austerity or a policy flip. Here, it’s all about fine-tuning the fiscal policy settings to get the balance right.
Another option is to abandon the idea of a balanced budget, and instead seek to grow our way to recovery. This involves maintaining (or even further increasing) debt levels via budget deficits in an effort to stimulate GDP.

This approach also has risks: namely, the damage it could have on Australia’s AAA credit rating; also, the potential to create larger problems down the track if growth does not materialise.

**Selective foreign direct investment**

A question mark hangs over Australia’s access to foreign direct investment (FDI) during the recovery phase. FDI is Australia’s second-largest type of foreign investment behind portfolio investment and we rely on it as a major source of capital to fund investment and drive economic growth.

On one hand, risk aversion will be high in the wake of the crisis, leading to a fall in global investment. At the same time, Australia may (temporarily) further tighten rules on foreign investment to protect local companies from international takeovers, further denting our ability to attract FDI.

On the other hand, foreign investors and cashed-up Australian funds are already taking confidence from Australia’s handling of the COVID-19 economic shock. Competence in a crisis is attractive to investors, and there is early evidence of large investors looking for opportunities to invest here.

Foreign economies had a total of $3.5 trillion invested in Australia at the end of 2018, with the US providing more than a quarter of that investment. Moreover, Australia’s FDI inflows increased almost 40% in 2018. While the flow may decrease in the short term, industry and government can work towards making Australia an attractive local and foreign investment location post-COVID-19.

**Business and household debt**

Indications are that many households are already at peak debt levels, with almost half a million Australians given permission by the Australian Taxation Office (ATO) to access their super, amounting to funds of more than $4 billion, and 10% of mortgage holders across the major banks requesting payment deferrals.

Australian households had comparatively high debt levels prior to the COVID-19 economic shock, largely secured on the value of Australian housing. More than 46% of Australians live payday to payday, with no financial fallback, while only 36% are able to live off their savings for more than four months.
Meanwhile, banks and businesses have rapidly provided forbearance on a range of debts and obligations throughout the crisis, including deferred and reduced payments. As a result, pockets of bad debts in the balance sheets of banks and businesses could take years to work through and, without careful and judicious management, will hamper their ability to provide new funding for growth. It’s no secret that where corporate balance sheets have doubtful debts, it can prevent government stimulus from flowing through to other parts of the economy.

Post-COVID-19, it’s unclear if those obligations and debts will be repaid in the short term. Meanwhile, larger household debt will constrain consumer spending.

### 3.3 Consumption behaviour: A new generation of cautious consumers

Household debt and financial hardship will dictate consumption behaviours, and test trust, during the recovery phase. Consumers will be more cautious, more digitally aware, and more likely to change their spending to reflect their new economic reality.

#### Pivoting back to savings

When faced with economic uncertainty, households increase savings. This, in turn, slows the recovery rate for businesses in the short-to-medium term.

The GFC saw consumption drastically decrease, and savings increased by 10% of disposable income. Significantly, the increase in the savings rate was not just a short-term spike – it persisted for almost five years before starting to tail off.

In the wake of the COVID-19 crisis, we can expect a similarly prolonged precautionary savings increase, at least in large segments of the community. Uncertainty around seemingly everything right now – from how long the lockdown will last to the quest for a vaccination – will be seen in savings rates.

#### In ‘X’ we trust

In response to the pandemic, and in the wake of the recent bushfire disaster, Australia is experiencing a surge in its sense of community right now. Trust in the federal government is up 18% from this time last year, while trust in business groups has increased 9%.

Governments should continue to be clear in their communications and companies with a strong social licence and values-driven narrative, especially those with Australian ownership, and tried and trusted products, will have a competitive advantage.

For those looking to build trust, Australian consumers are receptive to progressive, empathetic, community-focused businesses right now, while agility is highly valued too. Consumers are subjecting organisations to an unprecedented level of scrutiny about their ethical behaviour. Now is the time when brand reputations will be transformed – some for the better, but many for the worse.

Then, as we progress post-COVID-19, and national borders are re-opened, visibility of the supply chain will become increasingly important. Internationally owned corporations, and those registered in offshore tax havens, will face lower levels of trust, and we can expect that government support will not be forthcoming for these reasons.

#### An altered spending profile

Consumers are looking to purchase safe, high-quality goods right now, with a heavy emphasis on supporting local businesses.

As Australia emerges from a period of social isolation, spending patterns and consumer behaviour will have changed. Demand for food and drink, alcohol, gambling, and wellness products stand to rise, while national travel and hospitality will enjoy a temporary spike.

Closed borders will impact the luxury end of the Australian retail market. Meanwhile, local producers are well placed to cater to regional demand for food, healthcare and essential products.

#### Digital channels lead

Online shopping has boomed during the crisis, testing the reliability of online platforms, and their supply chains. Companies that don’t have online platforms, or that lag behind competitors in digital experience, will suffer post-COVID-19. While retail businesses who rely on physical channels, and fail to invest in a broader omnichannel approach, do so at their peril.

On a global level, Amazon shares reached their highest-ever price in mid-April, while the S&P 500 was still recovering losses. In Australia, Myer’s online sales were up 800% over the Easter weekend, with beauty purchases skyrocketing 7000% for their one-day-only sale on Easter Saturday.

But this growth has not come from a flat base.
Online shopping has seen strong growth over recent years and the lockdown will accelerate changes in consumer behaviour. Businesses will have to adapt to the increased demand for online goods and services to remain competitive, while logistics operators will have to expand their capabilities and improve productivity. Improved digital infrastructure, cross industry channel partnering, and supplier networks are essential.

3.4 Accelerated digitalisation and data reliance: Tech at the forefront of change

As the economy recovers post-COVID-19, increased digitisation levels will place higher expectations on Australia’s digital infrastructure and cybersecurity capabilities. Businesses that can rapidly adapt to e-commerce and e-services demand will be in an enviable position.

Scaling digitally

Digital channels might have been crucial during the COVID-19 crisis, but seamless omnichannel experiences will be key post-COVID-19.

Governments and businesses have struggled to scale up their digital capabilities to meet demand during the crisis. But business models will need to fundamentally change in order to cope with the new digital reality.
For instance, universities that have rapidly moved towards online teaching models during the pandemic have consequently removed the barriers to competition. Prestigious global universities are now direct competitors in online content, and new differentiating partnerships are being established with technology companies. Local universities will need to reinvest in their education models to prosper in this new digital environment (and protect their intellectual property), blending delivery with a mix of online and face-to-face delivery. Other service industries face similar disruption, and must add effective digital elements to their business models and look to reshape their customer segments.

Native digital businesses that are able to scale digitally with minimal incremental costs are positioned to succeed. This has implications for Australian industry as digitisation removes geographical barriers and competition goes global.

Governments and industries will be forced to continue to invest in digital first, omnichannel approaches and R&D. One of the critical issues is going to be access to digital skills. This challenges us to get the R&D and the innovation agenda right, so that we are beneficiaries of the accelerated digital development as owners rather than just users.

**Agile, rhymes with fragile?**

The pace of the pandemic has forced us all to be more agile than we would generally consider possible. Digital solutions have been a key element of this.

Digital platforms and services enable organisations to scale rapidly and reliably while only paying for what is required. There are a number of off-the-shelf products for services including: infrastructure, processing, payments, legal, accounting, project management, logistics and marketing. These digital platforms and service ecosystems require established businesses to become more contemporary in how they operate or face complex and expensive service and IT stacks.

Fragile as they may seem, these contemporary ways of working, coupled with modern technology, have benefits like scalability, role compression, increased innovation, reduced time to market, greater customer engagement and efficiency. All of which will enable rapid growth in a post-COVID-19 economy.
Over the past five years, the adoption of cloud services has resulted in an estimated cumulative productivity benefit of $9.5 billion. While the tech sector enables cost savings for the government, including an estimated $3.9 billion per year from online services delivery, and $5.4 billion from e-health.48

While we are still in the early stages of cloud adoption, there’s an opportunity for both economic benefit, and the chance to transform and so release organisations from technical debt.

**A safer digital environment**

COVID-19 has resulted in a heightened risk of cyber attacks and scams. The acceleration to digital and the disruption to ‘normal’ has created new vulnerabilities that may lay dormant and open to exploitation for some time. Increasing digital delivery and exposure will require a similar shift in focus to manage the risks.

This affects all sectors of the community. However, health service providers appear particularly exposed, suffering the most data breaches between April 2018 to March 2019 with more than 38% of all reported cases.49

The post-COVID-19 future may be increasingly digital, but first we must reboot Australia’s trust in the abilities of governments and companies to protect data.

**3.5 Productive, flexible and distributed working: No going back now**

The way we work has fundamentally changed in the short time since social distancing was introduced. We have seen a rapid rise in remote working, and a corresponding reliance on tech skills, not to mention a spike in unemployment,50 and reduced working hours.

As the nation begins to unwind the social isolation requirements and people head back to work, it’s likely that social distancing obligations will mean that the way of work will be different to the way worked in March (and likely will be until a treatment is found, herd immunity is reached or a vaccine is developed). However the return to work proceeds, it must be more productive.

While all signs point to the likelihood that workplace flexibility will persist well into the recovery phase, so too will pressure on employment levels.

For some industries such as health, construction, mining and resources, supermarkets and manufacturing, it’s mostly business as usual (albeit with changes in demand, social distancing and extra hygiene measures in place for safety).51 However, for those working in other sectors, the changes are marked. The daily commute is reduced, there is a greater uptake of video conferencing technology and in many cases a reduction in hours worked, but overall productivity remains high.

Those industries that can seamlessly integrate flexible working solutions as a part of their employee value proposition will have a competitive advantage in the search for talent going forward.

For many working in hospitality and entertainment, the arts, sport, tourism and travel, the impacts have been devastating with these industries over-represented in the JobKeeper and JobSeeker programs.52 These industries will take longer to recover.

With more companies looking for increased flexible, distributed and contingent work, these trends are to stay in the long term and put additional pressure on employment in the future, over and above expectations before the crisis. Ultimately, they may risk lower wage growth and hamper economic recovery.

**Rethinking the gig economy**

Post-pandemic, we’ll see an ongoing tension in the workplace, whereby employers will push for contingent and gig work so they have the flexibility to respond to future events, while employees will seek more permanent work.

Prior to COVID-19, it was predicted 80% of the workforce would become contingent by 2030.53 And there have been some undoubted benefits from the gig economy, including new services to the community, greater competition and different work options for people.

Now, however, the role and prominence of the gig economy will need to be reassessed in light of the weaknesses the COVID-19 crisis exposed. Weaknesses such as underemployment and job insecurity.

PwC’s Government Matters details how underemployment is disproportionately weighted to the younger generation, and how young people seek a level of workplace flexibility to allow them to balance their fluctuating work and study commitments.54
Reskilling and upskilling for disrupted industries

Australia needs to reskill its existing workforce as we face a fundamental shift in the skills required of employees. Accelerated digitisation, coupled with remote ways of working, means reskilling and upskilling is required. Prior to COVID-19, 75% of businesses reported they were concerned about shortages of digital skills within their industry. While Australia has helped grow its skilled workforce through immigration, we shouldn’t rely on this post-COVID-19.

One solution is for older workers to re-enter the workforce, or to postpone retirement (something that may become a necessity if older workers suffer a decline in living standards during the economic crisis).

The share of Australians employed or seeking employment in the age groups of 55-64 years and 65+ years has been increasing over the past few decades – even more so since the GFC. To compete in a digitally advanced workforce, many older workers will need to upskill.

The Australian Government is already anticipating this, announcing heavily discounted six-month online courses targeted at areas of national demand, including information technology, engineering and mathematics, while many online learning platforms are offering free courses and skills assessments during lockdown.

Expect further measures to be put in place, by both industry and governments, to rapidly develop the skills we need to grow post-pandemic. We need Australia’s workforce to be employed, productive and equipped with the right skills if we want to reboot the economy and be in better shape than before.

3.6 Resilient supply chains: Local, national and global

Supply chains have experienced significant disruption during the COVID-19 crisis. But unlike previous crises, this disruption has affected nearly all layers of supply chains – from manufacturing and distribution, through to delivery.

The shortage of critical products, such as health technology, personal care products, and consumer goods has highlighted the vulnerabilities of the current global supply chain. Some supply chains will be faster to come back online than others, changing the competitive dynamic, and altering the availability of products in Australia.
**Aussie rules**

The pandemic demonstrated the need to manage international exposures. Expect renewed debate around local manufacturing, and about how our supply chain risks should be managed as we reboot the economy.

Australia sources most of its imported goods from a handful of countries worldwide. Nearly 68% of Australia’s $268 billion total imports in 2018 came from only 10 countries, out of which approximately 50% comes from five countries (China, the US, South Korea, Japan and Germany). In this light, however, concentration risk may be more important than total share of imports. Governments will want to foster or develop new sources of supply, and to broaden trade agreements, including collaborating with other countries to develop supply options. And businesses will look to increase geographic spread and national sourcing.

Moreover, the challenges of complex, international supply chains have been exposed. In future, we’ll see a focus on building more resilience into those supply chains and, in some cases, a shift towards supply chains becoming localised. These challenges are not just for the production of goods – services can be equally affected.

Finding alternatives to improve national sourcing is a regular discussion in Australia, though now the need is more acute. Greater resilience can be achieved in a variety of ways, with the combination likely to vary according to industry. While it’s unlikely we’ll move away from global supply chains entirely, where supply chains are concentrated, it may mean deliberating sourcing from a wider range of countries to reduce the risks created by relying on manufacturing in one country. In other industries, it may mean stockpiling goods in Australia to protect against disruptions.

Local connections may also be incentivised. For example, the Queensland government created a matching platform to promote relationships with businesses, receiving 250 enquiries from the industry and connecting over 150 companies to potential local suppliers within the first few weeks of the pandemic.

While developing local supply chains will be important, they will likely focus on the most critical products and services, as well as the most crucial elements of the supply chain.

**Optimisation**

The COVID-19 shock and management approaches have not only disrupted the upstream part of Australian businesses’ supply chains, it has affected the downstream part as well.

In addition to accelerated digital consumption of goods and services, the demand for ‘last mile delivery’ (i.e. the last leg of the delivery journey) has experienced a strong upswing. Customers now demand online orders to be delivered to the door frictionlessly.

While upstream and downstream supply chain optimisation primarily addresses infrastructure and logistics advancements, we further see the need for potential throughput improvement, waste and carbon reduction discussions to rise equally on CEOs’ strategic post-COVID-19 agendas.

**Reducing waste and carbon**

As we rebuild our economy we must make choices on how we will deal with environmental topics. This includes defining whether or not we truly believe in reducing waste and carbon and how this will be engineered into policy, supply chains and infrastructure.

Businesses will have the opportunity to further consider initiatives to upcycle materials and to reduce carbon emission. They will be following an increasing social demand for actions that help preserve our environment and quality of life.

Increased upcycling might strengthen efforts towards a circular economy - an economic system focused on eliminating waste through recycling and repurposing excess materials that would otherwise end up unused.

Similarly, climate change and decarbonisation discussion will be even more relevant. History has shown us that during economic shocks, carbon emissions decline with industrial activity slowing, but rise above trend with the economic stimuli pumped into the global economy to underpin growth.

In the most recent PwC’s CEO Survey report, it was observed that CEOs see climate change and decarbonisation as a mainstream business and economic risk.

**Supply chain flexibility**

The desire for supply chain flexibility may be a residual effect of the crisis. Manufacturers will look to increase the adaptability of their production lines, and the resilience of their supply chains, to increase their odds of surviving a crisis such as COVID-19. This will be a key consideration for manufacturers in the recovery phase, particularly those who manufacture non-critical goods, or goods that are easily exposed to disruptions.
Companies that have modular and flexible supply chains will be able to retool faster, and respond to changes in demand. Australian manufacturers, in many cases, have already pivoted their businesses to meet new demands and gain flexibility. For example, pharmaceutical companies rapidly commenced the production of hand-sanitisers, medicine products, and health supplements.

To this end, companies will need not only to manage exposure risk and optimise their infrastructure and logistics, but also to think differently about how to create supply chain flexibility. This includes: increasing the use of data and analytics to create greater transparency across the full supply chain, and manage more complex multi-sourcing networks; digitising disparate services delivery such as virtual call centres; and building redundancy into the chain to improve reaction time.

3.7 Industry consolidation: Resetting the basis for competition

Post COVID-19, the balance of power in many industries is set to shift, and consolidations and divestments are likely. Rewards will be there for those businesses with stronger margins, while partnerships with large global players are a possibility.

M&A and divestment

 Expect to see a wave of consolidation, post-COVID-19. There will be a trend towards divestment of under performing assets, and the market should react positively those with low debt, high liquidity and secure access to capital are rewarded in recessionary times.

Governments and regulators have the ability to moderate this consolidation, and they may choose to halt consolidation where it’s not in the interests of consumers or where it will negatively affect competition.

During the financial crisis, businesses, particularly those facing hardship, will trade at attractive valuations following a reset of vendor expectations. While it’s not yet clear who the buyers will be (e.g. sovereign wealth, private equity, super funds or governments), it’s safe to say winners and losers will emerge out of all industry sectors, with the winners moving quickly to consolidate their market position.

Data-driven smart margins

Now, more than ever, businesses that are able to protect their margins are positioned to succeed. This may take the form of businesses with ‘smart’ or high margins.

Businesses with smart margins are those with advanced analytics and customer segmentation capabilities to protect their margins and customer loyalty. They have a clear customer base, a defined proposition, and are able to maintain volumes. Being able to identify and anticipate emerging consumer buying patterns in real time allows companies to have meaningful engagements with their consumers, and to stay ahead of the market to extend their customer base.

In this way, businesses are also able to rely on analytics to optimise pricing and maintain margins. Businesses with high margins are able to scale with minimal incremental costs, and have slack in their value chain to sustain a downturn in volumes. For example, Ant Financial (formerly known as Alipay) added free COVID-19-related coverage to its products. This has encouraged consumers to buy insurance online and increased the loyalty of existing clients. The outcome was 30% more health insurance products sold.

More than ever there is a need for CEOs to extend their businesses’ advanced customer analytics capabilities, and to test implementation where possible. Smartening margins will prove crucial in defending against increasing competition in the battle for consumer engagement. Those who have already done so are well positioned to take over.

Digital giants

Technology giants are thriving amid the pandemic. Amazon’s sales are up 50% year-on-year, and the potential decline of traditional retail provides an attractive ground for expansion and acquisition.

Tech giants are now striving to boost their reputation, fighting inaccurate COVID-19 news, and donating millions in relief support. The pandemic has also been lucrative to their bottom lines, with the giants jumping at government contracts and partnerships to rapidly deploy apps and digital services to support COVID-19 response measures.

As businesses, government and individuals become increasingly digital, the opportunities for big tech players will expand even further. From taking advantage of telehealth opportunities, to supporting remote working technologies, big tech giants will be at the top of the food chain heading into the economic recovery phase.

This will lead to increased debates about the tax paid by these digital giants, and to governments potentially introducing new taxes, such as the Australian Government did with tighter advertising revenue rules in response to this.
Nevertheless, while we have produced some strong market players like Atlassian, any business seeking to compete digitally in a post-pandemic world will be in direct or indirect competition with these international giants who sometimes play by different rules. Partnerships with established giants, rather than direct competition, offer a better opportunity for Australian organisations to thrive in the new economy.

3.8 Migration: Destination Australia

Our population has grown from 18 million in 1997 to nearly 26 million in 2020, with almost two-thirds (62%) of Australia’s growth occurring through net overseas migration (NOM). Migration has been one of the key forces underpinning Australia’s growth over the last 20 years.

COVID-19 shocks and subsequent management actions are predicted to impact Australia’s NOM by 85% in the 2020-21 financial year - resulting in the lowest number in more than 40 years.

Destination Australia an advantage

International mobility and migration has been constrained and in many places almost non-existent, during the shock and management phases of COVID-19, as borders were closed or heavily restricted. In recovery, whatever migration policy Australia adopts, the reality is that international mobility will be harder than it was before. There are likely to be more health and other checks at borders, costs of travel - like airfares and insurance - may increase, and people may not be as attracted to migrate.

As Australia has been relatively successful to date managing COVID-19, we could benefit from increased interest from potential immigrants attracted as a result of this competent approach to public health. Australia, being perceived as a safe destination will be attractive to workers (skilled and unskilled) as a place to live and work. These migrants could help plug the gaps across the Australian workforce, although albeit a deliberate approach may be required to avoid bringing migrants into struggling parts of the labour market.

Immigration interlinkages

There is a tight interplay between our tertiary education sector and immigration. In recent years many of our immigrants have initially come to Australia for tertiary studies, boosting education exports, and staying to contribute to our skilled workforce. Should we seek to return to levels of immigration we saw prior to COVID-19 we would likely need to see our tertiary education sector return to health rapidly.

Immigration also is a factor that supports growth in our consumption-oriented sectors and real estate markets; rapid growth in immigration can put upward pressure on house prices. The converse is also true; declines in immigration could reduce house prices in certain sectors (e.g. new residential properties or inner city apartments), meaning that houses are more affordable for first home buyers and younger Australians, but the total value of Australian housing assets is reduced creating pressure on consumption activity.

The rate of population growth fuelled by immigration is also causing a strain on Australia’s infrastructure and environment. While these effects will have happened with natural population growth, it raises community concerns around the rate at which Australia can keep up with the current immigration approach.

The challenge for government and society alike is determining how much immigration we want in a world with reduced mobility and where we bring in skilled migrants, what skills they should have. We need to balance the good it provides to growth and incomes with managing the infrastructure implications and ensuring it is not amplifying any labour market dislocations (e.g. inequality, youth un- and under-employment).

3.9 Tax reform: A new contract with the public

Even before the shock imposed by COVID-19, the Australian tax system was struggling to meet the needs of the Australian community. It was over reliant on income taxes, generationally unfair and riddled with inefficiencies.

Reduced Incomes, reduced income tax

Australia has a high reliance on income taxes, including company income tax. Around 60% of the Commonwealth’s tax receipts come through personal and corporate income taxes, nearly twice the OECD average.
The relatively high tax rate associated with company tax can hinder growth and the effects from this are largely borne by workers. There has been considerable discussion about the potential reduction of the company tax rate, though it is acknowledged that in part Australia’s company income tax regime is acting as a tax on economic rent, in lieu of alternative tax arrangements. Australia’s experience from the GFC suggests that it will take a long time for corporate taxes to recover from the COVID-19 downturn as company losses are carried forward. This puts additional pressure on personal income taxes to carry the load.

The increase in unemployment (even with JobKeeper subsiding wages), and even further expected weakness in wages growth, suggests that personal taxes will also not provide a stable or growing base for the Commonwealth for many years.

**Not okay boomer**

While almost all age groups are net contributors to government budgets, the wealth gap between young Australians and older Australians is increasing. Over the last six years, the wealth of households headed by those 55 to 65 and 65+ year olds increased faster than households in any other age group.

These households saved more but they benefited from capital appreciation in their assets in particular rising house price. In a post-COVID-19 economy, households headed by someone over 65 will be relatively unaffected by the increase in government debt that has been accumulated, and retirees, who pay much less in taxes, are unlikely to contribute much to paying off the debt primarily used to prevent their illness and death.

By contrast, the financial position of 25- to 34-year-old households has not significantly improved. Younger households did not benefit in the same way from the windfall gains in housing because many simply couldn’t afford to buy their first house, or for those that did, most bought at the end of the boom. Shutting down portions of the economy during the shock and management phases of COVID-19 has further exposed working age people, particularly those in casual or contingent employment (i.e. the young), to unemployment, further reducing their ability to grow wealth and be taxed to support the greater debt they will be saddled with post-COVID-19.

In addition, almost 900,000 Australians have already applied for the ability to withdraw their superannuation early. The Australian Government expects around 1.6 to 1.7 million Australians will apply for early release of their superannuation, equating to about $27 billion coming out of the superannuation system. While this may be important in sustaining the living standards of those accessing their super, it potentially diminishes living standards in future years directly (i.e. through lower savings) or indirectly (i.e. because more burden is taken up through the pension), and so entrenches inequality in the community and makes budget repair harder.

**Reliance on inefficient taxes**

A challenge facing Australian governments is that they are reliant upon a narrow range of inefficient taxes. Inefficiencies stem from exemptions and taxes that deter optimal transactions.

Exemptions influence decisions so can create economic distortions. Principal examples include the exemptions provided in the GST (i.e. food, education and health) and payroll tax (for small and medium-sized businesses and special cases).

Exemptions tend to be created to address perceived equity issues, but over time often create alternative equity issues (e.g. the GST exemptions now disproportionately benefit higher income households). In addition, exemptions can reduce the economic efficiency of the tax by increasing complexity and the cost of the tax (e.g. on average it costs the Australian Tax Office $1.36 to collect for every $100 of GST revenue raised, compared with 96c, on average, for other taxes).

Taxes on insurance transactions and stamp duty are examples of taxes that create a deterrent to, and an inefficiency in, economic activity. Stamp duty can deter people when it would otherwise have been socially optimal (e.g. to take up a new job in a different city, rather than over-extending a property moving to a larger one would have been more efficient, or downsizing as we get older so that the housing stock is more efficiently allocated).

To enable governments to support the economy back to health requires rebuilding the tax base with efficient growth-supporting taxes. Such tax reform will require a new contract with the public; inefficiencies will need to be addressed and inequities balanced for a tax system that supports a broader prosperity and generational fairness.
The nine forces of change could play out in a variety of ways. The future of Australia’s economy will ultimately depend on government, business and community actions. This uncertainty makes life difficult for governments, businesses and individuals who face serious choices now with long-term ramifications.

To help frame some of these decisions PwC has modelled two scenarios Australia’s economy could find itself in as we progress through the recovery phase post-COVID-19.
The shock and management phases

In the short term, economies are highly responsive to global events like pandemics. Australia’s economic recovery will predominantly depend on the efficiency of the public health response to manage virus spread, and of economic policy interventions taken by governments.

Australia’s public health response has been successful to date. Early action, social distancing, thorough testing and contact tracing have proven effective measures so far, and compare favourably to other countries including the US, Italy and the UK.

FIGURE 4.1
Cumulative known cases since the 100th case, log-scale, as of 6 May 2020 (days)86

On the economic policy side, the unprecedented interventions to date reflect the speed and intensity of COVID-19:

- three federal economic stimulus packages with total expenditure, transfer and revenue measures of over $190 billion (~10% of GDP) to FY2024
- unconventional monetary policy including asset purchases to target a 0.25% yield on three-year government securities and up to US$60 billion to provide liquidity to SMEs87
- a $669 million expansion of Medicare-subsidised telehealth services.88

The success of these policies will be measured by their ability to get Australia’s households and businesses through the shock and management phases intact. Protecting individuals, business and industries at their most vulnerable, in the shock and management phases, will determine whether Australia’s economic rebound is L, U, V, W shaped.

High-frequency data is beginning to reveal the extent of the crisis, including a 50% increase in JobSeeker claimants, 89 14% decrease in normal household consumption90 and over 50% of financial and insurance businesses reporting negative impacts on turnover.91
A ‘best case’ exit path costs Australia $400 billion

The shape of recovery from there will be determined by how long economic activities need to be restricted based on the characteristics (e.g. case distribution, and infection rates) of COVID-19 which are not yet clear.

One exit path proposed by the RBA is that restrictions are progressively loosened from the middle of 2020 and are mostly removed by January 2021, except restrictions on international travel.92 Under this exit path, we would expect a return to growth in Q3 2020 and a bounceback from there, without the need for future economic intervention by governments.

There is a degree of uncertainty around this exit path. It assumes Australia’s effective public health response continues throughout the shock and management phases, a second infection wave of greater severity does not occur, and the economic policy actions taken are sufficient to bridge the gap into economic recovery.

To provide comparable outcomes for our post-COVID-19 economic scenarios, this exit path is used consistently across the scenarios. Similar assumptions regarding COVID-19 are applied in the short term (2020-21) including impacts on economic activity, preferences for retail and tourism, migration and natural resource exports.

FIGURE 4.2
Real GDP, 2018-2024, ($2019-20 billion)93

This ‘best case’ exit path sees a recovery to pre-COVID-19 GDP levels in little over two years (see Figure 4.2). In this period, lost national income of $279 billion is largely fixed and determined by our assumptions on the shutdown in response to COVID-19. However, without conscious policy changes, we could expect to lose another $127 billion from 2022 to 2030, taking the total COVID-19 losses to $406 billion.94 This ‘lost activity’ reflects consumption, investment and international trade which didn’t occur as a result of COVID-19.

In comparison, total output from the economy of Victoria is approximately $455 billion.95 Policymakers face the challenge of minimising this cost, while industry leaders are tasked with growing businesses in this smaller, divergent economy.
The post-COVID-19 economies

We don’t need to accept a predetermined economic outcome. We can lean into change to drive improved outcomes in the long term.

The Australian economy, while fragile in the short term, has strong fundamentals of favourable demographics and stable institutions, promoting long-term growth rates. The results of our modelling reflect a return to trend in the medium to long run. Actions taken by policymakers and industry, will inform how quickly and and what cost is paid in the meantime.

From 2021 onwards, each scenario is a distinct combination of plausible industry and government positions in response to the forces of change.

Governments and businesses face some difficult trade-offs impacting growth, job creation, productivity, living standards, government intervention, risk appetite, digital investment, security, nationalism, international trade and more.

The scenarios are:

1. **Fortress Australia**, characterised by insular decision-making and high levels of federal intervention in industry.

2. **Enterprise Australia**, where smarter regulation and accelerated digitisation enables private industry to grow Australia out of the crisis.

The scenario narratives are as important as the economic outcomes modelled. Decision-makers should use both to understand the key linkages which will have ramifications for their businesses, products and communities in a post-COVID-19 economy.

### 4.1 Fortress Australia

The Australian Government lowered the threshold for foreign investment reviews at the end of March 2020. As autumn closes, bids increasingly arrive from foreign states for distressed Australian assets. As part of an Australia-first approach, the Foreign Investment Review Board (FIRB) increasingly flexes its beefed-up remit to preserve local industries.

Its more intrusive positioning mitigates the risk of opportunistic asset purchases at the expense of Australian businesses’ access to foreign capital.

Government intervention does not stop at FDI, as inward-looking trade policies reduce both Australian import and export levels. The level of reliance on global trade decreases as domestic production is...
incentivised through a range of tariffs, quotas and subsidies. Exposure to international supply chains is reduced, and most comprehensively for critical infrastructure and medical products. Higher levels of government regulation is seen in multiple sectors, including mandated domestic production of goods and strict oversight of production brought onshore.

Further evidence of Australia's insular approach is seen through bolstered federal defence budgets. As the geopolitical fallout from COVID-19 continues to simmer in the background, military expenditure increases in parallel with government’s security concerns.

This active role of government in the economy comes with a bill, allowing debt levels to continue to rise. Any return to surplus is de-prioritised in favour of an active investor role to bolster the domestic economy, and plug the gap left by reduced foreign capital inflows. Further bond issuances allow the funding and quality of service levels of public departments to be maintained and improved in the medium term. By January 2022, Australia's credit rating has dropped to AA+ and a further fall to AA looks imminent.

Immigration, already damaged from travel bans and changing behaviour due to COVID-19, is further restricted by the government as a means of improving job outcomes for Australians. This includes restrictions on international students and the ramifications on tertiary education institution balance sheets.

Consumers pay more as prices, for just about everything, are higher as we push for more localised production and supply across most industries.

Industry consolidation isn't experienced in the same levels as normally expected post crisis. Government maintains its support, to a lesser degree, of businesses. M&A activity is moderately low as foreign capital is restricted.

In three to five years the country has evolved into Fortress Australia.

4.2 Enterprise Australia

By the end of March 2020, the Australian Government provided survival packages worth around $214 billion and another $90 billion of monetary support. Large parts of this are targeted toward stabilising the Australian economy, supporting businesses and employees alike.

After this unprecedented level of expenditure, political pressure grows to return the budget to surplus, for the first time since 2008, and begin to pay down public debt. Given the stress on business and household budgets, higher levels of taxation are not a viable option. Instead, government expenditure returns to historical levels and Canberra's priority is unleashing growth to reduce our debt burden and enabling private industry to grow the economy out of crisis.

Australia enters a phase of market-led recovery facilitated by smarter regulation across financial markets, tax and industry standards. This enables industry to devote more time and resources to value generating activities.

High unemployment rates during the shock phase led to concerns of swinging restrictions on immigration, similar to those implemented after the 1991 recession, when immigration fell by over 30%. These concerns prove unfounded, as an open door immigration policy allows industry to recruit foreign talent and reduces labour supply concerns.

Under this scenario, the Australian Government reduces limitations on access to foreign capital and barriers to trade, which sees the economy double-down on globalisation with global trade and imports comprising record proportions of GDP. In particular, Australia's comparative advantage in food and beverage processing is exploited as the nation increasingly becomes known as South East Asia’s food basket.

Merger and acquisition activity and private investment in technology rise as, flush with FDI, industry looks to maximise productivity gains. Consolidation occurs across the economy as the balance of power shifts towards multinational corporations (MNCs). Existing digitisation plans are accelerated and new plans are implemented, seeing demand for communication services rise while demand for air travel and CBD real estate declines.

This digitisation enables smart or Industry 4.0 manufacturing to occur at scales not seen before across Australia’s production lines. In particular advanced manufacturing and chemicals become price competitive against South East Asian competition as exports comprise an increasing proportion of GDP.

By 2025 the government has moved towards a balanced budget and implemented a wave of smart regulation, completing the nation’s evolution into Enterprise Australia.
Post-COVID-19 economic outcomes

We have considered how the scenarios identified in the previous chapter would shape national income, industry, and welfare outcomes.

The current base case projection of real GDP, or economic, growth is -6.3% in 2020. This is substantially below the 2-3% forecast as recently as six months ago. In the short term, 2020-21, diminished economic and social activities - particularly retail, tourism, liquifed natural gas (LNG) exports and immigration - will weigh heavily on growth.

Assuming Australia’s management phase of COVID-19 is successfully navigated this year, a strong rebound in economic growth of 7.2% is projected for 2021. This ‘best case’ scenario results in an economy which is $104 billion smaller than it otherwise could have been in 2021.

In the medium term - 2021 onwards - government and industry will have broader scope to increasingly impact the shape and size of Australia’s economy. It is at this stage each scenario deviates and results in distinct economic outcomes.

FIGURE 5.1
Real GDP, growth rate and level (2019-2022)

In the short term, economies can be highly responsive to external stimuli; fiscal expansion, geopolitical developments, and epidemics can all materially impact economic growth.
5.1 National income

Enterprise Australia is the only scenario which gets Australia back to its previous growth trajectory

Enterprise Australia is the only scenario which gets Australia back to its previous growth trajectory (see Figure 5.2). This is a result of a number of factors including strong population growth, digitisation related productivity gains and smarter regulation enabled growth. By 2025, Enterprise Australia surpasses our pre-COVID-19 trajectory, and in 2030 the economy is $7.4 billion (or 0.3 per cent) larger than it otherwise would have been.

Even though Enterprise Australia gets us back on track, we expect to have shutdown related losses of $279 billion over the next two years. The largest peak to trough losses are seen in the retail and consumer, and real estate sectors, falling over $20 and $17 billion respectively.

In the long term, the actions taken in Enterprise Australia, will see potential additional losses of $127 billion reduced to $63 billion. This represents $64 billion of additional economic activity, a 50% improvement. Total losses to 2030 are reduced from $406 billion, projected without conscious policy changes, to $342 billion (see Figure 5.2).

Fortress Australia has a detrimental impact on economic growth. The economy is over $49 billion smaller in 2030, equivalent to a 1.9 per cent reduction in the size of the economy under our pre-COVID-19 growth trajectory. Lost activity from 2022 increases from $127 to $400 billion, resulting in total losses of around $680 billion to 2030.

Low levels of immigration, reducing the flexibility and levels of skills in the Australian workforce, and the ongoing support of less efficient businesses (often small and medium sized businesses) combine to dampen productivity growth. While protectionist trade policy and limited access to FDI stifle industry’s ability to grow out of the crisis.

**FIGURE 5.2**
Real GDP by scenario, 2018-2030 ($2019-20 billion)
FIGURE 5.2 CONTINUED
Real GDP by scenario, 2018-2030 ($2019-20 billion)

Enterprise

FIGURE 5.3
Impact on real GDP by scenario, 2020-2030 ($2019-20 billion)
**Fortress Australia’s policies yield a quick lift for GDP per person, and restricts growth from 2023 onwards**

In terms of economic growth per person, the medium to long-term outcomes follow a similar pattern to GDP. Fortress Australia does see an initial increase in GDP per capita as population fails to bounce back due to low levels of immigration.

In the long run, GDP in Enterprise Australia will be $1100 per person higher than under Fortress Australia (Figure 5.4). This lower-growth outcome reflects the economic inefficiencies associated with shifting economic activity from low-cost offshore delivery and investments in inefficient health and defence activities.

**FIGURE 5.4**
Impact on real GDP per capita, 2020-2030 ($2019-20)
5.2 Industry

Like most developed economies, Australia has high levels of interdependence between sectors and along supply chains. As GDP changes, the value of goods and services produced in specific sectors typically follow a similar trajectory.

So it is not surprising that Enterprise Australia results in the highest growth across sectors.

**Industries reliant on discretionary spend suffer**

For the first time in recent memory, we have a generation of Australians who have lived and worked through a global financial crisis (2008-09) and a pandemic, some are experiencing this in little over their first decade in the workplace. As seen after previous crises, we expect an increase in households' propensity to save, which disproportionately impacts spending on discretionary goods and services, which will continue to struggle for demand as consumer sentiment gradually recovers as lockdown measures are unwound.

Retail and consumer is a broad, diverse sector and the outlook differs significantly by sub-sector. However, overall PwC projects lost output of $59.6 billion to 2030. We expect declines in employment and a continuation of rising retailer defaults, a continuation of pre-COVID-19 trends. The downturn will likely extend to retail property assets that will experience a downwards resetting of rents, corresponding drops in value, and market consolidation as operators are forced to exit.

We expect a gradual recovery post COVID-19 and a continuation of lockdown consumer behaviors. Australian retailers will accelerate switching to digital channels to capitalise on consumers changing behaviour, look to demonstrate value through promotions and lower priced products, increase the agility of supply chains to service the need of online fulfilment, and right size organisations and spend.

A growing population and the ability to operate with open borders for import and export will mitigate sector losses, and Enterprise Australia sees an additional $12 billion of activity by 2030. Reduced friction on trade, higher levels of immigration and the increased availability of capital, leading to tech investment and M&A, will bolster output in the sector. This contrasts with Fortress Australia which sees lost output increase by $28.7 billion to $88.3 billion.

**Self-reliance sees a defence boost**

Fortress Australia's nationalistic positioning, in response to heightened geopolitical uncertainty, sees the federal defence annual budget increase by 10%, and the sector gains over $24 billion in output to 2030. Total sector activity in 2030 is $3.2 billion higher, or over $34 billion, than under our pre-COVID-19 trajectory. A spend of this magnitude, surpassing the long-term commitment of growing defence spending to 2% of GDP, would likely only occur where geopolitical uncertainty increases far beyond current levels.

The Australian defence industry will be a key beneficiary of Fortress Australia. However, the ability to meet the growing demand will highlight constrained supply chains, which will be more fragile post COVID-19, including workforce, an enduring problem of finding appropriately skilled, experienced and security cleared staff. Agile companies that can manage these constraints and offer innovative solutions should take a disproportionate share of the additional expenditure. Now is the time for Australian industry to critically assess defence growth areas (such as in maritime and ICT), articulate their capabilities and engage with governments.

The unfolding humanitarian crisis could prejudice the security of Australia’s near neighbourhood of the South West Pacific and Indonesia. Government must assess a range of plausible scenarios and appropriately direct funding and resourcing to mitigate these future risks.

**Banking, insurance and superannuation are central to recovery**

An efficient and stable financial services sector is fundamental to Australia’s economic recovery and will be the subject of significant change in its own right, as the industry responds and refocuses through the management phase. Unlike the GFC, the current crisis does not emanate from the finance sector and banks and superannuation funds have already proven themselves effective instruments of economic support. This has set the industry on a course of rebuilding trust that it could not have imagined a year ago. The sector has adapted to changing realities on how it engages with its customers, with greater use of online banking likely to persist and change the role of bank branches in the medium term.
In both scenarios, the banks are preparing for the capital, operational and conduct challenges as the immediate shock-absorption measures of the banks, government and regulators subside. Enterprise Australia would likely see a quicker return to system credit growth as economic conditions improve. The banking and capital markets sector could see $5.6 billion additional output to 2030 in this scenario. Growth would be underpinned by a faster recovery in residential property, helping stabilise banks’ mortgage lending. With new and existing residential property demand being driven by a higher population and greater confidence in the economy.

In Fortress Australia, it is likely that the residential real estate sector will suffer the most primarily due to lower demand for housing in line with the reduced immigration levels. Both heavy and light industrial assets will experience higher demand, resulting in capitalisation rate compression (higher values and rents) as there would be an increased requirements for domestic manufacturing premises.

In Fortress Australia’s banking and capital markets sector, the impact of hard-line immigration policy would have significant recovery implications through negative impacts on housing and broader credit growth, resulting in an additional $14.7 billion of lost output to 2030.

A key aspect of encouraging growth in Australia is the protection against loss. In the recovery phase, consumers and businesses will have heightened appreciation for the value of insurance. We expect demand for some insurance classes such as cyber insurance to grow while others like travel will decrease, creating opportunities for insurers with strong balance sheets, well developed digitalisation capabilities and ability to adapt to these new customer demands. Our projections suggest the insurance sector will see a reduction of $9.5 billion in output to 2030. In more risk averse scenarios we could see the government being more focused on ensuring consumers have appropriate levels of protection, which could counteract the impact of a smaller population in Fortress Australia.

The superannuation industry during the stabilisation phase faced a combination of turbulent markets and heightened short term liquidity pressure. Recovery will see focus move from super accumulation to preparing for retirement, reflecting both an ageing Australia and greater appreciation of the impact of market volatility on preparedness for retirement. Regardless we will see pressure for investment performance. The experience during COVID-19 of members wanting liquidity may lead to a re-evaluation of illiquid assets in the portfolio and the return on equity (ROE) of these investments. Given the compulsory nature of superannuation, population is the main determinant of sector activity, and Enterprise Australia would see lost activity decrease from $2.6 to $1.8 billion to 2030.

FIGURE 5.5
Impact on real GVA by scenario, 2020-2030 ($2019-20 billion)
Industries reliant on immigration suffer

In the short term, industries reliant on immigration suffer. For example, over a billion learners globally have been unable to attend school or university as a result of COVID-19 and the experience will have a lasting impact on Australia’s education system.

The education sector is expected to lose over $63.5 billion of activity to 2030. Specifically, education exports decline by around 30% across all scenarios. We expect international students will be hesitant to return to Australia in the short term, and we might be hesitant to have them because of health concerns. This is a significant challenge for the sector but also presents an opportunity to truly transform. This will need to include diversifying international student markets, and rethinking delivery models (to sustainably reduce costs) while investing in other revenue generating activities including online. This crisis has, and will be a catalyst for innovation in the classroom, lecture theatre and research lab.

In Fortress Australia, immigration restrictions exacerbate this issue further, and the education sector loses $68.8 billion of activity, an additional $5.3 billion. Domestic students, both of school age and tertiary education, will benefit from greater investment in learning support and a focus on student wellness, upon returning to the classroom.

We can also expect housing construction and other population growth oriented industries to suffer most under a Fortress Australia scenario when net migration falls from recent levels.

5.3 Household consumption

While GDP provides a measure of the health of the economy as a whole, it does not necessarily paint an accurate picture of how much better or worse off people are. A better measure of the public’s welfare is provided by household consumption and employment.
Enterprise Australia makes a positive contribution to lost consumption, decreasing it by $13 billion

Figure 5.6
Real household consumption by scenario, 2018-2030 ($2019-20 billion)
Enterprise Australia makes a positive contribution to lost consumption, decreasing it from $355 billion to $342 billion. Investment levels will likely rise as the economy is relatively more export-driven, and capital intensive. Productivity improvements, which make Australian goods and services more price competitive, drive export growth unlike Fortress Australia where protectionism has only a short term inflationary effect on export volumes. This all means household consumption comprises a smaller proportion of GDP in the short- to medium-term. Wages, which tend to be slow to react to market forces, and the resulting consumption, begin to catch up but are unable to exceed our pre-COVID-19 trajectory in the projection period. In 2030, Enterprise Australia households consume $5.2 billion or 0.4% less than they would under our pre-COVID-19 trajectory.

The decline in household consumption in Fortress Australia is more stark than the impact on GDP. There is $49.1 billion, or 3.3% less household consumption occurring in 2030 as a result. Almost half of this is a result of a smaller population. Reduced trade as a result of protectionism, lower investment, and high defence spending (which is not consumed by households) account for the rest. Manufacturing sectors, along with defence, are relatively better off in Fortress Australia, at the expense of other industries including transport and construction, which aren’t offered the same protections. Lost consumption to 2030 totals $601 billion, an additional loss of $246 billion.
5.4 Employment

Each scenario has a different employment magnitude and job profile

The number of jobs in the economy broadly correlates with trends in economic growth. In 2020, over 1.1 million job losses are projected and around two-thirds of these have already occurred as of May 2020.\textsuperscript{102}

In 2030 Enterprise Australia has 42,000 (0.3\%) more jobs and a total of 14.5 million jobs. This is 320,000 more than Fortress Australia, which falls 1.9\% below our previous jobs growth trajectory.

At industry level, Enterprise Australia sees strong growth in communications and services roles in particular, reflecting a stronger shift to high-skilled and digital occupations. Fortress Australia benefits low-skilled industries including manufacturing and several export focused industries, who benefit from protectionist trade policies.

Australia’s relative success in dealing with COVID-19, and the perception that Australia is safer than other parts of the world, provides a comparative advantage in a number of industries, particularly those most hard hit from the COVID-19 lockdown (e.g. international tourism and education exports). This advantage and gains in employment will only be fully unlocked if our visa system enables this opportunity to be capitalised on, as under the more open approach of Enterprise Australia.

The scenarios provide a picture of how reactions now could shape economic outcomes in the future. How we emerge will likely have elements of each of the scenarios, and government and industry should lean in to changes which align with their long term priorities.

\textbf{FIGURE 5.8}

Impact on employment by scenario, 2020-2030 (thousands of jobs)
COVID-19 is a human tragedy and it is critical we ensure there is sufficient and equitable access to medical infrastructure and services for all Australians to prevent loss of life and livelihoods. PwC’s analysis helps decision-makers, across government and industry, understand the key trade-offs and their ramifications for businesses, communities and individuals in a post-COVID-19 economy.
However, there are some no-regrets objectives we should pursue:

- Whatever path we choose, our response to COVID-19 has clearly accelerated consumer uptake of digital platforms for shopping and doing business, and has forced businesses and governments to scramble to be more digitally led, both internally and externally. It is difficult to see these behaviours reverting entirely back to pre-COVID-19 ways and should be encouraged and supported to grow. An innovative, digital Australia will be more productive, while protecting Australians from cyber threats.

- The agility shown by governments and businesses in responding to the challenge of COVID-19 should be embraced as the default. Though reflection and a slower pace of change would be welcomed by all, we need to continue to advance swiftly and welcome change. Contemporary digitally enabled operations across businesses and departments will make sure business and government alike can keep up with a fast paced, innovative Australia.

- Continued focus on reducing persistent unemployment. Specifically, with unemployment, and particularly youth unemployment, likely to be stubbornly higher for years, further embracing digital options means that governments and businesses will need to embrace a new round of digital upskilling to equip people for the jobs of today, let alone the jobs of tomorrow. This should also support older Australians who will need to spend more time in the workforce before retiring. The Future of Work has been a discussion topic for the last few years but what appears now to be clear, is that this future is now very soon if not here already.

- A broader conception of risk needs to be embedded into corporate and public policy planning. COVID-19 has exposed gaps in our reliance on international supply chains, national technology infrastructure and dependence on skilled migration to supplement skill gaps. Targeted investment to shore up these areas from businesses and governments would both help with the impact and scale of future events.

- A heightened focus on more efficient delivery by governments. Simply spending on health or domestic manufacturing with little regard for efficiency will lead to a dampening of outcomes and community incomes. We have found new ways of working to deliver more; these should be embedded and extended across non-competitive areas of government service delivery and smart regulations.

We will, however, need to make trade-offs in balancing social need, health outcomes, economic growth with other national interests, such as self-sufficiency and population health.

In the long run, GDP in Enterprise Australia will be about $1100 per person higher than under Fortress Australia. These lower-growth outcomes reflect the economic inefficiencies associated with shifting economic activity from low-cost offshore delivery to investments in inefficient health and defence activities.

We believe Australia can grow its way to economic recovery and use this growth to pay a premium to mitigate the human and economic damage of future crises.

Whether you’re an individual respecting social distancing laws, an intensive care department treating COVID-19 patients, a financial institution finding space to help mortgage holders, a business adapting to new ways of working, a community organisation embracing new technology or a policymaker deciding on economic and public health outcomes, we as a nation can choose to Reboot Australia to drive prosperity for all.
Endnotes


3 All values are reported as net present values, in real $2019-20, discounted at 1 per cent. This discount rate was chosen as it reflects current yields on 10-year bonds, an expectation that a low cash rate will persist over the forecast period, and a lack of binding resource constraints.


25 A small business is defined by the ABS as a business that employs less than 20 people; a medium business is one employing 20 or more people, but less than 200 people.


Endnotes


44 Even for physical sellers we see change in the form of an expectation – from workers and customers – that payments systems should be contactless.


64 For example, Audible offered free streaming of children’s stories to entertain children while schools were shut.


85 Treasury (2020, p.10)


06PG0gEAg&un=james.b.loughridge@pwc.com&tk= YTBOMGUwMDAwMDZQRzBnRUFH OmphbWVzLmlubG91Z2hyaWRnZUBwd2MuY29t


93 All net present values (NPV) are reported in real $2019-20, discounted at 1%. This discount rate was chosen as it reflects current yields on 10-year Bonds, our expectations for a low cash rate to persist over the forecast period, and a lack of binding resource constraints.

94 All values are reported as net present values, in real $2019-20, discounted at 1 per cent. This discount rate was chosen as it reflects current yields on 10-year bonds, an expectation that a low cash rate will persist over the forecast period, and a lack of binding resource constraints.


99 Results are reported in financial years. I.e. 2020 is equivalent to July 2019 - June 2020.

100 Figures 5.2-5.8 show the net impact of each scenario against a base case. This base case is the COVID base case presented in Figure 5.1.

101 All gross value added (GVA) losses are reported in total (2020-2030), real $2019-20, net present values (NPVs) discounted at 1 %, unless otherwise stated.

B3112582CA25853600764041?OpenDocument

103 All net present values (NPV) are reported in real $2019-20, discounted at 1%. This discount rate was chosen as it reflects current yields on 10-year Bonds, our expectations for a low cash rate to persist over the forecast period, and a lack of binding resource constraints.
Contacts

For more information

Thomas Bowden
COVID-19 Market Response Leader
+61 (2) 6271 3229
thomas.bowden@pwc.com

Jeremy Thorpe
Chief Economist & Partner
+61 (2) 8266 4611
jeremy.thorpe@pwc.com

For media enquiries

Rachel Mulholland
Head of Media
+61 467 654 011
rachel.mulholland@pwc.com