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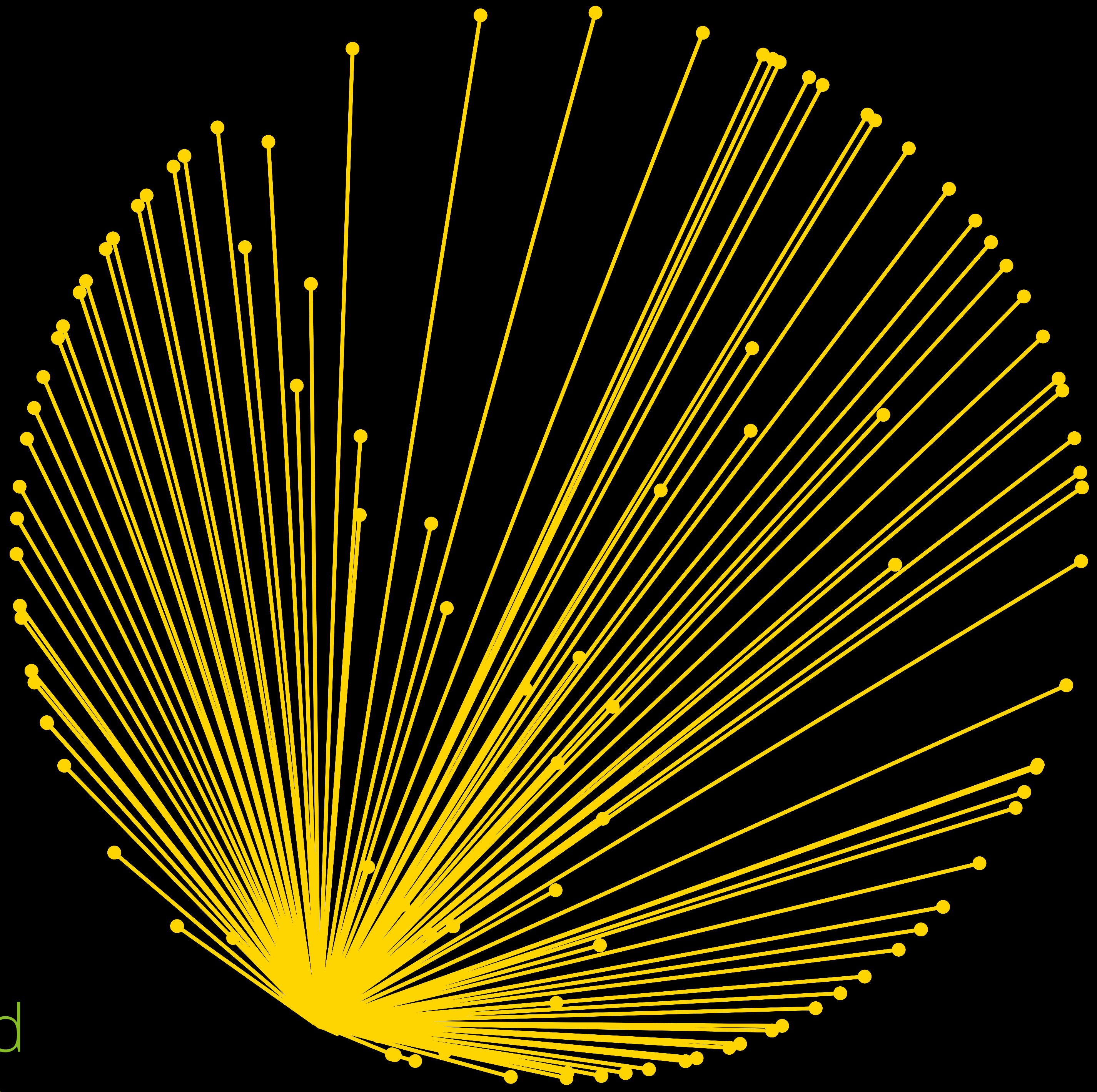


Infrastructure or accelerated capital spend as an economic stimulus

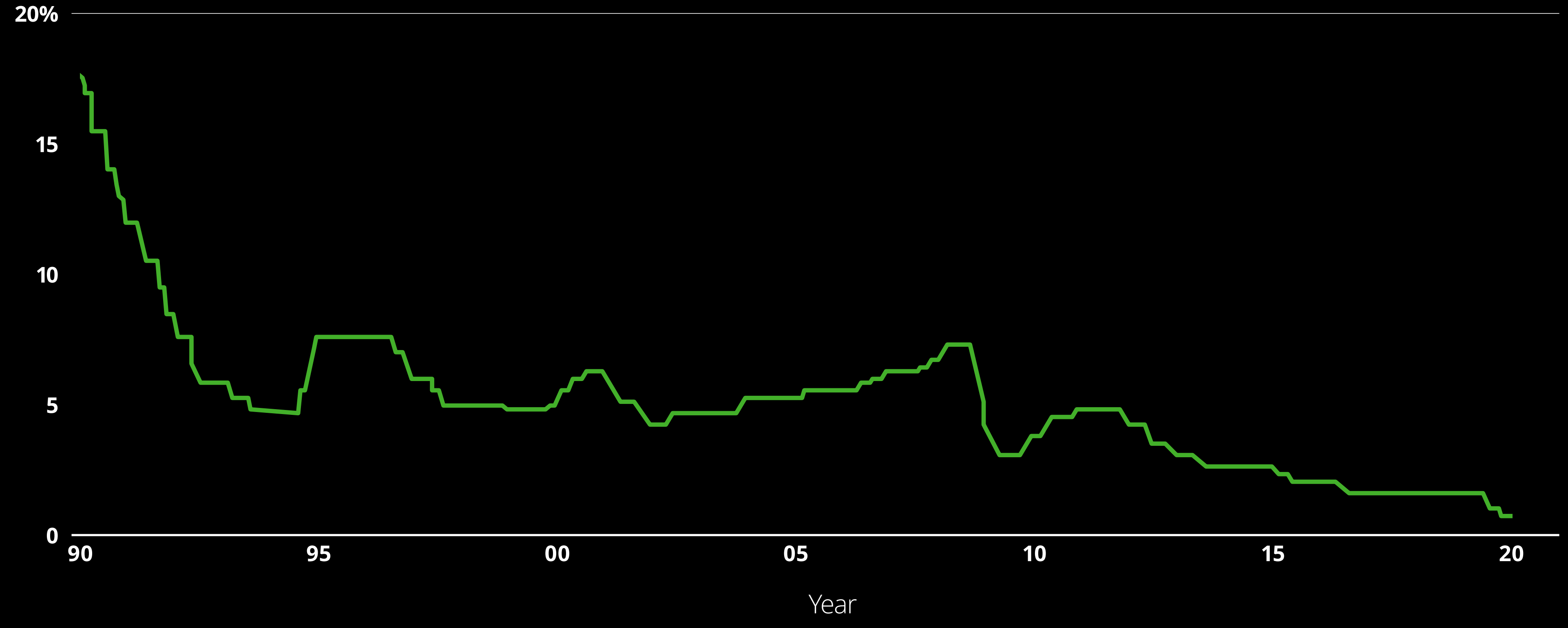
April 2020

Introduction

The current COVID-19 crisis is having far reaching and meaningful impacts on Australian society and the economy. We believe investment in infrastructure provides one of the key opportunities to keep people employed, businesses afloat and to maintain the productive capacity of the economy – thereby enabling Australia to recover in the quickest time possible.

While much is unclear and uncertain at the moment, what is certain is that monetary policy has reached the limit of its effectiveness. The graph below shows the reduction in the cash rate over the last 30 years to stimulate the economy.

Chart 1: Graph of the cash rate target



Source: RBA – https://www.rba.gov.au/statistics/cash-rate/

Introduction

Some specific points to note on the curve:

- August 1994 RBA increase cash rates by 0.75 per cent, the first in five years –to help sustain non-inflationary growth into the future.
- July 1997 RBA reduce the cash rate by 50 basis points, to 5.0 per cent. Four reductions in the past year based on the improving picture for Australia's medium-term inflation performance.
- October 2008 RBA lower the cash rate by 100 basis points to 6.0 per cent as 'Conditions in international financial markets took a significant turn for the worse in September.'
- May 2010 RBA raise the cash rate by 25 basis points to 4.5 per cent several countries outside the major industrial economies have now started to reduce the degree of stimulus to their economies.
- February 2015 RBA lower the cash rate by 25 basis points to 2.25 per cent. Growth in the global economy continued at a moderate pace in 2014. Commodity prices have continued to decline. The price of oil in particular has fallen significantly over the past few months.

At 30 March, 2020 the cash rate has reached an historic all-time low of 0.25%; 25 basis points from zero and little room to move lower. Furthermore, we have seen the start of quantitative easing from central banks and in fact, the Reserve Bank of Australia has indicated it will implement quantitative easing in Australia for the first time in the country's history[1]. Policy may also be further impacted by a diminishing appetite for private sector to invest in capital markets.

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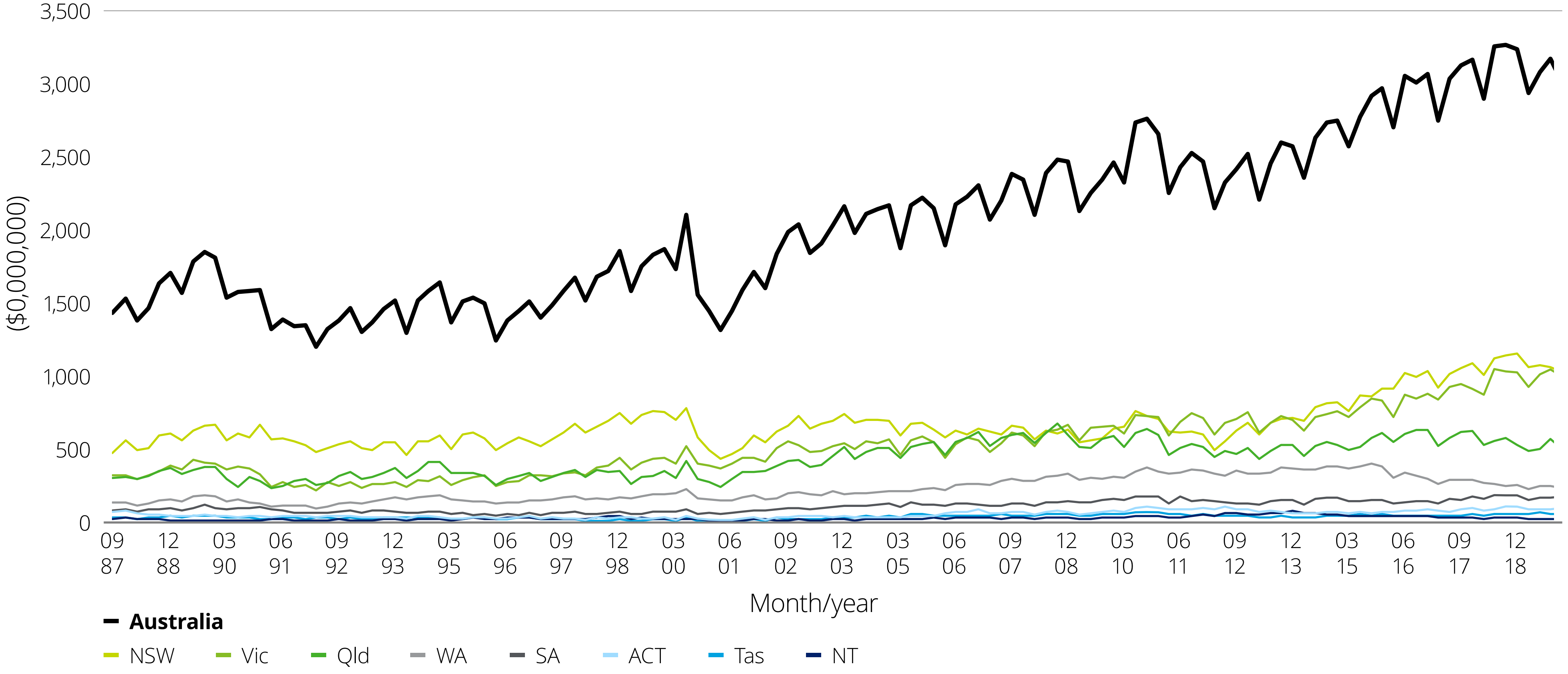
01 — Fiscal stimulus and the role of infrastructure

With monetary policy unlikely to be effective, governments are looking to other ways to stimulate the economy and infrastructure is one of the key opportunities to drive this stimulus. Infrastructure as an economic stimulus is not a new concept. An example of this was Roosevelts New Deal in the 1930s. The New Deal was an enormous package of public works projects, federal regulations, and financial system reforms enacted by the U.S. federal government. The package was passed in an effort to help the nation survive and recover from the Great Depression of the 1930s. The New Deal programs created jobs and provided financial support for the unemployed, the young, and the elderly; all areas that remain relevant today.

Following the Global Financial Crisis in the mid 2000s the International Monetary Fund (IMF) encouraged countries to spend on infrastructure to help create jobs and drive economic growth. Australia has had a strong construction sector for many years as evidenced in chart 2[2], so should again be used to drive growth.

Chart 2: Value of total building



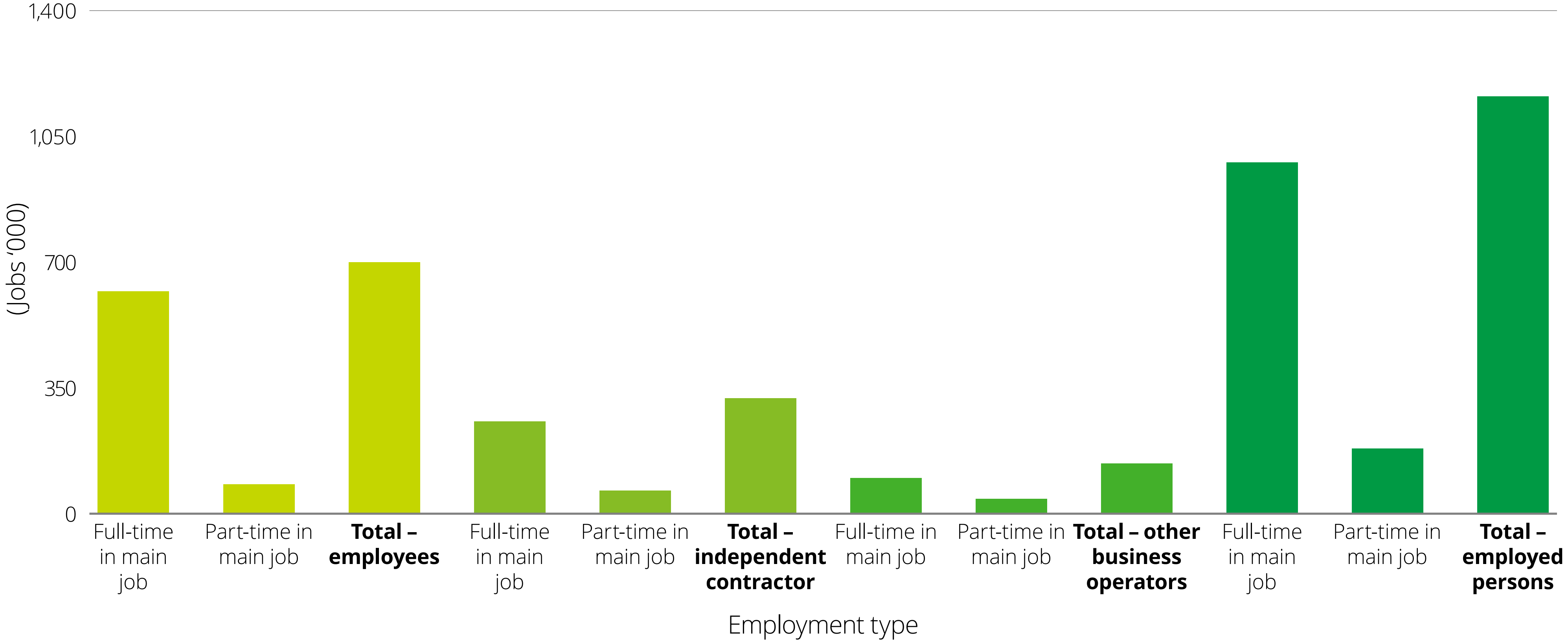
Source: ABS 8755.0 – Construction Work Done, Australia, Preliminary, Dec 2019.

01 — Fiscal stimulus and the role of infrastructure

Furthermore, construction plays a major role in the employment landscape[3] and can have a significant impact on the economy.

Fiscal policy is already stepping in now, particularly at the state level, through massive recurrent budget costs. This recurrent cost will likely have to be funded from borrowing, as tax receipts fall and social welfare payments increase. The key point is that in such an environment, Governments will have to make a conscious decision to protect public sector investment – i.e. as recurrent deficits spiral and debt balloons, there will be a temptation to cut government investment – but this would be short-sighted because of the way that public sector investment has three important stimulus effects.

Chart 3: Construction employment



Source: ABS 6333.0 – Characteristics of Employment, Australia, August 2019

01 — Fiscal stimulus and the role of infrastructure

1. Firstly, it improves the productive capacity of the nation – for example, goods can move more easily, labour is more productive, energy cheaper and more reliable, etc. This is incredibly important to ensure the country recovers as quickly as possible (noting that the country is still recovering from bushfires and floods) and can pay off the debt being built up.

2. Secondly, it provides a significant unemployment buffer in the short term through direct employment and increased demand for the other inputs into infrastructure development – and those wages support other jobs through spending.

3. Thirdly, social outcomes are better planned for and achieved by infrastructure spend than monetary policy. Domestic violence, child abuse, homelessness and mental health issues are all set to rise during COVID-19 and will need service delivery responses in recovery. Infrastructure enables services – not just through physical assets but through coordinated and integrated funding that would otherwise not be available for services; spending on infrastructure enables key human and social services.

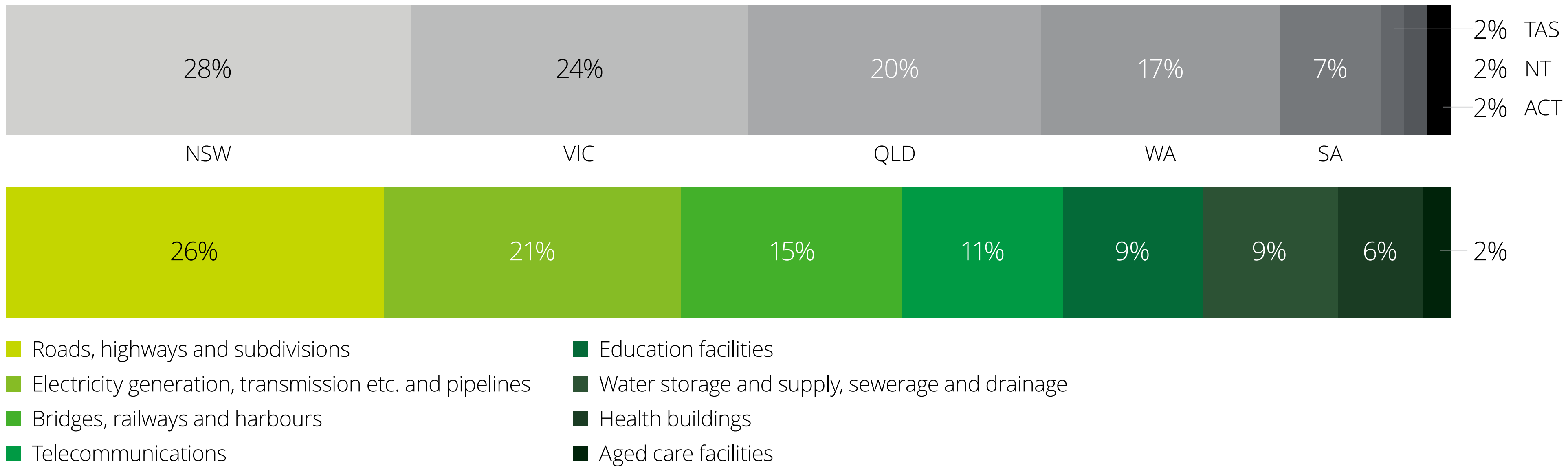
02 — Current infrastructure pipeline

Prior to the COVID-19 interruptions, Australia was in the midst of an infrastructure boom.

Many states were at record levels of spending. Australia has invested $680bn between 2010-2019 with approximately 89% invested in the four most densely occupied states, and on key enabling infrastructure (transport, water and energy accounting for approximately 73% of spend).

From 2010-19, total infrastructure spend in Australia was approximately $679.7bn with an average 54%/46% public/private sector spending split.

Chart 4: State and sector investment in Australia ($bn, 2010-19)



Sources: DAE 2019 'Investment Monitor March 2019', RBA 2019 'Interest rate decisions – December 2019, ABS 2019, Ashurst 2015 'Australian Infrastructure: A guide for investors' McKinsey 2019 'Australia's infrastructure innovation imperative', Consultancy.org 2019 'McKinsey: Australia's infrastructure sector gearing up for change.

Note: Figures exclude cost of land, repair and maintenance etc. per the ABS Explanatory Notes.

02 — Current infrastructure pipeline

Chart 5: Australia's infrastructure spend (2010-19)

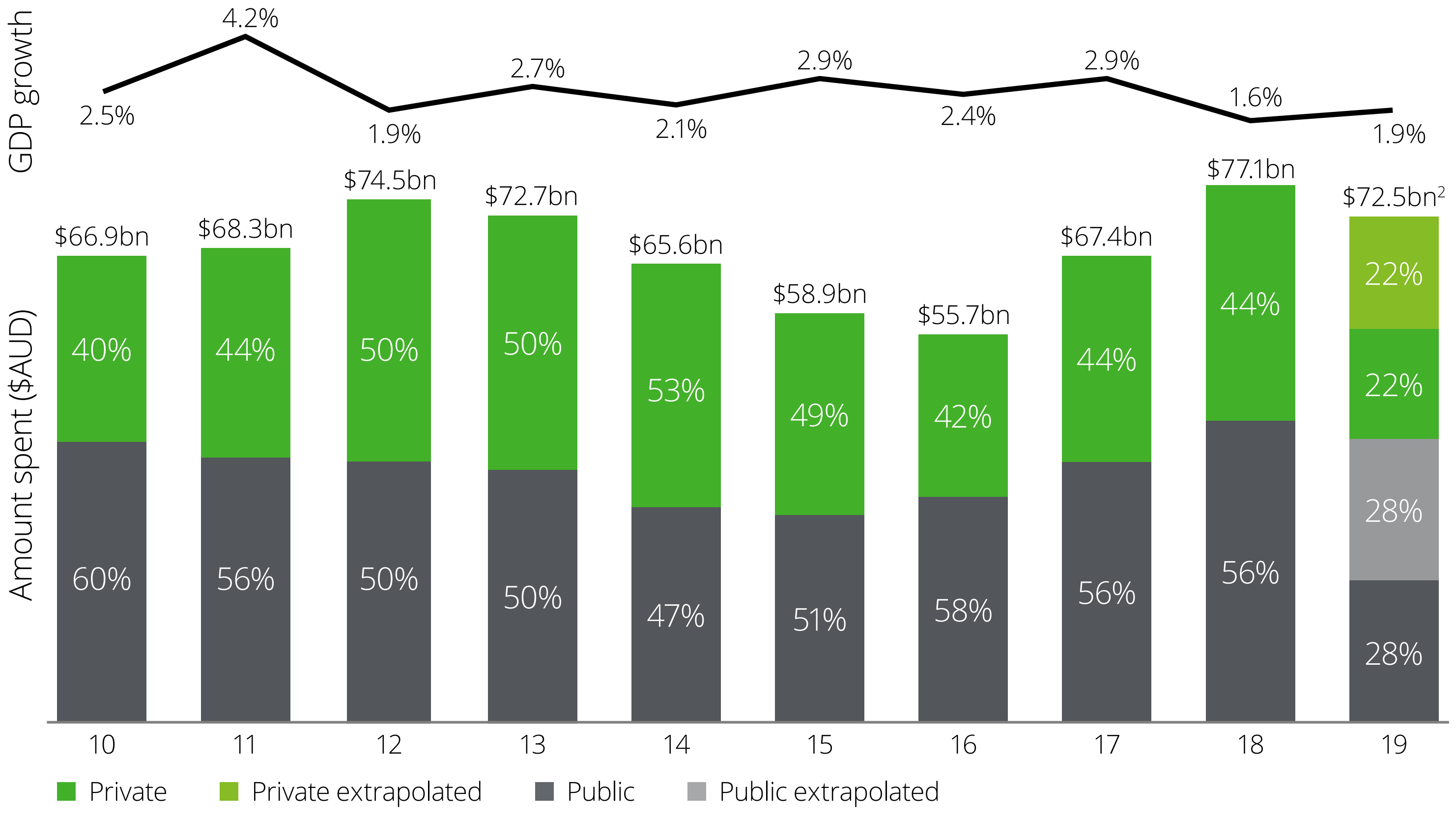
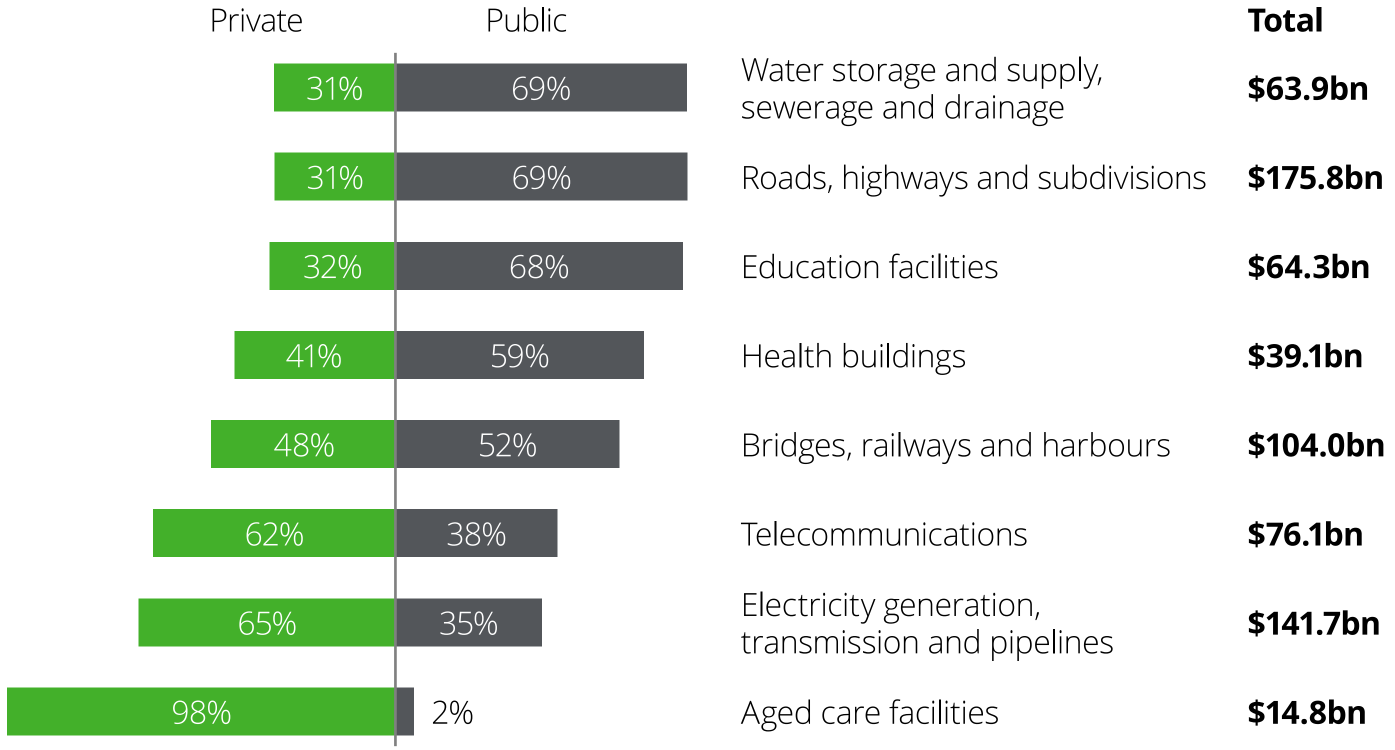


Chart 6: Private/public infrastructure spending by sector (2010-19)



Source: Australian Bureau of Statistics (ABS) 'Engineering Construction Activity' and 'Non-Residential Building Works' datasets by state, Infrastructure Partnerships Australia (IPA) 'Australia & New Zealand Infrastructure Pipeline', Australian Parliament Research Paper 'Infrastructure expenditure – Budget Review 2015-16 Index', Deloitte Analysis.

Notes: 1. Spend in calendar year and calculated by sum of spending on roads, highways and subdivisions, bridges, railways and harbours, water storage and supply, sewerage and drainage, electricity generation, transmission and distribution, pipelines, telecommunications, education buildings, health buildings and aged care facilities spending, 2. 2019 infrastructure spend extrapolated for September and December quarters based on available March and June quarter data 3. Reflected in federal government's 2015-16 Budget, which showed a fall in infrastructure expenditure by way of payments to the states for 2014-15 and 2015-16.

02 — Current infrastructure pipeline

Chart 7: ANZIP

Source: Infrastructure Partnerships Australia 2020

03 — What can we do now?

Governments should continue to deliver on the impressive infrastructure pipeline to drive future economic stimulus. However, these mega projects will take a long time for the economic benefits to be realised and may be limited in the breadth of impact.

The benefits that flow once a project is finished (like reduced travel time for a road) are significant, but in the longer term, so Governments should consider ways to increase the speed of these benefits.

It is during construction that mega projects also have a huge economic impact in terms of job creation and use of raw materials etc. The mega projects should all continue at the fastest pace possible in the current climate as it provides the base load for the sector and can shield the economy from further job loss; this of course needs to be balanced out with what is a responsible health response to COVID-19. This sentiment is echoed by Adrian Dwyer, CEO of Infrastructure Partnerships Australia, who said in a recent media release:

"While maintaining focus on project delivery to underpin the economy, we must also begin to focus on post crisis mobilisation and planning for an infrastructure-led stimulus".[4]

Governments should consider some of the regulatory impediments that will inhibit or slow growth. For example, labour laws, planning laws – even environmental laws. However, there is clearly a balancing act or a cautionary tale to not ignore such things but these regulatory impediments may benefit from simplification or acceleration.

The pandemic has also changed the way we work; possibly forever. COVID-19 is forcing all of us to think about different ways of working and how we need to equip ourselves to do that effectively. Clearly technology is going to play an increased role in the future of work and how infrastructure is delivered.

03 — What can we do now?

Whilst the mega projects bring out the benefits outlined above, unless they are live or in the tender phase they are likely to be slower to show positive economic impact. Indeed to rush mega projects through may result in money not being spent on the right projects nor executed effectively.

Perhaps it is time to shift the focus into investing in the existing asset base, improving efficiency, improving resilience, improving broader cross-sector economic impacts through precincts and using technology to transform and de-risk delivery. In our view there are some logical steps to accelerate infrastructure as an economic stimulus:

1. **Start with existing assets.** Investment in optimising the configuration and performance of existing infrastructure assets can bring impact quickly.
2. **Take a precinct lens.** A precinct approach can create wider social and economic benefits than traditional approaches to development and infrastructure investment. It ensures we take a broader view and invest in the right projects for the community.
3. **Digitally enabled infrastructure delivery.** The challenges associated with the delivery and operation of complex infrastructure in today's marketplace have been well documented in recent years. There are many reasons for the variability in project outcomes but one common thread in the array of solutions is effective use of real time data and analytics.

Each of these concepts is explored in more depth on the following pages.

03 — What can we do now?

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1. **Increase the spend on asset management and maintenance**
   Governments have billions of dollars of assets in both hard assets and built form. Historically there has been a backlog of maintenance on assets as competing budgetary pressures have favoured new build. What are the advantages of asset management and maintenance in the short-term?

- It stimulates the economy through improved efficiency of the existing asset base
- It leads to a reduction in operating and repair costs through strategically planed investment
- It can utilise a mix of highly skilled and unskilled labour
- Procurement processes and requirements can be met quickly and inexpensively for bidders
- The size of the investment can be scaled quickly to meet resource availability
- Opportunities can be targeted at high needs or vulnerable communities e.g. rural areas also impacted by bushfires
- It provides a boost to second and third tier contractors who can't compete on mega projects.

In boom times less attention is often placed on asset management and more focus is given to acquisition and expansion. Reduced focus on asset maintenance can impact asset productivity and output rates and asset capacity declines compared to nameplate design due to maintenance strategies that have not adjusted to ramp-up initiatives. There is an opportunity now to use stimulus investment to maximise operational efficiency and improve asset performance, reliability, and profitability. Indeed, Roads Australia President, Michael Bushby said,

"Continuing to push on with the planning, design and construction of transport infrastructure projects, as well as ramping up road maintenance, is an excellent approach for sustaining jobs in these difficult economic times".[5]

03 — What can we do now?

This new focus will require a robust asset management plan and strategy supported by data insights that can maximise the potential of assets. Nevertheless, not all asset owners have a complete understanding of current asset condition, type of maintenance activities and budgets required to optimise costs versus performance.

Therefore, data-driven asset maintenance is an essential step towards bridging the gap between asset condition and performance.

In our view there is a significant opportunity for asset owners to invest and extract value from their existing asset portfolio by taking a strategic, data-driven approach to asset management. This investment can be ramped up quickly and provide significant stimulus to the economy both in short term expenditure and efficiency gains.

Chart 8: The evolution of asset management

Few organisations

Engineering excellence

- Engineering driven – mature practice and common basis in many asset intensive functions
- Financial valuations and processes not aligned with Technical Operations.

Most organisations

Focus on cost implications

- Effective capital rationing through robust financial assessment of options (hurdle rates, NPVs)
- Financial driven – adolescent practice, being integrated in some asset intensive functions
- Recognise alignment considerations of financial and operational metrics to improve efficiencies.

Few organisations

Asset efficiency and value extraction

- A holistic view of the asset's lifecycle to plan the optimal (balanced) investments, operational, and maintenance strategies required to maximise strategic value
- Supported by the integrated processes and Information Management Systems (well informed)
- Fact Based (using asset analytics and portfolio management techniques) and Business driven (ISO55000).

Source: Deloitte

03 — What can we do now?

2. Taking a precinct approach to new opportunities

Precinct approaches can create wider social and economic benefits than traditional approaches to development and infrastructure investment. The upfront planning and prioritisation can create short-term stimuli to economic growth. Whilst much of the precinct work, particularly the property development side, is likely to be held back in the current market conditions, this should not stop government ensuring projects are ready to go once recovery starts by working on economic and other infrastructure that will enable development.

Why take a precinct approach?

- Investment in infrastructure is staged in order to best unlock the strategic outcomes of the precinct
- Comprehensive planning better meets demand
- Staged delivery enables early value sharing opportunities
- Development is delivered holistically in line with precinct plan – with a focus on creating place outcomes
- Precincts generally involve multiple infrastructure sectors and buildings which should hopefully open-up opportunities across the board rather than be concentrated in areas such as rail or road. This should provide opportunities for a smaller set of contractors.

03 — What can we do now?

Chart 9: The benefits of a precinct approach

Economy

- Higher wages and quality jobs for workers
- Superior products for consumers
- Higher tax revenues for government.
- More resilient to economic downturns.
- Higher than average productivity and firm growth.

Financial

- Capture more returns on public investments
- Enables value sharing through development receipts or estate fees
- Drives long term value by activated places that attract high quality tenants.

Sustainability

- More environmentally efficient than traditional sprawl
- Less urban heat effect.

Social and Community

- Create opportunities for community connectedness
- Reduces social exclusion
- Allow delivery of social and community benefits in a more considered and strategic way.

The whole is greater than the sum of its parts

- Co-ordination of investment, reform and services has a multiplicative rather than additive effect
- The whole is greater than the sum of the parts
- Avoids double counting by multiple projects
- Avoids silo-ed investments in transport, utilities, and land use planning.

Given the uniqueness of the current situation, Governments may even need to consider taking greenfield risk to accelerate activity and then resume an asset recycling program when things return to 'normal'.

03 — What can we do now?

3. Digitally delivered infrastructure
The construction industry has an increasing number of partners and contractors engaged when delivering Major Capital Projects (MCP). There is a need to increase transparency and improve collaboration throughout the supply chain, with data and insights shared more freely, processes more closely aligned and better systems integration. There is a pressing need amongst the project managers for an embedded unified data model to harness the power of the vast amount of data available in MCP. This results in a number of opportunities for project management, including safety improvement, project execution optimisation, de-risk project critical path and protecting the project value, while automating the handover to operations.

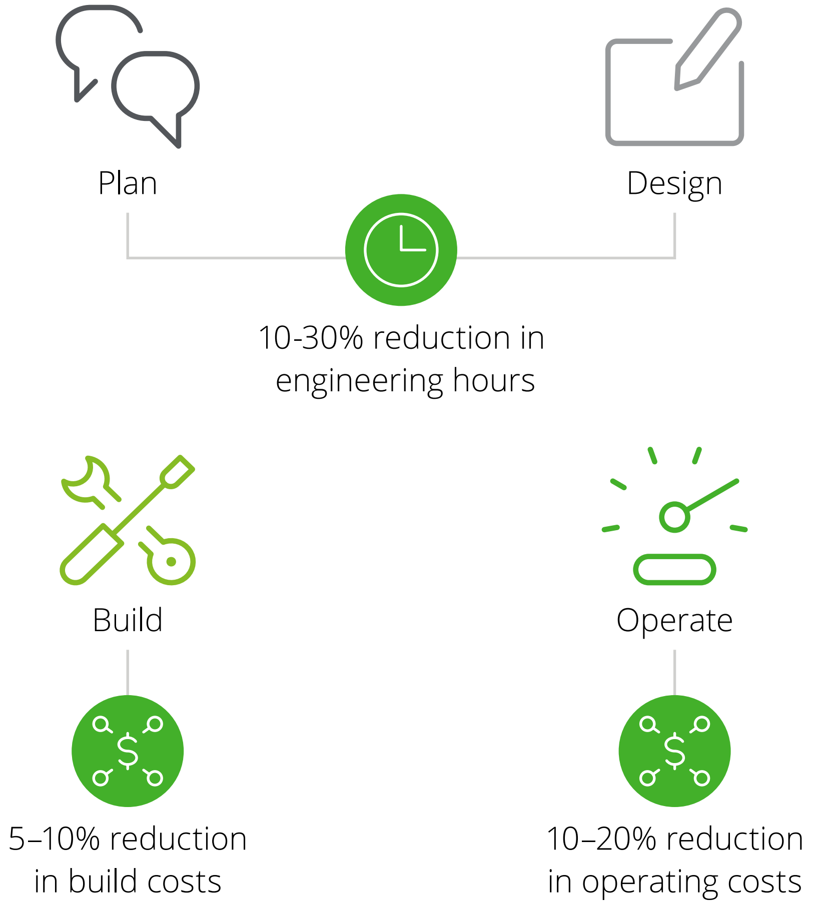
The next digital frontier is reusability and predictability, with developing a capability where every MCP is better than the one before. This will generate a tremendous value for each MCP, all partners and contractors, as well as the construction industry overall.

By using this technology some short term economic benefits include:

- Achieve decision acceleration and bring benefits across the asset lifecycle
- Cost reduction on projects thus allowing resource dollars to be spread further
- Stimulus of the technology sector at the interface of infrastructure
- More efficient use of raw resources such as steel or timber in a time of resource shortages
- Training and upskilling of the labour market.

Tools that consolidate disparate data to a common platform, portal and a set of products, to provide a single source of truth should be utilised.

Chart 10: Benefits across an asset lifecycle



04 — Conclusion

In conclusion, during the current COVID-19 environment, investment in infrastructure should be leveraged as an opportunity to keep people employed, keep businesses afloat and to maintain the productive capacity of the economy.

We need to shift the focus into investing in the existing asset base, improving efficiency, improving resilience, improving broader cross-sector economic impacts through precincts and using technology to transform and de-risk delivery. These logical steps can accelerate infrastructure as an economic stimulus.

So what are the key messages as we consider infrastructure as a stimulus:

- Monetary policy can no longer be effective in stimulating the economy
- Infrastructure can be used as an effective tool for fiscal stimulus but with some key takeaways:
  - Mega projects should continue but they will be slow to deliver additional benefits
  - Government should remove impediments to fast tracking infrastructure delivery e.g. planning and complex procurement
  - Infrastructure can be used to drive outcomes, both economic and social
  - Infrastructure improves the productivity of the nation allowing goods and resources to move throughout the economy.
- Start with existing assets for 'quick wins' and short term stimulus
- Take a precinct approach to create wider economic and social benefits
- Technology can help us deliver infrastructure more efficiently from a time and cost perspective.

05 — How can Deloitte assist?

For more information on the broader suite of Deloitte Infrastructure services, please contact Luke Houghton. For specific services outlined in this paper, please refer to the contacts listed below.

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Asset management and maintenance
Deloitte is focussed on providing asset management and optimisation for public and private sector clients aligning investment to strategy and optimising through operations to trade off and effectively balance service, operations and cost. For more information please contact Rob Spittle or Steve Porter.

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Sources

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