GRATTAN Institute

Orange Book 2022

Policy priorities for the federal government

Danielle Wood, Brendan Coates, Stephen Duckett,
Jordana Hunter, Marion Terrill, Tony Wood, and Owain Emslie

February 2022

Grattan Institute Support

Founding members

Australian Government

VICTORIA State Government

THE UNIVERSITY OF MELBOURNE

BHP

Endowment Supporters

The Myer Foundation

National Australia Bank

Susan McKinnon Foundation

Affiliate Partners

Ecstra Foundation

Origin Energy Foundation

Susan McKinnon Foundation

Third Link Growth Fund

Senior Affiliates

Cuffe Family Foundation

Maddocks

Medibank Private

Trawalla Foundation

Wesfarmers

Affiliates

Allens

Ashurst

The Caponero Grant

Corrs

McKinsey & Company

Scanlon Foundation

Silver Chain

Urbis

Westpac

Grattan Institute Report No. 2022-02, February 2022

This report was written by Danielle Wood, Brendan Coates, Stephen Duckett, Jordana Hunter, Marion Terrill, Tony Wood, and Owain Emslie.

All current and former staff of Grattan Institute have made substantial contributions to the materials on which this report is based.

The opinions in this report are those of the authors and do not necessarily represent the views of Grattan Institute's founding members, affiliates, individual board members, reference group members, or reviewers. The authors are responsible for any errors or omissions. One of the authors, Stephen Duckett, is chair of the board of the Eastern Melbourne Primary Health Network.

Grattan Institute is an independent think tank focused on Australian public policy. Our work is independent, practical, and rigorous. We aim to improve policy by engaging with decision makers and the broader community.

We acknowledge and celebrate the First Nations people on whose traditional lands we meet and work, and whose cultures are among the oldest in human history.

For further information on Grattan's programs, or to join our mailing list, please go to: www.grattan.edu.au. You can make a donation to support future Grattan reports here: www.grattan.edu.au/donate.

This report may be cited as: Wood, D., Coates, B., Duckett, S., Hunter, J., Terrill, M., Wood, T., and Emslie, O. (2022). *Orange Book 2022: Policy priorities for the federal government*. Grattan Institute.

ISBN: 978-0-6452739-8-4

Overview

Elections are times for political parties to articulate their policy vision. And for the 2022 federal election, held in the third year of a global pandemic, a program of bold and well-designed policies is more important than ever. This report sets out the policies we think should be part of that program.

The Australian economy has proved remarkably resilient through the pandemic, helped by significant monetary policy and fiscal supports. The next federal government should 'stay the course' on its current fiscal strategy of providing temporary support until the recovery is secured and wages are growing.

Over time, stronger growth in Australia's living standards requires increased productivity growth.

The next government, whether Coalition or Labor, should make Australia's tax system more efficient. Increasing and/or broadening the GST to fund lower income taxes, and supporting state governments to swap stamp duties for land taxes, are some of the best efficiency enhancing reforms. Improving the composition of our permanent skilled migrant intake also offers big long-term payoffs. Reducing out-of-pocket childcare costs would free up families' choices and boost workforce participation, particularly for women.

Improving people's health and education would also boost productivity and quality of life.

Improving access to early childhood education and boosting the quality of school education, including making teaching a more attractive career option for high achievers, would lift student performance, which has been in decline for more than a decade.

The health system functions well overall, but improving the delivery of primary care, addressing aged care workforce needs, and reducing out-of-pocket costs for medical specialists and dentists would ensure more people could get care when they need it.

The next federal government should also boost the bang for buck from transport spending by funding only nationally significant infrastructure projects, avoiding projects that are poor value for money.

The next government must fix the climate-policy gridlock. Australia needs sharper incentives for carbon-emission reductions now, if we are to avoid a very disruptive and costly transition later.

Australia also needs to do more to tackle the scourge of poverty and homelessness. Increasing JobSeeker and other working-age welfare payments, increasing rent assistance, and building more social housing would 'ease the squeeze' on the vulnerable. The federal government should sharpen incentives to state governments to boost housing supply, and it should introduce a national shared equity scheme to help poorer Australians to own a home.

Finally, the next government should bolster the checks and balances on political decision-making. The government should reduce the influence of vested interests by tightening rules on political donations and lobbying. And it should set up a federal integrity commission with wide-ranging powers to prevent corruption and misuse of public money.

This is an ambitious agenda. But decades of policy gridlock mean there are many opportunities to improve Australians' living standards through better policy. The 2022 federal election campaign should be the starting gun for the race to build a better Australia.

Table of contents

Overview . . . 3

1 Imagining a better Australia . . . 13

2 Economic policy . . . 19

3 Housing . . . 39

4 Energy and climate change . . . 49

5 Transport . . . 61

6 Health . . . 71

7 Aged care . . . 84

8 School education . . . 87

9 Retirement incomes . . . 97

10 Budget policy . . . 107

11 Integrity . . . 113

Recommendations

Economic policy

Tax reform

- Broaden the GST base and/or increase the GST rate (in a package with reducing income taxes and boosting welfare payments).
- Make the accelerated depreciation scheme permanent and explore wholesale reform of Australia's corporate tax system, such as a destination-based cash flow tax or an allowance for corporate equity.
- Reform income taxes by packaging the Stage 3 income tax cuts with a redesign of tax concessions that are not meeting their economic aims – the capital gains tax (CGT) discount, negative gearing, and super tax concessions.
- In the longer term, align the tax treatment across different types of savings by reducing taxes on other savings income such as net rental income and bank deposits.
- Encourage the states to replace stamp duties with general property taxes.
- Wind back age-based tax breaks:
  - Limit the Seniors and Pensioners Tax Offset so that it is available only to pensioners, and so that those who do not qualify for a full Age Pension pay some income tax.
  - Impose the Medicare levy on seniors at the level where they are liable to pay some income tax.

Labour force participation

- Increase the maximum Child Care Subsidy to 95 per cent, gradually tapering for families with incomes above $70,000.
- Add six additional weeks leave to the current 20-week paid parental leave allowance, through a 6/12/6+2 structure – six weeks 'use it or lose it' provision for each parent, 12 weeks to share between them as they choose, and an additional two weeks of bonus leave, which could be used by either parent provided both parents take at least six weeks leave.
- Increase the superannuation preservation age from 60 to at least 65.
- Increase the rate of Jobseeker by at least $75 a week and bench-mark the payment to increases in wages to keep pace with community living standards.

Migration

- Shift the composition of Australia's permanent skilled migration program to better target younger, higher-skilled workers:
  - Abolish the Business Investment and Innovation visa program.
  - Scale back and independently evaluate the Global Talent visa program.
  - Expand the number of skilled worker visas allocated via employer sponsorship and the points-test.
- Make permanent employer-sponsored visas available for workers in all occupations, provided they earn at least $80,000 a year.

- Commission an independent review of permanent points-tested visas.

Monetary policy

- Commission an independent review of the Reserve Bank, to consider its mandate, policy tools, and governance structure.

Housing

Housing supply

- Encourage the states to change planning laws and processes to allow higher-density housing in inner-urban areas and established suburbs.
- Establish Housing Australia as a statutorily independent research body with responsibility for collecting and publishing nationally consistent data related to housing supply and demand.

Housing support for low-income earners

- Establish a $20 billion Social Housing Future Fund to fund new social housing targeted at people at greatest risk of becoming homeless.
- Increase the maximum rate of Commonwealth Rent Assistance by at least 40 per cent and bench-mark it to rents paid by the poorest 40 per cent of renters.
- Establish a national shared equity scheme to level the playing field for homebuyers who don't have access to 'the Bank of Mum and Dad':
  - The federal government should take up to a 30 per cent equity stake in the home.
  - The scheme should be available to singles with gross incomes of less than $60,000 and couples earning less than $90,000 a year.
  - It would be restricted to owner-occupiers who do not own an investment property.

Energy

- Re-galvanise the Energy National Cabinet Reform Committee to implement the Energy Security Board's recommendations on critical electricity market reforms to support the transition to net-zero emissions:
  - Develop a suite of reforms to the wholesale market structure that will ensure adequate generation resources in a system dominated by solar and wind generation.
  - Prioritise regulatory reforms to allocate costs for new electricity transmission projects, to unblock the pipeline of projects and build more transmission at an efficient cost.
  - Improve integration of distributed and renewable energy resources into the National Energy Market.
- Plan for a future without natural gas across its current applications.
  - Coordinate state and territory government policies to drive the degasification of current natural gas networks.
  - Support the development and deployment of gas replacement technologies in manufacturing through the Technology Investment Advisory Council and capital replacement finance.
  - As gas use declines, use the Gas Taskforce to identify and address unexpected gaps arising from the absence of coordinated policy.

  - Do not provide public funding for gas infrastructure, such as pipelines, with long asset lives.

Climate change

- Implement a suite of sector-based emissions reduction polices, consistent with the long-term commitment to net-zero emissions.
  - Work with the states and territories to create better alignment and coordination of policies and programs to support the decarbonisation of energy use in all its forms.
  - Amend the Safeguard Mechanism so that industrial facilities are subject to declining caps (baselines) on their emissions.
  - Establish separate emissions intensity bench-marks for new industrial facilities that are substantially lower than the industry average; and ensure they remain lower as the industry average improves.
  - Invest in a multi-decade outreach program to advise farmers on how to reduce farm emissions and secure resilient income streams.
- Work with industry on strategies to deliver the opportunities potentially available through Australia's comparative advantage in renewable energy and critical minerals.
  - Make funding available for a flagship project to make green steel in Australia.
  - Reorient trade diplomacy away from building markets for fossil fuel exports, and towards commodities whose markets will grow in a net-zero world.
  - Establish an Industrial Transformation Future Fund to generate the government funding that will be required to close the risk gap for transformational industrial investment in the 2030s and beyond.

Transport

Establish new transport infrastructure projects on a sounder basis

- Amend the *National Land Transport Act 2014* to prohibit federal funding for a project worth $100 million or more before the Minister has considered Infrastructure Australia's evaluation of the project.
  - The evaluation should include the cost/benefit analysis and a priority ranking relative to other eligible projects.
  - The evaluation should be made public immediately following the decision.
- Disclose the status of cost estimates for infrastructure proposals valued at $100 million or more, from a wide range at the concept stage, a narrower range at business case stages, and the tender and final costs. Reconcile between these estimates as projects develop and costs become more certain.
- Collate data on completed projects valued at $20 million or more. The data should include the costs at key milestones, location and characteristics of the infrastructure, time estimates at key milestones, scope changes, and contract type and partners.
- Require states that receive federal funding to publish post-completion reviews of all projects costing more than $100 million. Reviews should include eventual costs, a rigorous estimate of eventual benefits, an explanation of deviations from initial estimated costs and benefits, contract type, and scope changes.

Take seriously the national coordination role

- Publish annual advice on the discount rates regime that will apply to transport infrastructure projects for the year ahead.
  - The advice should include the risk-free rate and the basis on which it is calculated; the market risk premium; the range of systematic risk of public infrastructure projects and their typical values; and the project characteristics that should legitimately license a project proponent to argue for a discount rate outside the standard ranges.
- Encourage states to devote more resources to identifying modest-sized transport infrastructure projects with higher net benefits than very large projects. Megaprojects should be proposed as the last, not the first resort.
- Assist the states to pay more attention to costs of building new transport infrastructure:
  - Make a long-term commitment to regularly update a bench-marking series of road and rail costs;
  - Report to the Infrastructure and Transport Ministers' Meeting of the National Cabinet on the means by which similar countries overseas build high-quality transport infrastructure more cheaply;
  - Ensure that state governments adhere to federal government procurement rules where there is federal funding, avoiding giving preference to bidders for local transport infrastructure construction projects who pledge to use Australian-produced materials.

Reduce harmful emissions from cars

- Impose a single annual average emissions standard, or ceiling, covering all new light vehicle sales. The ceiling should come into force no later than 2024 and not exceed 143 grams of carbon per kilometre (g/km). It should not exceed 100g/km by 2027 and 25 g/km by 2030. Carbon emissions from vehicles under the ceiling should fall to zero by 2035.
- Improve the quality of Australia's petrol, so that vehicles here can meet international pollutant standards by mid-2024.
- Tighten vehicle pollution standards so that they are consistent with current international standards, immediately for diesel vehicles and by at least mid-2024 for petrol vehicles.

Health care

Plan for the continuing impacts of COVID

- Provide additional support to the states, including removing the federal government cap on hospital funding, and continuing the 50:50 arrangement in 2022 and perhaps 2023.
- Plan an ongoing, long-term COVID vaccination program to protect against waning immunity and any new variants.
- Commission a comprehensive review of all aspects of Australia's COVID response.

Create a more equitable health system

- Fund universal dental care, starting by taking over existing dental schemes and providing them with an extra $500 million per year.

- Establish a national secondary consultation scheme (between GPs and specialists), funded through Primary Health Networks (PHNs), to reduce unnecessary specialist consultations.
- Initiate discussions with states to introduce public reporting of clinical waiting times by specialty type for public outpatient services.
- Establish bulk-billing specialist private clinics to expand access to affordable care.
- Minimise low-value prescribing to reduce pharmaceutical out-of-pocket costs, and lower the (post-review) safety net for non-concession card holders who are on five or more drugs.
- Abolish out-of-pocket payments for pathology, radiology, and radiotherapy services by switching from fee-for-service to a tendering arrangement.

Fix private health insurance

- Negotiate a plan for the future of private care.

Improve the primary care system

- Introduce voluntary enrolment and 'participating practices'.
- Fund new out-of-hospital services.

Improve hospital quality

- Ensure the Independent Hospital Pricing Authority calculates and publishes information on the cost of adverse events in hospitals.
- Ensure hospitals get information about their relative quality performance and the estimated cost of adverse events in the hospital.
- Share between the federal government and the states the savings from lifting the performance of all hospitals to that achieved by the best 10 per cent of hospitals – estimated at $1.5 billion annually.

Aged care

Improve oversight and stewardship

- Establish new independent bodies to act as regional 'system managers' of the local service system, monitor quality, and enhance social participation and healthy ageing.
- Introduce a new public reporting system that provides information on the quality and prices of service providers.
- Ensure better training and regulation of aged care staff, and phase in a requirement that personal care staff have a (revised) Certificate-III level qualification.

Meet home care need

- Supply the number of packages required to meet independently assessed need, with a maximum wait of 30 days for home care.

Address aged care workforce needs

- The Independent Hospital and Aged Care Pricing Authority should introduce a sped-up process so the result of the imminent Fair Work Commission determination on wages is quickly incorporated into funding.

School education

Keep the federal government's role limited and well-targeted

- Avoid new school reforms unless: evidence shows it is a good idea; governments (at any level) can make it happen; and federal government involvement will help, not hinder.

Strengthen the Australian education evidence base

- Spend more on the education evidence base, including increased funding for the Australian Education Research Organisation.
- Fund research to evaluate innovations emerging from the COVID disruptions to schools.

Attract more high achievers to teaching, and improve initial teacher education

- Commit to doubling within 10 years the proportion of high achievers who choose teaching as their career.
- In collaboration with the states, fund $10,000-a-year scholarships for high-achieving students who choose to go into teaching.
- Launch a national marketing campaign to re-position teaching as a challenging and rewarding career.
- Review the recommendations of the 2021 independent expert review of initial teacher education (ITE) and implement reforms to raise the quality of ITE programs.

Work with the states to improve the career path for top teachers

- Work with state governments on a new expert teacher career path, with two new positions that recognise and deploy teacher expertise more effectively:
  – Instructional Specialists (limited to 8 per cent of teachers), who would work within schools to improve teaching practice and be paid about $140,000 a year; and
  – Master Teachers (about 1 per cent of teachers), who would work across schools to support Instructional Specialists and be paid about $180,000 a year.
- Help fund pilot programs to refine the role description, training, and integration of the two new positions.

Work with the states to give teachers more time for great teaching

- Help fund a $60 million investigation of the best ways to ensure teachers have the time they need to prepare and deliver great teaching.

Retirement incomes

Retirement income adequacy

- Abandon the legislated increases in compulsory superannuation contributions from 10 per cent to 12 per cent of workers' wages.

Superannuation tax

- Reduce the annual concessional contribution cap to $15,000 per year, and put a lifetime cap of $250,000 on post-tax contributions.
- Tax superannuation fund earnings in retirement at 15 per cent – as already applies before retirement.

Superannuation costs

- Adopt the Productivity Commission's recommendation to create a single 'best in show' shortlist of up to 10 super funds, selected by an independent expert panel, to assign a default fund for people who are new to the workforce.

- Establish an independent inquiry into the provision of default insurance in Australia's superannuation system.
- Explore how best to provide retirees with high-quality retirement income products:
  - The government could directly offer a limited suite of retirement income products, such as annuities, on an opt-out basis to super fund members who do not exercise another choice.
  - Alternatively, establish an equivalent 'best in show' shortlist of default drawdown-phase products for super fund members as they retire.

Age Pension

- Include in the assets test the value of the home above some threshold, such as $500,000, and raise the value of assets that do not reduce the Age Pension for homeowners to the same levels that apply to non-homeowners.
- Withdraw the Age Pension at a rate of $2.25 per fortnight for each $1,000 of assets above the 'asset free' area, rather than the current rate of $3 per fortnight.

Home equity release

- Cap the interest rate on the Home Equity Access Scheme for the life of the loan, or ring-fence a modest portion of home equity – such as 25 per cent – from the debt when the home is eventually sold.

Budget policy

- Maintain the current fiscal recovery strategy to provide temporary fiscal supports until the recovery is secured and wages are growing.
- Once the recovery is secured, target debt sustainability.
- Work with the states to produce a national Intergenerational Report that contains long-term fiscal projections across all levels of government.

Integrity reforms

Improve checks and balances on the influence of vested interests

- Make donations more transparent by lowering the donations disclosure threshold to $5,000, requiring political parties to aggregate donations below the threshold, and introducing 'real time' disclosure of donations.
- Limit the influence of money in politics by capping expenditure on political advertising during election campaigns.
- Improve the transparency of lobbying activity by publishing ministerial diaries.
- Broaden the lobbyist register to include all holders of Parliament House 'orange passes' so that everyone who lobbies regularly is subject to the Lobbying Code of Conduct.

Improve checks and balances to reduce politicised decision-making

- Advertise all public appointments and require an independent panel to select a shortlist of candidates based on merit. The relevant Minister should retain the power to select a candidate, but should be required to select from the shortlist.

- Amend the Ministerial standards to require Ministers to make merit-based appointments.
- Improve grant decision-making processes to reduce the opportunities for ministers to use public funds for political purposes.
- Reinstate funding for the Australian National Audit Office to boost oversight of grants programs.

Strengthen the accountability of public officials

- Introduce a code of conduct for all parliamentarians, to provide clearer guidance on conflicts of interest.
- Establish a Commonwealth Integrity Commission to investigate corruption and significant misconduct, with capacity to receive and investigate tip-offs.

1 Imagining a better Australia

The 2022 federal election comes at crucial moment.

The world is entering the third year of the coronavirus global pandemic, the biggest international health crisis in a century.

The pandemic has caused significant death and suffering, and disruption to health and economic systems. It has also significantly shifted how we live, work, play, and consume, and some of these changes are likely to be permanent.

Australia has fared relatively well on the health and economic front, partly because of the strength of our policy response, although there have also been notable policy failures through the pandemic.

The urgent and important work of pandemic response is not over – delivering booster vaccinations, rapid antigen tests, and support for affected businesses remain live issues. But as we move to the next phase of pandemic management, longer-term policy discussions must come to the fore.

The phrases of would-be reformers – 'never waste a crisis' and 'build back better' – may be trite, but they contain an essential truth. The aftermath of a major shock provides a unique opportunity to revisit policy settings and make bold choices to secure the nation's future prosperity.

We hope that whoever forms government after the 2022 election will embrace the opportunity to set out an ambitious policy agenda. Now is not the time for small targets.

1.1 A policy blueprint for the next government

This report aims to help the next federal government identify the policy changes that would improve the lives of Australians.

Like the 'Red Book' (for Labor) and 'Blue Book' (for the Coalition) that the public sector prepares for incoming governments, Grattan Institute's 'Orange Book' sets out our policy recommendations for the incoming government.

The Orange Book focuses on reforms to policy to boost incomes, improve health and education, create better transport links, make housing more affordable, generate meaningful progress on climate change, and strengthen our political institutions.

Grattan has focused on these topics because they are important to Australians,[1] and make a big difference to their lives.[2] Together they account for about two-thirds of total federal government spending.[3]

Our list of recommendations is long. Some are big reforms, some are easy wins, some would cost money, others would help provide services more efficiently. All are based on detailed research and analysis published by Grattan Institute since it was founded 13 years ago. They are policies that are strongly grounded in evidence and practical to implement.

Individual policy proposals are costed in the Grattan reports that recommend them. We have not attempted a total or cumulative costing here because the large range of policies mean that no government would be in a position to pursue all of them in a single term. However,

1. Surveys consistently show that Australians rank health, the economy, and the environment among their top priorities for governments (e.g. Next25 (2021), Hanrahan (2019) and Cameron and McAllister (2019)). For a more detailed discussion of what Australians want, value, and expect from government, see Daley (2020).
2. See Daley (ibid, Chapter 2) for a discussion of the literature in determining the value of reforms.
3. Grattan analysis of federal budget papers.

if governments were to tackle a reasonable number of them over the next decade, we are confident that we would have a country with higher incomes, less poverty, better-quality and more efficiently delivered services, a liveable climate, and stronger democratic institutions.

1.1.1 What we've left out

This report does not cover a number of federal government responsibilities, including foreign affairs and trade, defence and security, law and order, industrial relations, higher education, communications, agriculture, Indigenous affairs, and the environment (outside of climate change). These areas are important but are not part of Grattan Institute's current work program.

Furthermore, the report focuses on issues the federal government can influence most directly, rather than those that are essentially state and territory responsibilities.

However, it also identifies areas where the federal government should increase coordination or cooperation with the states, and where additional federal grants to the states would help facilitate important reforms. These areas include situations where economic activity, and therefore the federal budget position, would substantially benefit from state government reforms.

1.2 The case for a new policy agenda

Policy is never 'set and forget'. As the world changes and new challenges and opportunities emerge, policy settings must remain fit for purpose. This is even more true after a period of major disruption. The coronavirus pandemic has changed how many of us live, work, travel, and consume, and these changes in themselves demand revisiting a range of policy settings.[4]

But beyond this, a crisis provides an opportunity for governments to be bold in their policy agendas. While Australian living standards are high by international standards, and many aspects of government policy and service provision work well, the pandemic has thrown into sharp focus some of the weaknesses.

Challenges in coordinating between different levels of government, failures in service delivery (particularly in aged care), issues with economic policy settings (particularly macro-stabilisation and labour market policies), and holes in our social safety net have been exposed. These evident weaknesses provide a burning platform for change as we rebuild from the pandemic.

The need for new 'policy energy' is even stronger given the inertia that existed for many years before the pandemic hit.[5] Two decades of 'policy gridlock' have left a long but potentially transformative to-do list.

In this report we set out the case for change in 10 key areas:

- **Economic policy.** Since the Global Financial Crisis, real income growth has stagnated and productivity growth has lagged previous decades. As we emerge from the economic hit of COVID, the economy is coming back to life but it is less clear whether the economic fundamentals have improved.
- **Housing**. Australian housing has become increasingly expensive in recent decades, and public anxiety about housing affordability is rising. House prices have grown much faster than incomes,

4. Productivity Commission (2021a); NSW Innovation and Productivity Council and NSW Productivity Commission (2021); Lund et al (2021); and Currie et al (2021).
5. Daley (2021).

making home ownership much hardest for those without the Bank of Mum and Dad. Lower-income Australians are also spending more of their incomes on rent than in the past.

- **Energy and climate change.** Australia has committed to reaching net-zero carbon emissions by 2050. This requires driving down emissions in every sector of the economy. The federal government must do much more to improve incentives for emission reduction in coming years if Australia is to avoid a very disruptive and costly transition later.
- **Transport**. Transport provision is burdened by overlaps, duplication, and conflicting perspectives across levels of government. The federal government's undisciplined approach to project selection substantially reduces 'bang for buck' from our infrastructure spend.
- **Health.** While the health system overall performs well on international comparisons, outcomes for certain groups – particularly First Nations Australians, people with mental illness, and those living in rural and remote Australia – considerably lag the general population. The federal government also needs to reduce high out-of-pocket costs for some services.
- **Aged care.** The Royal Commission heard story after story of poor-quality care in residential and home care. The government has made substantial investments to address some of the concerns raised by the Royal Commission, but it has not committed to a rights-based approach and it has left important issues such as system stewardship and future workforce planning largely untouched.
- **School education.** Educational results for Australian school children are falling relative to other nations. Australia's 'equity gap' in school performance is also larger than average. Policy change is needed to attract more high achievers to teaching and to give teachers more time for great teaching.
- **Retirement incomes.** Australia's retirement incomes system does not always work for low-income Australians who don't own their home in retirement, particularly single women. The federal government gives up almost $40 billion a year in poorly-targeted superannuation tax concessions. Australians also pay too much in superannuation fees.
- **Budget policy**. Australia has emerged from the pandemic with substantially increased government debt. In the short-term, interest costs are manageable and 'flicking the switch to austerity' would be counterproductive. But in the longer term, more revenue and smarter spending will be needed to service an ageing population.
- **Integrity**. Australia's democracy generally functions well, but we are middle-to-bottom among our peers on measures of trust in government, perceptions of corruption, and the transparency of government. Recent scandals around misuse of taxpayer money for infrastructure and grants programs have done little to improve perceptions. The federal government substantially lags state governments and other nations in reforms to improve integrity.

1.3 Where should a new government start: a framework for prioritising

Big reforms are inherently difficult because they take time to design, advocate, legislate, and implement.[6] Often the time and focus of senior ministers is the most scarce resource.[7]

6. Daley et al (2012, pp. 4–5); and Daley et al (2013b, p. 15).
7. Daley et al (2012, p. 6).

Without prioritisation there is a real risk that only easy but trivial reforms will succeed, or worse that governments will invest crucial time and capital on sideline 'culture war' type issues that have little bearing on the living standards or day-to-day concerns of most Australians.[8]

Grattan's 2020 report on policy prioritisation provides a framework to guide thinking about how to prioritise.[9] It recommends weighting both the value of each reform, and practical doability.

1.3.1 What is the value of a reform?

Determining value is not a precise science but it is ultimately a measure of how much the policy change improves people's lives.[10] There are many ways this can manifest: a boost to people's current or future income, an improvement to outcomes that people value such as better health or a cleaner environment, opening up choices and opportunities previously unavailable especially for groups that face entrenched disadvantage, or improving the functioning of government and democracy.

Reforms that touch many people's lives or have a very substantial impact on smaller groups with particular challenges will tend to be highest value.

1.3.2 How doable is it?

The 'doability' of a reform is the ease with which it can be implemented – in other words the cost it imposes on government in terms of time and energy or political capital.[11]

Doability depends on:

- confidence in particular solutions given the available evidence
- practical complexities in implementation
- the extent of entrenched public opposition (often a consequence of the first-order costs being obvious while the second-order benefits are less clear)

From the perspective of the federal government, a reform is also more doable if the government has direct control over the levers, rather than relying on cooperation from the states.

Governments are more likely to baulk at changes that cost the budget significant sums, although if the value of the reform is also large, these may be worthwhile investments.

In practice a reform will also be harder if it is opposed by well-resourced, highly-motivated interest groups. But this opposition is the precise thing that government energy and focus can overcome.

1.3.3 Setting an agenda

The combination of value and doability should drive the prioritisation of government resources (see Figure 1.1 on the following page).

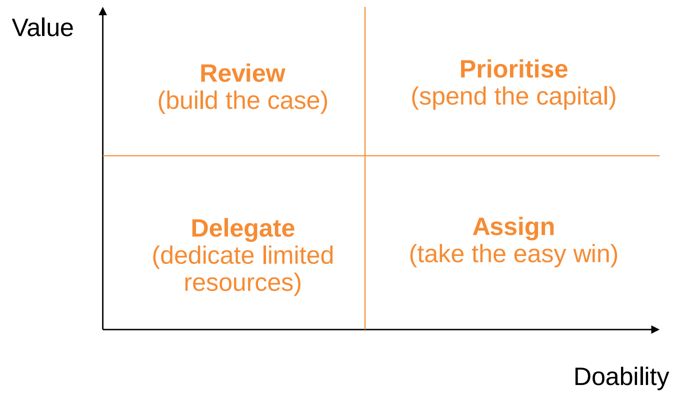
- Reforms that are more valuable and more doable should be **prioritised**. Government should apply resources – public service time, ministerial attention, money, and political capital – to make sure they happen.
- Reforms that are more valuable but currently less doable should be **sent for review** so that others can gather the evidence, work through the practical problems in implementation, and build public support for worthwhile change.[12]

8. Ibid (p. 6).
9. Daley (2020).
10. Ibid (Chapter 2).
11. Ibid (Chapter 3).
12. Baumol (1996), Brou and Ruta (2013), Tullock et al (2002), Lindsey and Teles (2017) and Zingales (2017). See also Daley et al (2019) and Daley (2020).

- Reforms that are less valuable but more doable should be seen as **easy wins**. Government should put enough resources into making them happen, and use them to build momentum for other more important reforms.
- Reforms that are less valuable but with some complexity on delivery should be **delegated**. These reforms are worth doing and have a good evidence-base, but tend to be more technical or administrative in nature. Generally, these can be left to an individual minister, department, or agency to lead and implement rather than demanding whole-of-government resources. These are the changes that may have to be sacrificed if they interfere with the reforms that have been identified as a priority for the entire government.

Using this framework, we have ranked all of the recommendations of this report, as shown in Table 1.1 on the next page.

Figure 1.1: Reforms should be prioritised based on their value and doability



Source: Daley (2020).

Table 1.1: Priorities

	Prioritise	Review	Easy win	Delegate
Economic policy	• Reduce childcare costs • Support land tax/stamp duty swap • Income tax reform (reduce rates, wind back tax concessions) • Improve composition of skilled visas • Increase Jobseeker	• Broaden GST and/or raise rate • Reform company tax • Align tax treatment of savings • Independent RBA review	• Extend accelerated depreciation • Expand paid parental leave	• Curb age-based tax breaks • Increase super preservation age • Improve selection for skilled-worker visas
Housing	• Increase Rent Assistance • Social Housing Future Fund	• Land-use planning laws	• National shared equity scheme	• Consistent housing data
Energy and climate change	• Amend the Safeguard Mechanism	• Plan future without gas • Integrate renewables into National Electricity Market	• Green steel flagship project • Industrial Transformation Future Fund	• Transmission cost allocation
Transport	• Light vehicle emissions ceiling • Improve project selection, costing, and coordination		• Vehicle pollution and petrol standards • Discount rates	• Prioritise modest projects • Disclosure cost estimates
Health	• Remove cap on hospital funding • COVID-19 vaccination program • Primary health reform	• Universal dental care • Secondary consultation scheme • Bulk-billing specialist private clinics	• Report on clinical waiting times • Report on adverse events in hospitals	• Plan for the future of private care
Aged care	• Response to wage determinations	• Regional system managers • Improve staff training	• Supply of home care packages • Report on quality/price of providers	
School education	• Boost evidence base • Improve initial teacher education	• Expert teacher career path • More time for teaching	• Scholarships for high achievers	• Marketing teaching
Retirement incomes	• Freeze compulsory super • Introduce ‘best in show’ • Curb super tax breaks	• Improve retirement products • Home in pension asset test • Default insurance in super	• Reform Home Equity Access Scheme • Relax pension asset test taper	
Budget policy	• Maintain fiscal recovery strategy	• Review medium-term targets		• National Intergenerational Report
Integrity	• Robust integrity commission • Cap advertising expenditure	• Code of conduct for all MPs	• Donations disclosure • Publish ministerial diaries • Broaden lobbyist register • Reinstate Audit Office funding	• Reduce politicisation of grants and public appointments

2 Economic policy

2.1 Where we are

Australia is a prosperous country. Our strong economic growth over decades has increased individuals' living standards, and enabled our society to invest in infrastructure and services that improve people's lives. Australians enjoy high per-capita incomes and a stable economy. Australia has also fared comparatively well through the global pandemic, achieving overall better health and economic outcomes than most other countries.

But while the economic recovery is progressing, challenges remain: a decade of wage stagnation continues to weigh on living standards. Historically low unemployment – down to 4.2 per cent in January 2021 – is yet to flow through into meaningfully faster wages growth. Rates of workforce participation in Australia are high by overall OECD standards, with particularly strong gains recently among older Australians, but Australian women remain much more likely to be in part-time employment than their peers elsewhere. Too many Australians continue to live in poverty, and wealth inequality is on the rise.

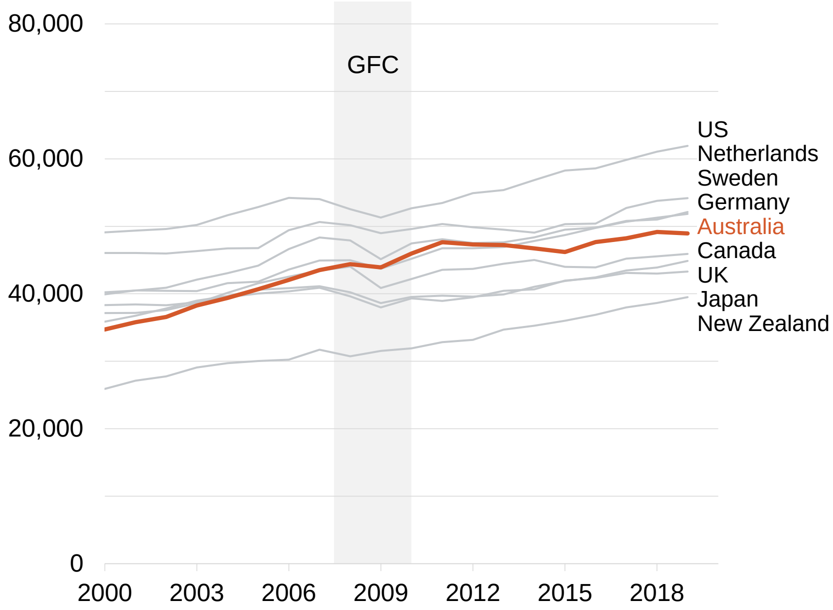
2.1.1 The economy is recovering from recession but incomes and wages were stagnating well before COVID

Australians enjoy some of the highest living standards in the world, ranking 11th out of 35 for per capita incomes among OECD countries,[13] and 8th in the world on the UN's Human Development Index.[14] Incomes increased faster than in many comparable countries over the 2000s, but have flat-lined since the mining boom peaked in 2012 (Figure 2.1).[15] If per-capita incomes had continued to grow at their pre-2011-12 rates through to 2019-20, Australians' per-capita incomes would be about one-tenth higher ($11,500 per person) today.[16]

The global pandemic triggered a deep recession in Australia and around the world, with sharp reductions in Australia's national income

Figure 2.1: Australian incomes have flat-lined in recent years

Gross national income per capita, 2015 $US



Notes: GFC = Global Financial Crisis. Constant purchasing power parity adjusted, constant prices, OECD base year 2015.

Source: Derived from OECD (2021a).

13. OECD (2019a). Gross national income per capita, converted to US dollars at purchasing power parity.
14. UN (2020).
15. See also: ABS (2021a) and ABS (2021b).
16. Productivity Commission (2021b, Figure 27).

during 2020. Australia's economy is recovering well from COVID. Unemployment is now at its lowest level in more than a decade – a much faster recovery than after previous recessions.[17] However, the economy is still tied to ongoing health risks and has some way to go before national income returns to its pre-pandemic trajectory. Although there are encouraging signs, the recovery from the pandemic is not yet assured, as evidenced by the Omicron wave over summer.

Even before the pandemic, Australian workers' wages were stagnating. Wages have risen by an average of just 2 per cent over the past five years[18] – barely faster than inflation, and far below the 3-to-4 per cent growth that was the norm during the early 2000s.[19] Wages growth is currently running behind inflation, which has picked up recently, which has seen real wages decline.[20]

Slow productivity growth – a trend seen in Australia and around the world – is a key cause of the wages slowdown. Multi-factor productivity growth in Australia averaged just 0.1 per cent in the five years to 2019-20, compared to an average of 0.8 per cent over the past 25 years.[21] The shift to remote work and adoption of new digital technologies during COVID may support faster productivity growth in future.[22]

17. In December 2021, unemployment fell to 4.2 per cent, and the participation rate was 0.2 percentage points higher than before the start of the pandemic: ABS (2021c).
18. ABS (2021d).
19. Lowe (2018).
20. Nominal wages, as measures by the wage price index, grew by 2.3 per cent in the year to December 2021, which is less than headline inflation of 3.5 per cent over the same period. ABS (2021d).
21. Productivity Commission (2021b, Table 1).
22. Productivity Commission (2021a).

Recent slow wage growth in Australia is partly explained by spare capacity in the labour market.[23] The Reserve Bank undershot its inflation target of 2-to-3 per cent for about six years.[24] And before COVID, the unemployment rate was nearly a percentage point higher than the RBA's estimate of full employment,[25] suggesting that many thousands of Australians were out of work because monetary policy was too tight.[26] Legislated increases in compulsory superannuation contributions – from 9.5 per cent to 12 per cent over the five years to July 2025 – are also weighing on wages growth.[27]

2.1.2 Income inequality hasn't increased much in recent years, but too many Australians live in poverty

Income inequality is not particularly high in Australia. The income gap between a household at the 10th percentile and a household at the 90th percentile is smaller than in the US, and a little higher than in Canada.[28] Income inequality has not got much worse in Australia over the past two decades,[29] although it has risen since the 1980s, a trend evident in most OECD countries.[30] However, growth in disposable incomes has favoured the top end, after accounting for rising housing costs (see Chapter 3).[31]

23. As signified by below-target inflation and high unemployment and under-employment, as well as the decline in the terms of trade from its 2011 peak (Bishop and Cassidy (2017)).
24. Over the five years to March 2020, the price level rose by just 9.2 per cent – meaning that inflation over the half-decade before COVID averaged just 1.8 per cent a year. The Reserve Bank's preferred measure of trimmed mean inflation only returned to being within the target band of 2-to-3 per cent in the third quarter of 2021, after dropping below the band in the first quarter of 2016.
25. Ellis (2019).
26. Gross (2022).
27. Coates et al (2020a).
28. OECD (2021b).
29. Productivity Commission (2018a).
30. Cingano (2014).
31. Coates and Chivers (2019).

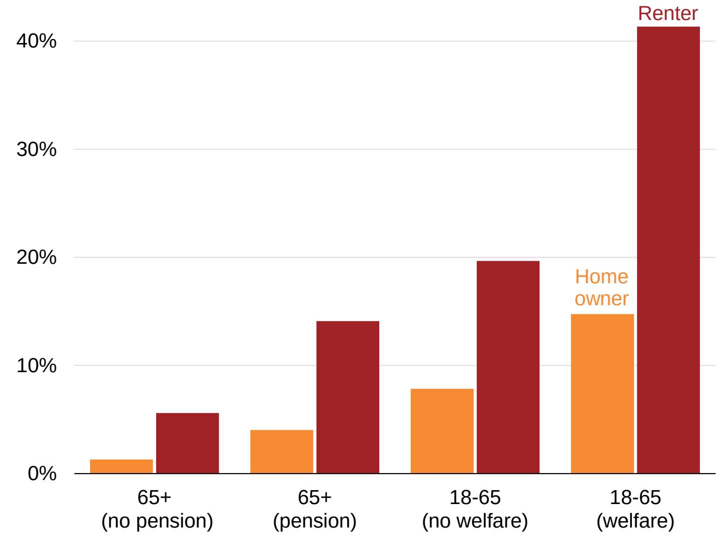
The pandemic has had highly unequal effects on incomes, with some sectors shutting down during lockdowns while others could continue to operate. The JobKeeper payment, temporary Coronavirus Supplement, and the COVID-19 Disaster Payment stemmed what otherwise would have been a large increase in inequality and poverty, actually reducing rates of income poverty in Australia to historically low levels.[32] However, with income support now removed, many lower-income Australians are bearing the ongoing effects of the downturn.[33]

Returning to the default safety net lets far too many Australians slip through the cracks into poverty. More than one in eight Australians suffer poverty, living on less than half the median income.[34] Renters and those on welfare or pension payments are 2-to-3 times more likely to face financial stress than homeowners or those who receive no income support (see Figure 2.2). And the risks compound for working-age renters on income support; more than 40 per cent of this group face financial stress.

2.1.3 Wealth inequality is on the rise

Wealth inequality in Australia, while still below the OECD average, has been growing over the past two decades.[35] The rising value of housing and superannuation has driven increases in wealth over this period;[36] however, superannuation has driven most of the increase in relative wealth inequality.[37]

Figure 2.2: Working-age renters on welfare face acute financial stress
Percentage of households facing at least one financial stress, 2015-2016



Notes: Financial stress is defined as whether, due to a money shortage, a household: 1) skipped meals; 2) did not heat their home; 3) failed to pay gas, electricity, or telephone bills on time; or 4) failed to pay registration insurance on time. 'Pension' includes everyone over the age of 65 who receives social assistance benefits in cash of more than $100 per week. 'Welfare' includes people who receive more than $100 per week from a disability support pension, carer payment, unemployment or student allowance, or other government pension.

Source: Grattan analysis based on ABS (2017).

32. Phillips et al (2020).
33. ACOSS (2021).
34. Davidson et al (2020b).
35. OECD (2021c); and Productivity Commission (2018a).
36. D. Wood et al (2019); and Productivity Commission (2018a).
37. Owner-occupied housing wealth has become more unequally distributed, but since the share of overall wealth held in this asset class fell, so too did its contribution to the Gini coefficient: Davidson et al (2020a).

Wealth is also becoming more concentrated in the hands of older Australians.[38] Older households tend to save more than they consume (see Chapter 9), so we can expect much of the wealth being accumulated by older Australians will be passed on through gifts or inheritances.[39] Inheritances tend to go to those who are already wealthy, exacerbating inequality of opportunity.[40]

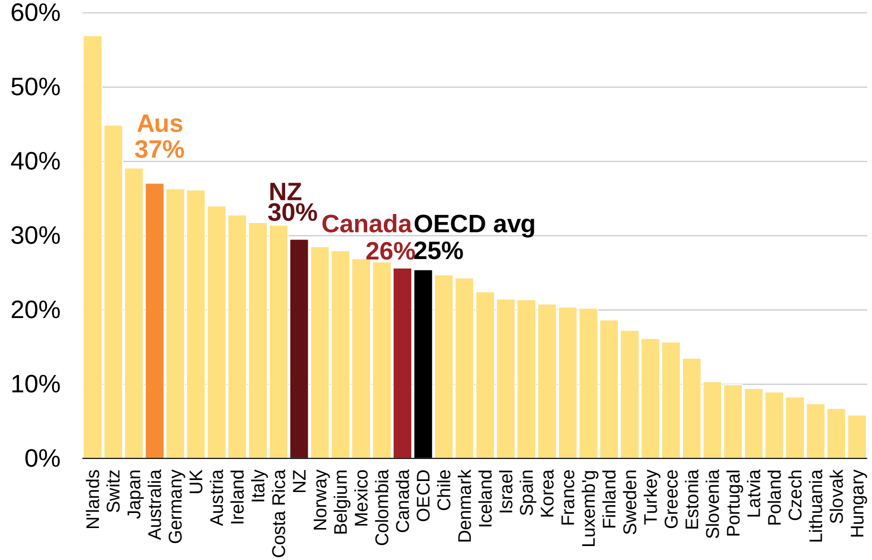
2.1.4 Workforce participation is improving, although some cohorts still face barriers

Workforce participation in Australia is high by OECD standards, but some groups still face barriers.[41]

Australia's overall rate of female workforce participation is relatively high.[42] But Australian women are substantially more likely to be employed part-time (see Figure 2.3), and motherhood has a large impact on labour force participation rates among Australian women.[43]

Figure 2.3: Australia's rates of part-time work for women are among the highest in the OECD

Percentage of employed women working fewer than 30 hours per week in OECD countries, 2019



Note: Women working fewer than 30 hours as a share of all women aged 15+ employed full-time or part-time.

Source: OECD (2021e).

38. The average household headed by someone aged 65-74 now has more than $1.3 million in net assets, up from $530,000 in real terms for a household of the same age in 1994. Wealth for an average household headed by someone aged 25-34 increased only modestly – from an average of $190,000 in net assets in 1994 to $300,000 today. Over the past decade, wealth for younger households has barely shifted. See: D. Wood et al (2019, Chapter 2).
39. Over the past two decades, the total value of wealth transferred was about $1.5 trillion, and about 90 per cent of that was inheritances. Productivity Commission (2021c).
40. The mean inheritance for someone in the wealthiest 20 per cent is more than three times as big as the mean for someone in the poorest 20 per cent (D. Wood et al (2019, p. 43)). The Productivity Commission (2021c, Chapter 3) estimates inheritances will lead to a small reduction in relative wealth inequality, but a large increase in absolute wealth inequality.
41. Australia's employment rate for 15-64 year-olds was 73 per cent in 2020, compared to the OECD average of 66 per cent: OECD (2021d).
42. Australia's employment rate for 15-64 year-old women was 69 per cent in 2020, compared to the OECD average of 59 per cent: OECD (ibid).
43. See D. Wood et al (2020) for a comprehensive review.

Workforce participation among older Australians has risen strongly in recent years. About one in eight Australians aged 65 or older are in the labour force – double the share in 2000.[44] Participation rates for older people are now around the OECD average.[45]

Pre-pandemic, young Australians were less likely to be disengaged from the workforce or not in education than young people in the US, the UK, or Canada.[46] Despite this, young Australians faced persistently higher under-employment rates than other workers.[47]

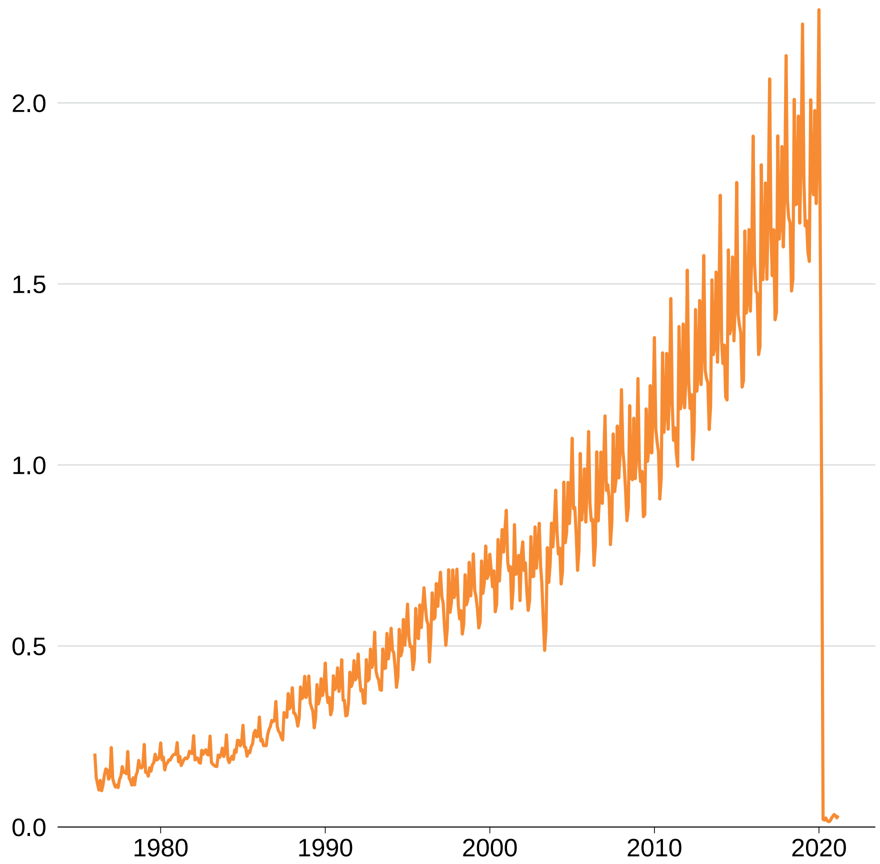
2.1.5 COVID brought migration to a standstill, but Australia continued to issue permanent visas

Australia has historically run a large migration program by international standards.[48] Average rates of annual net migration as a proportion of the population hover around 1 per cent, higher than in most OECD countries. One in four people in Australia aged in the 20s and 30s are migrants who arrived in Australia in the 21st century.[49]

The pandemic slammed shut Australia's borders (see Figure 2.4). Closing the border was among the most effective policy decisions of the Federal Government in limiting the spread of COVID in the two years since the onset of the pandemic.[50]

Border closures, together with Australia's Zero COVID strategy, allowed most Australians to live with fewer internal restrictions than for people

Figure 2.4: Australia's border was slammed shut in March 2020
Total monthly arrivals to Australia, millions



Notes: Arrivals statistics record the number of movements of travellers across Australia's border, not the number of individual travellers. Arrivals include residents returning and visitors arriving.

Source: ABS (2021e).

44. OECD (2021d). These changes were probably the result of improved health and education, and having partners who are also working longer: Daley et al (2012, p. 51). Increases in the age at which people qualify for an Age Pension and tax-free superannuation benefits are also contributing factors.
45. OECD (2021d).
46. Ibid.
47. ABS (2021c); Dhillon and Cassidy (2018); and Jericho (2018).
48. Coates et al (2021, Section 2.1).
49. Coates et al (ibid, Figure 2.2).
50. Duckett and Mackey (2020, Section 1.2).

in most countries, while also suffering fewer deaths and less economic disruption.[51]

However the decision was not without consequence. The border closures throughout 2020 and 2021 mean that Australia's population in 2030 is now expected to be about 1.5 million people fewer than otherwise.[52] Families and loved ones were separated for an extended period. Businesses relying on international travel were uniquely affected.[53] It is also unclear how Australia's response to COVID will affect Australia's comparative attractiveness as a destination for would-be migrants.[54]

Nonetheless Australia continued to issue permanent visas, often to migrants already in Australia.[55] In total, 160,052 permanent visas were allocated in 2020-21, marginally above the planning level of 160,000.[56] Some 79,620 permanent visas were offered in the skilled stream, and a further 77,372 places in the family stream.[57] Australia also offered 5,947 permanent humanitarian visas in 2020-21, well below the 13,750 planned ceiling on places for the 2020–21 Humanitarian Program.[58]

51. Duckett et al (2021b, Section 1.1).
52. Centre for Population (2021, p. 4).
53. See Duckett and Mackey (2020, Chapter 3).
54. Australia ranked the third most attractive destination in one survey of economic migrants in 2020, up from fourth in 2018. This probably reflected Australia's success in managing COVID compared to many competitor countries for skilled migrants. Yet Australia's treatment of migrants over the past two years may also deter would-be migrants from choosing Australia. Coates et al (2021, p. 13).
55. More than half of migrants granted permanent residency are already in Australia on a temporary visa. Coates et al (ibid, p. 10).
56. Department of Home Affairs (2021a, p. 9).
57. For 2020-21, the program departed from the traditional two-thirds/one-third split between the skilled and family streams of recent history and moved towards a 50-50 split, reflecting a backlog in the family stream of applications for partner visas.
58. Department of Home Affairs (2021b, p. 1).

Australia should select permanent skilled migrants for their long-term economic potential.[59] Skilled migrants tend to be younger, higher-skilled, and earn higher incomes than the typical Australian. Recent federal government decisions have taken Australia in the wrong direction, shifting the composition of Australia's permanent skilled migrant intake away from visas with a track record of selecting younger, skilled migrants best placed to succeed in Australia (see Figure 2.5). Today, a growing share of permanent skilled visas are allocated to boosting business investment – where applicants tend to be older, speak little English, and earn lower incomes – and to the unproven Global Talent program.[60] These extra visas come at the expense of the employer-sponsored and points-tested streams that have a proven record of selecting skilled workers.

2.2 What we should do

2.2.1 Get macro settings right

The pandemic has reinforced the need for effective macro stabilisation policies. The next federal government, whether Coalition or Labor, should avoid moving too quickly to consolidate the budget position – doing so would be an economic 'own goal', hampering job creation, growth, and ultimately the bottom line. The macroeconomic policy mix should recognise the limitations of conventional monetary policy at low interest rates, and the trade-offs between fiscal and monetary measures. These dynamics suggests fiscal policy will have to play a larger role than it has for three decades to help stabilise the macroeconomy (see Chapter 10).

Australia's monetary policy regime, with an independent Reserve Bank charged with targeting inflation of between 2 and 3 per cent, has been a cornerstone of Australia's economic success since the 1990s. Yet the

59. Coates et al (2021, Chapter 3).
60. Ibid (Section 4.2).

Reserve Bank failed to hit its inflation target for about six years (see Figure 2.6). Monetary policy has been under strain globally, as interest rates have fallen and conventional monetary policy has become less potent. Most major central banks are reviewing their monetary policy frameworks.[61] Australia, so far, is a notable exception.

The next federal government should commission an independent review of the Reserve Bank. The review should consider the central bank's mandate, policy tools, and governance structures. It should be independent of the current Reserve Bank leadership.[62] The review should also consider the relationship between monetary and fiscal policy in a world where interest rates are likely to remain much lower than they have historically.

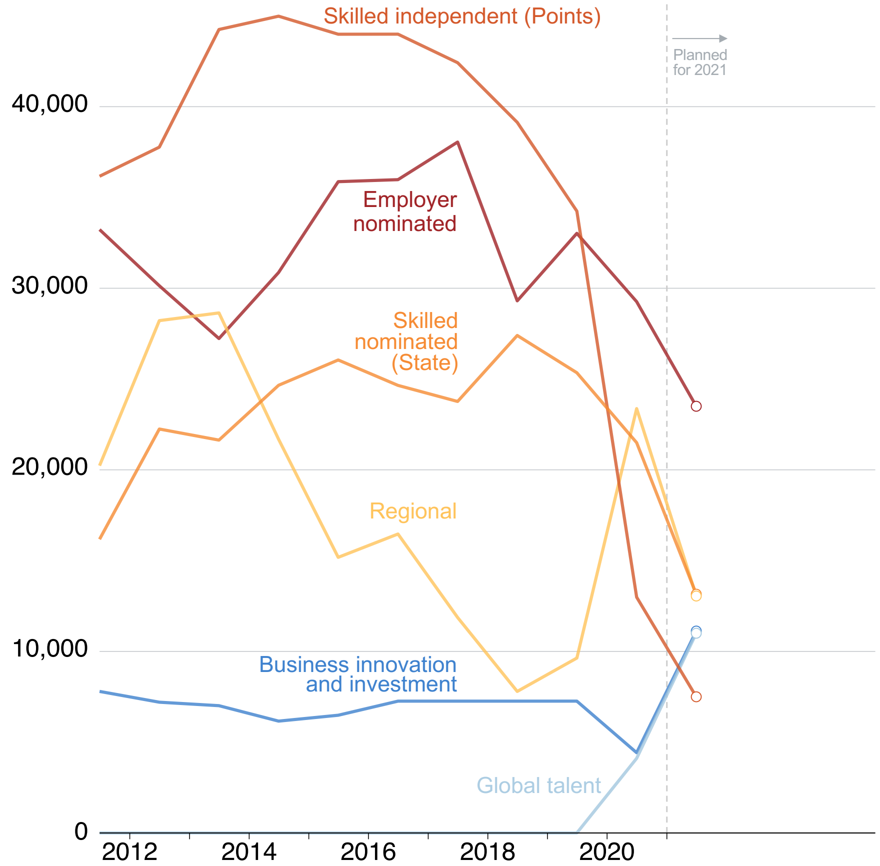
2.2.2 Improve the delivery of human services

Some of the biggest opportunities for governments to boost national productivity come through better delivery of human services. Better health and education outcomes improve productivity directly by bolstering human capital. But these are also significant areas of the economy and government spending, with total expenditure on health of about 9.4 per cent of GDP,[63] and education of about 6.5 per cent,[64] so improvements in the efficiency of delivery will also yield broader benefits for living standards. Chapter 6 and Chapter 8 of this report discuss the major opportunities to improve outcomes and how these services are delivered.

61. The Bank of England, the US Federal Reserve, the European Central Bank, and the Reserve Bank of New Zealand, among others, have recently completed reviews.
62. The OECD has called for a wholesale review of monetary policy in Australia. See: OECD (2021f).
63. OECD (2021g).
64. OECD (2021h).

Figure 2.5: The permanent skilled intake has shifted away from skilled workers and towards business investment and global talent

Annual permanent visa grants by category



Notes: Financial year ending. Planning figures for 2020-21 were updated by the Department of Home Affairs in May, 2021: Hansard (2021). Original visa grant figures have been adapted to mirror the Government's new categorisation, introduced in 2019-20.

Sources: Grattan analysis of Department of Home Affairs (2020); Department of Home Affairs (2021c); and Hansard (2021). See Coates et al (2021, Chapter 4).

2.2.3 Embrace tax reform

The next federal government should pursue substantial tax reform. All taxes drag on economic growth, but some do so more than others.[65] The Australian tax base is a patchwork of more and less efficient taxes. Improving the efficiency of the tax system, by shifting the federal tax mix from more-costly to less-costly taxes, could materially boost Australians' living standards. Tax reform is also needed for other reasons.

In the longer term, extra revenues will be needed to manage the budgetary costs of an ageing population, especially if economic growth remains lower for longer (see Chapter 10). Tax reform can ensure our tax system can raise those extra revenues with limited collateral damage to the economy. Significant tax reform could also help manage other emerging challenges, such as rising wealth inequality.

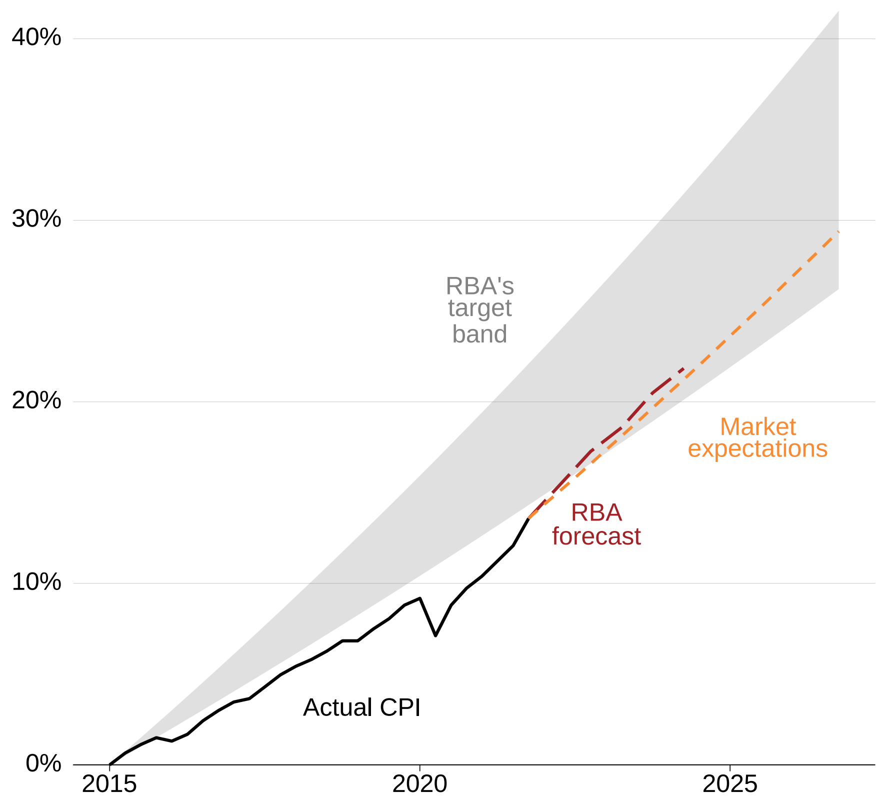
This section recommends a number of tax reforms, including:

- broadening the GST base and/or increasing the rate;
- investigating wholesale changes to Australia's corporate income tax system.
- reforming income taxes by packaging headline tax cuts with a redesign of tax concessions that are not meeting their economic aims – the capital gains tax (CGT) discount, negative gearing, and super tax concessions.
- winding back the Seniors and Pensioners Tax Offset so that it is available only to pensioners, and so that those who do not qualify for a full Age Pension pay some income tax.

65. For instance, corporate taxes create larger economic distortions, whereas land taxes are much more efficient. Broad-based consumption taxes – such as the GST – are more efficient because they are difficult to avoid, and they interfere less with incentives to work, save, and invest.

Figure 2.6: The RBA was undershooting its inflation target for years before COVID-19

Cumulative total inflation since March 2015



Notes: 'Market expectations' refers to the compound average rate over five years. Calculated based on yields for Australian government securities. Yields at five-year maturity were imputed.

Sources: Daley et al (2020, Figure 3.10), updated for ABS (2021f).

- no longer subsidising inheritances.
- scaling back unsustainable superannuation tax breaks that are inconsistent with the stated purposes of superannuation.
- supporting state governments to replace stamp duties with broad-based land taxes (see Section 2.2.5).

Broaden the GST base and/or increase the GST rate

Australia should rely more on consumption taxes than it does currently. Australia collects less in consumption taxes than similar countries, and our GST tax base is narrow by international standards. The GST base is also being eroded over time as a growing share of consumer spending goes on GST-free items.[66]

A revenue-neutral tax reform package that reduces income taxes and increases GST – either by broadening the GST base to include currently excluded items such as fresh food, health and education, or by increasing the rate – would boost the efficiency of tax collections. The GST is more difficult to evade or avoid than income tax, and the switch will modestly increase incentives to work and invest.[67]

An increase in consumption tax also acts as a lump sum tax on accumulated wealth, and so collects more from households such as retirees who are living off savings. The economic drag from these increased tax collections is low. Such households otherwise contribute far less to tax collections than do working households on equivalent incomes.[68]

66. Parliamentary Budget Office (2018).
67. Treasury modelling suggests that once a compensation package (including higher welfare payments) is factored in, the economic payoff could be a 0.3 per cent one-off boost to incomes: Daley et al (2015b, p. 6).
68. D. Wood et al (2019).

A GST package could be designed to be progressive, so that people on lower incomes are on average better off, while people on higher incomes pay more tax in total.[69]

The Federation poses a barrier to GST reform – the federal government currently collects the GST revenue but it is all transferred to state governments via untied grants. State governments are unlikely to support a change to the GST unless it improves their net budget position.[70] Similarly, the federal government is unlikely to pursue such a politically difficult change unless there is something on the table for the federal government after it funds income tax cuts and higher welfare payments as compensation.

Grattan Institute has proposed a GST reform package that might satisfy these competing claims.[71] However, it would require substantial federal-state cooperation to make it a reality.

Explore wholesale changes to Australia's corporate tax system

Corporate taxes drag on the economy because they discourage investment. Australia now has one of the highest *headline* corporate tax rates in the OECD,[72] although Australia's *effective* corporate tax rate is not as high because of its unusual dividend imputation system.[73]

69. Daley et al (2015b).
70. The GST legislation requires the consent of all states and territories for amendments to the rate or base of the GST: *A New Tax System (Managing the GST Rate and Base) Act 1999*, Section 11. The federal government could ignore this requirement, by simply repealing the section requiring state and territory consent: Twomey (2003). But it may be politically unwise for the federal government to pursue reforms without substantial state government support.
71. Daley et al (2015b).
72. Our headline corporate tax rate is 30 per cent. Small businesses (with a turnover of less than $25 million) pay 27.5 per cent: ATO (2018).
73. Estimates suggest that Australia's true corporate tax rate – taking account of dividend imputation – is less than 20 per cent: Davis (2012).

This system returns to shareholders about a third to a half of the revenue raised,[74] but creates other economic distortions.[75]

In theory, lower company taxes lead to more investment, and therefore higher incomes in the long term. But in practice, they mainly increase after-tax returns to foreign investors, because Australia's dividend imputation regime means that the corporate tax rate matters much less to domestic investors. Federal Parliament passed legislation in 2018 to cut the company tax rate for businesses with a turnover of up to $50 million to 25 per cent.[76] While cuts to the headline company tax rate for all businesses might boost Australia's economic output, they do less to increase the per capita incomes of Australians because benefits accrue to foreign investors.[77]

Other tax changes could offer similar benefits as a general corporate tax cut, but at lower long-term cost to the budget and the incomes of Australian residents.[78] Accelerated depreciation regimes allow firms to write-off new capital investments faster. Bringing forward depreciation reduces the real cost of investing for firms, particularly in long-lived assets such as plant and equipment.[79] In effect, government provides an interest-free loan to the company for new assets.

74. OECD (2019b); and Stewart (2019).
75. D. Wood and Coates (2018, pp. 12–13).
76. *Treasury Laws Amendment (Lower Taxes for Small and Medium Businesses) Bill 2018*. Proposals for a similar cut for larger businesses were abandoned. Different company tax rates for small and larger businesses introduce another set of distortions, including a disincentive for companies close to the threshold to grow.
77. Analyses differ on whether the net effect would be positive for Australian residents, and if so when (See: D. Wood et al (2018a, pp. 6–8)).
78. Ibid (pp. 11–14).
79. These are broadly similar to the current instant asset write-off scheme, which allows businesses with a turnover of less than $500 million to immediately depreciate 100 per cent of the business portion of an asset's value up to a tiered threshold: ATO (2021a).

The Federal Government introduced an accelerated depreciation scheme in response to the COVID pandemic that applies to assets installed between 12 March 2020 and 30 June 2021.[80] Like the instant asset write-off, eligibility is confined to businesses with a turnover of less than $500 million. Accelerated depreciation schemes cost the budget more in the initial years, although less over time, than a company tax cut that provides a similar-sized boost to investment.[81] With a scheme already in place, some of the front-loaded costs to the budget are now sunk costs, so the scheme should be made permanent to take full advantage of its long-term benefits.

The next federal government should explore wholesale reform of Australia's corporate tax system, such as a destination-based cash flow tax or an allowance for corporate equity.[82] The government should consider charging more for the use of non-renewal resources such as coal and iron ore, as recommended by the Henry Tax Review.[83] A well-designed rent tax would significantly improve the budget position while maintaining the economic benefits of any company tax cut.[84]

2.2.4 Reform income tax

The current Federal Government (supported by the Opposition) has committed to substantial income tax cuts in 2024-25 (the so-called Stage 3 tax cuts).

These cuts were announced in the 2018 and 2019 Budgets. They are designed to reduce the impact of 'bracket creep' – the upward creep in average tax rates over time because of the effects of inflation. Grattan Institute analysis showed the cuts as designed would overcompensate

80. ATO (2021b).
81. Minifie et al (2017, p. 39).
82. For a comprehensive review of the options, see: Ingles and Stewart (2018).
83. Henry et al (2010, Chapter C1).
84. D. Wood et al (2018a).

high-income earners for the upward creep in their average tax burden through the 2020s but undercompensate middle-income earners. With wage growth considerably below pre-pandemic forecasts, the tax cuts are now more generous than needed to compensate high earners for the effects of bracket creep and maintain incentives to work and save.

These cuts were calibrated in a very different fiscal and economic environment. They were scheduled to occur in a period when the Government was projecting sizeable surpluses and strong revenue growth. Now, they will widen the deficit: as currently designed, the cuts will reduce government revenues by about $16 billion in 2024-25, growing each subsequent year.[85]

If the next government is committed to the tax cuts, it could lessen the impact on revenue and improve the long-run efficiency of income tax collections by packaging them with a redesign of tax concessions that are not currently delivering strong economic benefits. Attractive options include reducing the CGT discount to 25 per cent, winding back negative gearing,[86] and better targeting super tax concessions.

Previous Grattan Institute reports have highlighted how these concessions overzealously protect incentives to save, at the expense of competing considerations.[87]

In the case of the current CGT discount and negative gearing arrangements, they act to distort investment decisions, increase price volatility in property markets, and put some upward pressure on house prices. They provide limited benefit in terms of increasing the rate of new housing development.[88]

85. Parliamentary Budget Office (2021a, p. 3).
86. We have proposed Australia follow international practice, and not deduct losses from passive investments from labour income.
87. Daley et al (2016b); and Daley et al (2015a).
88. Daley et al (2016b).

Similarly, super tax concessions provide tax reductions well beyond their stated benefits in taking the pressure off the Age Pension. These tax breaks should be tightened further, which would raise substantial revenue but have limited economic impacts (Chapter 9).

Better targeting these concessions would somewhat reduce the economic drag from a given rate of income taxes. By packaging these changes with the income tax cuts, most taxpayers will still receive a tax cut overall, but the hit to the medium-term budget position from the Stage 3 cuts would be substantially reduced (Chapter 10).

Wind back age-based tax breaks

The tax-free thresholds for seniors and for younger people have diverged over time. The Seniors and Pensioners Tax Offset (SAPTO) means older Australians do not pay income tax until they earn $33,898 a year, whereas younger households have an effective tax-free threshold of $23,226.

This is hard to justify. The higher threshold mainly benefits middle- and high-income retirees with assets outside super. Most of these retirees would have substantial assets inside super as well. Nearly 30 per cent of retirees with superannuation balances exceeding $2 million accessed SAPTO in 2017-18.[89]

The government should wind back SAPTO so that it is available only to age pensioners, and so that those whose income bars them from receiving a full Age Pension pay some income tax. Seniors should also start paying the Medicare levy at the point where they are liable to pay some income tax. They would then pay a similar amount of tax as younger workers with similar incomes. This package would improve budget balances by about $700 million a year.[90]

89. Callaghan et al (2020, p. 250).
90. Daley et al (2016a, p. 3).

Tighten superannuation tax concessions

Superannuation tax concessions continue to provide benefits unrelated to the purpose of superannuation, which is to substitute for or supplement the Age Pension. These tax breaks should be tightened further, which would raise substantial revenue but have limited economic impacts. Chapter 9 outlines reforms to super tax breaks that would better align tax breaks with the goals of superannuation, while saving the budget about $5 billion a year today, and much more in future.

Taxes on savings have limited influence on how much people actually choose to save, particularly people with high incomes. The empirical evidence from around the world confirms that people on higher incomes are more likely to save, and they tend to save about the same amount irrespective of tax rates.[91] From an economic perspective, taxes are generally considered to be more efficient if they affect behaviour less in practice than other taxes. If taxes on superannuation savings were higher, other more economically-destructive taxes could be lower, or spending on public services could be higher.

More wholesale reform of savings taxation is warranted

Tax rates on savings in Australia vary widely across savings vehicles. About 60 per cent of household savings are concentrated in owner-occupied housing and superannuation, where the returns to savings are taxed lightly, or not at all.[92] Other savings vehicles, such as bank accounts and international shares, are taxed at much higher rates.

While tax rates appear to have little impact on savings behaviour, people with higher incomes, and older savers, tend to switch their savings into whichever investment vehicle pays the least tax.[93] A more consistent treatment of household savings would encourage households to seek the best pre-tax return on their savings, and to invest their savings in assets that best suit their circumstances and risk-preferences.

The Henry Tax Review recommended taxing most savings, such as most interest income, net residential rental property income, and capital gains, at marginal tax rates of personal income tax, after applying a 40 per cent discount to that income.[94] Alternatively, the next federal government could introduce a dual-income tax system, where the income from most forms of savings is taxed at a low, flat rate, separate to taxes on labour income (which is taxed through the personal tax system at progressive rates).[95] Recent estimates suggest that a low, flat tax across all savings vehicles would be more progressive than Australia's current approach.[96]

Stop subsidising inheritances

Australians currently pay taxes on the income they earn from working, but money received via a bequest is tax free. Australia is one of only 12 OECD countries that do not levy any taxes on inheritances or gifts.[97]

Inheritances taxes haves substantial economic merit because they are less distorting than most other taxes including income taxes.[98]

However, taxes on inheritances are deeply unpopular.[99] Estate taxes were abolished in Australia in the late 1970s and no government has

91. Daley et al (2015a, Figure 2.4).
92. Daley et al (ibid, p. 19).
93. Daley et al (ibid, p. 20).
94. Henry et al (2010, p. 62).
95. Many countries have adopted this approach. See: Varela et al (2020).
96. Varela et al (ibid).
97. OECD (2021i).
98. Henry et al (2010, pp. 137–140), OECD (2018a, pp. 70–71) and Asprey (1975, p. 440). The Henry Review noted that 'a bequest tax levied at a low flat rate, and designed to affect only large bequests, could be an efficient and equitable component of Australia's future tax system': Henry et al (2010, p. 138).
99. Emslie and D. Wood (2019).

touched them since.[100] Identifying the right model and bringing the Australian people along will be necessary prerequisites to any type of inheritance tax.

But something we can and should do now is to stop subsidising inheritances. This means ending rules that feed the size of bequests at the expense of taxpayers. The government should:

- Broaden the super death benefits 'tax' so that it more effectively claws back the lifetime benefits of superannuation tax breaks. These tax breaks on super contributions and earnings are given to help Australians achieve adequate standards of living in retirement, not to subsidises intergenerational wealth transfers.
- Introduce asset-contingent HELP debt repayments for estates over a certain value;[101]
- Not force people to over-save for their retirement by increasing compulsory super contributions (see Chapter 9); and
- Include the family home in the Age Pension asset test (see Chapter 3).

2.2.5 Support state governments to make major economic reforms

The next federal government should embrace opportunities to support major economic reforms by the states, especially in swapping stamp duty for a broad-based property tax and relaxing Australia's overly-stringent land-use planning rules.

The principle of federal financial support for state-level reform is well-established. Under the National Competition Policy, the federal government paid the states nearly $6 billion over 10 years in exchange for much-needed regulatory and competition reform. The Productivity Commission later concluded that the program boosted Australians' incomes by 2.5 per cent.[102] A new national reform agenda, working with the states, could provide a similar boost to Australians' living standards today.

100. D. Wood (2018).
101. Norton and Cherastidtham (2014).

Encourage the states and territories to replace stamp duties with general property taxes

The biggest tax reform prize in Australia would be to replace state stamp duties with general property taxes. The next federal government should encourage the states and territories to do so.

Stamp duties are inefficient taxes: they discourage people from moving to housing that better suits their needs, and they discourage people from moving to better jobs.[103] The economic drag of stamp duties has increased over the past two decades.[104] In contrast, land taxes do not distort decisions about land use, provided they apply in a way that the landowner can't avoid.

Shifting from stamp duties to a broad-based property tax (at $5 to $7 for every $1,000 of unimproved property value) could make Australians up to $17 billion a year better off, while also making housing more affordable (see Chapter 3).[105] The gains would be even larger if this broad-based property tax were expanded to fund the replacement of

102. Productivity Commission (2005).
103. Daley et al (2018a, pp. 121–122).
104. Average rates of stamp duty have risen substantially in all states, from about 2-to-3 per cent on the median-priced house in each capital city in 1995 to about 4 per cent in 2015, because thresholds have not kept pace with rising house prices: Daley et al (Figure 7.3 ibid). Rates of property turnover have declined over the same period: Daley et al (ibid, p. 122).
105. Ibid (p. 122).

other inefficient taxes, such as taxes on insurance and stamp duties on motor vehicle sales.[106]

Proposals to switch from stamp duty to land tax have stalled because the politics are hard.[107] While such a switch is a state government responsibility, the federal government should commit to filling part of the revenue hole arising should a state swap stamp duties for property taxes, including any reduction in a state's share of the GST.

Encourage states to reform land-use planning rules

The next federal government should provide incentives to state governments to reform land-use planning rules. Land-use planning policies are arguably the biggest policy lever for governments to boost economic growth, and reforms would also improve housing affordability (see Chapter 3).

Geography matters a lot to economic growth.[108] An advanced economy like Australia is dominated by services industries,[109] which often benefit from collocation, and tend to concentrate in major cities.[110] Cities tend to be more productive, as is reflected in higher wages, GDP, and rates of innovation per worker.[111]

Land-use planning rules set out how competing land uses should be managed to coordinate the provision of infrastructure and to minimise the costs that some land users impose on their neighbours – such as pollution, noise, congestion, or poor design.[112] How much businesses can collocate is affected by planning rules that guide the availability of land for businesses and the homes of the people who work in the businesses. Fewer restrictions on land use and subdivision can increase economic growth by enabling more people to access more jobs, while allowing firms to optimise their location.[113] Such flexibility is likely to be especially important in managing changes in where Australians live and work in response to the COVID pandemic.

2.2.6 Promote innovation and competition

Innovation is central to boosting productivity. Because Australia accounts for only a small share of the global economy, the vast majority of innovations in Australia are invented elsewhere, and then adopted or adapted for local use.[114]

Governments have only limited ability to enhance productivity through innovation. Overall, the biggest spur to innovation is vigorous competition. Government policy can alter the dynamics of competition generally. In addition, sector-specific regulation can have an even bigger effect on competition.

Competition laws are unlikely to require major changes, but regulation of natural monopolies should be strengthened

Australia's general competition laws are unlikely to require any wholesale changes. The 2015 Harper Review of competition policy found that Australia's competition law regime has generally served the country well.[115] It recommended some amendments – including a

106. Daley et al (2018c, p. 84).
107. Recent purchasers would be reluctant to pay an annual property tax so soon after paying stamp duty, while a property tax would pose difficulties for people who are asset-rich but income-poor.
108. Moretti (2012).
109. Daley (2016).
110. Kelly and Donegan (2015).
111. Romer (2015); and SGS Economics & Planning (2018, p. 2).
112. Daley et al (2018a, Box 4).
113. Recent US studies estimate that GDP would be between 2 per cent and 13 per cent higher if enough housing had been built in cities with strong jobs growth such as New York and San Francisco. See: Glaeser and Gyourko (2018, pp. 22–24) and Hsieh and Moretti (2017).
114. Daley et al (2012, pp. 17–18).
115. Harper et al (2015, p. 9).

change to the test for establishing a misuse of market power – which have largely been adopted by government.[116]

More recently, the Australian Competition and Consumer Commission (ACCC) has called for changes to the merger regime, including mandatory filing of certain mergers for ACCC clearance, lower thresholds for the ACCC to intervene in mergers, and reforms to deal with acquisitions by large digital platforms.[117] The merger regime is an important 'first line of defence' against firms accruing too much power, and so the regulator's concerns deserve a serious hearing.

There are also potentially large benefits from tightening regulation in natural monopoly sectors where little direct competition is possible. Firms in natural monopoly industries subject to regulation tend to have higher risk-adjusted returns. For example, returns to the wired telecommunications sector, airports, and some ports have also been significantly above the cost of equity.[118] Grattan Institute's *Competition in Australia* report details some sector-specific suggestions for increasing regulatory pressure in these natural monopoly sectors.[119]

Improve business regulation

Australia is a relatively business-friendly environment, and ranks highly on international comparisons of the ease of doing business.[120] But we should not be complacent. Regulations and red tape that unjustifiably drag on business activity should be adjusted or abandoned.

Grattan's *Competition in Australia* report found that government should cut the regulatory burden by removing constraints on entry and exit, cutting preferential treatment of firms, and reducing impediments to efficient allocation of labour and capital. The main opportunities in these areas, identified by the Harper Review and the Productivity Commission, include reforming the industrial relations system, and aligning Australian product standards with those in other major markets.[121]

Another opportunity lies in reducing barriers to consumer switching in markets for essential services. The Consumer Data Right (CDR) is a positive step and we welcome the Government's announcement that it will extend the CDR to the telecommunications sector.[122] In addition, government should design more wholesale forms of competition to increase competitive intensity in markets such as superannuation where members are highly disengaged (see Chapter 9).

2.2.7 Improve workforce participation

Increasing the share of the working-age population that is in work would boost economic growth, and counter the effects of the ageing of the population. Grattan Institute research has found that improving workforce participation rates for women and older people would be 'game changers' for Australia's economy.[123] Young Australians also face career headwinds that require more attention.[124]

Lift female workforce participation

The high cost of childcare, and gender-biased parental leave, create barriers for women to take up more paid work. Lowering these barriers would significantly boost economic growth and promote gender

116. *Competition and Consumer Amendment (Misuse of Market Power) Act 2017*; *Competition and Consumer Amendment (Competition Policy Review) Act 2017*.
117. Sims (2021).
118. Minifie (2017, pp. 32–33).
119. Ibid.
120. World Bank (2019).
121. Minifie (2017, p. 44). See also Harper et al (2015) and Productivity Commission (2017).
122. Frydenberg and Hume (2021).
123. Only improving the efficiency of taxes is the same order of magnitude: Daley et al (2012).
124. D. Wood et al (2019).

equality. Before the pandemic, more women were working in Australia than ever (see Section 2.1), but about one third of them work part-time. The average woman with pre-teenage children works 2.5 days a week.

The cost of childcare combined with additional taxation and loss of family benefits means that for many women there is little or no financial benefit from increasing their paid work beyond three days a week.[125] Among mothers who have young children and would like to work more hours, two thirds say they are prevented by lack of childcare. Half of these say the main reason is the cost of childcare.[126]

We recommend a 95 per cent subsidy for low-income households, gradually tapering for families with incomes above $70,000, at an additional budgetary cost of about $5 billion a year. We estimate this would lead to a 13 per cent increase in hours worked by second-earners with young children, delivering a GDP boost of about $11 billion a year, and boosting lifetime earnings for a typical mother by about $150,000.[127]

Alternatively, if governments are looking for a bigger reform vision, then making childcare universal and close to free has the potential to deliver a 'double dividend': higher female workforce participation as well as improved access to early education. Our recommendation could be a stepping-stone towards this bolder reform vision.

Both major parties have announced policies to boost the Child Care Subsidy and improve its design so that second-earners in a household – mostly women – take home more pay from additional hours of work.[128]

125. D. Wood et al (2020).
126. ABS (2019a). Includes parents or guardians of children aged 0-12 and who are not working full-time and would like to work more hours or would like a job.
127. D. Wood et al (2020).
128. D. Wood et al (2021c).

As well as making paid childcare cheaper, a shift towards greater sharing of parenting duties would further remove barriers to women's workforce participation. Parental leave policy can shift behaviour and culture towards a more gender-equal split of parenting. Overseas experience suggests that policies that allow fathers to be more engaged in the early years have lasting impacts on engagement with children as they grow. Greater sharing of unpaid care gives mothers more scope to do paid work, as well as bringing significant benefits for fathers and children.[129]

We recommend adding up to six additional weeks leave to the current 20-week paid parental leave allowance. To encourage leave sharing, this would be done through a 6/12/6 structure – six weeks 'use it or lose it' provision for each parent, and 12 weeks to share between them as they choose. To supercharge the incentive for parents – especially fathers – to take leave, we recommend an additional two weeks of bonus leave, which could be used by either parent provided both parents take at least six weeks leave.[130]

Encourage older people to stay in the workforce

Increasing the superannuation preservation age from 60 to at least 65 would make a big difference to economic growth,[131] and budget balances.[132] A preservation age of 60 is hard to justify given the age for eligibility for the Age Pension is rising to 67. Despite recent gains, older people are less likely to work in Australia than in many comparable economies.[133] The age at which people can get superannuation or the Age Pension affects retirement decisions of at least some workers.[134] A

129. D. Wood et al (2021a).
130. Single parents should be given the full 26-week entitlement.
131. Daley et al (2012, p. 12).
132. Daley et al (2013b, pp. 29–32); and Productivity Commission (2015a, p. 2).
133. OECD (2021d).
134. Daley et al (2012, pp. 53–54).

gradual phase-in could help people transition their retirement plans to a higher preservation age.

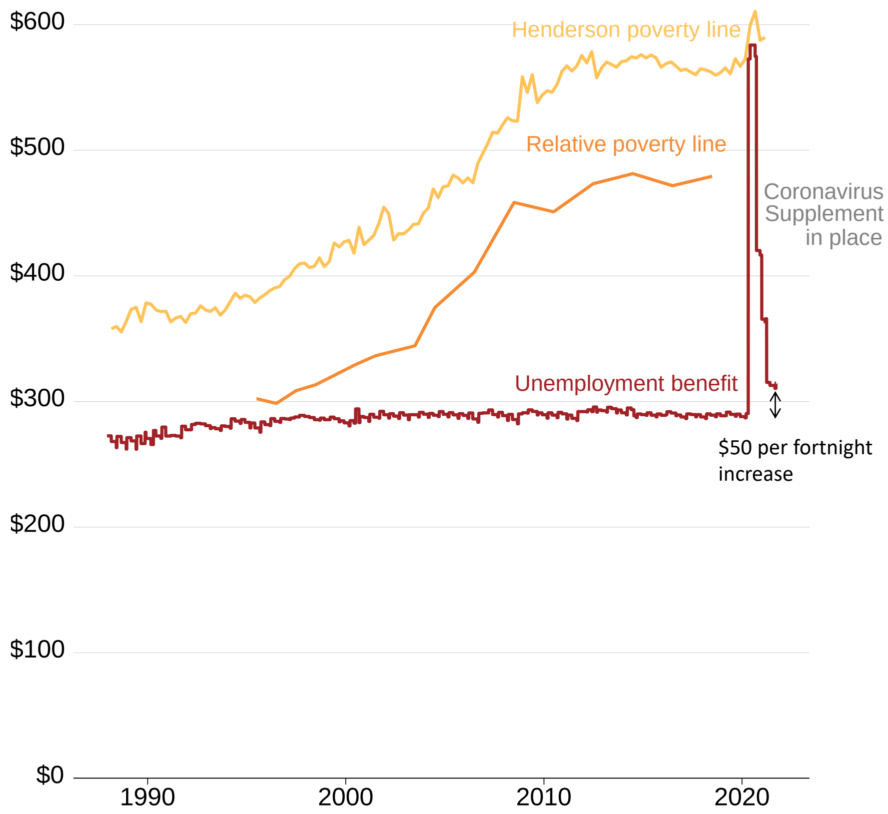
2.2.8 Increase JobSeeker payments

Although income inequality is not particularly high in Australia, some households are entrenched in disadvantage.[135] Unlike wages and pensions, unemployment benefits have barely increased in real terms in more than 20 years (see Figure 2.7). Unemployment benefits have fallen dramatically below the poverty line, and the $50 per fortnight increase in April 2021 did little to bridge the gap.[136] The increase takes Australia from the worst to the second-worst rate of unemployment benefit in the OECD (see Figure 2.8).

While the Age Pension is indexed to wages, JobSeeker only increases with inflation.[137] This has 'squeezed' the living standards of people living on unemployment benefits relative to the rest of the population.[138] A typical single person on JobSeeker receives just $45 a day,[139] about 20 per cent of average (male) earnings.[140] Working-age households receiving welfare payments – primarily JobSeeker – are under much more financial stress than those receiving other welfare payments.[141]

Figure 2.7: The unemployment benefit has fallen further and further below the poverty line

Poverty lines and unemployment benefits per week, inflation-adjusted 2021 dollars



Notes: Unemployment benefit includes Energy Supplement. Poverty lines indexed to March 2021 using household disposable income per capita. Adjusted for inflation using the Consumer Price Index. Unemployment benefits have at various times been called the unemployment benefit, the Job Search allowance, the Newstart Allowance, and the JobSeeker payment.

Sources: Grattan analysis based on Melbourne Institute (2021), ABS (2019b), ABS (2021f), Department of Social Services (2020) and ABS (2021g).

135. Productivity Commission (2018a, Chapter 6).
136. Until that 2021 increase, unemployment benefits had not increased in real terms for more than 25 years: ACOSS (2018).
137. Wages typically increase faster than prices, so the Age Pension has grown more rapidly than JobSeeker over the past two decades. Several one-off changes have increased the Age Pension even more: Daley et al (2013a, p. 20).
138. Coates and Cowgill (2021).
139. People on JobSeeker may receive up to another $10 a day in family payments, Rent Assistance, and the Energy Supplement: ACOSS (2018).
140. ABS (2021a, Table 10C). JobSeeker was equal to 24 per cent of average male earnings in 1996: Whiteford (2012).
141. Daley et al (2018b, p. 27); and Daley et al (2013a, p. 19).

Increasing incomes at the very bottom of the distribution would probably improve economic outcomes[142] by helping recipients to look for a job.[143] Even with a further $75 increase, JobSeeker would still be only about half (51.4 per cent) of the full-time minimum wage, meaning that an unemployed person would still have a substantial financial incentive to move into full-time work.[144] Increasing JobSeeker would also reduce the number of people with insufficient resources to pursue lives they have reasons to value,[145] and reduce inequality.

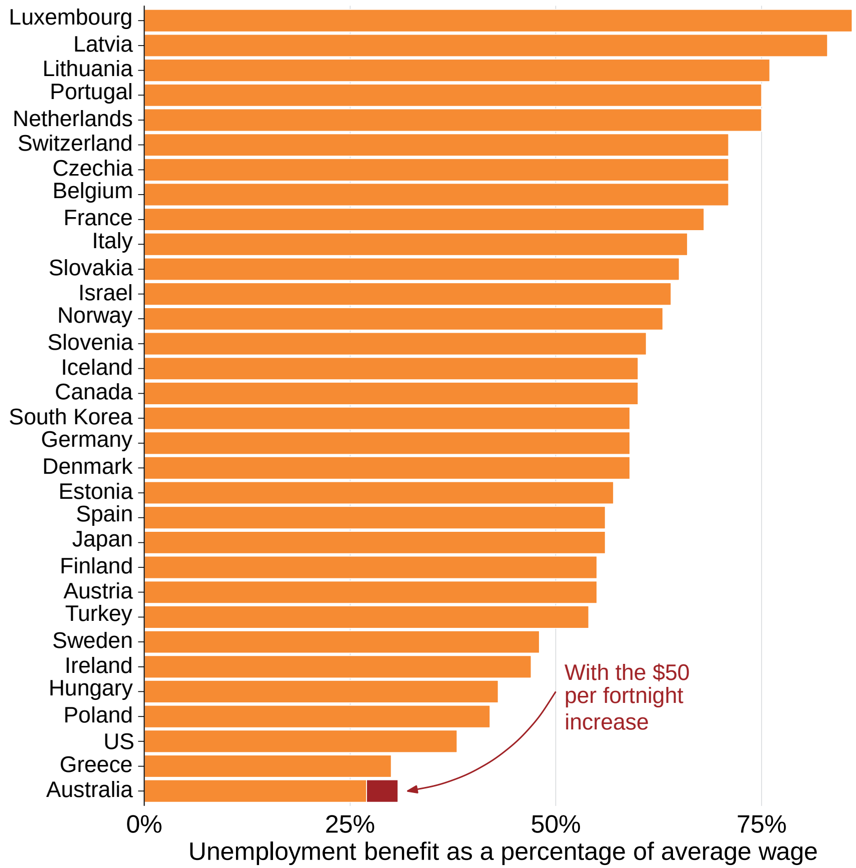
Consequently, many commentators have argued that JobSeeker payments are much too low, even after the recent increase.[146] An additional 'catch up' increase to JobSeeker of $75 a week would have a material impact on the incomes of low-income households,[147] and would bring payments closer to community living standards. At an absolute minimum, JobSeeker should be bench-marked to growth in wages, rather than inflation, to stem the ongoing erosion of living standards for the unemployed.

Increasing JobSeeker would do more to reduce poverty rates per budgetary dollar spent than other welfare changes.[148] Households

142. Deloitte (2018).
143. The OECD noted concerns that the low level of JobSeeker 'raises issues about its effectiveness in providing sufficient support for those experiencing a job loss, or enabling someone to look for a suitable job': OECD (2010, pp. 127–28). It is generally accepted that when unemployment benefits are very high, relative to wages, recipients have less financial incentive to seek work: see Daley et al (2020, p. 57). But some recent studies have found that increasing the generosity of unemployment benefits does not necessarily reduce employment or efforts to find a job: see Hussain et al (2020) and Boone et al (2016).
144. Daley et al (2020, p. 61).
145. Reducing absolute levels of poverty that prevent people exercising meaningful choices is broadly regarded as of intrinsic value: Daley et al (2013a, p. 37).
146. Whiteford and Bradbury (2021); Phillips (2021); ACOSS (2018); Bagshaw (2018); BCA (2018); CEDA (2018); Deloitte (2018); and Iggulden (2018).
147. Deloitte (2018, p. ii).
148. Phillips et al (2018).

Figure 2.8: The extra $50 a fortnight took Australia's unemployment benefit from the lowest to the second lowest in the OECD

Unemployment benefit as a percentage of average wage



Notes: Australia's unemployment benefit was increased by $50 per fortnight in April 2021. These figures are from 2019-20; apart from Australia, they do not include changes to benefit systems implemented in response to the COVID crisis.

Source: OECD (2021j).

spent about $215 of the additional $550-a-fortnight Coronavirus Supplement on day-to-day items including household bills ($85), food ($70), and clothing ($60), suggesting that an extra $75 a week would probably be used to cover the basics.[149]

2.2.9 Improve permanent skilled visas

Australia's permanent skilled visa policy is heading in the wrong direction (see Figure 2.5). The reforms we recommend (below) would deliver big benefits to the Australian community. Abolishing the Business Innovation and Investment Program (BIIP) visa in favour of more employer-sponsored visas would boost the lifetime fiscal dividend from each year's migrant cohort by at least $3.7 billion (see Figure 2.9). Reforming employer sponsorship could boost the lifetime fiscal dividend from each annual cohort by at least another $9 billion.[150]

Abolish the Business Innovation and Investment visa

The Business Investment and Innovation Program (BIIP) should be abolished. Few investors are financing projects that would not otherwise occur, or providing entrepreneurial acumen that will benefit the Australian community. BIIP visa-holders bring fewer benefits to Australia than skilled migrants selected through other streams, because they are older, speak little English, and earn lower incomes.[151]

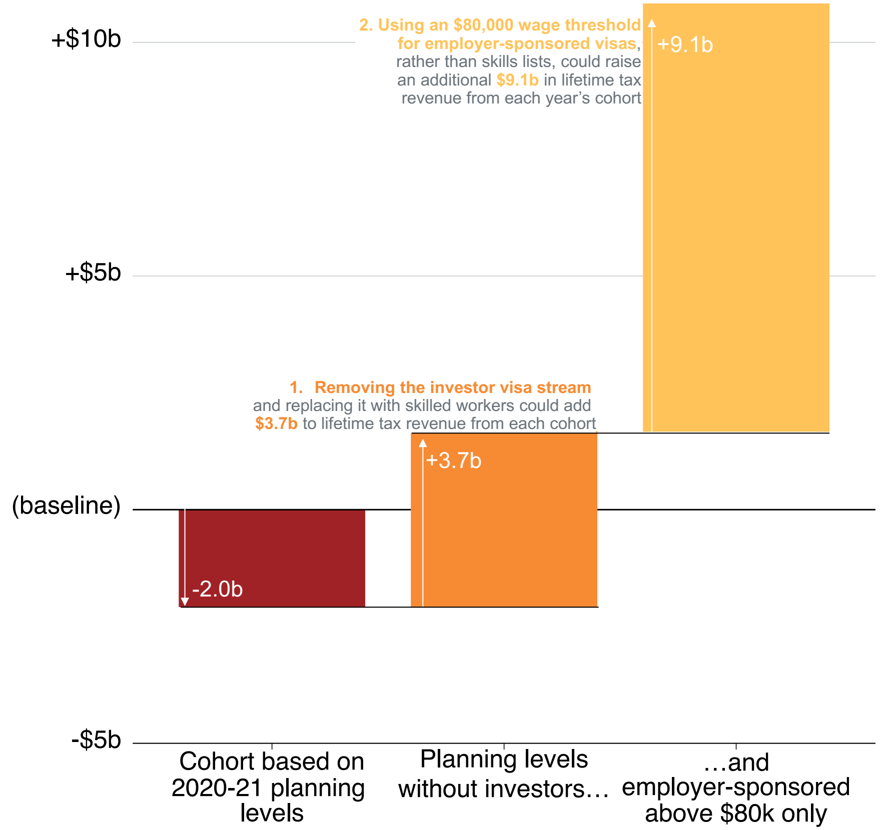
Scale back the Global Talent visa

The Global Talent Program, introduced as a pilot of 1,000 visas in 2018-19, has expanded rapidly to a planned 11,000 visas in 2020-21. Targeting high-end talent is a worthwhile objective, but the visa remains

149. A further $175 a fortnight was used to pay down debt, or was saved: Tingle (2021).
150. Coates et al (2021, Section 4.2).
151. Ibid (Chapter 5).

Figure 2.9: Changes to the skilled visa composition would bring big fiscal benefits for the Australian community

Estimated lifetime tax paid of permanent migrant cohorts, relative to recent cohort composition



Notes: Assumes a real wage growth rate of 1 per cent, a real social discount rate of 3 per cent, and a retirement age of 67. See methodology in Coates et al (2021, Appendix B).

Source: Grattan Institute analysis.

unproven. There is no compelling evidence to justify expanding the scheme at such a rapid rate, especially at the expense of visas with a strong track record of selecting skilled workers who succeed in Australia. The Global Talent Program should be scaled back and evaluated before any decision is made to expand it.[152]

Introduce a wage threshold to replace occupation lists for employer sponsorship

The number of skilled worker visas – allocated via employer-sponsorship and the points-test – should be expanded. Compared to other skilled visa-holders, skilled workers are much more likely to have higher incomes, arrive in Australia when they are younger, and participate in the labour market.[153]

But these visas also need a rethink. Permanent skilled worker visas should no longer be targeted at skills shortages. Grattan Institute research shows the lasting value of permanent skilled visas occurs over decades, not by filling immediate labour market gaps. Permanent skilled worker visas should be targeted at younger, higher-skilled migrants who are best placed to benefit the Australian community in the long term.

Employer sponsorship should be available for workers in all occupations, provided they earn above median full-time earnings of $80,000 a year.[154] This would better target visas to people with the most valuable skills, and simplify the sponsorship process for firms and migrants.

152. Ibid (Chapter 6).
153. Ibid (Chapter 7).
154. Ibid (Section 7.8).

Review the points test

The points test has not been reviewed since 2006. The next federal government should review it, to ensure Australia gives priority to younger, higher-skilled workers.[155] Points should be allocated only for characteristics that suggest an applicant will succeed in Australia.

155. Ibid (Section 7.9).

3 Housing

3.1 Where we are

Australian housing has become increasingly expensive in recent decades, and public anxiety about housing affordability is rising.[156] House prices have grown much faster than incomes.

Interest rates have fallen, and so repaying a typical first home loan is not particularly difficult at the moment. But it is harder to save a deposit for a first home, a first home loan now entails more risk, and borrowers live with that risk for longer because wages are growing slower than in the past. Rental affordability has improved in recent years – with rents rising slower than wages – as housing construction has accelerated.

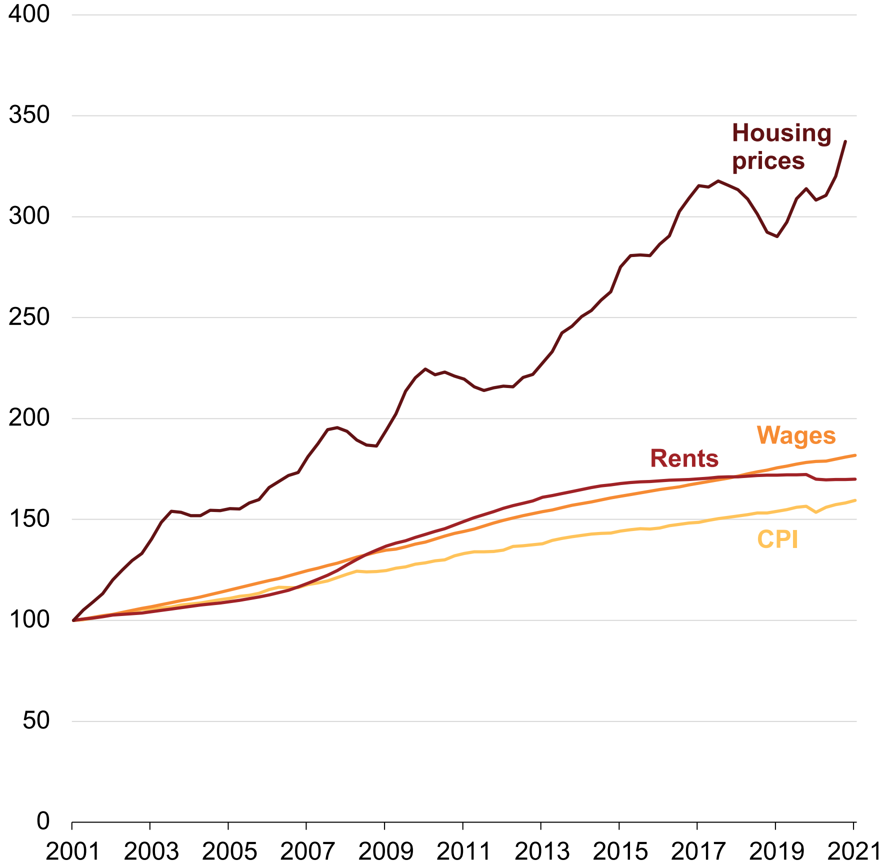
3.1.1 Australians are spending more of their incomes on housing

Australian dwelling prices have grown much faster than incomes, particularly since the mid-1990s (Figure 3.1). Prices have risen rapidly in all cities, and most regions. Median prices have increased from about four times median incomes in the 1980s and early-1990s, to more than eight times today (and about 10 times in Sydney).[157]

Of course, not all Australians own their own homes – nearly one in three households rent privately.[158] More than half of low-income Australians in the private rental market suffer rental stress, especially those in the capital cities.[159]

Figure 3.1: House prices have increased much faster than rents and income

Nominal, index 2001 = 100



Notes: CPI = Consumer Price Index. Nominal house price growth from Bank for International Settlements; Wages from Wage Price Index (excluding bonuses; private and public). Rents in the CPI are stratified according to location, type, and size.

Sources: BIS (2021, H1), ABS (2021f, Tables 1, 7) and ABS (2021d, Table 1).

156. Daley et al (2018a, Figure 1.1).
157. Updated from Daley et al (ibid, p. 16).
158. The proportion of households renting has steadily increased from about 27 per cent in 1991 to 32 per cent in 2016: Daley et al (ibid).
159. Daley et al (Figure 2.14 2018a) and ABS (2019a). Rental stress for low-income households is defined as the bottom 40 per cent of households with respect

3.1.2 Home ownership is falling, especially for younger, poorer Australians

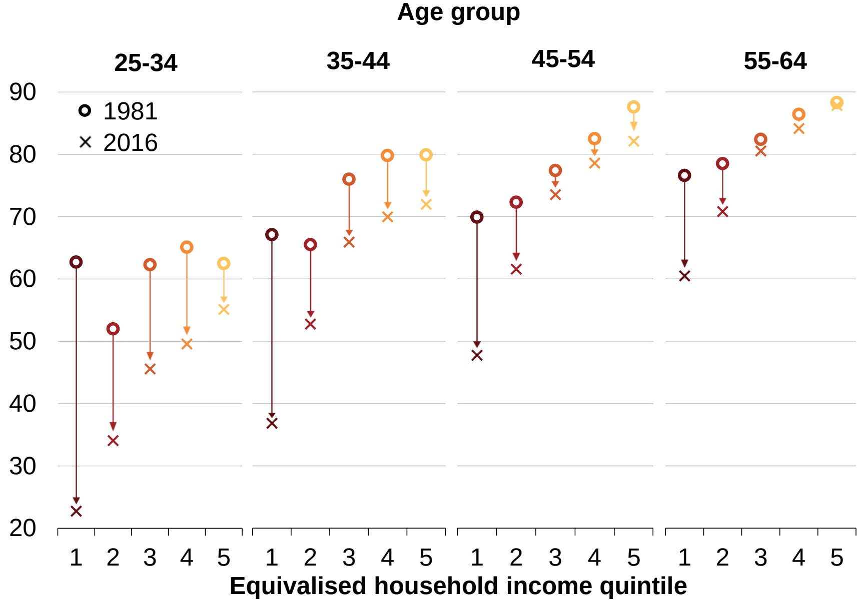
Home ownership is falling. Between 1981 and 2016, home ownership rates among 25-34 year-olds fell from more than 60 per cent to 45 per cent. Home ownership has also fallen for middle-age households, suggesting that most of the fall is due to higher dwelling prices rather than changing preferences for home ownership among the young. Consequently, without intervention, home ownership rates are unlikely to bounce back over time. For 35-44 year-olds, home ownership has fallen fast – from 74 per cent in 1991 to about 62 per cent today – and home ownership is also declining for 45-54 year-olds.

Home ownership rates are falling particularly fast among poorer Australians of all ages. About 57 per cent of the poorest 40 per cent of Australians aged 25-34 owned their homes in 1981. Now it's halved to just 28 per cent. (Figure 3.2). Home ownership is also falling among poorer older Australians. Among the poorest 40 per cent of 45-54 year-olds, just 55 per cent own their homes today, down from 71 per cent four decades ago. Owning a home increasingly depends on who your parents are, a big change from 40 years ago when home ownership rates were high for all levels of income.

Home ownership is falling because it takes much longer to save for a deposit. In the early 1990s it took about six years to save a 20 per cent deposit for a typical dwelling for an average household. It now takes more almost 12 years.[160] Unsurprisingly, a growing share of Australians are relying on 'the Bank of Mum and Dad' to secure a home deposit.[161] Meanwhile older renters with a deposit won't be in the workforce long enough to pay off a home by the time they retire, even at today's record-low interest rates.

Figure 3.2: Home ownership is falling particularly fast for low-income earners

Home ownership rates by age and income, 1981 and 2016, percentage



Notes: Household incomes based on Census data are approximate, and so small changes in ownership rates may not be significant. Excludes households with tenancy not stated (for 2016) and incomes not stated.

Source: Daley et al (2018a, Figure 4.3).

to equivalised disposable household income (excluding Commonwealth Rent Assistance) spending more than 30 per cent of their gross income on rent.

160. Based on households saving 15 per cent of their gross annual income: Coates (2022).

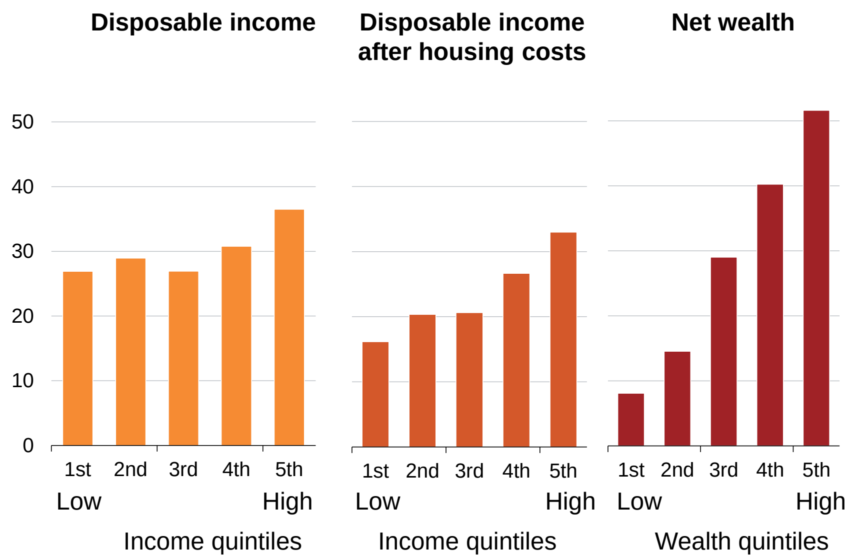
161. Hewett (2017).

3.1.3 Housing costs have contributed to growing inequality and rising homelessness in Australia

With low-income earners spending a larger proportion of their income on housing, inequality is rising. While income inequality is not getting much worse in Australia (see Chapter 2), incomes after housing costs have risen much faster for high-income than low-income households (Figure 3.3). Housing is also a leading reason that wealth has increased faster for those who were already wealthy.[162]

Rising housing costs also contribute to increased homelessness.[163] More than 116,000 people were homeless in Australia on Census night in 2016 – up from 105,000 in the 2011 Census and 90,000 in the 2006 Census. Over the same period, the number of people sleeping rough – on the streets or in improvised dwellings or tents – grew by about 950, to 8,200. The number of people who are not homeless but living in crowded dwellings rose 33 per cent, from 61,000 in 2011 to 81,000 in 2016.[164]

Figure 3.3: Housing costs are a key cause of increasing inequality
Change in real equivalised household disposable income including and excluding housing costs growth, 2003-04 to 2015-16



Notes: Housing costs include rents for renters and repayments on loans for owners with mortgages. Growth in income excluding housing costs calculated by subtracting growth in housing costs from growth in disposable income. Income quintiles are calculated using household disposable income, equivalised by family size. Bottom two income percentiles are removed due to low reliability.

Source: Daley et al (2018a, Figure 4.1).

162. Daley et al (2018b, Figure 5.1).
163. Johnson et al (2018).
164. The ABS categorises people in houses that need three extra bedrooms not as homeless, but 'marginally housed'.

3.2 What we should do

3.2.1 Reform tax and welfare rules to reduce demand for housing

Demand for housing demand would be reduced a little if the federal government reduced the capital gains tax discount and abolished negative gearing – and there would be substantial economic and budgetary benefits (Chapter 2).[165] Property prices would be roughly 2 per cent lower than otherwise, and would-be homeowners would win at the expense of investors. House prices at the bottom would probably fall by more, since these tax breaks have channelled investors into low-value homes that are lightly taxed under states' progressive land taxes and tax-free thresholds.[166]

The dominant rationale for these reforms is their economic and budgetary benefits. The current tax arrangements distort investment decisions and make housing markets more volatile. Our proposed reforms would boost the budget bottom line by about $5 billion a year.[167] Contrary to urban myth, rents wouldn't change much, nor would housing markets collapse.[168]

Including more of the value of the family home in the pension assets test would also marginally reduce housing demand. Under current rules only the first $216,500 of home equity is counted in the pension assets test; the remainder is ignored. Inverting this so that all of the value of a home is counted above some threshold – such as $500,000 – would be fairer, and contribute to the budget.

165. Daley et al (2016b).
166. Daley et al (2018a, pp. 97–98).
167. Daley et al (2016b).
168. Analysis of daily house price data compiled by CoreLogic after the 2019 federal election showed that APRA's post-election decision to loosen the lending restrictions it imposes on the banks, rather than the election result, spurred the recovery of Australian house prices: see Coates and Cowgill (2019).

Again, the dominant rationale for this reform is the budgetary benefit, rather than housing affordability. Many Age Pension payments are made to households that have substantial property assets. Half of the government's spending on the Age Pension goes to people with more than $500,000 in assets.[169]

This reform would also encourage a few more senior Australians to downsize to more appropriate housing, although the effect would be limited given that research shows downsizing is primarily motivated by lifestyle preferences and relationship changes.[170]

Other tax and transfer settings that affect housing include the (non) taxation of imputed rent, the corresponding (non) deductibility of mortgage costs, and the (non) taxation of capital gains and imputed rents on owner-occupied housing. While the policy merits of taxing owner-occupied housing are sound, the politics is likely to be particularly intractable.[171]

169. Daley et al (2018b, p. 98). Excludes the impact of changes to the Age Pension assets test that took effect from 1 January 2017, reducing the pension entitlements of 326,000 pensioners. But these changes would have reduced overall pension payments to part-rate pensioners by only about $1 billion in 2017-18, which is unlikely to substantially change the distribution of pension payments by net wealth, given total pensions spending of $45 billion in 2017-18: Morrison (2015) and Treasury (2017).
170. Daley et al (2018b, p. 38); Productivity Commission (2015b); and Valenzuela (2017).
171. Investment would be less biased towards housing, where any capital gains and imputed rents – the value of owning the home that you live in – are untaxed, compared to investing in other more productive assets. But it would be difficult to resist calls to allow deduction of interest payments and the cost of any capital improvements made to the home such as renovations, which could wipe out most or all of the benefit to the budget. Taxing imputed rents in particular presents a number of practical policy design and implementation challenges, which is why only five OECD countries – the Netherlands, Iceland, Slovenia, Luxembourg, and Switzerland – tax imputed rents, and they often substantially under-estimate the rental value: Daley et al (2018a, pp. 101–102).

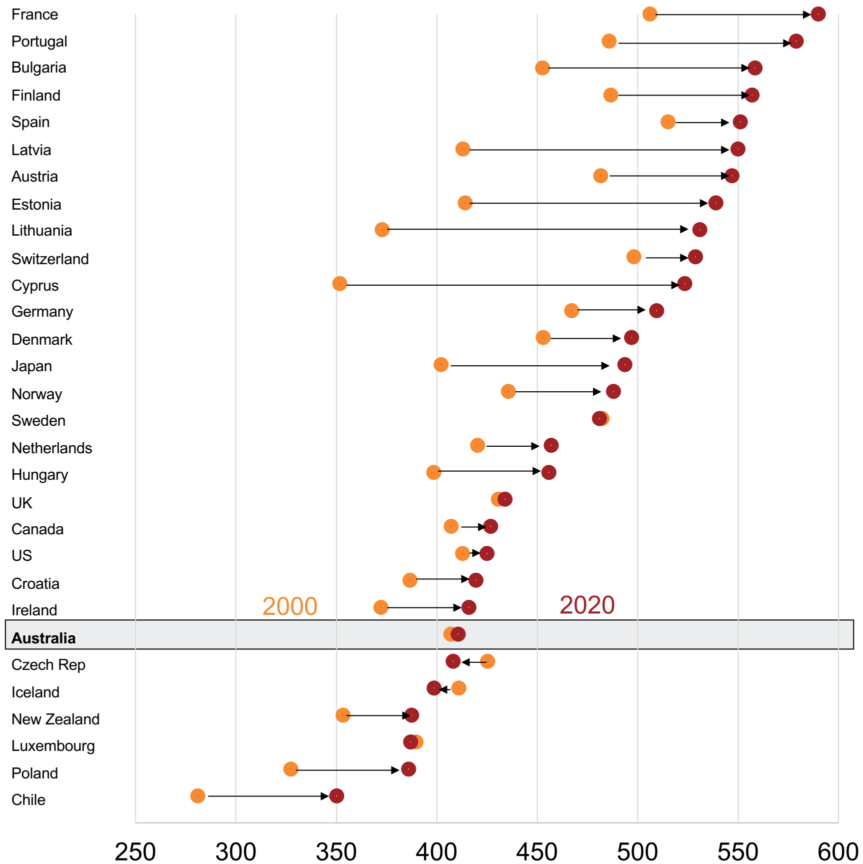
3.2.2 Sharpen states' incentives to boost housing supply

The federal government should provide incentives to state and local governments to increase the supply of housing in good locations.[172] Australian cities have not built enough housing to meet the needs of Australia's growing population. Australia has just over 400 dwellings per 1,000 people, which is among the least housing stock per adult in the developed world. Australia has experienced the second greatest decline in housing stock relative to the adult population over the past 20 years (Figure 3.4).

The historical shortage of housing in Australia is largely a failure of housing policy, rather than housing markets. Australia's land-use planning rules are highly prescriptive and complex. Current rules and community opposition make it very difficult to create extra residences in the inner and middle-ring suburbs of our capital cities.[173] After accounting for trade-offs in price, location, and size, many people would prefer a townhouse, semi-detached dwelling, or apartment in a middle or outer suburb, rather than a house on the city fringe. Semi-detached dwellings, townhouses, units, and apartments made up 44 per cent of Sydney's and 33 per cent of Melbourne's dwelling stock in 2016, up from about 38 per cent and 28 per cent respectively in 2006. But this is still well short of the 59 per cent and 52 per cent respectively that residents say they want.[174]

Coordinating action by the states is worthwhile because improved housing supply in one state spills over into lower prices in other states.[175] The federal government can help solve this coordination

Figure 3.4: Australia's growth in housing stock in the past two decades has been among the lowest for developed countries
Dwellings per 1,000 people, 2000 and 2020 or latest



Notes: Figures are for total occupied and unoccupied private dwellings. Data for 2020 series refer to: 2020 for Austria, Denmark, Estonia, Finland, France, Ireland, Lithuania, Luxembourg, Netherlands, Norway, Poland, Portugal, Romania, Sweden, UK, and US; and 2018 for all others. Data for 2000 series refer to: 1998 for Italy; 2001 for Australia, Austria, Bulgaria, Canada, Croatia, Czech Republic, Hungary, Luxembourg, New Zealand, Norway, Portugal, and Spain; 2002 for Chile and Latvia; 2005 for Malta.

Source: OECD (2020a).

172. Daley et al (2018a, pp. 128–130). See also Coates and Crowley (2021, pp. 14–15).
173. See Daley et al (2018a, pp. 56–58) on how regulations affect housing supply.
174. Ibid (Table 3.2).
175. Australia's housing markets are interconnected. If, for example, only the Victorian Government substantially boosts housing supply, any improvement in affordability will be dispersed across Australia as residents of other cities move to Melbourne,

problem. And the Commonwealth tax base is more likely than the state tax base to capture the increased revenues that flow from higher economic growth as a result of better housing supply.

Of course, boosting housing supply will improve affordability only slowly. Even at current record rates, new housing construction increases the stock of dwellings by only about 2 per cent each year. According to available estimates, adding an extra 50,000 dwellings to Australia's housing stock – an increase of about 25 per cent on current levels of construction nationally, or roughly 0.5 per cent of the national housing stock – would lead to national house prices being only 1-to-2 per cent lower than otherwise.[176] But these estimates also imply that a sustained increase in housing supply would have a big impact on house prices. For example, if an extra 50,000 homes were built each year for the next decade, national house prices and rents could be between 10 and 20 per cent lower than they would be otherwise.

Boosting housing supply would especially help low-income earners. A 10 per cent fall in private market rents would reduce the number of low-income households in housing stress by 8 per cent, and a 20 per cent fall in private market rents would reduce that number by 18 per cent, or 170,000 households.[177] And all low-income households would be paying less for their housing. Decreasing rents by 20 per cent would boost the post-housing incomes of low-income private renters by up to $3 billion a year, equivalent to an increase of more than 80 per cent in the maximum rate of Commonwealth Rent Assistance.[178]

attracted by lower house prices relative to other major Australian cities: see Daley et al (2018a, p. 129), Abelson (2016) and Aura and Davidoff (2008).

176. Daley et al (2018a, p. 111). A more recent estimate from Tulip and Saunders (2019) suggests that each 1 per cent increase in the stock of dwellings lowers the cost of housing by 2.5 per cent.
177. Grattan analysis of Wong et al (2016).
178. Grattan analysis of ABS (2017). Based on a 20 per cent fall in rents.

3.2.3 Boost Commonwealth Rent Assistance

Rent Assistance materially reduces housing stress among low-income Australians.[179] As a demand-driven housing payment, Rent Assistance has also expanded to meet the growing need for support as home ownership falls among lower-income Australians.[180] But the value of Rent Assistance has not kept pace with rent increases. The maximum Rent Assistance payment is indexed in line with CPI, but rents have been growing faster than CPI for a long time.[181]

Boosting the rate of Commonwealth Rent Assistance would help low-income earners with their housing costs, and reduce poverty more generally. A 40 per cent increase in the maximum rate of Rent Assistance – which would be worth about $1,450 a year for singles – would cost $1.5 billion a year.[182] In future, Rent Assistance should be indexed to changes in rents typically paid by people receiving income support, so that its value is maintained, as recommended by the Henry Tax Review.[183]

A common concern is that boosting Rent Assistance would lead to higher rents, eroding much of the gains in living standards for low-income earners.[184] But an increase in Rent Assistance is unlikely

179. In June 2016, 68 per cent of Rent Assistance recipients would have paid more than 30 per cent of their income on rent if Rent Assistance were not provided. With Rent Assistance provided, this proportion was reduced to 41 per cent: Daley et al (2018b, p. 76).
180. Rent Assistance spending increased from $1.9 billion in 2003-04 to $5.4 billion in 2020-21. After adjusting for inflation, that is a 93 per cent increase in spending on Rent Assistance, or a compound average growth rate of 3.9 per cent a year over that period.
181. Daley et al (2018b, p. 76); and Productivity Commission (2019, p. 15).
182. Updated from Coates and Nolan (2020a, p. 66).
183. Treasury (2009, p. 595). While the rental component of the CPI is a readily available and transparent measure, an index of rents paid by Rent Assistance recipients would provide a more accurate assessment of their rental costs.
184. Senate Economics References Committee (2015, Chapter 22).

to substantially increase rents.[185] Households are unlikely to spend all of the extra income on housing.[186] And only half of low-income renters actually receive Rent Assistance, since eligibility is linked to receiving an income support payment.

3.3 The federal government should help boost the supply of social housing to reduce homelessness

The federal government should increase funding through the National Affordable Housing Agreement[187] for social housing, provided that the money is tightly targeted to help people at serious risk of homelessness.

The best Australian evidence shows that social housing substantially reduces tenants' risk of homelessness.[188] Social housing can make a big difference to the lives of the worst off. While lots of landlords rent to low-income households, many are prepared to leave their property vacant if the only person seeking tenancy faces the many issues typical for those who are at severe risk of, or already suffering, homelessness.[189]

185. Daley et al (2018b, pp. 77–79). When New Zealand's rental subsidy was increased in 2005 in parts of Auckland, rents paid by recipients rose by 30 cents for every dollar spent, the bulk of which the authors expected was spent on acquiring better housing, rather than higher rental prices: Hyslop and Rea (2018). And rental subsidies in the US have been shown to increase the total amount of housing that is provided to the bottom section of the housing market: Sinai and Waldfogel (2002).
186. Each dollar of additional Rent Assistance should lead to an increase in spending on housing of only between 9 cents and 15 cents: Daley et al (2018b, p. 78).
187. Treasury (2018).
188. Prentice and Scutella (2018) studied the benefits of social housing, comparing people who entered social housing to similar individuals in the private rental market. They found that social housing tends to be effective at reducing homelessness rates. Only 7 per cent of residents placed in social housing subsequently become homeless, compared to 20 per cent of similar renters in the private market.
189. Daley et al (2018a, p. 134).

The stock of social housing – currently about 400,000 dwellings – has barely grown in 20 years, while the population has increased by 33 per cent.[190] As a consequence, there is little 'flow' of social housing available for people whose lives take a big turn for the worse,[191] and many people who are in greatest need are not assisted. Tenants generally take a long time to leave social housing; most have stayed for more than five years.[192]

But boosting social housing would be expensive. Estimates vary, but each additional social housing dwelling probably requires either an annual subsidy of about $15,000 a year, or an upfront capital contribution of about $300,000.[193]

Set up a Social Housing Future Fund

The federal government should establish a Social Housing Future Fund, which could make regular capital grants to state governments and community housing providers.[194] A $20 billion future fund, managed by the Future Fund Board of Guardians, could deliver $900 million annually, sufficient to build 3,000 new social housing units each year.[195]

190. Daley et al (ibid, p. 62). This is despite some significant investments in social housing, including under the controversial and now discontinued National Rental Affordability Scheme.
191. Daley et al (ibid, p. 132).
192. AIHW (2017).
193. Coates (2021a).
194. Coates (ibid).
195. Assuming real return mandate, above inflation, of 4.5 per cent, and required capital grant per dwelling of $300,000. Alternatively, a $20 billion fund could support the immediate construction of 60,000 new social housing units, by providing availability payment of $15,000 a year per dwelling for 15 years. However, using availability payments would commit all Future Fund returns for a 15-year period, providing no further additions to the social housing stock in the interim.

The initial capital could be raised by issuing additional Commonwealth government debt at long maturities.[196] The direct financial cost to the federal government would be modest – about $400-to-$500 million a year – in the form of interest costs on the outstanding debt.[197] Alternatively, part of the return from the Future Fund could be used to cover these debt interest costs, leaving $500 million available each year to fund the construction of 1,667 new social housing dwellings each year across Australia, but no hit to the federal government's underlying cash balance.

Capital grants for new social housing would be administered by the National Housing Finance and Investment Corporation (NHFIC) via a competitive tender. Additional contributions to new social housing could be sought on a matching 50:50 basis from state governments as a condition of any grants being allocated to their state. Any state that does not agree to provide matching contributions would be ineligible for any federal grants that year, with the proceeds instead reinvested in the Future Fund and re-distributed via a larger grant allocation the following year.

Any additional Commonwealth support should fund social, not affordable, housing

Given its costs, social housing should be reserved for those most in need, and at significant risk of becoming homeless for the long term.[198] While even an unprecedented boost to the social housing stock – such as an extra 100,000 dwellings – would make a big difference to people who are homeless if it were tightly targeted towards them,[199] more than two-thirds of low-income Australians would still remain in the private rental market.

In the meantime, the existing social housing stock needs to be better managed: it could be better allocated to meet the needs of tenants; it is often not well-suited to their needs;[200] and it is often of poor quality.[201]

Yet additional federal government subsidies should not be provided for affordable housing. Affordable housing, such as that constructed under the now defunct National Rental Affordability Scheme (NRAS), is typically not targeted at people most in need. Eligibility thresholds for NRAS were set far too high: $50,000 for a single adult, or nearly $70,000 for a couple – much higher than the equivalent eligibility thresholds for Commonwealth Rent Assistance.[202] As a result, a substantial proportion of people allocated to affordable housing schemes are often on moderate-to-higher incomes.[203]

Far more people are eligible for affordable housing than there are places available. Consequently affordable housing schemes are in effect lotteries that provided much more assistance to some people than others. By contrast, Rent Assistance is available to all Australians who are eligible and confers greater choice on tenants.

Therefore, beyond ensuring a flow of additional social housing for people most at risk of long-term homelessness, further support for

196. The Commonwealth Government 10-year bond had a yield of 2.23 per cent as of 17 February 2022.
197. Assuming a government bond rate of 2 per cent.
198. Of the social housing allocations in 2017, almost three-quarters went to 'greatest needs' applicants: Productivity Commission (2018b, Chapter 18).
199. For example, there were 116,000 homeless Australians on Census night in 2016: ABS (2016a).
200. Tenants have little choice over the home they are offered, so the type of housing available can be incompatible with their needs. For example, the public housing stock is dominated by three-bedroom houses, yet most recipients are singles or couples without children.
201. In 2018 almost one-in-five Victorian social housing dwellings did not meet minimum acceptable standards: Productivity Commission (2020).
202. Department of Social Services (2018). By contrast, the income cut-off for a single receiving JobSeeker is $32,107 a year: Services Australia (2022).
203. Department of Social Services (2016). Only one third of NRAS tenants had gross household incomes less than $30,000, and one third had incomes greater than $50,000 a year.

low-income housing should be focused on direct financial assistance for low-income renters by boosting Rent Assistance, and improving housing affordability more broadly by increasing the number of homes constructed.

3.3.1 Establish a national shared equity scheme for people who don't have access to 'the Bank of Mum and Dad'

The federal government should establish a national shared equity scheme, modelled on schemes already operating in Western Australia and South Australia, to level the playing field for first home buyers who don't have access to 'the Bank of Mum and Dad'.[204]

Even if federal and state governments lift supply and reduce demand, house prices are likely to remain high relative to incomes, due to the long-term decline in interest rates. Therefore the deposit hurdle is likely to remain a problem for younger, lower-income Australians from poorer families.

Under Grattan Institute's proposed national shared equity scheme, the National Housing Finance and Investment Corporation (NHFIC) would co-purchase up to 30 per cent of the home value, sharing in any property price appreciation upon later sale of the property.[205] Purchasers would borrow the remaining funds from a private lender, as will apply to the recently-announced Victorian scheme.[206] The national scheme would be available only to people purchasing their principal place of residence and who owned no other property. Participation would be restricted to singles with incomes below $60,000, and couple with incomes below $90,000.[207] Participants could only buy below-median priced homes across Australia.[208]

The scheme should start with a trial of 5,000 places a year for the first three years. At that point the scheme should be reviewed, and if deemed successful, expanded. Several states already have shared equity schemes, but a national scheme is needed. Existing state schemes are typically small, and often limited to public housing tenants or to purchasing homes solely from government-run developers.

A national shared equity scheme would lower the deposit hurdle for first home buyers without access to the Bank of Mum and Dad. It would also help older Australians (especially single women) who are renting and have some savings but are unlikely to remain in the workforce long enough to pay down a full mortgage.[209]

Shared equity could help couples to remain in home ownership if they separate. The home is typically a family's largest asset, and splitting the equity in the home upon separation often requires it to be sold. Separating couples then often lack the assets to each purchase a new home, especially since they must pay stamp duty again. Just 34 per cent of women who separate from their partner and lose the house

204. For example, see Keystart (2022) and HomeStart Finance (2022).
205. Consistent with existing state shared equity schemes, the NHFIC would not charge rent on the federal government's equity stake. However, purchasers would be required to cover all costs associated with buying or selling a home, such as conveyancing and stamp duty, as well as any ongoing costs such as council rates and maintenance.
206. Victorian Government (2022).
207. About 63 per cent of single renters and 45 per cent of renting couples aged 25-64 have incomes below these thresholds. About 57 per cent of all Australian singles aged 25-64 and 25 per cent of couples of any housing tenure earn sufficiently low incomes to meet the income threshold. Grattan analysis of the ABS Survey of Income and Housing 2019-20.
208. For instance, a $800,000 price cap across Australia, with lower caps in lower-priced cities and regions, would ensure participants could purchase at least 25 per cent of houses in all jurisdictions except Sydney, and more than 50 per cent of apartments in all major capital cities: Coates and Nolan (2020b, Table 3.1) updated to June 2021 using ABS (2021h).
209. About 60,000 renting households aged 45-64 have financial assets (excluding super) exceeding $200,000 (for singles) and $300,000 (for couples).

manage to purchase another home within five years, and only 44 per cent do so within 10 years:[210]

Unsurprisingly, older women who have separated or divorced are more than three times as likely to rent at age 65 than married women, whereas separated men are more than twice as likely.[211] And separated women typically have just two-thirds the assets of separated men in retirement.[212]

Shared equity could also help retired Australians when they downsize, because by unlocking home equity it would boost retirees' living standards.

Shared equity schemes can result in higher house prices, by adding to demand. But targeting schemes tightly at lower-income Australians and lower-priced homes would reduce this risk, which is warranted to support lower-income Australians into home ownership.[213]

The scheme we recommend would have only a modest impact on federal government finances. For instance, a scheme that issued an average of 10,000 shared equity loans a year, starting in 2022-23, would issue up to 80,000 loans by 2030, with total government equity holdings of about $12 billion, or 0.4 per cent of GDP.[214] In fact such a scheme is likely to be positive for the budget in the long term, provided that nominal house prices rise faster than the interest rate on government debt to finance the purchases.[215]

210. By contrast, 42 per cent of separating men buy a home within five years, and 55 per cent within 10 years. Coates (2022).
211. Callaghan et al (2020, Table 3B-26).
212. Callaghan et al (ibid, Table 3B-4).
213. Capping the scheme at 5,000 places a year in the early years would limit any short-term impacts. But even if the scheme were to eventually offer 10,000 shared equity loans a year, with each buyer purchasing a $500,000 home on average, the scheme would add at most $5 billion a year to housing demand in a $9 trillion housing market, and probably a lot less: Coates (2022).
214. Assuming an average purchase price of $500,00 and an average government bond rate of 3 per cent on the outstanding debt.
215. The scheme would expose the federal budget to the risk of falling house prices, although the size of that exposure would remain very modest.

4 Energy and climate change

Australia has committed to reaching net-zero carbon emissions by 2050, setting the stage for unprecedented economic transformations.[216] Achieving the target will require driving down emissions in every sector of the economy, and ensuring investments in the 2020s and 2030s do not lock-in patterns of high emissions for decades.

Australia's electricity emissions are expected to fall by 84 million tonnes across the next decade, but emissions from other sectors are expected to stay much the same (Figure 4.1). In the regrettable absence of a broad-based carbon price, policy makers rather than the market must decide where and when to reduce emissions.

Whichever party wins the 2022 federal election should take immediate and coordinated action in five policy areas to set Australia's economy on a smooth path to net zero by 2050: electricity; natural gas; transport; new and existing industry; and agriculture. And the incoming government should build on current investments in early stage technology to reduce emissions across the economy.

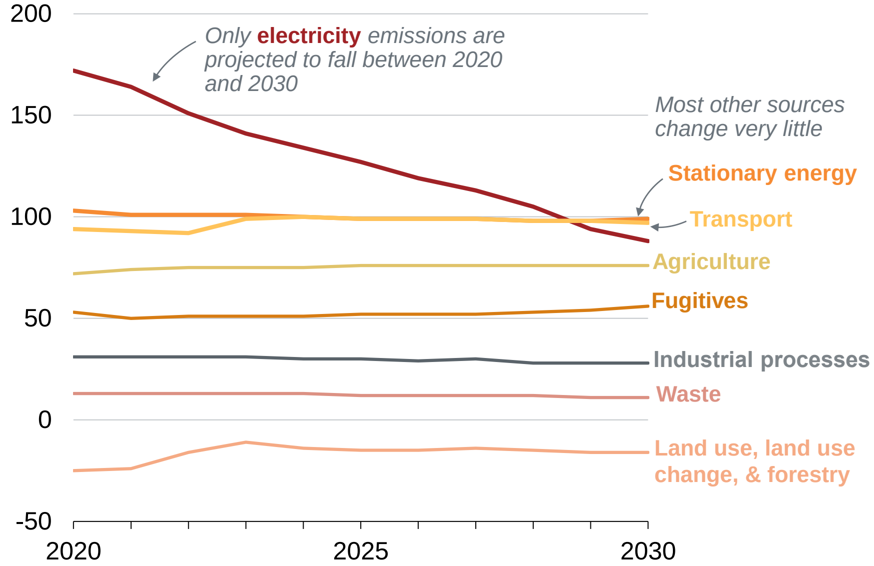
4.1 Electricity: where we are

Emissions from the electricity sector have been consistently falling over the past five years, supply has been reliable for the past two years with mild summers, and prices have been falling (see Figure 4.2 on the next page). Decarbonisation of the economy will require large-scale electrification. Households and business will rely on low- or zero-emissions electricity more than ever as it replaces their current use of petrol and diesel for transport and gas for cooking and heating.

216. In this chapter, all references to emissions are measured in tonnes of carbon dioxide equivalent. This express the impact of all greenhouse gases in terms of the amount of carbon dioxide that would create the same amount of warming.

Figure 4.1: Apart from the electricity sector, Australian emissions are expected to change very little from 2020 to 2030

Emissions (millions of tonnes of carbon dioxide equivalent)

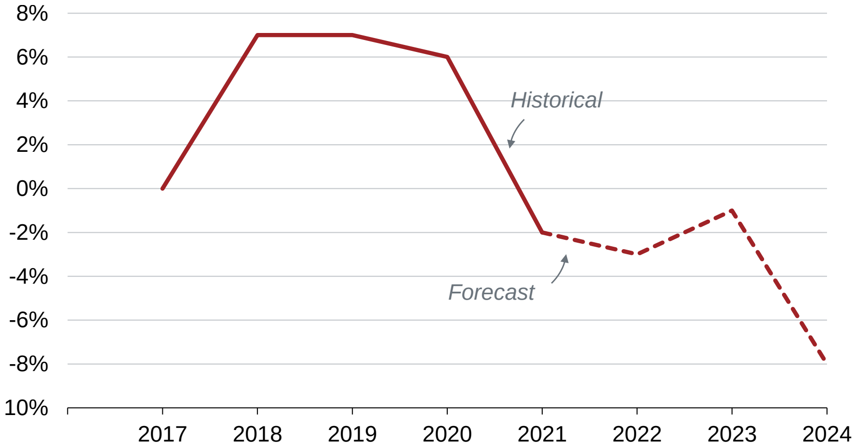


Note: Emissions from land use, land use change, and forestry are negative across the decade because these activities are expected to absorb more atmospheric carbon dioxide than they emit.

Source: Department of Industry, Science, Energy and Resources (2021a).

Figure 4.2: Electricity prices have been falling since 2018-19 and this trend is forecast to continue

Change in electricity prices compared to 2016-17 levels



Note: Years are financial years (i.e. 2020 = FY2019-20).

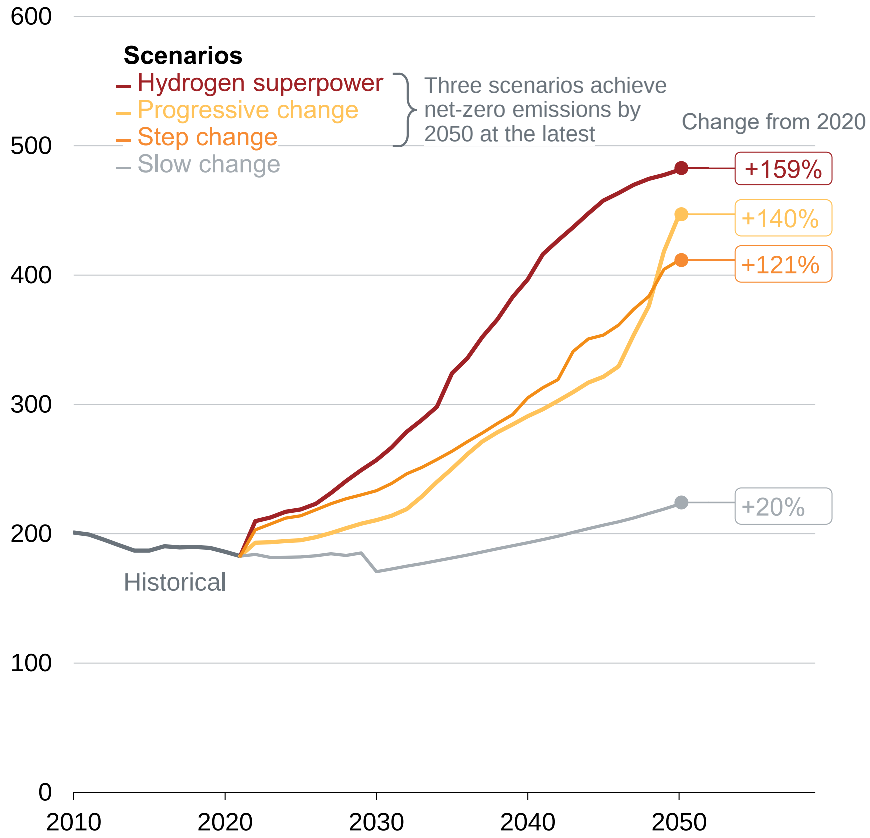
Source: Grattan analysis of AEMC (2021 and previous years).

Demand for electricity is likely to at least double by 2050 if Australia achieves net zero (Figure 4.3). At least 100 gigawatts of new renewable capacity will be needed to meet this new demand, plus more to replace existing coal- and gas-fired power stations as they are retired.

About 90 per cent decarbonisation of the electricity supply is possible at very little cost.[217] But for this to happen, governments need to do three things: resolve engineering challenges to operating a mostly renewable system securely and reliably; ensure vastly more electricity infrastructure is built; and better coordinate state and federal government objectives in the National Electricity Market (NEM). Frustrated at a decade of federal 'climate wars', state governments are increasingly going their own way on electricity and gas.

Figure 4.3: In any net-zero-by-2050 scenario, demand in the National Electricity Market is likely to more than double

Total annual electricity demand (terawatt-hours)



Notes: Of these scenarios, 'Hydrogen superpower' stays within a carbon budget consistent with keeping global warming to below 1.5 ℃, 'Step change' is consistent with below 2 ℃, and 'Progressive change' is consistent with about 2.6 ℃: AEMO (2021) and Reedman et al (2021). Electricity demand includes demand met by rooftop solar and other small-scale renewables, not just operational demand in the NEM. Years are financial years (i.e. 2020 = FY2019-20).

Source: Grattan analysis of AEMO (2021).

217. T. Wood and Ha (2021).

Engineering challenges

Strong growth in utility-scale and rooftop solar and wind generation capacity is expected to continue through this decade, driven by state government targets and programs, falling costs, and consumer enthusiasm. A system with a high proportion of distributed, intermittent renewable energy has different technical characteristics from one dominated by large, centralised turbines driven by coal and gas. Energy market agencies and participants are struggling with two problems. First, identifying technical solutions to challenges such as maintaining voltage and frequency stability. And second, identifying potential changes to market rules that would encourage investment to solve these challenges.

Solving these challenges requires encouraging investment in new dispatchable generation,[218] particularly as ageing coal generators are retired. Historically, investors decided which generators to build, where, and when; and recouped this investment through the wholesale market. But the cost structure of new generation investments is changing: from those with material variable costs (coal and gas) to those with predominately fixed capital costs (solar and wind). This change has raised concerns that the wholesale market may no longer provide efficient pricing signals for new investment, particularly when that investment may be required for relatively short periods of the year to balance a system dominated by solar and wind. Governments and investors are seeking to decide whether an alternative or additional model is required.

Infrastructure

Meeting rising demand requires new transmission and distribution networks as well as new generation. While the transmission and distribution networks are currently owned by a mix of government and private companies, decisions on investment and revenue are made largely through regulated processes. The timing of transmission build really matters for investment in new generation to replace exiting coal, and for keeping electricity prices low. But getting this right requires a good deal of coordination.

The scale and pace of infrastructure investment driven by new solar and wind developments is already testing regulatory processes and impeding the evolution of the system. The investment test used to establish the net economic benefit of transmission investments was designed for a very different system, and making it fit for purpose remains work-in-progress. In the meantime, governments have chosen to underwrite early investment in some of the more obviously valuable projects, and some state governments are proceeding with their own programs to develop renewable energy zones.

Poor coordination

Over the past five years or so, strong differences on climate policy have destroyed any capacity to integrate energy and climate-change policy. And differing priorities on renewable energy, the role of gas, and managing the closure of coal-fired generation have led to direct and uncoordinated market interventions by state and federal governments. A major consequence is increased risk for investors that is likely to lead to higher prices and threats to reliability.

4.1.1 Electricity: what we should do

Implement reforms for security and reliability

The Australian Energy Market Operator (AEMO) has set a 2025 target for solving the engineering challenges associated with operating a grid that achieves an instantaneous renewables share of 100 per cent. The Energy Security Board (ESB) has outlined reforms to help

218. Dispatchable means generation whose output can be controlled at any point in time to match the required demand.

integrate distributed energy resources into the NEM. The incoming federal government should ensure full adoption of these reforms by the jurisdictions in the NEM, and encourage other governments to adapt them to suit the needs of the remaining electricity systems in Australia.

On reliability, the ESB has recommended governments and industry work together to design a mechanism that appropriately values dispatchable capacity. This is intended to reduce risks for investors and reduce intervention from governments.

For now, all participants should suspend their scepticism about the suggested solutions, and work in good faith to design such a mechanism, while ensuring it does not impede the decarbonisation of the NEM. In the meantime, all jurisdictions, including the federal government, should refrain from further unilateral market interventions.

Unblock the electricity infrastructure pipeline

The value of an integrated NEM will only increase as the share of intermittent renewable generation increases.[219]

AEMO has identified several major transmission projects that will be needed over the next two decades to keep costs down in a high-renewables system. These projects would strengthen the connections between the NEM states, while also unlocking renewable resources within each state through the establishment of renewable energy zones. In several cases, the benefits of integrating transmission projects extend beyond the two states being connected, challenging the existing regulatory model that decides who pays and how much. The incoming federal government should make resolution of this issue a priority for the Australian Energy Market Commission (AEMC) in consultation with the jurisdictions.

219. T. Wood and Ha (2021).

4.2 Gas: where we are

Natural gas has been a valuable energy source in Australia for more than 50 years. Annual production is about 4.7 petajoules, of which nearly 80 per cent is exported as liquefied natural gas (LNG), a valuable source of revenue. Gas provides about a quarter of Australia's domestic energy consumption and contributes close to 20 per cent of our greenhouse gas emissions.

There are now two challenges facing natural gas. Firstly, the sector must reduce emissions to help meet our commitment to reach net zero by 2050. Secondly, the good old days of low-priced east coast gas are gone, making gas an increasingly expensive energy source.

Gas prices have been rising for several years. But even if governments could significantly reduce gas prices, the benefits to manufacturing are overstated. Gas use in manufacturing is highly concentrated in three sectors that contribute only about 0.1 per cent of GDP, and employ only a little more than 10,000 people.[220] Much of this gas-intensive industry is in Western Australia, which has low gas prices already.

The large-scale use of gas as a 'transition fuel' – supplying 'base-load power' with lower emissions than coal – does not stack up economically or environmentally. Gas has been declining as a share of Australia's power supply since about 2014, and the best estimates indicate this decline will continue over the coming decade.[221] Gas will play an important backstop role in power generation when the sun isn't shining and the wind isn't blowing – but this role will not require large volumes of gas.footcite[][35]WoodDundas-2020-Flame-out

At home, consumers value being able to choose between gas and electricity for tasks such as cooking and heating. But here too Australia must either replace natural gas with low-emissions substitutes such as

220. T. Wood and Dundas (2020, p. 27).
221. Ibid (p. 27).

bio-methane or hydrogen, or switch to electricity and take advantage of the decarbonising grid.

Each of the sectors where gas plays a role today faces a different future, driven by the available alternatives and the status of key technologies. Attempts to hold back the tide through direct market interventions, such as contemplated in the National Gas Infrastructure Plan, will probably require ongoing subsidies at great cost to taxpayers.

4.2.1 Gas: what we should do

Plan for a future without natural gas over the next three decades

The uncomfortable truth is that natural gas is most likely in decline in Australia, and achieving the net-zero target requires that to happen. The only rational approach, for governments, the energy industry, and customers, is to begin planning for a future without natural gas, or at least a substantially reduced role for gas. Most of the responsibility rests with state governments, so achieving the national target will require cooperation between all jurisdictions.

The commitment to net zero by 2050 should provide a clear signal to enable investors to make better-informed decisions. Government should not blunt this signal: there is little, if any, justification for public funding in gas infrastructure, whether that be exploration and development or pipelines.

The best long-term choice among bio-methane, hydrogen, or electricity as low-emissions replacements for natural gas is not clear today and may vary between different parts of the country. Australia must fully analyse the options to work out the best path forward.

The best role for governments is to support the development and deployment of low-emissions replacements for natural gas in manufacturing, such as renewables-based hydrogen and renewables-based electricity. The Federal Government's low-emissions technology statement is a good start. Low-cost finance could help smaller manufacturers overcome capital replacement barriers.

In the meantime, it is already clear that households would save money and Australia would reduce emissions if new houses in NSW, Queensland, South Australia, and the ACT were all-electric. Responsibility here rests primarily with state governments. They should impose a moratorium on new gas connections as a prudent, no-regrets option, and the incoming federal government should not stand in their way. State governments also need clear, fair, and equitable plans to manage the transition away from gas for existing consumers, particularly those on low incomes.

4.3 Light vehicles: where we are

Australia's 18 million light vehicles generated 11 per cent of Australia's total emissions in 2020.[222] Light vehicle emissions increased by 14 per cent between 2005 and 2019, and while they fell dramatically in 2020 and 2021 as a result of reduced activity during the COVID-19 pandemic,[223] only modest improvements are projected to 2030, when emissions are expected to return to 2 per cent above 2005 levels.

To have a net-zero light vehicle fleet by 2050 requires all new cars to be electric or hydrogen-powered by 2035.[224] This is because Australian cars stay on the road (and produce emissions) for a long time – on

222. Grattan analysis of Department of Industry, Science, Energy and Resources (2021a). Light vehicles include passenger vehicles (about 80 per cent of the total) and light commercial vehicles, but not motorcycles. 'Light commercial vehicles' are not always light or used for commercial purposes; this group includes the two best-selling cars in Australia, the Toyota HiLux and Ford Ranger: Nicholson (2021). Policies should consider light vehicles as one group, because motorists switch between the two, and many households own one of each.
223. Department of Industry, Science, Energy and Resources (2021a).
224. Either that, or many petrol/diesel vehicles will need to be scrapped before the end of their useful lives: this is known as 'asset stranding'. See IEA (2021), BloombergNEF (2021) and Martin (2021).

average more than 15 years. This means some vehicles purchased this decade may still be producing emissions in 2050.

Australia has a voluntary scheme to reduce light vehicle emissions, but it is too lax, unenforceable, and easily gamed by vehicle manufacturers. It aims to reduce emissions intensity of new light vehicle sales over the next decade by between 3 and 4 per cent. To be consistent with achieving net-zero emissions sales by 2035, the ceiling would need to fall by between 20 and 30 per cent for the subsequent five years.[225] There are no financial penalties for failing to meet the standard, and no financial incentives to outperform it. In 2020, only about a third of manufacturers selling vehicles in Australia outperformed the standard in each vehicle class.

The Federal Government's most recent published emissions projections show less than 30 per cent of sales coming from zero-emissions vehicles by 2030, and these making up less than 8 per cent of the total fleet by that date.[226] A jump from less than 30 per cent of sales in 2030 to 100 per cent in 2035 does not appear very likely.[227] Modelling conducted for Labor's *Powering Australia* plan projects that removing import duty and fringe benefits tax from electric vehicles will induce sales of 89 per cent in 2030.[228] Such a large jump in sales implies considerable pent-up price-sensitive demand for electric vehicles, and rests on the assumption that manufacturers will make a large range of vehicles available quickly.

Despite car manufacturers asking explicitly for mandatory emissions standards to boost consumer choice, neither major party has supported this approach to date.[229]

4.3.1 Light vehicles: what we should do

Enforce a vehicle fuel emissions standard, or ceiling

Continuing to put off action on decarbonising Australia's light vehicle fleet will make it impossible to reach net-zero emissions in 2050 without costly and inefficient measures to scrap large numbers of cars in the 2030s and 2040s.

The best policy to achieve a net-zero light vehicle fleet by 2050 is an emissions standard, or ceiling, applied across the offering of each manufacturer (Section 5.2.3). The new government should find the political space to implement such a standard to be gradually lowered to zero emissions by 2035. This would give motorists a better range of low-emissions cars to choose from, while saving them up to $900 over the first five years of a vehicle's life and more than $2,000 over the life of the vehicle.[230]

4.4 Industrial emissions: where we are

Industrial facilities were responsible for 30 per cent of Australia's emissions in 2020 – only electricity (at 32 per cent) is a larger emitter. Unlike electricity though, industrial emissions are not projected to fall between now and 2030.[231]

225. This equates to 6g/km per year for each vehicle class, reaching 100g/km for light passenger vehicles and 145g/km for SUVs and light commercial vehicles by 2030, and then at least 20g/km after that: FCAI (2020).
226. Department of Industry, Science, Energy and Resources (2021a). Government projections conflate battery-electric vehicles and plug-in hybrid vehicles. Hybrid vehicles are not zero-emissions, so the actual percentage of zero-emissions sales in 2030 will be less than 8 per cent.
227. No major economy is forecast to achieve near-100 per cent electric vehicle sales by 2035 without policies to drive sales, nor to see a 70 percentage-point increase in sales over just five years: BloombergNEF (2021, Figure 5).
228. Reputex (2021, p. 30).
229. ABC (2021), Crowe (2021).
230. Terrill et al (2021a).
231. Department of Industry, Science, Energy and Resources (2021a).

The Safeguard Mechanism, introduced by the Abbott Government, is intended to prevent the growth of industrial emissions. It gives large facilities an emissions 'baseline', or cap, and any emissions above that must be offset. The way baselines are set is inconsistent, meaning some (usually older) facilities have less stringent baselines than others.[232]

The Safeguard applies to about 80 per cent of industrial emissions, and on average, new industrial facilities add about 2 per cent per year to emissions covered by the Safeguard.[233] If this trend continues to 2030, emissions would be about 30 per cent higher than when the Safeguard commenced. The Abbott Government's stated intent was for new facilities to meet 'bench-marks' that reflected best-practice lower emissions,[234] but as yet, no bench-marks have been set.[235]

Just limiting the growth of industrial emissions may be sufficient to reach the national 2030 target of 26-to-28 per cent below 2005 levels, but it leaves these sectors poorly positioned for a net-zero economy in the following decades and provides no signal for new entrants as to their future carbon liability. Most parts of the industrial sector have immediate opportunities to reduce emissions through fuel efficiency, process efficiency, and fugitive emissions management, but little incentive to do so.

The challenge for the incoming federal government is to share the effort of reducing emissions across industrial facilities without reigniting the climate wars. It also needs to ensure new facilities do not lock-in emissions that require long-term offsetting to reach the net-zero target.

Labor's *Powering Australia* plan commits to declining Safeguard baselines, combined with payments to reduce emissions, but provides no detail on the mechanics of doing so.[236]

4.4.1 Industrial emissions: what we should do

Tweak the Safeguard Mechanism to begin reducing emissions

Both major parties have committed to incentive payments to Safeguard facilities that reduce their emissions: the Coalition through a proposed below-baseline crediting mechanism; Labor through its proposed National Reconstruction Fund. Improvements to emissions intensity that result from incentive payments should be used to adjust the industry average values used to set baselines, so that baselines decline over time, and all facilities are encouraged to take up the most immediate options available to reduce their emissions. Figure 4.4 on the next page illustrates how this would work.[237] For an incoming Coalition government, this would be the first step towards declining baselines for all facilities. For a Labor government, it would drive faster baseline declines in sectors where the technology is available to do so. In sectors where no projects took place in response to incentive payments, emissions intensity values could remain unchanged. In this way, only sectors where there are significant opportunities for immediate reductions would be affected.

Over time, the federal government should step back from incentive payments, and allow abatement from below-baseline improvements to be traded between facilities. This way, the market would set the price – which is more transparent than the government entering into confidential contracts – and the facilities with most capacity to reduce

232. See T. Wood et al (2021b, pp. 22–25) for a detailed explanation.
233. Grattan analysis of CER (2021a).
234. Department of the Environment (2015, p. 7).
235. *National Greenhouse and Energy Reporting (Safeguard Mechanism) Rule 2015*.
236. ALP (2021, pp. 30–31).
237. For this model to work successfully, the incoming government would need to require all Safeguard facilities to set their baselines the same way, using industry-average emissions intensities.

emissions would do so. The government could remain as a buyer of last resort: this would provide underwriting support for facilities to undertake projects, and would be similar to the role already taken in the Emissions Reduction Fund through optional delivery contracts.[238]

Introduce a stringent emissions bench-mark for new industrial facilities

If industrial emissions are to trend towards zero, it is imperative that new facilities have substantially lower emissions intensity than incumbents. If they merely match current performance then emissions will continue to trend upwards as production increases.

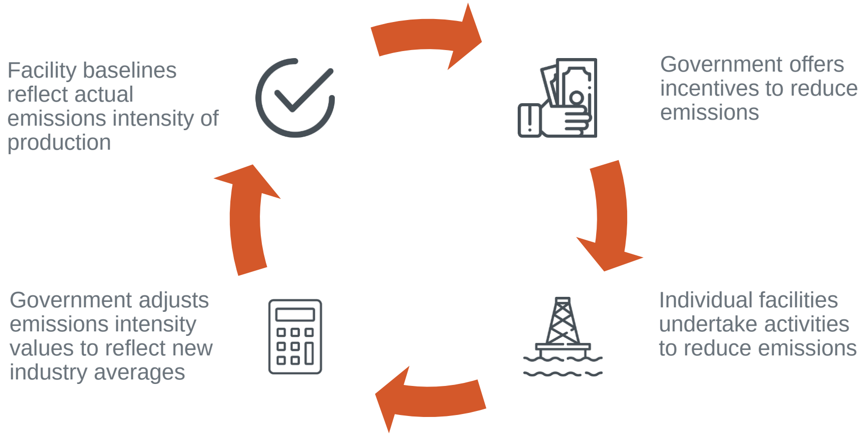
The incoming government should move quickly to ensure new facilities perform substantially better than now, by setting bench-marks for new facilities under the Safeguard Mechanism. Because some sub-sectors have more options for improving emissions intensity than others, bench-mark emissions intensity values should be set as a percentage of existing facilities' emissions intensities.[239]

This will signal to investors that Australia wants to encourage low- or zero-emissions industrial development; and will reduce emissions lock-in. It may mean some new facilities have offset obligations from the beginning of their operations. New facilities should not be exempted from any future carbon liability on the basis of having met a lower emissions intensity value.

4.5 New industries: where we are

Australia's abundant renewable energy, space, proximity to growing Asian markets, and mineral endowments give us a distinct comparative advantage in a net-zero world, which could become a competitive and

Figure 4.4: Combining below-baseline credit with baselines set using industry-average emissions intensity values can reduce emissions



Source: Icons from flaticon.com.

strategic advantage. Cheap, clean, and widely available energy could be used to produce energy-intensive commodities, and to move up the value chain from raw material extraction to value-added commodities and products.[240] At the same time, we can expect to see coal and gas exports shrink, perhaps quite quickly, as export destinations such as China, Japan, South Korea, and India implement their own commitments to net zero (see Figure 4.5 on the following page).

But Australia will face stiff competition both from other renewable-rich locations – such as the US, Argentina, northern Africa, the Middle East, and China – and locations that can achieve cheap clean energy by using natural gas and carbon storage, such as the US, Russia, and the Middle East.[241] Turning this comparative advantage into a competitive and strategic one will require concerted effort and considerable capital.

238. CER (2021b).
239. The baselines for facilities that use the bench-mark should also reduce as the industry average falls.
240. T. Wood et al (2021a).
241. Ibid (p. 25).

LNG and coal will decline

The future of Australia's LNG and coal exports will be determined by the policies of the countries to which we export. The Federal Government's latest projections show that the value of LNG output will grow steadily for the next two decades and be about 13 per cent above today's level in 2050.[242] This sits uncomfortably with International Energy Agency projections showing Australia's fossil fuel exports could shrink dramatically if the world follows a net-zero scenario (see Figure 4.5).

Minerals and metals will grow

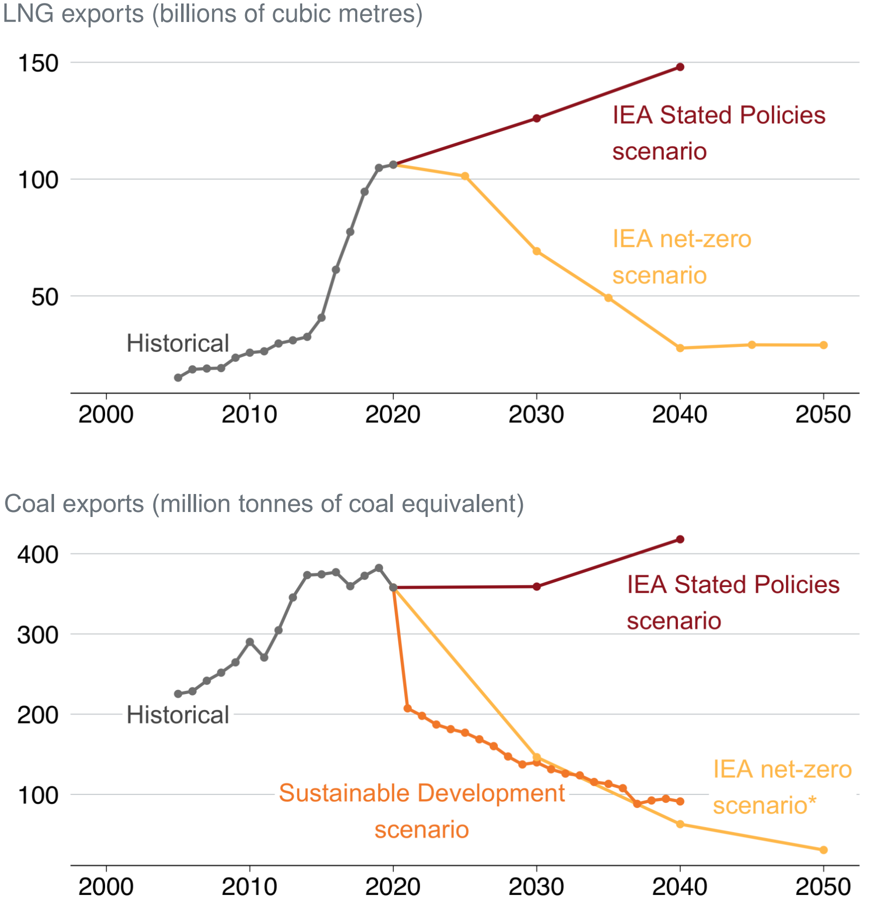
Minerals and metals contribute considerably to GDP, and are less emissions-intensive than extracting coal or gas: about 250,000 tonnes of carbon dioxide equivalent are emitted per billion dollars of value added, compared to between 750,000 and 1 million tonnes for coal and gas.[243] Most of the minerals and metals extracted and refined in Australia are exported;[244] and demand for minerals and metals is expected to increase sharply as the world moves towards net-zero emissions, because commodities such as copper, steel, silicon, and lithium are key components in renewable energy technologies. This increase is projected to almost exactly mirror the decline in demand for coal (see Figure 4.6 on the following page). But if Australia maintains a constant market share of the critical minerals market as it grows, this market in 2050 will be worth roughly double what coal is worth today.

Steel and other commodities are longer-term prospects

Green steel – made with hydrogen instead of coal or gas – represents the best opportunity for exports and job creation in key regions. It has

242. Department of Industry, Science, Energy and Resources (2021a, p. 22).
243. T. Wood et al (2021b, p. 19).
244. Department of Industry, Science, Energy and Resources (2021b).

Figure 4.5: If the world pursues net zero, Australian fossil fuel exports could shrink dramatically



Notes: International Energy Agency (IEA) net-zero scenario includes forecasts for the global market value of coal – this path assumes Australia's coal exports fall at the same rate as the global market. Australian coal exports are forecast explicitly to 2040 in the Sustainable Development scenario (which would limit warming to well below 2°C): from Auger et al (2021).

Sources: Grattan analysis of Department of Industry, Science, Energy and Resources (2020), Department of Industry, Science, Energy and Resources (2021b), IEA (2021), IEA (2019) and Auger et al (2021).

a lower near-term 'green premium', and Australia is likely to be able to produce it at lower costs for Asian markets than our near neighbours.[245]

There are also attractive, but probably smaller, opportunities for Australia in producing bio-fuels, renewable ammonia, and hydrogen, and by exporting electricity via undersea cables. These opportunities are not certain and will generally rely on either international policies to reduce emissions, or customers being willing to pay a green premium. But these opportunities are credible, particularly as the world moves away from fossil fuels.[246]

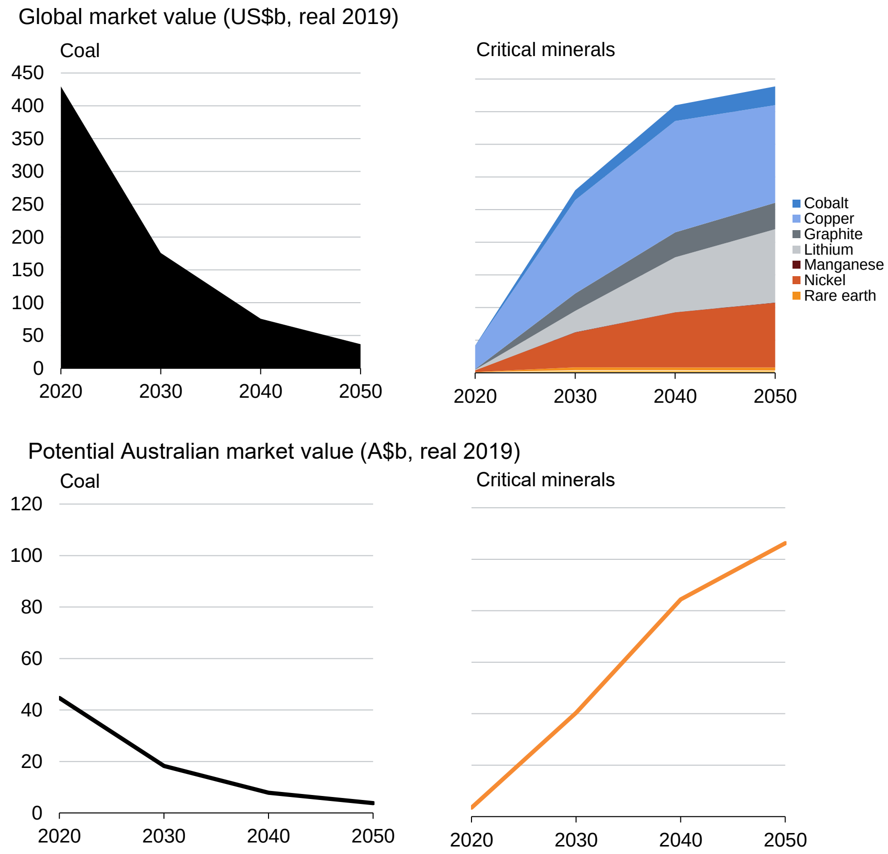
Capturing these opportunities requires coordination and capital

Industrial transformation will be deeply intertwined with the transformation of Australia's energy systems. This goes beyond decarbonising electricity supply; it also requires fuel switching (from gas, petroleum, or coal, to renewable electricity, or other renewable fuel or feedstock) and a transition from a centralised electricity system to a decentralised system where loads are used dynamically to keep the system stable. And it requires constant arbitrage between energy storage, energy consumption, and energy export.[247]

The investment needed to transform our industrial asset base will be large – potentially between 76 per cent and 107 per cent beyond that required to replace current assets with similar assets at the ends of their lives.[248] Transformative industrial technology will have high up-front capital costs compared to conventional technology, but unless there is an ongoing green premium for the commodities produced, the future revenue stream will be similar, because commodities are not significantly different.

245. T. Wood et al (2021a, pp. 20–24).
246. Ibid.
247. Australian Energy Transitions Initiative (2021, pp. 21–23).
248. Material Economics (2019, p. 47).

Figure 4.6: Minerals critical to low-emissions technologies are expected to be in high demand over coming decades



Notes: Includes total revenue for coal and for selected critical minerals used in clean energy technologies. The prices of critical minerals are based on conservative assumptions about cost increases (about a 10-to-20 per cent increase from current levels to 2050). Australia's share of the global coal market is taken from IEA (2020), and minerals from Bruce et al (2021). Exchange rate is assumed to be 0.73 USD per AUD.

Source: Grattan analysis of IEA (2021, p. 163).

As well, some facilities will face replacement decisions before new low-emissions technology is fully proven. If they choose a like-for-like replacement, they will lock-in emissions for the life of the asset – 30 or 40 years – making reaching net zero much more difficult.

4.5.1 New industries: what we should do

Move early to capture opportunities in steel and other commodities

The key to ensuring Australia captures the opportunities presented by green steel is building local skills and capability in low-emissions steel-making in the next decade.

The incoming federal government should make funding available for a steel 'flagship' project to build these skills and capabilities. This could involve gas instead of hydrogen in the interim, providing a lower-cost and commercially proven path to green steel. Western Australia, with its low-cost gas, could play an important role. And moving towards lower-emissions steel could help sustain existing steel-making jobs in Port Kembla in NSW or Whyalla in South Australia.

Other commodities will rely on overseas governments making further moves on decarbonisation. To maximise benefits to Australia, the incoming federal government should re-orient its trade diplomacy away from the shrinking markets for fossil fuels, and towards growing overseas markets for these new commodities and for critical minerals.

Start building the capital that will be needed in the 2030s and beyond

Many existing industrial facilities face capital replacement decisions in the 2020s and 2030s. These decisions could lock-in patterns of emissions for decades. To achieve the net-zero target, it is essential that these replacements use the lowest-emissions technology possible, even if this is not yet fully commercial. Future governments may need to be prepared to bridge the risk gap for new technologies at full scale. Doing so goes well beyond the scope of agencies such as the Australian Renewable Energy Agency, which currently bridge this gap for demonstration-scale projects.

An Industrial Transformation Future Fund that starts in 2023 with an initial $10 billion endowment and is topped up with $1 billion each year to 2030 could, under conservative settings, generate sufficient income to fund $21.6 billion (nominal) in grants between 2031 and 2050 (see Table 4.1). If inflation remains low, and returns are similar to those achieved by the existing Future Fund over the past 10 years, up to $30.8 billion could be available.[249]

Table 4.1: Central scenario for an Industrial Transformation Future Fund

	Central
Initial endowment	$10 billion
Additional annual endowment 2024-2030	$1 billion
Interest rate	2.0%
Annual inflation rate	2.5%
Bench-mark net rate of return 2022-2030 (% above interest rate)	5.0%
Bench-mark net rate of return 2031-2050 (% above interest rate)	3.0%
Total grant funding over 2031-2050	$21.6 billion

Notes: Figures are in nominal dollars. Assumptions set out in T. Wood et al (2021b, p. 47).

Source: Grattan analysis.

249. The Federal Government already has a number of future funds that use investment to generate returns which are set aside for likely future liabilities. Generally, these funds start with an endowment from government, which is then invested in assets, cash, securities, and equities. The returns from these investments are reinvested until the future liability emerges, after which the returns start to be drawn down to meet the liability. For the assumptions behind these figures, see T. Wood et al (2021b, p. 47).

4.6 Agriculture: where we are

The agriculture sector was responsible for 14 per cent of Australia's emissions in 2020, emitting 72 million tonnes. Emissions are projected to grow slightly to 76 million tonnes in 2030.[250]

The agriculture sector is particularly vulnerable to climate change. It is also a difficult sector in which to cut emissions: there aren't yet credible ways to eliminate methane from cattle and sheep (the largest source of emissions); it will take time to implement better manure and fertiliser management across the nation's 50,000 broadacre farms; and electric vehicles and equipment to replace diesel aren't widely available.

More than 80 per cent of farm businesses are small or medium-sized operations, with annual revenue less than $1 million. Farmers may face information gaps and a lack of human resources to run the farm while implementing emissions-reducing practices.

4.6.1 Agriculture: what we should do

Australian farmers stand to benefit considerably from actions that reduce emissions and limit climate change. Smarter land management can boost farm productivity and store carbon, creating carbon credits that will be in demand as the economy approaches net zero. The more that farmers can reduce emissions, the fewer credits they will need to offset their own emissions, and the more they can sell to others – diversifying their revenue streams. Curbing emissions today is the key to maximising this economic opportunity.

The next federal government, whether Coalition or Labor, should invest in a multi-decade outreach program to deliver advice to farmers on how to practically reduce farm emissions and secure resilient income streams. This could help accelerate the deployment of new technologies by lowering a key barrier to uptake.

250. Department of Industry, Science, Energy and Resources (2021a).

5 Transport

5.1 Where we are

Transport investment is a responsibility shared among all levels of government in Australia, so it's unsurprising that there are at times overlaps, duplication, and conflicting perspectives. The federal government has gradually increased its investment over time, but has struggled to do so effectively.

The federal government has an agreed role in funding transport infrastructure, but it often fails to fulfil that role. There is scope for it to contribute more to national productivity investing only in infrastructure projects that have been assessed as worthwhile solutions to identified problems, and are nationally rather than just locally significant. The federal government could also take more seriously its responsibility for macro-economic management and national coordination in selecting the timing and location of projects it co-funds.

Spending money is not the federal government's only role; it has lagged well behind most of the world in regulating harmful tailpipe pollutants and carbon emissions from light vehicles.

5.1.1 The federal government spends public money unwisely

The federal government loves to trumpet the size of its road and rail spending, reporting a 'record $110 billion 10-year infrastructure investment pipeline'.[251] But trumpeting the size of the spend only makes sense if the community gets value for every dollar spent, and if there isn't a less costly way to get a service of the same quality or better. Key problems include that the federal government makes premature commitments, and that it takes little care to understand what projects will actually cost.

251. Treasury (2021a, p. 20).

The federal government makes risky, premature project choices

Historically, it has suited governments to run their transport infrastructure programs by focusing on size rather than quality. A politician can expect to enjoy an electoral benefit from announcing a new project, particularly in the lead-up to an election.

Of 22 projects larger than $500 million to which the federal government has committed a contribution since 2016, only six had a business case published or assessed by Infrastructure Australia at the time of commitment. A further 14 were listed as 'initiatives' on Infrastructure Australia's Priority List, indicating they 'have the potential to address a nationally significant problem or opportunity' but that their assessment had not yet been completed. The remaining two had not appeared on any Infrastructure Australia priority list at the time of commitment.[252]

As Infrastructure Australia put it:[253]

> Too often we see projects being committed to before a business case has been prepared, a full set of options have been considered, and rigorous analysis of a potential project's benefits and costs has been undertaken.

Funding commitments of this kind are the end point in a process of premature commitments, where politicians promise to build roads and rail with limited understanding of the likely costs and benefits. There would be less of a problem with early announcements if Australia had a robust process for cancelling those projects that, on closer examination, turned out not to be worth building, or not the best option available. But we don't have such a process: once a project is announced, it usually ends up being built. More than 80 per cent of projects that had initial

252. Terrill et al (2020, pp. 29–30).
253. Infrastructure Australia (2018, p. 1).

cost estimates of at least $20 million announced since 2001 were seen through to completion.[254]

An announcement is premature when a government or opposition announces it will build a project for a particular cost, but the project does not yet have the regulatory and/or financial approvals that constitute a technical commitment, but which are needed before it can actually proceed. Premature announcements of this kind are not the norm; they occur about one-third of the time. But they have been responsible for more than three-quarters of the cost overruns over the past two decades (see Figure 5.1).

Projects with premature cost announcements exceed their promised cost by an average of 35 per cent; by contrast, that figure is 13 per cent for projects that had their first cost announced upon or after commitment. And the more premature the announcement, the larger the overrun.[255]

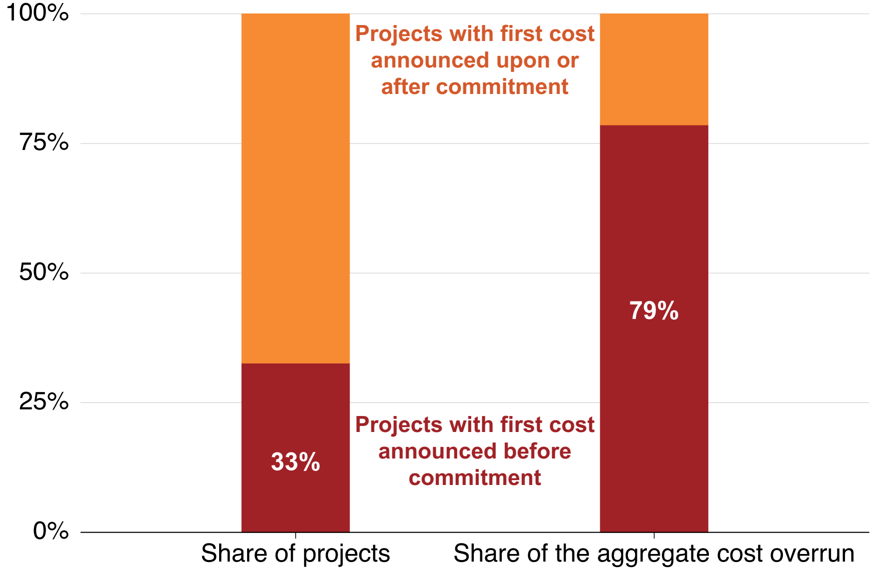
The federal government does nothing about inaccurate cost estimates

Cost estimates made early in the life of a project are necessarily less precise than later ones. As projects are developed and refined, data on input costs and past projects are used to narrow the range of uncertainty.

But the data available to do this is far more limited than it needs to be. Experts in cost estimation are calling for, and should get, better data. Road experts from all jurisdictions are recommending a cross-jurisdictional database of final project costs and what gave rise to them;[256] the Department of Infrastructure, Transport, Regional Development, and Communications has pointed to the challenges that

254. Terrill et al (2020, p. 19).
255. Ibid (pp. 19–20).
256. Chowdhury et al (2020, p. 32).

Figure 5.1: Prematurely announced projects account for most of the value of cost overruns



Note: Includes all public road and rail projects costing more than $20 million that were completed between Q1 2001 and Q1 2020.

Source: Grattan analysis of Deloitte Access Economics Investment Monitor.

cost estimators may face – key among them being 'not having access to historical cost databases' of the kind that are available to their US and European counterparts.[257]

One clear manifestation of the scarcity of data is that the cost estimates of current projects continue to make insufficient provision for 'worst case' cost outcomes.

Business cases typically include an estimate of the median cost, or 'P50', and the worst case, or 'P90'. In business cases produced in recent years, the difference between P50 and P90 cost estimates has generally been about 7 per cent. But the experience of the past two decades has shown that the cost over and above the median cost estimate is actually 49 per cent, on average.[258]

This difference between usual cost estimation practice and observed reality would be unlikely to occur were a cross-jurisdictional database of final project cost outcomes available to estimators. Such a database would indicate that large cost overruns are far more frequent than recent cost models imply.

The P90 estimate for the Inland Rail project in the 2015 business case was $10.657 billion, 7.8 per cent higher than the P50 estimate. Were this P90 estimate correct, it would indicate that there was only a 10 per cent probability that the eventual project costs would exceed $10.657 billion. But the current cost estimate is about $15.5 billion, and that may not be the final cost. Relying on undercooked cost estimates to make an investment decision distorts investment planning, in three ways.

First, if governments systematically understate project cost estimates, then benefit/cost ratios will be systematically overstated. To the extent that they rely on project appraisals, this leads governments to over-invest in transport infrastructure.

257. Department of Infrastructure and Regional Development (2017, p. 8).
258. Terrill et al (2020, pp. 38–40).

Second, if governments misunderstand the uncertainty in a project's cost at the time they make a commitment, their decision to invest in that project was made on an incorrect basis. Inaccurate cost estimates distort the decision to invest, and decisions about which projects to select. The design and scope of a project can change over its life, but this rarely justifies not holding governments to account for the initial cost estimates.

Third, because unrealistic cost estimates are more prevalent for larger projects, governments are more likely to over-invest in large projects. The clearest example of this is multi-billion dollar projects, which historically have had more frequent and larger cost overruns.

As well as distorting investment decisions, unrealistic cost estimates mislead the public. We are led to believe that a particular project is available to us for less than it really is. Yet governments almost never go back and discover how actual costs and benefits compare to the costs and benefits that were promised. If they do go back, they do not share their findings with the public.

The federal government uses an unrealistically low discount rate

The discount rate is the tool that puts costs and benefits occurring at different points in time onto a comparable footing. It expresses how much we value costs and benefits in the future relative to costs and benefits occurring today.

The discount rate is a core element of cost-benefit analysis, used to assess the merits of different project proposals. It is one of the most controversial aspects of cost-benefit analysis.

Yet despite the controversies, almost all Australian jurisdictions, led by the federal government, have opted since at least 1989 to use a discount rate of 7 per cent for most transport and other infrastructure projects, irrespective of project risk and real interest rates. Real risk-free rates have plummeted in that period, from about 6-to-7 per cent in the late-1980s to about zero today.[259]

If discount rates are higher than they should be, two consequences follow. First, some projects will be assessed as not worth building, when they would be assessed as worthwhile under a lower discount rate. Second, the ranking of potential projects may change; in particular, very long-lived projects may get less priority than they otherwise would.

Using discount rates that are known to be artificially high encourages decision-makers not to rely on cost-benefit analysis, and to inflate in their minds the future social value of investments. This exacerbates the bigger problem of the poor overall quality of Australian transport project evaluation.

5.1.2 The federal government doesn't coordinate the portfolio of projects effectively

While the federal government does not itself build roads, railway lines, bridges, busways, or tram routes, it plays a role by granting funds to state governments for specific projects. But instead of constantly announcing big, iconic, 'nation-building' infrastructure projects in budgets and election campaigns, it should focus more on its role in planning and coordination, across the country and over time.

Greater coordination would assist in managing capacity constraints in engineering construction, and competition for a limited pool of resources at the same time. The problem of capacity constraints has been well known to the federal government; even before the pandemic, there was disquiet about the scale of the public infrastructure being built. In 2019, Infrastructure Australia warned that 'while large-scale projects are becoming commonplace, they are also stretching the capacity of industry and government'. The Prime Minister pointed to hitting 'a ceiling in terms of how much infrastructure work you can get under way at any one time', and the Treasurer pointed to capacity constraints affecting skills, equipment, and building materials.[260]

It is not hard to see cause for disquiet. The average size of completed transport projects had been relatively steady over recent years – until 2019. But the average value of projects completed in 2019 was twice that of the average value of projects completed over the previous five years. During the past five years, the value of an average road or rail project being built has more than doubled, from $430 million to $1.1 billion (see Figure 5.2 on the next page). With the increase in average project size has come an increase in the average contract size, and a corresponding decrease in the pool of firms with the technical and financial capability to take on the work – and with less competition comes less downward pressure on costs to the taxpayer (see Figure 5.3 on the following page).[261]

When the pandemic hit, and recession followed, government infrastructure projects were relatively unscathed. If anything, the federal government was even keener, wanting to fast-track projects in pursuit of an 'infrastructure-led recovery'. The federal government upped its funding commitment in the 2020 and 2021 budgets to about one-and-a-half times the usual levels for transport infrastructure.

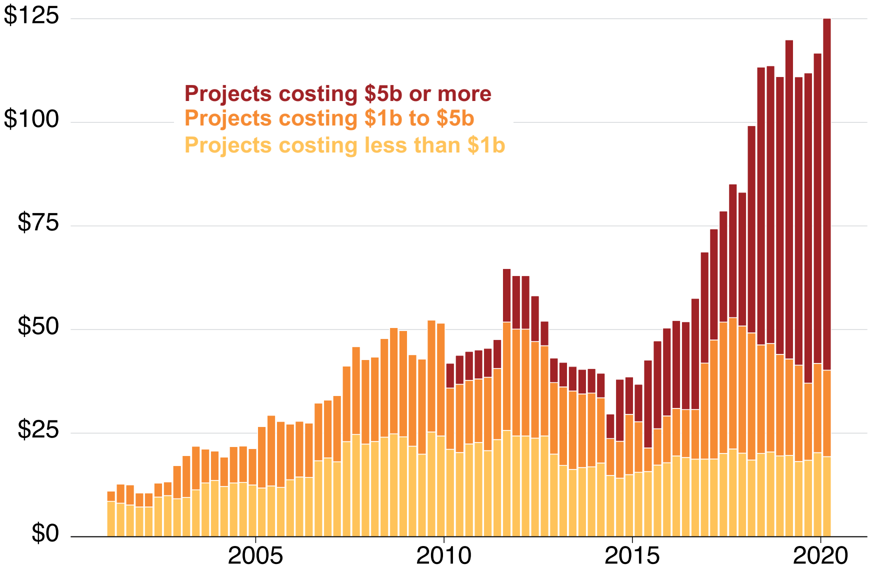
But this stimulus spending went into an already overheated market. The number of people working in engineering construction had surged by 50 per cent in the three years leading up to the pandemic.[262] The image people may have of construction work as unskilled is out of date; sophisticated equipment and skilled engineers are ever more important

259. Terrill and Batrouney (2018, p. 8).

260. Terrill et al (2020, pp. 6–7).
261. Ibid (Chapter 1).
262. ABS (2020).

Figure 5.2: All the growth in public road and rail infrastructure work is in megaprojects

Expected cost of projects under construction, $2020 billion

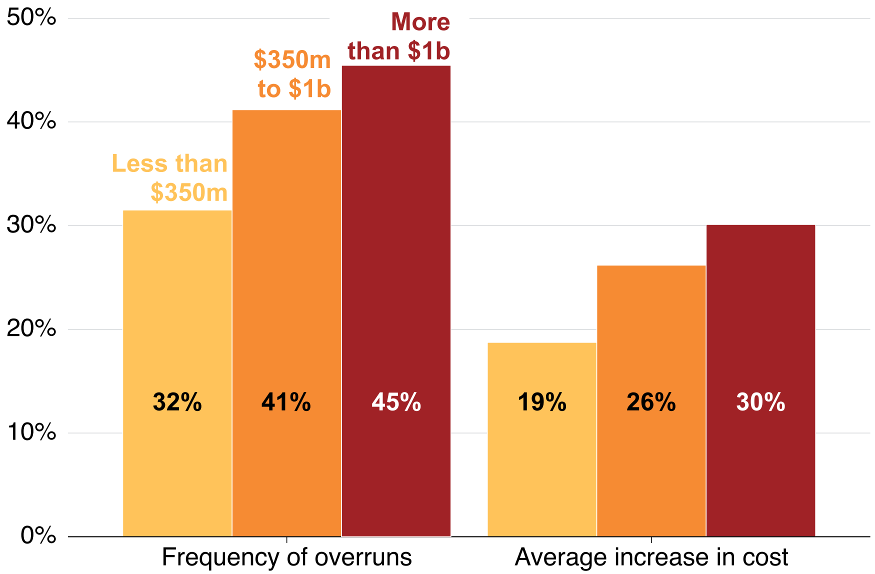


Note: Includes all public road and rail projects costing more than $20 million.

Source: Grattan analysis of Deloitte Access Economics Investment Monitor.

Figure 5.3: Bigger projects overrun more often and by more

Frequency of cost overruns and average increase in cost as a percentage of initial project costs by level of initial cost



Note: Includes all public road and rail projects costing more than $20 million that were completed between Q1 2001 and Q1 2020.

Source: Grattan analysis of Deloitte Access Economics Investment Monitor.

as projects become more complex. And when national borders were closed, the option to bring in skilled labour was severely limited.

The cost of building road or rail varies according to how avidly firms chase the work, and that depends in no small part on how much other engineering construction work they're already doing. Pumping more work into an already-overheated market is more likely to boost prices than to boost jobs.

5.1.3 The federal government has no credible plan to reduce emissions from cars

Light vehicles cause about 11 per cent of Australia's total greenhouse gas emissions, and this is projected to decline only marginally between now and 2030 under current settings. If Australia is to achieve net zero emissions by 2050, transport emissions must come down quickly.[263] New light vehicles tend to last more than 15 years, so the emissions from petrol and diesel cars sold today are locked in for that time.

Petrol and diesel vehicles don't only emit greenhouse gases, but also harmful tailpipe pollutants.[264] Ultimately, having an electric fleet will resolve the problem of tailpipe pollutants, but it will take years.

Two key problems are that Australia's regulatory settings make us a dumping ground for high-polluting, high-emitting cars, and that the standard of petrol in Australia is very poor.

Australia is a dumping ground for old technology

Australians' cars are high-polluting and high-emitting. That's partly because Australians increasingly choose bigger vehicles – SUVs (sports utility vehicles) and utes – over passenger cars, and bigger cars tend to consume more fuel per kilometre travelled.[265]

But where Australian passenger cars really stand out is in CO2 emissions. In 2019, the average passenger car in Europe emitted 123 grams of CO2 per kilometre travelled, while in Australia the figure was about 168 grams. Germans, like Australians, favour larger vehicles, but the German fleet emits significantly less carbon dioxide per kilometre driven than Australia's. The average US passenger light vehicle is more than 100kg heavier than the average Australian light vehicle, and has 180kW of power compared to less than 150kW in Australia, yet US vehicles emit 5g less carbon dioxide per kilometre travelled, on average.[266]

The range of low- and zero-emissions vehicles available in Australia is very limited. There were 31 zero-emissions vehicle models available for purchase in Australia in 2020, while in the UK, where government policy favours lower-emissions vehicles, there were 130 zero-emission models available.

Manufacturers have made clear that they could offer more low- and zero-emissions models in Australia if policy settings were changed. According to Nissan Australia,[267]

> Clear and consistent directions from governments is a critical signal to car-makers to prioritise the importation of the latest low- and zero-emissions vehicles for Australian consumers.

Australia's petrol is very dirty

Burning petrol and diesel in an internal combustion engine creates pollutants as a by-product. These pollutants include particulate matter,

263. More detail on Australia's greenhouse gas emissions is in Chapter 4.
264. Terrill et al (2021a, Chapter 2).
265. Ibid (Chapter 1).
266. Ibid (pp. 8–9).
267. Ibid (p. 23).

notably PM10 and PM2.5, nitrogen oxides (known as NOx), sulfur oxides (known as SOx), and various volatile organic compounds. They increase the risk of cardiovascular illness, Ischemic heart disease, asthma, stroke, respiratory illnesses, lung cancer, bladder cancer, and breast cancer. And the International Council on Clean Transportation estimates transport-related air pollution carried an economic cost of about $10 billion in Australia in 2015.

The production of harmful tailpipe pollutants in Australia comes about through the combination of the fuel and the type of technology in the vehicle. The low quality standard currently applied to petrol in Australia (see Figure 5.4) limits the pollution-reducing vehicle technology that can be used here. But regardless of the vehicle technology, a petrol vehicle produces more harmful pollutants when running on poorer-quality petrol.

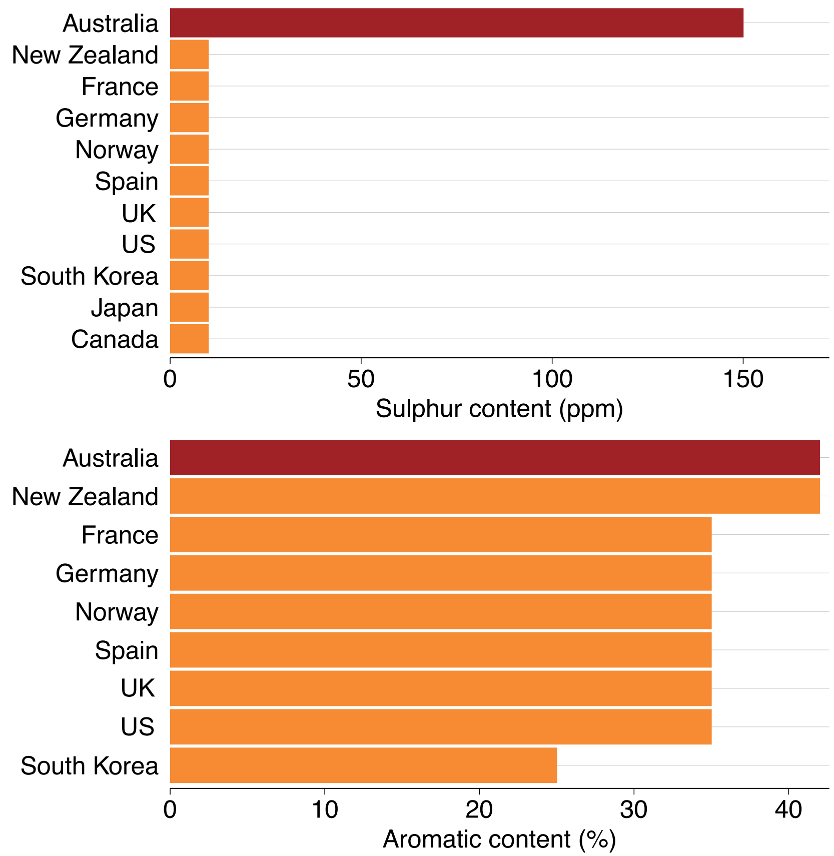
For petrol vehicles, Australia has limited scope at present to introduce the technologies that would enable cars bought in Australia to meet the widespread international standard, known as Euro 6d. Poor-quality fuel can damage technology used to reduce vehicle pollution, and therefore manufacturers cannot make use of all the technologies that would otherwise be available to meet the vehicles pollution standards articulated in Euro 6d. For instance, pollutant-reduction technology performs poorly when sulfur content is greater than 30ppm.[268]

5.2 What we should do

5.2.1 Establish new transport infrastructure projects on a sounder basis

To prevent 'disappointment in the community and counterproductive pressure on project delivery teams',[269] ministers and government

Figure 5.4: Australia's petrol is poor by international standards
Regulated sulfur and aromatic content of petrol



Notes: Regulated limits are pooled limits where available, or maximum limits if no pooled limit applies. Japan and Canada do not prescribe an aromatic petrol content limit.

Sources: Department of the Environment and Energy (2018) and Grattan analysis.

268. Ibid (Chapter 2).
269. Infrastructure NSW (2020).

agencies should be clear about the status of cost estimates for infrastructure proposals valued at $100 million or more, including quoting the wide range of possible values when the proposal is at the concept stage, and for more advanced estimates, quoting a range and specifying whether they are preliminary business case estimates or final business case estimates. Ministers and government agencies should also specify what the accepted tender and state costs are, and report the ultimate cost. Governments should report these estimates, and reconcile between them when estimates change as projects develop and costs become more certain.[270]

To address the systematic underestimation of project costs, governments should collate data on completed projects valued at $20 million or more. While the state governments mostly hold the data, the federal government should coordinate the collation. With a database of completed projects, cost estimators would be much better equipped to contextualise costs, by comparing estimated costs with actual experience.[271]

In addition to a cross-jurisdictional cost database, the federal government should publish annual guidance on discount rates for transport infrastructure projects for the year ahead. The guidance should apply to projects with a federal funding component, and could also be used at the discretion of other jurisdictions for projects funded from own-source revenue. The advice should include the risk-free rate, and the basis on which it is calculated; the expected market risk premium, and the basis on which it is calculated; and the typical values for the systematic risk of public infrastructure projects.

Large public infrastructure projects are funded wholly or mostly by taxpayers. Therefore the community has a stake in knowing how projects turned out, whether costs were well managed, and whether the initial promises were delivered. But at present, information on project delivery is not presented in a clear way, if at all.

To facilitate learning from experience, the federal government should require states that receive federal funding to publish post-completion reviews of all projects costing more than $100 million. Reviews should include eventual costs, a rigorous estimate of eventual benefits, an explanation of deviations from initial estimated costs and benefits, contract type, and scope changes. Such reporting is a matter of routine in other countries.[272]

5.2.2 Take seriously the national coordination role

Projects worth $1 billion were a rarity in Australia two decades ago. In 2001, there were just two such projects under construction; by 2002, there were 18.[273]

Megaprojects have become normal, in times of high population growth, exceptionally low real interest rates, and consequent high land acquisition costs. But governments have choices about how to respond to these pressures.

The first resort should be efficient use of the infrastructure we already have. If there is excessive road or public transport congestion in peak periods, congestion charges and time-varying fares are the most efficient remedy. Dealing with the mounting maintenance backlog is also important to getting efficient use from the infrastructure we already have.

The federal government should encourage states to devote more resources to identifying modest-sized transport infrastructure projects

270. Terrill et al (2020, p. 33).
271. Ibid (pp. 37–41).
272. Ibid (pp. 44–45).
273. Ibid (p. 36).

with higher net benefits than very large projects. Megaprojects should be proposed as the last, not the first resort.[274]

And the federal government should seek to get the best value for money from any new construction. It should assist the states to pay more attention to the costs of building new transport infrastructure, by:[275]

- Making a long-term commitment to regularly update a bench-marking series of road and rail costs;
- Reporting to the Infrastructure and Transport Ministers' Meeting of the National Cabinet on the means by which similar countries overseas build high-quality transport infrastructure more cheaply;
- Ensuring that state governments adhere to federal government procurement rules where there is federal funding, avoiding giving preference to bidders for local transport infrastructure construction projects who pledge to use Australian-produced materials.

5.2.3 An emissions ceiling would accelerate the arrival of zero- and low-emissions vehicles

An annual average emissions ceiling is a limit on the average emissions of new vehicles that manufacturers can sell in a given year. More than 80 per cent of the global light-vehicle fleet is subject to emissions ceilings, or standards, including in India, China, the US, the EU, Japan, and South Korea. The international evidence shows that vehicle emissions ceilings are very effective in reducing emissions.

Grattan Institute has modelled the financial costs and savings for Australia of an emissions ceiling that ratchets down the emissions each year between 2024, when it should come into force, and 2035, by which time the emissions level would be zero (see Figure 5.5 on the following page).[276]

A person who buys a new vehicle in Australia under an emissions ceiling would save on average more than $900 over the first five years, and more than $2,000 over the life of the vehicle. An emissions ceiling would also significantly help Australia to meet its commitment to reduce emissions to net zero by 2050. Between its implementation in 2024 and 2050, an emissions ceiling could prevent the emission of about 450Mt of carbon dioxide – almost as much as Australia's yearly economy-wide emissions.[277]

An emissions ceiling would change the balance of options available to Australian drivers. There would be a larger range of low- and zero-emissions vehicles, and a smaller offering of higher-emitting vehicles. But drivers who want or need specialist or niche vehicles wouldn't miss out: as more people switched to electric vehicles, there would be space under the emissions ceiling for manufacturers to sell higher-emitting vehicles to people who were willing to pay for them. Meanwhile, drivers who mostly care about cost and general driving would end up better off.

5.2.4 Make petrol cleaner while we still need it

The Federal Government has plans to improve both fuel quality and vehicle standards – but slowly. In the meantime, other countries continue to forge ahead with standards that minimise damaging health effects, as well as improving fuel efficiency and vehicle performance.

Australia should treat current plans to improve fuel quality and vehicle standards as a bare minimum, and accelerate future improvements.

An improvement in petrol quality means a reduction in sulfur and aromatics. Petrol needs to have no more than 10ppm of sulfur and

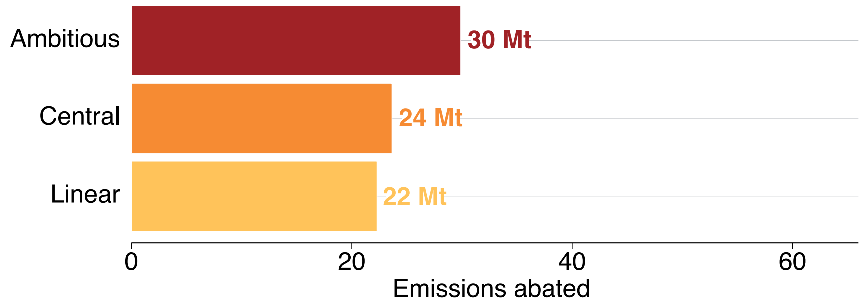
274. Ibid (pp. 36–37).
275. Terrill et al (2021b, Chapter 1).
276. Terrill et al (2021a, Chapter 3).
277. Ibid (Chapter 3).

35 per cent aromatics to permit vehicles imported into this country to comply with Euro 6d pollution standards.[278]

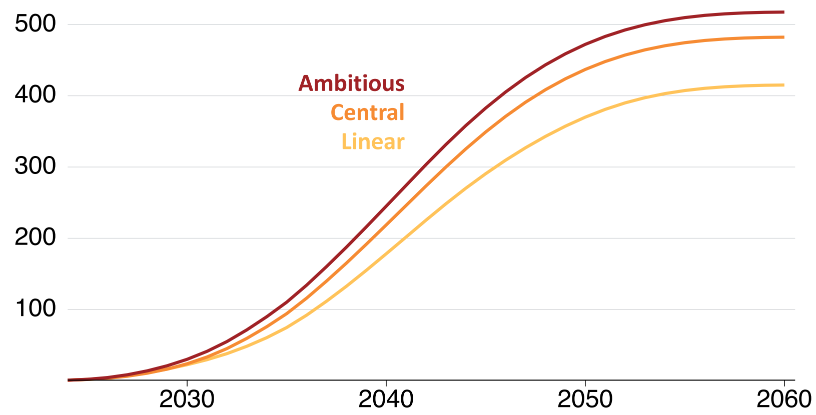
As soon as fuel quality improvements are regulated for petrol vehicles, the federal government could accelerate the tightening of vehicle pollution standards, from Euro 5 in place at present to Euro 6d. There would be substantial benefits to doing so: in 2020, it was estimated that the benefits would outweigh the costs by 5.8 to 1.

Figure 5.5: A car emissions ceiling could achieve significant emissions savings in Australia

Emissions saved (Mt) between 2021 and 2030 under an emissions ceiling



Cumulative emissions abated under an emissions ceiling (Mt)



Source: Grattan analysis.

278. Ibid (Chapter 2).

6 Health

6.1 Where we are

Australia's health system responded well to the original and Delta waves of the COVID-19 pandemic. But many mistakes were made, exposing flaws in management and resourcing. Australia's healthcare system needs to better plan for the long-term, because COVID is here to stay and future COVID variants are to be expected.

While Australia's universal healthcare system delivers good outcomes, many Australians still miss out on care because of cost, especially if they have a chronic health condition, or are otherwise disadvantaged. Dental costs are prohibitive for many people, and specialist and medication costs can also be burdensome.

And Australia's private health insurance industry continues its death spiral, with little action to address the industry's underlying problems.

6.1.1 Australia's health system generally performs well

Australia performs well on international comparisons of health and healthcare. Our life expectancy is better than that of people in other similar countries, and we spend less of our national income on healthcare (see Figure 6.1).

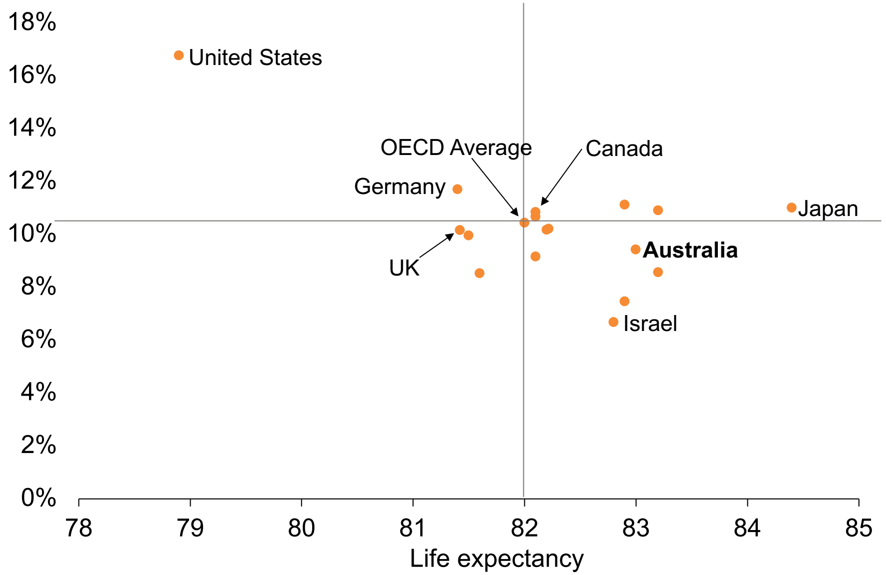
But this doesn't mean we can't do better.

Figure 6.1 shows the average life expectancy for Australia and a range of similar countries. But the average hides the distribution. For example, life expectancy for First Nations Australians is about a decade shorter than for other Australians. Australians with mental illness, especially those living in rural and remote areas, also have a significantly shorter life expectancy.[279]

279. Suggett et al (2021); Edmunds (2018); and Roberts et al (2018).

Figure 6.1: Australia performs well on international comparisons of health

Health spending as proportion of GDP, selected OECD countries, 2019



Source: OECD (2021g).

Although Australia performs better than average on costs, there is still scope to improve the efficiency of our health system. Under-investment in primary care leads to admissions to hospitals for preventable conditions, and there is scope to improve hospital quality, which would result in reduced costs from adverse events. High out-of-pocket payments lead to people deferring or missing out on care, which can result in higher long-term costs to the health system.

6.1.2 Australia's COVID public health response: good in parts

Overall, Australia's response to COVID has been good.[280] The Federal Government closed the international borders early, protecting us from an early spread. States introduced quarantine arrangements and lockdowns to restrict the spread, and 80 per cent of the Australian population have now had two doses, and 40 per cent have had three doses.[281] But mistakes were made, and the consequences continue to reverberate through the health system.

Failures in the state-managed hotel quarantine system led to numerous instances of community transmission in 2020 and 2021.[282]

Australia's vaccination procurement policy was demonstrably wrong at the time, investing in a very narrow range of vaccines compared to the broader set of vaccines pursued in other countries.

And opportunities were missed to make use of state-run mass vaccination hubs to boost coverage early. Together, these mistakes resulted in an unacceptably slow roll-out to higher-risk groups, such as people in aged care and people with disabilities.[283] And chaotic messaging about vaccine eligibility contributed to vaccine hesitancy.

These mistakes left Australia vulnerable when the Delta variant arrived in mid-2021, followed by the Omicron variant in late-2021, which resulted in Australia's largest COVID case numbers to date. This outbreak will continue to burden the health system in 2022 and beyond.

The continuing mental health effects of the 2020, 2021, and 2022 life disruptions are already being seen in the health system and, as with the long-term impact of natural disasters, increased mental health problems will need to be managed for years, not weeks.[284]

Deferred care (either system-deferred, such as elective procedures, or patient-deferred, such as missed care because of patients delaying GP visits for troubling symptoms) has created a 'care deficit' that will need to be addressed.[285] Long-COVID is also a serious and, to some extent, still unknown phenomenon.[286]

6.1.3 Many Australians miss out on care because of cost

Despite having a universal healthcare system, Australia relies heavily on co-payments, compared to other similar countries (see Figure 6.2 on the next page).

Out-of-pocket payments cause numerous problems.[287] They reduce people's use of services, particularly poorer people. Reduced use of

280. Stobart and Duckett (2021); and Duckett and Stobart (2020).
281. As at 15 February 2022.
282. Grout et al (2021).
283. Royal Commission into Aged Care Quality and Safety (2020); and Royal Commission into Violence Abuse Neglect and Exploitation of People with Disability (2021).
284. Bower et al (2021).
285. Cancer Australia (2021).
286. Rushforth et al (2021); Lopez-Leon et al (2021); and Nasserie et al (2021).
287. We use the term 'co-payment' to refer to both the situations where there is a government-mandated patient moiety – as is the case with the Pharmaceutical Benefits Scheme – and where health practitioners charge a fee in excess of the rebate, creating what is sometimes referred to as a 'gap payment'.

necessary services can create higher long-term costs for individuals and the health system.[288]

The international literature shows that relying on out-of-pocket costs is inequitable. Many Australians avoid needed care because they fear they will not be able to bear the out-of-pocket payment (see Figure 6.3 on the following page).

Nearly 2 million Australians miss out on dental care each year because of cost. A higher proportion of the most disadvantaged miss out, but even about 10 per cent of the least disadvantaged miss out on dental care because of cost.

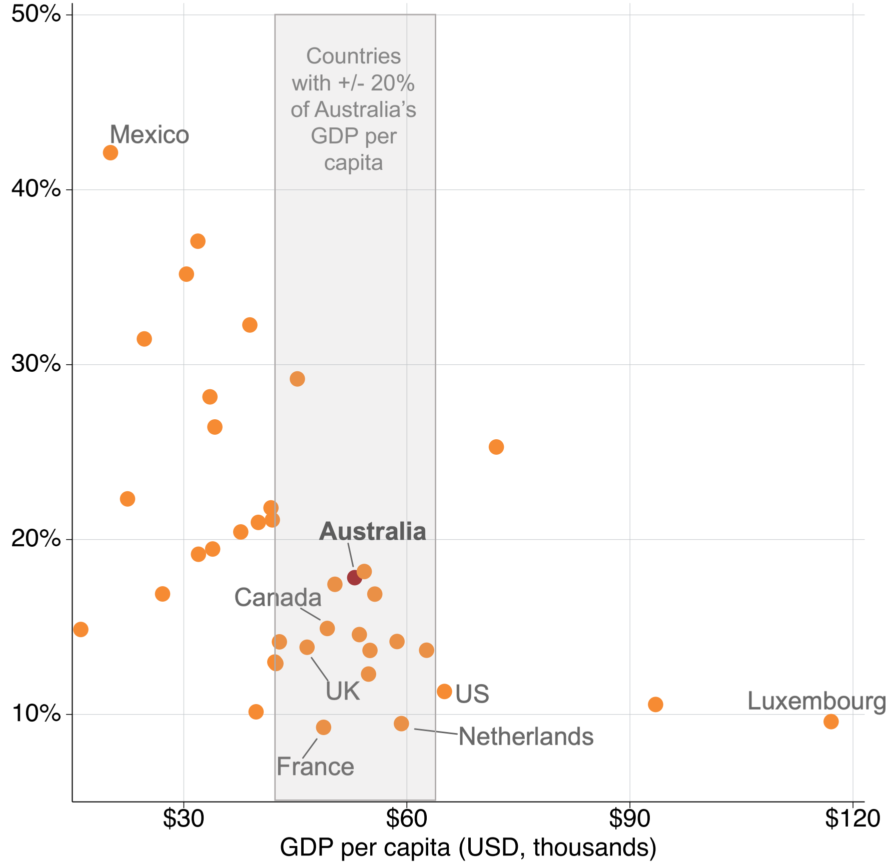
The problems extend beyond dental care. In 2020-21, about 4.4 per cent of Australians failed to fill a prescription because of cost, and on average 6 per cent of Australians miss out on specialist care because of cost.[289]

Australia has two systems of access to specialist medical care, neither of which work well. Public hospital specialist outpatient clinics often have very long waiting times and are not available in all locations. Medicare covers visits to private specialists in their rooms, but again, access is effectively restricted to patients who can afford the co-payment.

Out-of-hospital specialist attendance costs were $1.3 billion in 2020-21 – the biggest proportion of all out-of-hospital Medicare-subsidised services. The average patient out-of-pocket payment is high, at $93 per service, and only 46 per cent of specialist services are bulk-billed – the lowest proportion of all out-of-hospital services. These costs are particularly burdensome for people with chronic illnesses, and even

Figure 6.2: Australia relies heavily on patient out-of-pocket payments for healthcare, compared to similar countries

Out-of-pocket costs as a percentage of total health spending, OECD countries, 2020 or latest available year



Source: Grattan analysis of OECD statistics, 2020.

288. Newhouse and Sinaiko (2008); Newhouse and Health Insurance Experiment Group (1993); and Kiil and Houlberg (2014).
289. ABS (2021i).

more so for people with multiple chronic diseases, who need to see a specialist regularly (see Figure 6.4 on the next page).

Cost barriers to General Practitioners (GPs) are fairly low, with 89 per cent of services bulk-billed.[290] About 2.4 per cent of Australians say they delay seeing a GP because of the cost.[291]

There are some service gaps too

There are problems beyond out-of-pocket payments. The organisation and funding of general practice and other primary care services have not kept pace with changes in disease patterns, including the increasing prevalence of chronic conditions, especially multi-morbidity and mental health conditions. Technological advances – including the potential for home-based monitoring – has also not been adequately taken into account in funding and service design. Because funding and service design lags changes in epidemiology, people face service gaps, and uncoordinated and potentially lower-quality care.

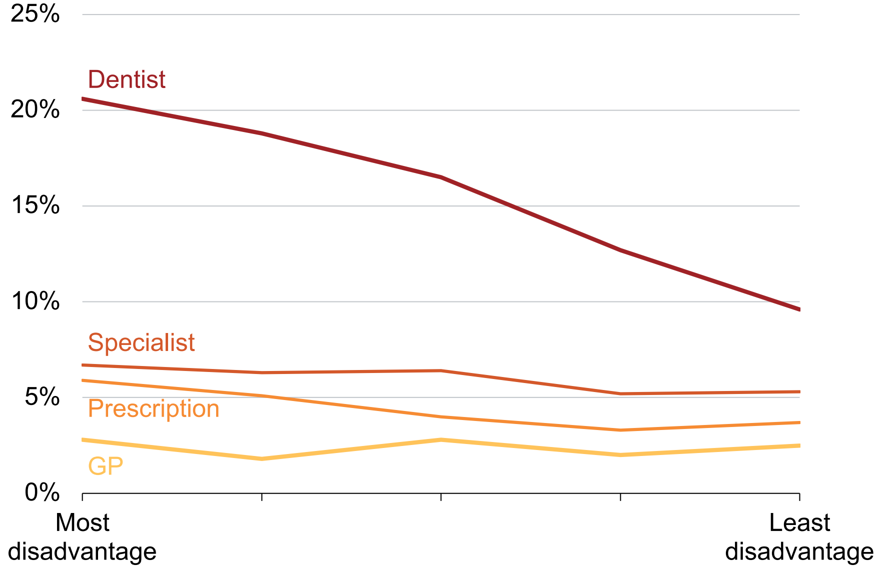
Primary care in Australia is typically delivered by many thousands of small, private businesses: the local dentist, pharmacist, physiotherapist, or GP clinic. Funding and payment arrangements are fragmented and variable. There is insufficient data to properly plan the distribution of services and monitor the quality of care. And governance and accountability are split between various levels of government and numerous separate agencies, making overall management of the system difficult.

6.1.4 The private health insurance industry is in a death spiral

The private health industry – private health insurers, private hospitals, device importers and manufacturers, and private specialists – has

Figure 6.3: Poorer Australians are more likely to skip dental care because of cost

Proportion of people surveyed by socio-economic status who said they had missed a prescription or skipped care in the past 12 months because of cost, 2020-21



Source: ABS (2021i).

290. Medicare statistics, 2020-21.
291. ABS (2021i).

weathered the COVID storm.[292] But the industry's underlying problems have not gone away. The 'death spiral' – of a steadily ageing insured risk pool – slowly rolls on.[293]

As the population ages and uses more expensive healthcare services, insurers have to pay out more in benefits to their members. As benefits paid increase, so do premiums. Rising premiums make health insurance less affordable and less attractive – particularly to younger and healthier people. As younger, healthier people drop their insurance or do not join in the first place, the insurance risk pool gets worse, premiums go up, more young people drop out, and the cycle continues.

Government has so far responded with tinkering, for example by allowing discounted premiums for under-30s, and allowing stay-at-home under-30s to remain with family insurance plans in the hope that they will pick up their own insurance when they turn 30. But none of this changes the underlying dynamics of the industry.

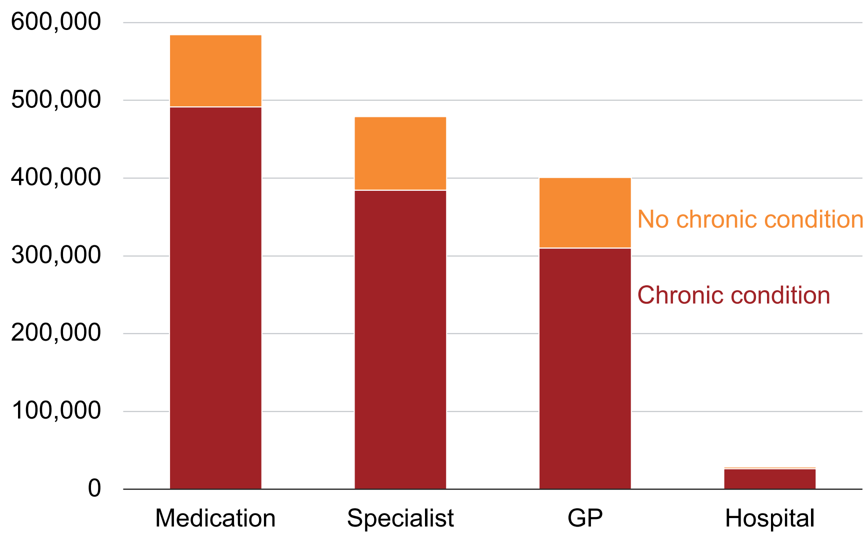
To date, most industry players have been too willing to foist the industry's problem onto government, and government has been too willing to accept this burden. Too often, one sector of the industry blames another for their woes, and enlists government help to try to shift costs. This is not sustainable.

6.2 What we should do

The federal government needs to boost healthcare workforce planning, funding, and vaccination planning and preparation for managing COVID long-term.

Figure 6.4: People with chronic health conditions are more likely to skip care because of cost

Estimated number of adult Australians who missed a prescription or skipped care in the past 12 months because of cost, 2020-21



Source: ABS (2021i).

292. Reduced access to elective procedures improved funds' prudential position. But this is probably only temporary, because fund members – and hopefully the Health Minister, who must approve premium increases – will expect this dividend to be repaid in lower premiums. It is unclear what proportion of the deferred procedures will be performed, and whether the COVID experience will lead to a reduction in rates of procedures or take-up of private health insurance.
293. Duckett and Moran (2021).

The government should work to create a more equitable health system by funding dental care, and improving access to affordable specialist care. It should also work to minimise low-value prescribing, to reduce people's out-of-pocket costs.

The primary health care system can also be improved to reduce costs, increase access, and enhance care. Patient enrolment should provide coordination and continuity of care, and the healthcare workforce in regional and rural areas should be boosted.

And the government should work to develop a private health industry plan, to put the industry on the right path for the future.

Finally, there is still unfinished business in improving hospital care.

6.2.1 Plan for the continuing impacts of COVID-19

Australia's initial success in managing the pandemic may have induced an air of complacency. While vaccines remain effective, Australia is well-positioned to enter an explicit recovery phase,[294] which should be added to the national roadmap.

We must also prepare for new challenges in 2022 and beyond.[295]

The Federal Government has prematurely terminated the special COVID 50:50 funding arrangements with the states, despite the fact that the consequences of COVID continue. Funding arrangements should recognise the care deficit. The federal government should provide additional support, including removing its cap on hospital funding, and continuing the 50:50 arrangement in 2022 and perhaps 2023.

294. Fakhruddin et al (2020).
295. Duckett and Sutton (2021).

An ongoing COVID vaccination program needs to be planned to ensure continuing high levels of protection against new variants and to address the effects of waning immunity.

The recovery phase needs to identify the lessons from Australia's handling of this pandemic – what worked and what didn't – to inform Australia's response to national emergencies, including future pandemics. There has been a plethora of piecemeal COVID inquiries,[296] but what will be required is a comprehensive review of all aspects of the response.

Health workforce planning

Healthcare staff were placed under enormous pressure during 2020 and 2021. Planning for workforce responses, especially preparing for burn-out and staff need for recovery time, is now critical.[297] The need to address the care deficit in the context of potentially reduced staff, with an anticipated 'great resignation' wave[298] and staff using their accumulated leave entitlements, creates a perfect storm for the health system, but one that can at least be planned for.

The staffing problems anticipated for 2022 are exacerbated by weak national action on health workforce planning. This is an indictment of both the federal and state governments.

296. Special Commission of Inquiry into the Ruby Princess (Chair: Bret Walker) (2020), COVID-19 hotel quarantine inquiry (Chair: Jennifer Coates) (2020), Victorian Public Accounts and Estimates Committee (2021), Independent Review of COVID-19 outbreaks at St Basil's Home for the Aged in Fawkner Victoria and Heritage Care Epping Gardens in Epping Victoria (2020), Senate Select Committee on COVID-19 (2020) and Senate Select Committee on COVID-19 (2021). The Commonwealth Auditor-General has also begun a performance audit of Australia's COVID-19 vaccine roll-out.
297. Sriharan et al (2021).
298. Sheather and Slattery (2021).

The federal government should take the lead in reinstituting a national workforce planning capacity – involving cooperative action with states, who provide the vast bulk of student and trainee clinical placements – to help overcome shortfalls, especially outside the capital cities.

6.2.2 Create a more equitable health system

It is not fair that millions of Australians miss out on care because of cost. A new universal dental scheme should be phased in. New schemes for specialist care and prescriptions should also be developed to protect the health of all Australians, especially low-income Australians. Reforms are designed to be efficient, and not simply shift the the out-of-pocket burden from patients onto government, but, where possible, also reduce unnecessary and low-value care

Filling the dental gap

When Australians need to see a GP, Medicare picks up all or most of the bill. When they need to see a dentist, Australians are on their own. There's no compelling medical, economic, or legal reason to treat the mouth so differently from the rest of the body. Australia should move – over 10 years starting in 2023 – to a universal primary dental care scheme, funded by the federal government.[299]

Funding to develop price schedules and refine criteria for participation should be included in the 2022-23 federal Budget.

The federal government should take over funding of existing public dental schemes – which are tightly targeted to people receiving income support – and fund them properly to the tune of an extra $500 million per year. Negotiations with states should take place in 2022-23 to agree on offsets for the federal government taking over responsibility for primary dental care. We estimate offsets of up to $700 million each year should be available.

Coverage should then be expanded, starting in 2023-24, first to other people on federal government income support payments, then all children. After that, the federal government should take the final step to a universal scheme. These subsequent steps toward a universal dental scheme should principally be through private participating dental services.

Public dental services should meet the standard criteria for participating practices.

As part of its first announcement on 'filling the dental gap', the federal government should announce its proposed timeline, to give certainty to the oral health care workforce, give universities time to expand the number of places, and give private health insurers an opportunity to adapt to the expanded scheme.

One potential revenue source government should consider toward meeting the cost of a universal dental program is a tax on sugar-sweetened beverages.[300] People who consume sugary drinks – which have no nutritional value – cost the health system and the taxpayer more than other consumers, and so the price paid for the drink does not represent the true cost to the community. A sugary drinks tax could yield about $500 million each year and would lead to a marginal reduction in sugary drinks consumption, which in turn would reduce demand for dental and other services.

Improve access to specialist medical care

Australia needs a comprehensive scheme to improve access to specialist medical care. This should involve effective strategies to

299. Duckett et al (2019).

300. Duckett et al (2016).

reduce demand and increase affordable services, through expansion of services without any out-of-pocket payment.

Reduce demand through secondary consultations

The federal government should launch a national secondary consultations scheme. Secondary consultations are where specialists provide advice directly to GPs about management of a patient, without seeing the patient. These consultations could be used as a way of avoiding referrals, while still ensuring the patient gets good-quality care.

Under these arrangements, the GP would seek specialist advice from the consultation service, be contacted by the specialist within 24 hours, discuss the patient with the specialist, and get follow-up written advice about treatment options. During these discussions, specialists could also provide diagnostic referrals for services that can only be referred by specialists.

At present, secondary consultations are not remunerated under Medicare. While GPs already can seek free advice from specialists with whom they have a relationship, this scheme would augment this to include written advice and referrals.

Specialists would need to be on retainer to provide this service. To ensure the scheme runs as efficiently as possible, not every specialist should be invited to participate.[301] Primary Health Networks (PHNs) could be responsible for contracting these services.[302]

This policy would be close to cost-neutral, while also wiping out patient out-of-pocket payments for the avoided specialist appointment. Instead of government subsidising a specialist appointment, it would be subsidising specialist and GP time for a phone call.[303]

Increase affordable services by improving public hospital outpatient services

Public hospital outpatient services already provide consultation and treatment without any out-of-pocket payment. They are also an important venue for training the next generation of health professionals.

One of the key weaknesses of public outpatient services, though, is the potentially very long waiting time between a referral and an appointment.[304] This long waiting time may encourage GPs to refer people with limited means to seek private treatment, to speed up their access to definitive diagnosis and care.

The federal government should initiate discussions with states to introduce public reporting of clinical waiting times – as a number of states already do – and for states to set a maximum waiting time of, say, 30 days between referral and a clinic appointment.

Increase affordable services by creating new private clinics

The federal government should subsidise the establishment of new co-located private specialist clinics that do not charge patients

301. There is a benefit in developing a trusted relationship between GPs and the specialists involved, so it might be appropriate to have one of these services in each state, or perhaps in each of the larger states, with the smaller states linked.
302. Grattan Institute's Health and Aged Care Program Director Stephen Duckett, a co-author of this book, is chair of the board of the Eastern Melbourne PHN, which funds a secondary consultation service in psychiatry.
303. Government savings would come from the reduced number of patient specialist consultations that are rebated. We expect that about 10 per cent of secondary consultations would result in the patient being referred to a specialist: Job et al (2021).
304. There is no national collation of outpatient waiting time data, and inconsistencies in data collection among states and internationally: see McIntyre and Chow (2020).

out-of-pocket. These 'bulk-billing specialist clinics' should be established within bulk-billing general practices.[305]

The government should contract Primary Health Networks (PHNs) to manage the program. PHNs should select sites for new clinics in accordance with criteria set by government. Clinics should be funded under a Health Program Grant,[306] and their performance monitored by the relevant PHN.

In the first instance, clinics could be established in specialties where there is high demand and insufficient supply, such as psychiatry and dermatology.[307] Clinics should be established in areas where it is difficult to access public hospital outpatient clinics, where rates of bulk-billing for specialty services are low, and where there are low average incomes.[308] The selection process must also involve local healthcare providers, to help ensure that new clinics meet unmet demand rather than duplicate existing services.[309] This process should also determine the nature of any subsidy required to establish a clinic, and to enable it to have appropriate hours of operation.

To attract the necessary additional workforce, PHNs may need to set salaries at competitive rates – above what they might otherwise get through solely relying on the Medicare bulk-bill fee.[310] The government should also waive some or all of trainee specialist HELP debts for graduates who work in a bulk-bill clinic for a certain number of years. This would also help reduce longer-term workforce shortages in some specialties.[311]

The government should start with a pilot roll-out coordinated by 10 PHNs. We estimate the cost would be about $120 million per year, or on average about $12 million per PHN.

Increase affordable services – no out-of-pocket payments for pathology, radiology, and radiotherapy services

The federal government should introduce a new funding arrangement for diagnostic services and radiotherapy to ensure that these services are provided free of charge to patients.

Diagnostic services differ from other Medicare services, because these services are now frequently provided by large corporations. It is an anomaly that a funding arrangement developed for small professional practices – Medicare's fee-for-service arrangement – is used to underwrite the income of large, listed companies.[312]

Patients are not the real consumers of these tests and investigations – the real consumers are the doctors who order and use them. There is little point in out-of-pocket payments if they punish the sick, while enabling the industry to use the threat of out-of-pocket payments as a bargaining chip in policy battles.

305. This is because people who go to bulk-billing GPs tend to be on lower incomes. New specialist clinics should also be set up in Aboriginal Community-Controlled Health Organisations, and in community health centres with bulk-billing GPs.
306. Part IV of the *Health Insurance Act 1973* provides for grants of this kind, which can be seen as analogous to bulk-billing, but with additional subsidies tailored to the specific location.
307. The federal government should provide PHNs with data to help them make these choices.
308. There is strong support among most health providers for establishing health centres in communities that are medically under-served or have low socio-economic status: Russell and Doggett (2015).
309. Russell and Doggett (ibid). Healthcare providers that already bulk-bill should not get any additional rewards.
310. Some private specialist bulk-billing occurs in association with public hospitals, that may implicitly cross-subsidise bulk-billed services.
311. Clark (2019). For example, the federal government has committed to a HELP debt reduction for rural doctors and nurse practitioners: Department of Health (2022).
312. Grattan Institute made recommendations about lowering out-of-pocket payments for pathology services in its *Blood money* report: Duckett and Romanes (2016).

Similarly, out-of-pocket payments for radiotherapy should be removed.

The government should introduce a new funding regime that requires companies to tender for contracts to provide diagnostic services and radiotherapy. The tenders should be evaluated on criteria relating to quality, including geographic access. Public hospital diagnostic services could also compete to provide out-of-hospital services. Successful tenderers should not be able to charge patients out-of-pocket payments.

We expect that moving to this funding arrangement could be cost-neutral for government.

Minimise low-value prescribing, to reduce pharmaceutical out-of-pocket costs

The federal government should introduce an artificial intelligence (AI) software tool that identifies people on multiple medications, and triggers a review of their medications regime. This would not only bring quality and efficiency benefits, but also lower patient out-of-pocket payments.[313]

Many people with multiple chronic conditions will have been prescribed multiple medications, sometimes by different medical practitioners. A person under financial pressure may have to decide which prescriptions to fill and which they will put aside. The patient will not know which of their prescriptions are the most important.

The federal government should do more to reduce 'polypharmacy' – where a patient is prescribed more than five medications.[314] While patients can receive a medication management review – where their medications regime is reviewed by a pharmacist and then discussed with a GP – these reviews do not always happen.[315]

AI should be used to identify the risk to patients of polypharmacy.[316] The AI could assess the risks of all possible drug interactions, given the specific circumstances of the patient.[317]

The software tool should be used to:

- Identify all patients who are prescribed more than five medications in a year[318]
- Identify where there are patient risks associated with multiple medications[319]
- Identify whether the patient is filling all their scripts for their prescribed medications
- Where a risk is flagged, alert the patient's GP (or the last GP who prescribed the medication) about the patient's risk and provide advice on possible alternative prescribing regimes.[320]

313. Better prescribing can also reduce the cost of patients suffering adverse reactions to drugs as a result of complex drug interactions.
314. Page et al (2019).
315. See for example Swannell (2021). Note there are two types of medication reviews in Australia – domiciliary reviews for people living in the community, and residential reviews for people living in residential aged care.
316. Sirois et al (2021).
317. Kessler et al (2021); Bates et al (2021); and Choudhury and Asan (2020).
318. Grattan analysis of 2016 PBS data shows that about 3 million people have at least five or more scripts per year, one million of whom are non-concession card holders: ABS (2016b).
319. There are several ways this could be done, including using the PBS dataset, using MyHealthRecord, or locally within the practice management software for a practice, linking to national algorithms.
320. The patient should also be advised to contact their GP.

GPs should review a patient's medications after an alert, and make changes if necessary.[321] If the review results in fewer prescriptions, the patient will have lower out-of-pocket payments.

If, after review, a patient's prescription regimen still requires five or more medications, and the patient is not a concession card holder, they should be deemed to have met the safety net threshold, regardless of their income. They would then be required to pay only the concession card co-payment of $6.80 per script, rather than $42.50 per script, for the next 12 months. After this period, the patient could have another medication review to see if they should remain eligible for a further year.

We expect that this software tool is likely to come at minimal or no cost to government. Any increases in government expenditure from reducing the co-payment for people on multiple drugs would probably be paid for by efficiency gains from reduced prescribing.

6.2.3 Negotiate a plan for the future of private care

The private health insurance industry needs to embrace efficiency-driven reform to create a better product which people want to buy. Patients should not get unpleasant bill shocks after paying insurance premiums all their lives. Prosthesis prices in private hospitals should be closer to the prices paid by public hospitals. Patients admitted to private hospitals should not unnecessarily stay longer than similar patients admitted to public hospitals.

The federal government has negotiated a series of long-term agreements with elements of the private sector – but these have been negotiated as separate, bilateral (government-industry segment) agreements. A successful managed-change plan requires a collective agreement involving government, private health insurers, private hospitals, private device manufacturers and importers, and private medical specialists. That agreement should be focused on making the industry more efficient and removing anti-competitive regulations built up over decades through deals negotiated to protect each interest separately, but which make the industry collectively weaker.

A private health industry plan would have major benefits for consumers. It should lead to reduced premiums and fewer surprise medical bills for patients. It should lead to fewer demands on the public purse via industry subsidies. Ultimately, it could put private health on the path to a viable future.

6.2.4 Improve the primary care system

There are several ways Australia's primary care system can be improved to reduce costs, increase access, and enhance quality. The Department of Health's recent Consultation Paper on 'future focused primary care' hints at welcome changes.[322] These changes – which include patient enrolment and joint commissioning – should form the basis of an agenda for improving primary care.

Introduce voluntary enrolment and 'participating practices'

Most major medical organisations support voluntary patient enrolment – a system where a patient signs up with a specific general practice to meet their primary medical care needs.[323] Creating incentives for continuity of care – especially in a future where there will be an increased prevalence of chronic disease and multi-morbidity – is sound policy.[324] Voluntary enrolment should involve an appropriate

321. AI-informed medication reviews could also become part of a patient's chronic disease management plan.

322. Department of Health (2021).
323. M. Wright and Versteeg (2021); and Kalucy et al (2009).
324. We have argued previously for blended approaches to primary care funding to promote continuity of care. See Duckett et al (2017), Swerissen et al (2018) and Swerissen et al (2016).

risk-adjusted payment to the practice, with expectations of the services that should be provided as part of enrolment. The Consultation Paper points to appropriate options here.

Voluntary patient enrolment is an intermediate step toward creating a network of 'participating practices' – primary care services which provide a comprehensive range of services such as nursing and allied health services – preferably with no out-of-pocket payments by patients. These practices could also provide a base for specialist services (see Section 6.2.2).

New investment in participating practices can build on lessons from the experiment with 'medical homes' in Australia[325] and internationally,[326] and from the experience with Aboriginal community-controlled health organisations,[327] and community health services.[328]

Joint commissioning

A perennial issue for healthcare in Australia is the division of responsibility between the federal government and the states. Yet rationalising roles is rare.[329]

In future, the incentives and mindsets for both levels of government should be oriented towards collaboration and reducing the transactional costs associated with the dual involvement. This requires an overall authorising environment established by politicians that sends the right signals to public servants and health-sector leaders.

325. Health Policy Analysis (2020); and Metusela et al (2020).
326. Veet et al (2020); Berk-Clark et al (2018); and Sinaiko et al (2017).
327. Bartlett and Boffa (2001); and Duckett and Ellen (1979).
328. Baum et al (2017); and Crouch and Colton (1983).
329. The federal government assuming responsibility for aged care, and the creation of the National Disability Insurance Scheme, are rare examples of such rationalisation.

Joint commissioning is a productive way to reduce the 'silos' in healthcare provision. The existing meso-level organisations, the PHNs, could commission services for both the federal government and the state. This would facilitate joint working and help overcome the problems caused by lack of coordination between the different levels of government.

New out-of-hospital services funded by either level of government should be jointly commissioned. Governments should encourage local integration, so that local primary care providers can better serve people with complex needs.

6.2.5 Improve quality of hospital care

Safer hospital care reduces harm to patients and saves money for taxpayers. A previous Grattan Institute report, *All complications should count*,[330] showed that one in nine patients who go into hospital in Australia suffers a complication. In addition to the harm to patients, complications are costly. We have estimated the financial costs at more than $4 billion a year for public hospitals and more than $1 billion a year for private.[331]

The problem is that both public and private hospitals need better information so that they can see the opportunities to reduce complications, and the costs that complications involve.

New systems need to be put in place to help hospitals identify where their rates of adverse events are higher than their peers, so they know where to look for improvements. The best hospitals need to be identified so they can share their approaches.

The existing incentives in federal government funding to the states to improve hospital quality should be augmented. Public hospitals – and

330. Duckett et al (2018a).
331. Duckett et al (2018b).

the public – should be given information on the estimated cost of and revenue from complications. Private health insurers also benefit from lower complication rates: their costs and future premiums fall. Insurers should increase pressure on hospitals and surgeons to improve their safety performance, by making information on complication rates available to their members, either directly or through GPs, and by using their contract negotiations to drive improved safety performance.

The estimation of the costs of complications could be undertaken by the Independent Hospital Pricing Authority.

In addition to the benefit to patients, if all hospitals lifted their performance to match the best 10 per cent of hospitals, an extra 250,000 patients would go home complication-free each year and the health system would save about $1.5 billion every year, freeing up beds and resources to allow about another 300,000 patients to be treated.

Because of the way federal government payments to the states are calculated, part (45 per cent) of the financial benefit of a reduction in adverse events would flow on to the federal government in reduced payments to states.

7 Aged care

7.1 Where we are

Older Australians rely on the aged care system to deliver care in residential care settings and in their own homes. But the system has let them down. A Royal Commission into the sector in 2018-2021 identified a number of systemic failures. The Federal Government has made significant and welcome commitments to address many of the shortcomings. But there is still much to do to ensure that the rights of older Australians are supported.

7.1.1 The aged care system is still falling short on a number of dimensions

Grattan Institute work has identified three areas where the system continues to let down vulnerable older Australians. First, wait times for home care are long and people don't get the care they need. Although the waiting list is now significantly shorter than a couple of years ago, there were still about 74,000 people waiting for a package in September 2021, and many of them had been waiting for more than six months. Long wait times for home care create problems for the older person and their family or carers but are also inefficient as delayed home care support may lead to earlier admission to residential aged care at higher cost to both the older Australian and the taxpayer.

Second, care has often been poor quality. The Aged Care Royal Commission found many instances of substandard care, including assaults, overuse of physical and chemical restraints, and inadequately trained and over-stretched staff.[332]

Third, there are significant workforce challenges. There are workforce shortages, and high levels of dissatisfaction among workers. Vacancy rates are above 10 per cent for most staffing categories in home care, and staff turnover, at between a quarter and a third each year, is high. Workers report wanting more hours and better pay and conditions.[333]

These issues stem from insufficient funding as well as issues with the regulatory framework. In particular, Australia's centrally planned and rationed system focuses on the transactional relationships between government and providers, rather than on delivering for the vulnerable older Australians it is meant to support.

7.2 What we should do

As recommended by the Royal Commission, the aged care system needs a complete reset, not just incremental reform. The Federal Government's commitment to a new *Aged Care Act* is a step in the right direction, but the Government should go much further, including by adopting a rights-based approach to aged care.[334]

7.2.1 Be explicit about the destination

The existing regulatory framework for the aged care system should be thrown out and replaced with a new approach, explicitly based on the rights of older Australians.[335] Unless the Government is explicit that a rights-basis will be adopted, a new Aged Care Act may not address the underlying causes of the quality and safety failings identified by the Royal Commission.

332. Royal Commission into Aged Care Quality and Safety (2021, Vol 2, part 3).

333. HESTA (2021).

334. The Grattan Institute has published four reports on aged care that detail our reform proposals: Duckett et al (2020b), Duckett et al (2020a), Duckett et al (2021a) and Duckett and Swerissen (2021).

335. Duckett and Stobart (2021); and Duckett et al (2020b).

7.2.2 Improve oversight and stewardship

The current aged care system relies heavily on consumer sovereignty – a concept from economic theory that consumers, through their power in the marketplace, can get the services they need – to ensure quality and consumer responsiveness. This has demonstrably failed. The information required for consumers to judge quality is not available to them. A remote regulator, disengaged from the reality of an individual's quest for good care, will never know enough about on-the-ground care to regulate service provision adequately.

In addition to a new rights-based *Aged Care Act*, comprehensive aged care reform should involve:

- New independent bodies to act as regional 'system managers' of the local service system, monitor quality, and enhance social participation and healthy ageing. These 'regional stewards' should have responsibility for the management of assessment teams and navigators to support individual senior Australians. They should hold, monitor, and administer the budget for home care services in their region.
- A new public reporting system that provides information on the quality of service providers and their prices, to maximise people's choice.
- Better training and regulation of aged care staff, including training in rights-based care, and phasing in a requirement that personal care staff have a (revised) Certificate-III level qualification.[336]

7.2.3 Commit to meeting home care need

Expanded care at home and in the community is central to the future of aged care services. Home and community care should provide a comprehensive continuum of services tailored to support senior Australians to live at home and in the community with dignity and choice, even when they have complex and intensive needs.

In the 2021 Budget, the Federal Government announced a significant expansion of the number of home care packages, to be phased in over three years. Once the backlog in the waiting list for home care has been addressed, the Government should introduce a 'waiting time guarantee' by ensuring the supply of packages meets independently assessed need, with a maximum wait of 30 days for home care, as recommended by the Royal Commission.

7.2.4 Address aged care workforce needs

The Federal Government's response to the Royal Commission's recommendations on workforce – a one-off boost in the number of training places – is welcome. But it is insufficient. It does not address the underlying issues that make working in aged care, including home care, unattractive.

The home care workforce is characterised by low pay rates and poor working conditions, including high levels of casualisation, contracting out, and insecure work. Award rates for personal care staff are comparable to those for fast-food workers, cleaners, and animal attendants. Yet personal care work is more complex and sensitive, supporting some of the most vulnerable people in our society.

A work value application for a 25 per cent pay increase for aged care workers and nursing staff has been lodged with the Fair Work Commission. The Independent Hospital and Aged Care Pricing Authority should introduce a sped-up process so the result of the Fair Work Commission determination on wages is quickly incorporated into funding.

336. Duckett et al (2020b).

Conditions need to improve too – including ensuring more secure work to reduce casualisation and improve continuity of care. As the Royal Commission recommended, staff need more training – at Certificate level III as a minimum – with the Certificate III courses also improved to ensure they reflect a rights-based approach.[337]

337. Ibid.

8 School education

8.1 Where we are

Improving the quality of school education is a national priority. Better academic results would improve the lives of students and lift workforce productivity.

International assessments suggest Australia has significant room to improve academic results at both ends of the performance spectrum. Australia's annual NAPLAN assessments also reveal a persistent and troubling performance gap between advantaged and disadvantaged students that more than doubles in size between Year 3 and Year 9.

Given the importance of teaching quality for student results, it is worrying that the proportion of high achievers entering the teaching profession has declined significantly over the past three decades.

There is also an urgent need to strengthen the evidence base on effective classroom practice, overhaul teacher career paths to recognise and deploy teaching expertise more strategically, and ensure teachers have enough time to focus on preparation to deliver effective teaching in every classroom.

8.1.1 Australian students are falling behind

This report compares student performance in the OECD's Programme for International Student Assessment (PISA), the best-known cross-country bench-mark. PISA tests students' problem-solving skills in maths, science, and reading at age 15.[338]

In 2018 Australia performed worse in maths (and also science and reading) than the average of similar OECD countries (see Table 8.1).

338. This report draws heavily on and updates the analysis of Australia's comparative performance in school education in Daley et al (2019, Chapter 8).

Australian students scored an average 491 points in PISA maths in 2018.[339] This was 15 points below the average of the comparator group. Japan and South Korea scored about 35 points higher in maths – the equivalent of an extra one-and-a-quarter years of learning – while Canada and the Netherlands were 21 and 28 points higher respectively – equivalent to an extra three-quarters-to-one year more of learning.[340]

Australia's below-average performance in maths appears across the whole distribution; high-achievers in Australia – those at the 90th or 95th percentile – scored below their peers in comparator countries, as did low-achievers (those at the 5th or 10th percentile).

Australia performed better in science and reading, but still below the comparator group average.[341]

More concerning is Australia's drop in absolute terms compared to its own performance in earlier years. Australian students did worse in PISA in 2018 than in 2003:

- The average maths score dropped from 524 in 2003 to 491 in 2018, the equivalent of 1.2 years' worth of learning; and
- The proportion of high performers in maths nearly halved during the same period (from 19.8 per cent to 10.5 per cent), while the

339. PISA is held every three years. The most recent available results are for 2018.
340. Conversion to years of learning is based on Thomson et al (2019, p. 113) from the Australian Council for Educational Research. Individual country results should be interpreted carefully because the participation rate varies widely by country, and non-participating students are likely to perform below the average.
341. Australia was 6 points below the average of the comparator group in science (503 points versus 509), and 1 point below in reading (503 points versus 504). The overall OECD average is lower than that of our comparator group because it includes low-performing countries (such as Mexico and Turkey) that are poor bench-marks for Australia.

proportion of low performers grew from 14.3 per cent to 22.4 per cent.

There were similar, if less dramatic, trends in science and reading between 2000 and 2018.

The scores in many comparator countries have also dropped, but none by more than Australia. But improvement is possible: the UK's reading score increased by 9 points between 2006 and 2018. Meanwhile, outside the comparator group, Portugal's mean performance improved across the board, including a 26-point increase in maths between 2003 and 2018.[342]

8.1.2 Equity in education is a significant challenge for Australian schools

According to the OECD, equity in education means that differences in students' outcomes are unrelated to their socio-economic status (SES).[343] Under this definition, equity is a significant challenge in Australian schools.

342. See Thomson et al (2019, Table 3.1, 5.1 and 6.1). PISA trend comparisons are only possible from 2000 for reading, from 2003 for maths, and from 2006 for science (see OECD (2019c) for further detail). In the UK, the sample of students that sat the 2000 and 2003 assessments did not meet PISA response rate standards, so trend data can not be reported for these years (for further detail, see OECD (2008)). Australia is one of seven OECD countries whose mean performance has declined across all three subjects over time. Others include Finland, South Korea, the Netherlands, and New Zealand: see OECD (2019c).
343. See OECD (2018b, p. 22). The 2011 Gonski report uses a similar formulation: differences in educational outcomes should not be the result of differences in wealth, income, power, or possessions: Gonski et al (2011).

Table 8.1: International scorecard for school education

	PISA maths, 2018	Gap between top and bottom SES quartiles in PISA reading, 2018	Spend per student, 2018
	PISA score points	*Years*	*% of GDP/capita*
Australia	491	2.7	23.7
Canada	512	2.1	24.3
Germany	500	3.5	23.2
Japan	527	2.2	24.5
Netherlands	519	2.7	21.9
New Zealand	494	2.9	23.6
South Korea	526	2.3	32.5
Sweden	502	2.7	24.5
UK	502	2.4	26.6
US	478	3.0	22.8

Notes: For column 1: mean score in PISA 2018 Mathematics. For column 2: translated from PISA points to years of learning using 33 points = 1 year, see Thomson et al (2019, p. 45). For column 3: total expenditure on educational institutions per full-time equivalent student relative to GDP per capita (2018).

*Source: **PISA maths score points, 2018:** OECD (2020b, Table I.B1.5). **Gap between top and bottom SES quartiles in PISA reading, 2018:** Grattan analysis of OECD (ibid, Table II.B1.2.3). **Spend per student, % of GDP per capita, 2018:** OECD (2021h, WEB Table C1.4).*

On average, across reading and numeracy, Year 9 students in Australia whose parents have a bachelor degree are more than four years ahead of those whose parents didn't complete Year 12.[344]

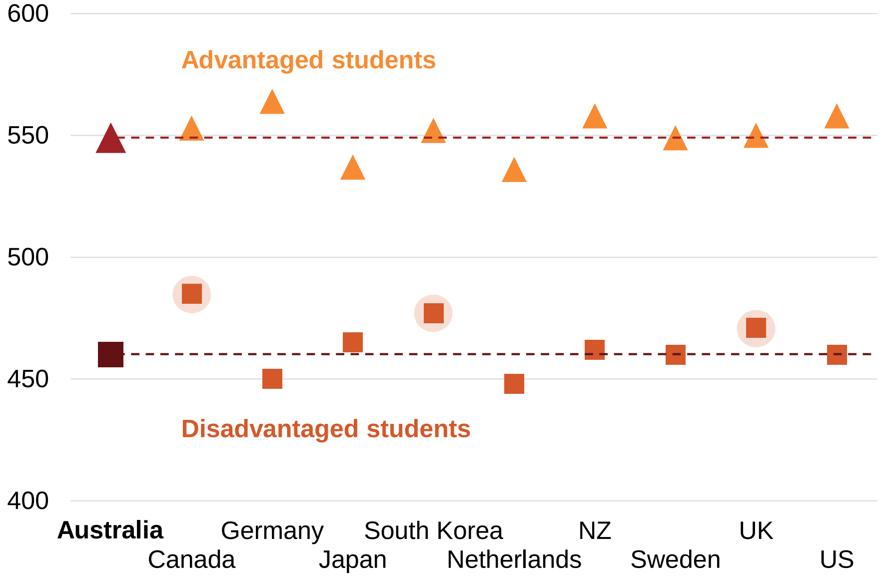
While a number of equity metrics might be used, for comparative purposes, this report measures the gap in performance between advantaged and disadvantaged students in PISA reading in 2018.[345]

By this measure, the reading skills of advantaged students in Australia were on average about 2.7 years ahead of disadvantaged students. By this measure, Australia's equity gap is about the same as the average of similar countries and the average of all OECD countries. Germany and the US have the biggest gaps, while Canada has the smallest.

Although Australia's advantaged students do reasonably well, our disadvantaged students are behind those in Canada, the UK, and South Korea (Figure 8.1). Disparate access to resources may explain part of the gap. In nearly all OECD countries, principals in disadvantaged schools report greater shortages of materials and suitable staff than their peers in advantaged schools. But the gaps in Australia are wider than in any comparator country (Figure 8.2).

Figure 8.1: Australia's disadvantaged students do worse in reading than their peers in Canada, South Korea, or the UK

Mean performance in PISA reading, 2018, points



Notes: Disadvantaged students are those in the bottom quartile of the PISA index of economic, social, and cultural status (ESCS) in each country. Advantaged students are those in the top quartile of ESCS.

Source: OECD (2020b, Table II.B1.2.3).

8.1.3 On school spending, Australia is in the middle of the OECD pack

Australia is not a big spender on school education by international standards (Table 8.1). Australia spends more of its GDP on school education than the OECD average, but Australia has a younger population than most other advanced countries.[346]

344. Grattan analysis of 2021 NAPLAN (the National Assessment Program – Literacy and Numeracy), using the same methodology as in Goss et al (2016, p. 13): see Hunter and Emslie (2021).
345. Advantaged students are in the top SES quartile; disadvantaged students are in the bottom SES quartile. This equity metric is chosen because it allows for an intuitive understanding of the impact of socio-economic differences on how well students perform in PISA. PISA 2018 had a specific focus on reading, which is why this metric focuses on this domain. Conversion to years of learning for reading is based on Thomson et al (2019, p. 33) from the Australian Council for Educational Research.

346. Daley et al (2019, p. 104).

The best available metric is spending per student as a percentage of GDP per capita. This metric takes into account both demographics and national income.[347] By this metric, Australia spends less than the average of the peer countries and only slightly more than the average overall for OECD countries (Table 8.1).[348] Australia should not bench-mark its education spending against OECD countries such as Turkey and Mexico, which spend much less than Australia and whose PISA results are dramatically worse.

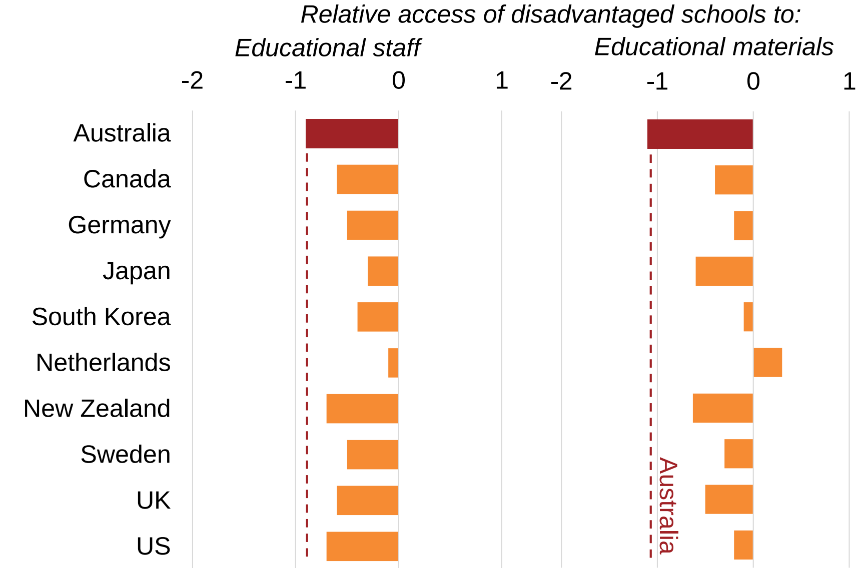
8.1.4 COVID has had a significant impact on school education in Australia, but it's not all bad

COVID caused unprecedented disruption to school education in Australia during 2020 and 2021, particularly in Victoria and NSW. The shift to remote schooling to cope with widespread school closures challenged children, families, and schools. Although a full understanding of the impact of the disruption on children is still emerging, it is possible that it has exacerbated existing learning gaps between advantaged and disadvantaged children.[349]

At the same time, the disruption prompted significant innovation within some schools and jurisdictions, including examples of high-quality online delivery of teaching programs and large investments in small-group, school-based tutoring to help students who have fallen behind.[350] Among these wide-ranging innovations may be examples of

347. See OECD (2021h, Table C1.4).
348. The average spend per student as a proportion of GDP per capita is 23.2 per cent: OECD (ibid, Table C1.4, online only). This includes public recurrent funding for schools, from both federal and state governments, as well as private spending. We include both public and private spending because both contribute to educational outcomes.
349. Hunter and Emslie (2021).
350. This includes large investments in tutoring from both the NSW and Victorian governments (NSW Department of Education (2022) and Victorian Department of Education (2022)).

Figure 8.2: Australia's disadvantaged schools have worse access to educational staff and materials than in any comparator country
Difference between advantaged and disadvantaged schools on the OECD indices of shortage of educational staff and materials, 2018



Notes: The charts show the difference in access between disadvantaged and advantaged schools, i.e., a negative number means that disadvantaged schools have worse access to educational resources than advantaged schools. The OECD index of shortage of educational staff summarises school principals' agreement with four statements about whether the school's capacity to provide instruction is hindered by a lack of and/or inadequate qualifications of school staff. The index of shortage of educational material summarises school principals' agreement with four statements about whether the school's capacity to provide instruction is hindered by a lack of and/or inadequate educational materials, including physical infrastructure.

Source: OECD (2020b, Tables II.B1.5.13 and II.B1.5.14).

new practices that could help Australia create more resilient, versatile, and effective models of schooling.

But much more work is needed to understand which of these innovations are the most effective, and the conditions that need to be in place for all children, irrespective of their backgrounds, to benefit. For example, equitable access to technology will be particularly important for all children, irrespective of where they live. Ensuring individual teachers and schools have a similar capacity to integrate technology into their learning programs will also be important to prevent existing equity gaps widening.

8.1.5 Too few high achievers enter the teaching profession

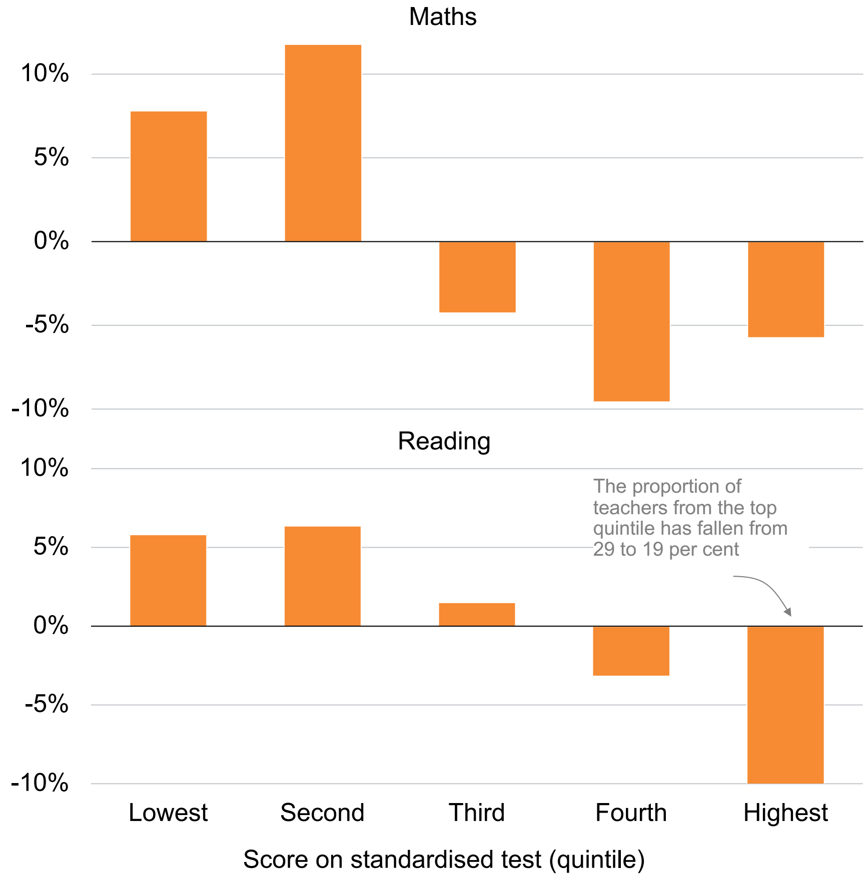
Evidence shows that teachers with strong academic records are likely to be more effective in the classroom.[351] A higher-achieving teacher workforce would give the typical Australian student an extra six-to-12 months of learning by Year 9, possibly much more.[352]

But in Australia, not enough high achievers are attracted to teaching. Demand from high achievers for university education courses has fallen dramatically, while demand for science, IT, and health courses has risen strongly.

Far fewer high achievers in Australia choose teaching today than 30 years ago. In 1988, young teachers were most likely to come from the top fifth of school students in maths and reading; about 30 per cent of 23-year-old teachers were from the top fifth of students in reading, and 25 per cent in maths. But by 2017, only 19 per cent came from the top fifth of each subject. Figure 8.3 shows the change in the distribution of 23-year-old teachers across achievement quintiles since 1998.[353]

351. Boyd et al (2008); Dobbie (2011); Jacob et al (2018); Rockoff et al (2008); and Clotfelter et al (2008).
352. Goss and Sonneman (2019).
353. Goss and Sonneman (ibid, p. 13).

Figure 8.3: Fewer high achievers become teachers today than in 1988
Percentage-point change in share of 23-year-old teachers from each quintile, 1988 to 2017



Notes: Analysis from the Longitudinal Survey of Australian Youth, which follows young people from school through to the workforce. Quintile of achievement is among students who have not dropped out of the survey by the year in which they turn 23, who tend to be higher-achieving students. 2017 results taken from teachers who took the PISA test in 2009, most of whom were 23 in 2017. 1988 results come from an earlier standardised test. Includes primary and secondary teachers but not early childhood educators.

Source: NCVER (2018).

Teaching has also become less attractive to high achievers from regional and low socio-economic areas. From 2006 to 2017, demand from these groups fell even further than their more advantaged and metropolitan peers. And compared to many of Australia's international peers, including Germany, Japan, and the Netherlands, fewer high-achieving 15-year-olds are now interested in becoming teachers.[354]

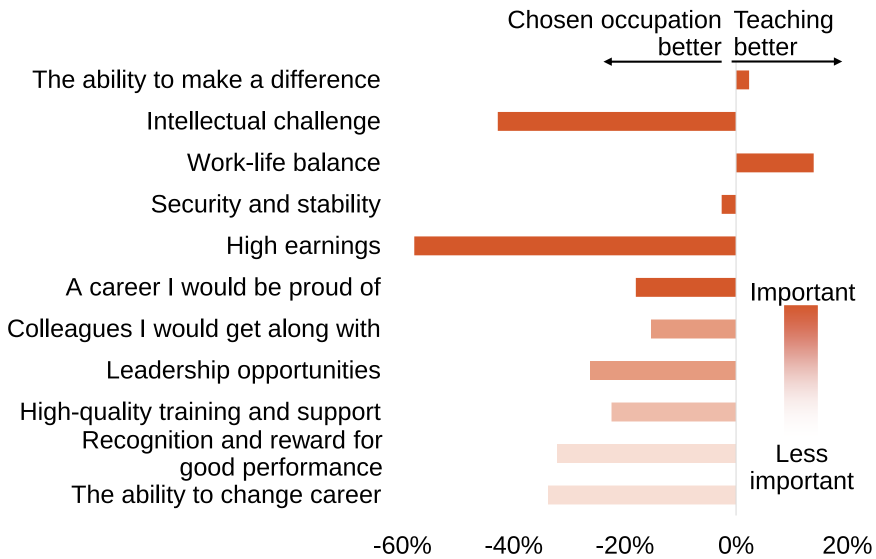
The good news is that many more high achievers could be persuaded to become teachers. A 2019 Grattan Institute survey of 950 young high achievers found that 70 per cent would consider going in to teaching. But teaching is currently perceived to fall short in two key areas: intellectual challenge and pay (see Figure 8.4). Many young high achievers think teaching lacks career progression opportunities – an aspect closely related to intellectual challenge. About 90 per cent of respondents thought their chosen career would provide such opportunities, but only 64 per cent thought teaching would. And while 76 per cent of high achievers said that their chosen career would provide adequate pay, only 19 per cent thought that teaching would.[355]

8.1.6 Existing teacher career paths don't recognise teaching expertise sufficiently or deploy it strategically

Australia also falls short in building, rewarding, and deploying teaching expertise across the teaching workforce. Australia's best teachers are under-utilised in sharing their expertise and supporting others to improve. They are often confined to their own classrooms, or stretched too thin without adequate time, guidance, or support to provide high-quality professional learning to other teachers in their schools. This is a waste of their skills, and a missed opportunity for

Figure 8.4: High achievers say teaching falls short on intellectual challenge, and pay

Young people who state that a career in teaching is more likely to provide a given attribute than their chosen occupation



Notes: Career attributes are ordered top-to-bottom from most to least important. The data in the chart show the difference (i.e. teaching minus chosen occupation) in the percentage of respondents who answered that a given career was likely or very likely to provide each attribute.

Source: Grattan Institute survey of high-achieving young Australians.

354. Han et al (2018, pp. 3–39); Goss and Sonneman (2019, pp. 15–16).
355. Goss and Sonneman (ibid, p. 20).

Australia. When supported to deliver effective instructional leadership, top teachers can have a powerful impact on teaching practice.[356]

Many state governments have invested in ways to use their top teachers to help others develop and improve. But these efforts do not go far enough. Coaching programs chop and change a lot, and designated roles in industrial agreements are often under-resourced and rarely subject-specific. The 2019 Grattan Institute survey of 700 instructional leaders, teachers, and principals showed that instructional leadership roles in schools today lack the necessary support and credibility, and rarely lead to changes in how teachers teach.[357]

The existing teaching career path needs to be reformed, to create the conditions for Australia's top teachers to lead professional learning effectively in schools, with a focus on building classroom teachers' subject expertise (so-called pedagogical content knowledge, or PCK) and helping integrate the curriculum with good teaching. A more systematic approach to recognising and rewarding teaching expertise, through higher pay and greater responsibility, would also make teaching a more attractive career path for young high achievers.

8.1.7 Teachers struggle to find the time to get to the highest-impact teaching tasks

Effective teaching requires high levels of knowledge and skill, and substantial time for preparation. Developing and sustaining effective classroom teaching day in, day out, does not 'just happen'.

Over the past few decades, our expectations about what schools and teachers should deliver have increased, while the student population in schools has become more diverse. These shifts are positive for society, but they increase the demands on teachers' time. Without careful reconsideration of what we are expecting teachers to do in the time available, we risk pulling teachers in so many different directions that they find it hard to teach effectively.

A 2021 Grattan Institute survey of more than 5,400 teachers and school leaders across Australia sounds the alarm on the current situation in schools. The vast majority of teachers (92 per cent) said they 'always' or 'frequently' do not have enough time to prepare for effective teaching. A large majority (77 per cent) of school leaders agreed. These survey findings are troubling. If teachers are not well prepared, student learning suffers.[358] Our research indicates there are significant opportunities for reforms that would make it much easier for teachers to focus on the critical aspects of their roles.[359]

8.2 What we should do

8.2.1 The federal government's role should be limited and well-targeted

Most of the reforms needed to improve school education are the direct responsibility of state governments. But the federal government can still provide support for these reforms, including through targeted funding for initiatives that are likely to have cross-jurisdictional benefits.

That said, the federal government should be cautious in intervening in school operational matters because it may not always be helpful.

The federal government should only get involved in new school reforms if its proposed action meets three criteria:

- Evidence shows it is a good idea;
- Governments (at any level) can make it happen; and

356. Kraft and Papay (2014); Backes and Hansen (2018); Kennedy (2016); Scher and O'Reilly (2009); Yoon et al (2007); and Timperley et al (2007).
357. Goss and Sonneman (2020).
358. Hunter et al (2022).
359. Hunter et al (2022); and Jensen et al (2014).

- Federal government support will help, not hinder.

Any new federal government initiatives should help to fill genuine gaps, or take advantage of scale to deliver more productive outcomes.[360]

8.2.2 Strengthen the education evidence base in Australia

The federal government should significantly increase its investment in building a robust education evidence base in Australia, including by increasing funding for the Australian Education Research Organisation (AERO).

Australia needs to improve the way it produces and disseminates evidence on what works in the classroom, including how the needs of a diverse student population can best be supported. We also know too little about the curriculum and instructional approaches currently used in Australian schools, or how schools organise their workforces, and how teachers' time is allocated to different activities.[361]

Australia needs to:

- Lift the standards for scientific evidence in education, and produce more pilots, randomised controlled trials, and quasi-experimental studies. In particular:
  - Popular instructional programs and materials used in schools should be better evaluated.
  - Major government policies should also be better evaluated.
  - More funding should be provided for longitudinal studies to identify trends – and their causes – over time.
- Conduct better research on the conditions that encourage teachers to use the evidence on what works.
- Better synthesise, translate, and share research findings so they are readily accessible to educators and policy makers.
- Build the research capacity of schools and policy makers through specialised training and support.
- Better understand what is happening in schools now, including the pedagogical methods used, the level and effectiveness of existing professional learning for teachers, and the utilisation and integration of the existing schools' workforce.[362]

The creation of AERO in late-2020 was a good start in tackling this challenge. AERO's research agenda covers many of the high-priority areas that require further action, including effective teaching practices for literacy and numeracy, and evidence use in schools.[363] But AERO's current funding of $50 million over four years is insufficient to meet the size of the challenge.[364] In contrast, the UK's Education Endowment Foundation was created to build and disseminate the education evidence-base in the UK with an initial endowment of £125 million in 2011 (this is equivalent to about $280 million in Australian dollars today).[365]

The federal government should fund rigorous research on the innovations that emerged from the COVID disruptions to schools, and share lessons widely to help create more resilient, versatile, and effective models of schooling.

360. Sonneman and Goss (2018, p. 20).
361. Hunter et al (2022).
362. Sonneman and Goss (2018, pp. 15, 16, 24, 25).
363. See AERO's 2021-2022 research agenda: AERO (2021).
364. See Department of Education, Skills and Employment (2020) for a description of AERO's objectives.
365. Productivity Commission (2016).

8.2.3 Attract more high achievers to teaching and improve initial teacher education

The federal government should do more to make teaching an attractive career choice. Governments can change the way young high achievers think about teaching so that more choose to make it their career. Grattan Institute's 2019 survey of high achievers showed they value upfront financial support while studying, as well as better pay and career challenge.

The federal government should work with the state governments on a goal of doubling within 10 years the proportion of young high achievers who choose teaching. To achieve this goal, the federal government should help establish a scholarship program that provides $10,000 per year cash-in-hand to high achieving students (ATAR 80 or above, or comparable undergraduate academic achievement, plus strong non-academic capabilities). The federal government should also lead a national marketing campaign to re-position teaching as a challenging and rewarding career.

Initial teacher education (ITE) also needs to be improved. The federal government should consider the findings of the 2021 Quality Initial Teacher Education Review and implement reforms to raise the quality of ITE programs.[366]

8.2.4 Work with state governments to create a new expert teacher career path

The federal government should support the state governments to introduce a new expert teacher career path, to build, recognise, and deploy exceptional teacher expertise. Two new permanent positions should be created – Master Teachers and Instructional Specialists – to enable top teachers to lead professional learning in schools. These roles would be designed for expert teachers who have recognised skills and dedicated responsibilities to work with classroom teachers to build quality practice.

Instructional Specialists would work within schools to set the standard for good teaching, build teaching capacity, and spread evidence-informed practices. They would be paid $40,000 more than the highest standard pay rate for teachers, or up to about $140,000 a year. The position would be limited to about 8 per cent of teachers.

Master Teachers would be responsible for improving teaching across multiple schools by coordinating professional learning, supporting Instructional Specialists, and connecting schools with research. They would be paid $80,000 more than the highest standard pay rate for teachers, or up to about $180,000 a year. The position should be limited to about 1 per cent of teachers.[367]

Master Teachers would help bring rigor and coherence to professional judgements about best practice, and act as a system-level broker, facilitating learning between system leaders, schools, and teachers. School-based Instructional Specialists would help support classroom teachers to build their knowledge and implement best practice in the classroom, helping teachers understand not just 'what to do' but 'how to do it' within their classroom context.

The federal government should work with the states to create the new expert teacher career path in stages. The first stage should involve pilot programs across several regions to refine the optimal role description and approach to training and monitoring. The federal government should help fund these pilots.

366. See Department of Education, Skills and Employment (2021) for further detail on the Quality ITE Review.

367. Goss and Sonneman (2020).

8.2.5 Work with state governments to examine new options to make more time for teachers to deliver great teaching

The federal government together with the states should invest $60 million in pilot and research studies to evaluate the best ways to make more time for teachers to deliver great teaching. All governments should aim to:

- improve the integration of the wider schools' workforce, including school specialists and support staff, so teachers can focus on high-quality classroom instruction;
- streamline the workload involved in core teaching activities, to reduce the need for teachers to 're-invent the wheel' in curriculum and lesson planning; and
- increase school leaders' flexibility to strike a sensible balance between class sizes and teachers' face-to-face teaching time, and to smooth out workloads over the school year by scheduling more time for teachers to work together on preparation activities in term breaks.[368]

An expanded AERO (see Section 8.2.2 above) could take on a key role in coordinating this new research agenda, including a series of robust pilots across Australia.

368. Hunter et al (2022).

9 Retirement incomes

9.1 Where we are

Overall, Australia's retirement incomes system is serving us well.

Current retirees are more financially comfortable than working-age Australians, and future retirees are projected to have adequate retirement incomes. Despite our ageing population, government spending on the Age Pension is low and sustainable.

But Australia's retirement incomes system faces some big challenges.

Pensioners who rent are much more likely to suffer financial stress, and falling homeownership means this problem is likely to get worse. Rising house prices have benefited people lucky enough to own a home, but few realise these benefits by drawing on the value of their home to boost living standards in retirement. There are also inadequate protections for people forced into premature retirement.

Despite recent reforms, the superannuation system still has considerable room for improvement. The cost of superannuation tax concessions is too high and growing. Australians continue to pay too much in superannuation fees. And the superannuation system does a poor job of helping Australians convert their superannuation assets into retirement income.

9.1.1 Retirement incomes are adequate

Most retirees today feel more comfortable financially than younger Australians who are still working. Retirees today are less likely than working-age Australians to suffer financial stress such as being unable to pay a bill on time.[369] Across the income distribution, people typically have enough money to sustain the same, or a higher, living standard in retirement as when working.[370]

The incomes of future retirees are likely to be substantial relative to their pre-retirement incomes. Grattan Institute modelling shows that, even after allowing for inflation, the average (i.e. median) worker today can expect a retirement income (or 'replacement rate') of at least 90 per cent of their pre-retirement income – well above the 70 per cent bench-mark endorsed by the OECD and others.[371] The Federal Government's 2020 Retirement Income Review reached similar conclusions. Even most Australians who work part-time or have broken work histories will hit or exceed this bench-mark, as will people who used some of their superannuation early by withdrawing the maximum allowable $20,000 under the COVID early release program.[372]

9.1.2 Age Pension spending is sustainable

Contrary to much commentary and despite the ageing population, Australia's Age Pension is sustainable. The latest Intergenerational Report projects that government spending on the pension is likely to fall from 2.7 per cent of GDP in 2020-21 to 2.1 per cent in 2060-61 (Figure 9.1).

369. Coates and Nolan (2020c, Figure 4.3, Figure 4.1).

370. Coates and Nolan (ibid, Figure 4.4).

371. Coates and Nolan (ibid, Figure 4.5).

372. Callaghan et al (2020, Chart 2C-14, Table 2C-5, pp. 194-204). The Retirement Income Review adopted a 65-to-75 per cent adequacy bench-mark and projected that the replacement rates for future retirees with typical working lives met this standard across all income levels. This held even with a lower investment-returns assumption. The Review also projected that the replacement rate of median workers who withdrew $20,000 in super when they were 30, then remained out of the workforce for two years and under-employed for another five, would fall from 87 per cent to 82 per cent.

9.1.3 Retirees who rent are struggling

Australia's retirement incomes system does not always work for low-income Australians who don't own their home in retirement.

Pensioners who rent are more likely to suffer financial stress and poverty than pensioners who own their own home (Figure 9.2).[373] Single women who do not own their home are at heightened risk of poverty in retirement and are the fastest growing cohort of homeless Australians.[374] And these problems will get worse – on current trends, home ownership for over-65s will decline from nearly 80 per cent today to just two-thirds by 2056, with lower rates of home ownership expected among lower-income earners.[375]

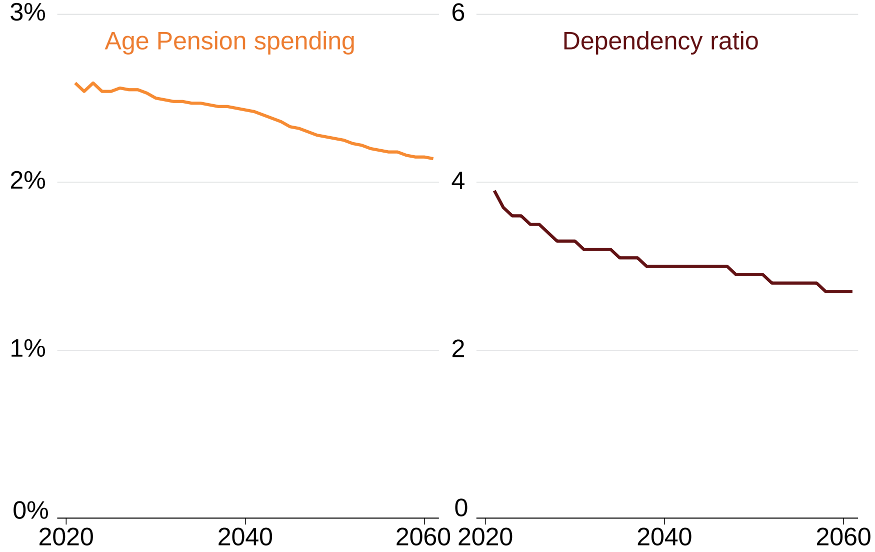
9.1.4 Home-owning retirees don't use their equity

High house prices mean Australians who purchase a home are spending more of their lifetime income on housing. Home-owners need to either make larger mortgage repayments during their working life, or use some of their super at retirement, or both.[376] Unless Australians are willing to draw on their home equity in retirement, rising house prices mean Australians will be left with lower living standards both while working and in retirement. Yet few retirees draw down the value of their home to fund their retirement, either by downsizing or by borrowing against home equity.

373. Coates and Nolan (2020c, Figure 2.5). In 2015-16, 14 per cent of renting pensioners reported financial stress, compared to 4 per cent of home-owning pensioners.
374. Coates et al (2020b, p. 4).
375. Grattan analysis of ABS (2006), ABS (2011), ABS (2012), and ABS (2016a).
376. Some argue that the fact an increasing number of Australians are retiring with larger mortgages means Australians should be compelled to save more to preserve their living standards in retirement. But this would be inconsistent with the objective of lifetime consumption smoothing. When housing is accounting for a larger share of lifetime incomes, there is no reason to expect higher housing costs to effect living standards only in retirement.

Figure 9.1: Age Pension spending is projected to fall as a share of GDP despite the ageing of the population

Projected Age Pension spending as a percentage of GDP, and working-age people per person aged 65+ (the so-called dependency ratio)



Source: Treasury (2021b, Figure 2.17, Figure 7.4.6).

9.1.5 Safety nets for early retirees are inadequate

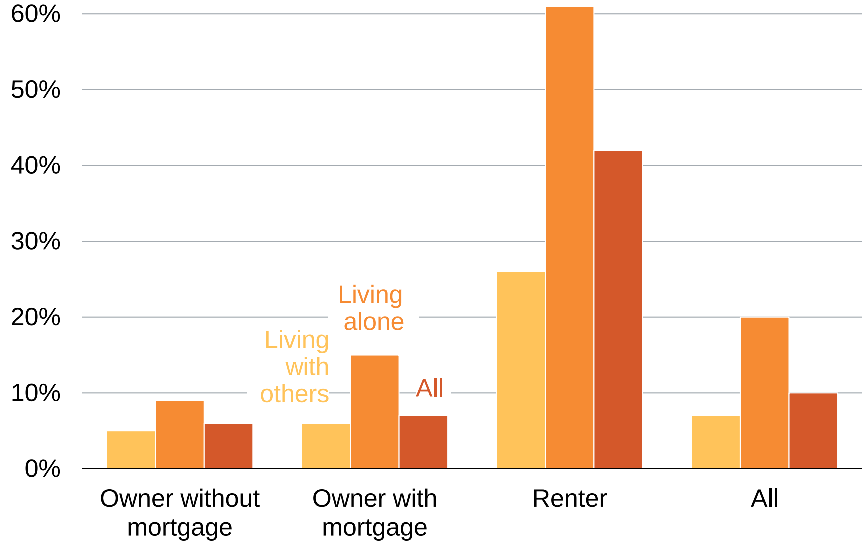
Australia's income support system does not adequately protect people against the risks associated with premature early retirement. The eligibility requirements for the Disability Support Pension were tightened in 2012, to the detriment of many near-retirees with musculoskeletal health problems.[377] In 2009, about 12 per cent of 55-64 year-olds were on the Disability Support Pension. By 2017 that number had fallen to 9 per cent. The decline coincided with an increase in the number of older people on JobSeeker, which has become a woefully inadequate safety net for unemployed Australians (Chapter 2).

9.1.6 Super tax concessions are too high

Spending on pensions is low, but the federal government gives up almost $40 billion a year – or 2 per cent of GDP – in superannuation tax concessions.[378] The budgetary cost of these tax breaks is unsustainable. The OECD projects that by 2060 the cost of Australia's superannuation tax concessions will be nearly 3 per cent of GDP – the highest among the countries analysed.[379]

Figure 9.2: Many pensioners who rent are living in poverty

Poverty rate, after including imputed rent, of people aged 65+, 2017-18



Note: Poverty rate is the proportion of people aged 65+ who have equivalised disposable household income (plus imputed rent) below 50 per cent of the population-wide median.

Source: Chomik and Yan (2019, p. 48).

377. Coates and Nolan (2020c, pp. 13–15).
378. Treasury (2021b, p. 117) and Treasury (2021c, p. 11). The value of superannuation tax concessions is calculated against a comprehensive income tax bench-mark. Some argue that super tax concessions should be measured against an expenditure tax bench-mark because this approach would represent the best policy design. But arguments about the best policy for taxing savings should not be confused with questions about how to measure the cost of concessions. In the absence of superannuation, savings would be taxed at rates of personal income tax, and therefore the income tax bench-mark is the best measure. See Callaghan et al (2020, pp. 407–409) and Daley et al (2015a, Box 1).
379. OECD (2018c, Figure 2.7). The OECD projected future budgetary costs for 10 countries. Among these, the estimate for Canada was 1.05 per cent of GDP, the US 0.75 per cent, and New Zealand 0.08 per cent.

These tax breaks are also poorly targeted. Half the benefits flow to the wealthiest 20 per cent of households, who already have enough resources to fund their own retirement, and who are unlikely to ever receive the Age Pension.[380] The cost of superannuation tax concessions vastly outweighs the corresponding Age Pension savings, especially for high-income earners (Figure 9.3).

9.1.7 Super fees are too high

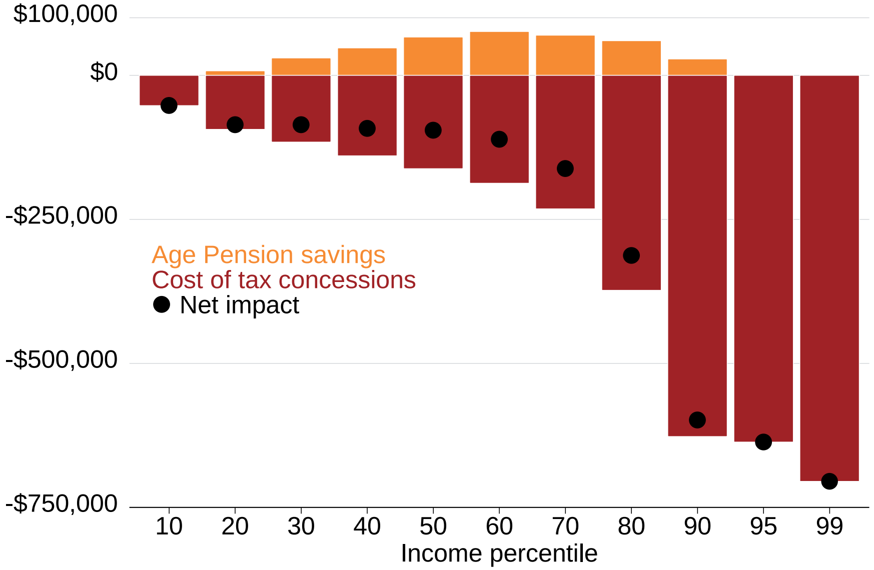
Australians continue to pay far too much in superannuation fees. Australians pay more than $30 billion a year in fees – some of the highest in the OECD and more than the $27 billion we spend each year on energy.[381] Poor policy design, and a lack of competition and accountability for funds has led to high costs and poor outcomes for members. Recent reforms, such as the Federal Government's *Your Future, Your Super* legislation, are big steps in the right direction, but further reforms are needed.[382] The new under-performance test amounts to taking a few bad apples out of the system, but it does little to force otherwise-average funds to lift their game. And even average funds in Australia seem a long way from the global frontier.[383]

9.1.8 Super balances are not converted into income

The Retirement Income Review concluded that the superannuation system does a poor job of helping Australians convert their super-annuation assets into retirement income.[384] When retirees die, most

Figure 9.3: The cost of super tax breaks far outweighs the corresponding Age Pension savings, especially for high-income earners

Projected tax concessions and Age Pension savings over a lifetime, by income percentile



Source: Callaghan et al (2020, Chart 4A-23).

380. Daley et al (2015a, Figure 3.1).
381. Treasury (2020); and Productivity Commission (2018c).
382. The *Your Future, Your Super* performance test puts pressure on under-performing funds to improve or merge, and the introduction of 'stapling' – whereby a single super account follows workers when they change jobs unless they choose otherwise – will reduce duplicate accounts. Both reforms implement key recommendations from the Productivity Commission (2018c).
383. Coates (2021b).
384. Callaghan et al (2020, p. 19).

leave the majority of the wealth they had at retirement as a bequest, meaning they had consumed the income derived from their assets and not the assets themselves.[385] Many people save in retirement, largely because they are concerned about one-off health and aged care expenses, which are mostly covered by government.[386] But Australia's superannuation system also fails to encourage the development and use of low-cost retirement income products (such as annuities) to help manage longevity and investment risks once retirees begin to draw down on their retirement savings.[387]

9.2 What we should do

9.2.1 Curb superannuation tax breaks

The next federal government, whether Coalition or Labor, should scale back superannuation tax breaks that are not necessary to ensure adequate living standards for retirees. The current superannuation system is expensive and unfair, and substantially widens the gender gap in retirement incomes. Super tax breaks cost a lot – almost $40 billion a year in foregone revenue, or nearly 17 per cent of income tax collections – and the cost is growing fast.[388] Half the benefits flow to the wealthiest 20 per cent of households, who already have enough resources to fund their own retirement, and whose savings choices aren't affected much by tax rates.[389]

385. Daley et al (2018b, p. 32).
386. Coates and Nolan (2020c, p. 6). The costs of specific health and disability needs are best met via targeted supports or universal health services, rather than by ensuring all retirees have the resources to meet these costs themselves. Government already funds most aged care costs: more than three quarters of the $23 billion spent annually on aged care services is funded by government.
387. Longevity risk is to the risk of unexpectedly outliving one's savings.
388. Treasury (2021c, p. 11); and Treasury (2021d, p. 7).
389. Daley et al (2015a, Figure 2.4, Figure 3.1).

Three reforms would better align tax breaks with the goals of superannuation, while saving the budget about $5 billion a year today, and much more in future.

First, super contributions from pre-tax income should be limited to $15,000 a year.[390] This would allow someone earning up to about 1.5 times average full-time weekly earnings to make compulsory super contributions (assuming compulsory contributions of 10 per cent of annual earnings).[391] This would improve budget balances by about $2 billion a year.[392] There would be little increase in future Age Pension payments. Those affected would be high-income earners who would draw little or no pension, and the current cost of tax concessions vastly outweighs any pension savings for this cohort (Figure 9.3).

Second, lifetime super contributions from post-tax income should be limited to $250,000, or there should be an annual cap on post-tax contributions of $50,000 a year.[393] This wouldn't save the budget much in the short term, but in the longer term it would plug a large hole in the personal income tax system.

Third, earnings in retirement – currently untaxed for people with superannuation balances below $1.7 million – should be taxed at 15

390. The maximum superannuation contributions base would need to be reduced to $145,000 per year so that workers are not compelled to make super contributions upon which they receive no tax concession. This recommendation has been updated from Daley et al (ibid) to reflect growth in nominal wages and an increase in the Superannuation Guarantee.
391. Daley et al (ibid, p. 29). People earning more than 1.5 times average weekly full-time earnings are unlikely to receive any Age Pension for much or all of their retirement.
392. Updated from Coates and Nolan (2020c, p. 73) using ATO Taxation Statistics microdata for 2017-18.
393. A lifetime cap would be superior to an annual cap in ensuring people with broken work histories are not disadvantaged. But since three-quarters of post-tax contributions are made by people older than 55, there is likely to be little difference in practice between a lifetime cap or an annual cap. Daley et al (2015a, p. 54).

per cent, the same as superannuation earnings before retirement. A 15 per cent tax on all super earnings would improve budget balances by about $3 billion a year today, and much more in future.[394]

Replacement rates for low- and middle-income earners would still be adequate after our proposed reforms to super tax breaks.[395] The changes would reduce the catch-up contributions of a small proportion of women with higher incomes later in life. But the changes would reduce the tax breaks far more for older, wealthier men.[396]

9.2.2 Abandon the remaining legislated increases in compulsory super contributions

Retirement incomes are already adequate for most retirees in Australia,[397] so the further legislated increases in compulsory super contributions to 12 per cent, from 10 per cent today, should be abandoned. These increases will reduce living standards during working life, and do little to boost the future retirement incomes of many low- and middle-income workers.[398] Pushing for more retirement savings when they are not needed is simply a recipe for larger bequests, leading to widening wealth inequality over time as those unused savings are passed on to future generations. A higher Super Guarantee also widens the gender gap in superannuation balances and retirement income.[399]

Lifting compulsory super contributions would also cost the budget more in extra super tax breaks than it would save in reduced Age Pension payments for decades to come. The Retirement Income Review estimated that keeping the Super Guarantee at its previous rate of 9.5 per cent, instead of raising it to 12 per cent, would have meant the budget was better off through to 2055. In particular, keeping the rate at 9.5 per cent would have meant the budget was about $3 billion per year better off over the next decade.[400]

9.2.3 Reform the process of allocating default super funds to new workers

The next federal government should adopt the remaining Productivity Commission recommendations to reform the way default super funds are selected for new workers.[401] A better process for allocating default super funds, together with the *Your Future, Your Super* performance test, would substantially boost Australians' retirement incomes and reduce future Age Pension spending.[402] Fixing default super has become even more urgent with the introduction of 'stapling', which ties members to their initial fund as they change jobs unless they opt out.

Under the commission's recommendations, Australians would be defaulted into one of a short-list of 'best in show' funds selected by

394. Updated from Coates and Nolan (2020c, p. 74) using ATO Taxation Statistics microdata for 2017-18.
395. Coates and Nolan (ibid).
396. Daley et al (2018b, p. 100).
397. Coates and Nolan (2020c, Figure 4.4, Figure 4.5) and Callaghan et al (2020, Chart 2D-3).
398. Grattan's 2020 working paper, *No free lunch: higher super means lower wages*, showed that, on average, about 80 per cent of the cost of increases in compulsory super is passed on to workers through lower wage rises within the life of an enterprise agreement, typically 2-to-3 years. In practice, full pass-through from super to wages can't be ruled out. Coates et al (2020a). See also Breunig and Sobeck (2020) and Callaghan et al (2020, pp. 157, 477–485).
399. Coates and Nolan (2020c, pp. 72–73); and Callaghan et al (2020, pp. 215–217).
400. Callaghan et al (2020, pp. 219–220). Keeping the Super Guarantee at 9.5 per cent still would have produced a cumulative budget saving of 2 per cent of GDP by 2060.
401. Productivity Commission (2018c).
402. Callaghan et al (2020, Chart 2C-19) and Callaghan et al (2020, Chart 4A-26). Just a 0.5 percentage point increase in after-fee returns could boost replacement rates for the median earner by 4 percentage points, and just a 0.11 percentage point decrease in fees could reduce Aged Pension expenditure by almost 0.1 per cent of GDP by 2060.

independent experts (although people would retain the right to choose another fund). 'Best in show' would improve returns because funds would compete to make the shortlist and stay there. Such a mechanism would sharpen incentives for funds unaffected by the performance test, ensure new disengaged members are allocated to a high-performing fund, and provide a bench-mark for existing members looking to switch. Every four years, this panel would re-assess applications from funds to make the shortlist. The bar would be raised further if bidding funds were required to make the same offer to their existing members.

To date, the superannuation industry has fiercely resisted proposals for a competitive process to allocate default status. Should such reform prove intractable, the government could instead allocate new default members on an opt-out basis to a new low-cost, government-run default superannuation fund.[403] Sweden operates a single national default fund, and the UK has introduced a public default option.[404] A single default fund could harness economies of scale, ensure that disengaged members pay low fees, and would still sharpen competitive incentives for funds that no longer receive flows of default members.[405]

403. For example, Barr and Diamond (2017) propose a single national default fund for Australia run by an independent government agency.
404. Members in the Swedish Pension Agency's default fund (AP7 Såfa) pay maximum annual fees of about 0.16 per cent of assets (Swedish Pensions Agency (2021)). The UK's National Employment Savings Trust (NEST) charges annual fees of about 0.5 per cent of assets (UK National Employment Savings Trust (2021, p. 17)). These compare to an asset-weighted average fee of about 1.01 per cent for MySuper products in Australia (Treasury (2020, Chart 1)).
405. The Productivity Commission concluded a single national default fund would put the federal budget at risk since there could be significant political pressure to 'top up' returns in the event of poor performance: Productivity Commission (2018c). However, the federal budget is already exposed to such risks since many Australians would qualify for a higher Age Pension should their super fund under-perform.

Setting up a national default super fund could be expensive, however, especially before it achieved sufficient scale.[406]

9.2.4 Re-evaluate the role of default insurance in superannuation

Australians spend about $10 billion each year in default income protection, life, and total & permanent disability (TPD) insurance via their superannuation fund.[407] The *Protecting Your Super* and *Putting Members' Interests First* reforms eliminated the more egregious and regressive impacts of opt-out insurance within super by abolishing opt-out insurance cover for under-25s and people with low account balances, and limiting the number of multiple accounts paying duplicate insurance premiums.[408]

But broader questions around opt-out insurance in super remain unanswered. For instance, it is unclear if insurance premiums offer value for money to members. It is also unclear how default insurance interacts with other insurance arrangements such as workers compensation.[409]

The federal government should adopt the Productivity Commission recommendation for a review of default insurance in superannuation. Such an inquiry should evaluate whether members get value for money for insurance offered through superannuation, and whether insurance should continue to be offered on an opt-out basis. It should consider alternative approaches to providing default insurance cover outside of superannuation.

406. A national default super fund could leverage existing entities, such as the Commonwealth Superannuation Corporation, which is the default super fund for Commonwealth public servants, or the Future Fund, in an effort to lower these set-up costs.
407. Total premiums for death and disability insurance. ATO (2021c, Table 1A).
408. Daley and Coates (2018); and Daley and Coates (2019).
409. Productivity Commission (2018c, Chapter 8).

9.2.5 Support retirees to draw down on their retirement savings

Retirement income policy in Australia is set on the assumption that savings will be consumed. Yet many Australians do not draw down on their retirement savings.

To encourage greater draw down, governments could:

- Increase minimum draw-down rates or create higher, default draw-down rates, given the anchoring effects of these rates;
- Continue to shift the default basis for funding aged care so that most people do not have to lodge a substantial 'bond' that is typically preserved until death;[410]
- Make it clearer that there is a genuine safety net for people who live long but run out of money, in the form of government support for health, aged care, and the Age Pension.

The Federal Government's proposed Retirement Income Covenant should increase trustee focus on better retirement offerings, but more substantial government intervention will be needed.[411] The Covenant does not contain any requirements or guidance on the development of the products that underpin draw-down strategies. This risks the proliferation of products of varying quality as a growing number of Australians retire – similar to the experience of accumulation phase products over the past 15 years.

An improved framework for product design is especially important since many draw-down products, such as annuities, are long-term financial contracts that are not well understood by many Australians. It's unclear if financial advice can bridge this gap and effectively match individuals to products. Retirees could end up being stuck in unsuitable or poorly-performing products.

The next federal government should therefore explore how best to help different cohorts of retirees access efficient draw-down strategies. A regime of Comprehensive Income Products for Retirement (CIPRs), as recommended by the Financial System Inquiry, could be extended into a collection of cohort-based retirement strategy 'best in show' shortlists.[412]

Alternatively, the government could directly offer a limited suite of retirement income products, such as annuities, on an opt-out basis to super fund members who do not exercise another choice.[413]

9.2.6 Reform the Home Equity Access Scheme

The next federal government should further reform the Home Equity Access Scheme to encourage Australians to use the equity in their home to boost their living standards in retirement.

The Retirement Income Review estimated that drawing just $5,000 in additional annual income from home equity could boost the replacement rate of the median earner by 10 percentage points, while leaving three-quarters of the equity in a $500,000 home intact by age 92.[414]

410. Duckett et al (2021a, p. 22).
411. The Covenant requires trustees to formulate, give effect to, and regularly review a retirement income strategy to assist members to achieve and balance three objectives: maximise expected retirement income, manage risks, and ensure flexible access to savings. Treasury (2021e, p. 3).
412. The 2014 Financial System Inquiry recommended that retirees be defaulted into CIPRs on an opt-out basis. CIPRs are a bundle of products combining to form a strategy. Murray et al (2014, p. 117).
413. For example, the Swedish Pension Agency automatically converts accumulated balances into annuities at retirement (Swedish Pensions Agency (2021)), and Singapore's national fund automatically enrols retirees into an annuity (Singapore Central Provident Fund (2021)).
414. Callaghan et al (2020, p. 183).

The Home Equity Access Scheme allows retirees to draw home equity up to a maximum of 150 per cent of the Age Pension. The equity release payments are made by Centrelink, are not taxable, and don't count towards the Age Pension income test. The outstanding debt accrues with interest, which the government recovers when the property securing the loan is sold, or from the borrower's estate.

Recent reforms to the scheme are an important first step. The previous name – the Pensions Loans Scheme – erroneously suggested the scheme was open only to pensioners, and the use of the word 'loans' may have discouraged many debt-averse retirees. The new, lower interest rate of 3.95 per cent will make the scheme more attractive.

To provide assurance to retirees worried about future rate rises or compromised inheritances, the government should explore whether to cap the interest rate for the life of the loan or ring-fence a modest portion of home equity – perhaps 25 per cent – from the debt when the home is eventually sold. Even the best-designed scheme could still suffer from low uptake unless it is well known and understood. The federal government should promote the scheme, and use insights from behavioural economics to optimise its presentation.

9.2.7 Include more home equity in the Age Pension assets test

Only the first $216,500 of home equity is counted in the Age Pension assets test. Inverting this so that all of the value of a home is counted above some threshold – such as $500,000 – would be fairer. A budget-neutral reform could involve pairing this with an alignment of the renter and homeowner asset-free areas.[415] Many Age Pension payments are made to households that have substantial property assets. More than a quarter of age pensioners own homes worth more than $500,000.[416]

415. In principle, changes to the Age Pension asset test should also apply to the assets tests for other pensions, such as the Disability Support Pension and the Parenting Payment.
416. Callaghan et al (2020, Chart 1B-1, Chart 3C-3).

This change would encourage more retired homeowners to boost their retirement incomes by drawing on their home equity in retirement (see the next section). It would also encourage a few more senior Australians to downsize to more appropriate housing, although the effect would be limited given that research shows downsizing is primarily motivated by lifestyle preferences and relationship changes.[417] No homeowning retirees would be forced to move: affected retirees could top up their (lower) pension payments by using the Home Equity Release Scheme. Alternatively, retirees should be able to use a national shared equity scheme to sell up to 30 per cent of their home to the government (Chapter 3).

This reform would also reduce the unfairness of the current system that treats the assets of homeowners and renters very differently; an unfairness that compounds as house prices rise. Further, from an intergenerational perspective, the current system pays welfare to retirees who own valuable homes that many in the working-age generation will never be able to buy.

The immediate impact of the change could be softened if the value of owner-occupied housing that is included in the pension assets test was increased only gradually. This would give retirees more time to decide how to respond to the new rules.[418]

9.2.8 Relax the Age Pension assets test taper rate

The federal government should reduce the withdrawal rate of pension benefits in the assets test from $3 to $2.25 a fortnight for every $1,000 in assets. This is a better way to boost the retirement incomes of middle- and high-income workers (particularly women who take significant career breaks) than increasing the Superannuation

417. Daley et al (2018b, p. 84); Valenzuela (2017); and Productivity Commission (2015b).
418. Daley et al (2018b, p. 85).

Guarantee, because it does not erode the working-life incomes of low-income workers.[419]

Relaxing the taper rate would also reduce the effective tax rate on savings for pre-retirees (currently more than 100 per cent), and improve draw-down incentives in retirement.[420]

Reducing the taper rate to $2.25 a fortnight for every $1,000 of assets would cost the budget about $1 billion a year, but much more in the future.[421]

9.2.9 Strengthen the social safety net for vulnerable retirees

JobSeeker, together with the Disability Support Pension, provides an important safety net for Australians who are unable to work until retirement age. Yet while the Age Pension and Disability Support Pension are indexed to wages, JobSeeker only increases in line with inflation. As recommended in Chapter 2, the maximum rate of JobSeeker should be increased by at least $75 a week, and JobSeeker should be indexed to wages growth. The next federal government should also review the eligibility rules for the Disability Support Pension.

The maximum rate of Commonwealth Rent Assistance should rise by at least 40 per cent, to ensure that pensioners who do not own their own home do not live in poverty in retirement.[422] This would cost about $500 million a year if provided just to retirees, or $1.5 billion a year if extended to working-age Australians who are on income support and who rent. Rent Assistance should also be indexed to changes in rents typically paid by people receiving income support, so that its value is maintained (Chapter 3).

Closing these gaps in the social safety net is especially critical to improving economic security for women in retirement.[423] Women currently retire with one-third less superannuation than men. Their incomes are roughly 10 per cent lower in retirement. And women – particularly if they are single, divorced, or widowed – are much more likely to suffer poverty, housing stress, and homelessness in retirement.

419. Coates and Nolan (2020c, Figure 5.2, Figure 5.3).
420. Although given other factors at play, the effect of these improved incentives may be small. Callaghan et al (2020, pp. 471–473).
421. This is because the share of pensioners who are asset-tested is projected to grow. Callaghan et al (ibid, p. 470).
422. The Retirement Income Review concluded that a 40 per cent increase in Rent Assistance would not significantly alleviate stress and income poverty rates for renters in retirement (Callaghan et al (ibid, p. 145)). But an increase in Rent Assistance is the most direct and timely way to assist this cohort. The Review's analysis points to the need for potentially an even larger increase in Rent Assistance in the long term.

423. Coates and Joiner (2021).

10 Budget policy

10.1 Where we are

Australia has entered the third year of the global pandemic with a sizeable deficit and significantly higher public debt than before. But low interest rates mean debt costs remain manageable and the need for macroeconomic supports mean that any immediate push to consolidate the fiscal position would be counter-productive.

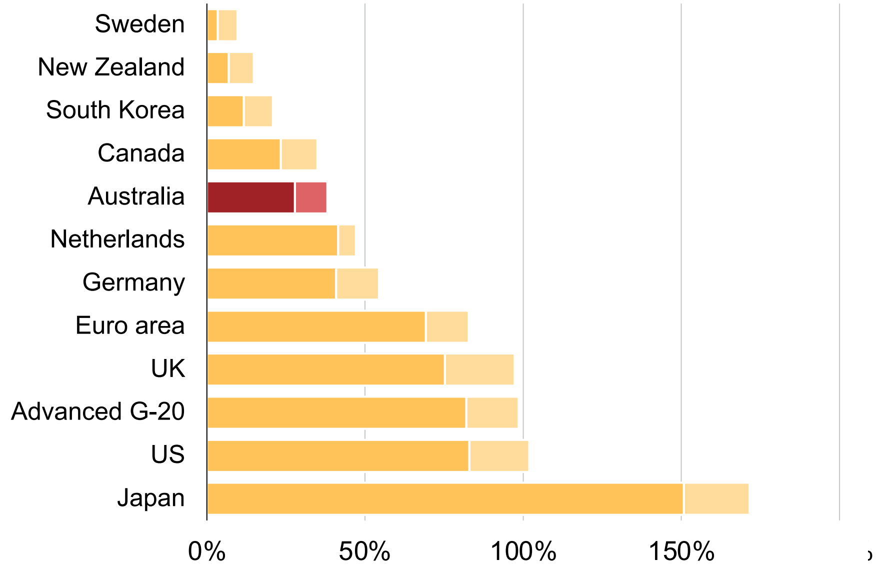
In the medium-term, fiscal policy will need to play a more active role given monetary policy is now less potent, and the federal government will also need to balance the long-term structural pressures on the budget.

10.1.1 Debt is high by historical standards but interest costs are manageable

The fiscal fallout from the coronavirus pandemic has been large. Pre-pandemic, healthy surpluses were forecast for 2021-22 and beyond. Net debt was projected to hit zero by the end of the decade.[424] Now, this year's deficit is forecast to be almost $100 billion.[425] Net government debt is currently $606 billion,[426] and is expected to peak at just under $915 billion (37.4 per cent of GDP) in 2024-25.[427]

Despite the very significant ramp up in debt, it remains low by international standards. As a share of the economy, Australia's 2021 debt levels remain substantially lower than the G20 average (Figure 10.1). Australia's net debt increased by 10 per cent of GDP from 2019 to 2021, which is significant but less than the increases in

Figure 10.1: Australia has low debt by international standards
Net debt as a per cent of GDP 2019 (darker) and increase through to 2021 (shaded)



Source: IMF (2021).

the UK (22 per cent of GDP), the US (19 per cent of GDP), and Canada (12 per cent of GDP).

And the costs of servicing the debt remain manageable. Indeed, the significant increase in debt levels has been largely offset by the decline in the costs of borrowing. Net interest costs are forecast to remain at 0.7 per cent of GDP over the next four years, which is the same level as before the crisis.[428] Higher rates than forecast could see that share

424. Treasury (2019).
425. Treasury (2021f).
426. Department of Finance (2022).
427. Treasury (2021f).
428. 2018-19 financial year: Treasury (2019) and Treasury (2021g).

creeping up, but it should not cause significant squeeze within the range of plausible scenarios.[429]

10.1.2 There are long-term structural pressures on the budget

The Australian Government budget, like those of other advanced economies, faces long-term structural pressures from the ageing population and climate change.

The rising ratio of people over-65 to the working-age population will increase pressures on spending on health and aged care,[430] and reduce revenue because incomes in older age are much more concessionally taxed.

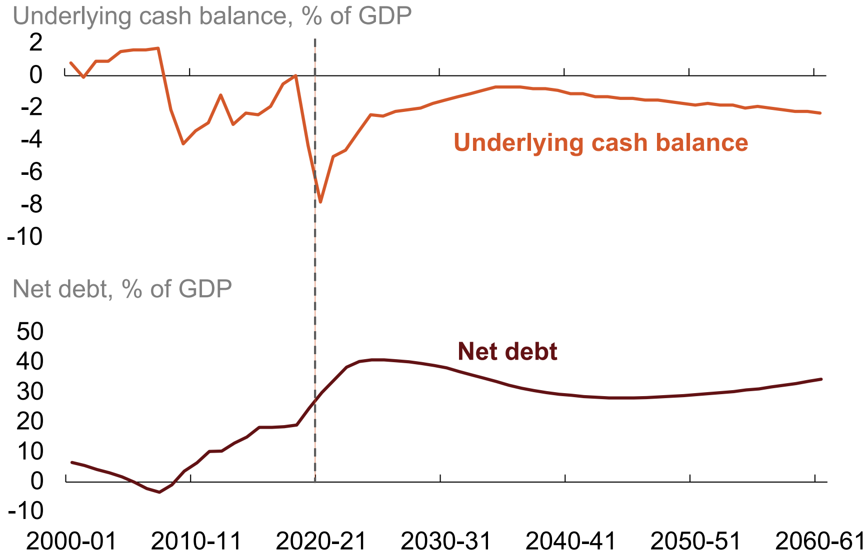
The Federal Government's 2021 Intergenerational Report (IGR) projects that, based on current policy settings and the effects of an ageing population, the federal budget will be in deficit for the next 40 years.[431] The size of the deficit will slowly grow as a share of the economy from the mid-2030s, reaching 2.3 per cent of GDP by 2060-61.[432] Net debt is projected to decline from current levels over coming decades and then creep up as a share of the economy from the 2040s, reaching almost 35 per cent of GDP by 2060-61 (Figure 10.2).

This scenario, while far from rosy, relies on a lot going right.

First, it assumes productivity growth in line with the 30-year average, ignoring the marked slowdown in productivity performance in recent years.[433]

429. Parliamentary Budget Office (2021b).
430. In 1981-82, for every person over-65, there were 6.6 working-age people. In 2019-20, for every person over-65 there were 4.0 working-age people. The Intergenerational Report projects that by 2060-61, for every person over-65 there will be only 2.7 working-age people.
431. Treasury (2021b).
432. Ibid.
433. D. Wood (2021).

Figure 10.2: The federal budget is projected to be in deficit for the next 40 years and net debt is projected to creep up from the 2040s



Source: Treasury (2021b).

Second, it ignores significant additional pressures for spending on some services such as aged and disability care (Chapter 7) and income supports such as JobSeeker (Chapter 2) and Rent Assistance (Chapter 3).

Third, the projections entirely ignore the impact of climate change and a changing global energy system on government spending and revenue.[434] The NSW IGR says severe natural disasters, sea level rises, heatwaves, and declining agricultural production could all cause significant damage to the NSW budget, as will falling royalties from coal mining.[435] More severe impacts of climate change will also damage the federal budget.[436] The federal budget also faces losses in company tax revenues as Australia's export markets move away from coal and (in the longer term) LNG. However, there may be offsetting increases from other exports such as rare earths, iron ore, and new clean fuels which will grow to meet the needs of the energy transition (see Chapter 4).

In short, the IGR projections point to longer-term fiscal pressures unless Australia is able to substantially boost productivity. This means considering long-term shifts to boost revenues and reduce low-value spending.

10.1.3 The Federal Government's fiscal strategy has moved substantially during COVID

The federal Charter of Budget Honesty requires the government to publish a fiscal strategy statement with each budget, to 'increase public awareness of the Government's fiscal strategy and to establish a bench-mark for evaluating the Government's conduct of fiscal policy'.[437]

434. Ibid.
435. NSW Treasury (2021).
436. NSW Treasury (ibid). See also Congressional Budget Office 2021 for a broad discussion about the way climate change will damage government budgets: U.S. Congressional Budget Office (2021).
437. Charter of Budget Honesty Act 1998, Section 7.

Since this statement was first published in the 1996 Budget, various fiscal targets have come and gone, but there has been a consistent overarching medium-term strategy: to deliver budget balances or surpluses on average over the economic cycle.[438]

COVID has now caused the Government to change this strategy. The short-term strategy (COVID-19 Economic Recovery Plan) is now to provide fiscal supports for the economy until unemployment is back at pre-pandemic levels or lower.[439] The Treasurer says this means he wants to see unemployment 'with a 4 in front of it' for a sustained period.[440]

The Government has indicated that in the medium-term – presumably after it is confident the recovery has been secured – it will withdraw supports and seek to consolidate its fiscal position. Its medium-term objective is to stabilise and then reduce gross and net debt as a share of the economy.

10.2 What we should do

10.2.1 Maintain current fiscal strategy until wages are growing

The Government's recovery strategy – to provide temporary fiscal supports until the recovery is secured – is the right one.

A key lesson from the Global Financial Crisis is that 'flicking the switch to austerity' immediately after an economic crisis simply increases the human and economic costs.[441]

438. Review of Commonwealth Budget Papers 1998 to 2019.
439. Treasury (2021f, p. 46) outlines the fiscal strategy in full.
440. Frydenberg (2021).
441. Blanchard and Leigh (2013), Jaime Guajardo and Pescatori (2014) and Fatás and Summers (2018) found that fiscal consolidation has been associated with lower levels of economic growth.

Further, the Reserve Bank now expects that unemployment will need to fall to about 4 per cent, or possibly below, if wages growth is to pick up from the subdued levels of the past eight years.[442]

Real wages growth will be needed to underpin consumer confidence, necessary for a private-sector-led revival.

The government should maintain its current fiscal strategy until we see healthy wages growth. But provided that unemployment continues to fall and wages growth does pick up, the next government should avoid rolling out substantial new stimulus (short term spending commitments or additional tax cuts) that could add to inflationary pressures.

10.2.2 Reduce focus on balancing the budget and target debt sustainability

The more challenging question is the right way to manage fiscal policy after the recovery has been secured.

Monetary policy has been the main macro-stabilisation tool in Australia's recent history. Fiscal policy has played a role through automatic-stabilisers – taxes fall when the economy is weak and income support rises – providing 'built-in' demand support. Governments also have provided additional stimulus/emergency support during the twin economic shocks of the GFC and COVID.

But two factors are causing a re-evaluation of the substantive role of fiscal policy in macroeconomic management.

442. In recent testimony to the House of Representatives Standing Committee on Economics, RBA Assistant Governor (Economic) Luci Ellis suggested the non-accelerating inflation rate of unemployment (the NAIRU) – the rate at which wages growth and inflation should accelerate – is likely to be in the 'low fours to high threes'. Standing Committee on Economics (2022).

- First, with interest rates below the growth rate, even with sizeable deficits, debt can shrink as a share of the economy over time.[443] The Government's projections anticipate budget deficits of about 2 per cent of GDP over the next decade,[444] but debt declining from a peak of 37.4 per cent in 2025 to 35.5 per cent of GDP by the end of the decade.[445]
- Second, the potential role for fiscal policy is larger given that conventional monetary policy has limited room to move. With the cash rate at the zero lower bound, the Reserve Bank is limited in what it can do to support output. Further, more expansionary fiscal policy in the short term will provide greater 'room' for restabilising monetary buffers through increases in the cash rate.

Together these factors suggest the costs of a more active fiscal policy are lower and the benefits are greater than has been the case in recent decades.

The need for flexibility to support demand, and the smaller sustainability risks, mean that the Government is right to abandon its budget surplus objective.

Boosting automatic-stabilisers will help deliver good macroeconomic outcomes, particularly when monetary stimulus is constrained.[446] This bolsters the case for increasing the rate of JobSeeker (detailed in Section 2.2.8) and reduces the need for discretionary measures.

The Government should also invest more in areas that boost the long-run productive capacity of the economy, including green infrastructure, and education and skills.[447]

443. Blanchard (2019).
444. Treasury (2021f).
445. Ibid.
446. McKay and Reis (2016); and McKay and Reis (2021).
447. Despite a significant reduction in rates, governments have barely shifted the so-called discount rates for assessing investments: Terrill and Batrouney (2018).

But this is not an argument for entirely ignoring fiscal sustainability.

Longer-term structural budget pressures identified in Section 10.1.2, along with likely future interest rate rises, mean that over time, revenue and spending measures are likely to be needed to reduce the size of recurrent deficits and maintain debt sustainability.

The fiscal rule(s) nominated by the government to help guide this process will have important fiscal and economic implications.

The Government's current medium-term fiscal strategy is to stabilise and then reduce gross and net debt as a share of the economy.[448] While a debt-based rule will provide some guardrails for managing sustainability, other targets may be preferable. For example, capping interest payments as a share of government revenue would better target the actual burden on taxpayers and provide more room to respond to macroeconomic conditions – loosening fiscal policy when monetary policy loosens (i.e. by cutting interest rates, including on the government's debt) and vice versa.[449]

Others have argued that the unusual set of macroeconomic conditions – including historically low borrowing rates – should dictate new thinking on targets. Professor Olivier Blanchard has called for a more technical and dynamic set of rules that respond to prevailing conditions.[450] However, the downside is the loss of clarity and simplicity, which is important for fiscal rules to anchor expectations and receive buy-in from decision makers.[451]

Given the importance of the choice, and the evolving debate internationally, the next government should review its medium-term fiscal targets with an eye to managing the growing importance of fiscal policy in macro-stabilisation while also keeping debt sustainable.

10.2.3 The federal government and the states should work together to produce a national Intergenerational Report

The federal government produces an Intergenerational Report (IGR) every five years, to assess the long-term sustainability of the Commonwealth's fiscal position.

The IGR is an important counterbalance to short-termism in politics. It provides insights into the long-term (40-year) fiscal implications of an ageing population, and highlights the effects of changes in population size, age profile, participation rates, and productivity growth on Australia's future standard of living and public finances.[452]

But there is a major weakness: the IGR looks at federal government finances only.[453] Given the strong dependencies between federal and state budget positions, particularly over the longer-term, the IGR gives at best a partial picture of Australia's fiscal sustainability, and at worst a misleading one.

Cost-shifting from the Commonwealth to the states (or vice versa) can present a misleading picture of the true health of the nation's finances. For example, hospital funding changes announced in the 2014 federal Budget (since amended) capped growth in transfers to the states to inflation and population growth, significantly improving the outlook

448. The other component of the fiscal strategy is targeting a budget balance, on average, over the course of the economic cycle that is consistent with the debt objective. This, however, seems to simply re-state the debt objective (achieving the debt objective will of course require a budget balance consistent with the objective).
449. Hughes et al (2019).
450. Blanchard advocates for governments to undertake 'stochastic debt sustainability analysis' (SDSA), which makes assumptions about the future direction of both the interest rate and the growth rate.
451. Debrun et al (2018).
452. Daley et al (2019).
453. Ibid.

for Commonwealth health spending in the 2015 IGR. However, these changes implied a rapid increase in state government spending on health and deteriorating state government budget balances, and thus no real change in the national picture.[454]

The federal government should work with state governments to get agreement for a national IGR that contains long-term fiscal projections across all levels of government, both separately and combined. This would make the IGR a more meaningful and useful assessment of the nation's fiscal sustainability.

The national IGR should be produced by the independent Parliamentary Budget Office. Putting the report in the hands of the Parliamentary Budget Office would remove the risk of the report becoming politicised – a criticism (fairly) levelled at past IGRs.[455]

It would also encourage constructive collaboration between state and federal governments on important questions of roles and responsibilities.

454. Treasury (2015).
455. Kirchner (2012); Cowan (2015); and Lyon and Amidharmo (2016).

11 Integrity

11.1 Where we are

Australia is a healthy and well-functioning democracy by global standards. But it is going backwards in measures of trust in government, perceptions of corruption, and the transparency and functioning of government.

Some of this slide is probably due to public concerns about aspects of the policy response to the COVID pandemic. But a series of scandals, including use of taxpayers' money for political gain, have not helped.

In the past decade, other countries and Australian state governments have beefed up their systems and processes for ensuring decision-making is done in the public interest. But the federal government has largely stood still.

Controls to reduce the influence of money and lobbying from well-resourced vested interests remain very weak. There are also few checks on government appointments or using taxpayer money for buying political advantage via infrastructure projects or grant funding. And with these weaknesses, the absence of a 'last line of defence' from a strong federal integrity commission is magnified.

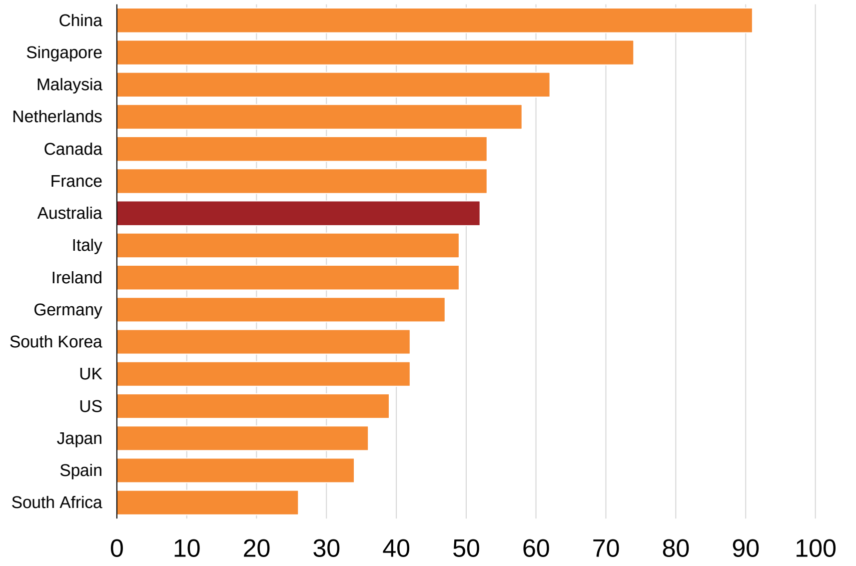
11.1.1 Australians are increasingly cynical about how government functions

Australia is around the middle of the international pack in terms of trust in government (Figure 11.1).

Trust in government among Australians was falling before the pandemic. In the most recent (2019) Australian Election Study, only a quarter of Australians agreed or strongly agreed that 'people in

Figure 11.1: Australia is middle of the pack in terms of trust in government

Trust in government, percentage selecting a positive response, 2021



Note: Trust in government (general); a 'positive' response is top 4 on a 9-point scale; scores below 50 indicate distrust; 50-60 is considered neutral; scores above 60 indicate trust.

Source: Edelman (2022).

government can be trusted to do the right thing' – the lowest proportion since the survey began in 1969.[456]

While there are many causes of falling trust and rising exasperation with the political establishment,[457] one is the growing sense that people in government favour powerful vested interests over the interests of other Australians.[458]

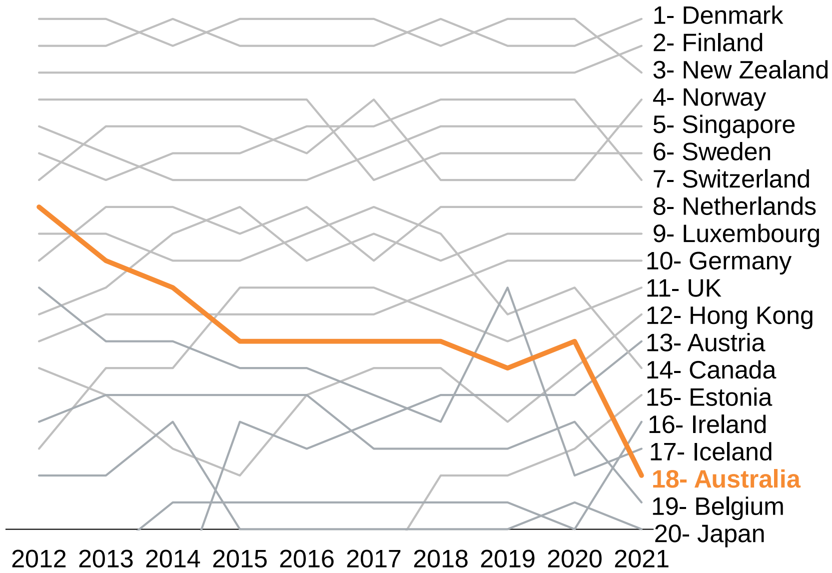
Another is the view that politicians in government will make decisions and spend money to favour their personal or political interests over those of the nation. A 2018 survey by Transparency International with Griffith University found 66 per cent of Australians thought corruption was a very big or quite big problem, and 85 per cent thought at least 'some' federal MPs were corrupt.[459]

Australia has also slipped in recent years in Transparency International's Corruption Perceptions Index.[460] Australia is still among the top 20 best-ranked countries, but has suffered a large decline, slipping 12 points between 2012 and 2021, and falling from 8th to 18th (Figure 11.2).

One silver lining of the pandemic was the reversal, at least temporarily, of some of the cynicism about governments in Australia. The sense of 'pulling together' to defeat the virus, and Australia's strong early policy response and early health and economic success produced a strong

Figure 11.2: Australia is falling behind on international measures of corruption

Corruption Perceptions Index rank, 2012-2021, top 20 countries in 2021



Notes: The Index scores countries on how corrupt their public sectors are seen to be, according to surveys of businesspeople, analysts, and others. Since 2012, Australia has had the largest decline of top-10 ranked countries (from a score of 85 and a rank of 8th in 2012, to a score of 73 and a rank of 18th in 2021).

Source: Transparency International (2022).

456. Cameron and McAllister (2019); and D. Wood et al (2018b).
457. D. Wood et al (2018b, pp. 76–81).
458. In the 2019 AES, 56 per cent of Australians agreed or strongly agreed that 'the government is run by a few big interests', the highest figure since the question was first asked in 1969: Cameron and McAllister (2019, p. 15).
459. This was a telephone poll of 2,218 Australians as part of the Global Corruption Barometer, conducted by Griffith University and Transparency International Australia in May-June 2018: Brown et al (2018).
460. Transparency International (2022). The Index scores countries on how corrupt their public sectors are seen to be, as measured by surveys of businesspeople, analysts, and others.

rise in trust for both state and federal governments.[461] However, trust has begun to move down again from these 'first wave' highs,[462] and is likely to have slipped further.[463]

11.1.2 Recent scandals have probably reinforced cynicism about government and its motives

Many factors contribute to rising cynicism about governments,[464] but revelations of governments misusing their power certainly don't help.

There have been several such 'front-page grabbing' scandals in recent years.

Claims of federal government pork-barrelling have attracted headlines.[465] A recent analysis by *The Age*/*Sydney Morning Herald* of 11 grants programs with ministerial discretion found $1.9 billion was spent in Coalition-held electorates, compared to $530 million in ALP-held electorates, as well as large discrepancies in spending between deserving safe and marginal seats.[466]

Two major programs with money allocated immediately before the 2019 election – the $100 million Community Sport Infrastructure 'sports rorts' Program[467] and the $500 million commuter carparks schemes[468] – also received strong criticism from the Australian National Audit Office for not following merit-based selection processes and appearing to be influenced by political considerations.[469]

In other cases, integrity concerns have been raised about inexplicably poor-value land purchases,[470] potential conflicts of interest of people appointed to important advisory positions,[471] filling important independent government roles with political 'mates',[472] and former ministers not following the Ministerial Guidelines for 'cooling-off periods' before taking roles with vested interests in their portfolio area.[473]

11.1.3 Australia's checks and balances on decision-making remain weak

Other democracies and indeed Australian state governments have moved to improve checks and balances on decision-making in several

461. The proportion of people who agreed or strongly agreed that federal government can be trusted to do the right thing for the Australian people reached an all-time high of 56 per cent in November 2020, according to the Scanlon Social Cohesion survey: Markus (2020).
462. The proportion of people who agreed or strongly agreed that federal government can be trusted to do the right thing for the Australian people dropped from 56 per cent in November 2020 to 44 per cent in July 2021: Markus (2021). The 2021 survey was taken before the 2021 lockdowns in NSW and Victoria.
463. The more recently taken Edelman Trust Barometer shows Australia fell from a 61 per cent trust score in 2020 to 52 per cent in 2021: Edelman (2022, p. 42).
464. D. Wood et al (2018b, Chapter 3).
465. This discussion highlights integrity controversies for the federal government because it is the focus of this report. State governments have also had their share of scandals which can further compound the impact on trust.
466. Curtis and S. Wright (2021).
467. $42.5 million was added to the program in the 2019 Budget, bringing the total to $102.5 million.
468. $500 million was allocated for a National Commuter Car Park Fund in the 2019 Budget.
469. The Australian National Audit Office (ANAO) report on the Community Sport Infrastructure Program concluded that the allocation of funding 'was not informed by an appropriate assessment process' and that 'the successful applications were not those that had been assessed as the most meritorious': ANAO (2021a, p. 6). The report on the commuter carpark program found that 'the approach taken to identifying and selecting commuter carpark projects for funding commitment was limited in coverage and was not demonstrably merit based': ANAO (2021b). The ANAO told a Senate hearing that a list of 'top 20 marginal' electorates was used as a basis of project selection: SBS News (2021).
470. McGowan (2021). See ANAO (2020) for more information.
471. Most notably the National COVID-19 Coordination Commission, concerns about which were never responded to publicly: Wilkins (2020); and D. Wood and Griffiths (2020).
472. For example, Macmillan (2019). See also discussion in the next section.
473. D. Wood and Griffiths (2019a).

important areas.[474] But the Federal Government has been reluctant to move on major reforms, and significantly lags behind best practice.

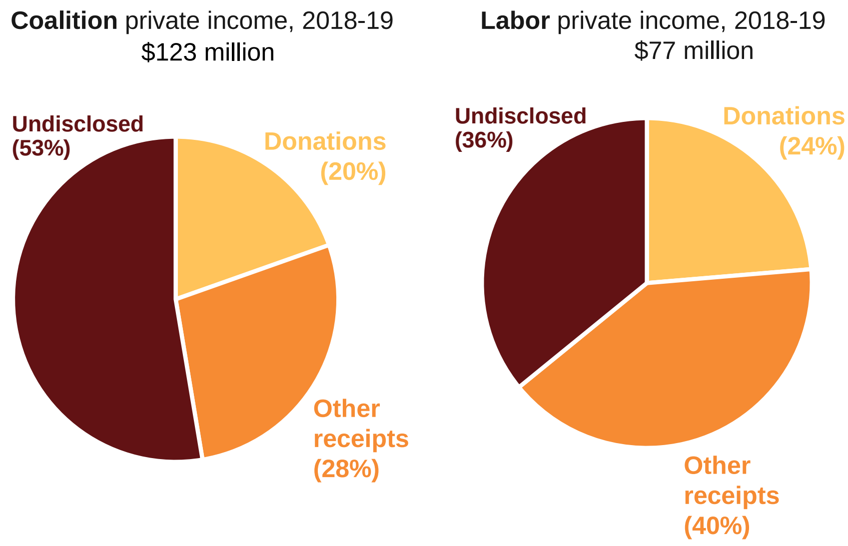
Federal government restrictions on special-interest influence are weak

Most OECD countries restrict political donations or expenditure (or both) in some way.[475] But the Australian Government places no limits on private funding for political parties. Subsequently, there is a lot more private funding in the Australian political system than in most developed nations.[476]

Federal political parties rely on a small number of donors for most of their funds. The top 5 per cent of donors contributed more than half of all declared donations to political parties at the 2016 federal election. And a high share of donations came from unions or businesses in industries with the most to gain or lose from government decisions.[477] These major contributors also get more face-time with senior ministers than other groups[478] – compounding the risk of links between money, access, and policy influence.

474. Grattan Institute's 2019 review highlighted that the federal government was ranked worst or equal worst among all Australian governments on measures of transparency, accountability, and limits on campaign finance: Daley et al (2019, pp. 148–149).
475. OECD (2016).
476. Public funding was only 32 per cent of political party funding in Australia at the 2016 election. Private funding from known sources was 26 per cent. The remainder (42 per cent) was undisclosed, but if it is largely private donations – which many have assumed – then Australia has remarkably high levels of private funding per person by international standards: D. Wood et al (2018c, pp. 34–36).
477. Ibid (Section 3.3.2).
478. Federal ministers do not publish their diaries, so Grattan analysed who politicians meet by using the diaries of state ministers in NSW and Queensland. In both states, private interests accounted for more than 60 per cent of senior ministers' external meetings, most of which were with businesses in highly regulated industries.

Figure 11.3: Political parties receive a lot of private money we know nothing about



Source: Grattan analysis of Australian Electoral Commission data, 2018-19.

The federal government donations regime often leaves voters in the dark about who donates. The high threshold for declaring donations ($14,500), combined with the fact that political parties are not required to aggregate multiple donations from the same donor, means there is a lot of money we know nothing about.

In the 2018-19 financial year – which included the previous federal election – only 21 per cent of private money to the two major parties came in the form of declared donations. A further 33 per cent was 'other receipts', which includes everything from investment income to money raised at political fundraising dinners. The remaining 46 per cent had no identifiable source (see Figure 11.3).

The long lag – up to 19 months – for political parties to disclose the source of their funds prevents timely scrutiny.[479]

The federal government is similarly opaque about its contact with interest groups. Only third-party lobbyists – those that lobby for a lobbying firm rather than direct lobbying from unions or corporates – are required to be listed on the Australian Government Lobbyist Register. Australians have no information on who their federal government ministers meet with.

Federal ministers undertake not to lobby government for 18 months after leaving office. But the waiting period is an administrative obligation only, it applies narrowly, and there is no penalty for a breach. The UK, US, and Canada all have greater transparency and accountability around lobbying activity.

Checks on conflicts of interest are insufficient

Checks are also limited in Australia on the type of private benefits federal politicians can receive.

Federal ministers can accept gifts only up to a value of $300 from private sources or $750 from government sources (or they must pay the difference),[480] but there is no limit on the value of hospitality they can receive, including overseas trips.[481] For parliamentarians not in the Ministry, there is still no code of conduct and therefore no constraint on their acceptance of gifts, cash, hospitality, or their capacity to accept outside employment.[482] These things must be declared, but are not otherwise constrained in any way.

479. D. Wood et al (2018c).
480. Department of the Prime Minister and Cabinet (n.d.).
481. Sponsored overseas travel is required to be approved by the Prime Minister: Department of the Prime Minister and Cabinet (2018).
482. D. Wood et al (2018c, p. 60).

By contrast, all state parliamentarians must abide by a code of conduct,[483] as must all members of the UK Parliament.[484]

Many government appointees have political links and have often not gone through a merit selection process

Many appointees to government boards, tribunals, and agencies have a background in a political party: former politicians, political advisers, and party officials.[485] These appointments are more common for positions with more power, higher pay, or more prestige.[486] They are also almost exclusively from the party making the appointments.[487]

Government boards, tribunals, and independent agencies were established to be independent of executive government, and in some cases their role involves scrutinising government policy. Politically affiliated appointments can compromise public trust in these institutions, and risk compromising their independence and effectiveness.

Australia's appointments processes lack transparency and are more ad hoc than those in countries such as the UK, Canada, and New Zealand, that require merit-based appointments.

Some federal government appointment processes involve an independent panel drawing up a merit-based shortlist, though ultimately the final selection resides with one or more ministers. Ministers usually have significant discretion to select their own candidates from outside any process ('captain's picks') and even to bypass these processes altogether.[488]

483. Daley et al (2018c).
484. Coghill et al (2008a).
485. D. Wood et al (2021b).
486. Forthcoming Grattan report.
487. Forthcoming Grattan report; D. Wood et al (2021b).
488. Edwards (2006) and Edwards et al (2012, Chapter 9). Some state governments have guidelines for appointments processes (e.g. Victorian Department of

The federal government has no overarching body for integrity oversight

Exacerbating the weaknesses outlined above, the federal government lacks a 'a last line of defence' in terms of a properly constituted, independent, integrity body, with scope to investigate corruption and significant maladministration across the whole public sector, including among politicians.

Several bodies have oversight of different parts of the system, but their scope and powers leave significant gaps.[489] In particular, half the federal public sector is outside the jurisdiction of the Australian Public Service Commission, and no agency is responsible for investigating the conduct of politicians unless a report is made to the Australian Federal Police.[490] There is no clear point of contact for members of the public or whistle-blowers to report corruption or misconduct.

In response to these concerns, the Federal Government announced in December 2018 that it would establish a Commonwealth Integrity Commission. However, the model it put forward in 2019 has many flaws – the narrow scope of referrals, the exclusive focus on criminal corruption, and the fact that all processes will be run entirely in secret.[491] Despite several years of consultation, the Government is yet to legislate a body or show any indication that it has taken action in response to any of the strong concerns raised by experts.[492]

11.2 What we should do

11.2.1 Make political donations more transparent

Three simple changes could make political donations significantly more transparent.

First, the disclosure threshold should be lowered. There is no exact science to it, but the current threshold of $14,500 is high, and well above the amount that an ordinary Australian voter could afford to contribute to support a political cause. A more reasonable threshold would be $5,000. Such a threshold would still maintain the privacy of small donors, whose donations are less likely to influence outcomes.

Second, donations from the same donor to the same party, over say $100,[493] should be aggregated and disclosed by the party once the combined total exceeds the disclosure threshold. This would prevent the practice of splitting a large donation into many small anonymous donations to avoid scrutiny.

Third, party funding disclosures should be available much sooner. Currently parties don't have to disclose their donations for at least 7 months and sometimes up to 19 months after the donation was made.[494] With many states moving to 'real time' disclosure during

Premier and Cabinet (2021), NSW Public Service Commission (2015) and ACT Government (2021)) but these are not always published and rarely involve advertising appointments, independent panels, or oversight of the process. Victoria advertises some board appointments here: https://getonboard.vic.gov.au.

489. Brown et al (2018).
490. For example, the Australian Commission for Law Enforcement Integrity has an Integrity Commissioner, but is currently limited to investigations in the law enforcement arena. The Commonwealth Ombudsman has investigative powers, but investigates complaints made against government departments and agencies rather than the conduct of parliamentarians. The Public Service Commissioner monitors compliance with the Australian Public Service Values and Code of Conduct, but its jurisdiction does not cover parliamentarians. See Appleby (2014) and Brown et al (2018).
491. D. Wood and Griffiths (2019b); and Griffiths and D. Wood (2019).
492. Towards the end of 2020, the Government called on Labor to support its integrity commission, suggesting the model was still the same as that put forward in December 2018, and was 'well-designed and well-considered': Murphy (2021).
493. It would be too burdensome to include very small donations (such as the purchase of raffle tickets) in aggregation requirements.
494. Party funding disclosures are made public on the first business day in February for the previous financial year.

election campaigns,[495] it beggars belief that donations could not be disclosed in a similarly timely manner at the federal level.

11.2.2 Cap expenditure on political advertising

Capping political advertising expenditure during election campaigns would reduce the 'arms race' between parties, and their reliance on major donors. It would also limit the influence that any single interest can hold over the national debate, especially during the critically important election period.[496]

Political advertising by other groups, such as unions and industry peak bodies, should also be capped to ensure they cannot 'swamp' public debate during election campaigns, at the expense of groups with less money and fewer resources.[497]

The cap should be high enough to enable third parties to communicate with voters on policy issues,[498] but not so high as to enable them to drown out all other voices, including political parties.

Some design issues would need to be addressed: establishing how long before an election the cap would take effect, drawing up rules to prevent parties circumventing the limits (including the party in government boosting taxpayer-funded advertising), and determining appropriate penalties.[499]

495. There is effectively a seven-day lag in Queensland and South Australia, and a 21-day lag in NSW and Victoria.
496. Griffiths et al (2020).
497. D. Wood et al (2018c, pp. 63–66).
498. Twomey (2015).
499. Twomey (2014) and Joint Standing Committee On Electoral Matters (2011) canvassed some of these issues.

11.2.3 Publish ministerial diaries

Federal ministers should publish details of all official meetings (in their office and off-site), scheduled phone calls, and events they attend in an official capacity.[500] 'Official meetings' should include those at which a minister was not present but was represented by a ministerial adviser or advisers. Records of meetings should identify who was present and the key issues discussed.

Published diaries would enable journalists and others to see who ministers are meeting – and, perhaps even more importantly, who they're not meeting. This type of public scrutiny creates pressure for decision-makers to think more carefully about who they consult.

11.2.4 Broaden the lobbyist register

The Australian Government Lobbyist Register is ineffective in its current form. Its definition of 'lobbyist' is too narrow, there is little incentive to comply, and it relies on politicians to police it.

The register should instead be linked to the sponsored security passes that give holders regular, unescorted access to Parliament House (the 'orange passes').

'Orange passes' are granted to people who require 'significant and regular business access' to politicians; this includes the most active commercial and in-house lobbyists. Any lobbyists on the expanded register would be required to comply with the Lobbying Code of Conduct.

500. Queensland, NSW, and the ACT already publish ministerial diaries, but could make them more useful and accessible by implementing the recommendations in this section.

11.2.5 Introduce a code of conduct for all parliamentarians

Clear standards on conflicts of interest – as currently exist for federal ministers – should apply to all federal parliamentarians. A code of conduct for federal MPs should at a minimum clarify rules on accepting hospitality, gifts, and secondary employment. A broader code would enable the public, media, and parliament to hold elected officials to a set standard.[501]

Codes of conduct should be independently administered, to build public confidence that they are respected and adhered to.[502] An independent body should have the authority to investigate potential breaches and make its findings public. It should also have an educative role to help parliamentarians understand their responsibilities and disclosure obligations.[503]

11.2.6 Ensure appointments are merit-based

New processes are required to safeguard the merit principle in public appointments.

Selection criteria should be published for all public appointments and a panel (independent of the minister) should select a shortlist of candidates. The relevant Minister should retain the power to select a candidate, but should be required to select from the shortlist.[504]

501. An example is the Queensland Parliament's Code of Ethical Standards, which is built on the principles of: integrity of the Parliament; primacy of the public interest; independence of members; appropriate use of information; respect for people; and appropriate use of entitlements: Legislative Assembly Of Queensland (2018).
502. This could be an expanded role for the Independent Parliamentary Expenses Authority.
503. It could also play a broader role in professional development, see Coghill et al (2008a) and Coghill et al (2008b).
504. D. Wood et al (2021b).

The role of the Australian Public Service Commissioner could also be strengthened and expanded to provide transparency and oversight of public appointments.

11.2.7 Reduce the risk of pork-barrelling

The federal government should improve grant decision-making processes to constrain pork-barrelling. Grants should follow an open and competitive merit-based process to ensure that funding is allocated to advance the public good, rather than for political gain.

Grant applications should be assessed by the administering agency or department against publicly available criteria. Processes and reasons for decisions should be documented and be subject to oversight from the Auditor-General and, in the future, a Commonwealth Integrity Commission.

As an immediate first step, funding for the Australian National Audit Office should be reinstated, given its long history of budget cuts.[505]

11.2.8 Establish a broad Commonwealth Integrity Commission

A Commonwealth Integrity Commission won't help resolve the integrity concerns discussed in this chapter unless it is well-designed and adequately resourced.

The major changes required to the current proposed model are providing the Commonwealth Integrity Commission with the power to (1) receive tips from the public, media, and public officials (including whistle-blowers); (2) initiate its own investigations into serious misconduct and corruption risks even where they may not ultimately constitute a criminal offence; (3) hold public hearings when necessary;

505. Griffiths and D. Wood (2020).

and (4) inform the public of the outcome of its investigations (including formally exonerating people).[506]

506. D. Wood and Griffiths (2019b); D. Wood and Griffiths (2021); and Griffiths and D. Wood (2019).

Bibliography

ABC (2021). *Interview with Fran Kelly, ABC Radio National Breakfast*. https://www.minister.industry.gov.au/ministers/taylor/transcripts/interview-fran-kelly-abc-radio-national-breakfast-7.

Abelson, P. (2016). *Housing Costs and Policies: With Special Reference to Sydney*. Sydney: Applied Economics. http://www.appliedeconomics.com.au/publications/papers/housing/2016-housing-prices-and-policies-with-special-reference-to-sydney.htm.

ABS (2006). *Census of Population and Housing*. Australian Bureau of Statistics.

——— (2011). *Census of Population and Housing*. Australian Bureau of Statistics.

——— (2012). *Population Projections, Australia, 2012 (base) to 2101*. Australian Bureau of Statistics. Population%20Projections,%20Australia,%202012%20(base)%20to%202101.

——— (2016a). *Census of population and housing, 2016, TableBuilder Pro, Cat. 2073.0*. Australian Bureau of Statistics.

——— (2016b). *Multi-Agency Data Integration Project (MADIP)*. Australian Bureau of Statistics. https://www.abs.gov.au/statistics/microdata-tablebuilder/available-microdata-tablebuilder/multi-agency-data-integration-project-madip.

——— (2017). *Microdata: Household Expenditure, Income and Housing, 2015-16, Cat. 6540.0*. Australian Bureau of Statistics.

——— (2019a). *Survey of Income and Housing, Australia, 2017-18, Cat. 6553.0*. Australian Bureau of Statistics. https://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/6553.0Main+Features12017-18?OpenDocument.

——— (2019b). *Household Income and Wealth, Australia, 2017-18, Cat. 6523.0*. Australian Bureau of Statistics. https://www.abs.gov.au/ausstats/abs@.nsf/Lookup/by%20Subject/6523.0~2017-18~Main%20Features~Levels%20of%20Household%20Income%20and%20Wealth~5.

——— (2020). *Labour Force, Australia, Detailed, Aug 2020, Cat. 6291.0*. Australian Bureau of Statistics. https://www.abs.gov.au/statistics/labour/employment-and-unemployment/labour-force-australia-detailed.

——— (2021a). *Average Weekly Earnings, Australia, May 2021, Cat. 6302.0*. Australian Bureau of Statistics. https://www.abs.gov.au/statistics/labour/earnings-and-work-hours/average-weekly-earnings-australia/latest-release.

——— (2021b). *Australian National Accounts: National Income, Expenditure and Product, June 2021, Cat. 5206.0*. Australian Bureau of Statistics. https://www.abs.gov.au/statistics/economy/national-accounts/australian-national-accounts-national-income-expenditure-and-product/latest-release.

——— (2021c). *Labour Force, Australia, December 2021, Cat.6202.0*. Australian Bureau of Statistics. https://www.abs.gov.au/statistics/labour/employment-and-unemployment/labour-force-australia/latest-release.

——— (2021d). *Wage Price Index, Australia, December 2021, Cat. 6345.0*. Australian Bureau of Statistics. https://www.abs.gov.au/statistics/economy/price-indexes-and-inflation/wage-price-index-australia/latest-release.

——— (2021e). *Overseas Arrivals and Departures, Australia*. Australian Bureau of Statistics. https://www.abs.gov.au/statistics/industry/tourism-and-transport/overseas-arrivals-and-departures-australia/latest-release.

——— (2021f). *Consumer Price Index, Australia*. Australian Bureau of Statistics. https://www.abs.gov.au/statistics/economy/price-indexes-and-inflation/consumer-price-index-australia/latest-release#data-download.

——— (2021g). *Australian National Accounts: National Income, Expenditure and Product, Mar 2021, Cat. 5206.0*. Australian Bureau of Statistics. https://www.abs.gov.au/statistics/economy/national-accounts/australian-national-accounts-national-income-expenditure-and-product/mar-2021.

——— (2021h). *Residential Property Price Indexes: Eight Capital Cities*. Australian Bureau of Statistics. https://www.abs.gov.au/statistics/economy/price-indexes-and-inflation/residential-property-price-indexes-eight-capital-cities/latest-release#data-download.

——— (2021i). *Patient Experiences Survey*. Australian Bureau of Statistics. https://www.abs.gov.au/statistics/health/health-services/patient-experiences-australia-summary-findings/latest-release.

ACOSS (2018). *Could you live on $39 per day?* Australian Council of Social Service. https://www.acoss.org.au/raisetherate/.

——— (2021). *COVID inome support: Analysis of income support in the COVID lockdowns in 2020 and 2021*. Australian Council of Social Service. https://povertyandinequality.acoss.org.au/wp-content/uploads/2021/10/Covid-income-support_build-back-fairer-report-1.pdf.

ACT Government (2021). *Appointment Standards: Boards and Committees in the ACT*. https://www.cmtedd.act.gov.au/policystrategic/cabinet/governance.

AEMO (2021). *Draft Integrated System Plan*. Australian Energy Market Operator. https://aemo.com.au/en/energy-systems/major-publications/integrated-system-plan-isp/2022-integrated-system-plan-isp.

AERO (2021). *Research Agenda 2021–2022*. Australian Education Research Organisation. https://www.edresearch.edu.au/our-research/research-agenda.

AIHW (2017). *Housing Assistance in Australia 2017*. Australian Institute of Health and Welfare. https://www.aihw.gov.au/reports/housing-assistance/housing-assistance-in-australia-2017/contents/social-housing-dwellings.

ALP (2021). *Powering Australia*. Australian Labor Party. https://www.alp.org.au/policies/powering-australia.

ANAO (2020). *Purchase of the 'Leppington Triangle' Land for the Future Development of Western Sydney Airport*. Auditor-General Report No. 9 2020–21 Performance Audit. Australian National Audit Office. https://www.anao.gov.au/work/performance-audit/purchase-the-leppington-triangle-land-the-future-development-western-sydney-airport.

——— (2021a). *Award of Funding under the Community Sport Infrastructure Program*. Auditor-General Report No.23 2019–20 Performance Audit. Australian National Audit Office. https://www.anao.gov.au/work/performance-audit/award-funding-under-the-community-sport-infrastructure-program.

——— (2021b). *Administration of Commuter Car Park Projects within the Urban Congestion Fund*. Auditor-General Report No. 47 2020–21 Performance Audit. Australian National Audit Office. https://www.anao.gov.au/work/performance-audit/administration-commuter-car-park-projects-within-the-urban-congestion-fund.

Appleby, G. (2014). "What's The Case For A Federal ICAC?" *ABC News*. http://www.abc.net.au/news/2014-09-10/appleby-whats-the-case-for-a-federal-icac/5733712.

Asprey, K. W. (1975). *Taxation Review Committee: Full Report*. Commonwealth Taxation Review Committee. http://adc.library.usyd.edu.au/view?docId=law/xml-main-texts/p00087.xml;chunk.id=0;toc.id=LEVI;database=;collection=;brand=ozfed.

ATO (2018). *Changes to company tax rates*. Australian Taxation Office. https://www.ato.gov.au/Rates/Changes-to-company-tax-rates/?page=1#Base_rate_entity_company_tax_rate.

——— (2021a). *Instant asset write-off for eligible businesses*. Australian Taxation Office. https://www.ato.gov.au/Business/Depreciation-and-capital-expenses-and-allowances/Simpler-depreciation-for-small-business/Instant-asset-write-off/.

——— (2021b). *Backing business investment – accelerated depreciation*. Australian Taxation Office. https://www.ato.gov.au/Business/Depreciation-and-capital-expenses-and-allowances/Backing-business-investment---accelerated-depreciation/.

——— (2021c). *Selected items, for APRA regulated and other funds, for income years 1989–90 to 2018–19*. Australian Taxation Office. https://data.gov.au/data/dataset/taxation-statistics-2018-19/resource/9198fcae-f1d7-4901-a539-f677b2aa90e5?inner_span=True.

Auger et al (2021). Auger, T., Trüby, J., Balcombe, P. and Staffell, I. "The future of coal investment, trade, and stranded assets". *Joule* 5 (6), pp. 1462–1484.

Aura, S. and Davidoff, S. (2008). "Supply constraints and housing prices". *Economic Letters* 99.2, pp. 275–277.

Australian Energy Transitions Initiative (2021). *Setting up industry for net-zero: phase 1 highlights report*. ClimateWorks. https://energytransitionsinitiative.org/wp-content/uploads/2021/06/Phase-1-Highlights-Report-June-2021.pdf.

Backes, B. and Hansen, M. (2018). *Reaching Further and Learning more? Evaluating Public Impact's Opportunity Culture Initiative*. National Center for the Analysis of Longitudinal Data in Education. https://caldercenter.org/sites/default/files/WP%5C%20181_0.pdf.

Bagshaw, E. (2018). "'Freeze has gone on too long': John Howard calls for dole increase". *Sydney Morning Herald*. https://www.smh.com.au/politics/federal/freeze-has-gone-on-too-long-john-howard-calls-for-a-dole-increase-20180509-p4ze83.html.

Barr, N. and Diamond, P. (2017). *Designing a default structure*. London School of Economics and Massachusetts Institute of Technology. https://www.pc.gov.au/__data/assets/pdf_file/0015/221703/sub074-superannuation-assessment.pdf.

Bartlett, B. and Boffa, J. (2001). "Aboriginal Community Controlled Comprehensive Primary Health Care: The Central Australian Aboriginal Congress". *Australian Journal of Primary Health* 7.3, pp. 74–82. https://www.publish.csiro.au/paper/PY01050.

Bates et al (2021). Bates, D. W., Levine, D., Syrowatka, A., Kuznetsova, M., Craig, K. J. T., Rui, A., Jackson, G. P. and Rhee, K. "The potential of artificial intelligence to improve patient safety: a scoping review". *npj Digital Medicine* 4.1, p. 54. ISSN: 2398-6352. https://doi.org/10.1038/s41746-021-00423-6.

Baum et al (2017). Baum, F., Freeman, T., Lawless, A., Labonte, R. and Sanders, D. "What is the difference between comprehensive and selective primary health care? Evidence from a five-year longitudinal realist case study in South Australia". *BMJ Open* 7.4, e015271. https://bmjopen.bmj.com/content/bmjopen/7/4/e015271.full.pdf.

Baumol, W. J. (1996). "Entrepreneurship: Productive, Unproductive, and Destructive". *Journal of Business Venturing* 11.1, pp. 3–22. https://www.Sciencedirect.com/Science/Article/Abs/Pii/088390269400014x.

BCA (2018). *Australia at work: managing adjustment and change*. Business Council of Australia. https://www.bca.com.au/australia_at_work_managing_adjustment_and_change.

Berk-Clark et al (2018). Berk-Clark, C. van den, Doucette, E., Rottnek, F., Manard, W., Prada, M. A., Hughes, R., Lawrence, T. and Schneider, F. D. "Do Patient-Centered Medical Homes Improve Health Behaviors, Outcomes, and Experiences of Low-Income Patients? A Systematic Review and Meta-Analysis". *Health Services Research* 53.3, pp. 1777–1798. ISSN: 0017-9124. https://doi.org/10.1111/1475-6773.12737.

BIS (2021). *Residential property prices: selected series, nominal and real*. Bank of International Settlements. https://www.bis.org/statistics/pp_selected.htm.

Bishop, J. and Cassidy, N. (2017). *Insights into low wage growth in Australia*. Reserve Bank of Australia. https://www.rba.gov.au/publications/bulletin/2017/mar/pdf/bu-0317-reserve-bank-bulletin.pdf%7B%5C#%7Dpage=16.

Blanchard, O. (2019). "Public Debt and Low Interest Rates". *American Economic Review* 109.4, pp. 1197–1229. https://doi.org/10.1257/aer.109.4.1197.

Blanchard, O. and Leigh, D. (2013). "Growth Forecast Errors and Fiscal Multipliers". *American Economic Review* 103.3, pp. 117–120. https://doi.org/10.1257/aer.103.3.117.

BloombergNEF (2021). *Electric Vehicle Outlook 2021: Executive Summary*. https://about.bnef.com/electric-vehicle-outlook/.

Boone et al (2016). Boone, C., Dube, A., Goodman, L. and Kaplan, E. *Unemployment Insurance Generosity and Aggregate Employment*. 10439. Institute of Labor Economics (IZA). https://ideas.repec.org/p/iza/izadps/dp10439.html.

Bower et al (2021). Bower, M. et al. *COVID-19 and Australia's Mental Health: An overview of academic literature, policy documents, lived experience accounts, media and community reports*. Australia's Mental Health Think Tank. https://mentalhealththinktank.org.au/wp-content/uploads/2021/10/AustraliasMentalHealthThinkTank-EvidenceSummary-COVID-MentalHealth.pdf.

Boyd et al (2008). Boyd, D., Lankford, H., Loeb, S., Rockoff, J. and Wyckoff, J. "The Narrowing Gap in New York City Teacher Qualifications and Its Implications for Student Achievement in High-Poverty Schools". *Journal of Policy Analysis and Management* 27 (4), pp. 793–818. https://www.nber.org/system/files/working_papers/w14021/w14021.pdf.

Breunig, R. and Sobeck, K. (2020). *The Economic Incidence of Superannuation*. Crawford School of Public Policy, Australian National University. https://taxpolicy.crawford.anu.edu.au/sites/default/files/uploads/taxstudies_crawford_anu_edu_au/2021-08/economic_of_incidence_final_report_2020.pdf.

Brou, D. and Ruta, M. (2013). "Rent-seeking, market structure, and growth". *Scandinavian Journal of Economics* 115.3, pp. 878–901.

Brown et al (2018). Brown, A., Graycar, A., Kelly, K., Coghill, K., Prenzler, T. and Ransley, J. *A National Integrity Commission – Options For Australia*. Griffith University.

Bruce et al (2021). Bruce, S., Delaval, B., Moisi, A., Ford, J., West, J., Loh, J. and Hayward, J. *Critical Energy Minerals Roadmap*. CSIRO. https://www.csiro.au/en/work-with-us/services/consultancy-strategic-advice-services/csiro-futures/futures-reports/critical-energy-minerals-roadmap.

Callaghan et al (2020). Callaghan, M., Ralston, D. and Kay, C. *Retirement Income Review: Final Report*. Treasury. https://treasury.gov.au/publication/p2020-100554.

Cameron, S. M. and McAllister, I. (2019). *The 2019 Australian Federal Election: Results from the Australian Election Study*. Australian National University. http://australianelectionstudy.org/.

Cancer Australia (2021). *The impact of COVID-19 on cancer-related medical services and procedures in Australia in 2020: Examination of MBS claims data for 2020, nationally and by jurisdiction*.

CEDA (2018). *We need to stop punishing the unemployed*. Committee for Economic Development of Australia. https://ceda.com.au/Digital-hub/Blogs/CEDA-Blog/September-2018/We-need-to-stop-punishing-the-unemployed.

Centre for Population (2021). *Population Statement, December 2021*. The Australian Government. https://population.gov.au/sites/population.gov.au/files/2021-12/population_statement_2021.pdf.

CER (2021a). *Safeguard facility reported emissions 2019–20*. Clean Energy Regulator. http://www.cleanenergyregulator.gov.au/NGER/National%20greenhouse%20and%20energy%20reporting%20data/safeguard-facility-reported-emissions/safeguard-facility-emissions-2019%E2%80%9320.

——— (2021b). *Understanding carbon abatement contracts*. Clean Energy Regulator. http://www.cleanenergyregulator.gov.au/ERF/Want-to-participate-in-the-Emissions-Reduction-Fund/Step-2-Contracts-and-auctions/understanding-carbon-abatement-contracts.

Chomik, R. and Yan, S. (2019). *Housing in an ageing Australia: Nest and nest egg?* CEPAR. https://cepar.edu.au/sites/default/files/cepar-research-brief-housing-ageing-australia.pdf.

Choudhury, A. and Asan, O. (2020). "Role of Artificial Intelligence in Patient Safety Outcomes: Systematic Literature Review". *JMIR Med Inform* 8.7, e18599. ISSN: 2291-9694. http://medinform.jmir.org/2020/7/e18599/.

Chowdhury et al (2020). Chowdhury, F., Naulls, A. and Smithers, J. *Optimising project delivery performance*. Austroads. https://austroads.com.au/publications/project-delivery/ap-r630-20/media/AP-R630-20_Optimising_Project_Delivery_Performance.pdf.

Cingano, F. (2014). *Trends in Income Inequality and its Impact on Economic Growth*. 163. OECD Publishing. https://www.oecd.org/els/soc/trends-in-income-inequality-and-its-impact-on-economic-growth-SEM-WP163.pdf.

Clark, R. (2019). "A student's eye view of the training crisis". *Inside+*. https://insightplus.mja.com.au/2019/14/a-students-eye-view-of-the-training-crisis/.

Clotfelter et al (2008). Clotfelter, C., Ladd, H. and Vigdor, J. "Teacher Credentials and Student Achievement in High School: A Cross-Subject Analysis with Student Fixed Effects". *Journal of Human Resources* 45 (3), pp. 655–681. http://www.nber.org/papers/w13617.

Coates, B. (2021a). *A place to call home: it's time for a Social Housing Future Fund*. Grattan Institute. https://grattan.edu.au/news/a-place-to-call-home-its-time-for-a-social-housing-future-fund/.

——— (2021b). "Superannuation reforms a big step on the long road to cheaper super". *The New Daily*. https://thenewdaily.com.au/finance/superannuation/2021/06/22/your-future-your-super-grattan-institute/.

——— (2022). *Levelling the playing field: it's time for a national shared equity scheme*. Grattan Institute. https://grattan.edu.au/news/levelling-the-playing-field-its-time-for-a-national-shared-equity-scheme/.

Coates, B. and Chivers, C. (2019). "Rising inequality in Australia isn't about incomes: it's almost all about housing". *The Conversation*. https://theconversation.com/rising-inequality-in-australia-isnt-about-incomes-its-almost-all-about-housing-119872.

Coates, B. and Cowgill, M. (2019). "What's driving the rebound in house prices since the election?" *Grattan Blog*. https://grattan.edu.au/news/whats-driving-the-rebound-in-house-prices-since-the-election/.

Coates et al (2020a). Coates, B., Mackey, W. and Cowgill, M. *No free lunch: higher super means lower wages*. Grattan Institute. https://grattan.edu.au/report/no-free-lunch/.

Coates, B. and Nolan, J. (2020a). *Balancing Act: Managing the Trade-Offs in Retirement Incomes Policy (Submission to the Retirement Income Review)*. Grattan Institute. https://grattan.edu.au/wp-content/uploads/2020/03/Grattan-Institute-sub-balancing-act-retirement-income-review.pdf.

——— (2020b). *Submission to Inquiry into the National Housing Finance and Investment Corporation Amendment Bill 2019*. Grattan Institute. https://grattan.edu.au/wp-content/uploads/2019/09/Submission-to-Inquiry-into-the-National-Housing-Finance-and-Investment-Corporation-Amendment-Bill-4.pdf.

——— (2020c). *Balancing Act: managing the trade-offs in retirement income policy*. Grattan Institute. https://grattan.edu.au/report/balancing-act/.

Coates et al (2020b). Coates, B., Nolan, J. and Chen, T. *Tackling homelessness in Australia: Submission to the Standing Committee on Social Policy and Legal Affairs' inquiry into homelessness in Australia*. Grattan Institute. https://grattan.edu.au/wp-content/uploads/2020/07/housefin_2020_cth_homeless_sub.pdf.

Coates et al (2021). Coates, B., Sherrell, H. and Mackey, W. *Rethinking permanent skilled migration after the pandemic*. Grattan Institute. https://grattan.edu.au/report/rethinking-permanent-skilled-migration-after-the-pandemic/.

Coates, B. and Cowgill, M. (2021). *The JobSeeker rise isn't enough: Submission to the Senate Standing Committee on Community Affairs*. Grattan Institute. https://grattan.edu.au/wp-content/uploads/2021/03/housefin_2021_jobseeker_submission.pdf.

Coates, B. and Crowley, T. (2021). *How to make housing more affordable: Submission to the parliamentary inquiry into housing affordability and supply in Australia*. Grattan Institute. https://grattan.edu.au/news/how-to-make-housing-more-affordable/.

Coates, B. and Joiner, R. (2021). "Women's financial security in retirement should be high on minister's agenda". *The Sydney Morning Herald*. https://www.smh.com.au/money/super-and-retirement/women-s-financial-security-in-retirement-should-be-high-on-minister-s-agenda-20210331-p57fio.html.

Coghill et al (2008a). Coghill, K., Donohue, R. and Holland, P. "Parliamentary Accountability To The Public – Developing MPs' Ethical Standards". *Australasian Parliamentary Review* 23.1, pp. 101–120.

Coghill et al (2008b). Coghill, K., Holland, P., Donohue, R., Rozzoli, K. and Grant, G. "Professional development programmes for members of parliament". *Parliamentary Affairs* 61.1, pp. 73–98.

COVID-19 hotel quarantine inquiry (Chair: Jennifer Coates) (2020). *Final Report and Recommendations*. Victorian Government Printer.

Cowan, S. (2015). "Why you shouldn't trust these IGR predictions". *ABC Online*. https://www.abc.net.au/news/2015-03-05/cowan-intergenerational-report/6283626.

Crouch, M. and Colton, C. (1983). *The course of community health in New South Wales, 1958-1982*. Vol. 48. The University of New South Wales, p. 156.

Crowe, D. (2021). "Labor to dump fuel emissions plan in next step on climate". *The Sydney Morning Herald*. 1 December. https://www.smh.com.au/politics/federal/labor-to-dump-fuel-emissions-plan-in-next-step-on-climate-20211130-p59dkj.html.

Currie et al (2021). Currie, G., Jain, T. and Aston, L. "Evidence of a post-COVID change in travel behaviour: Self-reported expectations of commuting in Melbourne". *Transportation Research Part A: Policy and Practice* 153, pp. 218–234. https://www.sciencedirect.com/science/article/pii/S0965856421002391?via%3Dihub.

Curtis, K. and Wright, S. (2021). "How $2.8 billion of your money is spent — it grossly favours Coalition seats". *The Age / Sydney Morning Herald*. https://www.theage.com.au/interactive/2021/electorates-government-grants/index.html.

Daley, J. (2016). *Productivity and geography*. Presentation to the Productivity Commission Conference, Canberra. https://grattan.edu.au/wp-content/uploads/2017/01/Productivity-and-geography-Productivity-Commission-Dec-2016.pdf.

——— (2020). *Prioritising a government's agenda*. Grattan Institute. https://grattan.edu.au/report/prioritising-a-governments-agenda/.

——— (2021). *Gridlock: removing barriers to policy reform*. Grattan Institute. https://grattan.edu.au/report/gridlock/.

Daley et al (2012). Daley, J., McGannon, C. and Ginnivan, L. *Game-changers: Economic reform priorities for Australia*. Grattan Institute. http://grattan.edu.au/publications/reports/post/game-changers-economic-reform-priorities-for-australia/.

Daley et al (2013a). Daley, J., McGannon, C. and Savage, J. *Budget pressures on Australian governments 2013*. Grattan Institute. https://grattan.edu.au/report/budget-pressures-on-australian-governments/.

Daley et al (2013b). Daley, J., McGannon, C., Savage, J. and Hunter, A. *Balancing budgets: tough choices we need*. Grattan Institute. https://grattan.edu.au/report/balancing-budgets-tough-choices-we-need/.

Daley et al (2015a). Daley, J., Coates, B., Wood, D. and Parsonage, H. *Super tax targeting*. Grattan Institute. http://grattan.edu.au/wp-content/uploads/2015/11/832-Super-tax-targeting.pdf.

Daley et al (2015b). Daley, J., Wood, D., Parsonage, H. and Coates, B. *A GST reform package*. Report No. 2015-12. Grattan Institute. https://grattan.edu.au/report/a-gst-reform-package/.

Daley et al (2016a). Daley, J., Coates, B., Young, W. and Parsonage, H. *Age of Entitlement: age-based tax breaks*. Grattan Institute. https://grattan.edu.au/report/age-of-entitlement/.

Daley et al (2016b). Daley, J., Wood, D. and Parsonage, H. *Hot property: negative gearing and capital gains tax*. Grattan Institute. https://grattan.edu.au/report/hot-property/.

Daley, J. and Coates, B. (2018). *Submission to the Senate Economics Legislation Committee inquiry into the Treasury Laws Amendment (Protecting Your Superannuation Package) Bill*. Grattan Institute. https://grattan.edu.au/wp-content/uploads/2018/07/Grattan-submission-to-Senate-economics-protecting-your-super-FINAL1.pdf.

Daley et al (2018a). Daley, J., Coates, B. and Wiltshire, T. *Housing affordability: re-imagining the Australian dream*. Grattan Institute. https://grattan.edu.au/report/housing-affordability-re-imagining-the-australian-dream/.

Daley et al (2018b). Daley, J., Coates, B., Wiltshire, T., Emslie, O., Nolan, J. and Chen, T. *Money in retirement: More than enough*. Grattan Institute. https://grattan.edu.au/wp-content/uploads/2018/11/912-Money-in-retirement.pdf.

Daley et al (2018c). Daley, J., Duckett, S., Goss, P., Terrill, M., Wood, D., Wood, T. and Coates, B. *State Orange Book 2018: Policy priorities for states and territories*. Grattan Institute. https://grattan.edu.au/report/state-orange-book-2018/.

Daley, J. and Coates, B. (2019). *Submission to the Senate Economics Legislation Committee inquiry into the Treasury Laws Amendment (Putting Members' Interests First) Bill 2019 [Provisions]*. Grattan Institute. https://grattan.edu.au/wp-content/uploads/2019/09/Grattan-submission-to-Senate-economics-Putting-Members-Interests-First-1.pdf.

Daley et al (2019). Daley, J., Duckett, S., Goss, P., Norton, A., Terrill, M., Wood, D., Wood, T. and Coates, B. *Orange Book 2019: Priorities for the next Commonwealth Government*. Grattan Institute. https://grattan.edu.au/report/commonwealth-orange-book-2019/.

Daley et al (2020). Daley, J., Wood, D., Coates, B., Duckett, S., Sonnemann, J., Terrill, M., Wood, T. and Griffiths, K. *The Recovery Book: what Australian governments should do now*. Grattan Institute. https://grattan.edu.au/report/recovery-book/.

Davidson et al (2020a). Davidson, P., Bradbury, B., Wong, M. and Hill, T. *Inequality in Australia 2020, Part 1: Overview*. ACOSS. https://povertyandinequality.acoss.org.au/wp-content/uploads/2020/02/Poverty-in-Australia-2020_Part-1_Overview.pdf.

Davidson et al (2020b). Davidson, P., Saunders, P., Bradbury, B. and Wong, M. *Poverty in Australia 2020: Part 1 Overview*. ACOSS. https://povertyandinequality.acoss.org.au/wp-content/uploads/2020/02/Poverty-in-Australia-2020_Part-1_Overview.pdf.

Davis, K. (2012). “Australia’s company tax ‘burden’ is just a myth”. *The Conversation*. https://theconversation.com/australias-company-tax-burden-is-just-a-myth-10433.

Debrun et al (2018). Debrun, X., Eyraud, L., Hodge, A., Lledo, V. and Pattillo, C. “‘Second-generation’ fiscal rules: From stupid to too smart”. *VoxEU*. https://voxeu.org/article/second-generation-fiscal-rules-stupid-too-smart.

Deloitte (2018). *Analysis of the impact of raising benefit rates*. Deloitte Access Economics, commissioned on behalf of ACOSS. https://www.acoss.org.au/wp-content/uploads/2018/09/DAE-Analysis-of-the-impact-of-raising-benefit-rates-FINAL-4-September-...-1.pdf.

Department of Education, Skills and Employment (2020). *Australian Education Research Organisation*. https://www.dese.gov.au/quality-schools-package/resources/australian-education-research-organisation-aero.

Department of Education, Skills and Employment (2021). *Quality Initial Teacher Education Review*. https://www.dese.gov.au/quality-initial-teacher-education-review.

Department of Finance (2022). *Commonwealth Monthly Financial Statements December 2021*. January. https://www.finance.gov.au/publications/commonwealth-monthly-financial-statements/2022/mfs-december.

Department of Health (2021). *Future focused primary health care: Australia's Primary Health Care 10 Year Plan 2022-2032*. https://www.cancer.org.au/assets/pdf/future-focused-primary-health-care-australia-s-primary-health-care-10-year-plan.

——— (2022). *HELP debt reduction for rural doctors and nurse practitioners*. https://www.health.gov.au/sites/default/files/documents/2022/01/fact-sheet-help-for-rural-doctors-and-nurse-practitioners-fact-sheet-help-for-rural-doctors-and-nurse-practitioners.pdf.

Department of Home Affairs (2020). *Australian Migration Statistics, 2019-20*. https://data.gov.au/dataset/ds-dga-dba45e7c-81f4-44aa-9d82-1b9a0a121017/distribution/dist-dga-6037fa73-849d-4aa7-9cd4-f1f151300aa2/details?q=.

——— (2021a). *2020 – 21 Migration Program Report: Program year to 30 June 2021*. https://www.homeaffairs.gov.au/research-and-stats/files/report-migration-program-2020-21.pdf.

——— (2021b). *2020–21 Humanitarian Program Outcomes*. https://www.homeaffairs.gov.au/research-and-stats/files/australia-offshore-humanitarian-program-2020-21-glance.pdf.

——— (2021c). *Migration Program Planning Levels*. https://immi.homeaffairs.gov.au/what-we-do/migration-program-planning-levels.

Department of Industry, Science, Energy and Resources (2020). *Australian Energy Update 2020*. https://www.energy.gov.au/publications/australian-energy-update-2020.

——— (2021a). *Australia's emissions projections 2021*. https://www.industry.gov.au/data-and-publications/australias-emissions-projections-2021.

——— (2021b). *Resources and Energy Quarterly: June 2021*. https://publications.industry.gov.au/publications/resourcesandenergyquarterlyjune2021/index.html.

Department of Infrastructure and Regional Development (2017). *Guidance note 2: base cost estimation*. https://investment.infrastructure.gov.au/files/cost_estimation_guidance/Guidance_Note_2_Base_Cost_Estimation.pdf.

Department of Social Services (2016). *National Rental Affordability Scheme Tenant Demographic Report as of 30 April 2016*. https://www.dss.gov.au/sites/default/files/documents/06_2017/nras_tenant_demographic_report_as_at_30_april_2016.pdf.

——— (2018). *National Rental Affordability Scheme (NRAS) – household income (indexation)*. https://www.dss.gov.au/our-responsibilities/housing-support/programs-services/national-rental-affordability-scheme/national-rental-affordability-scheme-nras-incentive-indexation.

——— (2020). *Guide to Social Policy Law: Social Security Guide (Version 1.267)*.

Department of the Environment (2015). *Draft Explanatory Statement for the National Greenhouse and Energy Reporting (Safeguard Mechanism) Rule 2015*. https://consult.industry.gov.au/climate-change/exposure-draft-instruments-for-the-safeguard-mecha/.

Department of the Environment and Energy (2018). *Better Fuel for Cleaner Air – Draft Regulation Impact Statement*. https://www.industry.gov.au/sites/default/files/2020-07/better-fuel-cleaner-air-ris.pdf.

Department of the Prime Minister and Cabinet (n.d.). *Guidelines relating to official gifts received*. Accessed 22 January 2022. https://www.pmc.gov.au/government/official-gifts/guidelines-relating-official-gifts-received.

——— (2018). *Guidelines on Overseas Visits by Ministers*. https://www.pmc.gov.au/resource-centre/government/guidelines-overseas-visits-ministers.

Dhillon, Z. and Cassidy, N. (2018). *Labour Market Outcomes for Younger People*. June 2018. RBA. https://www.rba.gov.au/publications/bulletin/2018/jun/labour-market-outcomes-for-younger-people.html.

Dobbie, W. (2011). *Teacher Characteristics and Student Achievement : Evidence from Teach For America*. Harvard University. http://citeseerx.ist.psu.edu/viewdoc/download;jsessionid=85560185670B27200D673D65C398D0BE?doi=10.1.1.698.2282&rep=rep1&type=pdf.

Duckett, S. and Ellen, J. (1979). *The Aboriginal Medical Service in Sydney*. Sydney: Australian Studies in Health Service Administration No. 36, University of New South Wales, p. 60.

Duckett, S. and Romanes, D. (2016). *Blood money: paying for pathology services*. Grattan Institute.

Duckett et al (2016). Duckett, S., Swerissen, H. and Wiltshire, T. *A sugary drinks tax: recovering the community costs of obesity*. Grattan Institute.

Duckett et al (2017). Duckett, S., Swerissen, H. and Moran, G. *Building better foundations for primary care*. Grattan Institute.

Duckett et al (2018a). Duckett, S., Jorm, C., Danks, L. and Moran, G. *All complications should count: Using our data to make hospitals safer*. Grattan Institute.

Duckett et al (2018b). Duckett, S., Jorm, C., Moran, G. and Parsonage, H. *Safer care saves money: How to improve patient care and save public money at the same time*. Grattan Institute.

Duckett et al (2019). Duckett, S., Cowgill, M. and Swerissen, H. *Filling the gap: A universal dental scheme for Australia*. Grattan Institute.

Duckett, S. and Mackey, W. (2020). *Go for zero: How Australia can get to zero COVID-19 cases*. Grattan Institute. https://grattan.edu.au/wp-content/uploads/2020/09/Go-for-zero-how-Australia-can-get-to-zero-COVID-19-cases-Grattan-Report.pdf.

Duckett, S. and Stobart, A. (2020). "Ways in which Australia's coronavirus response was a triumph, and ways in which it fell short". *2020: The year that changed us*. Ed. by M. Glassey. Port Melbourne: Thames & Hudson - The Conversation, pp. 33–38.

Duckett et al (2020a). Duckett, S., Stobart, A. and Swerissen, H. *Reforming aged care: a practical plan for a rights-based system*. Grattan Institute.

Duckett et al (2020b). Duckett, S., Swerissen, H. and Stobart, A. *Rethinking aged care: emphasising the rights of older Australians*. Grattan Institute.

Duckett, S. and Moran, G. (2021). *Stopping the death spiral: creating a future for private health*. Grattan Institute.

Duckett, S. and Stobart, A. (2021). "From Rationing to Rights: Creating a Universal Entitlement to Aged Care". *Australian Economic Review* 54.2, pp. 257–265. ISSN: 0004-9018. https://onlinelibrary.wiley.com/doi/abs/10.1111/1467-8462.12424.

Duckett et al (2021a). Duckett, S., Stobart, A. and Swerissen, H. *The next steps for aged care: forging a clear path after the Royal Commission*. Grattan Institute. https://grattan.edu.au/wp-content/uploads/2021/04/The-next-steps-for-aged-care-Grattan-report.pdf.

Duckett, S. and Sutton, B. (2021). "On entering Australia's third year with COVID-19". *Medical Journal of Australia* 215. in press.

Duckett, S. and Swerissen, H. (2021). *Unfinished business: Practical policies for better care at home*. Grattan Institute. https://grattan.edu.au/report/unfinished-business-practical-policies-for-better-care-at-home/.

Duckett et al (2021b). Duckett, S., Wood, D., Coates, B., Mackey, W., Crowley, T. and Stobart, A. *Race to 80: our best shot at living with COVID*. Grattan Institute. https://grattan.edu.au/report/race-to-80/.

Edelman (2022). *Edelman Trust Barometer Global Report*. https://www.edelman.com/trust/2022-trust-barometer.

Edmunds, M. (2018). "Inequitable Physical Illness and Premature Mortality for People with Severe Mental Illness in Australia: A Social Analysis". *Health and human rights* 20.1, pp. 273–281. ISSN: 2150-41131079-0969. https://pubmed.ncbi.nlm.nih.gov/30008569.

Edwards, M. (2006). *Appointments to public sector boards in Australia: a comparative assessment*. Issues Paper Series No. 3. Canberra University. https://apo.org.au/node/4205.

Edwards et al (2012). Edwards, M., Halligan, J., Horrigan, B. and Nicoll, G. *Public Sector Governance in Australia*. ANU Press. https://press.anu.edu.au/publications/series/anzsog/public-sector-governance-australia.

Ellis, L. (2019). *Watching the Invisibles*. Reserve Bank of Australia. https://www.rba.gov.au/speeches/2019/sp-ag-2019-06-12-2.html.

Emslie, O. and Wood, D. (2019). “Death and taxes”. *Inside Story*. https://insidestory.org.au/death-and-taxes/.

Fakhruddin et al (2020). Fakhruddin, B., Blanchard, K. and Ragupathy, D. “Are we there yet? The transition from response to recovery for the COVID-19 pandemic”. *Progress in Disaster Science* 7, p. 100102. ISSN: 2590-0617. https://www.sciencedirect.com/science/article/pii/S2590061720300399.

Fatás, A. and Summers, L. (2018). “The permanent effects of fiscal consolidations, Journal of International Economics”. *Journal of the European Economic Association* 112, pp. 238–250. https://doi.org/10.1016/j.jinteco.2017.11.007.

FCAI (2020). *Federal Chamber of Automotive Industries announces voluntary CO_2 Emissions Standard*. 24 July. Federal Chamber of Automotive Industries. https://www.fcai.com.au/news/index/view/news/652.

Frydenberg, J. (2021). *Address to the Australian Chamber of Commerce and Industry*. https://ministers.treasury.gov.au/ministers/josh-frydenberg-%202018/speeches/address-australian-chamber-commerce-and-industry.

Frydenberg, J. and Hume, J. (2021). *Consumers to benefit from expansion of Consumer Data Right*. https://ministers.treasury.gov.au/ministers/josh-frydenberg-2018/media-releases/consumers-benefit-expansion-consumer-data-right.

Glaeser, E. and Gyourko, J. (2018). “The economic implications of housing supply”. *Journal of Economic Perspectives* 32.1, pp. 3–30. https://pubs.aeaweb.org/doi/pdf/10.1257/jep.32.1.3.

Gonski et al (2011). Gonski, D., Boston, K., Greiner, K., Lawrence, C., Scales, B. and Tannock, P. *Review of Funding for Schooling - Final Report*. Australian Government. https://www.dese.gov.au/school-funding/resources/review-funding-schooling-final-report-december-2011.

Goss et al (2016). Goss, P., Sonneman, J., Chisholm, C. and Nelson, L. *Widening gaps: What NAPLAN tells us about student progress*. Melbourne: Grattan Institute. https://grattan.edu.au/wp-content/uploads/2016/03/937-Widening-gaps.pdf.

Goss, P. and Sonneman, J. (2019). *Attracting high achievers to teaching*. Grattan Institute. https://grattan.edu.au/wp-content/uploads/2019/08/921-Attracting-high-achievers-to-teaching.pdf.

——— (2020). *Top teachers: Sharing expertise to improve teaching*. Grattan Institute. https://grattan.edu.au/wp-content/uploads/2020/02/928-top-teachers.pdf.

Griffiths, K. and Wood, D. (2019). “Why the federal government’s new integrity commission isn’t up to the job”. *The Mandarin*. https://www.themandarin.com.au/103603-why-the-federal-governments-new-integrity-commission-isnt-up-to-the-job/.

——— (2020). “Conflicted cuts at the Audit Office”. *Inside Story*. https://insidestory.org.au/conflicted-cuts-at-the-audit-office/.

Griffiths et al (2020). Griffiths, K., Wood, D. and Chen, T. “How big money influenced the 2019 federal election – and what we can do to fix the system”. *The Conversation*. https://theconversation.com/how-big-money-influenced-the-2019-federal-election-and-what-we-can-do-to-fix-the-system-131141.

Gross, Z. (2022). “Counting the Cost of the Great Undershooting”. *Substack: Gross National Product*. https://gross.substack.com/p/counting-the-cost-of-the-great-undershooting?utm_source=url.

Grout et al (2021). Grout, L. M., Katar, A., Ait Ouakrim, D., Summers, J. A., Kvalsvig, A., Baker, M. G., Blakely, T. and Wilson, N. “Estimating the Failure Risk of Quarantine Systems for Preventing COVID-19 Outbreaks in Australia and New Zealand”. *Medical Journal of Australia* 215.7, pp. 320–324. DOI: 10.1101/2021.02.17.21251946. https://www.medrxiv.org/content/medrxiv/early/2021/04/30/2021.02.17.21251946.full.pdf.

Han et al (2018). Han, S. W., Borgonovi, F. and Guerriero, S. “What Motivates High School Students to Want to Be Teachers? The Role of Salary, Working Conditions, and Societal Evaluations About Occupations in a Comparative Perspective”. *American Educational Research Journal* 55.1, pp. 3–39. https://doi.org/10.3102/0002831217729875.

Hanrahan, C. (2019). “Vote Compass finds voters are split on economy and environment as most important issue”. *ABC News*. https://www.abc.net.au/news/2019-04-17/vote-compass-election-most-important-issues/11003192.

Hansard (2021). *Senate Legal and Constitutional Affairs Legislation Committee, Monday 21 May 2021*. Commonwealth of Australia. https://parlinfo.aph.gov.au/parlInfo/download/committees/estimate/2a75750b-128e-4043-8971-a3ce29db7380/toc_pdf/Legal%20and%20Constitutional%20Affairs%20Legislation%20Committee_2021_05_24_8777.pdf.

Harper et al (2015). Harper, I., Anderson, P., McCluskey, S. and O'Bryan, M. *Competition policy review: final report*. http://competitionpolicyreview.gov.au/final-report/.

Health Policy Analysis (2020). *Evaluation of the Health Care Homes program. Interim evaluation report 2020. Volume 1: Summary report*. Department of Health.

Henry et al (2010). Henry, K., Harmer, J., Piggott, J., Ridout, H. and Smith, G. *Australia's future tax system*. Final Report, May 2010. Treasury. https://treasury.gov.au/review/the-australias-future-tax-system-review/final-report.

HESTA (2021). *State of the sector: 2021 aged care workforce insights*. Health Employees Superannuation Trust Australia. https://www.hesta.com.au/agedcarereport21.

Hewett, J. (2017). "'Bank of Mum and Dad' is now Australia's fifth largest mortgage lender". *Australian Financial Review*. https://www.afr.com/opinion/bank-of-mum-and-dad-is-now-australias-fifth-largest-mortgage-lender-20170926-gyp33c.

HomeStart Finance (2022). *Shared Equity Option*. https://www.homestart.com.au/home-loans/borrowing-boost-loans/shared-equity-option (visited on 22/01/2021).

Hsieh, C.-T. and Moretti, E. (2017). "Housing Constraints and Spatial Misallocation". *National Bureau of Economic Research*. https://www.nber.org/papers/w21154.

Hughes et al (2019). Hughes, R., Leslie, J., Pacitti, C. and Smith, J. *Totally (net) worth it: The next generation of UK fiscal rules*. Resolution Foundation. https://www.resolutionfoundation.org/publications/totally-net-worth-it/.

Hunter, J. and Emslie, O. (2021). "Mind the gap: what we should do about NAPLAN's worrying report card". *The Sydney Morning Herald*.

Hunter et al (2022). Hunter, J., Sonneman, J. and Joiner, R. *Making time for great teaching: Policies for governments*. Grattan Institute. https://grattan.edu.au/report/making-time-for-great-teaching-how-better-government-policy-can-help/.

Hussain et al (2020). Hussain, M. A., Ejrnæs, M. and Larsen, J. E. "Are benefit reductions an effective activation strategy? The case of the lowest benefit recipients in Denmark". *Journal of Social Policy*. ISSN: 14697823.

Hyslop, D. R. and Rea, D. (2018). *Do Housing Allowances Increase Rents? Evidence from a Discrete Policy Change*. www.motu.org.nz.

IEA (2019). *World Energy Outlook 2019*. International Energy Agency. https://www.iea.org/reports/world-energy-outlook-2019.

——— (2020). *World Energy Outlook 2020*. International Energy Agency. https://www.iea.org/reports/world-energy-outlook-2020.

——— (2021). *Net Zero by 2050: A Roadmap for the Global Energy Sector*. International Energy Agency. https://www.iea.org/data-and-statistics/data-product/net-zero-by-2050-scenario.

Iggulden, T. (2018). "Budget repair less urgent than raising dole payments, leading economist Chris Richardson says". *ABC News*. http://www.abc.net.au/news/2018-05-02/budget-repair-less-urgent-than-raising-dole-economist-says/9717140.

IMF (2021). *IMF Fiscal Monitor October 2021*. International Monetary Fund. https://www.imf.org/en/Publications/FM/Issues/2021/10/13/fiscal-monitor-october-2021.

Independent Review of COVID-19 outbreaks at St Basil's Home for the Aged in Fawkner Victoria and Heritage Care Epping Gardens in Epping Victoria (2020). *Report*. Department of Health.

Infrastructure Australia (2018). *Infrastructure decision-making principles*. https://www.infrastructureaustralia.gov.au/sites/default/files/2019-06/Infrastructure_Decision-Making_Principles.pdf.

Infrastructure NSW (2020). *Timely information on infrastructure projects - a guide*. https://www.insw.com/expert-advice/timely-information-on-infrastructure-projects/.

Ingles, D. and Stewart, M. (2018). *Australia's company tax: options for fiscally sustainable reform, updated post Trump*. Crawford School of Public Policy, Australian National University. https://taxpolicy.crawford.anu.edu.au/publication/ttpi-working-papers/12216/australias-company-tax-options-fiscally-sustainable-reform.

Jacob et al (2018). Jacob, B. A., Rockoff, J. E., Taylor, E. S., Lindy, B. and Rosen, R. "Teacher applicant hiring and teacher performance: Evidence from DC public schools". *Journal of Public Economics* 166, pp. 81–97. ISSN: 0047-2727. https://www.sciencedirect.com/science/article/pii/S0047272718301555.

Jaime Guajardo, D. L. and Pescatori, A. (2014). "Expansionary Austerity? International Evidence". *Journal of the European Economic Association* 12.4, pp. 949–968. https://doi.org/10.1111/jeea.12083.

Jensen et al (2014). Jensen, B., Hunter, J., Sonneman, J. and Cooper, S. *Making time for great teaching*. Grattan Institute. https://grattan.edu.au/wp-content/uploads/2014/03/808-making-time-for-great-teaching.pdf.

Jericho, G. (2018). "Underemployment has risen and it's young people paying the price". *The Guardian*. https://www.theguardian.com/business/grogonomics/2018/aug/09/underemployment-has-risen-and-its-young-people-paying-the-price.

Job et al (2021). Job, J., Donald, M., Borg, S. J., Nicholson, C., Chaffey, J., O'Hara, K., Fagermo, N. and Jackson, C. L. "Feasibility of an asynchronous general practitioner-to-general physician eConsultant outpatient substitution program: A Queensland pilot study". *Australian Journal of General Practice* 50 (11), pp. 1095–1111. https://www1.racgp.org.au/ajgp/2021/november/econsultant-outpatient-substitution-program.

Johnson et al (2018). Johnson, G., Scutella, R., Tseng, Y.-P. and Wood, G. "How do housing and labour markets affect individual homelessness?" *Housing Studies* 34 (7). https://www.tandfonline.com/doi/abs/10.1080/02673037.2018.1520819.

Joint Standing Committee On Electoral Matters (2011). *Inquiry Into The Funding Of Political Parties And Election Campaigns*. https://www.aph.gov.au/parliamentary_business/committees/house_of_representatives_committees?url=em/political%20funding/report.htm.

Kalucy et al (2009). Kalucy, L., Katterl, R., Jackson-Bowers, E. and Hordacre, A.-L. *Models of patient enrolment*. Primary Health Care Research Information Service.

Kelly, J.-F. and Donegan, P. (2015). *City Limits: Why Australia's cities are broken and how we can fix them*. Melbourne: Melbourne University Press.

Kennedy, M. M. (2016). "How Does Professional Development Improve Teaching?" *Review of Educational Research* 86.4, pp. 945–980. https://doi.org/10.3102/0034654315626800.

Kessler et al (2021). Kessler, S. et al. "Economic and utilization outcomes of medication management at a large Medicaid plan with disease management pharmacists using a novel artificial intelligence platform from 2018 to 2019: a retrospective observational study using regression methods". *Journal of Managed Care & Specialty Pharmacy* 27.9, pp. 1186–1196. ISSN: 2376-0540. https://doi.org/10.18553/jmcp.2021.21036.

Keystart (2022). *Shared Ownership Home Loan*. https://www.keystart.com.au/loans/shared-ownership-home-loan (visited on 22/01/2021).

Kiil, A. and Houlberg, K. (2014). "How does copayment for health care services affect demand, health and redistribution? A systematic review of the empirical evidence from 1990 to 2011". *The European Journal of Health Economics* 15.8, pp. 813–828. ISSN: 1618-7598. http://dx.doi.org/10.1007/s10198-013-0526-8.

Kirchner, S. (2012). "Independent body needed to preserve integrity of fiscal forecasts". *The Conversation*. https://theconversation.com/independent-body-needed-to-preserve-integrity-of-fiscal-forecasts-7063.

Kraft, M. A. and Papay, J. P. (2014). "Can Professional Environments in Schools Promote Teacher Development? Explaining Heterogeneity in Returns to Teaching Experience". *Educational Evaluation and Policy Analysis* 36.4, pp. 476–500. https://doi.org/10.3102/0162373713519496.

Legislative Assembly Of Queensland (2018). *Code Of Ethical Standards*. https://www.parliament.qld.gov.au/documents/assembly/procedures/codeofethicalstandards.pdf.

Lindsey, B. and Teles, S. (2017). *The Captured Economy: How the powerful enrich themselves, slow down growth, and increase inequality*. Oxford University Press.

Lopez-Leon et al (2021). Lopez-Leon, S., Wegman-Ostrosky, T., Perelman, C., Sepulveda, R., Rebolledo, P. A., Cuapio, A. and Villapol, S. "More than 50 long-term effects of COVID-19: a systematic review and meta-analysis". *Scientific Reports* 11.1, p. 16144. ISSN: 2045-2322. https://doi.org/10.1038/s41598-021-95565-8.

Lowe, P. (2018). *Productivity, Wages and Prosperity*. Reserve Bank of Australia. https://www.rba.gov.au/speeches/2018/sp-gov-2018-06-13.html.

Lund et al (2021). Lund, S., Madgavkar, A., Manyika, J., Smit, S., Ellingrud, K., Meaney, M. and Robinson, O. *The future of work after COVID-19*. McKinsey Global Institute. https://www.mckinsey.com/featured-insights/future-of-work/the-future-of-work-after-covid-19.

Lyon, R. and Amidharmo, R. (2016). *Lies, Damned Lies and the 2015 Intergenerational Report*. Presented to the Actuaries Institute Financial Services Forum, 16–17 May, Melbourne. https://www.actuaries.asn.au/Library/Events/FSF/2016/LyonAmidharmoIntergenReport.pdf.

Macmillan, J. (2019). "Federal Government slammed for stacking Administrative Appeals Tribunal with 'Liberal mates'". *ABC News*. https://www.abc.net.au/news/2019-02-22/government-slammed-for-appeals-tribunal-appointees/10835856.

Markus, A. (2020). *Mapping Social Cohesion: The Scanlon Foundation surveys 2020*. Scanlon Foundation. https://scanloninstitute.org.au/report2020.

——— (2021). *Mapping Social Cohesion: The Scanlon Foundation surveys 2021*. Scanlon Foundation. https://scanloninstitute.org.au/report2021.

Martin, P. (2021). "Top economists call for budget measures to speed the switch to electric cars". *The Conversation*. 20 June. https://theconversation.com/top-economists-call-for-budget-measures-to-speed-the-switch-to-electric-cars-162883.

Material Economics (2019). *Industrial Transformation 2050: Pathways to Net-Zero Emissions from EU Heavy Industry*. University of Cambridge Institute for Sustainability Leadership. https://www.climate-kic.org/wp-content/uploads/2019/04/Material-Economics-Industrial-Transformation-2050.pdf.

McGowan, M. (2021). "Leppington triangle: Coalition's $30m purchase of airport land 'incompetent or corrupt'". *The Guardian*. https://www.theguardian.com/australia-news/2021/apr/29/leppington-triangle-coalitions-30m-purchase-of-airport-land-incompetent-or-corrupt.

McIntyre, D. and Chow, C. K. (2020). "Waiting Time as an Indicator for Health Services Under Strain: A Narrative Review". *Inquiry* 57, p. 0046958020910305. ISSN: 0046-9580. https://doi.org/10.1177/0046958020910305.

McKay, A. and Reis, R. (2016). "The Role of Automatic Stabilizers in the U.S. Business Cycle". *Journal of the Econometrics Society* 84.1, pp. 141–194. https://doi.org/10.3982/ECTA11574.

——— (2021). "Optimal Automatic Stabilizers". *The Review of Economic Studies* 88.5, pp. 2375–2406. https://doi.org/10.1093/restud/rdaa038.

Melbourne Institute (2021). *Poverty Lines: Australia (March quarter 2021)*. Note: This paper uses unit record data from the Household, Income and Labour Dynamics in Australia (HILDA) Survey. The HILDA Project was initiated and is funded by the Australian Government Department of Social Services (DSS) and is managed by the Melbourne Institute of Applied Economic and Social Research (Melbourne Institute). The findings and views reported in this paper, however, are those of the author and should not be attributed to either DSS or the Melbourne Institute. Melbourne Institute of Applied Economic and Social Research. https://melbourneinstitute.unimelb.edu.au/publications/poverty-lines.

Metusela et al (2020). Metusela, C., Usherwood, T., Lawson, K., Angus, L., Kmet, W., Ferdousi, S. and Reath, J. "Patient Centred Medical Home (PCMH) transitions in western Sydney, Australia: a qualitative study". *BMC Health Services Research* 20.285, pp. 1–13. ISSN: 1472-6963. https://doi.org/10.1186/s12913-020-05123-7.

Minifie, J. (2017). *Competititon in Australia: Too little of a good thing?* Grattan Institute. https://grattan.edu.au/report/competition-in-the-australian-economy/.

Minifie et al (2017). Minifie, J., Chisholm, C. and Percival, L. *Stagnation nation? Australian investment in a low growth world*. https://grattan.edu.au/report/stagnation-nation/.

Moretti, E. (2012). *The New Geography of Jobs*. Mariner Books.

Morrison, S. (2015). *Fairer access to a more sustainable pension*. https://formerministers.dss.gov.au/15866/fairer-access-to-a-more-sustainable-pension/.

Murphy, K. (2021). "Scott Morrison digs in over federal Icac – and tries to shift blame to Labor for slow progress". *The Guardian*. https://www.theguardian.com/australia-news/2021/nov/28/scott-morrison-digs-in-over-federal-icac-and-tries-to-shift-blame-to-labor-for-slow-progress.

Murray et al (2014). Murray, D., Davis, K., Dunn, C., Hewson, C. and McNamee, B. *Financial System Inquiry: Final Report*. https://treasury.gov.au/sites/default/files/2019-03/p2014-FSI-01Final-Report.pdf.

Nasserie et al (2021). Nasserie, T., Hittle, M. and Goodman, S. N. “Assessment of the Frequency and Variety of Persistent Symptoms Among Patients With COVID-19: A Systematic Review”. *JAMA Network Open* 4.5, e2111417–e2111417. ISSN: 2574-3805. https://doi.org/10.1001/jamanetworkopen.2021.11417.

NCVER (2018). *Longitudinal Survey of Australian Youth*. National Centre for Vocational Education Research. https://www.lsay.edu.au.

Newhouse, J. P. and Health Insurance Experiment Group (1993). *Free for all? Lessons from the RAND health insurance experiment*. Cambridge, Massachusetts: Harvard University Press.

Newhouse, J. P. and Sinaiko, A. D. (2008). “What we know and don’t know about the effects of cost sharing of the demand for medical care - and so what?” *Incentives and choice in health care*. Ed. by F. A. Sloan and H. Kasper. Cambridge: MIT Press, pp. 85–102.

Next25 (2021). *Next25 Navigator Social Research Report 2021*. https://www.next25.org.au/navigator.

Nicholson, T. (2021). *Top-selling cars for 2020 (and the biggest losers)*. RACV. https://www.racv.com.au/royalauto/moving/news-information/top-selling-cars-australia-2020.html.

Norton, A. and Cherastidtham, I. (2014). *Doubtful debt: the rising cost of student loans*. Grattan Institute. https://grattan.edu.au/report/doubtful-debt-the-rising-cost-of-student-loans/.

NSW Department of Education (2022). *Tutoring program extended as students return to school*. https://education.nsw.gov.au/news/latest-news/tutoring-program-extended-as-students-return-to-school (visited on 17/01/2022).

NSW Innovation and Productivity Council and NSW Productivity Commission (2021). *NSW Remote Working Insights*. NSW Government. https://www.investment.nsw.gov.au/living-working-and-business/nsw-innovation-and-productivity-council/our-publications/nsw-remote-working-insights/.

NSW Public Service Commission (2015). *Appointment Standards: Boards and Committees in the NSW Public Sector*. https://www.psc.nsw.gov.au/sites/default/files/2020-10/appointment_standards_-_october_2015_-_update_for_m2015-04.pdf.

NSW Treasury (2021). *2021-22 NSW Intergenerational Report*. https://www.treasury.nsw.gov.au/sites/default/files/2021-06/2021-22_nsw_intergenerational_report.pdf.

OECD (2008). *Comparisons Over Time on the PISA Scales*. Organisation for Economic Co-operation and Development. https://www.oecd.org/pisa/pisaproducts/39712449.pdf.

——— (2010). *OECD Economic Surveys: Australia*. December 2010. Organisation for Economic Co-operation and Development. https://www.oecd-ilibrary.org/economics/oecd-economic-surveys-australia-2010_eco_surveys-aus-2010-en.

——— (2016). *Financing Democracy: Funding of Political Parties and Election Campaigns and The Risk of Policy Capture*. Organisation for Economic Co-operation and Development. http://dx.doi.org/10.1787/9789264249455-En.

——— (2018a). *The Role and Design of Net Wealth Taxes in the OECD*. Tax Policy Studies, No.26. Organisation for Economic Co-operation and Development. https://read.oecd-ilibrary.org/taxation/the-role-and-design-of-net-wealth-taxes-in-the-oecd_9789264290303-en/#page1.

——— (2018b). *Equity in Education: Breaking Down Barriers to Social Mobility*. Organisation for Economic Co-operation and Development. https://www.oecd-ilibrary.org/content/publication/9789264073234-en.

——— (2018c). *OECD Pensions Outlook 2018*. Organisation for Economic Co-operation and Development. http://www.oecd.org/finance/oecd-pensions-outlook-23137649.htm.

——— (2019a). *Gross national income*. Organisation for Economic Co-operation and Development. https://data.oecd.org/natincome/gross-national-income.htm.

——— (2019b). *Corporate Tax Statistics Database*. Organisation for Economic Co-operation and Development. https://www.oecd.org/tax/beps/corporate-tax-statistics-database.htm.

——— (2019c). *PISA 2018 Results (Volume I): What Students Know and Can Do*. Organisation for Economic Co-operation and Development. https://www.oecd-ilibrary.org/content/publication/5f07c754-en.

OECD (2020a). *OECD Affordable Housing Database*. Organisation for Economic Co-operation and Development. https://www.oecd.org/housing/data/affordable-housing-database/housing-market.htm.

——— (2020b). *PISA 2018 Database*. Organisation for Economic Co-operation and Development. https://www.oecd.org/pisa/data/2018database.

——— (2021a). *Annual National Accounts*. Organisation for Economic Co-operation and Development.

——— (2021b). *Income inequality (indicator)*. Organisation for Economic Co-operation and Development. https://data.oecd.org/inequality/income-inequality.htm.

——— (2021c). *Wealth*. Organisation for Economic Co-operation and Development. https://stats.oecd.org/Index.aspx?DataSetCode=WEALTH.

——— (2021d). *Labour Force Statistics by sex and age - indicators*. Organisation for Economic Co-operation and Development. https://stats.oecd.org/Index.aspx?DataSetCode=LFS_SEXAGE_I_R.

——— (2021e). *FTPT employment based on a common definition*. Accessed on 2 February 2022. Organisation for Economic Co-operation and Development. https://stats.oecd.org/Index.aspx?DataSetCode=FTPTC_D.

——— (2021f). *OECD Economic Surveys: Australia*. September 2021. Organisation for Economic Co-operation and Development. https://www.oecd.org/economy/surveys/Australia-2021-OECD-economic-survey-overview.pdf.

——— (2021g). *Health at a Glance 2021: OECD Indicators*. Organisation for Economic Co-operation and Development. https://doi.org/10.1787/ae3016b9-en.

——— (2021h). *Education at a Glance 2021: OECD Indicators*. Organisation for Economic Co-operation and Development. https://doi.org/10.1787/b35a14e5-en.

——— (2021i). *OECD.Stat: Revenue Statistics - OECD countries: Comparative tables*. Accessed 27 January 2022. Organisation for Economic Co-operation and Development. https://stats.oecd.org/index.aspx?DataSetCode=REV.

——— (2021j). *OECD.Stat: Net replacement rates in unemployment*. Organisation for Economic Co-operation and Development. https://stats.oecd.org/Index.aspx?DataSetCode=NRR.

Page et al (2019). Page, A., Falster, M., Litchfield, M., Pearson, S. and Etherton-Beer, C. "Polypharmacy among older Australians, 2006-2017: a population-based study". *The Medical Journal of Australia* 211 (2), pp. 71–75. https://pubmed.ncbi.nlm.nih.gov/31219179/.

Parliamentary Budget Office (2018). *Trends affecting the sustainability of Commonwealth taxes*. Report No. 02/2018. https://www.aph.gov.au/About_Parliament/Parliamentary_Departments/Parliamentary_Budget_Office/Publications/Research_reports/Trends_affecting_the_sustainability_of_Commonwealth_taxes.

——— (2021a). *Distributional analysis of the Stage 3 tax cuts*. https://www.aph.gov.au/About_Parliament/Parliamentary_Departments/Parliamentary_Budget_Office/Publications/Costings.

——— (2021b). *Beyond the budget 2021-22: Fiscal outlook and scenarios*. https://data.gov.au/data/dataset/beyond-the-budget-2021-22-fiscal-outlook-and-scenarios.

Phillips, B. (2021). "There are lots of poverty lines, and JobSeeker isn't above any of them". *The Conversation*. https://theconversation.com/there-are-lots-of-poverty-lines-and-jobseeker-isnt-above-any-of-them-158068.

Phillips et al (2018). Phillips, B., Webster, R. and Gray, M. *Optimal policy modelling: a microsimulation methodology for setting the Australian tax and transfer system*. http://csrm.cass.anu.edu.au/sites/default/files/docs/2018/12/Optimal-policy-modelling-setting-Australian-tax-and-transfer-system-10-2018-CSRM-working-paper_0.pdf.

Phillips et al (2020). Phillips, B., Gray, M. and Biddle, N. *COVID-19 JobKeeper and JobSeeker impacts on poverty and housing stress under current and alternative economic and policy scenarios*. https://csrm.cass.anu.edu.au/sites/default/files/docs/2020/8/Impact_of_Covid19_JobKeeper_and_Jobeeker_measures_on_Poverty_and_Financial_Stress_FINAL.pdf.

Prentice, D. and Scutella, R. (2018). *What Are the Impacts of Living in Social Housing?* Infrastructure Victoria. http://www.infrastructurevictoria.com.au/sites/default/files/images/Infrastructure%20Victoria%20Technical%20Paper%20%E2%80%93%20What%20are%20the%20impacts%20of%20living%20in%20social%20housing%20May%202018.PDF.

Productivity Commission (2005). *Review of National Competition Policy Reforms*. Canberra.

——— (2015a). *Superannuation Policy for Post-Retirement - Volume 1: Chapters*. https://www.pc.gov.au/research/completed/superannuation-post-retirement/super-post-retirement-volume1.pdf.

——— (2015b). *Housing Decisions of Older Australians*. http://www.pc.gov.au/research/completed/housing-decisions-older-australians/housing-decisions-older-australians.pdf.

——— (2016). *National Education Evidence Base: Productivity Commission Inquiry Report*. https://www.pc.gov.au/inquiries/completed/education-evidence/report/education-evidence.pdf.

——— (2017). *Shifting the Dial: 5 year Productivity Review*. https://www.pc.gov.au/inquiries/completed/productivity-review/report.

——— (2018a). *Rising Inequality? A stocktake of the evidence*. https://www.pc.gov.au/research/completed/rising-inequality.

——— (2018b). *Report on Government Services, 2018*. https://www.pc.gov.au/research/ongoing/report-on-government-services/2018.

——— (2018c). *Superannuation: assessing efficiency and competitiveness*. https://www.pc.gov.au/inquiries/completed/superannuation/assessment/report.

——— (2019). *Vulnerable Private Renters: Evidence and Options*. https://www.pc.gov.au/research/completed/renters/private-renters.pdf.

——— (2020). *Report on Government Services, 2020*. https://www.pc.gov.au/research/ongoing/report-on-government-services/2020.

——— (2021a). *Working from Home: Commission research paper*. https://www.pc.gov.au/research/completed/working-from-home.

——— (2021b). *Productivity Insights*. https://www.overleaf.com/project/616a2f5756e3c9bc55299f8b.

——— (2021c). *Wealth transfers and their economic effects*. https://www.pc.gov.au/research/completed/wealth-transfers.

Reedman et al (2021). Reedman, L., Chew, M. S., Gordon, J., Sue, W., Brinsmead, T., Hayward, J. and Havas, L. *Multi-sector energy modelling*. CSIRO and ClimateWorks. https://aemo.com.au/-/media/files/electricity/nem/planning_and_forecasting/isp/2021/csiro-multi-sector-modelling.pdf?la=en.

Reputex (2021). *The economic impact of the ALP's Powering Australia plan*. Reputex. https://www.reputex.com/research-insights/report-the-economic-impact-of-the-alps-powering-australia-plan/.

Roberts et al (2018). Roberts, R., Lockett, H., Bagnall, C., Maylea, C. and Hopwood, M. "Improving the physical health of people living with mental illness in Australia and New Zealand". *Australian Journal of Rural Health* 26.5, pp. 354–362. ISSN: 1038-5282. https://doi.org/10.1111/ajr.12457.

Rockoff et al (2008). Rockoff, J. E., Jacob, B. A., Kane, T. J. and Staiger, D. O. *Can You Recognize an Effective Teacher When You Recruit One?* National Bureau of Economic Research, pp. 43–74. http://www.nber.org/papers/w14485.

Romer, P. (2015). *Urbanization Passes the Pritchett Test*. https://paulromer.net/urbanization-passes-the-pritchett-test/index.html (visited on 19/03/2019).

Royal Commission into Aged Care Quality and Safety (2020). *Aged care and COVID-19: a special report*. Royal Commission.

——— (2021). *Final Report: Care, Dignity and Respect*. Royal Commission.

Royal Commission into Violence Abuse Neglect and Exploitation of People with Disability (2021). *Public hearing 12: The experiences of people with disability, in the context of the Australian Government's approach to the COVID 19 vaccine rollout - Commissioners' draft report*. The Royal Commission.

Rushforth et al (2021). Rushforth, A., Ladds, E., Wieringa, S., Taylor, S., Husain, L. and Greenhalgh, T. "Long Covid – The illness narratives". *Social Science & Medicine* 286, p. 114326. ISSN: 0277-9536. https://www.sciencedirect.com/science/article/pii/S0277953621006584.

Russell, L. and Doggett, J. (2015). *Tackling out-of-pocket healthcare costs*. University of Sydney. https://ses.library.usyd.edu.au/bitstream/handle/2123/12659/05012015tacklingOOPcosts.pdf?sequence=1isAllowed=y.

SBS News (2021). "'Almost like a menu': List of marginal seats guided government's $660m car park project, audit office says". *SBS News*. https://www.sbs.com.au/news/almost-like-a-menu-list-of-marginal-seats-guided-government-s-660m-car-park-project-audit-office-says/5e3341ff-43ee-41bd-a677-076c8f9ad3f0.

Scher, L. and O'Reilly, F. (2009). "Professional Development for K–12 Math and Science Teachers: What Do We Really Know?" *Journal of Research on Educational Effectiveness* 2.3, pp. 209–249. https://doi.org/10.1080/19345740802641527.

Senate Economics References Committee (2015). *Out of reach? The Australian housing affordability challenge*. http://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Economics/Affordable_housing_2013/Report.

Senate Select Committee on COVID-19 (2020). *First interim report*. The Senate.

——— (2021). *Second interim report: Public interest immunity claims*. The Senate.

Services Australia (2022). *JobSeeker Payment*. https://www.servicesaustralia.gov.au/jobseeker-payment (visited on 22/01/2021).

SGS Economics & Planning (2018). *2018 GDP report: Gap in economic growth between cities and regions starting to close*. https://www.sgsep.com.au/download_file/view_inline/1685.

Sheather, J. and Slattery, D. (2021). "The great resignation—how do we support and retain staff already stretched to their limit?" *BMJ* 375, n2533. https://www.bmj.com/content/bmj/375/bmj.n2533.full.pdf.

Sims, R. (2021). *Protecting and promoting competition in Australia*. Speech to the Competition and Consumer Workshop 2021 - Law Council of Australia. https://www.accc.gov.au/speech/protecting-and-promoting-competition-in-australia.

Sinai, T. and Waldfogel, J. (2002). "Do Low-Income Housing Subsidies Increase Housing Consumption?" *NBER Working Paper Series* 8709. http://www.nber.org/papers/w8709.

Sinaiko et al (2017). Sinaiko, A. D. et al. "Synthesis Of Research On Patient-Centered Medical Homes Brings Systematic Differences Into Relief". *Health Affairs* 36.3, pp. 500–508. http://content.healthaffairs.org/content/36/3/500.abstract.

Singapore Central Provident Fund (2021). *Receive lifelong monthly payouts with CPF LIFE*. https://www.cpf.gov.sg/member/retirement-income/monthly-payouts/cpf-life.

Sirois et al (2021). Sirois, C. et al. "Exploring polypharmacy with artificial intelligence: data analysis protocol". *BMC Medical Informatics and Decision Making* 21.219, pp. 1–8. ISSN: 1472-6947. https://doi.org/10.1186/s12911-021-01583-x.

Sonneman, J. and Goss, P. (2018). *The Commonwealth's role in improving schools*. Grattan Institute. https://grattan.edu.au/wp-content/uploads/2018/02/898-the-Commonwealths-role-in-improving-schools.pdf.

Special Commission of Inquiry into the Ruby Princess (Chair: Bret Walker) (2020). *Report*. The Inquiry.

Sriharan et al (2021). Sriharan, A., West, K. J., Almost, J. and Hamza, A. "COVID-19-Related Occupational Burnout and Moral Distress among Nurses: A Rapid Scoping Review". *Nursing leadership* 34.1, pp. 7–19. ISSN: 1910-622X.

Standing Committee on Economics (2022). *Official Committee Hansard: Review of the Reserve Bank of Australia Annual Report 2020, 11 February 2022*. https://parlinfo.aph.gov.au/parlInfo/download/committees/estimate/a5d869b6-8275-46ad-837b-54c362066f4a/toc_pdf/Community%20Affairs%20Legislation%20Committee_2018_03_01_5948_Official.pdf.

Stewart, M. (2019). "New figures put it beyond doubt. When it comes to company tax, we are a high-tax country, in part because it works well for us". *The Conversation*. https://theconversation.com/new-figures-put-it-beyond-doubt-when-it-comes-to-company-tax-we-are-a-high-tax-country-in-part-because-it-works-well-for-us-109875.

Stobart, A. and Duckett, S. (2021). "Australia's response to COVID-19". *Health Economics, Policy and Law*, pp. 1–29. ISSN: 1744-1331. https://www.cambridge.org/core/article/australias-response-to-covid19/ED43F0A86E6B988C4019878C897928F9.

Suggett et al (2021). Suggett, J., Foster, K., Lakra, V., Steele, M. and Furness, T. "Natural cause mortality of mental health consumers: A 10-year retrospective cohort study". *International Journal of Mental Health Nursing* 30.2, pp. 390–400. ISSN: 1445-8330. https://doi.org/10.1111/inm.12797.

Swannell, C. (2021). “Most aged care residents miss out on medication reviews”. *The Medical Journal of Australia*. https://www.mja.com.au/journal/2021/most-aged-care-residents-miss-out-medication-reviews.

Swedish Pensions Agency (2021). *Premium pension funds - pre-selection AP7 Såfa and the government fund portfolios - questions and answers*. https://www.pensionsmyndigheten.se/vanliga-fragor-och-svar-om-pension/vanliga-fragor/forvalet-ap7-safa-och-statens-fondportfoljer-premiepension-fragor-svar.

Swerissen et al (2016). Swerissen, H., Duckett, S. and Wright, J. *Chronic failure in primary care*. Grattan Institute.

Swerissen et al (2018). Swerissen, H., Duckett, S. and Moran, G. *Mapping primary care in Australia*. Grattan Institute.

Terrill, M. and Batrouney, H. (2018). *Unfreezing discount rates: transport infrastructure for tomorrow*. Grattan Institute. https://grattan.edu.au/report/unfreezing-discount-rates-transport-infrastructure-for-tomorrow/.

Terrill et al (2020). Terrill, M., Emslie, O. and Moran, G. *The rise of megaprojects: counting the costs*. Grattan Institute. https://grattan.edu.au/report/the-rise-of-megaprojects-counting-the-costs/.

Terrill et al (2021a). Terrill, M., Burfurd, I. and Fox, L. *The Grattan car plan: practical policies for cleaner transport and better cities*. Grattan Institute. https://grattan.edu.au/report/grattan-car-plan/.

Terrill et al (2021b). Terrill, M., Emslie, O. and Fox, L. *Megabang for megabucks: driving a harder bargain on megaprojects*. Grattan Institute. https://grattan.edu.au/report/megabang-for-megabucks/.

Thomson et al (2019). Thomson, S., Bortoli, L. D., Underwood, C. and Schmid, M. *PISA 2018: Reporting Australia's Results Volume I Student Performance*. Melbourne: Australian Council for Educational Research. https://research.acer.edu.au/cgi/viewcontent.cgi?article=1035&context=ozpisa.

Timperley et al (2007). Timperley, H., Wilson, A., Barrar, H., Fung, I. and Education, N. *Professional learning and development: a best evidence synthesis iteration*. Wellington: New Zealand Ministry of Education. http://lst-iiep.iiep-unesco.org/cgi-bin/wwwi32.exe/[in=epidoc1.in]/?t2000=025049/(100).

Tingle, L. (2021). “COVID gave us a once-in-a-lifetime natural experiment – but Scott Morrison has turned his back on the lessons”. *ABC Online*. https://www.abc.net.au/news/2021-11-27/covid-once-in-a-lifetime-experiment-jobkeeper-wages-economy/100654538.

Transparency International (2022). *Corruption Perceptions Index 2021*. https://www.transparency.org/cpi2021.

Treasury (2009). *Australia's future tax system, Report to the Treasurer, Part Two Detailed analysis*. https://taxreview.treasury.gov.au/content/downloads/final_report_part_2/AFTS_Final_Report_Part_2_Vol_1_Consolidated.pdf.

——— (2015). *2015 Intergenerational Report: Australia in 2055*. https://treasury.gov.au/publication/2015-intergenerational-report/.

——— (2017). *Budget 2017-18: Budget Paper 1*. http://www.budget.gov.au/2017-18/content/bp1/download/bp1_bs6.pdf.

——— (2018). *National Housing and Homelessness Agreement*. https://static.treasury.gov.au/uploads/sites/1/2018/03/National-Housing-and-Homelessness-Agreement.pdf.

——— (2019). *Budget 2019-20*. April. https://www.budget.gov.au/2019-20/content/documents.htm.

——— (2020). *Your Future, Your Super*. https://treasury.gov.au/sites/default/files/2020-10/p2020-super_0.pdf.

——— (2021a). *Budget overview 2021-22*. May. https://budget.gov.au/2021-22/content/overview.htm.

——— (2021b). *2021 Intergenerational Report: Australia over the next 40 years*. Commonwealth Treasury. https://treasury.gov.au/publication/2021-intergenerational-report.

——— (2021c). *Tax Benchmarks and Variations Statement 2020*. https://treasury.gov.au/sites/default/files/2021-01/145906_2020-tbvs.pdf.

——— (2021d). *Final Budget Outcome*. https://archive.budget.gov.au/2020-21/fbo/download/fbo_2020-21.pdf.

——— (2021e). *Treasury Laws Amendment (Measures for a later sitting) Bill 2021: Retirement income covenant*. https://treasury.gov.au/sites/default/files/2021-09/c2021-209553-exposure_draft_2.pdf.

Treasury (2021f). *Mid-Year Economic and Fiscal Outlook 2021-22*. December. https://budget.gov.au/2021-22/content/myefo/index.htm.

——— (2021g). *Budget 2021-22*. May. https://budget.gov.au/2021-22/content/documents.htm.

Tulip, P. and Saunders, T. (2019). *A Model of the Australian Housing Market*. Reserve Bank of Australia. https://www.rba.gov.au/publications/rdp/2019/2019-01.html.

Tullock et al (2002). Tullock, G., Seldon, A. and Brady, G. *Government Failure: A Primer in Public Choice*. Cato Institute.

Twomey, A. (2003). "Federal Limitations on the Legislative Power of the States and the Commonwealth to Bind one another". *Federal Law Review* 31 (3), pp. 507–539. http://classic.austlii.edu.au/au/journals/FedLawRw/2003/20.html.

——— (2014). *Reconsidering The Reform Of Political Donations, Expenditure And Funding In New South Wales*. September. Working Paper 5 prepared for the Expert Panel on the Review of Political Donations, NSW Department of Premier and Cabinet. https://www.dpc.nsw.gov.au/assets/media-news/95/attachments/61c4469312/working_paper_5_-_professor_twomey_-_political_donations_revisited_2014.pdf.

——— (2015). *Report of proceedings before Joint Standing Committee On Electoral Matters inquiry into the final report of the expert panel – Political donations and the Government's response*. NSW Parliament. https://www.parliament.nsw.gov.au/committees/dbassets/inquiryeventtranscript/transcript/8800/transcript--public%20hearing%20no.1--30%20october%202015.pdf.

UK National Employment Savings Trust (2021). *Corporation Annual Report and Accounts 2020-21*. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1039311/nest-annual-report-and-accounts-2020-to-2021-web-ready.pdf.

UN (2020). *Latest Human Development Index (HDI) Ranking*. United Nations Human Development Programme: Human Development Reports. http://hdr.undp.org/en/content/latest-human-development-index-ranking.

U.S. Congressional Budget Office (2021). *Budgetary Effects of Climate Change and of Potential Legislative Responses to It*. https://www.cbo.gov/system/files/2021-04/57019-Climate-Change.pdf.

Valenzuela, R. (2017). "It's about time, not money: the real reason retirees keep their big homes". *The Age*. http://www.theage.com.au/money/its-about-time-not-money-the-real-reason-retirees-keep-their-big-homes-20170825-gy4kbp.html.

Varela et al (2020). Varela, P., Breunig, R. and Sobeck, K. *The taxation of savings in Australia: theory, current practice and future policy directions*. Crawford School of Public Policy, Australian National University. https://taxpolicy.crawford.anu.edu.au/sites/default/files/uploads/taxstudies_crawford_anu_edu_au/2020-07/20271_anu_-_ttpi_policy_report-ff2.pdf.

Veet et al (2020). Veet, C. A., Radomski, T. R., D'Avella, C., Hernandez, I., Wessel, C., Swart, E. C. S., Shrank, W. H. and Parekh, N. "Impact of Healthcare Delivery System Type on Clinical, Utilization, and Cost Outcomes of Patient-Centered Medical Homes: a Systematic Review". *Journal of General Internal Medicine* 35.4, pp. 1276–1284. ISSN: 1525-1497. https://doi.org/10.1007/s11606-019-05594-3.

Victorian Department of Education (2022). *Tutor Program To Continue In Victorian Schools*. https://www.premier.vic.gov.au/tutor-program-continue-victorian-schools (visited on 17/01/2022).

Victorian Department of Premier and Cabinet (2021). *Appointment and Remuneration Guidelines*. https://www.vic.gov.au/guidelines-appointment-remuneration.

Victorian Government (2022). *HomesVic Shared Equity Initiative*. https://www.vic.gov.au/homesvic-shared-equity-initiative (visited on 22/01/2021).

Victorian Public Accounts and Estimates Committee (2021). *Inquiry into the Victorian Government's response to the COVID-19 pandemic*. Victorian Government Printer.

Whiteford, P. (2012). "Paltry Newstart Allowance is fast becoming a poverty trap". *The Conversation*. https://theconversation.com/paltry-newstart-allowance-is-fast-becoming-a-poverty-trap-6218.

Whiteford, P. and Bradbury, B. (2021). "The $50 boost to JobSeeker will take Australia's payment from the lowest in the OECD to the second-lowest after Greece". *The Conversation*. https://theconversation.com/the-50-boost-to-jobseeker-will-take-australias-payment-from-the-lowest-in-the-oecd-to-the-second-lowest-after-greece-155739.

Wilkins, G. (2020). "Conflict of Interest: Morrison's COVID Commission just got a whole lot more secretive". *Crikey*. https://www.crikey.com.au/2020/07/28/conflict-of-interest-morrisons-covid-commission-just-got-a-whole-lot-more-secretive/.

Wong et al (2016). Wong, L., Selvanathan, E. A. and Selvanathan, S. "Empirical Analysis of Australian Consumption Patterns". *Empirical Economics* 52, pp. 799–823. https://link.springer.com/article/10.1007/s00181-016-1095-3.

Wood, D. (2018). "Taxing inheritances might be unpopular, but it's fair". *Sydney Morning Herald*. https://www.smh.com.au/national/taxing-inheritances-might-be-unpopular-but-it-s-fair-20181219-p50n5b.html.

——— (2021). "Intergenerational reports ought to do more than scare us — they ought to spark action". *The Conversation*. https://theconversation.com/intergenerational-reports-ought-to-do-more-than-scare-us-they-ought-to-spark-action-163505.

Wood, D. and Coates, B. (2018). *Submission to Inquiry into the implications of removing refundable franking credits*. Grattan Institute. https://grattan.edu.au/wp-content/uploads/2018/11/Grattan-submission-dividend-imputation-for-website.pdf.

D. Wood et al (2018a). Wood, D., Coates, B. and Minifie, J. *Submission to Senate Inquiry into the Commitment to the Senate issued by the Business Council of Australia*. Grattan Institute. https://grattan.edu.au/wp-content/uploads/2018/04/Submission-to-Company-tax-cuts-13-April-2018-Grattan-Institute.pdf.

D. Wood et al (2018b). Wood, D., Daley, J. and Chivers, C. *A crisis of trust: The rise of protest politics in Australia*. Report No. 2018-05. Grattan Institute. https://grattan.edu.au/report/a-crisis-of-trust/.

D. Wood et al (2018c). Wood, D., Griffiths, K. and Chivers, C. *Who's in the room? Access and influence in Australian politics*. Report No. 2018-12. Grattan Institute. https://grattan.edu.au/report/whos-in-the-room/.

Wood, D. and Griffiths, K. (2019a). *Submission to the Senate's 'revolving door' inquiry*. Grattan Institute. https://grattan.edu.au/report/how-to-strengthen-the-integrity-of-australian-politics/.

——— (2019b). *Submission on the proposed Commonwealth Integrity Commission*. Grattan Institute. https://grattan.edu.au/news/the-proposed-federal-corruption-watchdog-needs-more-teeth/.

D. Wood et al (2019). Wood, D., Griffiths, K. and Emslie, O. *Generation gap: ensuring a fair go for younger Australians*. Report No. 2019-07. Grattan Institute. https://grattan.edu.au/wp-content/uploads/2019/08/920-Generation-Gap.pdf.

Wood, D. and Griffiths, K. (2020). "Lobbyland. Policy in a crisis: who makes the rules?" *Pearls and Irritations*. https://johnmenadue.com/lobby-land-policy-in-a-crisis-who-makes-the-rules/.

D. Wood et al (2020). Wood, D., Griffiths, K. and Emslie, O. *Cheaper childcare: A practical plan to boost female workforce participation*. Report No. 2020-11. Grattan Institute. https://grattan.edu.au/wp-content/uploads/2020/08/Cheaper-Childcare-Grattan-Institute-Report.pdf.

Wood, T. and Dundas, G. (2020). *Flame out*. Report No. 2020-16. Grattan Institute. https://grattan.edu.au/report/flame-out-the-future-of-natural-gas/.

D. Wood et al (2021a). Wood, D., Emslie, O. and Griffiths, K. *Dad days: how more gender-equal parental leave would improve the lives of Australian families*. Report No. 2021-11. Grattan Institute. https://grattan.edu.au/report/dad-days/.

D. Wood et al (2021b). Wood, D., Emslie, O. and Joiner, R. *Towards a better AAT appointments process: Submission to the Senate Standing Committee inquiry into the performance and integrity of Australia's administrative review system*. Grattan Institute. https://grattan.edu.au/news/towards-a-better-aat-appointments-process/.

Wood, D. and Griffiths, K. (2021). *Submission on the Commonwealth Integrity Commission draft legislation*. Grattan Institute. https://grattan.edu.au/report/submission-on-the-commonwealth-integrity-commission-draft-legislation/.

D. Wood et al (2021c). Wood, D., Griffiths, K. and Emslie, O. "The Coalition's child-care subsidy plan: how it works, and what it means for families and the economy". *The Conversation*. https://theconversation.com/the-coalitions-child-care-subsidy-plan-how-it-works-and-what-it-means-for-families-and-the-economy-160173.

T. Wood et al (2021a). Wood, T., Dundas, G. and Ha, J. *Start with steel: A practical plan to support carbon workers and cut emissions*. Report No. 2020-06. Grattan Institute. https://grattan.edu.au/wp-content/uploads/2020/05/2020-06-Start-with-steel.pdf.

Wood, T. and Ha, J. (2021). *Go for net zero: A practical plan for reliable, affordable, low-emissions electricity*. Report No. 2021-02. Grattan Institute. https://grattan.edu.au/report/go-for-net-zero/.

T. Wood et al (2021b). Wood, T., Reeve, A. and Ha, J. *Towards net zero: Practical policies to reduce industrial emissions*. Report No. 2021-10. Grattan Institute. https://grattan.edu.au/report/towards-net-zero-practical-policies-to-reduce-industrial-emissions/.

World Bank (2019). *Ease of Doing Business Ranking & Ease of Doing Business Score*. http://www.doingbusiness.org/en/data/doing-business-score.

Wright, M. and Versteeg, R. (2021). "Introducing general practice enrolment in Australia: the devil is in the detail". *Medical Journal of Australia* 214.9, 400–402.e1. ISSN: 0025-729X. https://onlinelibrary.wiley.com/doi/abs/10.5694/mja2.51027.

Yoon et al (2007). Yoon, K. S., Duncan, T., Lee, S. W.-Y., Scarloss, B. and Shapley, K. "Reviewing the Evidence on How Teacher Professional Development Affects Student Achievement. Issues & Answers. REL 2007-No. 033". *Regional Educational Laboratory Southwest*.

Zingales, L. (2017). "Towards A Political Theory Of The Firm". *NBER* 23593. http://www.nber.org/papers/w23593.pdf.