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Priorities for the next Commonwealth Government

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Overview

A federal election is an opportunity to take stock of how Australia is doing, where it's going, and what governments can do about it. This report surveys policy recommendations from seven years of Grattan Institute reports and outlines what the Commonwealth Government should do to improve Australia.

The problems aren't hard to find. Per capita national income has fallen over the last four years as the mining boom subsided. Economic growth is slow, reflecting trends across the developed world. Unemployment stands at nearly six per cent, higher than in the United States and United Kingdom, countries hit much harder by the Global Financial Crisis than Australia. Underemployment also remains high.

Commonwealth budgets haven't come close to balancing for eight years. Interest on the accumulating debt now consumes 4 per cent of government income, or as much as the Commonwealth spends on public hospitals. Younger generations will be taxed more to pay for today's spending. Every $40 billion deficit, the norm for each of the last eight years, forces households aged 25 to 34 to pay an extra $10,000 in tax over their working lives.

Our large capital cities have growing pains. House prices are very high relative to incomes. Home ownership is falling for all households aged under 55. Most new housing is far from the city centres where most new jobs are being created. More people spend longer in traffic getting to work. The physical divide between rich and poor is growing.

School education is not keeping up with the best in the world. Test results are well behind international benchmarks, and Australia is slipping down global rankings. Between Years Three and Nine, talented students from poorer backgrounds fall almost two years behind their peers from richer backgrounds.

Our political system is not dealing well with these challenges. Politicians are often creating great expectations that far exceed what government can ever do. Meanwhile, they are failing to act on the things that they can control. The result is an often barren debate that disappoints everyone and makes for a dull campaign.

Yet there are many reforms that can contribute to economic growth, improve the quality and reduce the cost of government services, and bring budgets back into balance. A growing evidence base shows which reforms would work.

Progress on this agenda has been underwhelming for a decade, perhaps because the prosperity of the mining boom sapped the will for reform. The politics of reform is never easy. Vested interest groups, emboldened by success, are more vocal in protecting their interests. Meanwhile the public interest has few friends.

Ironically, though, the public seems to be up for reform. Surveys suggest that people understand the need for budget repair, and are even prepared to contemplate slaying sacred cows such as negative gearing.

Our politics can implement this reform agenda by using the evidence that has been assembled, robustly articulating the public interest, and staring down interest groups. Australia has a proud history of enlightened public policy. Many countries would be delighted to swap our problems for theirs. Australia can continue to be the lucky country. But we must make our own luck.

Recommendations

Economic growth priorities

Increasing the efficiency of taxation

- Encourage the States to replace stamp duties with general property taxes.
- Consider lowering effective company tax rates with investment allowances or accelerated depreciation on new investment.
- Reduce income taxes by broadening the GST base and/or increasing the GST rate
- Reduce the capital gains tax discount to 25 per cent so that other taxes can be reduced (or not raised)
- Limit negative gearing so that passive investment losses can only be written off against other investment income
- 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.

Improving labour force participation

- Ask the Productivity Commission to assess combinations of tax, transfer, and childcare support that would reduce welfare traps and encourage higher female labour force participation
- Raise the age of access to the Age Pension and superannuation to 70 years.

Improving flexibility and innovation

- Remove inappropriate impediments to flexibility in the economy, so that resources can be swiftly reallocated to their highest value uses as conditions change.
- Remove barriers to innovation and the spread of innovations, but do not waste money in its name.

Industry-specific reforms

- Pursue a competitive mechanism for default superannuation, through the referral on foot with the Productivity Commission, and run an efficiency review in 2017.
- Encourage people to close excess accounts and to move out of overpriced superannuation products, and push sub-scale funds to close.

Infrastructure and skills

- Pursue infrastructure and education reforms described below.

Planning and housing

- Consider incentive payments to the States to encourage them to revise planning and other policies to permit greater density in inner and middle areas of major cities.
- Consider incentive payments to the States to encourage them to replace stamp duties with broad-based property levies

Transport

Commonwealth funding for infrastructure

- Only provide money for transport infrastructure that supports the national economy, is important beyond a single state's borders, or has a big impact on the economic cycle.
- Amend transport and financial legislation so that public money cannot be committed to a project unless Infrastructure Australia or another independent body has assessed it as high priority, and the business case has been tabled in Parliament.
- Commit to funding *all* projects that fulfil these criteria and where the benefits outweigh the costs.
- Provided there is a disciplined process for infrastructure funding, cease to distribute GST so that it cancels out Commonwealth transport infrastructure funding decisions.

Road management

- Require States to include a theoretical application of road pricing as part of the assessment of any urban road project for which Commonwealth funding is sought or provided.
- Provide incentive payments to the States to support trials of user charging schemes in capital cities to discourage congestion and prepare for autonomous vehicles.
- Reform the PAYGO heavy-vehicle charging scheme so that heavy vehicle revenues both cover aggregate costs and also signal where investment is warranted.

Energy

Climate change

- Strengthen and evolve the existing Safeguard Mechanism so that it becomes an effective market mechanism for reducing emissions.
- Continue the Renewable Energy Target as planned but do not extend it beyond its legislated end date of 2030.
- Continue and expand support for research and development in low-emissions technologies, particularly in electricity

Electricity markets

- Work through the COAG Energy Council to prosecute the arguments for network privatisation.
- Work with the market institutions and States to reform the regulatory process for determining network businesses' revenue.
- Work with the market institutions and States to reform tariffs so that they reflect the cost of building the network to meet peak demand, and reduce cross-subsidies.
- Initiate a review of the energy-only National Electricity Market, considering alternative or additional mechanisms that may be needed to avoid future threats to reliability and/or prices.

- Direct AEMO to assess the options and recommend regulatory and infrastructure changes to ensure reliable electricity given new supply technologies.

Gas markets

- Work with States to resolve unconventional gas extraction.
- Do *not* reserve gas for domestic purposes.
- Lead the implementation of recommendations from the recent Australian Competition and Consumer Commission's *East Coast Gas Inquiry*.

School education

Lifting student outcomes

- Focus more on student progress by investing in *Targeted teaching,* where teachers identify what each student is ready to learn next, teach them accordingly and track their progress.
- Focus more on improving teaching practice in the classroom, not high-stakes accountability or performance pay.
- Redirect funding and resources to where the evidence shows they will make the most difference.

Commonwealth role

- Restrict Commonwealth intervention in school education to areas where national scale or consistency is a genuine advantage, or current arrangements mean it must be involved.
- Continue to improve national testing, curricula, and professional standards, and invest to develop better assessment tools for teachers, and to strengthen the evidence base for what works best in practice.
- Press universities to improve initial teacher education.
- Align funding with educational need.
- Avoid over-regulation, 'tick-the-box' policies such as principal certification schemes, and over-reliance on market-based policy levers of autonomy, competition and choice.

Higher education

Commonwealth funding for places

- Avoid reimposing controls on higher education enrolments.
- Require universities to use and report on activity-based costing as a preliminary move to developing a more sophisticated pricing system for government-supported places.

HELP loan costs and recovery

- Recover a greater proportion of course costs from students through HELP.
- Lower the income threshold for HELP repayment and end the deceased estate write-off.
- Report on HELP in ways that clearly identify its interest subsidy and doubtful debt costs.

Research funding

- While encouraging commercialisation of research, have realistic expectations that academic behaviour will only change modestly.

Health

Funding health services

- Tender for provision of the majority of pathology services in specific areas, provided they charge government less than the rebate and without adding co-payments.
- Benchmark pharmaceutical prices with comparable countries.
- Only pay for the best-value pharmaceutical when cheaper drugs work just as well as more costly ones.
- Set the National Efficient Price for hospital services below the average of all public hospitals.

Reducing unnecessary procedures

- Require the Australian Commission on Safety and Quality in Health Care to publish a list of ‘do-not-do’ treatments, and identify hospitals that provide these treatments more often.
- Ask outlier hospitals to improve, or face a clinical review by the State health department, leading to potential hospital funding reductions.

Chronic condition management

- Provide clear targets and financial incentives for Primary Health Networks to prevent and manage chronic disease, and move away from patient-related payments towards broader payments for integrated care.

Out of pocket costs

- Publish, for each general practice and for specialists, the proportion of services bulk billed and the average out-of-pocket cost for non-bulk billed services.

Budgetary reform

Tough choices required

- *Both* reduce spending and increase taxes to balance the budget
- Target superannuation taxes, reduce capital gains tax and negative gearing tax concessions, and increase the GST.
- Reduce costs with the recommendations outlined above to reduce costs in transport, education, and health
- Further target the Age Pension, and curtail unsustainable growth in Carer's Payment and aged care

Institutional reforms

- Require the Parliamentary Budget Office to produce macro-economic forecasts that feed into budget estimates.
- Require through legislation that governments produce a budget surplus within the forward estimates.
- Produce 10-year projections that show the impact of all long-term policy decisions.

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1 Over-arching considerations

Summary

Government tries to increase economic growth, provide services that people value, and promote fairness, while ensuring that the budget is sustainable.

Inevitably, these aims require trade-offs. In particular, more services and greater distribution of income tend to lead to larger government and slower economic growth.

Yet for a developed country, Australia has relatively small government, mainly because our welfare system is unusually well targeted.

Government is growing faster than the economy, primarily because of increased health spending that has not been matched by increased taxation. Structural budget deficits are the result.

The Australian economy is growing more slowly than in the past, as is the case across the developed world. While governments should be careful not to raise great expectations that they can't meet, they need to make more progress with the reforms they can make, such as those discussed in the rest of the report.

1.1 Scope

This report aims to help the next Commonwealth Government to set priorities for reform. Drawing primarily on work published by Grattan Institute over the last seven years, it identifies policy changes that the Government should adopt to make the most difference to the lives of Australians.

The report considers reforms to increase economic growth and reduce budget deficits. It discusses reforms to policy for tax and budgets, cities, transport, energy, school education, higher education and health. Grattan Institute has focused on these because they make a big difference to the lives of Australians, because analysis can chart a path to better policy, and because outcomes are too often driven by vested interests rather than the public interest.

The report does not cover areas such as foreign affairs and trade, immigration, defence and security, law and order, industrial relations, communications, human services, indigenous affairs and the environment. These areas matter, but have not been part of Grattan Institute's work to date.

The report focuses on issues that the Commonwealth can influence directly rather than those that are essentially State responsibilities. It selectively identifies areas where there might be a clear rationale for the Commonwealth to make additional tied grants to the States.[1] These areas include situations where the

[1] In this report, "States and Territories" are abbreviated to "States".

Commonwealth budget would substantially benefit from State Government reforms.

1.2 A framework for setting policy priorities

Within these policy areas, government is typically trying to enable Australians to live fulfilled lives by increasing economic growth, providing services of value, and promoting fairness, while ensuring a sustainable budget. Inevitably, these aims require trade-offs.

1.3 Economic growth

The size of the economy is a measure of the resources available to the community. Although an imperfect proxy for measuring prosperity, it is usually closer to reality than the alternatives. Of course, individual choice, human connection, health, artistic expression and an unpolluted environment are all part of a valuable life even if they are not measured as economic activity. But usually they are easier to sustain with the resources of a larger economy.[2]

Economic growth has been slowing in Australia, and around the developed world. Over the last five years, Australian incomes have fallen[3] in line with the prices of the minerals that make up more than half the country's exports.[4] While falling recently, unemployment of 5.7 per cent[5] is now higher than in the United States and United Kingdom, countries hit much harder by the Global Financial Crisis than Australia.[6] Underemployment also remains high, reflecting trends across the developed world.

Most importantly, the prospects for faster economic growth are dim. Economic growth has tended to be slower across the developed world since before the Great Financial Crisis. Although opinions differ on the causes, many believe that growth will be lower for longer.[7]

The pace of economic reform has slowed in Australia. There have been fewer economy-wide reforms over the last two decades than in the 1980s and 1990s,[8] perhaps because many have largely been completed, and because there was less impetus for reform while the mining boom buoyed the economy.

Government ability to increase economic growth has limits. Our 2012 *Game changers* report identified the three economic reform opportunities – reform of the tax mix and increasing the workforce participation rates of women and older people -- that are among the largest of all opportunities to boost economic growth within 10 years, where there is strong evidence for the policy changes that would make a difference. Together, these reforms could ultimately boost incomes by up to 6 per cent.[9] But it would be unprecedented if Australian governments successfully prosecuted all three of these within five years. Other opportunities, while still worthwhile, seem much smaller, or there is less evidence for them, or will take much longer than 10 years to pay off.

[2] Daley, *et al.* (2012a), p.5
[3] ABS (2016a), Table 1; Whiteford (2016).
[4] Minifie, *et al.* (2013), p.6
[5] ABS (2016b)
[6] US Bureau of Labor Statistics (2016); UK Office of National Statistics (2016).
[7] Daley and Wood (2015), p.8
[8] Daley (2015c), p.18
[9] Daley, *et al.* (2012a), p.2

Governments would therefore be wise not to create 'Great Expectations'[10] that their potential reform agendas cannot fulfil. As a highly developed economy, Australian economic growth is limited above all by the pace of global innovation, which Australian governments can do little to influence. Yet while there are limits to how much governments can influence economic growth, any reforms that do help are worthwhile.

Priorities for increasing economic growth are discussed in more detail in Chapter 2.

1.4 Provision of services

Governments provide many services that improve lives. There is always political pressure to provide more.

Improving the quality or efficiency of services, particularly in the two largest areas of health and education, should be close to the top of any government's agenda. Chapters 6, 7 and 8 discuss these areas in more detail.

While government continues to *fund* services, often third parties can *provide* them better. The 2015 Harper Review of competition policy advocated commissioning a diversity of service providers where possible.[11] While this is a sensible idea in theory, execution is everything. The recent examples of both the home insulation ("pink batts") scheme and vocational education and training reinforce previous experiences: taxpayer funding of for-profit entities to provide services at the behest of individual citizens inherently creates opportunities for poor outcomes, or even fraud that must be carefully managed.

[10] See Tingle (2015)
[11] Harper, *et al.* (2015), p.35

1.5 A sustainable budget

Governments must promote economic growth and provide services while ensuring that the Budget adds up.

Commonwealth and state government budgets are under pressure.[12] The Commonwealth has run deficits for the last eight years (including 2015-16) of about 2 to 3 per cent of GDP.[13]

Australia's net government debt remains low, but international credit rating agencies are growing restless. All sides of politics seem reluctant to adopt measures that would significantly reduce the *net* deficit, but keen to introduce substantial new policy initiatives that impose long-term costs on the budget, such as the National Disability Insurance Scheme and higher defence spending.[14]

Chapter 9 discusses the causes of this deficit, why we should worry about it, and what might be done to correct it, both through specific changes to tax and spending policies and longer-term institutional change.

A weak budget position also constrains the other government priorities discussed in this paper. In all areas *net* budget improvements are needed. Any additional programs or tax reductions increase the size of the budget challenge.

[12] Daley and Wood (2015)
[13] Daley (2016a); Daley and Coates (2016b).
[14] NAB (2016), pp.2-3

1.6 Fairness

Fairness is a further objective for government. Of course fairness, like justice, is in the eye of the beholder. There are at least four relevant conceptions of fairness.

One ideal aims for a more even distribution of resources (particularly income and wealth) amongst the community. Whether this is an appropriate end for government, and how much should be redistributed, remains contested.

Another ideal of fairness aims to ensure that those towards the bottom of society (often identified as the bottom 20 per cent by income) have enough resources to enable them to pursue lives with meaningful opportunities. This ideal tends to have broader support across political divides.[15] It is less concerned with redistribution from high incomes to middle incomes, and more focused on redistribution towards those on low incomes.

Australia's distribution of incomes *before* tax and welfare is in the least equal third of the OECD.[16] The tax and welfare system, however, reduces this inequality. Under our progressive tax system the top fifth of taxpayers pay 58 per cent of income tax (and 33 per cent of indirect tax) whereas the bottom fifth pay 2 per cent (and 11 per cent of indirect taxes).[17] And Australia has the most targeted transfer system in the world: the bottom fifth receives relatively large transfers; the top-fifth receives very little in government transfers.[18] As a result, Australia improves a couple of places in the OECD rankings of income inequality, although it remains in the less equal half.

Of course, the size of the economy also affects the wellbeing of the bottom fifth. Australia did well when the economy grew rapidly through the mining boom *and* the incomes of those in the bottom quintile rose by over 30 per cent.[19]

A third ideal, fairness between generations also matters. Under almost any theory of ethics, it is unfair for one generation to adopt policies that leave the next generations worse off at a similar age, especially when they have no say in those policies.[20] Australia has increasingly adopted age-based tax, welfare, and other spending policies, accompanied by recurrent budget deficits, that increase the risk that the next Australian generation will be less well off than its parents. These policies also tend to increase inequality *within* generations over the long term.[21] And they undermine incentives by increasing the value of inheritance relative to individual effort.

Finally, procedural fairness matters. People value being able to make plans under stable rules. Like other conceptions of fairness, however, this value is not absolute. The biggest concerns arise if new rules impose adverse consequences as a result of a past action. Yet this does not mean that every rule affecting investments (such as superannuation, capital gains tax or negative gearing) should be grandfathered. There is no adverse consequence as a result of past action if those investments would probably have been made anyway. The rule changes simply

[15] Daley*, et al.* (2013), p.21
[16] Daley (2015a), p.10; Whiteford (2014).
[17] ABS (2012), Table 2. Figures are for 2009-10, the latest available.
[18] Daley (2015a), pp.11-12; Productivity Commission (2015a), p.36.
[19] Minifie*, et al.* (2013), p.12
[20] Daley*, et al.* (2014), p.10
[21] Ibid., p.36

mean that individuals benefit *less* from their investments.[22] In any case, procedural fairness must be balanced against other considerations: grandfathering unsustainable tax breaks on investments, for example, tends to benefit one generation over the next.

1.7 Size of government

The objectives of economic growth, provision of services and fairness inherently require trade-offs. One of the most difficult is that if government provides more services and redistributes more, then it will tend to be larger, which reduces economic growth.

Trade-offs ultimately involve value choices. Australian government is relatively small for a developed economy. This is true even when compulsory superannuation contributions and savings are counted as part of government on the basis that they are somewhat analogous to social insurance schemes in other countries.[23]

Australia has relatively small government because its welfare system is extremely targeted, while spending on all other categories is moderate.[24] While this targeted welfare spend increases living standards, particularly for those in the bottom 40 per cent,[25] it is achieved through means testing that often creates steeper welfare traps – and therefore larger disincentives to work – than under other welfare systems.

[22] Daley (2016b)
[23] Daley (2015a), p.8
[24] Ibid., p.9
[25] Ibid., p.12

Just because Australian government is relatively small does not automatically mean it should be larger. But the facts contradict assertions that Australia's government should be smaller simply because it is large relative to other countries.

Obviously inefficient spending should be curtailed. Some opportunities to do so are discussed in the following chapters.

But given whatever inefficiency exists, the size of government is a value choice about the value of additional economic growth relative to the value of additional government services.

Australian government spending as a share of GDP has increased over the last decade, largely because spending on health as a share of GDP is rising.[26] The same trend is obvious in all developed economies except Iceland over the last two decades.[27] As countries get richer, their governments spend an increasing share of resources on health.[28] In Australia increased health spending has correlated with much better health outcomes: life expectancy rose; years of life without a disability increased; amenable mortality halved (deaths from diseases that some of the time medicine can prevent); and even self-reported health improved.[29] It is not hard to understand why people in many countries have been prepared to trade off a little extra income in order to live longer, healthier lives.

Consistent with these trends, Commonwealth spending on all aspects of health grew faster than the economy. Medicare spending increased largely because of policy decisions to

[26] Daley, *et al.* (2014), p.25
[27] Daley (2015a), p.19
[28] Ibid., p.19
[29] Ibid., pp.20-21

increase GP rebates and payments, additional mental health care, and spending on new diagnostic imaging technologies.[30]

This increased spending on health in Australia was not matched by structural increases in taxation, or by decisions to reduce spending in other areas. Until the Global Financial Crisis, windfall tax receipts from the mining boom covered much of the additional spending. More recently the spending has been funded by deficits, which effectively require future generations to pay the bill for today's health care.

Size of government is also a function of how much government regulates lives. As society becomes richer and more complex, some increase in regulation is inevitable. However, increasing complexity and regulation also increase the potential for interest group capture,[31] increase the costs of doing business, and reduce the scope for individual decision-making.

1.8 Guide to this report

The rest of this report considers priorities for reform in more detail.

Reforms that would promote **economic growth** and boost Australians' living standards are outlined in Chapter 2.

Australia's geography and its different patterns of development affect both economic growth and quality of life. Chapter 3 looks at how government might influence outcomes, particularly for **cities**, through changes to planning policy.

Where things happen also depends on **transport** networks. Consequently, transport infrastructure affects economic growth. Transport policy priorities are considered in Chapter 4.

Our lives depend on the supply of **energy**. The sector is so large that its efficiency makes a difference to overall economic outcomes. It must also respond to climate change. Priorities for energy policy are examined in Chapter 5.

Education makes more difference to economic growth and the distribution of opportunities than anything else in the long run. Providing education consumes a large part of government budgets. Reforms to **school education** are discussed in Chapter 6, and reforms to **higher education** in Chapter 7.

The other crucial determinant of quality of life is **health**, and it is also a large area of government expenditure. Policy reforms to improve health outcomes and reduce costs are explored in Chapter 8.

Whatever trade-offs Australia makes about the scope of government services and redistribution, revenues need to match them. But over the last eight years, the Commonwealth government has incurred large budget deficits. Policies to restore **budget** balances are discussed in Chapter 9.

[30] PBO (2015)
[31] Teles (2013)

2 Economic growth priorities

Summary

Improving the efficiency of Australian taxes could provide a big kick to economic growth. In particular, the Commonwealth should encourage the States to replace stamp duties by general property taxes.

Lifting workforce participation rates for women and older workers could boost economic growth, and counter the ageing of the workforce. The Commonwealth should ask the Productivity Commission to assess combinations of tax, transfer, and childcare support that would reduce welfare traps and encourage higher female labour force participation for a given budgetary cost. The Commonwealth should also raise the age of access to the Age Pension and superannuation to 70 years.

Government should remove inappropriate impediments to flexibility in the economy, so that resources can be swiftly reallocated to their highest value uses as conditions change.

Government should remove barriers to innovation, but should not waste money in its name. Removing barriers to the local spread of global innovations is likely to make more difference to economic growth than subsidies for Australian inventions.

With many of the economy-wide reforms already completed, industry-specific reforms – especially in sectors such as superannuation – may well comprise the bulk of the productivity increases that government reform can achieve.

Economic reform matters. Done well, it is the only way to sustainably improve the well-being of citizens in the long run. Greater economic growth both increases individuals' material living standards, and enables societies to invest in many of the non-material factors that improve people's lives.

Reigniting and sustaining Australian productivity growth is the key to raising output per person over the long run, and so raising incomes and funding better social services. Net national income per capita has declined every year since 2011, because productivity and hours worked have not grown enough to offset the effect of declining resource prices on income.[32]

What should government do to strengthen economic growth?

Grattan Institute's 2012 *Game-changers* report concluded that the policy changes that would most affect growth are tax reform (particularly a shift from stamp duties to broad based land taxes); an increase in pension and superannuation ages, and changes to tax, welfare and childcare settings to encourage female workforce participation. Planning reforms, better choice of infrastructure projects and substantial improvements to the quality of education could also make a big difference, but inherently they take decades to work.

2.1 Increasing the efficiency of taxation

All taxes drag on economic growth, but some do so more than others. The Australian tax base is a patchwork of more and less efficient taxes.

[32] Lowe (2016), Graph 5; Productivity Commission (2016b).

Cutting company tax will attract more international investment, and so improve productivity in the long run.[33] Yet the academic analysis and evidence base for corporate tax cuts is shifting. The most recent work suggests that the OECD studies may be less relevant to Australia given our distinctive dividend imputation scheme. Treasury modelling indicates that a corporate tax cut (replaced by increases in personal income tax) will only increase national incomes (measured by GNI) by 0.6 per cent, even if it increases economic activity (measured by GDP) by about 1 per cent. It will also *drag* on the economy for the first decade of implementation, given the tax lost from foreign investors. The tax cut would only start to add back to national income as foreigners gradually invest more in Australia.[34]

A reduction in income tax funded by broadening the GST base and/or increasing the GST rate would increase incentives to work and invest. Yet again the effects may be small if the change is accompanied by a welfare package that aims to reduce the impacts on lower income households.[35]

Taxes on savings are too low relative to other taxes. Tax settings overzealously protect savings at the expense of competing considerations. Given actual returns, and the CGT discount, many investors have been overcompensated for inflation. The economic benefits of tax neutrality for savings are small: those with high incomes save almost the same amount regardless of the tax rate.[36]

[33] Daley, *et al.* (2012a), p.31
[34] Daley and Coates (2016a)
[35] Daley, *et al.* (2015)
[36] Daley, *et al.* (2016)

The capital gains tax discount and negative gearing arrangements mean that other taxes must be higher which impose greater economic costs. Both capital gains tax discount and negative gearing encourage investors to focus too much on investments with capital growth rather than annual income. And they undermine income tax integrity by creating opportunities for artificial transactions to reduce tax. Reducing the capital gains discount to 25 per cent, and not allowing investors to deduct losses from passive investments from labour income would better balance the competing considerations. It would create space to reduce – or avoid raising – other more distorting taxes.

The clearest productivity increase from tax reform would be to replace stamp duties by general property taxes. While this is a State Government responsibility, the Commonwealth should consider providing incentive payments to the States to undertake this reform, similar to those provided under the Hilmer competition reforms, given that Commonwealth revenues will ultimately benefit from the increased economic growth that the reforms encourage.[37]

2.2 Improving labour force participation

Increasing the share of the working-age population that is in work can boost economic growth, and more than counter the ageing of the workforce.

Female labour force participation in Australia, while above the OECD average, is well below that of many other high-income economies. Some women are deterred from joining the labour force or working full-time by low rates of take home pay after tax,

[37] Daley and Coates (2015)

and by having to give up welfare benefits and pay for childcare.[38] Government should ask the Productivity Commission to assess combinations of tax, transfer, and childcare support that would reduce welfare traps and encourage higher female labour force participation for a given budgetary cost.

Older workers, too, are less likely to work than in many comparable economies. The age at which people can access superannuation or the age pension affects retirement decisions of at least some workers.[39] Australia is already progressively increasing the pension eligibility age from 65 to 67, and the age at which people can begin to draw down their superannuation is being phased up from 55 to 60. Government should further increase pension and superannuation access ages to 70.[40]

2.3 Improving flexibility in the economy

Government should remove inappropriate impediments to flexibility in the economy, so that resources can be swiftly reallocated to their highest value uses as conditions change. Flexibility is as important now as it has ever been as the economy adjusts to the end of the mining boom, with large changes to investment, exchange rates, and interest rates.

The reforms of the 1980s and 1990s, including a floating exchange rate, low barriers to trade and capital flows, and changes to the industrial relations framework, made the economy more flexible.[41] As a result, the Global Financial Crisis and the end of the mining boom were absorbed without significant increases in inflation or unemployment that punctuated previous economic cycles.

But there are still many policies that limit flexibility. They include a wide array of regulation,[42] occupational licensing,[43] and state taxes such as stamp duty that raise the costs of moving house for a new job. Industry support such as anti-dumping tariffs is rarely if ever justified, and can also delay the exit of uncompetitive firms.[44]

2.4 Encouraging innovation particularly through competition

Government should remove barriers to innovation, but should not waste money in its name. Australia already has a relatively high rate of formation of new businesses and adoption of new consumer technologies, but has much less collaboration between university researchers and industry than in the most innovative economies.[45]

The 2015 National Innovation and Science Agenda, with its initiatives to remove barriers to new business creation and improve research-business collaboration, is a strong start. Many of these initiatives are low-cost; government should only fund programs for which there is good evidence of a net benefit.[46]

For a small country such as Australia, the vast majority of innovations are produced elsewhere, then adopted or adapted for local use. Removing barriers to the local spread of global

[38] Daley, *et al.* (2012a)
[39] Daley, *et al.* (2013), p.30
[40] Ibid.
[41] Daley, *et al.* (2012b); Productivity Commission (2015b).
[42] Daley, *et al.* (2012b), pp. 16-17.
[43] Productivity Commission (2014)
[44] Minifie and Wood (2016); Productivity Commission (2016a).
[45] Banks (2012)
[46] Daley, *et al.* (2013)

innovations is likely to make more difference to economic growth than are subsidies for Australian inventions.

For example, technologies offering substantial productivity benefits include peer-to-peer business models (such as Uber and Airbnb) and cloud computing.[47] While States are responsible for some policy settings that influence the spread of such innovations (for example, regulation of ride-sharing services), others (such as labour regulation) are largely Commonwealth responsibilities. Government should ensure that it is not impeding the use of such innovations.

Regulated industries can often "capture" the government agency that regulates them.[48] Given this tendency, it may be valuable to bolster institutions within government to provide countervailing pressure. For example, the Harper Competition Policy Review recommended creating a new national competition body, the Australian Council for Competition Policy, to advocate policy reform to increase competition.[49]

2.5 Industry-specific reforms offer significant benefits

The biggest spur to innovation is vigorous competition. Government policy can alter the dynamics of competition, but the regulatory settings most likely to lead to vigorous competition are often sector-specific.

With many of the economy-wide reforms already completed, industry-specific reforms may well comprise the bulk of the productivity increases that government reform can achieve.

A prominent example is the superannuation industry.[50] The fees it charges total over $16 billion per year, or about 1 per cent of GDP, excluding the self-managed part of the industry. Many funds charge more than the leanest funds; the more expensive funds generate lower returns for members, and there is little evidence that they provide better services.[51]

Government has already asked the Productivity Commission to develop criteria for assessing the efficiency of the sector, and to develop a formal competitive mechanism for default superannuation. It has also committed to reviewing the efficiency of the sector between 2017 and 2020. It should also work to close excess accounts, encourage people to move out of overpriced superannuation products, and push subscale funds to close.

2.6 Broader investments in infrastructure and skills

Over the longer run, economic growth is also promoted by investment in worthwhile infrastructure and by better education. Yet increased funds will only repay if they are well invested. More efficient delivery of government services also contributes to economic growth by releasing resources to where they can be better used.

More effective investments in public infrastructure can boost economic growth. Yet governments have already spent large amounts of money on new public infrastructure over the past decade,[52] not all of which was spent wisely.[53] Without reform of

[47] Minifie (2014); Minifie and Wiltshire (2016).
[48] Stigler (1971)
[49] Harper, *et al.* (2015), p.43

[50] Minifie, *et al.* (2014)
[51] Minifie, *et al.* (2015)
[52] Daley and Wood (2015), p.15
[53] Terrill, *et al.* (2016), Chapters 3 and 4.

the funding process for infrastructure, there is a high risk that further spending on it will also be wasteful (Chapter 4).

Improving school performance can also have a tremendous impact on future living standards.[54] Economic growth and social development are closely linked to the skills of the population.[55] Better education generates increased productivity in the workforce and top-level skills that create innovation in products and services. Unfortunately, none of these economic and social benefits will flow unless Australia's trend of slipping educational outcomes can be reversed (Chapter 6).

[54] Jensen (2010)
[55] Hanushek and Woessmann (2015)

3 Economic geography

Summary

Governments should focus on increasing the quantity of housing that offers reasonable access to the centres of our cities where most jobs are being created. They also need to improve transport networks in cities to make it easier for people to get to jobs.

3.1 Cities are the engines of our economy

Cities are the engines of the Australian economy today.[56] Around the world, people are increasingly relocating to cities where a growing proportion of jobs are located and productivity per person tends to be higher.

Australia is highly urbanised by world standards, with the highest proportion of people in its two biggest cities of any country in the OECD.[57] Prosperity is higher as a result. Cities generate more than three quarters of our national income.

Big cities are particularly important. About two-thirds of the population live in Australia's five largest cities of Sydney, Melbourne, Brisbane, Perth and Adelaide.[58] Three quarters of Australians live in a city of 90,000 or more.[59]

The centres of these cities are especially important. About a quarter of all Australian jobs are within five kilometres of the CBD, and about forty per cent are within 10 kilometres.[60] These trends are accelerating. Over the last five years, more than half of the net growth in jobs in our five largest cities was located in the CBD and 10 kilometres around it.[61]

Economics rather than government policy drives the changes. Businesses often prefer to locate close to others because of "agglomeration economics". When firms and people cluster near one another, ideas spread more quickly, cooperative networks are set up more easily, and businesses are within range of more potential employees. The greater productivity of cities is reflected in higher wages, GDP and rates of innovation per person.[62]

The shift towards large cities and their centres is accelerated by the growth of services in our economy. As with other developed countries, as Australian incomes rise, we spend an increasing share of them on services. The businesses that provide these services tend to benefit more from colocation than manufacturing businesses do. Knowledge-intensive businesses – which tend to be the most productive – benefit the most from clustering in the centres of large cities.[63]

Consequently, Australia's future economic prosperity depends on how well we manage our cities.

[56] Kelly and Donegan (2014), p.1
[57] OECD (2014a)
[58] ABS (2013)
[59] ABS (2015)
[60] BITRE (2015a), p.52
[61] Kelly and Donegan (2014)
[62] Romer (2015); Daley (2015b).
[63] Daley (2015b)

3.2 Changes are needed to make our cities work better

In the modern global economy, Australia is lucky to be an urban nation. But if our cities don't work because we fail to manage the downsides of living in them – such as limited housing choices, poor access to jobs and traffic congestion – then we squander our luck.

The allure of cities also leads to more congestion and pollution per capita.[64] Congestion is inevitable when so many people want to live and work close to the city centre. And scarce land makes choices about city living more complicated.

These downsides of city living can be managed, but we are not doing it well.

As economic activity continues gravitating towards city centres, we need to ensure that we connect people to as many job opportunities as possible.

Governments have long tried to bring jobs to people, with very little success.[65] Instead, they should focus on increasing the amount of housing that offers reasonable access to the centres of cities where most jobs are being created. They must also improve transport networks to make it easier for people to get to jobs.[66]

[64] Bettencourt and West (2010)
[65] Kelly, *et al.* (2013), p.37
[66] Terrill, *et al.* (2016), p.19

3.3 Housing policy needs to better enable choice and tackle housing affordability

To maximise the benefits of cities, we need to enable people to live within a reasonable distance of as many jobs as possible. Yet most new housing is far from the centres where most new jobs are being created. The physical divide between rich and poor is growing as a result.[67]

Australian house prices are also very high relative to incomes.[68] As a result, home ownership rates have fallen over the last two decades for all but the oldest households. While younger age groups have always been less likely to own their home, ownership is increasingly diverging by age.[69]

Generous tax breaks such as negative gearing are not helping housing affordability, but they are not the biggest factors in high house prices.[70]

At present, restrictive planning practices are denying people the opportunity to live in established areas close to jobs and transport.[71] New approaches to planning and other policies are required to balance the needs of residents and developers.[72]

Property taxes are also not helping. Replacing stamp duties with a broad-based property levy would make it easier for people to relocate to job opportunities and encourage more productive use

[67] Kelly and Donegan (2015), p.49
[68] IMF (2015), p.9
[69] Daley, *et al.* (2014), p.14
[70] Daley, *et al.* (2016), p.31
[71] Ganong and Shoag (2012), Diamond (2012); Kelly, *et al.* (2013), p.35.
[72] Kelly, *et al.* (2013), p.16

of land in our cities.[73] It would also provide a more stable stream of revenue for State and Territory governments, and minimise the economic distortions of taxation.[74]

While most of the policy levers in planning and property taxes are State Government responsibilities, the Commonwealth should consider providing incentive payments to the States to significantly relax planning restrictions in the inner and middle rings of major cities and reform property taxes. These could be similar to the incentives provided for the Hilmer competition reforms in the 1990s. Commonwealth revenues will ultimately benefit from the increased economic growth that they encourage.[75] Commonwealth incentives may also encourage politically difficult reforms that may not happen otherwise.

3.4 Transport should be more efficient to maximise access to jobs

As cities get bigger, and therefore more productive, it becomes harder to transport more and more people into a small area. While congestion is inevitable, governments must manage it more effectively.

Charging drivers a fee to drive on congested roads would lessen the worst effects of congestion and use roads more efficiently.[76] A congestion charge only needs to discourage a small proportion of people from driving to generate a proportionately larger increase in traffic speed.[77]

[73] Kelly, *et al.* (2013), p.36
[74] Daley and Coates (2015), p.5
[75] Ibid.
[76] Kelly, *et al.* (2013), p.41
[77] Kelly and Donegan (2015), p.172

Transport options can be made more efficient. In the past governments have largely spent in states and electorates where federal elections are won and lost. Instead, funding for infrastructure projects should be contingent on the project having undergone a rigorous and independent evaluation to ensure it produces benefits that exceed its costs.[78]

The next chapter discusses transport policy in more detail.

3.5 Regions are no longer the dominant driver of the economy

Regions are vital to our society. Governments need to ensure they enjoy an acceptable level of services.

But we need to be realistic – regions outside major cities are unlikely to be the major driver of economic growth and improved living standards.

Commonwealth policy has tried to encourage additional growth in regional areas for 115 years.[79] Yet the total impact of all technological developments over the last century has been to draw more people into cities. Future technological changes such as the National Broadband Network will accelerate, not slow, the trend of urbanisation.[80]

Indeed, policies designed to shift jobs to outer suburbs or regions could harm national productivity and employment growth as we forgo the benefits of agglomeration in bigger cities.

[78] Daley and Lancy (2011)
[79] Daley (2012)
[80] Daley (2010)

4 Transport

Summary

The Commonwealth's significant funding role provides a lever to improve the effectiveness of Australia's transport network.

Continuing to fund projects on the basis of local interests in marginal electorates destroys value when the cost of projects exceeds their benefits.

New Commonwealth investment in transport infrastructure should be restricted to quality proposals that address national priorities.

Road user charging to manage demand should be established, and the heavy vehicle charging scheme should be reformed to connect raising revenue with spending.

4.1 Commonwealth's interventions in practice exceed its agreed role

Although the Commonwealth has limited operational responsibility for transport networks, in 2013-14 it spent $8 billion on roads and rail, and raised $18 billion in road-related taxes and charges.[81]

According to its financial agreement with the States, the Commonwealth is supposed to be involved in transport only where the benefits extend nationwide, where there are spillover benefits that extend beyond the boundaries of a single state, where it would produce a particularly strong impact on aggregate demand or sensitivity to the economic cycle, or where it harmonises policy between States to reduce barriers to the movement of people and goods.[82]

4.2 Infrastructure funding choices must be more disciplined

In practice, recent Commonwealth governments have funded many transport infrastructure projects that are inherently local. They have tended to favour projects in swing states and marginal seats. And they have either not consulted Infrastructure Australia at all or done so too late. Since June 2012, $3.7 billion of Commonwealth money has been committed to transport infrastructure projects without a published evaluation, and a further $2.6 billion before the proposals were submitted to Infrastructure Australia.[83]

New investment in transport infrastructure will remain important in locations with rapidly growing populations. Budget constraints make a more disciplined approach to investment essential.

The Commonwealth should defer funding for any project until Infrastructure Australia has assessed it as a high priority. In other words, a large number of campaign promises to fund specific projects should be deferred. If campaign promises are sufficient to override disciplined project assessment – as they have over the

[81] BITRE (2015b), Table T1.2a, p.39; Table T1.8a, p.46; Table T1.4, p.42.

[82] Council on Federal Financial Relations (2011), Schedule D.

[83] Terrill, *et al.* (2016), p.18

last decade – then vested local interests override the public interest, reducing Australian prosperity.[84]

To institutionalise this approach, the *National Land Transport Act 2014* and the *Federal Financial Relations Act 2009* should be amended so that the Minister may only approve a project or contribute funding after an independent evaluation of the project and the business case (by Infrastructure Australia, for example) has been tabled in Parliament.

To complement this approach, the Commonwealth should commit to funding *all* projects that Infrastructure Australia has identified as addressing a nationally significant problem, with a fully assessed business case, and where the benefits outweigh the costs – or explain publicly why not.

Because most of Australia's economic activity, economic growth and population growth occurs in the four largest cities, a more disciplined approach will probably lead to most new capacity investment occurring in the larger capital cities. Regional areas, particularly in NSW and Queensland, have received more than their share of Commonwealth investment over the past decade.[85] Future investment should recognise not only the greater growth of major urban areas but also the impact of disproportionate over-investment in the regions over the last decade.

4.3 GST re-distribution should not unwind transport funding choices

A large part of Commonwealth investment is effectively nullified by the basis on which it distributes the GST between the States. The methodology used by the Commonwealth Grants Commission increases the share of GST distributed to a State if it has received less than its per capita share of Commonwealth funding for infrastructure.[86]

Assuming that a disciplined process for infrastructure funding is adopted, the Treasurer should instruct the Commonwealth Grants Commission to prepare its next assessment of GST relativities on the basis that it is not affected by Commonwealth transport infrastructure funding decisions.

4.4 Low interest rates should only be used to fund additional projects if they are chosen more wisely

Historically low interest rates make it cheaper to co-invest with the states in productivity-enhancing transport infrastructure. Additional infrastructure investment may mitigate the risks of weak private investment and low GDP growth across the developed world.[87] Yet additional investment is only worthwhile if the additional returns in fact outweigh the additional costs. This implies that additional investment should only be considered if project selection is much more disciplined than in the past.

4.5 Road charging should be encouraged so that infrastructure is used more efficiently

Road infrastructure is overdue for reform. A major opportunity exists to make more effective use of the existing network. Three reforms in particular would improve incentives for efficient use and provision of the road network.

[84] Ibid.
[85] Ibid., p.28
[86] Ibid.
[87] Rachel and Smith (2015)

- As a condition of Commonwealth funding for major urban transport proposals, Infrastructure Australia should require State governments to include a theoretical application of road pricing as part of the project's assessment.
- The Commonwealth should offer policy support and pilot funding to any State that trials a user charging scheme in its capital city to discourage congestion and prepare over time for the introduction of autonomous vehicles.
- The Commonwealth should reform the PAYGO heavy-vehicle charging scheme to use heavy vehicle revenues not simply to cover aggregate costs but also to provide a signal as to where investment is warranted.

4.6 Value capture can help to fund new infrastructure, but is no silver bullet

With budgets under pressure, there is renewed interest in value capture – funding infrastructure by applying a charge for the increase in business or land values that result from the infrastructure.

Value capture can complement user charges and general government revenue to fund major infrastructure. It works best where the beneficiary landholders or businesses can be identified clearly. In practice, urban rail is the most realistic infrastructure type for value capture; heavy rail typically increases the value of land affected by about 7 per cent, although it varies widely from losses to gains of as much as 40 per cent.[88] Consequently, value capture is likely to provide at most a modest source of additional funding.

However, projects should not be chosen according to whether they are suited to partial funding from value capture. Instead, governments should commit public funding to projects that provide the greatest net benefits to the community.

[88] BITRE (2015a)

5 Energy

Summary

The Commonwealth should strengthen existing policies to create a stable, long-term climate change policy that will lead the transition to a low-emissions economy.

The Commonwealth must revive energy market reform through the COAG Energy Council. Policy and regulation are badly lagging behind technology and consumer choice. The regulation of networks and the operation of the National Electricity Market will be critical.

To maximise the value of Australia's gas resources and ensure continuity of supply, the Commonwealth should not reserve gas for domestic use, but instead increase the transparency and liquidity of the gas market.

Develop and manage a revitalized reform agenda for the COAG Energy Council that addresses these issues with a focus on outcomes, rather than being mired in process

5.1 Commonwealth should build on existing mechanisms to create a sustainable climate change policy

Lack of credible, long-term climate change policy has threatened the environment and investment in the energy sector for most of this century. A dog's breakfast of unstable and unpredictable policies at Commonwealth and State levels has been a poor substitute.[89] Existing government policy is likely to be enough to meet Australia's 2020 emissions target – a five per cent reduction on 2000 levels by 2020 – but far from sufficient to meet stronger targets in 2030 and zero emissions thereafter.[90]

Work to strengthen the policy must begin now. Without an approach that provides certainty well into the future, businesses will not make the long-term and efficient investments in low-emissions technologies that can reduce emissions at lower cost. If Australia delays, then the task will be harder in the future.

An economy-wide carbon price through a market mechanism is the best way to reduce emissions to meet Australia's targets without excessive cost to the economy.[91] But in the absence of the political consensus needed to implement best policy, we should work with what we have. The Commonwealth should strengthen and evolve its existing Safeguard Mechanism – a policy that limits the emissions of about 140 of Australia's highest-emitting businesses[92] – so that it becomes an effective market mechanism.[93]

By using an already existing instrument, the Safeguard Mechanism, the Commonwealth can avoid a repeat of the chopping and changing of climate change policy that has created such uncertainty for business and the community. A commitment

[89] Wood, *et al.* (2015b), pp.15-16
[90] Wood, *et al.* (2016), pp. 7-8
[91] Daley and T. (2011), p.3
[92] The Safeguard Mechanism does not officially come into effect until 1 July 2016.
[93] Wood, *et al.* (2016), pp. 2-3

to gradually transforming the Safeguard Mechanism into a market-based policy also has the potential to achieve bipartisan support, which has been sadly lacking in climate change policy. Broad bipartisanship would give business the predictability it desperately needs to support the transition to a low-emissions economy.

A credible, long-term climate change policy would provide incentives for new low- or zero-emissions electricity generation, such as wind and solar power. It would supersede the role of the Renewable Energy Target (RET), which currently provides these incentives.[94] Yet the RET should not be abandoned.

Investments in existing renewable generation have been made in good faith. The RET should continue as planned in order to protect these investments. But provided there are broad incentives to reduce emissions, the RET's existing lifespan should not be extended. The Commonwealth will need to continue and expand its support for research and development in low-emissions technologies, particularly in electricity to reduce future costs in transitioning to a low-emissions economy.[95]

5.2 Networks should be privatised and incentives to over-build removed.

Energy market reform began in the early 1990s but stalled in the 2000s. Privatisation became politicised, and the reality that reform would create losers made it hard to introduce electricity prices that more closely reflected the costs of producing power. Yet the status quo is not acceptable: a failure to properly regulate the costs of power networks was a vital factor in prices increasing by 60 per cent in real terms for all customers. [96]

The Commonwealth should work through the COAG Energy Council, the decision-making body of Commonwealth and State Energy and Resources ministers, to prosecute the arguments for network privatisation[97] and tariff reform.[98] Fairer and cheaper electricity will result.

Reforming the way network businesses operate is essential and the regulatory process needs an overhaul. The Commonwealth can work through the Australian Energy Market Commission and the Australian Energy Regulator, but will need support from State and Territory governments. Yet some may withhold their support because they still own networks and have conflicting interests as both shareholders and regulators.

In reforming power networks, two issues take priority. First, the process for defining the costs that networks can recover from customers takes too long and encourages networks to over-spend. Previous reforms haven't worked, as demonstrated by the current New South Wales process that will not determine network costs for 2015 until 2017 or later. Further reforms are required so that the amount that networks can recover from consumers is finally determined more quickly, and more obviously in the public interest.

Second, governments must resolve who will pay for surplus network infrastructure that was built to meet overly cautious reliability standards and grossly inaccurate demand forecasts.

94 Ibid., pp. 25-26
95 Wood and Mullerworth (2012), pp. 6-8
96 Wood, *et al.* (2013), p.10
97 Wood, *et al.* (2012), pp.4-5
98 Wood, *et al.* (2014), p.13

These forecasts were produced because businesses had commercial incentives to build more infrastructure rather than to reduce costs. At the time, regulatory decisions also contributed to the over build and high costs. Now shareholders, consumers or governments will have to pay for it. The status quo is increasingly untenable as it continues to produce over-investment in the network.

5.3 Network pricing should be aligned with costs

No better illustration of the need for energy market reform exists than the failure to fix electricity network tariffs. The current structure of tariffs has been a factor in encouraging an overbuild of the network, one of the main causes of higher power prices over the past decade.

One reason why too much infrastructure is built is the problem of peak demand, or maximum load on the network. The network is built to carry this load, which occurs only once every summer in most states, yet customers are charged on their year-round use of the network. Tariffs need to be reformed so that they reflect the cost of building the network to meet peak demand.[99] Peak pricing would reduce cross-subsidies that benefit some users, and make electricity prices fairer and cheaper for all consumers in the long term.[100]

Federal and state governments agreed to introduce new network tariffs from the start of 2017. But progress is slow. Only Victoria has the smart meters needed to implement new tariffs effectively, and the disappointing decision of the Victorian Minister in December 2015 to allow new tariffs on an opt-in basis only means they will not deliver the desired outcomes. With only a limited number of households in other states having smart meters, mandatory new network tariffs look unlikely, although the Western Australian Minister remains committed to addressing this issue.

Along with high subsidies for solar, the lack of tariff reform prompted Australian households to install solar PV that cost $10 billion more than the benefits it provided.[101] Yet as the costs of solar PV and battery storage continue to fall, cost reflective tariffs will encourage consumers to combine them fairly and effectively.

5.4 NEM pricing must cater for intermittent supply

Since its creation in 1998, the National Electricity Market (NEM) has helped to provide affordable, reliable and secure electricity. It faces new challenges that were not envisaged when it was established.

An increasing proportion of electricity is generated at zero or even negative marginal cost. A similar situation in European markets has triggered the financial collapse of major companies, and governments have been forced to introduce supplementary markets for generation capacity even if it is not used. Although Australia's situation differs in key respects, the Commonwealth should initiate a review of the energy-only NEM, considering alternative or additional mechanisms that may be needed to avoid future threats to reliability and/or prices.

The increasing proportion of supply from intermittent wind and solar creates problems for security of supply. These were exposed over the recent summer when South Australia was cut off from the rest of the NEM and insufficient fossil-fuel generation

[99] Wood, *et al.* (2013), p.24
[100] Wood, *et al.* (2014), p.267; Wood, *et al.* (2015a) p.25-27.
[101] Wood, *et al.* (2015b), p.15

was available to meet demand in a timely manner. The result was blackouts for some consumers in South Australia. AEMO has highlighted the issue and indicated that enhancements to Australia's electricity system may be needed in the longer term.[102] The Commonwealth should direct AEMO assess the options and recommend regulatory and infrastructure changes needed to ensure reliable electricity given new supply technologies.

5.5 Gas regulation should promote market transparency

Opening the east coast domestic gas market to international demand has pushed up prices. These pressures are exacerbated by the lack of progress toward a transparent and liquid wholesale market and by bans on unconventional extraction such as fracking in several jurisdictions.[103] The Commonwealth should work with the States to resolve the issue of unconventional gas extraction, removing barriers to more gas supply entering the market. In order to create a more effective and efficient market, the Commonwealth should also lead the implementation of recommendations from the recent Australian Competition and Consumer Commission's East Coast Gas Inquiry.[104] Reverting to protectionism by reserving a proportion of gas for domestic use is strongly discouraged: in the long run it would reduce the availability of domestic gas, drive up prices, and reduce export revenue. [105]

[102] Australian Energy Market Operator (2014), p.3
[103] Wood, *et al.* (2013), pp.18-22
[104] ACCC (2016), pp.18-19
[105] Wood, *et al.* (2014), pp. 35-38

5.6 The Commonwealth should lead better market governance

A recent review into how Australia's energy markets are governed identified issues with the COAG Energy Council and the market institutions.[106] However, it did not go far enough. The Commonwealth needs to develop and manage a revitalised reform agenda that addresses the above issues with a focus on outcomes, rather than being mired in process.

[106] Australian Government (2015), p.7

6 School education

Summary

Significant reforms are needed to lift student learning outcomes in the face of persistent declines. Policy and practice must focus on the actions that maximise learning progress for all students, such as *Targeted teaching*. Trade-offs are needed to re-direct funding to where the evidence shows it will make the most difference.

State governments hold key responsibilities in the areas that have most impact. The Commonwealth can add most value by focusing its efforts where national scale or consistency is a genuine advantage, or where current arrangements mean it must be involved.

The Commonwealth should continue to improve national testing, curricula, and professional standards. It should also invest to develop better assessment tools for teachers, and to strengthen the evidence base for what works best in practice.

The Commonwealth should continue to press the universities (which it funds) to improve initial teacher education.

The Commonwealth should align funding for schools with educational need.

The Commonwealth should avoid over-regulation, and over-reliance on the market-based policy levers of autonomy, competition and choice.

6.1 Outcomes are not good enough

Australia's performance in international PISA tests has steadily declined since 2000.[107] Differences in outcomes among schools have increased.[108] Family background strongly affects outcomes: students with similar performance in Year 3 make up to two years less progress by Year 9 if their parents have limited education.[109]

An estimated 20 per cent of Australian 15-year olds fail to reach a baseline proficiency in mathematics in international tests. Our national minimum standards do not highlight those falling far behind. For example, a Year 9 student at the national minimum standard operates at the average level of a Year 5 student.[110] These students leave school without the capabilities they will need to stand on their own feet as adults.

Australia's strongest students must also do better. Only 15 per cent reach the highest levels of mathematical proficiency in PISA, compared to 40 per cent in the five best systems in the world.[111]

These educational failings at both ends of the achievement spectrum limit productivity, innovation and economic growth.[112]

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[107] PISA refers to the Programme for International Student Assessment test, see OECD (2014b), pp. 306; 383.
[108] Masters (2015)
[109] Compared to students whose parents have a degree. Goss, *et al.* (2016), p.27
[110] Ibid., pp.23-24
[111] Goss, *et al.* (2015), p.5
[112] Jensen (2010); Goss, *et al.* (2016), pp.33-39

6.2 Key reforms to lift student outcomes are well known

1. Focus more on student progress, not just achievement

School education policy should explicitly aim to lift the progress (growth) of all students, not just achievement at a point in time.

Students learn faster through ‘targeted teaching’, when teachers identify what each student is ready to learn next, teach them accordingly and track their progress.[113] Targeted teaching is a key priority because student achievement varies widely within a single classroom.[114] Yet it is not the norm in Australian schools today.

System leaders must provide more support. They should develop better assessment tools for use in the classroom, and to work with schools so that every teacher has the time and training they need to provide targeted teaching.[115] New South Wales is showing the way through its Early Action for Success program, which has transformed teaching in over 300 government primary schools.[116]

2. Focus on improving teaching practice in the classroom, not high-stakes accountability or incentives such as performance pay

Outside the home, nothing influences student outcomes more than effective teaching.[117] Teaching works best when teachers embrace their professional responsibility to rigorously use data to adapt and target their teaching.[118] Teachers improve most when they collaborate and observe good practice, and when they receive monitoring, feedback and meaningful appraisal.[119] By contrast, international experience shows that we will not generate large improvements from using test scores to hold teachers accountable,[120] or from creating narrow incentive mechanisms such as performance pay for teachers.[121]

Better initial teacher education is also a priority,[122] but the wait is long before reforms affect most of the workforce.

High-performing education systems have learnt these lessons. They relentlessly improve classroom practice by building teacher capability.[123] School leaders are central to this process. Systems like Singapore therefore invest in intensive executive education programs for future school leaders.[124]

3. Make trade-offs to improve how and where money is spent

Trade-offs are needed to direct funding and resources where the evidence shows they will make the most difference.[125] For example, teachers in Shanghai and Singapore have larger but fewer classes to give them more time to collaborate and improve their practice.[126]

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113 Goss, *et al.* (2015), p.1
114 In a typical school, the top 10 per cent of Year 9 students are seven years ahead of the bottom 10 per cent in literacy and numeracy. Goss, *et al.* (2016).
115 See Goss, *et al.* (2015).
116 Ibid., p.35-36
117 Jensen and Reichl (2011), p.6
118 Goss, *et al.* (2015)
119 Jensen and Reichl (2011), p.7
120 Goss, *et al.* (2015), p.39
121 Jensen (2012)
122 Jensen, *et al.* (2012)
123 Ibid., p.12
124 Ibid., p.22
125 Ibid., p.13; Jensen, *et al.* (2014), pp.10-17.
126 In Shanghai, teachers teach classes of up to 40 students for 10-12 hours each week. By contrast, Australian teachers teach an average of 23 students for 20 hours per week. Jensen, *et al.* (2012), p.14

6.3 The role of the Commonwealth

The Commonwealth can add most value by focusing its efforts where national scale or consistency is a genuine advantage, or where current arrangements mean it must be involved:

- **Supporting the existing federal architecture.** There are benefits from the national assessment program (NAPLAN); reporting to parents (My School); the Australian curriculum; and national professional standards. Benchmarking and national consistency adds value in these areas.[127] Yet reporting should focus more on student progress,[128] and recognise the broader goals of schooling.[129]

- **Strengthening the evidence base.** More rigorous research, including systematic evaluation of major educational investments and policies, is needed.[130] In addition, existing data should be used more effectively by policy-makers. There is also a big gap in our understanding of what practices are being used in classrooms today.[131] Federal support to strengthen the evidence base will bring benefits of scale (in developing deep expertise) and independence.

- **Developing assessment tools to help teachers**. Teachers need high quality tools to diagnose what their students know. When a national curriculum exists it is wasteful for each state (and many schools) to develop all its own tools. Federal investment will lead to less "re-invention of the wheel".[132]

- **Improving initial teacher education.** The Commonwealth (which funds universities) is responsible for the quality of teacher education. It should continue to press universities to raise entry standards for teacher training, and to use the existing evidence base in what they teach. States can support quality improvements by using their position as the main employer of teachers.

- **Aligning school funding to educational need.** Current funding arrangements are complex and disputed. Australia needs a new school funding formula that is consistent and needs-based.[133] It should be informed by student progress.[134] This will not solve all problems: schools must also spend their money where it will do the most to improve outcomes.

Failure to reach national agreement on needs-based funding will continue to distract from essential reforms.[135] Under current arrangements, the Commonwealth is responsible for driving reform. If federal leadership cannot achieve agreement, one option is for funding for all schools to be handed to States.[136] This reform would be difficult, but might add value in the longer term by better aligning funding with operational and policy responsibilities.

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127 See Hinz (2015)
128 We propose a new 'years of progress' NAPLAN measure in Goss, *et al.* (2016), p.13
129 The *Melbourne Declaration* (2008) defines the goals of school more broadly than academic achievement, but our current assessments are quite narrow.
130 Goss, *et al.* (2016), p.46; Goss, *et al.* (2015), p.49.
131 Goss and Sonnemann (2016a)
132 Goss, *et al.* (2015), pp.34; 43-45.
133 At present, students and schools with similar levels of educational need receive different levels of funding. Every state and sector has a different model.
134 Goss, *et al.* (2016), p.40
135 Ibid., p.39
136 Handing funding for all school sectors to the States is better than splitting funding between Commonwealth and State governments: see Goss and Sonnemann (2016b).

6.4 What the Commonwealth should avoid

School education would benefit if the Commonwealth is *less* involved in some areas.[137] Problems can arise when federal policies duplicate efforts and create regulatory burdens. Reforms become confused with two masters: it is harder to set priorities, make good trade-offs, and keep a consistent focus. The Commonwealth should work with States and Territories to clarify how the two layers of government can work better together.

In particular, the Commonwealth should avoid two common approaches that have limited impact on student outcomes:

- *'Tick-the-box' policies* such as principal certification schemes or requirements for school strategic plans. High performing systems got to where they are by lifting the professionalism of teachers, not by focusing on minimum requirements.[138]
- *Over-reliance on school autonomy, accountability, competition and choice* without system-wide support to improve teaching practices. These reality of school education means relying on markets is not the best way to improve student learning:[139]
  - Autonomy can give schools freedom to change teaching practices. Yet autonomous schools need extra support for teaching and learning in order to be effective.[140]
  - High-stakes accountability can generate perverse incentives for teachers that lead them to focus on the wrong issues.[141]
  - Most schools face no or limited competition based on their performance. The impact of interventions to increase school competition has been marginal, at best.[142]
  - School choice can help individuals but can also exacerbate inequalities across education systems.[143]

6.5 Early childhood education

Early childhood education provides big gains for school education and beyond. One year of pre-school education reduces the risk by half that a student will become a low performer at age 15.[144] The impacts are largest when the quality of programs is improved, especially for children from low socio-economic backgrounds.[145]

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137 Jensen (2013a); Jensen (2013b).
138 Jensen, *et al.* (2012), p.12; Mourshed, *et al.* (2010), p.28.
139 Jensen, *et al.* (2013), p.1
140 Ibid., p.36; Suggett (2015).
141 For example, a need to improve test scores can lead to teachers narrowing what they teach or excluding students from tests. See Goss, *et al.* (2015), p.39
142 Jensen, *et al.* (2013), p.35
143 OECD (2012), p.64
144 OECD (2016), Figures 2.13 and 2.14
145 Goss, *et al.* (2016), p.43

7 Higher education

Summary

The higher education system is now responding well to skills shortages.

Some new graduates are having difficulty finding work, but controls on student numbers are not desirable.

The system of per student funding is not in crisis, but it could lead to an under-supply of student places. Activity-based costing is needed to set new funding rates.

The government should report on HELP in ways that clearly identify its interest subsidy and doubtful debt costs.

HELP's costs should be reduced by lowering the income threshold for repayment and ending the deceased estate write-off.

Government research funding policy has been changed to encourage commercialisation, but academic culture means that expectations should be modest.

7.1 The higher education sector is providing more students with skills and jobs

Since 2008, the higher education system has significantly improved its capacity to adjust to the skills needed in the labour market. From 2010, the previous system of the government allocating student places to universities was phased out, and except in medicine universities now decide how many student places to offer in each course. This change helped reduce the number of professional or managerial occupations classified by the Department of Employment as in skills shortage from 40 in 2008 to six in 2015.

While skills shortages are a smaller problem than before, graduate employment prospects are a significant concern. More than 30 per cent of new graduates seeking full-time work have not found it four months after completing their courses, compared to 15 per cent in 2008.[146] Increasing completions caused by enrolment growth coincided with a weak labour market overall, particularly for the professional jobs historically favoured by graduates. New graduate cohorts are still growing, and strong labour market growth will be needed for them to find suitable jobs.[147]

Although re-imposing controls on higher education enrolment numbers would reduce competition in graduate labour markets, it is not recommended. Governments are unlikely to pick labour market trends more effectively than are universities and students. In the past, government influence on student numbers has hindered matching graduates with jobs. For example, application statistics show strong long-term demand for health-related courses, with graduate shortages caused by restrictions on the number of students.[148] Recent government initiatives to steer

[146] GCA (2015b); GCA (2015a).
[147] In 2014, there were 22,392 more domestic bachelor degree graduates, or 21 per cent more, than in 2008. The full effects of enrolment increases are yet to flow through to completions: Department of Education and Training (2016).
[148] Kemp and Norton (2014), Chapter 3

student demand have also had poor outcomes. For example, promoting STEM courses has contributed to a serious over-supply of graduates with generalist science degrees. They now have little prospect of employment in their field, and below-average overall employment outcomes.[149]

7.2 Commonwealth funding per student should be based on actual costs

Under the current system, the total funding universities receive for a government-supported student place is a combination of a Commonwealth contribution, set by the government, and a student contribution, set by universities up to a legal maximum. In practice, all universities charge the maximum amount. The total funding rates are historical and not based on standards of teaching or any recent cost study. The available evidence suggests that universities can generally fund teaching from existing funding rates, along with some research in many disciplines.[150]

While no teaching quality crisis is imminent under existing rates, there is widespread dissatisfaction with overall funding levels and anomalies among disciplines. Among the potential problems are universities not being able to meet external standards, reducing the supply of places in under-funded disciplines, and preferring fee-paying international students over domestic applicants.[151]

While fee deregulation is one possible response to an unsatisfactory pricing system, it is not recommended at this point. Problems with the Higher Education Loan Program (HELP), discussed below, mean that increased borrowing to pay higher fees would exacerbate an already significant problem with student debt that is unlikely to be repaid. Evidence from the deregulated market for international students suggests that universities would use much of the additional revenue from higher fees to fund research. It is not clear that additional research would benefit government-supported domestic students so much that they should be asked to pay additional fees to fund it.[152]

As a preliminary move to developing a more sophisticated pricing system for government-supported places, the government should require universities to use and report on activity-based costing.[153] This tells us the purpose of spending – what is spent on teaching, research, and other university functions. That data would enable informed decisions on what forms of teaching should be supported, and whether the per-student funding rate should support some research. The research element could be financed from the public component of the overall funding rate.

The Commonwealth contribution to current overall per student funding rates averages about $11,200 a year, but with significant differences among disciplines. There is little rationale for some of these differences. The level of public subsidy is principally a political issue. There is little evidence that the level of public subsidy in itself significantly affects how many students enrol, their social backgrounds or discipline choices.[154] This is partly due to Australia's system of income contingent loans, HELP.

[149] GCA (2015a); GCA (2015b)
[150] Norton and Cherastidtham (2015)
[151] Ibid., Chapter 4
[152] Norton, *et al.* (2013)
[153] Norton and Cherastidtham (2015), Chapter 5
[154] Norton (2012)

7.3 The costs of HELP should be made more transparent

In cash outlay terms, HELP is now Australia's biggest tertiary education program, with loans of about $8 billion per year. It is attracting increasing scrutiny. Growing amounts of debt will never be repaid. Interest costs will grow significantly as total debt is expected to reach $100 billion by the end of the decade.[155] Some education providers in the VET FEE-HELP scheme for vocational education diploma students have acted badly, enrolling students in inappropriate courses, and charging fees much higher than the cost of course delivery. A VET FEE-HELP reform process has already commenced.[156]

Policymakers need better information on HELP to improve decision making. The budget papers report income contingent loans on a fiscal balance basis, which does not reflect their true cost. It omits their largest cost, debt not expected to be repaid.[157] Estimates of the proportion of new lending that will not be repaid vary, but we believe that it is at least 20 per cent.

The budget papers do not report how much money is lent each year through HELP. In cash balance terms, this is because it is viewed as the creation of a financial asset. For higher education HELP, lending information is only found in a higher education report published by the Department of Education and Training, which typically runs years behind schedule. The latest report covers 2013.[158] VET FEE-HELP is a little better; its latest report goes up to 2014, although intense public scrutiny has led to more up-to-date information being released on an ad hoc basis.[159]

The annual interest cost of outstanding HELP debt is embedded in the cash balance. This is because annual revenue from CPI indexation of HELP debts is less than interest outlays on public debt. However, this cost is not separately identified and attributed to HELP.

Improved reporting on HELP, along with other income contingent loans such as the trade support loans and the new start-up income support loans for students, is needed to improve decision-making. New Zealand's annual student loan report provides a guide.[160]

7.4 Accelerate repayment of HELP student loans

In addition to better reporting, specific policy changes can improve HELP's finances.

The income threshold at which HELP debtors start repaying, currently an annual income of $54,126, is too high. It is very generous compared to other forms of social insurance. Its practical effect is to exempt many HELP debtors from repaying, despite living in reasonably affluent households. This is because the debtor is a second income earner who works part-time. A Grattan report recommended that the initial threshold be reduced to $42,000.[161] This household analysis of where HELP debt is held also supports a recommendation to recover HELP from deceased estates valued at $100,000 or more. With current

[155] Parliamentary Budget Office (2016), p. 5
[156] Ryan (2016)
[157] Parliamentary Budget Office (2016). An estimate of doubtful debt cost is included in an aggregate HELP line item in the Department of Education and Training's portfolio budget statements, but it is not separately identified or included in the fiscal balance.
[158] Department of Education and Training (2015a)
[159] Department of Education and Training (2014)
[160] Ministry of Education (NZ) (2015)
[161] Norton and Cherastidtham (2016)

accounting rules, this would only produce small revenue gains over the forward estimates, but it would significantly improve HELP's long-term finances.[162]

7.5 Expectations should be realistic about retargeting research funding on industry engagement

Although public research funding has declined slightly in recent years, over the medium term it has increased significantly – by nearly 60 per cent between 2001 and 2015.[163] Recent research funding policy changes aim to increase engagement between universities and industry, in the hope that universities will contribute more to commercial innovation. Previous incentives for collaborative work have contributed to more research expenditure being classified as 'applied'. In 2014, universities spent almost $5 billion on applied research, which is just under half of all university research, compared to a third in 1994.[164] In real terms, nearly five times as much was spent on applied research in 2014 compared to 20 years before. Despite this, universities are the direct source of only 3 per cent of business innovation ideas.[165]

Although some academics are entrepreneurial, university culture is oriented towards developing knowledge for its own sake. This is reflected in the reasons academics give for pursuing a career in universities.[166] Publications in academic journals are the desired output for most academics, and the number of such publications has increased significantly.[167] Although academic publications will have less direct impact on university research grants in future, publications will still be needed for promotions and for project funding applications.

The success of universities in other entrepreneurial activities, especially in recruiting fee-paying international students, has diluted the influence of government research grant policy. In 2012, recurrent government research programs funded less than half of reported university research expenditure.[168]

The nature of the academic research culture, and the capacity of universities to pursue their own research goals independent of government funding, means that expectations for the latest round of research policy initiatives should be modest.

162 Norton and Cherastidtham (2014a)
163 Department of Industry and Science (2015); NHMRC (2016); Department of Education and Training (2015b).
164 ABS (2016c)
165 ABS (2014)
166 Norton and Cherastidtham (2014b), p.34
167 Ibid., p. 40
168 Norton and Cherastidtham (2015), p. 47

8 Health

Summary

Money can be saved in the health portfolio through pricing reforms in pathology and pharmacy, and in reducing the number of inappropriate procedures that are performed. Improved public hospital efficiency can also provide savings, primarily to the states, but also to the Commonwealth through the hospital cost sharing formula.

Current health funding arrangements have not responded to changing health care needs, especially for care of people with chronic conditions, and do not encourage new ways of meeting needs. More payments should be routed through Primary Health Networks to promote more integrated care.

There are critical gaps in services, particularly for people who are nearing the end of life. Shifting resources from institutional care to community-based support would support more people to die well

Out-of-pocket costs for health care are high and deter some people from getting needed care.

8.1 Consider tendering for pathology services

Although a fee freeze for pathology services has provided some savings to government and taxpayers, more are possible.

Government, through Medicare, spent $2.5 billion on pathology services in 2014-15. Thanks to market consolidation, two publicly listed firms now control more than 75 per cent of that market. Pathology services are paid for as if testing were still done by thousands of small providers manually processing tests, and not by two industry giants with automated services.

Government has introduced policies, including a fee freeze and negotiated spending caps, to extract efficiencies from the pathology sector. But industry has exceeded the negotiated caps on spending for the last four years in a row.

The basis for paying for pathology services needs to change.[169] Government should experiment with introducing price competition into the market. Companies could tender for contracts to provide the majority of pathology services in certain areas, provided they charge government less than the rebate and without adding co-payments. These reforms could save government at least $175 million a year.

8.2 Introduce tougher rules for paying for pharmaceuticals

Although a ‘price disclosure’ policy for pharmaceuticals has ratcheted down prices, Australia is still paying far too much for drugs on the Pharmaceutical Benefits Scheme. There are two ways to get a better deal. First, government should benchmark prices with comparable countries.[170] While the savings we estimated in our 2013 report, *Australia’s bad drug deal*, have reduced somewhat with further rounds of price disclosure and the fall in the Australian dollar, government should still pursue

[169] Duckett and Romanes (2016)
[170] Duckett, *et al.* (2013)

benchmarking of international prices to ensure Australia gets a better deal.

In addition, government should only pay for the best-value drug when cheaper drugs work just as well as more costly ones. Policy redesign could save at least $320 million a year.[171]

8.3 Drive public hospital efficiency

Public hospital spending is the fastest-growing area of government expenditure,[172] but its growth can be slowed. In some States, the cost of operations varies a lot among hospitals. In others, particularly those with a long history of casemix funding, costs vary less among hospitals, and are lower on average. The additional costs, which amount to around one billion dollars a year, do not provide better care. They are simply inefficiently spending.[173]

The best way to make hospitals efficient is to get the price incentives right. Over the last few years all states have started paying for hospital care on the basis of the hospital's activity. The Commonwealth government shared in the costs of hospital activity growth but based their payments on the average cost of care across Australia, not the actual cost which have been higher in some states. The average cost of care is described as the 'National Efficient Price'.

The 2014 Budget proposed to change all this but the Commonwealth's recent decision to restore sharing the costs of growth at the National Efficient Price is a positive step. So too is incorporating incentives about safety and quality of care into pricing.

More can be done. The National Efficient Price is still based on average costs when many hospitals can provide excellent care at costs significantly below average. Over time the National Efficient Price should be set below the average.

8.4 Reducing unnecessary procedures

Numerous studies have shown significant variation in treatments, particularly procedures, across Australia.[174] Too many people get a treatment they should not get, even when the evidence is clear that it is unnecessary or does not work. Some hospitals perform these unnecessary or questionable procedures at a much greater frequency than other hospitals.[175] Australia urgently needs a system to identify these outlier hospitals and make sure they are not putting patients at risk.

There are reasons why clinicians might choose inappropriate treatments. Evidence about treatments can be hard for clinicians to access, evaluate and use. Second, there is little systematic monitoring of where inappropriate treatments happen. Finally, the health system does not manage this problem well. There are rarely major negative consequences for providing ineffective care. In fact, there are incentives that go the other way – hospitals and clinicians get income for giving ineffective care.

To fix the problem, the Australian Commission on Safety and Quality in Health Care should publish a list of 'do-not-do'

[171] Duckett and Breadon (2015)
[172] Daley, *et al.* (2014)
[173] Duckett, *et al.* (2014)

[174] Australian Commission on Safety and Quality in Health Care and National Health Performance Authority (2015)
[175] Duckett, *et al.* (2015)

treatments. It should then identify public and private hospitals that provide these treatments more often than usual.

These outlier hospitals should be asked to improve. If they do not, a clinical review by the State health department should check whether the hospital is providing the right care. If it is not, and if it still fails to improve, the hospital's management and funding should face consequences.

8.5 Better care for people with chronic conditions

Each year the government spends at least $1 billion on planning, coordinating and reviewing chronic disease management and encouraging good practice in primary care. Yet primary care services do not work as well as they should because the way we pay for and organise them through Medicare goes against what we know works.

At best our primary care system only provides half the recommended care it should for chronic conditions. Often it provides much less. We estimate better primary care could save $322 million in preventable hospital admissions resulting from chronic disease.[176]

We need more effective regional management of primary care services by Primary Health Networks. We need clear targets and financial incentives for the prevention and management of chronic disease. The focus of chronic disease funding needs to move away from a patient-related payment to a general practice and towards a broader payment for integrated care.[177]

The pilots of this approach outlined in the 2015-16 Budget are a step in the right direction but they must be evaluated rigorously and successful approaches rolled out nationally.

8.6 Better care for people at the end of their life

People want to die comfortably at home, supported by family and friends and effective services. But dying in Australia is more institutionalised than in the rest of the world. Community and medical attitudes plus a lack of funds for formal community care mean that about half of Australians die in hospital, and about a third in residential care.

A good death gives people dignity, choice and support to address their physical, personal, social and spiritual needs. Three reforms would make good deaths more common. First, we need more public discussion about what we want for the end of life and about the limits of health care as death approaches. Second, we need to plan better to ensure that our preferences for the end of life are met. Third, services for those dying of chronic illness need to focus less on institutional care and more on people's wishes to die at home and in homelike settings.[178]

For more people to die at home, investment in community-based support is needed. Doubling the number of people who are able to die at home will cost $237 million a year, but the same amount could be released from institutional care funding to pay for it.[179]

[176] Swerissen and Duckett (2016)
[177] Primary Health Care Advisory Group (Chair: Dr Steve Hambleton) (2015)
[178] Gomes, *et al.* (2013)
[179] Swerissen and Duckett (2014)

8.7 Better access to health care for people in rural and remote Australia through workforce reform

Many parts of Australia have too few GP services. The number of services per person in the lowest-access rural areas is less than half that of the major cities. Current responses – such as training more doctors, or paying them bonuses to move to rural areas – haven't done enough. At current rates of improvement, it would take more than 65 years for very remote areas of Australia to catch up to the levels of GP services that big cities have today.

Tinkering or more of the same won't fix the problem. We need new solutions that make the most of scarce resources, while keeping GPs at the centre of the system.[180]

The first step is to better use the skills of pharmacists. They are highly trained, have deep expertise in medicines, and are located in communities throughout Australia. But their role is far more limited in Australia than in many other countries.

With the agreement of GPs and patients, pharmacists should be able to provide repeat prescriptions to people with simple, stable conditions. They should also be able to provide vaccinations and to work with GPs to help patients manage chronic conditions.

We also need to increase access to other services, including diagnosis, that at present only GPs can provide. Australia should introduce physician assistants: health workers who practise medicine under the supervision of a doctor. There is good evidence that physician assistants could expand the care available in under-served areas, without compromising quality or safety and at an affordable cost.

[180] Duckett*, et al.* (2013)

8.8 Out-of-pocket costs are too high

Australian patients pay a bigger share of health care costs than patients in almost any other wealthy country, and these costs are rising fast.[181]

Many people already miss out on health care because of cost: 5 per cent skip GP visits, 8 per cent don't go to a specialist, 8 per cent don't fill their prescription and 18 per cent don't go to the dentist.

The amount people pay for health care varies greatly. Too many poorer and sicker people already fall through the safety net. In particular, people with the least disposable income and people who use many different types of care often face extremely high out-of-pocket costs.

Instead of shifting costs to patients, we should focus on protecting people on very low incomes and people with many health problems.

The first step in reducing out-of-pocket costs is transparency. Patients and general practitioners should know what specialists charge for common procedures. Medicare already holds information about fees that specialists and general practitioners charge for each consultation or procedure. It should publish, for each general practice and for specialists, the proportion of services bulk billed and the average out-of-pocket cost for non-bulk billed services. For procedural specialists such as surgeons publication should provide the same information about bulk billing and average out-of-pocket cost for the most common procedures performed by the specialist.

[181] Duckett and Breadon (2014)

9 Budgetary reform

Summary

The Commonwealth's budget deficit is too large and has persisted for too long. Budget repair can no longer be delayed.

Both spending reductions and tax increases will be needed.

A judicious and targeted approach to raising taxes, needs to target superannuation taxes, reduce capital gains tax and negative gearing tax concessions, and increase the GST.

Spending needs to be reduced in education and health, as outlined in previous chapters. In addition, the Age Pension needs to be further targeted, and unsustainable growth in Carer's Payment and aged care curtailed. Numerous smaller efficiencies are also required.

Institutional reforms are also needed to increase the pressure on governments to make tough choices to repair budgets. The Parliamentary Budget Office should produce macro-economic forecasts that feed into budget estimates. Legislation should require governments to produce a budget surplus within the forward estimates. Governments should also produce 10-year projections that show the impact of long-term policy decisions.

9.1 The Commonwealth's budget deficit is too large and has persisted for too long

The Commonwealth budget has a serious structural deficit. Actual deficits have averaged around 2 to 3 per cent of GDP for the last 8 years.[182]

The big long-term sources of the deficit are spending on health, Age Pensions, aged care that increased faster than GDP, and income tax revenue that fell behind GDP growth due to reduced marginal rates and superannuation tax breaks.[183]

The structural deficit is substantially caused by age-based spending and taxation. Net government transfers per household are calculated as health, education and welfare spending, less income and consumption taxes. Net government transfers for households over the age of 65 have increased in real terms from $23,000 to $32,000 per household in the last six years. This worsened Australian government budgets by $20 billion a year. The changes were caused by higher health spending per household of a given age, and raising the Age Pension faster than wages. As a result, older households are also paying less income tax in real terms than they did 20 years ago, even though real wages and participation rates have increased. The Senior Australians and Pensioners Tax Offset increases the tax-free threshold for older households, and superannuation tax breaks have also reduced how much tax they pay.[184]

[182] Daley and Wood (2015), p.4
[183] Daley, *et al.* (2014), p.6; Daley, *et al.* (2014), p.27
[184] Daley, *et al.* (2014), p.27

9.2 Repairing budgets is important

The increasing intergenerational transfers through the Commonwealth budget are even harder to justify because they are funded through deficits. The costs of repaying them will fall above all on younger households. Each $40 billion deficit (the norm for the last seven years) forces households aged 25 to 34 to pay an extra $10,000 in tax over their working lives.[185]

There is already a chance that a younger generation will be less well off than its parents because incomes are rising more slowly, and wealth is concentrating among older generations that owned assets when interest rates fell. Continued budget deficits increase this risk because they effectively transfer resources from future taxpayers to current recipients.[186]

Repairing the budget position is also important for economic stability. While governments can use deficit funding to smooth economic activity over the business cycle, as the Rudd Government did in 2009, they must then deliver surpluses when growth has recovered. The Australian economy is particularly exposed: with interest rates at historical lows, the Reserve Bank can do little more to stimulate the economy, and so the Commonwealth budget will be the primary defence in an economic downturn.[187]

If current deficits continue, it will inevitably affect the credit rating of the Commonwealth, and consequently the credit rating of State governments and the private sector.[188] This will increase interest costs, further dragging on government budgets.

9.3 Institutional reforms need to increase the pressure for governments to make tough budget repair choices

Four dysfunctional behaviours all defer the politically difficult decisions to repair the budget, and exacerbate the Commonwealth's challenge. They are:

- **Long-termism**: government rhetoric increasingly promises a return to surplus 'over the long term',[189] often interpreted in this context as 10 years. In practice, this amounts to a promise that the *next* government will make the inevitably difficult decisions of budget repair. If current governments are not prepared to make tough choices, there is little reason to believe their promise that future governments will do so.

- **Short-termism**: governments are increasingly making substantial budget commitments that primarily fall outside the four-year forward estimate period, and so their costs have less political prominence. Examples include commitments to the National Disability Insurance Scheme, increased hospital funding for the States, defence equipment spending, and corporate tax cuts. Such decisions ultimately make actual budget repair harder.

- **Optimism**: Overuse of optimistic economic parameters as the basis for projections that the budget will return to (near) surplus over the four years of the forward estimates has

[185] Ibid., p.9
[186] Ibid., p.29
[187] Stevens (2016)
[188] Fraser (2016); Janda (2016)
[189] Morrisson (2016)

justified making relatively few difficult decisions to improve the budget bottom line. Reality has repeatedly disappointed.[190]

- **Pessimism:** Governments often justify deferring difficult decisions on the basis that the economy is fragile, and budget repair will drag on the economy. This thinking assumes that current conditions are much slower than "normal" economic growth. However, we need to recalibrate "normal". Economic growth around the developed world since before the Global Financial Crisis has been slower than in the period between 1950 and 2000, which is starting to look like a historic anomaly.[191] Budget repair, whether this year or next year, will always slow the economy, but the longer it is delayed, the greater the bill to be paid.

Institutional changes are needed to increase the pressure for budget repair. The *Charter of Budget Honesty* should be amended to require governments to bring down budgets that produce a surplus within the forward estimates. This would counter the "long-termism" that defers difficult decisions.[192]

The forward estimates should be based on a more even balance of risks. Requiring the Parliamentary Budget Office to produce macro forecasting might well assist. These macro forecasts should assume that Australia's future will probably reflect the experience of most developed economies since *before* the GFC, with lower corporate investment, lower real economic growth, and lower inflation. To counter optimism bias, the slowdown should be presumed to be permanent until proven otherwise.[193]

Governments should also be required to produce long-term projections that spell out the impact of long-term decisions, countering the tendency to hide the impact of significant decisions just outside the forward estimates period.

9.4 Tough choices are required to repair budgets

Hoping for the best is not a budget management strategy: it simply shifts the costs and risk of budget repair onto future generations. Tough choices are needed.

Both the politics of budget repair and the sheer size of the budget gap mean that future Commonwealth Governments will need to contain spending *and* boost revenues to restore the budget.[194]

There is strong evidence of public support for reform. Surveys suggest that people understand the need for budget repair, and are even prepared to contemplate slaying sacred cows such as negative gearing.[195]

This report outlines a number of ways to reduce costs in transport, education, and health. For example, reforms to the Pharmaceutical Benefits Scheme could reduce waste by $320 million a year.[196] The largest other potential cost reductions are to increase the age of access to the Age Pension and superannuation, and to target the Age Pension better, particularly by effectively including more of the value of owner-occupied

[190] Daley and Wood (2015)
[191] Daley, *et al.* (2014)
[192] Daley and Wood (2014), p.2
[193] Daley and Wood (2015)
[194] Ibid., p.20
[195] Essential Media (2016b), p.12; Essential Media (2016a), p.9.
[196] Duckett and Breadon (2015), p.2

housing in the means test.[197] Future priorities include recovering more of the costs of aged care from those who benefit, and constraining the growth of carer payment, since these are among the fastest growing costs.[198] Other cost reductions are inevitably a game of inches that requires constant discipline.

Revenue increases for budget repair should aim to minimise the additional distortion of additional taxation, while limiting the effect on those least able to pay. Consequently the Commonwealth's highest priorities should be to target superannuation tax breaks to the purposes of superannuation,[199] to restrict negative gearing, and reduce the capital gains tax discount.[200]

9.5 Infrastructure investment should not be used to excuse ongoing budget deficits

Many assert that further investment in education and infrastructure could boost economic growth, and that governments should borrow to do so. Whatever the merits of the argument, it should not be used as an excuse to delay budget repair. Increased recurrent spending and reduced recurrent revenue have largely caused Australia's budget deficits. And there is a real risk under current settings that additional expenditure on infrastructure will not increase growth by more than it costs (Chapter 4).

[197] Daley, *et al.* (2013)
[198] DSS (2015)
[199] Daley, *et al.* (2015), p.8
[200] Daley, *et al.* (2016)

References

ABS (2012) *Government Benefits, Taxes and Household Income, Australia 2009-10*, Australian Bureau of Statistics

ABS (2013) *Population Projections, Australia, 2012 (base) to 2101*, Australian Bureau of Statistics, accessed 1 February 2016, from http://www.abs.gov.au/ausstats/abs@.nsf/mf/3222.0

ABS (2014) *Innovation in Australian business 2012-13, Cat 8158.0*, Australian Bureau of Statistics

ABS (2015) *Regional Population Growth, Australia, 2013-14*, Australian Bureau of Statistics, accessed 1 December 2015, from http://www.abs.gov.au/ausstats/abs@.nsf/mf/3218.0

ABS (2016a) *Australian National Accounts: National Income, Expenditure and Product, March 2016*, accessed 3 April 2016, from http://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/5206.0Mar 2016?OpenDocument

ABS (2016b) *Labour force, Australia, April 2016, Cat. 6202.0*, Australian Bureau of Statistics from http://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/6202.0Main+Features1Apr 2016?OpenDocument

ABS (2016c) *Research and experimental development, higher education organisations, Australia, 2014, Cat. 8111.0*, Australian Bureau of Statistics

ACCC (2016) 'Inquiry into the east coast gas market', from https://www.accc.gov.au/system/files/1074_Gas enquiry report_FA_21April.pdf

Australian Commission on Safety and Quality in Health Care and National Health Performance Authority (2015) *Australian Atlas of Healthcare Variation*, ACSQHC

Australian Energy Market Operator (2014) *RENEWABLE ENERGY INTEGRATION IN SOUTH AUSTRALIA*,

Australian Government (2015) *Review of Governance Arrangements for Australian Energy Markets*, accessed 8 April 2016, from https://scer.govspace.gov.au/files/2015/10/Review-of-Gov-Arrangements-for-Energy-Markets-Final-Report-Oct-2015-PDFTAG.pdf

Banks, G. (2012) *Productivity policies: The "to do" list*, Speech at the Economic and Social Outlook Conference,'Securing the Future', Melbourne, Productivity Commission

Bettencourt, L. M. A. and West, G. B. (2010) 'A unified theory of urban living', *Nature*, 467, p 912-913

BITRE (2015a) *Transport infrastructure and land value uplift,* Canberra, accessed 2 June 2016, from https://bitre.gov.au/publications/2015/files/is_069.pdf

BITRE (2015b) *Yearbook 2015: Australian Infrastructure Statistics*, Bureau of Infrastructure, Transport and Regional Economics, accessed 10 March 2016, from https://bitre.gov.au/publications/2015/files/BITRE_yearbook_2015_full_report.pdf

Council on Federal Financial Relations (2011) *Intergovernmental agreement on federal financial relations*, accessed 16 February 2016, from http://www.federalfinancialrelations.gov.au/content/intergovernmental_agreements.aspx

Daley, J. (2010) 'Broadband won't drive regional business growth', *The Australian,* 28 October 2010, accessed 30 August 2015, from http://grattan.edu.au/wp-content/uploads/2014/04/054_daley_oped_australian_nbn.pdf

Daley, J. (2012) *Critiquing government regional development policies* accessed 22 November 2015, from http://grattan.edu.au/wp-content/uploads/2014/04/142_daley_oped_CEDA_regional_dev.pdf

Daley, J. (2015a) 'Budget repair and the size of Australia's government', Melbourne Economic Forum, December 2015 accessed 12 May 2016, from http://grattan.edu.au/wp-content/uploads/2015/12/melbourne-economic-forum-size-of-gvt-CORRECTED.pptx.pdf

Daley, J. (2015b) 'City geography and economic policy', Presented to the Council of Capital City Lord Mayors at Parliament House Canberra, accessed 12 May 2016, from http://grattan.edu.au/wp-content/uploads/2015/10/Capital-City-Lord-Mayors-for-web-pptx1.pdf

Daley, J. (2015c) 'Future proofing', Presentation to the Customer Owned Banking Association's National Convention, 21 September 2015 Darwin, accessed 10 May 2016, from http://grattan.edu.au/wp-content/uploads/2015/09/20150921_COBA_future_proofing.pdf

Daley, J. (2016a) 'Commonwealth Budget 2016 – What does it mean?', International CEO Forum, Wednesday 4 May accessed 12 May 2016, from https://grattan.edu.au/news/commonwealth-budget-2016-what-does-it-mean/

Daley, J. (2016b) ''Retrospective' claims on super changes are a furphy', *The Conversation* 6 May 2016, accessed 10 June 2016, from https://theconversation.com/retrospective-claims-on-super-changes-are-a-furphy-59004

Daley, J. and Coates, B. (2015) *Property Taxes*, Grattan Institute accessed 20 July 2015, from http://grattan.edu.au/report/property-taxes/

Daley, J. and Coates, B. (2016a) 'The full story on company tax cuts and your hip pocket', accessed 18 May 2016, from https://theconversation.com/the-full-story-on-company-tax-cuts-and-your-hip-pocket-59458

Daley, J. and Coates, B. (2016b) 'Rose-tinted budget outlook does neither party any favours', *The Australian Financial Review,* 20 May 2016, from http://grattan.edu.au/news/rose-tinted-budget-outlook-does-neither-party-any-favours/

Daley, J. and Lancy, A. (2011) *Investing in regions:Making a difference*, Grattan Institute

Daley, J., McGannon, C. and Ginnivan, L. (2012a) *Game-changers: Economic reform priorities for Australia*, Grattan Institute, accessed 2 October 2013, from http://grattan.edu.au/publications/reports/post/game-changers-economic-reform-priorities-for-australia/

Daley, J., McGannon, C. and Ginnivan, L. (2012b) *Game-changers: Economic reform priorities for Australia - supporting analysis*, Grattan Institute, accessed October 2013, from http://grattan.edu.au/publications/reports/post/game-changers-supporting-materials/

Daley, J., McGannon, C. and Hunter, A. (2014) *Budget Pressures on Australian Governments 2014* Grattan Institute accessed 21 Novemner 2014, from http://grattan.edu.au/report/budget-pressures-on-australian-governments-2014/

Daley, J., McGannon, C. and Savage, J. (2013) *Budget Pressures on Australian Governments*, Grattan Institute accessed 19 July 2015, from http://grattan.edu.au/report/budget-pressures-on-australian-governments/

Daley, J., McGannon, C., Savage, J. and Hunter, A. (2013) *Balancing budgets: Tough choices we need*, Grattan Institute from http://grattan.edu.au/wp-content/uploads/2014/03/801_Balancing_Budgets.pdf

Daley, J., Reichl, J. and Ginnivan, L. (2013) *Australian government spending on innovation* Grattan Institute, accessed October 2015, from https://grattan.edu.au/wp-content/uploads/2014/05/901_daley_alliance_21.pdf

Daley, J. and T., E. (2011) *Learning the hard way: Australia's policies to reduce emissions*, Grattan Institute, accessed 8 November 2013, from http://grattan.edu.au/static/files/assets/3ae75b49/077_report_energy_learning_the_hard_way.pdf

Daley, J. and Wood, D. (2014) 'Submission to the Joint Committee of Public Accounts and Audit Review of the Parliamentary Budget Office', accessed 12 May 2016, from http://grattan.edu.au/wp-content/uploads/2014/09/231_Grattan-Institute_PBO_JCPAA-submission1.pdf

Daley, J. and Wood, D. (2015) *Fiscal Challenges for Australia*, Grattan Institute, accessed 8 July 2015, from http://grattan.edu.au/wp-content/uploads/2015/07/824-Fiscal-challenges-for-Australia2.pdf

Daley, J., Wood, D. and Parsonage, H. (2016) *Hot property: negative gearing and capital gains tax*, accessed 22 November 2015, from https://grattan.edu.au/report/hot-property/

Daley, J., Wood, D., Parsonage, H. and Coates, B. (2015) *A GST reform package*, Grattan Institute, accessed 8 May 2016, from http://grattan.edu.au/wp-content/uploads/2015/12/834-GST-Reform-Package.pdf

Daley, J., Wood, D., Weidmann, B. and Harrison, C. (2014) *The wealth of generations* Grattan Institute, accessed 13 February 2015, from http://grattan.edu.au/report/the-wealth-of-generations/

Department of Education and Training (2014) *VET FEE-HELP statistical report*, Department of Education and Training from https://www.education.gov.au/vet-fee-help-statistics

Department of Education and Training (2015a) *Higher education report 2011-2013*, Department of Education and Training

Department of Education and Training (2015b) *Portfolio budget statements 2015-16, Education and training portfolio*, Department of Education and Training

Department of Education and Training (2016) *uCube - Higher education statistics*, Department of Education and Training from http://highereducationstatistics.education.gov.au/

Department of Industry and Science (2015) *Science, research and innovation budget tables 2015-16*, Department of Industry and Science

Diamond, P. (2012) *The Determinants and Welfare Implications of US Workers' Diverging Location Choices by Skill: 1980-2000*, Harvard University

Duckett, S. and Breadon, P. (2014) *Out-of-pocket costs: hitting the most vulnerable hardest - Grattan Institute submission to the Senate Standing Committee on Community Affairs Inquiry into the out-of-pocket costs in Australian healthcare*, Grattan Institute

Duckett, S. and Breadon, P. (2015) *Premium policy? Getting better value from the PBS*, Grattan Institute

Duckett, S., Breadon, P. and Ginnivan, L. (2013) *Access all areas: new solutions for GP shortages in rural Australia*, Grattan Institute

Duckett, S., Breadon, P., Ginnivan, L. and Venkataraman, P. (2013) *Australia's bad drug deal: high pharmaceutical prices*, Grattan Institute

Duckett, S., Breadon, P., Romanes, D., Fennessy, P. and Nolan, J. (2015) *Questionable care: Avoiding ineffective treatment*, Grattan Institute, accessed 12 November 2015, from http://grattan.edu.au/wp-content/uploads/2015/08/828-Questionable-Care3.pdf

Duckett, S., Breadon, P., Weidmann, B. and Nicola, I. (2014) *Controlling costly care: a billion-dollar hospital opportunity*, Grattan Institute

Duckett, S. and Romanes, D. (2016) *Blood money: paying for pathology services*, Grattan Institute

Essential Media (2016a) *The Essential Report, 10 May 2016*, from http://www.essentialvision.com.au/wp-content/uploads/2016/05/Essential-Report_160510-1.pdf

Essential Media (2016b) *The Essential Report, 27 April 2016*, from http://www.essentialvision.com.au/wp-content/uploads/2016/04/Essential-Report_160426.pdf

Fraser, J. (2016) *The Australian Budget: some context*, Speech to the Sydney Institute, 28 January 2016, accessed 3 April 2016, from http://www.treasury.gov.au/PublicationsAndMedia/Newsroom/Speeches/2016/The-Australian-Budget

Ganong, P. and Shoag, D. (2012) *Why Has Regional Convergence in the U.S. Stopped?*, Harvard Kennedy School

GCA (2015a) *GradStats: employment and salary outcomes of recent higher education graduates 2015*, Graduate Careers Australia

GCA (2015b) *Graduate Destinations 2014: A report on the work and study outcomes of recent higher education graduates*, Graduate Careers Australia

Gomes, B., Calanzani, N., Gysels, M., Hall, S. and Higginson, I. J. (2013) 'Heterogeneity and changes in preferences for dying at home: a systematic review', *BMC Palliative Care*, 12(7),

Goss, P., Hunter, J., Romanes, D. and Parsonage, H. (2015) *Targeted teaching: How better use of data can improve student learning*, Grattan Institute, accessed 10 May 2016, from http://grattan.edu.au/wp-content/uploads/2015/07/827-Targeted-Teaching.pdf

Goss, P., Sonneman, J., Chisholm, C. and Nelson, L. (2016) *Widening gaps: What NAPLAN tells us about student progress*, Grattan Institute, accessed 10 May 2016, from http://grattan.edu.au/wp-content/uploads/2016/03/937-Widening-gaps.pdf

Goss, P. and Sonnemann, J. (2016a) *Grattan submission to the PC Inquiry into the National Education Evidence Base*, Grattan Institute

Goss, P. and Sonnemann, J. (2016b) *Split funding idea for schools has big risks and few clear benefits*, The Conversation, Grattan Institutefrom http://grattan.edu.au/news/split-funding-idea-for-schools-has-big-risks-and-few-clear-benefits/

Goss, P., Sonnemann, J., Chisholm, C. and Nelson, L. (2016) *Widening gaps: what NAPLAN tells us about student progress*, Grattan Institute from http://grattan.edu.au/wp-content/uploads/2016/03/937-Widening-gaps.pdf

Hanushek, E. A. and Woessmann, L. (2015) *Universal Basic Skills What Countries Stand to Gain: What Countries Stand to Gain*, OECD Publishing

Harper, I., Anderson, P., McCluskey, S. and Michael, O. B. (2015) *Competition Policy Review - Final Report*, accessed 8 April 2016, from http://competitionpolicyreview.gov.au/files/2015/03/Competition-policy-review-report_online.pdf

Hinz, B. (2015) *Schooling federalism: evaluating the options for reform*, The University of Melbourne from government.unimelb.edu.au

IMF (2015) *Australia: Concluding Statement of the 2015 Article IV Mission*, International Monetary Fund, accessed 1 July 2015, from http://www.imf.org/external/np/ms/2015/062415a.htm

Janda, M. (2016) 'Budget will not return to surplus with spending cuts alone: Moody's', from http://www.abc.net.au/news/2016-04-14/budget-will-not-return-to-surplus-with-spending-cuts-alone-mood/7325930

Jensen, B. (2010) *Investing in our teachers, investing in our economy*, Grattan Institute from http://grattan.edu.au/wp-content/uploads/2014/04/057_report_education_investing_teachers.pdf

Jensen, B. (2012) 'Pupil power: time to ditch teacher bonuses and focus on student learning', *The Conversation,* 17 May 2012, from https://theconversation.com/pupil-power-time-to-ditch-teacher-bonuses-and-focus-on-student-learning-6862

Jensen, B. (2013a) 'Feds could save education by staying out of it', *The Weekend Australian,* from http://grattan.edu.au/wp-content/uploads/2014/04/187_jensen_oped_weekendaustralian_schooled.pdf

Jensen, B. (2013b) 'Why we must debate Canberra's role in schools', *The Australian,* from http://grattan.edu.au/news/why-we-must-debate-canberras-role-in-schools/

Jensen, B., Hunter, A., Sonneman, J. and Burns, T. (2012) *Catching up: learning from the best school systems in East Asia*, Grattan Institute, accessed 10 May 2013, from http://grattan.edu.au/publications/reports/post/catching-up-learning-from-the-best-school-systems-in-east-asia/

Jensen, B., Hunter, J., Sonnemann, J. and Cooper, S. (2014) *Making time for great teaching*, Grattan Institute, accessed 10 May 2016, from http://grattan.edu.au/wp-content/uploads/2014/03/808-making-time-for-great-teaching.pdf

Jensen, B. and Reichl, J. (2011) *Better teacher appraisal and feedback: Improving performance*, Grattan Institute from http://grattan.edu.au/publications/reports/post/better-teacher-appraisal-and-feedback-improving-performance/

Jensen, B., Weidmann, B. and Farmer, J. (2013) *The myth of markets in school education*, Grattan Institute from http://grattan.edu.au/wp-content/uploads/2014/04/myth_of_markets_in_school_education.pdf

Kelly, J.-F., Breadon, P. and Reichl, J. (2013) *Getting the housing we want*, Grattan Institute, accessed 1 November 2015, from http://grattan.edu.au/wp-content/uploads/2014/04/117_report_getting_the_housing_we_want.pdf

Kelly, J.-F. and Donegan, P. (2014) *Mapping Australia's economy: Cities as engines of prosperity* Grattan Institute

Kelly, J.-F. and Donegan, P. (2015) *City Limits: Why Australia's cities are broken and how we can fix them*, Melbourne University Press

Kelly, J.-F., Harrison, C., Hunter, J. and Donegan, P. (2013) *Renovating Housing Policy*, Grattan Institute

Kelly, J.-F., Mares, P., Harrison, C., O'Toole, M., Oberklaid, M. and Hunter, J. (2013) *Productive cities: opportunity in a changing economy*, Grattan Institute, accessed October 2013, from http://grattan.edu.au/static/files/assets/c422f26b/188_productive_cities.pdf

Kemp, D. and Norton, A. (2014) *Review of the demand driven system: final report*, Department of Education

Lowe, P. (2016) *Resilience and Ongoing Challenges*, 8 March 2016, http://www.rba.gov.au/speeches/2016/sp-dg-2016-03-08.htmlfrom http://www.rba.gov.au/publications/bulletin/2012/mar/pdf/bu-0312-9.pdf

Masters, G. (2015) ''Big five' challenges in school education', accessed 10 May 2016, from https://www.teachermagazine.com.au/geoff-masters/article/big-five-challenges-in-school-education

Minifie, J. (2014) *The silver lining: cloud computing and small and medium enterprises*, Grattan Institute, accessed 10 May 2016, from https://grattan.edu.au/report/the-silver-lining-cloud-computing-and-small-and-medium-enterprises/

Minifie, J., Cherastidtham, I., Mullerworth, D. and Savage, J. (2013) *The mining boom: impacts and prospects*, Grattan Institute, accessed 30 October 2013, from http://grattan.edu.au/static/files/assets/2111d9d3/194-mining-boom-impacts-and-prospects.pdf

Minifie, J., Savage, J. and Cameron, T. (2014) *Super sting: how to stop Australians paying too much for superannuation*, Grattan Institute, accessed 30 June 2015, from https://grattan.edu.au/report/super-sting-how-to-stop-australians-paying-too-much-for-superannuation/

Minifie, J., Savage, J. and Cameron, T. (2015) *Super savings*, Grattan Institute, accessed 30 June 2015, from http://grattan.edu.au/wp-content/uploads/2015/04/821-super-savings2.pdf

Minifie, J. and Wood, D. (2016) 'It's time to drop Australia's protectionist anti-dumping rules', accessed 2 March 2016, from https://theconversation.com/its-time-to-drop-australias-protectionist-anti-dumping-rules-55632

Minifie, T. and Wiltshire, T. (2016) *Peer-to-peer pressure: policy for the sharing economy*, Grattan Institute, accessed 10 May 2016, from https://grattan.edu.au/report/peer-to-peer/

Ministry of Education (NZ) (2015) *Student loan scheme annual report 2014/15*, New Zealand Ministry of Education

Morrisson, S. (2016) *Budget Speech 2016-17, House of Representatives,* Canberra, accessed 28 May 2016, from http://budget.gov.au/2016-17/content/speech/download/Budget-Speech.pdf

Mourshed, M., Chijioke, C. and Barber, M. (2010) *How the world's most improved school systems keep getting better*, from http://mckinseyonsociety.com/how-the-worlds-most-improved-school-systems-keep-getting-better/

NAB (2016) *RBA open to cut, but not currently justified by the data, budget will need to deliver restraint*, National Australia Bank, accessed 10 June 2016, from http://business.nab.com.au/wp-content/uploads/2016/04/AMW-11-April-16.pdf

NHMRC (2016) *NHMRC grants funding, summary 2000-2015*, National Health and Medical Research Council

Norton, A. (2012) *Graduate winners: Assessing the public and private benefits of higher education*, Grattan Institute, accessed 17 August 2013, from http://grattan.edu.au/static/files/assets/4c182f07/162_graduate_winners_report.pdf

Norton, A. and Cherastidtham, I. (2014a) *Doubtful debt: the rising cost of student loans*, Grattan Institute

Norton, A. and Cherastidtham, I. (2014b) *Mapping Australian higher education, 2014-15*, Grattan Institute

Norton, A. and Cherastidtham, I. (2015) *The cash nexus: how teaching funds research in Australian universities*, Grattan Institute from http://grattan.edu.au/wp-content/uploads/2015/10/831-Cash-nexus-report.pdf

Norton, A. and Cherastidtham, I. (2016) *HELP for the future: fairer repayment of student debt*, Grattan Institute

Norton, A., Sonnemann, J. and Cherastidtham, I. (2013) *Taking university teaching seriously*, Grattan Institute

OECD (2012) *Equity and Quality in Education - Supporting Disadvantaged Students and Schools*, OECD Publishing

OECD (2014a) *OECD Factbook 2014: Economic, Environmental and Social Statistics*, OECD Publishing

OECD (2014b) *PISA 2012 Results: What Students Know and Can Do (Volume I, Revised edition, February 2014)*, OECD Publishing

OECD (2016) *Low-Performing Students- Why They Fall Behind and How to Help Them Succeed*, OECD Publishing

Parliamentary Budget Office (2016) *Higher Education Loan Programme: Impact on the Budget*, 02/2016, Parliamentary Budget Office from http://www.aph.gov.au/About_Parliament/Parliamentary_Departments/Parliamentary_Budget_Office/research_reports/Higher_Education_Loan_Programme

PBO (2015) *Medicare Benefits Schedule: spending trends and projections,* Parliamentary Budget Office, Parliament of Australia, accessed 28 May 2016, from http://www.aph.gov.au/About_Parliament/Parliamentary_Departments/Parliamentary_Budget_Office/research_reports/Medicare_Benefits_Schedule

Primary Health Care Advisory Group (Chair: Dr Steve Hambleton) (2015) *Better Outcomes for People with Chronic and Complex Health Conditions*, Department of Health

Productivity Commission (2014) *Geographic Labour Mobility*, 1, accessed 19 February 2016, from {Productivity Commission, 2015 #1371}

Productivity Commission (2015a) *Tax and Transfer Incidence in Australia* Productivity Commission accessed 10 October 2015 from http://www.pc.gov.au/research/completed/tax-and-transfer-incidence/tax-and-transfer-incidence.pdf

Productivity Commission (2015b) *Workplace Relations Framework*, 1, accessed 19 February 2016, from http://www.pc.gov.au/inquiries/completed/workplace-relations/report

Productivity Commission (2016a) *Developments in Anti-Dumping Arrangements,* Productivity Commissionfrom http://www.pc.gov.au/research/completed/antidumping-developments

Productivity Commission (2016b) *PC Productivity Update,* Productivity Commission, accessed 10 May 2016, from http://www.pc.gov.au/research/ongoing/productivity-update/pc-productivity-update-2016/productivity-update-2016.pdf

Rachel, L. and Smith, T. (2015) *Secular drivers of the global real interest rate*, Bank of England, accessed 5 October 2014, from http://www.bankofengland.co.uk/research/Documents/workingpapers/2015/swp571.pdf

Romer, P. (2015) *Urbanization Passes the Pritchett Test*, accessed 1 February 2016, from http://paulromer.net/urbanization-passes-the-pritchett-test/

Ryan, S. (2016) *Redesigning VET FEE-HELP: Discussion paper*, Department of Education and Training from https://docs.education.gov.au/system/files/doc/other/redesigning_vet_fee-help_-_discussion_paper_0_0.pdf

Stevens, G. (2016) *Observations on the Current Situation*, Address to Credit Suisse Global Markets Macro Conference, New York – 19 April 2016, accessed 5 June 2016, from http://www.rba.gov.au/speeches/2016/sp-gov-2016-04-19.html

Stigler, G. J. (1971) 'The theory of economic regulation', *The Bell journal of economics and management science*, p 3-21

Suggett, D. (2015) *School autonomy: Necessary but not sufficient*, Evidence Base, Australia and New Zealand School of Governmentfrom https://journal.anzsog.edu.au/publications/21/EvidenceBase2015Issue1Version1.pdf

Swerissen, H. and Duckett, S. (2014) *Dying well*, Grattan Institute

Swerissen, H. and Duckett, S. (2016) *Chronic failure in primary care*, Grattan Institute

Teles, S. (2013) *Kludgeocracy in America*, National Affairs, 17, accessed 5 October 2015, from http://www.nationalaffairs.com/publications/detail/kludgeocracy-in-america

Terrill, M., Emslie, O. and Coates, B. (2016) *Roads to riches: better transport investment*, Grattan Institute, accessed 10 May 2016, from http://grattan.edu.au/wp-content/uploads/2016/04/869-Roads-to-Riches.pdf

Tingle, L. (2015) *Political Amnesia: how we forgot how to govern*, Quarterly Essay, 60

UK Office of National Statistics (2016) *Unemployment rate,* Office of National Statistics, UK Government, accessed 9 June 2016, from https://www.ons.gov.uk/employmentandlabourmarket/peoplenotinwork/unemployment/timeseries/mgsx

US Bureau of Labor Statistics (2016) *Labor Force Statistics from the Current Population Survey*, US Bureau of Labor Statistics, accessed 9 June 2016, from http://data.bls.gov/timeseries/LNS14000000

Whiteford, P. (2014) *The Budget, Fairness and Class Welfare* Inside Story from http://insidestory.org.au/the-budget-fairness-and-class-warfare/

Whiteford, P. (2016) *Election FactCheck: Has the Coalition presided over the most sustained fall in Australian living standards since records began?*, The Conversationfrom https://theconversation.com/election-factcheck-has-the-coalition-presided-over-the-most-sustained-fall-in-australian-living-standards-since-records-began-60327

Wood, T., Blowers, D. and Chisholm, C. (2014) *Gas at the crossroads*, Grattan Institute, accessed 10 May 2016, from http://grattan.edu.au/wp-content/uploads/2014/10/817-gas-at-the-crossroads.pdf

Wood, T., Blowers, D. and Chisholm, C. (2015a) *Fair pricing for Western Australia's electricity*, Grattan Institute, accessed 10 May 2016, from http://grattan.edu.au/wp-content/uploads/2015/11/831-Fair-pricing-for-Western-Australia-electricity.pdf

Wood, T., Blowers, D. and Chisholm, C. (2015b) *Sundown, sunrise: how Australia can finally get solar power right*, Grattan Institute, accessed 10 May 2016, from http://grattan.edu.au/wp-content/uploads/2015/05/822-sundown-sunrise5.pdf

Wood, T., Blowers, D. and Moran, G. (2016) *Climate phoenix: a sustainable Australian climate policy*, Grattan Institute, accessed 10 May 2016, from http://grattan.edu.au/wp-content/uploads/2016/04/870-Climate-Phoenix.pdf

Wood, T., Carter, L. and Harrison, C. (2013) *Shock to the system: dealing with falling electricity demand*, Grattan Institute, accessed 10 May 2016, from http://grattan.edu.au/wp-content/uploads/2014/03/804-shock-to-the-system.pdf

Wood, T., Carter, L. and Harrison, C. (2014) *Fair pricing for power*, Grattan Institute, accessed 10 May 2016, from http://grattan.edu.au/wp-content/uploads/2014/07/813-fair-pricing-for-power.pdf

Wood, T., Carter, L. and Mullerworth, D. (2013) *Getting gas right: Australia's energy challenge*, Grattan Institute, accessed 10 May 2016, from http://grattan.edu.au/wp-content/uploads/2014/04/189_getting_gas_right_report.pdf

Wood, T., Hunter, A., O'Toole, M., Venkataraman, P. and Carter, L. (2012) *Putting the customer back in front: How to make electricity cheaper*, Grattan Institute, accessed October 2013, from http://grattan.edu.au/static/files/assets/7a8390e0/178_energy_putting_the_customer_back_in_front.pdf

Wood, T. and Mullerworth, D. (2012) *Building the bridge: a practical plan for a low-cost, low-emissions energy future*, Grattan Institute, accessed 10 November 2013, from http://grattan.edu.au/publications/reports/post/building-the-bridge-a-practical-plan-for-a-low-cost-low-emissions-energy-future/