Australian Government
Productivity Commission

INQUIRY REPORT NO. 84

SHIFTING THE DIAL

5 YEAR PRODUCTIVITY REVIEW

3 AUGUST 2017

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The Productivity Commission

The Productivity Commission is the Australian Government's independent research and advisory body on a range of economic, social and environmental issues affecting the welfare of Australians. Its role, expressed most simply, is to help governments make better policies, in the long term interest of the Australian community.

The Commission's independence is underpinned by an Act of Parliament. Its processes and outputs are open to public scrutiny and are driven by concern for the wellbeing of the community as a whole.

Further information on the Productivity Commission can be obtained from the Commission's website (www.pc.gov.au).

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3 August 2017

The Hon Scott Morrison MP
Treasurer
Parliament House
CANBERRA ACT 2600

Dear Treasurer

In accordance with Section 11 of the *Productivity Commission Act 1998*, we have pleasure in submitting to you the Commission's review into productivity, *Shifting the Dial: 5 Year Productivity Review*.

Yours sincerely

Peter Harris
Chair

TERMS OF REFERENCE

I, Scott Morrison, Treasurer, pursuant to Parts 2 and 3 of the *Productivity Commission Act 1998,* hereby request that the Productivity Commission (the Commission) undertake an inquiry into Australia's productivity performance and provide recommendations on productivity-enhancing reform. This inquiry will be the first of a regular series, undertaken at five-yearly intervals, to provide an overarching analysis of where Australia stands in terms of its productivity performance

Background

Productivity growth is the main long-term driver of growth in Australian incomes and living standards.

Governments have an important influence on productivity growth, including through policies and regulations that affect investment in human and physical capital and the functioning of markets, including with respect to trade, competition and other regulatory constraints and incentives.

Policy settings can support productivity growth by ensuring that the economy is flexible, able to adapt in the face of economic challenges and opportunities, and imposes the least cost in achieving governments' policy objectives.

It is particularly important at present that policy settings facilitate structural change and productive investment in the economy to support its transition from the resources investment boom, and promote its efficiency and competitiveness given population ageing and the evolving global economy.

The Commission will undertake an inquiry of Australia's productivity performance and make recommendations, as necessary to support productivity growth. This task will be undertaken every five years.

Scope of the Inquiry

The Commission is to review Australia's productivity performance and, in the light of its findings, make recommendations to assist governments to make productivity enhancing reforms.

Without limiting related matters on which the Commission may report, its report to the Government should:

1. analyse Australia's productivity performance in both the market and non-market sectors including an assessment of the settings for productive investment in human and physical capital and how they can be improved to lift productivity
2. examine the factors that may have affected productivity growth, including an assessment of the impact of major policy changes, if relevant
3. prioritise potential policy changes to improve Australian economic performance and the wellbeing of Australians by supporting greater productivity growth.

The Commission should have regard to other current or recent reviews commissioned by Australian governments relating to Australia's productivity performance such as the Harper Competition Policy Review and include comparisons of Australia's productivity performance with other comparable countries.

The Commission should support analysis with modelling where possible and qualitative analysis where data is not available and this is appropriate.

Process

The Commission should consult widely and undertake appropriate public consultation processes, accepting public submissions.

The Commission should consult with Commonwealth, state and territory governments.

The final report should be provided to the Government within 12 months of receipt of these terms of reference.

Scott Morrison
Treasurer

[Received 16 September 2016]

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FOREWORD

This is the first document of its kind for the Productivity Commission — a look out across the landscape of factors and influences that may affect Australia's economic performance over the medium term, in order to offer advice on where our priorities should lie if we are to enhance national welfare.

And it's a process to be repeated every 5 years, similar to the Australian Government's *Intergenerational Report.*

The Terms of Reference for this work is couched in terms that emphasise Australia's recent and prospective productivity performance. But they ultimately arrive at the reason why we are — or should be — so interested in this subject: the wellbeing of Australians is substantially and inextricably dependent on persistent growth in productivity.

When productivity leaps in Australia, all incomes eventually rise. And particularly where effective redistribution and social support policies are in place.

Productivity improvement also offers benefits outside the scope of economic performance measures. People's average life expectancy at birth has increased by nearly 30 years from Australia's federation in 1901 — an outcome of innovation and investment in public health, education and research, and the introduction of new technologies to replace outdated (and some quite dangerous) old technologies.

Thus productivity is not, as some would have it, about extracting more sweat from the brow of an already hard-working Australian. It is most of all about:

- not standing in the way of better investment in workplaces
- not opposing the research and trialling of new ideas
- not defending outmoded regulation that prevents consumers and businesses obtaining access to better services.

We can make significant gains just by recognising the case for change and embracing it.

Nor is average productivity growth good enough. In the period between now and the next of these Reports in 2022, income growth in Australia is likely to be about half of historical levels.

The offset to the factors behind this — covered in this Report in its first chapter — can only be higher productivity. Nothing else is capable of making a difference.

It is yet far from being an offset to other influences, and in the absence of a shift in economic approach, it may well add to the general slowdown. We estimate that on a business as usual basis, productivity growth in Australia is more likely to fall than rise over the medium term.

It could be otherwise. For the generation of people born in 2017, if long run productivity growth lifts sustainably by 0.5 per cent a year, over their lifetime Australian production per person would be about six times its current size, or about 50 per cent bigger than if productivity remains about average.

Beyond simply not doing harm to ourselves economically, there are also significant opportunities in prospect. And they lie in areas that many would not traditionally associate with productivity: health, education, cities and confidence in institutions. These are central to this Report.

Health and education are expanding their share of the Australian economy. Moreover, they are directly under the control of governments. Delivering them much more efficiently, and with a serious focus on what improves outcomes for the users of these services, will deliver bigger benefits than even traditional industry reform. Not that it is desirable to do just the one. Doing both is the key to outperformance.

This Report is not a long list of 'must do' advice. It is a short list of thematic directions covering actions where the greatest scope for deliverable gains in the medium term lies.

Governments and commentators should be very wary of the seductive claim that something is well under way already in the areas to which we devote most attention. The Commission's analysis, seen in detail in the Supporting Papers, is that the headline is often not supported by reality; or has not yet achieved the cooperation of all the necessary participants.

Thus cooperation is itself a key theme of this Report. We propose a Joint Reform Agenda, as a commitment that restores credibility in government leadership on issues where shared responsibilities are common. We were told by countless participants that governments themselves — their structures, relationships, incentives and capabilities — are today the key impediment to (but could be the crucial catalyst for) essential reform. We propose that the choice is made in favour of being the catalyst.

Such an agenda would ultimately need to be endorsed by a *renewed* COAG. But it should first be developed from this foundation by further negotiation between jurisdictions, before being finally submitted to COAG. A shared agenda should be allowed to arise. This is not intended to be a take it or leave it style Report.

RECOMMENDATIONS

Healthier Australians

Recommendation 2.1
IMPLEMENT NIMBLE FUNDING ARRANGEMENTS AT THE REGIONAL LEVEL

The Australian, State and Territory Governments should allocate (modest) funding pools to Primary Health Networks and Local Hospital Networks for improving population health, managing chronic conditions and reducing hospitalisation at the regional level.

HOW TO DO IT

Set aside a small share (say 2 to 3 per cent) of activity-based funding to hospitals to create a Prevention and Chronic Condition Management Fund (PCCMF) for each Local Hospital Network (LHN) to commission activities that improve population health and service quality, or reduce hospitalisations and broader health expenditures.

Where they are directly related to prevention and management of chronic conditions, allocate the expected funding from the Practice Incentives Program and other Medical Benefit Schedule items to Primary Health Networks (PHNs) in each region.

Give LHNs autonomy about how they spend from their PCCMF (including a license to fund innovations) and give them certainty over future funding contributions to allow planning.

Assess the returns from PCCMF investments. Let LHNs retain some of the returns from PCCMFs, with the remainder shared among Australian, State and Territory Governments.

Disseminate the lessons from effective interventions funded through PCCMFs to other regions.

Ensure formal collaboration between LHNs and PHNs to improve population health and the effectiveness and efficiency of primary health care. Where relevant, involve other regional groups with capabilities in managing population health, including Local Governments and community organisations.

The Australian Government should allow LHNs to commission the services of GPs by amending section 19 of the *Health Insurance Act 1973,* with the proviso that the LHNs operate in formal agreement with their region's PHN. The Australian Government should also remove any administrative constraints on PHNs allying with LHNs to commission GP services.

Amend the Australian Government's prospective Health Care Home model so that LHNs and PHNs can introduce local variants, with supplementary funding and design features determined by them through collaboration.

Clinician buy-in is essential to achieving change and will be led by PHNs, which have often built good relationships with local leaders.

Further details are in Conclusions 6.1, 6.2 and 6.3 of Supporting Paper 5.

Recommendation 2.2
ELIMINATE LOW-VALUE HEALTH INTERVENTIONS

Australian governments should revise their policies to more rapidly reduce the use of low-value health interventions.

HOW TO DO IT

More quickly respond to international assessments indicating low-value medical interventions.

Create more comprehensive guidelines and advisory 'do not do' lists.

Disseminate best practice to health professionals, principally through the various medical colleges, the Australian Commission on Safety and Quality in Health Care and similar state-based bodies.

Collect and divulge data at the hospital and clinician level for episodes of care that lead to hospital-acquired complications and for interventions that have ambiguous clinical impacts (such as knee arthroscopies).

Provide accessible advice to patients about potentially low-value services and improve their health literacy using the measures covered by Recommendation 2.3.

Ensure that ongoing processes for reviewing existing Medical Benefit Schedule items are more rapid and comprehensive than occurred under the arrangements prior to the Robinson Review.

Give priority to de-funding interventions that demonstrably fail cost effectiveness tests, moving from volume to value.

Remove the tax rebate for private health insurance ancillaries.

More details are in Conclusion 7.1 of Supporting Paper 5.

Recommendation 2.3
MAKE THE PATIENT THE CENTRE OF CARE

All Australian governments should re-configure the health care system around the principles of patient-centred care, with this implemented within a five year timeframe.

HOW TO DO IT

Develop well-defined measures of people's experience of care and the outcomes they observe (so-called Patient Reported Experience and Outcome Measures — PREMs and PROMs), and integrate these into disease registries. The Australian Commission on Safety and Quality in Health Care should be the orchestrator of these developments.

Publish results so clinicians, hospitals and patients see how the system is working at a grass roots level.

Consult with consumer groups representing patients and with the various medical colleges to achieve acceptance of the new model and its implications for practices.

Improve patient health literacy to a level that far more people would have a capacity to self-manage chronic conditions, make informed end of life decisions, and be able to solicit from, and interpret information given by, clinicians (Supporting Paper 5).

Use My Health Record and other IT platforms to involve people in their health decisions.

Give people a greater capacity for making choices between alternative suppliers, underpinned by transparent measures of prices and performance.

Give greater weight to patient convenience, and develop and disseminate technologies that assist this.

Systematically include an understanding of patient-centric care in the education and training of new health professionals, and use the various professional bodies to disseminate an understanding of the issues to existing health professionals.

Use data analysis to identify very high service users across all major service types and discover the reasons for their high use (Recommendation 2.4). Use this to customise care plans and other targeted early interventions to improve their health status and reduce their use of services.

Recommendation 2.4
USE INFORMATION BETTER

Australian governments should cooperate to remove the current messy, partial and duplicated presentation of information and data, and provide easy access to health care data for providers, researchers and consumers.

HOW TO DO IT

Identify the key relevant health datasets, including those that provide aggregated information about population health, and ensure that:

- links to health datasets and survey results are included on the Australian Institute of Health and Welfare website
- registers of health care data are created and published on data.gov.au, in line with recommendation 6.4 of the Productivity Commission's inquiry into Data Availability and Use (PCDAU).

Implement recommendation 6.6 of the PCDAU regarding the establishment of the Office of the National Data Custodian, which will have responsibility for the implementation of data management policy for health care and other data.

Streamline approval processes for access to data, in line with recommendation 6.7 of the PCDAU.

In doing so, priority should be given to making health datasets available, with a focus on projects that:

- allow evaluation of initiatives by Primary Health Networks and Local Hospital Networks at the regional level
- use data analytics to discover bottlenecks in integrated care systems, prospectively identify high-risk groups, identify the long-run effectiveness of preventative measures, and better isolate low-value interventions.

Governments should cooperate to reduce the existing inconsistencies in the multiple population health surveys and hospital and other satisfaction/experience surveys, accompanied by the development of benchmarks for gauging the relative performance of health care providers and purchasers across all national regions.

Any webpages or other sources that provide information to consumers about health care services should be comprehensive and maintained, and if that is not cost-effective, they should cease to be funded by governments.

Ensure uptake of electronic medical records by health professionals and hospitals by making them easy to use, and in some cases, linking access to additional funding to their adoption of integrated information systems.

Use My Health Record for both information and as a platform for providing clinically proven advice to patients, with the potential development of links between it and wearable technologies.

The Australian Commission on Safety and Quality in Health Care, in collaboration with other State and Territory Government agencies, should be a clearinghouse for the results of evaluations of regional innovations, and report on the diffusion of substantiated best practices across regions.

Create a cooperative 'Champions Program' that uses people with hands-on-experience with innovations to assist others to copy them.

Recommendation 2.5
EMBRACE TECHNOLOGY TO CHANGE THE PHARMACY MODEL

The Australian Government should move away from community pharmacy as the vehicle for dispensing medicines to a model that anticipates automatic dispensing in a majority of locations, supervised by a suitably qualified person. In clinical settings, pharmacists should play a new remunerated collaborative role with other primary health professionals where there is evidence of the cost-effectiveness of this approach.

HOW TO DO IT

Identify the best dispensing technologies from those that are currently available.

Determine the necessary credentials for the supervisor of automated dispensing, but with those qualifications involving substantially less training than currently are required for pharmacists.

Consult with the relevant training institutions — most likely in the vocational education and training sector — to develop courses for such qualifications.

Inform the various university departments of pharmacy about the reduced need for future supply of pharmacists.

Determine the locations for automated dispensing, taking into account accessibility and security, but eliminating unnecessary boundaries on locations now endemic in pharmacy planning rules.

Trial the technologies in remote and rural areas where there are currently shortages of pharmacists.

In consultation with Primary Health Networks, Local Hospital Networks, the various medical colleges and any other relevant clinical bodies, define the role of pharmacists in a collaborative clinical model.

Identify where it is cost effective to use pharmacists in primary health, taking into account the capabilities of lower-cost health professionals, and the increasingly greater capacity for information systems to provide accurate advice about medicines to GPs and other professionals.

Phase in the changes after the Sixth Pharmacy Agreement has lapsed, using the time to test it in some natural settings to refine the model.

Recommendation 2.6
AMEND ALCOHOL TAXATION ARRANGEMENTS

The Australian Government should move towards an alcohol tax system that removes the current concessional treatment of high-alcohol, low-value products, primarily cheap cask and fortified wines.

HOW TO DO IT

Ideally, this would be achieved through a uniform volumetric tax rate for alcoholic beverages, calibrated to reflect the health impacts of alcohol consumption. Exemptions could be made for the first 1.15 per cent of alcohol (consistent with the current policy for beer).

A transition period would be needed to allow the wine industry time to adapt.

Phasing out the existing range of concessional alcohol excise rates — including for draught beer and brandy — would also help to simplify the tax system and make it less distortionary.

Alternative models that would avoid significant price reductions for expensive products — with the regressive income impacts this would entail — could include a modified WET (wine equalisation tax) system with a minimum volumetric tax or the introduction of floor price regulation.

However, further work on these options is needed to determine their feasibility in light of likely administrative burdens and implementation issues.

Tax measures should be accompanied by other policies that increase education about alcohol and assist people with alcohol-related conditions.

Future skills and work

Recommendation 3.1
IMPROVE EDUCATIONAL OUTCOMES OF SCHOOL STUDENTS

Australian governments should:

- address teaching out of field within a tight time-frame
- improve the skills and effectiveness of the existing teacher workforce, with comprehensive professional development initiatives and other mechanisms, supported by evidence that these are genuinely effective
- continue the current reforms to improve the quality and effectiveness of new teachers, but test their value.

HOW TO DO IT

Teaching out of field should be addressed through targeted professional development of existing teachers willing to acquire the relevant knowledge. Teacher salary differentials should also be used to overcome subject-based teacher shortages.

To improve teacher effectiveness, a more rigorous micro evidence base about what works in schools and how it should be implemented is required. But existing laws mean that data sharing between governments is poor. This should be the subject of institutional-level reform, as outlined in the Productivity Commission's recent inquiry reports into Data Access and the Education Evidence Base.

The next 5 yearly Productivity Review could assess the impact and effectiveness of policies to raise student performance outcomes.

Recommendation 3.2
PROFICIENCY NOT JUST COMPETENCY

The Australian Government should develop tools for proficiency-based assessment for skills where employers want to know how well an employee can perform a task, rather than whether they can perform it at all.

HOW TO DO IT

The Australian Government — in conjunction with State and Territory Governments and the Australian Industry and Skills Committee — would initiate planning for proficiency-based assessment processes. The Australian Government should not compel vocational education and training (VET) providers to adopt proficiency-based assessment.

Models would be the subject of employer and VET provider review, with a process that supported early adopters to trial and deliver proficiency assessments. Before their broader application, an evaluation of the trials should be completed, with wider consultation across employer groups and institutions.

Recommendation 3.3
DISRUPTION OF EDUCATION THROUGH INDEPENDENT ASSESSMENT

The Australian Government should develop a framework to facilitate the independent accreditation of skills obtained through any learning method.

HOW TO DO IT

A capacity to assess and accredit skills and competencies acquired outside of traditional settings should be established and funded by the Australian Government. For university-level qualifications, this may be the Tertiary Education Quality and Standards Agency.

The Australian Government, in conjunction with employers, the Industry and Skills Committee and the Australian Skills Quality Authority, should investigate areas of vocational education and training where an independent certification model could robustly test a person's skills.

Recommendation 3.4
COVERING UNIVERSITIES UNDER CONSUMER LAW

The Australian Government should monitor consumer law developments in Australia and the United Kingdom (UK), to ensure that the Australian Consumer Law applies to the higher education sector.

HOW TO DO IT

If, on further examination, it appears that action in Australia is difficult to mount and that the UK arrangements have had a positive impact, the Australian Government should clarify in legislation that the Australian Consumer Law does relate to higher education. This should give the student the right to compensation or the 'right to a repeat performance', on the same basis as other products that prove to be not fit for purpose.

Recommendation 3.5
MAKE IT EASY TO ACCESS LEARNING OPTIONS

The Australian Government should ensure that Australians of all working ages can readily access comprehensive and up-to-date information about career and education options, including how to make career changes later in life.

HOW TO DO IT

As a first step, the Australian Government should consolidate the existing range of career guidance and education information websites into a single portal to provide school leavers and existing workers with a comprehensive one stop shop. It should outline:

- future career opportunities
- areas of skills need
- educational requirements for different careers
- the range of education institutions providing relevant qualifications
- measures of the performance of institutions (vocational education and training and universities) in each course, including student experiences and outcomes (such as future employment and income).

A further step is for the Australian Government to establish a cross-portfolio review of the policies needed to develop a workforce with greater capacity to adapt to structural change. The review would examine the changes needed in the education and training and tax and transfer systems along with the need for awareness raising approaches.

Better functioning towns and cities

Recommendation 4.1
IMPROVE GOVERNANCE ARRANGEMENTS FOR PUBLIC INFRASTRUCTURE

HOW TO DO IT

- It is essential that governments ensure that proposed projects are subject to benefit-cost evaluations, and that these as well as evaluations of alternative proposals for meeting objectives are available for public scrutiny before decisions are made.
- The institutional and governance recommendations of the Productivity Commission's 2014 Public Infrastructure Inquiry remain valid and should be implemented by all governments as a priority. The 2014 Report has a dedicated chapter on how to do it.

Recommendation 4.2
SHORT-TERM REFORMS TO IMPROVE ROAD PROVISION

Several steps can and should be undertaken by State and Territory Governments in the short term to improve the quality and value for money from road services, and as preconditions for a subsequent move to road pricing.

HOW TO DO IT

Actionable reforms include:

- restructuring governance arrangements to: i) ensure that representatives of those who pay for roads — that is, users — contribute to project selection and funding decisions, and ii) provide for independent appraisal of all major road expenditure proposals
- measuring the road asset base and identifying roads that should, in fact, be priced, as well as clarifying the standards that should apply to roads
- hypothecating road-related fees and charges to roads expenditure so that charges paid by drivers for using roads are linked to spending on roads.

Recommendation 4.3
ESTABLISH ROAD FUNDS

State and Territory Governments should establish Road Funds to hypothecate road-related revenues to expenditures. Initially designing Road Funds on the basis of heavy vehicle revenues and expenditures will help to sequence heavy vehicle and broader road transport market reform objectives and facilitate compositional shifts to new road funding sources over time.

Recommendation 4.4
ROAD USER CHARGING PILOTS

To communicate the need for road funding reform to the community, State and Territory Governments should consider the use of road user charging pilot programs, as has been successful in overseas jurisdictions.

HOW TO DO IT

Conducting trials in major capitals that utilise the opening of new (unpriced) additions to the system and testing behaviour under different pricing regimes (for example, refunding users' excise while measuring their use of new infrastructure with a charge and netting off the outcome over a sustained period) would be a significant advance in knowledge and awareness.

Recommendation 4.5
APPLY COMPETITION PRINCIPLES TO LAND USE POLICIES

There should be national agreement to apply competition policy principles to land use regulation and policies.

There should be a particular ban on regulation that explicitly or implicitly favours particular operators and sets proximity restrictions.

Recommendation 4.6
BETTER PROVISION FOR GROWTH

HOW TO DO IT

Take steps to improve consultation and planning processes, as outlined in Conclusion 10.2 of Supporting Paper 10. This includes:

- State, Territory and Local Governments genuinely engaging with the community on alternatives for meeting development goals
- State and Territory Governments providing formal guidance on how Local Government planning strategies should be developed and on the application of overarching planning policies
- State, Territory and Local Governments ensuring adequate provision in growth strategies for infrastructure and public amenities (such as 'green' space) given the difficulty of retro-fitting these features.

Recommendation 4.7
IMPLEMENT BEST PRACTICE IN DEVELOPMENT ASSESSMENT

State and Territory Governments should implement known best practice in development assessment processes, as embodied in the model developed by the Development Assessment Forum.

Recommendation 4.8
REMOVE STAMP DUTIES AND IMPLEMENT TRANSITION TO LAND TAX

State and Territory Governments should move from stamp duties on residential and commercial properties to a broad-based land tax on the unimproved value of land.

HOW TO DO IT

Phase out stamp duties on residential and commercial property transfers and replace them with a broad-based tax based on unimproved land value.

Transition over several years to aid adjustment.

A shift to land-based taxes should include provision for low income households to defer property taxes and fund them from their estate at death or on the sale of the asset (whichever comes first), with low interest rates applying to debts.

Improving the efficiency of markets

Recommendation 5.1
URGENT ACTION IS NEEDED TO FIX AUSTRALIA'S ENERGY MARKETS

Australian governments must cooperate to reform the national electricity market as a priority.

HOW TO DO IT

Australian governments must work cooperatively to resolve the issues currently confronting Australian energy markets. They must:

- stop the piecemeal and stop-start approach to emission reduction, and adopt a proper vehicle for reducing carbon emissions that puts a single effective price on carbon
- clearly articulate the acceptable trade-off between reliability and cost
- achieve more efficient pricing, by ensuring that:
  - prices paid to producers reflect any additional costs they impose on the system (such as frequency management)
  - access to the grid, rather than just use, can be priced (so people using the grid as a back-up pay for this service)
  - prices to consumers reflect the nature of the demand that they require from the system
- provide clear strategic direction to the expert bodies, and a clearer accountability for outcomes
- let the market regulators and participants get on with their work, holding them to account for the outcomes
- ensure that short-term fixes are technologically neutral and move the system toward a sustainable long-run outcome.

RECOMMENDATION 5.2
CREATING AN ENVIRONMENT MORE CONDUCIVE TO INNOVATION

Australian governments must be more responsive and willing to experiment to create a more innovative ecosystem for Australian business.

HOW TO DO IT

There are a number of things Australian governments can do to create an environment more conducive to innovation without giving firms an incentive to seek support. Such action will help, but four other areas where governments can make a material difference is in:

- establishing consumer rights over their own data, including the right to transfer their data
- removing the barriers to greater use of public data, including developing secure access that still respects privacy
- adopting a copyright law with fair use exceptions
- removing the competition law exemption for intellectual property.

More effective governments

Recommendation 6.1
SEEK COMMONWEALTH-STATE/TERRITORY AGREEMENT TO A FORMAL JOINT REFORM AGENDA

HOW TO DO IT

A formal commitment and an institutionally-supported process are both needed to sustain cooperation on reforms of this nature beyond any one term of government.

Recognition should be offered that not all parties are likely to progress all changes at the same rate. But neither should a veto be offered to any one party, once agreement is achieved. A year (2018) should be allowed to strike such an agreement.

The role of monitoring and reporting on an agreed Joint Reform Agenda should be assigned to an independent body, such as a revamped National Competition Council or the Productivity Commission.

The monitoring body should be empowered and resourced to collect information on the progress and outcomes of reforms at Commonwealth and State and Territory levels and to report on a biennial basis.

Local Government should be invited to participate, once an agreement is struck.

An overall assessment of the progress and impact of the reform agenda should be included in the 5 yearly Productivity Reviews to be undertaken by the Productivity Commission.

Recommendation 6.2
TAX REFORM AS AN INTEGRAL PART OF THE JOINT REFORM AGENDA

To improve confidence between levels of government, and support more efficient provision of public services, governments should adopt a commitment to tax changes that improve revenue-sharing arrangements between governments as an essential element of a Joint Reform Agenda.

There is then every reason for the participants to pursue reform together.

Recommendation 6.3
IMPROVE FISCAL STRATEGY DISCIPLINES

Governments should adopt measures that will better inform and improve accountability for spending and fiscal strategy decisions.

HOW TO DO IT

- The Australian Government should adopt specific fiscal targets to assist budget management and credibility.
- To strengthen the credibility of targets and the likelihood of them being met, the Joint Select Committee on the Parliamentary Budget Office could ask the Parliamentary Budget Office to report annually on the ability of budgets to achieve targets, and at mid-year on whether and how the progress of measures through the Parliament and discretionary decisions of Government have altered the likelihood of targets being met.
- All governments should adopt longer-dated projections of selected major programs to better inform the formulation of budgets.
- All governments should develop a whole-of-nation intergenerational report (IGR).
- Shifting responsibility for the IGR at the Commonwealth level to the Parliamentary Budget Office would ensure that the IGR is a non-partisan report and help achieve a consolidated view of governments' fiscal sustainability.

Recommendation 6.4
RENEW INTERGOVERNMENTAL RELATIONS

STEPS TO ADVANCE CHANGE

First, while not broken, the system of cooperative exchange at the apex of Australia's federation — COAG — is in need of renewal. This is not an expensive undertaking — it has a cost only if it is insincere.

In order to arrive at agreement on fundamental reform at the apex, a practical division of responsibilities that is focused on the nature of the policy problem at hand and the parties most willing to design effective change should be taken. This means not treating the existing intergovernmental committee structures as sacrosanct.

Seeking reform primarily through control of payments should be least preferred.

Recommendation 6.5
ENSURE ACCEPTED PUBLIC SERVICE REFORMS ARE IMPLEMENTED

HOW TO DO IT

The Australian Public Service Commission (APSC) should evaluate what has been done over the past five years in relation to the themes arising from agency and sector-wide reviews. The APSC evaluation should be used to inform subsequent training initiatives to address any shortcomings.

The Australian Government should:

- require the entities responsible for implementing the findings of reviews to commit to deadlines for delivery and report publicly against implementation timelines
- require the Secretary of the Department of the Prime Minister and Cabinet to issue a charter letter to each department head at the start of government terms outlining expected agency capabilities and public sector reform priorities to lift those.

The Joint Committee on Public Accounts and Audit could be tasked by Parliament to oversee progress on agreed sector-wide reforms on an ongoing basis.

Recommendation 6.6
STRENGTHEN INTERNAL CAPABILITIES

Australian Governments should implement a suite of changes to strengthen policy development and delivery.

HOW TO DO IT

No policy areas should be immune from proper appraisal — ex ante and ex post. But Regulatory Impact Statement processes should emphasise sound policy-making rather than simply adherence to rules.

To help ensure that programs remain well-targeted and administered, governments should make greater use of sunset clauses on programs with a fixed deadline for the completion of evaluations before new funding is committed.

Similarly, governments should make the continuation of program funding conditional on completion of a written evaluation (and the rectification of significant problems identified in the evaluation).

Governments should adopt high quality international standards wherever possible and make better use of information and evidence developed elsewhere (including randomised controlled trials).

RECOMMENDATION 6.7
SUPPORT LOCAL GOVERNMENT PERFORMANCE

State and Territory Governments should draw on the experience of Victoria and require more meaningful (including comparable) performance reporting by Local Governments, providing support on this where needed.

HOW TO DO IT

The Victorian Government's reporting framework could be used as a model or starting point for other States and Territories. The more effective use of performance measurement would:

- improve the accountability of Local Governments to residents and taxpayers
- identify best-practice methods in Local Governments for future policy development
- provide an incentive for Local Governments to improve their performance by highlighting differences in performance between similar Local Governments.

1

INTRODUCTION

1 INTRODUCTION

1.1 Scope and aim of this inquiry

A sound case can be made that the Australian economy has performed very well over a protracted period. Our living standards are high, and we are one of the richest nations globally. Borrowing costs and inflation are low, there is little industrial unrest, and the unemployment rate is well below the long-term average. We are living longer, and enjoy generally healthier lives. There has been no recession in the past 26 years — the longest period of growth in modern history, and this has persisted despite major shocks like the global financial crisis and an abating mining boom. The trend in Australia's *labour* productivity since 2007 — the amount of output per worker — has not deviated much from the average historical rate over the past 40 years.

Something is awry in our economic fundamentals

On the other hand, income growth, particularly for wage earners, has stalled. Labour productivity *is* lower than both the 'golden era' of the mid-1990s, and the lengthy prosperous period from 1950 to 1970. The global picture for most developed countries is sombre. Unlike Australia, across the OECD, growth in GDP per hour worked was lower in the decade to 2017 than in any decade from 1950 — a picture that reflects more than the impacts of the global financial crisis. It raises questions about the effectiveness of global technological change as an income generator — a concern for Australia given our reliance on others' technological advances.

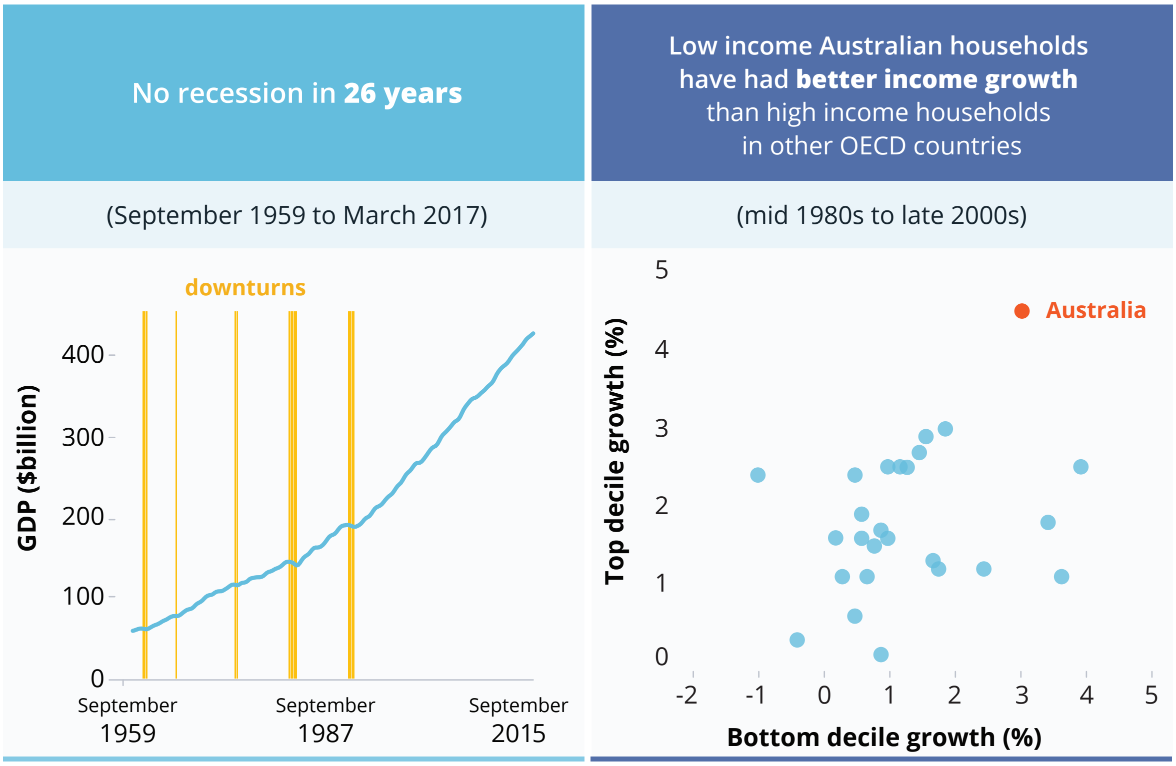
While labour productivity gets much of the focus year-on-year, doing things better by applying new knowledge and technologies is the critical X-factor in strong long-run economic growth (sometimes referred to as 'multifactor' productivity). Yet while all around us new digital services, information and ideas are obvious, this form of productivity has been weak since 2004, here and around the developed world. This is a long enough period to suggest something is awry in our economic fundamentals. Since productivity is inextricably linked to maintaining growth in national income and individual opportunity, this is no academic observation. Suggestions that mismeasurement of the new economy are to blame appear simply insufficient to explain the weakness. In this context, the Australian Government has commissioned this report, with the intention that it be repeated every five years. Its aim is to catalyse a reinvigoration of productivity.

Given the ultimate ambition is a more prosperous society, policies that move resources to their most productive uses are also relevant to this inquiry. Tariff reform was one of Australia's most successful policy shifts because it removed incentives to take a job or make an investment in industries where we were inefficient, and whose long-term prospects were weak. That and other fundamental microeconomic reforms delivered benefits throughout the 1990s. The greatest prospective gains now lie in services, especially those that all of us consume regularly, thus spreading the gains widely. As an illustration, when the Commission examined the disability services and aged care sectors, it found funding was allocated according to principles that took very little account of the preferences of people who were the focus of those sectors. Shifting resources to match people's preferences is a key, but often neglected aspect of efficiency.

Another dimension of prosperity is its effect on income growth for higher and lower-income households and, associated with this, inequality. Australia did better than most OECD nations at achieving more equitable income growth, such that all households — from lowest income to highest experienced significant improvements across the decades from the mid-1980s (figure 1.1). Indeed, popular impressions aside, household income inequality does not appear to have risen in Australia this century.

Doing things better by applying new knowledge and technologies is the critical X-factor

Figure 1.1 Some key aspects of the economy are performing well



Sources: ABS 2017, *Australian National Accounts, Mar 2017,* Cat. no. 5206; OECD (2011, p. 23).

A key issue will be to ensure that future economic, social and environmental policies sustain inclusive growth — by no means guaranteed given current policy settings, and prospective technological and labour market pressures. Productivity growth provides a capacity for higher incomes and poverty alleviation — either directly through higher wages or indirectly by increasing the capacity for funding transfers to lower-income households. The motivation for limiting inequality extends beyond its intrinsic value to the desirability of avoiding too great a dispersion in incomes, given evidence that this can, in its own right, adversely affect productivity growth. Public support is also more likely for reforms that offer benefits to the bulk of people.

One of the advantages of better health care, education systems and cities is that they provide strong prospects for improving lifetime outcomes for people from all backgrounds. Indeed, improvements in these areas have the potential to decrease health inequalities, and reduce job insecurity and wage risks for those whose skills are at most risk from technological change (noting the current disparities apparent in health and educational performance — figure 1.2).

Figure 1.2 Health inequalities and educational underperformance present big opportunities for Australia[a]

[a] The fifth household income quintile is the richest and the first household income quintile the poorest.

Sources: ABS 2016, *National Health Survey, First Results, 2014-15,* Cat. no. 4364.0; OECD PISA score results (2017b).

This inquiry is the first of a continuing series of reviews.

This inquiry is the first in a regular series of inquiries into productivity, undertaken at five-yearly intervals. Its aim is to shift the dial on underlying productivity, jolting it out of the mediocre trajectory of recent history. To do so will require a package of initiatives. No one change is sufficient, as demonstrated by the need for a combination of reforms to make a difference in the 1990s (floating the dollar, tariff cuts, workplace relations, water reforms, competition policy and effective intergovernmental relations). It is a microeconomic complement to the Australian Government's periodic Intergenerational Report, with the same intent to look to the future and to take account of emerging trends, but with the added dimension that it will prioritise the changes with the greatest potential, and advise how to apply them effectively.

We need to shift the dial on underlying productivity, jolting it out of the mediocre trajectory of recent history

All levels of government — local, state and national — are the relevant policy actors. And if any one level of government has greatest responsibility, it may surprise some to hear that it is the States and Territories. The Commission has sought input from all levels of government in diagnosing problems and recommending solutions. We have also consulted with many people and agencies responsible for health care, city policies and education — which are the themes that have emerged strongly in this first five-yearly review (appendix A).

1.2 What has been happening to productivity?

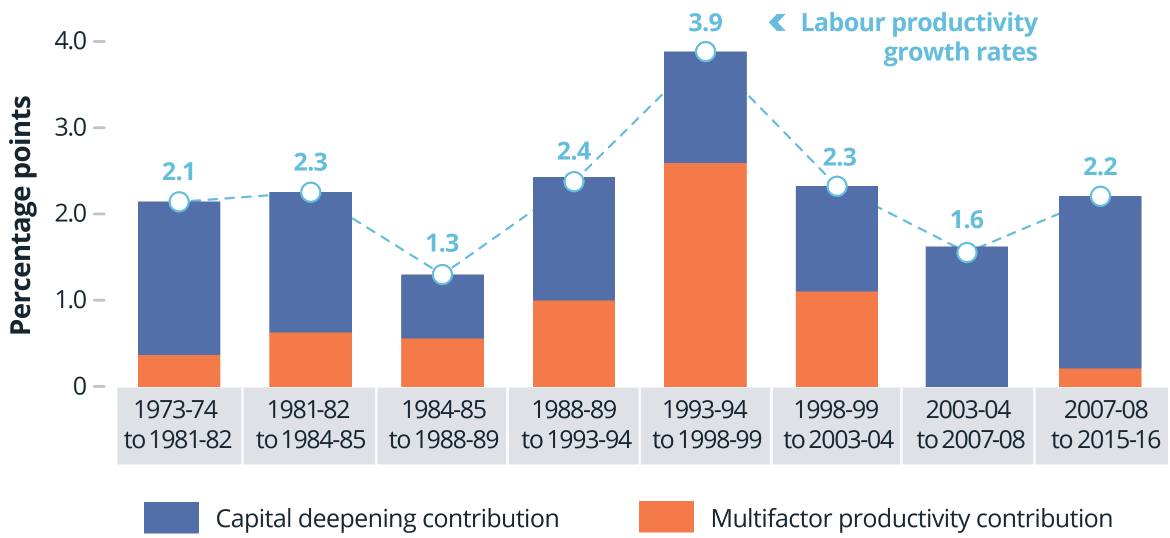
While over the past 40 years, aggregate labour productivity growth in the market sector (real output per hour) has stayed mainly in the band between 2 and 2.5 per cent per year over the various business cycles (figure 1.3) there is nothing natural or inevitable about labour productivity growth within this tight band. As noted earlier, the 1950s and 1960s showed much stronger growth. Figures calculated on a somewhat different basis suggest that annual labour productivity growth in the first fifty years after 1890 were less than 1 per cent — proof that it is possible to have protracted periods of sluggish growth — a circumstance to be avoided (figure 1.4). Thus, the slowdown in this vital driver of income growth is not something that automatically rebounds to an expected norm. We have to work at sustaining productivity.

While some have celebrated a recent return to average labour productivity outcomes, this has almost entirely reflected the contribution of one production factor — more physical capital. The capacity to 'get more out of *all* inputs', the dividend known as multifactor productivity (MFP), has fallen away since 2002. MFP has risen slightly over the past few years, but the brevity of the period and the fact that recovery has been limited to only some industries does not provide robust evidence of an enduring recovery.

The capacity to get more out of all inputs, the dividend known as multifactor productivity, has fallen away since 2002

Figure 1.3 Market sector labour productivity decomposition[a]

Measured using aggregate market sector productivity cycles

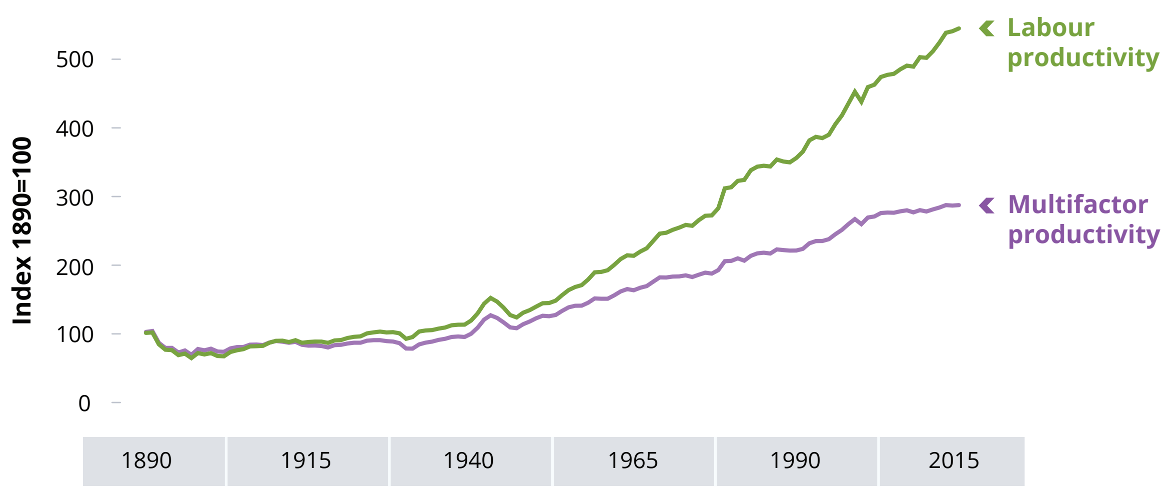


[a] 12-industry market sector (ANZSIC Divisions A to K and R). The long-term trends are not always easy to detect in annual data because of the effects of economic downturns (when labour and capital are only partially used, depressing productivity over the short run). For that reason, most productivity analysis examines trends across the peaks of the business cycle.

Sources: ABS 2016, *Estimates of Industry Multifactor Productivity, 2015-16,* Cat. no. 5260.0.55.002, December; Productivity Commission estimates.

Figure 1.4 The long long run — MFP and labour productivity

1890 to 2015[a]



[a] The series diverge from that presented above due to different methods for interpolating data, though the results are not markedly different for the overlapping time periods.

Source: Bergeaud et al. (2016).

The slowdown in Australia's capacity to 'do more with the same' is puzzling because scientific and technological knowledge seemingly still advanced rapidly after the early 2000s. Consider that in 2003 there was no Cloud, the 'internet of things' or any smart phone or tablet (with all their portable apps — mapping, email, messaging, and video services). Ubiquitous software like Google Chrome and social media apps did not exist. 3D printing was in its infancy. Music and videos were primarily supplied in physical forms. Underpinning much of this has been a telecommunications network that was more extensive, and far faster. Robotics, gene technologies, material science, machine learning, artificial intelligence, sensor technologies, and drones all progressed strongly. In the period from 1997-98 to 2015-16, the share of businesses using the internet increased from 29 to 95 per cent.

The recent trend in income per capita — effectively the contents of people's wallets — is far below that in the decades that preceded

The recent trend in income per capita — effectively the contents of people's wallets — is far below that in the decades that preceded it, and has fluctuated from year to year. Part of this is due to the decline in the terms of trade. But in the decade from 1998, strong growth in disposable incomes without a high terms of trade was possible because multifactor productivity contributed to high growth.

Mismeasurement has been cited as a reason to worry less about Australia's multifactor productivity trends. There are difficulties in measuring productivity, including in times when quality and price move in opposite directions; or when free goods (for example, open source software and other internet services) become significant. The data on which official estimates of productivity are derived include some adjustments for the quality of outputs and inputs, but they are incomplete. Accordingly, mismeasurement is certainly present, though whether it is in any given direction or worse than in previous decades is another matter. Regardless, sound research suggests that the sectors of the economy most subject to mismeasurement are not large enough to explain the shift (Supporting Paper 1 (SP 1)).[1] Nor does the timing of the global slowdown coincide with the technological changes that might generate mismeasurement.

Some of the factors other than productivity driving income per capita — labour participation rates and new private investment — have also been weaker in recent years. The investment slump is particularly concerning. It is not isolated to mining, where past strong investment built up the capital stock, requiring less future investment. It implies that capital-intensity in the non-mining sector (that is, the bulk of the Australian economy) will not grow at the historical average, putting future downward pressure on labour productivity. Investment, after all, is what creates the new tools for labour to lift production beyond the previous norm. Finally, the embedded technology in investment is a major source of the new knowledge

1 The Commission has undertaken detailed analysis to support each of these chapters. Sixteen supporting papers are available on the Commission's website at www.pc.gov.au and are referenced throughout this report using the abbreviation 'SP' and the relevant number. Where the sources of a fact or statistic is not referenced in this report, readers will find them in the accompanying supporting papers.

that underpins future innovation. For example using the web required computers. These factors, and the added uncertainty about the direction of the terms of trade, makes new productivity-boosting reforms one of the few certain ways of raising living standards into the 2020s.

1.3 Government policy and productivity

Businesses are the immediate drivers of long-run productivity improvement in the market economy. In trying to increase their profits, they often seek to do things differently and better — drawing on their own ideas and those of their customers, employees, suppliers and rivals. Research (either inside the organisation or outside) can lead to entirely new products and processes. Firms that fail to keep pace with technology or to provide goods and services valued by their customers will be replaced by those that do, unless government policies frustrate that renewal.

All levels of government play a role in our market economy (figure 1.5). Governments set many of the frameworks for key institutions, laws, standards, regulations, taxes and macroeconomic policies. Some markets are as much creatures of government as businesses and consumers because of the degree and complexity of regulation. As an illustration, version 91 of the National Electricity Rules number some 1454 pages and the *Competition and Consumer Act 2010* 1621 pages — which are bibles for markets in some industries. Whether they are yet the best regulations is a matter of persistent contest, as highlighted by the recent Harper review.

Government is also a dominant provider, regulator and funder of many non-market services, and its performance is critical to productivity (including the quality of outcomes — SP 2 and 3). Government contributes to the idea pool by supporting research and (when at its best) by being a demanding customer for its own purchases. It can encourage efficiency in the business world by being efficient itself and by being transparent and predictable. It can share its data or withhold it — an increasingly serious issue in the digital age that was considered in the Commission's inquiry into *Data Availability and Use*. Data applications are the biggest renewable resource discovery of the 21st century.

The extent to which governments can develop and implement policies in line with the public interest depends on the effectiveness of its participation in public debate — convincing people to engage with and trust government — and the set of incentives that punish or reward politicians, governments and officials for their choices and performance. Survey and other evidence shows that distrust in government is high and engagement in politics is low by absolute and historical standards (chapter 6). In the market of ideas, political failures — which impede people's willingness to trust reform proposals and that preserve failing policies that benefit the few at the expense of the many — limit our nation's prosperity.

Conversely, governments are one of a nation's leading tools for change. The pervasiveness of the institutions and frameworks noted earlier — legal, financial, sectoral, consumer regulation — and the capacity to lift public investment in major inputs and enablers — education, health, infrastructure — mean that a failure to apply these mechanisms fully must be a serious opportunity lost. The timing of change, the prioritising amongst the many opportunities, the effective handling of the transition and the distribution of benefits, are all reasonable judgment calls for governments. But they do not justify an unwillingness to apply our most effective catalyst for change.

Figure 1.5 What shapes productivity?

1.4 Identifying a policy reform agenda

There is a long list of things that could be done, but a list per se is not enough to galvanise action. We have consciously sought not to contrive a list of all possible reforms.

Rather, the Commission developed a structured way of identifying the areas for reform that are most promising. We have considered the practicality of reforms, the quality of the evidence base, and cumulatively across the reforms, the likely magnitude of the benefits (figure 1.6).

Figure 1.6 Systematically looking for reforms

DECISION MAKING FRAMEWORK FOR POLICY RECOMMENDATIONS

Step 1

Harvest ideas

- Theoretical framework for drivers of prosperity (e.g. innovation, human and physical capital accumulation, diffusion, good institutions, competition, fit-for-purpose regulation)
- Parts of the economy performing poorly
- Policy agendas of all governments
- Broad consultation and survey evidence
- Insights from the reform literature and meta-analyses
- Insights from international experiences
- Unimplemented reforms from previous reviews and inquiries
- Auditor-Generals' reports

Step 2

Choose reforms

- Value of having a diversity of options
- Avoiding a fragmented list of disconnected reforms
- Looking beyond the immediate imperatives to reforms that will take some time to implement
- A willingness to consider novel reforms
- Implementability (assessing capabilities and the need for coordination)
- Recognition of fiscal constraints
- Materiality (as single reforms or as a package)
- Reforms that make future reform and learning easier

Step 3

Analyse impacts and implementation

- Explain *how* policy would raise prosperity
- Qualitative and quantitative evidence of *why* the policies would work
- Assess impacts (for whom, where, to what extent)
- Indicate the time path for implementation and who would undertake it
- Take into account how new policies would fit with existing or pending policies
- Indicate priorities
- Accountability (how would failure be assessed?)

In addition to our analysis of the reform opportunities for Australia and normal consultation processes, we examined hundreds of recommendations from other studies and reviews in making our choices. These included similar initiatives looking to address similar objectives globally, such as OECD's annual *Going For Growth* report.

Using this approach, the Commission developed five broad areas for close examination.

The 5 yearly productivity review has given us an opportunity to take a more future oriented approach to a breadth of policy issues rather than our usual focus on a sector or specific policy area. The Commission has deliberately floated ideas that cannot always be implemented immediately, but where preparation and further testing is needed for fruition. We have dived into three areas where reform is longer term and more fundamental. We chose health care, education and cities, and even in these areas, only some aspects of them (chapters 2, 3 and 4).

We did so because they share some important characteristics.

- New technologies offer new and better ways of delivering services, and yet the existing systems are designed around legacy technologies (as in transport systems, road funding and charging, the provision of university education, and the dispensing of pharmaceuticals).
- Most people can share in the benefits, so that the concerns about the distributional effects of reform are not central. No one — high or low income — wants clogged roads or clogged arteries. While there are vested interests opposed to change, in these areas there may be more scope to reduce the politically-polarised debates that frustrate many other reforms.
- They are more likely to be less efficient due to management inertia, meddling and lack of competitive pressures.
- They account for a large share of activity in the economy. As one of the most urbanised countries in the world, the economic and social functioning of Australia's biggest cities is critical to prosperity. The pressures on them, and the advantages they provide, are due to rise given future strong projected population growth.
- The functioning of these parts of the economy matter for the quality of the lives of millions of Australians.
- Users' needs are often not given priority, which disempowers people and makes providers less responsive. The services are highly subsidised and/or regulated, people are not very aware of quality before they use them, choice has often been limited and markets are often underexposed to competition. There is therefore strong scope to empower people so that their needs, not those of service providers, are the key focus for policymakers.
- Their impacts on people's lives are often many years into the future. This means that services have to be designed for people's long-term needs. Where roads are built and how schools function are good examples of how decisions made today matter a great deal to people many years later.

While some reforms are great in their ambition — as was the competition reform packages of the 1990s — much is not like that, and can be nicely summarised by a quote from a well-known management guru's rumination on personal productivity, which could equally apply to a nation's:

> ***Sometimes the biggest gain in productive energy will come from cleaning the cobwebs, dealing with old business, and clearing the desks — cutting loose debris that's impeding forward motion.***
> *(Allen 2004)*

In other words, it is time to take out the microeconomic garbage — those practices that have been seen as in the 'too hard basket' to change. These can be big and important — like tax reform and flaws in the way different governments interact with each other. Or small — like restrictions on the entry of Uber, some messy remnants of trade barriers, and the relic of trading hour restrictions that still persists in some jurisdictions. The cumulative impacts of changes to all the collective things that stymie people's lives, income generation, and other endeavours is large. In a messy house, there are many cobwebs, and so we document these carefully in chapter 5 and appendix B.

It is time to take out the microeconomic garbage

There are other microeconomic reforms that cover the whole economy, and that are not part of the orthodox suite of cobweb-cleaning reforms. The large benefits of a national policy approach to better data availability and use epitomises the new agenda, as do reforms to intellectual property arrangements, standards for new transformative technologies and developments in regulatory arrangements for fintech. Accordingly, chapter 5 explores both the old and the new reforms that can make markets more efficient.

The fifth theme recognises that policymaking is a creature of governments, whose institutions, capabilities, rules, operational methods, norms and interactions determine the scope and content of policies. If the fundamentals of governments are not functioning well — say intergovernmental relations or the capabilities of the public sector — then it is hard for even the most proficient of governments to achieve reforms. There is scope to improve this foundation (chapter 6).

Taken across their disparate areas, the Commission's recommendations represent an ambitious reform agenda. The agenda should have the Australian Government as a key proponent. However, a national approach to productivity requires active engagement and consensus across multiple levels of government.

The services where the greatest opportunities lie are typically shared responsibilities. Indeed, at the grass-roots level, State and Territory Governments often have the most responsibility for service delivery, and therefore the strongest capacity to introduce policy innovations. Any realistic model of reform cannot conceive of such governments as playing second fiddle to the Australian Government. Nor, given the need for trust in a reform agenda, can engagement with the community, non-government organisations, businesses and other agents for change be mislaid.

It is hard to put an exact number on the cumulative benefits of all the policy recommendations that this report advocates. Many benefits are hard to value even within a range — say an avoided limb amputation for a person with type 2 diabetes. This means that in some areas, we have made assessments of potential economic benefits (specifically, key recommendations in chapters 2, 4 and 5), while in others we have not. Our assessment, without accounting for the inestimable, is that the benefits of these reforms would increase over time, eventually generating about $80 billion each year in economic gains, which would continue to grow with the economy.

2

HEALTHIER AUSTRALIANS

What matters?

Healthier Australians

Benefits assessment: conservatively in excess of $8.5 billion over 5 years

PROBLEMS	SOLUTIONS	BENEFITS
INTEGRATED CARE		
› Primary and hospital care poorly integrated › Information flows do not follow the patient › Funding is too little focused on long-run health or prevention › Insufficiently devolved funding prevents locally efficient solutions	› New regionally-located care model offering funding and fostering attitude changes › Regional alliances between Local Hospital Networks, Primary Health Networks and others › Move retail pharmacy into an integrated care system › Use information effectively (see below)	› Direct structured support for disease prevention and management › Less duplication of services › Care takes place in the right place › Data follow patients as they move through the system
PATIENT-CENTRED CARE		
› Insufficient attention to patient experiences and outcomes › Weak capacity for partnerships between patients and clinicians › Poor level of patient literacy › Low levels of choice	› Develop Patient Reported Experience and Outcome Measures, and publish › Use My Health Record to improve information flows to patients and increase health literacy › Identify and focus on high users of system	› Improved clinical outcomes › Greater empowerment › Self-management › Fewer medication problems › Patient convenience › Lower costs
FUNDING FOR HEALTH		
› Funding not oriented towards innovation or outcomes. Rewards activity instead › Commonwealth/State funding split creates poor incentives to integrate	› Funding pools for Local Hospital Networks and Primary Health Networks to use for preventative care and management of chronic conditions at the regional level › Provide greater autonomy to allow regional solutions	› Better health and reduced hospitalisations and other costs › More experimentation and innovation, including in prevention › Capacity to tailor solutions to specific regional communities
QUALITY OF HEALTH		
› Too many services known to be ineffective or outdated are still funded › Too many hospital-acquired complications	› Require fast-track assessment of low-value care identified by overseas agencies › Educate clinicians and measure and divulge their use of low-value procedures › Improve patient literacy › Defund demonstrably low-value procedures › Remove subsidies for ancillaries in private health insurance	› Better patient outcomes › Less waste and more ability to redirect savings to new and effective procedures › Reduced outlays on rebates
USING INFORMATION EFFECTIVELY		
› Data and information flows are inadequate for genuinely integrated care, and frustrate research into 'what works' › Innovation lessons are disseminated too slowly, including process innovations	› Follow recommendations of the Commission's 2017 inquiry into *Data Availability and Use* › Adoption of eHealth throughout the health system › Disseminate best practice through existing agencies	› Quicker learning about best practice › Better, more and faster research into what works › More integrated care with improved clinical outcomes › Innovation in health care delivery

2 HEALTHIER AUSTRALIANS

More than 2000 years ago, the Roman poet Virgil expressed the enduring and widely accepted view that the 'Greatest wealth is health'. The centrality of health to people's lives is hardly surprising. It directly affects their sense of wellbeing, functioning, engagement with their families and society, and labour market prospects. The people striving to assist in our health system create significant unrecognised wealth.

However, compared with the best performing international health systems, there appears to be numerous opportunities to improve health outcomes for given expenditure or to achieve existing health outcomes for less, including by more effective prevention (Supporting Paper 5 (SP 5)).[2] Too often, these opportunities are stymied by systemic and jurisdictional barriers. Addressing these offers serious scope to improve lives and to lift both workforce productivity and participation.

Many of the opportunities for improvement in the health system relate to issues other than total resourcing — *how* it is organised and funded, *what* it does, and the *behaviours* of clinicians, administrators, bureaucracies and the people they serve.

Doing better with our health resources can act as a safety valve for mounting fiscal pressures

That does not mean that funding issues are irrelevant. An ageing population, the inexorable development of new (and often more expensive) technologies, and the ever growing public expectations of a better health system will inevitably and justifiably require further public investments in health. Ensuring that those investments deliver good health outcomes and value for money should be a key goal of governments. Doing better with our health resources can act as a safety valve for mounting fiscal pressures.

2.1 How is Australia's health system faring?

First the good news

Australians are living longer, with less disability than ever before. Australia outranks most other highly developed economies in health outcomes. It has the third greatest life expectancy at birth among OECD countries in 2015 at 82.8 years and a high absolute number of years spent in good health (though a lower than expected number *given* our life expectancy — SP 4). The overwhelming share of Australians had 'confidence that they would receive quality and safe medical care, effective medication and the best medical technology if they were seriously ill'. Moreover, Australia is faring comparatively well by international benchmarks in certain areas of preventative health — most notably in reducing rates of smoking and transport accident deaths. On face value, the cost effectiveness of Australia's health system also appears relatively high compared with other OECD countries, with Australia spending less on health

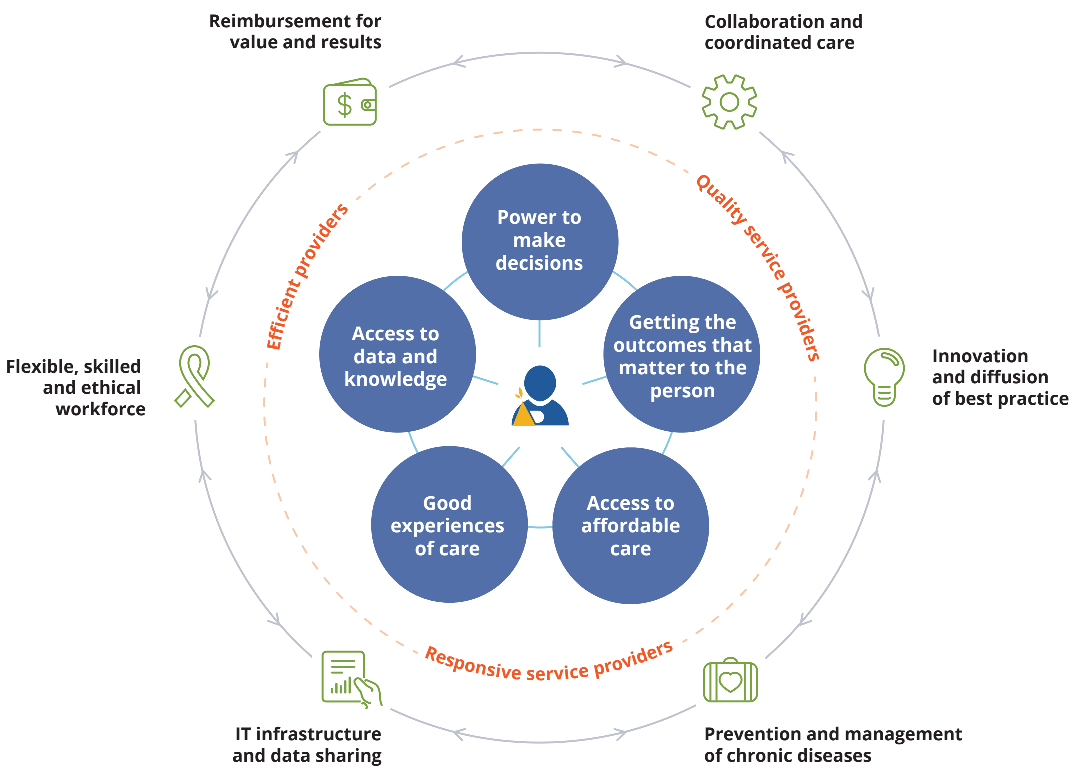
2 Three supporting papers for this chapter are available on the Commission's website at www.pc.gov.au and are referenced throughout this chapter using the abbreviation 'SP' and the relevant number. They are SP 4 (Why a better health system matters), SP 5 (Integrated care) and SP 6 (Impacts of health recommendations).

than many countries for comparable or better outcomes in life expectancy. But such a static measure of the 'bang for buck' is only part of the story, ignoring the many aspects of health care that relate to people's quality of life and, for the purposes of this inquiry, the prospects for long-run productivity enhancement.

Second, the wounds that need salves

While many aspects of Australia's health outcomes are good, the list of problems that should be the target of improvement is lengthy, reflecting deviations from the 'ideal' system depicted in figure 2.1.

Figure 2.1 The ingredients of a well-functioning system



CHRONIC ILLNESS HARMS PEOPLE, AFFECTS COSTS AND REQUIRES DIFFERENT HEALTH MANAGEMENT APPROACHES

Many Australians have, or are at risk from, chronic conditions where there is significant scope for prevention or early treatment — such as mental illness, diabetes, lung cancer and cardiovascular disease (table 2.1). These conditions are now a driving force behind health costs. Risky, but alterable, behaviours, such as poor diet, low exercise levels, hazardous alcohol consumption, smoking (still a major concern) and dangerous driving contribute to the burden of chronic disease. Indeed, Australia has one of the highest obesity rates in the world, and it appears to be still rising. And while Australians have high life expectancy, they also have the highest number of years spent in ill-health compared with other OECD countries.

Table 2.1 A snapshot of Australian's health

DESCRIPTION	MEASURE	COMMENT
Life and health expectancy		
Life expectancy	82.8 years people, 80.9 males, 84.8 females	3rd highest among 35 OECD countries in 2015 for all people and males, and 6th for females
Years spent in ill health	10.9 years	Highest among OECD countries
Selected long-term conditions		
Diabetes	1.2 million Australians	5% of population in 2014-15. Rates were 12.8% of obese people and 2.5% of normal weight people
Mental and behavioural problems	4.0 million people	17.5% of population in 2014-15
Chronic obstructive pulmonary disease	0.6 million people	2.6% of population in 2014-15
Heart, stroke and vascular disease	1.2 million people	5.2% of population in 2014-15
Lifestyle risk factors		
High/very high psychological distress	2.1 million people	11.8% of the population aged 18+ in 2014-15
Obesity	4.9 million people	27.5% of 18+ population in 2014-15
High blood pressure	4.1 million people	23% of 18+ population in 2014-15
Daily smoker	2.6 million people	14.7% of 18+ population in 2014-15
Risky/high risk alcohol consumption	1.8 million people	10% of 18+ population in 2014-15
No/low exercise level	11.7 million people	65.9% of 18+ population
Inadequate fruit or vegetable consumption	16.8 million people	94.9% of 18+ population
System indicators		
Use of cardiac catheterisation	7.4 fold variation in use between areas	Excessive variation may indicate incorrect use
Knee arthroscopies	71 087 admissions	No evidence of clinical benefits for this procedure in most cases
Unplanned readmissions	About 7% in NSW hospitals in 2014-15	Measure of problems in initial hospitalisation and in follow-up care
Antibiotic (vancomycin) resistance in Enterococcus faecium	About 45 per cent resistant	Highest rate compared with 29 European countries

Source: SP 4.

THE HEALTH 'SYSTEM' ALSO HAS DEEP FAULT LINES

The patient experience of care receives little focus as a goal of the system. Notwithstanding the massive burden of chronic illness, its prevention and proper management is still in its infancy. The system primarily responds to patient crisis. In areas where patient choice is critical — an exemplar being end of life care — many people are disempowered because they do not get adequate access to end-of-life care at home, but are instead treated in a hospital setting.

In part, this situation reflects the fragmented and ill-fitting nature of services. Care pathways — especially between primary and acute care — are often poorly coordinated. A simple indicator of service integration is the proportion of a hospital's patients whose GPs are provided with a discharge summary within twenty-four hours of discharge. Currently, Australia's performance appears poor. Less than 20 per cent of Australian GPs were always told when a patient was seen in an emergency department compared with 68 per cent in the Netherlands, 56 per cent in New Zealand and 49 per cent in the United Kingdom.

Clinicians, patients and researchers operate under a veil of ignorance posed by inadequate information flows and haphazard data collection. Private health insurance sits uneasily with a system of public insurance, with their respective roles weakly defined. Regulatory and jurisdictional obstacles frustrate the capacity of Local Hospital Networks (LHNs), which operate state and territory hospitals, to engage with general practitioners, though doing so would help better manage chronic conditions and reduce hospitalisations. (The names for bodies running hospitals vary across jurisdictions — SP 5 — but we use just one term to avoid unnecessary complexity.)

The imperative is therefore better coordination of the system, giving a greater weight to the role of public health, and acceptance of people themselves as partners in their own health management.

There are problems with quality too. The incidence of bacterial infections that are unresponsive to critical antibiotics is rising following their excessive use. Health outcomes are poorer for low-income households, non-metropolitan regions and particularly Indigenous Australians.

Unjustified clinical variations, including the use of practices and medicines contraindicated by evidence, remain excessive, an indicator of inadequate diffusion of best practice, insufficient accountability by practitioners, and a permissive funding system that pays for low-value services. For example, a knee arthroscopy for degenerative knee disease is a very common orthopaedic operation, but has no proven efficacy in most instances. It is on multiple 'do not do lists', and in the United States, the public system will not pay for it. A group of clinicians at Liverpool, St George and Sutherland hospitals in Sydney have stopped performing arthroscopies on patients aged over 50 years because they do not feel they can clinically justify doing them. Yet unjustified arthroscopies could be wasting approximately $200 million annually in Australia (SP 5).

Hospital readmission rates are excessive and appear to be rising. (The uncertainty about whether rates are rising is a symptom of another problem — the difficulty in constructing meaningful performance indicators.)

GPs are the clinicians that Australians most frequently see and are highly trusted. They will often deal with people who have already acquired chronic conditions or have their time diverted readily into reassurance work — treating people who have minor ailments, many of which will would resolve without any treatment. Yet the aspiration for primary care is that GPs play a prominent role — within the broader, primary health care sector, in *preventing* chronic conditions. The Australasian College of General Practice has emphasised SNAP — smoking, nutrition, alcohol and physical activity — as key targets for preventative care. Yet most people in the SNAP categories have not had discussions with their GPs about preventative health, including those who are manifestly in the risk category, as in obesity. For instance, only about one in five obese people seeing a GP at least once in a year receive any advice in improving diet.

The uptake of technologies that could lower costs and increase convenience and quality has often been slow. Telehealth is still in its infancy, and restrictions in payment models frustrate its diffusion. More generally, the adoption of eHealth has had a protracted and troubled history in Australia that is only now beginning to be resolved.

The old chestnuts — the anti-competitive regulation of the professions and the incongruities presented by retail pharmacy regulations have proved resistant to repeated calls for reform.

CHANGE OFFERS SERIOUS GAINS

The imperative for policy action is justified on many counts. It will produce better health outcomes and wellbeing, provide more voice to and choice for patients, and result in greater efficiency (section 2.11 and SP 6). Deficiencies in the health system also rebound socially and economically. Ill health directly affects social and economic participation. For example, people in poor health are less likely to be employed, and tend to be less productive and work shorter hours if they are employed (SP 4).

Wasteful expenditure means that resources are being used in the wrong places to no or little effect on health outcomes. The scope for improvement is considerable, not least because some suggest that approximately 10 to 15 per cent of health spending is used inefficiently due to poor quality care. To put this in perspective, health care expenditure from public and private sources is estimated to be about $170 billion in 2015-16 — the equivalent to about 10 per cent of GDP. The implication is that every 1 percentage point reduction in spending achieved through removing waste amounts to a $1.7 billion benefit — and the gains on offer almost certainly exceed this. Given high average growth rates in health spending, the losses from waste and the unrealised gains to patients appear set to rise in the future. (Nominal health expenditure grew by nearly 7 per cent per annum from 2005-06 to 2015-16, faster than GDP growth.)

People in poor health are less likely to be employed, and tend to be less productive and work shorter hours if they are employed

2.2 The scope of this chapter

This chapter cannot realistically cover all of the obvious cracks in the system, let alone its numerous imperfect nooks and crannies. Instead, it concentrates on:

- systemic changes that encourage the system to focus on patients rather than suppliers
- structures and funding arrangements that will improve coordination of care, especially for people with complex and chronic diseases, but also with an eye to prevention for those at risk of developing such conditions
- funding arrangements that align with high value care
- ways of encouraging devolved innovation, experiments and diffusion of evidence-based healthcare and administration
- the adoption of new technologies and data sharing arrangements that support coordination, give people more control over their healthcare, and that removes redundant intermediaries in the system
- some neglected economic tools for addressing some lifestyle risks.

For those long active in health care, the familiar term that describes these desirable features is integrated health care (SP 5).

2.3 Towards better integrated care

Integrated care coordinates the actions of the multiple actors that affect a person's health needs (figure 2.2). It includes care managers, GPs and allied services, acute care services, local community groups, research institutions and even businesses lying outside the health system (such as supermarkets, whose actions have implications for public health). At the clinical level, this model of care is usually supported by information systems and incentives that are aligned to efficient service delivery (section 2.7). A key goal of an integrated care system is prevention of disease, and if it is present, to cost-effectively minimise its impacts on the person and society.

The international and Australian experiences with integrated care indicates that, if properly implemented, it leads to gains in health outcomes for patients, improvements in the patient experience of care, reductions in costs, and improved job satisfaction for clinicians (SP 5). Since hospitalisation is the single most costly and distressing part of the health system, effective management of people's conditions in the primary care system is a key element of integration. In 2014-15, over $62 billion was spent on hospital care nationwide, so even a 5 per cent reduction in hospital use would save more than $3 billion annually.

While Australia has been searching for a more coordinated system for nearly two decades, realising the goal has been elusive. This reflects systemic deficiencies in the structure of the health care system — its funding, governance, linkages, attitudes — that inevitably act as stumbling blocks.

Figure 2.2 The essential elements of integrated care

Person centred	Seamless lifetime care	Dynamic efficiency	Outcomes
Change in provider, funder and policy maker mindsets	Thick linkages across the health care system	Innovation	Improved healthy life expectancy
Health literacy	Links to public health and social capital	Systematic analysis of data to guide targeted and early intervention	Effective management of disease
Relevant information	A team ethos across clinical disciplines and administrators	Diffusion of evidence-based practices	Good patient outcomes from interventions
Self management	Incentives aligned to efficient, patient-oriented and quality care across people's lifetimes		Empowerment and good patient experiences
Accessible, high-quality services and choice	Data collection and management		Effective prevention
Shared decision-making	Clear governance and accountability arrangements		Value for money
	Enough time, dollars and supporting staff		

The solution is not to destroy the current system — a policy adventure with many risks and uncertain outcomes. Instead, there is scope to realise significant changes by adapting and extending features of the current system that are already, albeit in a nascent form, moving to an integrated patient-centred system.

One positive starting point is that all jurisdictions have made some progress towards a regional structure that could accommodate more integrated care. Primary Health Networks (PHNs) are private entities that have been contracted by the Australian Government to improve the efficiency and effectiveness of services and to coordinate patient care in their locality, including by working collaboratively with LHNs. For that purpose, the geographical boundaries of Australia's thirty-one PHNs are generally aligned with those of the LHNs in each state and territory. Creating a coalition of interest between these two entities to improve population health is a central plank in creating an integrated care system in Australia.

2.4 Regional flexibility is critical

Integration of care is *generally* best managed regionally. This reflects many factors.

In its consultations, the Commission was told that cultivating relationships between hospitals and GPs is critical — especially ones who are receptive to new models, who can then act as trusted agents for change within their professional community. How to engage will change over time and will vary between regions, depending for example on the dynamics of the GP sector.

The task of engagement is probably best undertaken by PHNs, whose prime responsibility is to seek best practice in primary care. GPs are often overstretched, reflecting large patient caseloads, paperwork, training of new staff, and professional development. Long hours and stress are commonplace among GPs. Any proponents of new models of care must therefore credibly demonstrate clinical gains, while not adding to GP workloads. In the Hunter Diabetes Alliance (a successful integrated care initiative), all physicians found the experience positive (SP 5). Expanded initiatives would need to sustain that result.

Health needs vary across regions, with a need for custom-made variations in the allocation of resources. While resourcing for regional variations in care can still be funded centrally (as is the case for the Australian Government's recent funding of suicide prevention in 'hotspots' around Australia), flexibility at the regional decision-making level uses local information better and is more adaptable. For example, in an area where there are concentrations of older people, dealing with falls and loneliness — both associated with avoidable hospitalisation and low wellbeing — would be a higher priority than areas where the average ages were much lower. Diabetes rates (and associated dialysis rates and limb amputations), heart failure admissions to hospital, obesity levels and smoking rates demonstrate large variability across regions. A prescriptive approach to the management of regional health institutions, for example PHNs, will undermine the capacity to respond to the needs of populations in different regions.

Regional flexibility gives permission for experimentation. The international evidence shows there is no best single model of integrated care, and that therefore central governments should step away from prescriptive rules about how it is delivered. There are many examples of innovative initiatives at the regional level in Australia and in other countries, including the potential role of using 'carrots rather than sticks' to encourage people to manage their health (chapter 8 in SP 5).

Of course, experimentation should not be arbitrary as there are common features to effective models of integrated care (illustrated in figure 2.1). That means setting up sensible structures — like compatible eHealth systems and shifts away from fee-for-service — but otherwise letting the regional actors make the decisions and be *accountable* for them.

Devolution to the regional level can also partly address the perpetual contest between Australian, State and Territory Governments about the role of the central government in orchestrating the system. A regional approach would be a more tractable way of bringing the disparate sources of government funding (and their assorted baggage of rules and demands) into a coherent package aimed at health outcomes — an issue discussed further below. PHNs and LHNs would reach agreements that would offer greater certainty over periods that could span several different governments at the Australian and State and Territory level. This is important because the transition to an integrated system of patient care is an ongoing, long-term endeavour that must continuously respond to changes in patient needs and technologies.

Some PHNs and LHNs have worked together to deliver integrated health — and where they do they have proved effective for improving the coordination of care. For example, the Hunter Diabetes Alliance brought together a multidisciplinary team of health professionals to manage patients' type 2 diabetes. After being in the program, there were large improvements in exercise rates, better medication management, weight loss, improved self-management and lower glycated haemoglobin levels (the key measure of longer-run adverse outcomes like coronary heart disease). And it cost less.

However, such partnerships are rare in Australia, a consequence of relatively weak financial incentives, underdeveloped governance arrangements for their universal adoption and (based on feedback from stakeholders) insufficient funding of PHNs for them to achieve their goals.

Where such partnerships have deepened over time, whether in Australia or elsewhere, they have been characterised by formal linkages including, for example, common strategies expressed in memorandums of understanding and joint boards. To move in that direction, PHNs and LHNs should keep each other informed about their activities in prevention, early intervention and chronic disease management and explore options for formal linkages.

Devolution has its limits

While devolution and links between primary care and hospitals are probably the most important directions for the Australian health system, some functions require coordination and cooperation across regional boundaries, or exhibit significant economies of scale — which means they are best left at the national level. Examples include the centralised purchasing of pharmaceuticals, the assessment of the safety of new technologies and drugs, hospital organ donation, pricing under activity-based funding and the activities undertaken by the Australian Institute of Health and Welfare and the Australian Commission on Safety and Quality in Healthcare.

2.5 Funding models are problematic

Australia's fragmented funding and governance systems for healthcare — which largely reflects Australia's federal system and its hybrid private-public nature — work against achieving the best outcomes for a given overall expenditure.

The policy response to the problems posed by fragmentation has been one of pragmatic incrementalism, which has sought to improve the quality and efficiency of the system within its own limits, rather than to start again. A lot has been achieved this way, but key providers (predominantly hospitals and GPs) still make decisions that determine the level of expenditure under other budgets, such as the Pharmaceutical Benefits Scheme and diagnostics, but without the financial incentives to contain any unwarranted spending.

There is a need to create better structures and new incentives that promote efficient prevention and chronic illness management throughout the health system. That requires communication, data, clinician buy-in, agreement on goals, coordinated care and funding systems that at least do not discourage a 'whole of health system' perspective.

The current system is like a house built on a financial framework that encourages activity (perhaps often desirable activity, but uncoordinated nonetheless), not outcomes, with makeshift extensions that try to address these perverse incentives:

Fee-for-service is the dominant payment for primary care. It encourages efficient throughput, but does not reward successful efforts at preventing chronic conditions, or stopping people from entering the hospital system. The Australian Government has attempted to overcome some of these incentives with special Medical Benefit Scheme (MBS) payments oriented at preventative health and the better management of specific chronic conditions. There are over 40 separate MBS items devoted to this role (in areas as diverse as screening for cervical cancer, asthma and diabetes management, care planning, case conferences, medication reviews, and preventative health assessments). However, these extensions to the system are relatively narrow in their focus and are inflexible. Some — like those covered by the so-called Practice Incentives Program — have proven notoriously complicated.

Likewise activity-based funding of hospitals — a relatively new model for funding hospitals — has improved their efficiency. However, this funding model means that the LHNs at the state and territory level that run hospitals are penalised if they use some hospital funding to prevent people from entering the hospital system (box 2.1). Even activities arising from hospital-acquired complications can be remunerated (which is currently being partly addressed though funding changes). LHNs cannot, *by law*, fund GPs directly (SP 5). They must instead discover novel ways of assisting general practices to reduce hospitalisations, such as funding a nurse practitioner in a practice.

Private health insurance is highly regulated — with many of the most significant rules stemming from the overarching principle of community rating, which, unlike orthodox insurance products, sets premiums that are unrelated to the claim patterns of the class to which a person belongs. Accordingly, a person aged 70 years old (who has higher than average claims) will pay the same premium as a person aged 20 years (who has low average claims). 'Risk equalisation' underpins community rating by requiring that insurers with healthier members bear some of the costs of insurers with greater representation of less healthy people. While this may be equitable, it has the serious disadvantage of lowering the incentive to invest in preventative care, because any gains made by one insurer are shared with the others. Where insurers are investing in prevention, they could readily lose 50 cents for every dollar of benefit they obtain from avoiding health care costs, which must weaken the commercial viability of such actions.

In other words, Australia's messy suite of payments are largely accomplices of illness rather than wellness, only countered by the ingenuity and ethical beliefs of providers to swim against the current.

The current system encourages activity not outcomes

Box 2.1 Do good — lose money

In Western Sydney, the local hospital network created a team of specialists to work with GPs to improve the management of patients with chronic diabetes. Early indications are that patient outcomes are improving in terms of reductions in blood sugar levels, weight and blood pressure. The LHN's expenditure on the program was not considered an 'activity' that attracts funding under its activity-based hospital budget. To maintain the program, the LHN had to rely on the temporary injection of funds under the NSW Government's integrated care demonstration scheme. Further, the LHN anticipates that rolling out the scheme — and expanding it to include health literacy education in local communities — will lower the rates of hospitalisation for diabetes, resulting in a reduction in its activity-based funding.

While the Western Sydney LHN expressed a commitment to improving patient outcomes despite the risk of reduced activity-based funding, this is not financially sustainable under the current funding system.

Changes to hospital funding

Hospital funding needs to create incentives to cost-effectively avoid hospitalisations through investments in public health and in community and primary care.

There are several options for reform, all involving some common issues. It is useful to outline one possibility because it exposes all the main issues. However, we would like to make one point emphatically:

Do not become mired in the specifics. If there are better ways of changing activity-based funding to give LHNs or PHNs the incentives to improve health status, and avoid hospitalisations, hospital durations and other health care costs, then implement those.

One way of formalising a new approach would be to establish a Prevention and Chronic Condition Management Fund (PCCMF) in each local health district, with the Australian Government and the relevant State or Territory Government providing funding equivalent to a modest share (initially say, two to three per cent) of current activity-based funding.

The LHN in each district would decide how and where to spend funds from the PCCMF. There should be few restrictions on the types of investments made by LHNs and they should be given autonomy in decision-making. For instance, if low-cost community initiatives to reduce loneliness among older people improved their wellbeing, and reduced the need for interactions with the health care system (for example, reduced hospitalisations), then this would be an attractive intervention.

LHNs should also be given assurance of the continuity of payment into the PCCMF for a given period (say five years). This would provide them with a capacity for longer-term planning on projects, and for alliances with partners that would realistically need to ensue for more than a period prescribed by the Australian or a State or Territory Government. The scale of the PCCMF could be increased on an LHN-by-LHN basis after demonstration of their effectiveness in achieving outcomes.

The returns from reduced activities would need to be sufficient to recover governments' investments, thus lowering overall future activity-based funding commitments (with service agreements underpinning this). Any gains over the minimum returns specified in the performance agreement would be kept by the LHN for future investments. Accountability would stop with the boards of LHNs (who can be dismissed for under-performance by their State and Territory Government 'shareholders').

From the perspective of current activity-based funding, the model is new, but not revolutionary. It would simply create a new compensable non-admitted hospital activity — preventative care and chronic condition management, accompanied by limits on allowable expenditures, expectations about outcomes, and significant freedom by LHNs about how to manage the PCCMF.

PCCMFS WOULD BE ABLE TO FUND INNOVATION AND COLLABORATION

Beyond funding already-established effective approaches for preventative care and disease management, another goal of the PCCMF would be to allow experimentation and hard-headed testing of new approaches (SP 5). Some LHNs would run trials by themselves, across regions with other LHNs, and with PHNs. *When resourced properly — as we propose below — PHNs would be natural partners with LHNs because of their understanding of primary care and their agility.*

Other more novel approaches using the PCCMF could involve LHN collaboration with parties that are often ignored in health care initiatives — social entrepreneurs in the not-for-profit sector, community groups, local governments, health insurers and businesses. For example, on the latter score, there can be an alignment of incentives between employers aiming to improve the health of their workforce and LHNs/PHNs looking to promote community health. Equally, businesses can contribute as corporate citizens — providing commercial expertise, networks and services. In some local communities, there may be a need for new workforce strategies (for example, developing the Indigenous health workforce in regional Australia), which LHNs and others may foster. Social entrepreneurs — now often in collaboration with commercial entities — can generate ideas and deliver services in different ways. While their primary orientation has historically been in the social welfare and education arena, they are increasingly active in endeavours that have direct or indirect links to community health.

Collaborative ventures can also be attractive because they are able to target broader community issues that have health care benefits (such as homelessness, out-of-home care, domestic violence, and improved parenting), with parties bringing expertise or funding in alignment with the benefits they anticipate.

There may be instances where bolder experiments, such as social impact bonds (SIBs), may be relevant. SIBs are complex, can be costly, and do not always work, but they force participants to collect the evidence and monitor outcomes, offer the scope for innovative solutions, and even if they fail, can be a major source of learning. In the United States and the United Kingdom, they are increasingly seen as promising in health care applications. Health-connected SIBs are in the pipeline for chronic disease in New South Wales, mental health in South Australia, and drug and alcohol abuse in Victoria. In later 2017, the NSW Government will commence the Resolve program (funded using a SIB) to provide care for people with mental illnesses, partnering with Social Ventures Australia and a not-for-profit provider, Flourish Australia, with $7 million in total committed over a 7 year period. If permitted to build the capabilities and the license to act, LHNs could potentially act as equity holders or as project initiators of SIBs without necessarily needing authority from a state government.

LHNs might adopt various governance models for experimentation, including a separate arm free from the daily business of running major hospitals, but in all cases, there would be a need to demonstrate impact through evidence.

Changes to primary care funding

One US economist reached the acerbic judgment that all the simple payment methods are bad:

> ***There are many mechanisms for paying physicians; some are good and some are bad. The three worst are fee-for-service, capitation, and salary. Fee-for-service rewards the provision of inappropriate services, the fraudulent upcoding of visits and procedures, and the churning of "ping-pong" referrals among specialists. Capitation rewards the denial of appropriate services, the dumping of the chronically ill, and a narrow scope of practice that refers out every time-consuming patient. Salary undermines productivity, condones on-the-job leisure, and fosters a bureaucratic mentality in which every procedure is someone else's problem.*** *(Robinson 2001, p. 149)*

The evidence suggests that while Robinson's assessment is too bleak, his proposal to implement mixed payment systems has merit. One such model would maintain fee-for-service as a major portion of GP revenue, combined with risk-adjusted capitation payments. This would ensure GPs retain an incentive to provide necessary services via multidisciplinary teams, while gaining an incentive to play a greater role in preventative health and management of chronic conditions. Finding an effective mix may require some experimentation and may vary between regions, which is the advantage of running trials, and suggests leaving open the scope for regional health entities to develop funding variants.

More flexible funding pools and partnerships at the regional level are also needed to give general practice and other health professions working with them the scope to adopt more innovative models of care. LHNs should be given the legal capacity to fund GP practices to undertake specific tasks (which they are currently not able to do), including for GPs to work with hospitals to better manage the care of patients with complex and chronic conditions. Funding might also be directed at allied professionals, who have a smaller scope of practice than GPs, can have lower caseloads and therefore may be more available for rapid professional development. PHNs and LHNs should take a collaborative approach, underpinned by MOUs and joint governance arrangements to any commissioning by LHNs of primary care services. Otherwise, there would be a risk of multiple coordinators of care working against each other. The introduction of performance indicators by their respective funding sources may be required to ensure that PHNs and LHNs do work in partnership. State governments might also elect to implement their policy objectives at a regional level by funding PHNs directly. Regular meetings between PHNs and the Minister for Health in New South Wales illustrates the structural shifts that are already occurring in this space, laying the foundation for states to inject funds into PHNs.

Under a regionally-based integrated care model, MBS funding would continue, but its role would generally diminish as PHNs and LHNs sought other ways to remunerate GPs for clinical outcomes, or for processes that have a strong link to good outcomes.

There are two broad caches of Australian Government funding that would need to fit into any genuinely integrated system:

- **(a)** MBS payments aimed at preventative health and chronic disease management, including the Practice Incentives Program, soon to be adapted to the more streamlined PIP Quality Improvement Incentive
- **(b)** funding of the impending Health Care Homes program.

The two are chalk and cheese in their conceptual underpinnings.

THE MEDICAL BENEFITS SCHEDULE IS A NECESSARY EVIL UNDER FEE-FOR-SERVICE

Once medical professionals are paid on a fee-for-service basis, a funder must tell them what they can be paid for, especially when the patient does not bear the full costs and is often ill-informed about the value of the service. Hence, Australia has a long list of closely defined compensable activities, accompanied by bureaucratically-determined prices that are generally fixed across the country — the MBS.

As will always be the case with even very long lists of this kind, they will still fail to cover all the activities that a clinician might reasonably undertake in a genuinely integrated system, and can be slow to adapt to technological developments.

The introduction of telehealth provides a good case study. Prior to mid-2011, MBS payments for telehealth were restricted to tele-psychiatry and tele-radiology. This was subsequently broadened to many more services, but the payment is still restricted to regional areas, must include video (that is, telephone services are not permitted) and are for specialists' advice, not for GPs (except when at the patient-end in a supported consultation with a specialist). However, as discussed in chapter 4, being in a big city does not guarantee low travel times or travel costs. And many people still feel discomfort in physically travelling to a practice. Accordingly, in principle, telehealth services should extend to metropolitan areas, as some insurers have argued. The 'internet of things' has also opened up the possibility of remote sensing of patients' health status.

There is no *conceptual* argument against providing treatments using the best enabling technology. Remote provision of medical treatment is not really as novel as it looks. Nearly all pharmaceutical products are delivered remotely, that is, the consumer is in control of the treatment without any present physician (even though medication compliance is often poor). The major potential drawback of telehealth is over-servicing and fraud. Those risks arise in any fee-for-service model (though whether the risks specifically for telehealth outweigh the benefits is insufficiently researched, and could be assessed).

Regardless of whether the Australian Government decides to list this or other new ways of engaging with patients, preventing ill-health or managing chronic conditions, its permission will often come late or fail to take account of local context or capabilities. One of the advantages of PHNs and LHNs as regional decision makers is that if they expect good outcomes, they can fund delivery mechanisms that are not (yet) Medical Benefit Schedule items.

Accordingly, while a Schedule of some kind must remain in any model with a fee-for-service component (which the Commission supports), it does not have to extend as far as it does. Instead, just as the Commission proposes that LHNs obtain access to a pool of funds that they can use to buy prevention and integrated care, so too should their regional primary care counterparts. Accordingly, the Australian Government should allocate the principal MBS payments oriented to preventative care and chronic condition management to PHNs. This has already been done for some mental health services through the creation of the Primary Mental Health Care flexible funding pool. In moving in this direction, the Australian Government observed:

> ***To successfully deliver a stepped care model it must be recognised there are individual needs and challenges that are specific to communities that do not always fit the one size fits all model of service delivery run from Canberra.*** *(Ley 2015)*

HOW DO HEALTH CARE HOMES FIT INTO THIS FUNDING PICTURE?

The need for an organiser of coordinated care has given rise to the notion of general practices as so-called medical 'homes' (and in its recent Australian manifestation, Health Care Homes). It is not a new idea, but originated in the United States more than 50 years ago for paediatric care. The 'home' is not, as the name unfortunately implies, a residential facility, but a place to go for a person's medical needs. Its function is ambitious:

> ***... the patient-centered medical home integrates patients as active participants in their own health and wellbeing. Patients are cared for by a physician who leads the medical team that coordinates all aspects of preventive, acute and chronic needs of patients using the best available evidence and appropriate technology. These relationships offer patients comfort, convenience, and optimal health throughout their lifetimes.*** *(American Association of Family Physicians from Brooks 2010, p. 1)*

The Australian Government is trialling coordinated care through a variant of the health care home concept — with patient enrolment beginning with 20 practices in October 2017. The name is different, but these resemble many aspects of the coordinated care trials of the late 1990s and early 2000s (SP 5). In Health Care Homes, the GP acts as a health care navigator (often with the aid of a nurse), who helps a patient to develop a care plan and then provides or arranges for the bundle of care according to the care plan.

The Health Care Home model does not impose MBS-like restrictions because it is funded by a capitation payment system, leaving physicians free to decide how to deliver preventative and chronic illness management services. It might be a standard visit, a case conference, a home visit, an SMS, a phone call, an emailed online link, a mobile phone videoconference, or remote telemonitoring, to name a few possibilities. On face value, telemonitoring of vital signs appears to have good potential for lower-cost management of chronically ill patients. A one year trial of telehealth undertaken by CSIRO found about a 45 per cent reduction in MBS expenditures, a 25 per cent reduction in Pharmaceutical Benefit Scheme spending, a 50 per cent reduction in hospitalisation (and shorter stays if admitted), and more than a 40 per cent reduction in mortality (Celler et al. 2016). Most clinicians involved supported it.

New approaches to delivery of health care in health care homes might be initiated by the GP, but carried out by a nurse or some other person. No forensic search for a compatible MBS item is required. There is little incentive for a clinician under a health care home model to over-service (indeed, the concern is the opposite — hence the concept of blended payments discussed above).

While the Australian Government's Health Care Homes program gives GPs a large amount of freedom about how to deal with patients with chronic health conditions, some key aspects of the model are set at the national level, such as the regulated payment levels for the three allowable risk categories of patients. There is a tension between this prescribed payment structure and regional flexibility. Fixed structures preclude regional decision-makers from varying the categories and the payment structures that they find more effective. In any case, patients do not come in three sizes alone.

The 2016 COAG agreement on public hospital funding left open — albeit vaguely — a role for State and Territory Governments in participating in Health Care Homes. State and Territory Governments are partners in Health Care Homes in that they have agreed to form bilateral agreements with the Australian Government about how Health Care Homes will work in the relevant regions in their jurisdictions.

However, the content of such agreements is very loosely defined — it *may* include *elements* involving coordinated planning, blending funding and collaboration between LHNs and PHNs *where feasible*, with the possibility that after the trials have been completed that there *may* be 'collaborative, joint or pooled funding arrangements'.

We propose a more concrete framework. It is critical for the effectiveness of health care homes that they collaborate with LHNs as well as PHNs. The new funding model for regional bodies recommended by the Commission will facilitate that — including by allowing LHNs and PHNs to participate in formal alliances to make additional financial or in-kind contributions to Health Care Homes. At the very least, LHNs can share the patient data needed to stratify patients according to their need and to otherwise support patient management by health care homes. If necessary, the performance indicators of LHNs should require that such data sharing takes place.

Given that 180 of the 200 proposed health care homes will not be in place for some time, it would be desirable to move away from the prescriptive nature of the current pricing regime for health care homes to the pooled funding model above (or to allow a certain number of the proposed health care homes to move in that direction).

The Australian Government's version of the medical home relates only to patients with chronic and complex conditions. The rationale for this is that these are the highest-cost patients in the health care system, and that better management can improve their lives and potentially reduce costs. However, a preventative care model would ideally also provide capitation payments for people who are at clear risk, but have not yet acquired a chronic condition. Notably, for every 100 adults already with type 2 diabetes, there are an additional 20 who have just developed the condition, and another 100 who are at high risk.

This is not a decision that the Australian Government is best placed to make. An alternative approach would be to allow PHNs and LHNs to co-design the form of the integrated health model for their communities, and leave it to them to decide the scope of patient types enrolled into the health care homes (and the funding arrangements that underpin this). Relationships of LHNs with health care homes should extend beyond funding. The goal would be that all the main entities involving regional health care — PHNs, community health centres, LHNs, local governments and not-for-profit organisations could collaborate in any activity that had promising outcomes for people.

Of course, any such collaboration must involve clinicians — and given their key role as gatekeepers — especially general practitioners.

Recommendation 2.1
IMPLEMENT NIMBLE FUNDING ARRANGEMENTS AT THE REGIONAL LEVEL

The Australian, State and Territory Governments should allocate (modest) funding pools to Primary Health Networks and Local Hospital Networks for improving population health, managing chronic conditions and reducing hospitalisation at the regional level.

HOW TO DO IT

Set aside a small share (say 2 to 3 per cent) of activity-based funding to hospitals to create a Prevention and Chronic Condition Management Fund (PCCMF) for each Local Hospital Network (LHN) to commission activities that improve population health and service quality, or reduce hospitalisations and broader health expenditures.

Where they are directly related to prevention and management of chronic conditions, allocate the expected funding from the Practice Incentives Program and other Medical Benefit Schedule items to Primary Health Networks (PHNs) in each region.

Give LHNs autonomy about how they spend from their PCCMF (including a license to fund innovations) and give them certainty over future funding contributions to allow planning.

Assess the returns from PCCMF investments. Let LHNs retain some of the returns from PCCMFs, with the remainder shared among Australian, State and Territory Governments.

Disseminate the lessons from effective interventions funded through PCCMFs to other regions.

Ensure formal collaboration between LHNs and PHNs to improve population health and the effectiveness and efficiency of primary health care. Where relevant, involve other regional groups with capabilities in managing population health, including Local Governments and community organisations.

The Australian Government should allow LHNs to commission the services of GPs by amending section 19 of the *Health Insurance Act 1973,* with the proviso that the LHNs operate in formal agreement with their region's PHN. The Australian Government should also remove any administrative constraints on PHNs allying with LHNs to commission GP services.

Amend the Australian Government's prospective Health Care Home model so that LHNs and PHNs can introduce local variants, with supplementary funding and design features determined by them through collaboration.

Clinician buy-in is essential to achieving change and will be led by PHNs, which have often built good relationships with local leaders.

Further details are in Conclusions 6.1, 6.2 and 6.3 of Supporting Paper 5.

Removing some shackles from private health insurance

As noted earlier, like all the other actors in the system, private health insurers face mixed incentives to encourage preventative care.

There are several options for addressing the current deficit in risk equalisation, including a prospective system (as used in the Netherlands) in which transfers between the funds reflect the differences in expected claim costs, rather than ex post claims. Another option might be the rigorous independent assessment of the net benefits of private insurers' Chronic Disease Management Programs (box 5.1 in SP 5) with these benefits being largely quarantined from risk equalisation.

A further option, which would require a less significant (or no) overhaul of risk equalisation, is a cooperative approach by insurers to manage chronic illness. This would reduce free riding. Under current policy settings, private health insurance premiums have been rising at rates well above the CPI, and for the first time in 15 years, the proportion of the population covered by private health insurance has fallen. It is in all insurers' interests to reduce those pressures. It may be feasible to develop some common approaches to reduce claims through better management of chronic conditions, even if the strategies are executed differently from fund to fund. The high cost of prostheses and the strategic activities of public hospitals to switch patients admitted into emergency departments to privately-insured status have also been important drivers of premiums, although policies have changed recently to reduce those pressures.

Funding of quality in an integrated system

While the above policy changes would help to finance initiatives that reduce hospitalisations and other health care expenditure, safety and quality in healthcare are sometimes tenuously linked to funding. As discussed earlier, many costly and intrusive medical interventions lack compelling scientific justification. The funding of 'never' events has just been removed (outcomes that should never have happened, like leaving surgical instruments inside a patient). There are also tentative steps at defunding the activities that ensue from hospital acquired complications (HACs), and for providing information to clinicians about their outcomes compared with peers, recognising that information has independent impacts. (Private health insurers are being far more active in this area than public sector purchasers, though this is being met with considerable resistance from private hospitals.)

We have been told by stakeholders that specialists highly value their reputation for clinical proficiency among their peers. The recommended introduction of PCCMFs should also help contain HACs, since the LHN would now have an incentive to limit costly activities.

Some care is needed in defunding activities associated with HACs because they can sometimes arise without any deficiencies in the practices of hospitals and medical professionals. Given the current reform agenda, the best policy is monitoring of progress in containing HACs and identifying the approaches that have been most effective in achieving this.

Progress to limit low or no-value services has been slow. For instance, the evidence that arthroscopy for knee osteoporosis has no or low value in the bulk of instances has been known for more than a decade. Yet in Australia the relevant standard (issued by the Australian Commission on Safety and Quality in Health Care or ACSQHC) is merely advisory, noting that knee arthroscopy 'is costly, may cause harm, and has repeatedly been shown to bring minimal benefit to patients with osteoarthritis, and yet it remains a common form of treatment'. As an advisory, the standard could be ignored without query by any standards body.

Arthroscopy for knee degeneration is just one of many costly treatments lacking an evidence base or that do not pass a cost-effectiveness test. In Australia, approximately 75 per cent of acute bronchitis is treated with antibiotics, when the evidence suggests that the rate should be near zero. The Australian Atlas of Healthcare Variation shows large differences in the prevalence of many treatments across 309 statistical areas in Australia, which cannot be explained by differences in population health.

There are too many unjustified medical procedures

For example, there were approximately 27 500 hospitalisations for hysterectomy for women aged 15 years and over without a diagnosis of gynaecological cancer. The rate per 100 000 women aged 15 years and over varied from 115 to 763 across Australian statistical areas. Rates were higher for regional Australia and areas of higher socioeconomic disadvantage. The Australian Commission on Safety and Quality in Health Care noted that the variations could reflect lack of facilities and training of physicians about other effective, much less intrusive, methods of treatment than major surgery. And to complete a bad picture, Australian procedure rates are markedly higher than other comparable OECD countries.

One surgeon has puzzled over why low-value care persists:

> ***To deliver a do not do procedure a medical practitioner must first be credentialed, have a defined scope of practice and operate within their clinical team alongside support services and the governance structures of an organisation. Start counting how many people are involved. Therefore, the question we should be asking is: how is it possible for inappropriate care to occur? And what systems level agreements perpetuate this situation?*** *(Ibrahim 2015, p. 162)*

Several factors are likely to be at work.

One is that many practices in any profession becomes customary, even as evidence slowly undermines their legitimacy. A leading Australian orthopaedic surgeon is sceptical of a range of commonly performed orthopaedic procedures, including knee arthroscopies. He observed:

> ***I am not suggesting that surgeons are recommending operations knowing that the potential risks outweigh the potential benefits. Largely, surgeons believe that they are doing the right thing, but often they are not aware of the strength (or weakness) of the supporting evidence or, what is more often the case, there is simply no substantial or convincing scientific evidence available. Without good scientific evidence, surgeons perceive the procedures they recommend to be effective – otherwise their colleagues wouldn't be doing them, right? Put simply, a lack of evidence allows surgeons to do procedures that have always been done, those that their mentors taught them to do, to do what they think works, and to simply do what everyone else is doing.*** *(Harris 2016, pp. 1–2)*

Another is patient expectations. Survey data from the United States suggest that more than 50 per cent of physicians acquiesce to patient requests for unnecessary medical practices. It would be surprising if this were a US peculiarity, and indeed some Australian clinicians freely admit they face the same dilemma. In the case of hysterectomies cited above, the ACSQHC considered that patient expectations, preferences and health literacy played a role in the variations (as well as clinicians' skills and preferences).

Some have suggested that the persistence of low value interventions can be ascribed to decisions by clinicians to recommend procedures that raise their incomes. There is little evidence that this is a major factor. It could not explain the large geographical variations in procedures.

Physicians sometimes acquiesce to patient requests for unnecessary medical practices

There are several initiatives that could reduce low value interventions. One is the faster development of clinical standards and 'do not do lists' by the ACSQHC, with transparency about deviations from best practice, and dissemination of best practice among clinicians (which could also entail targeted approaches for those clinicians who appear to be overusing a procedure). Australia could readily draw on comprehensive assessments of low-value procedures from overseas institutions like the United Kingdom's National Institute for Health and Care Excellence. Education of patients is a second step as misperceptions about medical interventions can drive demand. Health literacy also enables patients to seek explanations from a clinician about the treatment being suggested. Finally, where there is clear evidence of lack of efficacy or cost effectiveness, and the circumstances where this occurs can be reasonably specified, treatments should no longer receive public funding.

The policy issues related to low-value surgery funded by private health insurers involve similar issues. Given spiralling costs, insurers have incentives to inform consumers about low-value care and to exclude cover. However, consumers are not well-informed and thus may continue to demand cover for low-value procedures, with private insurance a dominant funder of certain low-value procedures. (80 per cent of knee arthroscopies are in the private sector). The justification for the Australian Government's private insurance subsidies is weak for services that would (or should) not be supplied by the public system. It may be that this issue will vanish if clinicians adhere more stringently to medical guidelines. If not, it suggests that certain surgical services funded by insurers should be ineligible for the tax rebate.

Taxpayers also provide subsidies for ancillaries funded by private health insurance. Ancillaries cover includes services that have no proven efficacy, such as homeopathy, usually delivered by practitioners without any recognised medical qualifications. It is questionable whether items that have no efficacy should receive any effective support by taxpayers. Removing the taxpayer subsidy for ancillaries would resolve this problem. In any case, such a policy shift is justified because the subsidies relate primarily to services that insurance holders would be ineligible to receive through the public system.

Recommendation 2.2
ELIMINATE LOW-VALUE HEALTH INTERVENTIONS

Australian governments should revise their policies to more rapidly reduce the use of low-value health interventions.

HOW TO DO IT

More quickly respond to international assessments indicating low-value medical interventions.

Create more comprehensive guidelines and advisory 'do not do' lists.

Disseminate best practice to health professionals, principally through the various medical colleges, the Australian Commission on Safety and Quality in Health Care and similar state-based bodies.

Collect and divulge data at the hospital and clinician level for episodes of care that lead to hospital-acquired complications and for interventions that have ambiguous clinical impacts (such as knee arthroscopies).

Provide accessible advice to patients about potentially low-value services and improve their health literacy using the measures covered by Recommendation 2.3.

Ensure that ongoing processes for reviewing existing Medical Benefit Schedule items are more rapid and comprehensive than occurred under the arrangements prior to the Robinson Review.

Give priority to de-funding interventions that demonstrably fail cost effectiveness tests, moving from volume to value.

Remove the tax rebate for private health insurance ancillaries.

More details are in Conclusion 7.1 of Supporting Paper 5.

2.6 Governments need to commit to a patient-centred approach and measure their achievements

Health care is still too supplier-centric and its payment structures and information provision are only slowly moving away from this model. When the UK television program, *Yes Minister*, characterised an efficient hospital as one without patients, it was clearly a satirical caricature. However, it still has some resonance because while patients are *in* the health system, few would argue that they are near its centre yet.

Evidence on patient experiences provides startling incidents of inadequate communication between clinicians and patients. In 2015-16, among those who saw three or more health professionals for the same condition, one in eight reported that there were issues caused by a lack of communication between the health professionals, and this was worst for those who were least healthy (more than one in six).

In Queensland emergency departments, only 46 per cent of people were fully advised about the side effects of new medications, and 80 per cent were not advised about how long they might wait to be examined. The same survey found major differences between regions across all dimensions of the `experience of care. For instance, full advice about side effects varied from 61 to 32 per cent across the best and worst performing Queensland hospitals, while the share of people who said that health practitioners talked in front of them as if they were not there varied from 4 per cent to 23 per cent.

While most Australians can get access to clinicians, about 16 per cent of patients considered that they waited longer times than acceptable to get an appointment with a GP, and this was nearly 25 per cent for specialists.

The use of telehealth for just 10 per cent of consultations would save over $300 million annually in travel and waiting times

Waiting has another much overlooked dimension too. Most people say that being seen by a GP at the appointed time is very important. While it may seem that the costs of waiting in a waiting room are trivial for any given person, the cumulative effects of waiting times in doctors' offices is likely to impose costs on Australians of approximately one *billion dollars* annually — testimony to the millions of physicians visits (SP 5). The use of telehealth for just 10 per cent of consultations would save over $300 million annually in travel and waiting times. Even when waiting is unavoidable — as it is any customer service industry — waiting rooms could be used as a place for community health initiatives about risks. For example, this could include the simple Chronic Obstructive Pulmonary Disease COPD Assessment Test and the Royal Australian College of General Practitioners' Family history screening questionnaire. The use of rooms for such purposes seems to be rare.

Australian doctors are, by international standards, less receptive to patients' capacity to access their own medical records. To illustrate, an international survey found that 16 per cent of Australian doctors said that patients should have no access to their own medical record.

In other respects, most patients have a reasonably high regard for their doctor's interactions with them. Patient survey evidence indicates that about 75 per cent of patients thought that GPs always listened carefully, while only about one in twelve considered that their GP did this 'sometimes, rarely or never'. Perceptions of respect were also generally positive (with 80 per cent saying their GP always showed respect). Outcomes were similar for specialists. However, people who had the highest level of socioeconomic disadvantage and the worst health status fared least well on most of these measures, which is a concern since they are the most vulnerable. It is also notable that the share of dentists who 'sometimes to never' respected, listened or gave enough time to their patients were 40 to 60 per cent lower than GPs and specialists.

Overall, the evidence suggests that Australia has not moved sufficiently to a patient-centred model across key parts of the health care system. There needs to be acceptance by all the actors in the healthcare sector of a premise that patients are the centre of the system in the same way that disability care has shifted. The American cardiologist and geneticist, Eric Topol captured the essence of the idea in the title of his book on the topic: *The Patient Will See You Now*.

'Patient-centred' care gives prominence to the preferences, needs and values of consumers. In a better system, patients' time would be recognised. Patients would be given the information and power to be co-contributors to treatments and disease management. Medical records would be owned by patients and they would be able to add comments. The Commission sees such rights to data as a broad requirement across many public and private services. Where choice was feasible, it would be facilitated.

A patient-centred system must take account of patient's experiences and outcomes — an area where Australia lags. There are now well-established ways of assessing patients' experiences through Patient Reported Experience and Outcome Measures (PREMs and PROMs). These ask patients for their views about post-operative outcomes (say their capacity for doing everyday tasks after a knee replacement), distress, pain levels, time spent waiting, and the quality of communication, among other things. For example, it is common for people undergoing kidney dialysis to feel depressed, suffer pain and be chronically tired. Not measuring such patient experiences can forgo some clinical opportunities for improvement. Patient reports can be used to make systemic changes to clinical processes. Research shows it also leads to better clinical outcomes. Some jurisdictions are using PREMS and PROMs for some of their health services, but their adoption is in its infancy. There are existing tools that should be used for adopting PREMs and PROMs — there need not be any Koala variant.

A cornerstone of patient-centred care is knowledge about each person in the system. This is all the more important since a very few people can account for a large share of costs — so-called 'frequent flyers'. In New South Wales, one per cent of the population were admitted to hospital three or more times in 2012-14, accounting for 46 per cent of 7 million bed days. There are hotspots in use in other areas too. The Ambulance Service of NSW found that 10 people accounted for 1360 ambulance uses over the two-year period from July 2013. Case management of such high users to deal with the complex psychosocial and health issues that precipitated their service usage patterns has proven very successful in reducing (very costly) ambulance call outs.

Quite apart from the structural and attitudinal changes needed to the health system to respond better to patients, there is a glaring gap in peoples' capabilities for exercising more control — a lack of health literacy (SP 5). The majority of Australians have inadequate health literacy, and the share is greatest for those with chronic conditions. Even 40 per cent of people with a qualification related to health have inadequate health literacy. Poor health literacy has adverse effects on health outcomes, a reflection of a weaker capacity to self-manage care and to follow medication guidance. The immediate implication of such low levels of literacy is that clinicians must tailor their communication with patients. Several approaches for raising health literacy are promising, including regional initiatives that take account of the needs of local populations, improving the existing teaching of health literacy in schools, using settings where people are already unwell to improve their health understanding, and using My Health Record as a tool for raising literacy and for transferring accessible information suited to the person (section 2.7). My Health Record is also a natural vehicle for testing 'what works' in raising health literacy.

Overall, the evidence suggests that Australia has not moved sufficiently to a patient-centred model

Recommendation 2.3
MAKE THE PATIENT THE CENTRE OF CARE

All Australian governments should re-configure the health care system around the principles of patient-centred care, with this implemented within a five year timeframe.

HOW TO DO IT

Develop well-defined measures of people's experience of care and the outcomes they observe (so-called Patient Reported Experience and Outcome Measures — PREMs and PROMs), and integrate these into disease registries. The Australian Commission on Safety and Quality in Health Care should be the orchestrator of these developments.

Publish results so clinicians, hospitals and patients see how the system is working at a grass roots level.

Consult with consumer groups representing patients and with the various medical colleges to achieve acceptance of the new model and its implications for practices.

Improve patient health literacy to a level that far more people would have a capacity to self-manage chronic conditions, make informed end of life decisions, and be able to solicit from, and interpret information given by, clinicians (Supporting Paper 5).

Use My Health Record and other IT platforms to involve people in their health decisions.

Give people a greater capacity for making choices between alternative suppliers, underpinned by transparent measures of prices and performance.

Give greater weight to patient convenience, and develop and disseminate technologies that assist this.

Systematically include an understanding of patient-centric care in the education and training of new health professionals, and use the various professional bodies to disseminate an understanding of the issues to existing health professionals.

Use data analysis to identify very high service users across all major service types and discover the reasons for their high use (Recommendation 2.4). Use this to customise care plans and other targeted early interventions to improve their health status and reduce their use of services.

2.7 Information sharing can be akin to 'pinning the tail on the donkey'

Integrated and effective data and information systems are a critical element of an integrated system of care. The use of data in healthcare is not new. The clinical medical record has a long history dating back to antiquity, but the systematic use by clinicians of patient health histories (in paper form) commenced only in the early 20th century — and provided many benefits to patients.

What has changed is that information technologies have lowered the cost (and increased the speed) of dealing with data. IT has provided the *capacity* to collect, link, analyse, aggregate and store vast amounts of data on what is done to patients, who does it, billing, the performance of health providers, and to some degree, the outcomes for people of health interventions. IT also has the capacity to empower patients by giving them information about their own health and the performance of the clinicians and providers with whom they interact. Data can revolutionise research into 'what works'.

The OECD has characterised Australia as relatively poor in its capacity to collect and link health data

These aspirations have only been partially realised. The OECD has characterised Australia as relatively poor in its capacity to collect and link data. While a huge amount of data are collected, there are substantial gaps, a lack of integration and sporadic use. More than 40 per cent of GPs were unsatisfied with information about the patient's functional status on discharge from hospital (and as noted earlier, many do not even know a person has been to hospital at all). Clinicians may have access to systems that guide their clinical judgments or help them interpret a patient's record, but they do not always use them or have the incentives to do so. Systems may not be interoperable, even within the same hospital. Patients may not get access to their records, initiate the steps to do so, or understand their meaning.

Nor do current information systems provide consistent quality assurance at the site and clinical level. There are changes afoot — such as the Australian Atlas of Clinical Variations and initiatives like the NSW Agency for Clinical Innovation's Stroke Clinical Audit Process (SCAP). The latter is an exemplar of what data collection, analysis and learning at the site level can do. The SCAP was able to identify exactly what happened to patients when they were admitted to different hospitals with strokes, thereby isolating practices that should change (such as having a swallow test or providing an anti-thrombotic on discharge). Ideally, patient level data like this would be routinely collected at the hospital level for high-risk admissions, and would provide continuous feedback to hospitals so they can improve so-called 'decision support systems'.

General practice has engaged far more with information technology than others in the health care system. In June 2017, approximately 6100 general practices were registered for My Health Record, representing about 85 per cent of practices. While 96 per cent of general practitioners used computers for clinical purposes, prevalence rates for specialists (37 per cent) and surgeons (22 per cent) suggest that they cannot efficiently transfer information — a critical feature of integrated health. As one clinician remarked:

> ***I use a fax machine almost daily, as well as other arcane technologies, such as the pager that has to be carried around at all times. These rather quaint examples make for fun anecdotes to regale non-medical friends with, but they speak to something more profound: the generally abject quality of the communication tools employed by health care practitioners. This is especially clear in our handling of medical records. It's ironic, given that our profession takes so much pride in the ability to tell the story in a succinct and a systematic way, that we are so tolerant of platforms that obscure rather than illuminate the important points in a patient's history. Even within a single hospital network, the archive can be dense, chaotic and generally migraine-inducing. It's not uncommon to find a crucial operation report hidden among a dozen computer-generated data logs or lost at the end of a digital cul-de-sac.*** *(Dando 2017, p. 1)*

Overall, the dividends from good data management for patients appear to be high. Electronic medical records can reduce the risk to patient health of incomplete or inaccurate patient information — which results in up to 18 per cent of medical errors in Australia. Accurate information also reduces the risk of duplicating tests or of conflicting medical treatments. In Australia, medical tests are duplicated for about 10 per cent of adults with chronic conditions, thereby adding to costs without adding value.

The concerns about data extend beyond sensitive information on individuals. There are a maze of websites and agencies reporting health information across the various jurisdictions. All jurisdictions conduct regular surveys on population health risks and report regional results in their jurisdictions. State Government bodies also undertake patient experience surveys, typically using different instruments and covering different periods. There is no single place that even the aggregate results are available.

The Australian Government's open data portal (data.gov.au) includes a hotch potch of 'data' sets relating to health, many of which are lists of facilities by location (to name a few: ice skating centres in Victoria; playgrounds in the City of Greater Geelong, and the location of European Wasps in the ACT). The AIHW's list of data sources for monitoring health conditions only relates to national surveys. The difficulty of accessing data forgoes opportunities for richer analysis, including causal analysis of the factors that affect population health, benchmarks for performance at the regional level, and a greater capacity for testing the efficacy of some health promotion initiatives.

Many of these problems can be solved, although they require action on multiple fronts. The Commission undertook an extensive inquiry into *Data Availability and Use*, which sets out a comprehensive suite of policies that make data a useful asset — not just in health, but across the economy. That inquiry provides the roadmap for reform, including the need for more open data, and protocols that would allow the data to be linked and used for the public good, while addressing privacy concerns. Chapter 9 of SP 5 also outlines the multiple strategies needed to use data in an integrated system.

One sometimes overlooked issue is that the most elegantly designed information sharing and management system will not deliver its full benefits if clinicians and others do not enter reliable data or use it for managing the treatment of patients. That cannot be assumed. The Australian Government's Diabetes Care Project showed that provision even of a sophisticated information management capability for GPs was not used by those practices that did not also have incentives to provide special diabetes care. There are also unfortunate examples of online databases intended to provide patients with access to information about practitioners that are nearly empty of entries. Such online resources are only useful if maintained and reasonably comprehensive, and the benefits of doing that should be weighed up against the considerable costs.

The role of My Health Record

An effective My Health Record is an important foundation for an integrated health system. The introduction of an opt-out system (compared with the initial opt-in approach) will lead to nearly universal coverage of Australians, as very few people in the trial opt-out sites chose to opt out. Given high take-up by providers, there is some promise that My Health Record can provide a central, lifelong depository for each patient's medical records, regardless of provider, in an electronic format accessible by providers and patients.

There are compelling grounds to use My Health Record as a platform for providing clinically-proven advice to patients, rather than just as a method for collecting data for clinicians. For example, a person might be reminded of the potential need to have a vaccination or a screening test, such as a check for osteoporosis for post-menopausal women. The Australian College of Nursing supported a role of My Health Record as a source of information for self-care. The form of the advice that has the highest degree of compliance could readily be tested — the right words and the right technology (smart phone app, SMS, email, letter) — geared to the traits of the person. The clinician would ultimately be the decision maker (and their decision could be undertaken remotely in many cases). General practice could also receive online reminders. Currently, 56 per cent of Australian GPs say they routinely receive computerised reminders for guideline-based intervention or screening tests — though how often they act on these is not known.

There is some evidence of a lack of awareness by people of the potential uses of the Record. For example, only 971 people (0.002 per cent of registered users) had used My Health Record to lodge an Advance Care Planning Document, despite the relevance of such a document to all Australians. Clearly, communication of opportunity in data systems for patients is currently failing. This and other barriers will need to be overcome (section 3.2 of SP 5).

2.8 Disseminating best practice

Inertia is a characteristic of many parts of life — in business, government, in ordinary people's lives (including their lifestyle choices), healthcare providers and clinicians. One of the biggest brakes on productivity in an economy — or any part of it — is that learning is slow. In the early 1980s, beta blockers were shown to reduce mortality rates by up to 25 per cent after a heart attack, yet by the early 2000s in the United States, median state-level use was still below 70 per cent

One of the biggest brakes on productivity in an economy — or any part of it — is that learning is slow

Addressing inertia in health care is demonstrably difficult, else the persistence of clinical variations could not be explained. Some of the measures already discussed above will help overcome such inertia. Not paying for unjustified treatments would certainly have rapid impacts. But more empowered consumers, vigorous dissemination of best practice clinical guidelines (including 'do not do' lists) by the medical colleges and the ACSQHC, and transparent measures of performance (SP 5 and SP 3) will also play a major role.

However, there is no formal established vehicle for diffusion of innovations in commissioning healthcare. Innovations at the state and territory level do not always diffuse quickly, even when their value is patent, as in the NSW Government's case management of high users of ambulance services. We have recommended a more devolved system of health care that would encourage even more innovation at the regional level. There are already some informal mechanisms for disseminating best practice in these areas through meetings between various regional PHNs and LHNs, but governments should implement a more systematic approach, using existing bodies with proven expertise. The ACSQHC, in collaboration with other State and Territory Government agencies, like the NSW Agency for Clinical Innovation, should be a clearinghouse for the results of evaluations of innovations in local areas, and report on the diffusion of substantiated best practices across regions.

A more devolved system of health care would encourage even more innovation at the regional level

Achieving diffusion may also need 'champions' — people who have led innovative ideas and who can transfer them well to others because they have hands on experience with the relevant innovations and know the practical obstacles and how these can be overcome. The concept is well known in business, and increasingly so in health care, but needs to extend beyond clinical champions. One possibility is that PHNs and LHNs (and possibly State and Territory Governments) agree to create a national 'championship' program, where champions of an innovative idea assist other PHNs and LHNs to more speedily adopt new ideas. Regardless of whether that is the best vehicle, there is a need to recognise that changed practices often required persuasive and trusted advocates.

Technology and disintermediation in healthcare

The potential to use technology in new ways to provide government services is a cross cutting theme in this inquiry. Technology has always played a major role in providing new treatments and ways of providing care, but it has not diminished the overall demand for health care professionals (appendix C of SP 5). In part, this reflects that technologies are tools for clinicians rather than substitutes for them or their service support. Another factor has been that the large growth in the demand for health services has still enabled job growth even though technologies have reduced the needs for health professionals in some areas. Nevertheless, digital disruption and automation appears likely to produce job losses for some health occupations, notwithstanding growth in the health care sector. This will occur wherever the technologies produce higher quality services for patients or/and are less costly — two beneficial outcomes for people.

Pharmacy is a key occupation where technology, antiquated regulation, and changing models of integrated care converge at significant unnecessary cost to the nation. A fundamental policy shift is desirable, and again technology more than policymakers' efforts is poised to change the game. This would go well beyond the shifts raised in the recent Australian Government review of pharmacy.

Recommendation 2.4
USE INFORMATION BETTER

Australian governments should cooperate to remove the current messy, partial and duplicated presentation of information and data, and provide easy access to health care data for providers, researchers and consumers.

HOW TO DO IT

Identify the key relevant health datasets, including those that provide aggregated information about population health, and ensure that:

- links to health datasets and survey results are included on the Australian Institute of Health and Welfare website
- registers of health care data are created and published on data.gov.au, in line with recommendation 6.4 of the Productivity Commission's inquiry into Data Availability and Use (PCDAU).

Implement recommendation 6.6 of the PCDAU regarding the establishment of the Office of the National Data Custodian, which will have responsibility for the implementation of data management policy for health care and other data.

Streamline approval processes for access to data, in line with recommendation 6.7 of the PCDAU.

In doing so, priority should be given to making health datasets available, with a focus on projects that:

- allow evaluation of initiatives by Primary Health Networks and Local Hospital Networks at the regional level
- use data analytics to discover bottlenecks in integrated care systems, prospectively identify high-risk groups, identify the long-run effectiveness of preventative measures, and better isolate low-value interventions.

Governments should cooperate to reduce the existing inconsistencies in the multiple population health surveys and hospital and other satisfaction/experience surveys, accompanied by the development of benchmarks for gauging the relative performance of health care providers and purchasers across all national regions.

Any webpages or other sources that provide information to consumers about health care services should be comprehensive and maintained, and if that is not cost-effective, they should cease to be funded by governments.

Ensure uptake of electronic medical records by health professionals and hospitals by making them easy to use, and in some cases, linking access to additional funding to their adoption of integrated information systems.

Use My Health Record for both information and as a platform for providing clinically proven advice to patients, with the potential development of links between it and wearable technologies.

The Australian Commission on Safety and Quality in Health Care, in collaboration with other State and Territory Government agencies, should be a clearinghouse for the results of evaluations of regional innovations, and report on the diffusion of substantiated best practices across regions.

Create a cooperative 'Champions Program' that uses people with hands-on-experience with innovations to assist others to copy them.

A new model of pharmacy would adopt now-available technology — for example, e-scripts and machine dispensing of drugs — and recognise retailing as incompatible with a genuine clinical function for pharmacists (SP 5). As one party put it to the Commission in this inquiry, the availability of unproven and sometimes harmful medical products and confectionary at the front of the pharmacy is not reconcilable with an evidence based clinical function at the back. An Australian Government review into various natural remedies — widely available in pharmacies — suggests that most had no strong evidence of benefits to users.

Recognising this at an early stage, the Commission advocates preparing for the inevitable via development of a model that would increase the role of pharmacists in the multi-disciplinary management of complex and chronic conditions. Machine dispensing (now a well-proven technology) will, absent government and pharmacist moves to prevent it, overtake retail dispensing simply due to its inherent commercial efficiency benefits.

And in planning for this, its oversight would be better placed in the hands of a new occupation. This would involve people with good social skills and trustworthiness (with support from information technologies), but who would not need the clinical and scientific abilities of pharmacists. This new model would not, under any realistic assumptions require anywhere near the current 20 000 pharmacists who provide clinical services, and so would require a transition to a much smaller employment base.

The Sixth Pharmacy Agreement means that immediate reform is not possible, but it gives time for the determination of the right VET skills for those who oversight machine dispensing, trials of pharmacists in multidisciplinary teams in Health Care Homes, tests of machine dispensing, and the resolution of practical issues like the security of machine dispensing. The Australian Government should also signal to the various university departments of pharmacy that the industry structure sustained through government fiat is likely to eventually crumble, leaving young pharmacists exposed to large occupational risks. Ignoring the inevitable transformation of pharmacy is to expose a generation of new pharmacists to avoidable risks. Going down this path means that competition reforms for retail pharmacy that have long been advocated — such as in the Harper Review — can now be viewed as at most transitional steps. New pharmacy could translate into a genuine role in chronic disease management, suited to the capabilities of its professional membership (appendix C in SP 5).

In these circumstances, the Australian Government should also remove the anticompetitive regulations that raise prices of pharmaceutical products for the Australian public (and require hundreds of millions of dollars of taxpayer support).

Recommendation 2.5
EMBRACE TECHNOLOGY TO CHANGE THE PHARMACY MODEL

The Australian Government should move away from community pharmacy as the vehicle for dispensing medicines to a model that anticipates automatic dispensing in a majority of locations, supervised by a suitably qualified person. In clinical settings, pharmacists should play a new remunerated collaborative role with other primary health professionals where there is evidence of the cost-effectiveness of this approach.

HOW TO DO IT

Identify the best dispensing technologies from those that are currently available.

Determine the necessary credentials for the supervisor of automated dispensing, but with those qualifications involving substantially less training than currently are required for pharmacists.

Consult with the relevant training institutions — most likely in the vocational education and training sector — to develop courses for such qualifications.

Inform the various university departments of pharmacy about the reduced need for future supply of pharmacists.

Determine the locations for automated dispensing, taking into account accessibility and security, but eliminating unnecessary boundaries on locations now endemic in pharmacy planning rules.

Trial the technologies in remote and rural areas where there are currently shortages of pharmacists.

In consultation with Primary Health Networks, Local Hospital Networks, the various medical colleges and any other relevant clinical bodies, define the role of pharmacists in a collaborative clinical model.

Identify where it is cost effective to use pharmacists in primary health, taking into account the capabilities of lower-cost health professionals, and the increasingly greater capacity for information systems to provide accurate advice about medicines to GPs and other professionals.

Phase in the changes after the Sixth Pharmacy Agreement has lapsed, using the time to test it in some natural settings to refine the model.

2.9 Community wide public health initiatives

Substance abuse, poor nutrition, smoking and low physical exercise predispose people to chronic health conditions. This chapter has emphasised the importance of an integrated health system in addressing these or managing their consequences — mainly through primary health care and patient engagement.

However, the Commission has not examined public health in any detail in this inquiry — though we have emphasised that it should be seen as critical to a truly integrated system (appendix D and chapter 4 of SP 5). The Commission's inquiries into gambling indicate the multiple ways in which social and economic environments, individual traits, and the nature of risky goods and services lead to major public health problems. Prevention of harm often requires tailored solutions — and the regional model we recommend will go some way to providing some solutions.

Other remedies have to be system wide. Complemented by other initiatives (such as school-based education, community information campaigns and regulation), tax measures have a significant role to play in Australia's public health system (appendix D of SP 5). They can account for the negative spillovers created by harmful products and improve wellbeing by reducing their consumption. Their effectiveness is exemplified by smoking rates, which tumbled from 28 per cent in 1989 to 15 per cent in 2013, following a range of anti-smoking measures, including substantial tobacco excise increases from the early 1990s.

An ongoing question is whether taxes should play a bigger role for other products with harmful effects. There has been much recent debate about the taxation of alcohol and potential taxes on sugary food and beverages.

ALCOHOL TAXES — A MESS WITH DAMAGING HEALTH OUTCOMES

The negative effects of excessive alcohol consumption on the health and wellbeing of Australians are well-known to clinicians and researchers, if not always the public at large. These harms can include cancer, cognitive decline, cardiovascular disease, liver disease, birth defects, self-harm, assault, domestic violence and road deaths from drink driving, among many others. The Australian Institute of Criminology estimated in 2013 that the cost of alcohol consumption to the healthcare sector was about $1.7 billion each year, with further costs incurred in the criminal justice system, traffic accidents and lost workforce productivity.

As there are strong links between higher prices for alcohol and reduced consumption levels, alcohol taxes have long been proposed as a harm minimisation measure, often in concert with regulatory changes and information provision. However, Australia's current alcohol taxation system is a mess, with alcohol content taxed at multiple rates, with no rhyme or reason for the variations, bar history and vested interests. Most alcoholic beverages (with the exception of wine) are taxed within the excise system at one of 10 different duty rates based on their alcohol content ('volumetric' taxation). These different rates reflect a range of different concessions, including reduced rates for brandy, draught beer (in kegs greater than 48 litres), non-commercial beer, and beer produced in non-commercial facilities.

Wine is the odd one out. It is taxed under an entirely different system (the wine equalisation tax or WET) based on its value (29 per cent of the final wholesale price), rather than its alcohol content. The implication is that it is possible to buy high-alcohol wines (cask wines and fortified wines like port) at very low prices, despite these products being major culprits in alcohol abuse. To illustrate, the WET on a standard drink of cask wine can be as low as five cents, whereas excise on a standard drink of spirits is over 20 times this.

Any tax reform should aim to raise the price of low-value, high-alcohol products given the hazards these pose for public health.

There are several potential directions for reform, of which the simplest is the application of a single volumetric tax on most forms of alcohol. Exemptions could be made for the first 1.15 per cent of alcohol (consistent with the current policy for beer), as it is not possible to raise blood alcohol levels to a problematic point through overconsumption of products with alcohol content below this threshold.

A volumetric tax is widely supported by experts in prevention of alcohol problems and the various Australian medical colleges. It has sound evidence suggesting it would be effective in reducing alcohol-related chronic illness and premature deaths. Its health benefits would predominantly be realised by current heavy drinkers. The level of volumetric tax chosen by the Australian Government should primarily be driven by the goal of harm minimisation, which in any case, is aligned with the revenue needs of government.

Reducing the current concessions and shifting to a uniform volumetric basis of alcohol taxation would also have the ancillary benefit of making the tax system simpler and less distortionary.

Most of the impacts of volumetric taxes fall on heavy drinkers across the income spectrum, with relatively modest impacts on other drinkers. However, transitioning to a single volumetric tax rate is complicated by other distributional concerns. Taxes on expensive, luxury wines would decrease substantially. For example, the non-GST tax on a $100 bottle of wine would fall from about $15 to less than $5 if the volumetric rate was aligned with the highest current excise rate on beer. This could make moving to a single volumetric tax rate politically unpalatable. Moreover, surveys of public opinion have usually been hostile to alcohol tax increases, though the acceptability of change appears to be greater if any additional revenue is allocated to preventative health policies.

Alternative options that align with the overarching goal of harm minimisation through higher prices for low-cost, high-alcohol drinks might include:

- modifying the WET to introduce a minimum volumetric tax rate alongside the current 29 per cent rate on the final wholesale price. Liable parties would then pay whichever amount was greater. Its main deficiency would be that it could be complex for wine producers and wholesalers to administer
- using regulation, rather than the tax system, to increase the price of low-cost, high-alcohol drinks by introducing a floor price per standard drink. However, producers rather than taxpayers would obtain the benefits from increased prices, while different state and territory licensing regimes would complicate its national implementation.

Accordingly, no tax arrangement is perfect. Nevertheless, all of the above are likely to be superior to current arrangements, and address an unjustified anomaly. Combining tax measures with complementary measures aimed at addressing the harm associated with excessive alcohol consumption (such as education and treatment) is likely to amplify the benefits, while also soliciting greater public support.

TOO LITTLE IS KNOWN TO IMMEDIATELY ENDORSE A SUGAR TAX

More recently, there have been calls by the Grattan Institute and various public health experts for the introduction of taxes on Sugar-Sweetened Beverages (SSBs) in Australia to combat obesity and diabetes (an issue explored in greater detail in appendix D in SP 5).

Seven OECD countries currently impose taxes (Mexico, Norway, Hungary, France, Finland, Chile and Belgium) as do various US cities. The UK Government has announced a Soft Drinks Industry Levy set to begin in 2018 to encourage soft drink manufacturers to reduce their sugar contents below certain thresholds. However, Denmark repealed a longstanding sugar tax in 2014 (and a fat tax in 2013), so the direction has not always been to impose a tax.

Recommendation 2.6
AMEND ALCOHOL TAXATION ARRANGEMENTS

The Australian Government should move towards an alcohol tax system that removes the current concessional treatment of high-alcohol, low-value products, primarily cheap cask and fortified wines.

HOW TO DO IT

Ideally, this would be achieved through a uniform volumetric tax rate for alcoholic beverages, calibrated to reflect the health impacts of alcohol consumption. Exemptions could be made for the first 1.15 per cent of alcohol (consistent with the current policy for beer).

A transition period would be needed to allow the wine industry time to adapt.

Phasing out the existing range of concessional alcohol excise rates — including for draught beer and brandy — would also help to simplify the tax system and make it less distortionary.

Alternative models that would avoid significant price reductions for expensive products — with the regressive income impacts this would entail — could include a modified WET (wine equalisation tax) system with a minimum volumetric tax or the introduction of floor price regulation.

However, further work on these options is needed to determine their feasibility in light of likely administrative burdens and implementation issues.

Tax measures should be accompanied by other policies that increase education about alcohol and assist people with alcohol-related conditions.

Putting aside the role of policy, there are strong grounds for Australians to reduce their sugar intake given its contribution to diabetes and obesity. Soft drinks are very high sources of sugar (nine teaspoons in a typical 375 ml can), and may be particularly problematic given high consumption by adolescents.

A tax could have benefits if consumers' reduce their demand for SSBs, or if manufacturers reformulate their products to reduce sugar content, thereby reducing price effects (and their associated income impacts for consumers).

However, evidence concerning the effectiveness of sugar taxes in reducing health risks, especially those relating to obesity, and their optimal design to do this, is still developing. The design of any tax matters, as does its public acceptability. For instance, the UK tax exempts fruit juices and milk products, which can still have high sugar content. Sugar taxes usually relate to beverages, and so there is the potential for people to maintain their caloric intake by shifting their demand to other foods. If properly evaluated, the outcomes of the UK provisions should provide clearer evidence, informing any further action in Australia. In the meantime, nothing precludes discussions with the major manufacturers of SSBs about the scope for voluntary reductions in sugar content

2.10 Dollars on the pavement that we have not yet picked up

Health is a multifaceted and complex area, with opportunities that extend beyond this report. There are many other avenues for obtaining large public interest gains by making Australia's health system more oriented to achievement of outcomes rather than payment for services. Exploration for these new riches could consider:

- the design and purpose of private health insurance (PHI). Reflecting the view that its services relieve pressures on the public system, PHI members are the beneficiaries of effective taxpayer transfers of about $8.5 billion in 2015-16. There are multiple concerns about PHI, including premium pressures, risk equalisation arrangements, administrative costs, rebate arrangements, regulation, out-of-pocket expenses, and product coverage and complexity. The cost of prostheses has been a major concern for the industry (accounting for about 14 per cent of PHI-funded hospital costs) and is under review by the Prostheses List Advisory Committee. The Australian Government also formed a Private Health Ministerial Advisory Committee (PHMAC) in late 2016 to examine reforms to PHI. This may address some concerns, but some key questions — most notably the role of PHI in the wider health system — are not a focus. It would be best to re-assess PHI after reforms proposed by PHMAC have been progressed — which is outside the timeframe of the first five yearly productivity review. However, this chapter makes observations about risk equalisation and taxpayer-funded rebates for ancillaries cover, as these warrant obvious policy change (and fit into the issue that governments should only fund evidence-based healthcare)
- the functioning, funding, role and governance of public health (a multi-jurisdictional responsibility). Many frameworks for healthcare cite public health as the base of a pyramid of policy initiatives. Yet, neither the dollars, the effort, or policy emphasis reflects its position there
- the role of consumer choice across all of the health system — an issue that is fundamental to a patient-centric system
- anticompetitive restrictions on medical professionals, including restrictions on entry and unjustified limits on the scope of practice of alternative professions
- the performance of Australia's health research system, and the capacity for it to translate discovery into good clinical outcomes and commercial success
- the efficiency and effectiveness of Australia's approval processes for new drugs and medical technologies, including the role for regulatory 'sandboxes' of the kind recommended by CSIRO for low-risk technologies (CSIRO 2017). Recently, the Australian Government has implemented worthwhile changes to approval processes, but there are questions about whether they go far enough (chapter 6)
- the level of funding of health services — a perennially vexed issue. An evidence-based approach would start to look more strictly at the criteria for making decisions about where to spend money, on whom, when, and for how long

- the role of private versus public service providers
- the role and level of patient copayments. The current copayment arrangements vary considerably by place and by the nature of the service, and relatively little research has been undertaken into their impacts on health costs and outcomes in an Australian context. It should not be assumed that wider adoption of copayments or increases in existing ones would be necessarily good (as discussed in section 8.1 of chapter 8 in SP 5). To the contrary, there is evidence that copayments are discouraging chronically ill Australians from seeking the medical attention that they need, which could be raising the risk of more expensive health services later on
- Australia's pharmaceutical purchasing practices. In the 2017-18 budget, the Australian Government announced sensible shifts in pricing for purchasing arrangements for pharmaceuticals that are likely to shift doctors' prescribing habits more to generic drugs (which have the same molecules as branded out-of-patent drugs, but are cheaper). The Australian Government has also announced changes that would reduce the price of patented drugs. The Grattan Institute has recently recommended further changes — principally pricing listed drugs according to global benchmarks and by requiring that patients bear any additional premium for therapeutically-similar patented drugs within a wider range of therapeutic groups (Duckett and Banerjee 2017). They have claimed this would be worth billions of dollars over the usual budget forward estimates without affecting clinical outcomes. They provide evidence that Australia pays much more for some drugs than the United Kingdom and New Zealand, though there were examples where Australia had the lowest prices. Medicines Australia, which represents many major pharmaceutical companies, rejects the Institute's recommendations and its estimates of savings. The issues are not straightforward. For example, external pricing can be very complex and can be gamed, different pricing arrangements may affect the timing of access to new drugs, and it is not always the case that global price benchmarking produces the lowest price compared with alternative pricing arrangements (Docteur and Lopert 2017; Ruggeri and Nolte 2013; Schneider and Habl 2017; Vogler, Vitry and Ud-Bin-Babar 2015). Given the large differences in drugs prices between countries, the importance of evidence-based decisions about drug listing, and the significance of the Pharmaceutical Benefit Scheme's budget, the kinds of issues raised by the Grattan Institute deserve greater scrutiny.

2.11 The estimated impacts of the recommendations

Based on Australia's experience to date with integrated care, the Commission estimates that implementing the recommendations will lead to substantial improvements in the health of Australians, particularly those who are the most dependent on health services. This would bring welfare gains for the individuals concerned, savings for the health system and gains for the economy more broadly, some of which are reported in table 2.2 (further details are in SP 6).

Table 2.2 Estimated impacts of recommendations[a]

2016 prices

	UNIT	AFTER 5 YEARS	AFTER 20 YEARS
Personal welfare gains from improved health	$m	100	300
Personal welfare gains from less waiting	$m	200	600
Workforce impact (as a GDP gain)	$m	400	4 200
Health expenditure dividend	$m	7 900	33 400
Total economic impacts	$m	8 500	38 500
Health expenditure dividend as a share of total health spending	**%**	**3.0**	**6.5**

[a] The interpretation of these measures is discussed at length in SP 6.

Source: Commission estimates.

The net present value of the future stream of economic impacts over 20 years is estimated at about $140 billion, though in any given year the benefit is a fraction of this.

These are conservative figures.

The estimate is based on the assumption that it takes LHNs and PHNs twenty years to adopt an integrated approach to care — reflecting the pace at which LHNs have adopted proven integrated care solutions, such as health pathways. Health pathways are online, evidence-based tools detailing how to treat patients with given conditions.

It also assumes that few regions are able to replicate the effectiveness of leading innovators in integrated care, such as the Western Sydney diabetes initiative and the Hunter Diabetes Alliance.

Reform to our health system could save $140 billion over 20 years

Were Australian LHNs and PHNs to prove more successful at adopting integrated care, the 20-year stream of economic benefits could be over $200 billion.

None of these estimates includes hard-to-measure personal benefits to patients. Avoiding chronic illness may well be worth far more than the gains above.

3

FUTURE SKILLS AND WORK

What matters?

Future skills and work

Benefits assessment: substantial, through raising foundational skills and providing greater access to learning through life

PROBLEMS	SOLUTIONS	BENEFITS
SCHOOLS		
› Student results declining › Teacher effectiveness too low › Teaching 'out of field'	› Comprehensive approach to workforce development, including use of salary differentials › Improved teacher effectiveness using a shared education evidence base	› Improved student outcomes › Better foundational knowledge to support learning throughout life
VOCATIONAL EDUCATION & TRAINING (VET)		
› Lack of signalling of proficiency for vocational training	› Stabilise existing VET assessment system › Develop proficiency standards in conjunction with stakeholders › Conduct trials to confirm effectiveness	› Better information for employers to discern the capabilities of workers › Improves incentive to undertake high quality training › Better skills in workplaces and stronger foundation for lifelong learning
INFORMAL LEARNING & EMERGING FORMS OF LEARNING		
› Over reliance on traditional, higher costs methods of learning › Missed opportunities to learn skills in flexible and cheaper ways	› Develop institutional arrangements to independently accredit skills obtained through any learning method	› Greater rewards from lower cost methods of acquiring knowledge › Improves accessibility of learning › More responsive to changes in market demand for particular skills
HIGHER EDUCATION		
› Student employment outcomes declining › Academic careers more focused on research than teaching › Students funding research › HELP loans open to unproductive uses	› Provide more/better information on outcomes to students › Enhance student rights under consumer law › Align per student resources with actual costs › Collect HELP debts from deceased estates	› Improve student decision-making prior to entering university › Encourage university focus on high-quality teaching to enhance human capital development › Increase skills relevance and job matching › Reduce doubtful HELP debts
ENSURING THE SKILLS RELEVANCE OF THE EXISTING WORKFORCE		
› Vulnerable workers do not acquire skills before job loss › More occupations are at risk of disruption › Careers, employment and training opportunity information is fragmented	› Improve and develop existing careers and training websites › Test innovative policy solutions on highly vulnerable groups	› Reduced structural adjustment effects › Improves productivity of the workforce through enhanced skills relevance › Greater adaptability to future technological shifts

IMPROVEMENTS TO SUPPORT LABOUR MARKETS

- Workplace relations has unnecessary restrictions and institutional deficiencies
- Encourage parental labour force participation through greater provision of outside school hours care
- Reduce policy incentives for early retirement
- Reforms to cities (stamp duty, road funding reform, zoning) to increase labour mobility

3 FUTURE SKILLS AND WORK

3.1 A well-functioning labour market to support living standards

Jobs matter.

For almost all of us, they are more than a source of income. They provide opportunities for social interaction; a source of self-esteem; or a feeling of purpose through making a contribution to a profession or community. And the skills embedded in jobs are one of the principal drivers of increased productivity.

Occupations, skills and jobs come … and they go

Effective labour markets do not stand still. Occupations, skills and jobs come … and they go. More than a century ago, lamplighters, icemen, and telegraph operators fell into decline. In the middle of the last century, dunny men and bread delivery vans became a less familiar sight on our streets. Towards the end of the century, switchboard operators, typists and TV repairmen became rarer and rarer. Travel agents, bank tellers and supermarket cashiers still exist as occupations, but opportunities in these occupations are diminishing. The falling cost of technology relative to wages was in part responsible for these shifts, while for others, new services simply superseded old ways of delivery.

No matter how transformative the telephone, electricity, indoor plumbing, refrigeration or personal computing have been (and in productivity terms, *all* have been more transformative than the digital revolution, so far) no technology (nor aggregation of them) has succeeded in removing people's capacity and desire to work. In fact, history has shown that over the long run, technology has been a friend to many employees, removing jobs that are often unpleasant, physically tiring, dangerous or tedious. Overall employment persistently grew despite these fundamental technology changes, as did wage rates.

Critical to this adaptation were the skills delivered by the education and training system. Moreover, new technology and changing consumer preferences drove demand for new skills and jobs.

- High-skilled jobs tend to be complementary to new technology — raising productivity and the demand for suitably skilled workers. The productivity savings result in lower prices for consumers, higher wages for the employees, and/or higher profits, leading to increased demand.
- With lifestyle and demographic changes and rising incomes, consumers are increasingly seeking new products and services, particularly when it enhances convenience. Technology is driving this demand and creating new jobs and occupations, primarily in the services sector. Demographic change has also increased the demand for workers in the 'care sector', including aged care and childcare.

While the speed and magnitude of future change is contested, even the most conservative estimates suggest that *collectively* automation, the ageing of the population, deferred retirement and the continued growth of the services sector will mean that the type of jobs and people's lifetime experiences in the labour market will change significantly in the coming decades (Supporting Paper 8 (SP 8)).

It would be possible to resist technology with rigid rules, but productivity growth would be lacklustre and job outcomes would likely be no better. Governments play a critical role in avoiding this scenario by creating a good quality and adaptive education and training system, and the policy framework that allow labour markets to function well (figure 3.1).

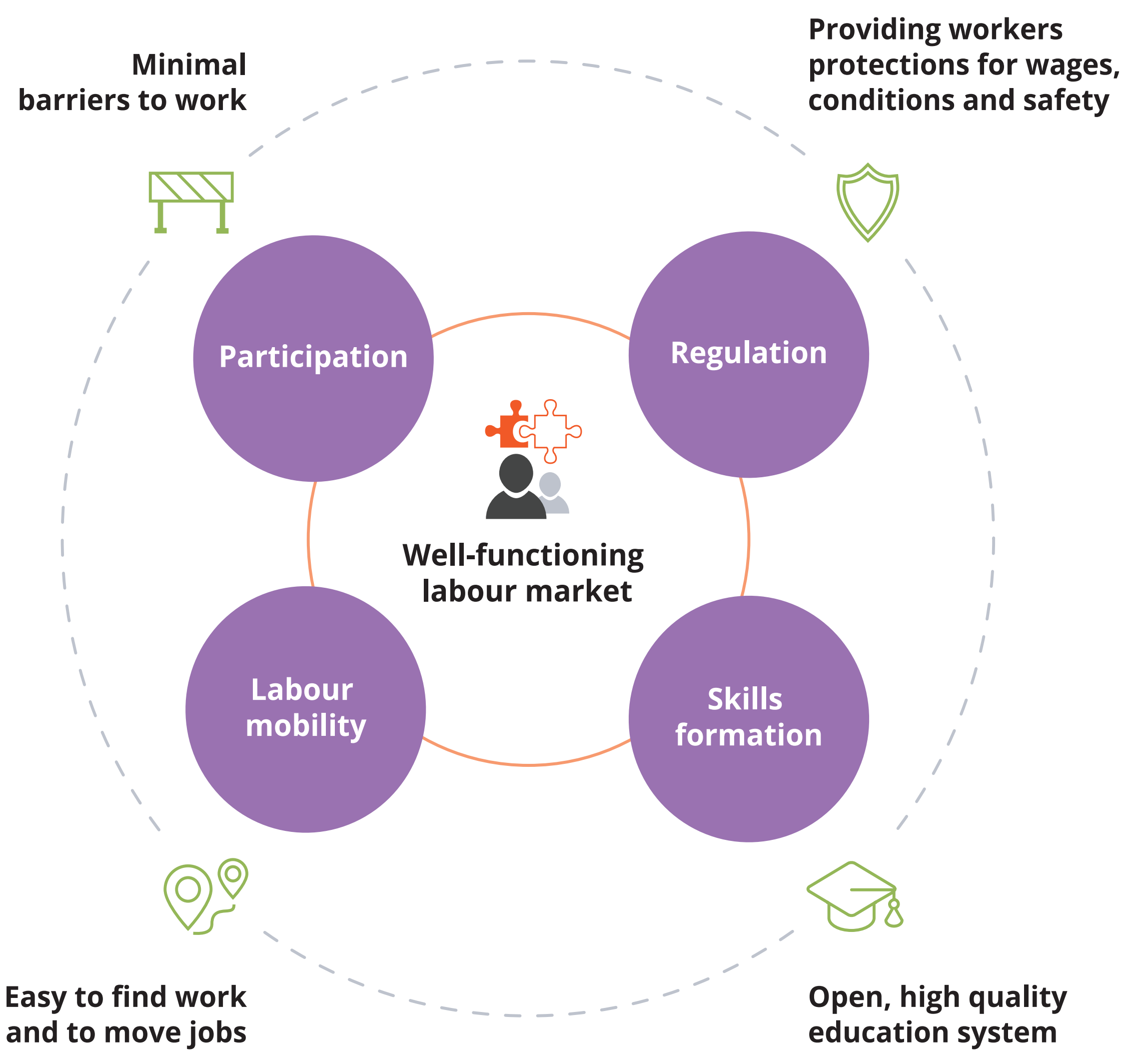
It is essential to have policy settings that enable workers to find work and change jobs readily

That is, it is essential to have policy settings that:

- create the right *supply-side* settings for the *skills* system. That means an efficient, high-quality and flexible education and training system that is driven by the needs of users (the people acquiring the skills and the businesses that need them) rather than the interest of suppliers or legacy models of provision and government funding. That system also needs to be able to respond to the inevitable transitions from job to job and occupation to occupation that will occur over people's lifetimes
- ensure that the *demand side* for the right *skills* is not frustrated by poor incentives to undertake training, excessive costs of obtaining skills, poor information about the skills needed for future work, or weak foundational skills that make such investments virtually impossible
- eliminate impediments to people actively seeking work *(participation)*
- enable workers to find work and change jobs readily, including changing where they live *(job matching and mobility)*. History shows that some past economic shocks left people stranded in locations where the job opportunities no longer existed, sometimes discouraged from moving by misguided location-specific structural adjustment policies. In the United States, the Global Financial Crisis has left a measurable legacy of declining willingness to shift location in order to obtain work
- create the right regulatory balance between protecting workers' wages, conditions and safety on the one hand, and on the other, an employer's ability to make decisions about the way they manage their businesses and employment conditions *(workplace relations, occupational health and safety, and workers compensation).*

An objective assessment of Australia's labour market suggests that it is reasonably adaptable by international standards (OECD 2016a, 2017a). But there are still prosperity-enhancing reforms that could be made in the labour market.

Figure 3.1 A well-functioning labour market



If we had to pick just one thing to improve … it must be skills formation

The focus of this chapter is on skills formation because technology adoption, use and diffusion — the long-run drivers of productivity — require people with the right skills. As an illustration, the low cost of sensors, computing power, fast broadband, the internet and the capabilities created through data analytics have made data a new major business resource. General Electric once made washing machines. Increasingly, it has moved towards service provision using data to improve the efficiency of high-cost machinery — from jet engines to power generators. Likewise, mining — once a classic employer of blue collar workers — now requires white collar employees with the ability to interact with remotely managed or computer directed equipment. These new business models require people with skills and an understanding of the IT systems in use.

There is additional value in improving skills formation — from foundational to advanced — because it gives people better job security, income and job satisfaction. These effects are not well measured in the official statistics, but have major implications for prosperity and quality of life more broadly.

But the current skills system has fractures that put at risk its capacity to deal with the future labour market changes. There are deteriorating results among school students. The VET system is in a mess, and is struggling to deliver relevant competency-based qualifications sought by industry. Leading segments of the university sector are more focused on producing research than improving student outcomes through higher-quality teaching.

A fundamental quandary for some parts of the system — as in primary school education — is that failure to act early has consequences for people's job and lifetime outcomes that may only emerge many years later, but are at that point largely irreversible. This requires clear directional reforms with a long-term focus.

Consequently, governments need to act now, and test the likely long-run quality of outcomes from education by assessing peoples' acquisition of academic and other skills while they are still in the system (hence the relevance of PISA scores discussed below). The system is poor at *sharing* data and using it to focus on improvements. Only with an active commitment to improved data sharing can evaluation be properly used to refine policies, based on evidence.

A focus on skills for future work does not mean that the other elements of a well-functioning labour market are not important or do not need policy attention. On the contrary, the Commission has examined many of these aspects in recent years (box 3.1). And there are still many reforms unaddressed that could shift the dial in productivity.

Box 3.1 Plenty of other labour market reforms

While this report focuses on the medium term, governments should not forget areas of the labour market that could be improved, with near-immediate effect. In particular, the Commission:

- undertook a comprehensive review of the Australian workplace relations framework (PC 2015d)
- completed a research study assessing geographic labour mobility within Australia and its role in a well-functioning labour market (PC 2014c). Geographic labour mobility is also being considered in the context of the current inquiry to Transitioning Regional Economies (PC 2017d)
- examined, among other matters, whether the cost of and access to childcare was a barrier to parents of young children participating in the workforce in the Childcare and Early Childhood Learning inquiry (PC 2014b)
- evaluated how changes in the preservation age for superannuation and the age pension affects labour market participation decisions of mature age workers (PC 2015c).

Much of this research and the recommended reforms remain relevant to policies aimed at improving the functioning of the labour market.

In addition, reforms in other parts of the economy can have positive impacts on the labour market. Reforms to improve the functioning of cities, such as better transport infrastructure and improved access to housing (chapter 4), would also improve labour mobility within cities and the functioning of the labour market more generally. Better population health raises labour force participation and productivity (chapter 2). Indeed, health care is an important complement to skills formation, especially given the rising rates of debilitating chronic illnesses.

Core competencies are changing

For many future jobs, new skills and knowledge will be needed as part of the core competencies. While some persist in characterising it as a curriculum-based problem — the emphasis being on increasing the number of students studying science, technology, engineering and maths (STEM) — at a fundamental level all workers will need the skills to interact with digital technology, regardless of whether they study physics to year 12 or not. A range of 'soft' skills (such as communication, empathy, creativity and adaptability) complement other 'harder' skills and are useful to navigate changes in job requirements. In short, while an innovative economy requires the development and use of skills in many disciplines and at a variety of levels, there is no skills-related silver bullet.

In that context, Australia needs a skills formation system that ensures people are work ready for the jobs on offer, and that the education and training system not only develops the required skills efficiently and cost-effectively, but has a system of qualifications that are meaningful to employers when people seek work.

Everyone accepts that education and training in the early years of life is a vital part of that system (box 3.2). But increasingly, so too is a serious commitment to *ongoing* education and training, including work-based training, in a labour market that is likely to increasingly involve major changes in tasks and occupations, and sometimes even abrupt career shifts.

Box 3.2 Early learning experience, parents and Early Childhood Education and Care (ECEC)

The focus of this chapter is on education and training starting from primary school and continuing through life. But fundamental to learning during these stages is the experience of very young children.

Children are learning and developing from birth (and before) and the nature of interactions between a child, the adults around them, the environment and experiences to which the child is exposed all contribute to the child's early learning foundations. This makes early childhood a period of both opportunity for enrichment and vulnerability to harm.

Family characteristics and environment are the strongest predictors of a child's development and outcomes later in life. Research has highlighted the importance of the quality of the interactions between the child and their parents (and others) and how this provides the sensory stimulation affecting early brain development and later cognitive and social outcomes.

Formal educational programs, prior to starting school, can play a role in child development and education. There are positive development outcomes for all children from about 3 years and above from taking part in quality preschool and ECEC programs. There is evidence of immediate socialisation benefits for children, increased likelihood of a successful transition into formal schooling and improved performance in standardised test results in the early years of primary school as a result of participation in preschool programs. The benefits are even greater for children from disadvantaged backgrounds and can persist into adulthood.

The impact of ECEC on younger children is mixed. However, children from homes where the quality of care and the learning environment is below that available in ECEC, are most likely to benefit from ECEC participation.

Source: PC (2014b).

As the system designer and primary funder and supplier of formal education, governments have to change what they do. To achieve a better functioning education and training system geared to long-run productivity improvement and manageable transitions in the nature of work, governments need to:

- improve the education outcomes of school students through ensuring that the best possible teaching methods are being used in the school system, supported by an educational evidence base and the employment of high-quality, well-trained teachers in the fields where they are needed (section 3.2)
- introduce a more graduated system of student assessment to signal to employers the level of proficiency in vocational education and training (section 3.3)
- develop an objective accreditation system that signals the quality of skills, regardless of how they are acquired, to encourage the growth and acceptance of new models of skills formation that are faster, cheaper and more flexible (section 3.4)
- improve student outcomes by providing affordable, high-quality university education with qualifications that are relevant to labour market needs (section 3.5)
- provide greater information for those in the workforce looking to change occupations and trial innovative policy methods based on the 'investment model' approach. (section 3.6).

The key premise running through these reforms is that skills formation is one of the central pillars for productivity improvement, even if its benefits are not immediately realised.

While observations about the current state of the education system and outcomes are made in this chapter, the aim is to look into the future, taking account of emerging trends, and consider what policies and decisions should be taken *now* to set Australia on a path to higher participation and incomes and improved prosperity and wellbeing.

As the system designer, primary funder and supplier of formal education, governments have to change what they do

3.2 Strong foundational skills

A good school system ensures that people have the key foundational skills — numeracy, literacy, analytical skills — and the capacity to learn so that they can easily acquire knowledge throughout their lives. And 'soft' skills, such as teamwork, collaboration, leadership and creativity are equally essential to adaptability and retention of employment.

In some critical areas, there are signs that Australia's school system is not functioning well

In some critical areas, there are signs that Australia's school system is not functioning well.

- National and international assessments of student achievement in Australia show little basic skill improvement over a sustained period; and in some areas standards of achievement have dropped.
    - Australian student's performance in the OECD's PISA tests showed:
        - absolute *falls* in average scientific, reading and mathematical ability
        - a growing share of lower performers
        - diminishing share of high performers in all three domains.
    - Results from the Trends in International Mathematics and Science Study show little change in Australian students' achievement since the study began in 1995.
    - NAPLAN measures of Australian students' reading and numeracy achievement indicate little improvement between 2008 and 2015.
- The national participation rates in year 12 physics and advanced mathematics has fallen by more than 30 per cent from 1992 to 2012.
- Learner engagement — one of the most reliable predictors of gains in learning — is low for some students, with approximately 40 per cent of students involved in unproductive behaviours (being inattentive, noisy or anti-social). School attendance is considerably lower for the most disadvantaged students.

The above trends are worrying on a number of grounds.

First, Australia's sustained decline in academic achievement (as reported by the PISA results) represents considerable lost opportunities for individuals in terms of their overall wellbeing, as well as lost economic prosperity for society.

- While Australia's academic achievement is above the OECD average, declining performance over time means Australia's young people *may now be less capable* than previous cohorts. For example, in mathematical literacy, an Australian 15 year old in 2015 had a mathematical aptitude equivalent to a 14 year old in 2000.
- An OECD projection suggests if all 15-year-old students in Australia attained at least the baseline level of performance in PISA by 2030, Australia's GDP in 2095 would be 10 per cent higher.[3] Moreover, Australia's growing group of low performing students will be increasingly exposed to unemployment or low participation in the future world of work. As noted by Thomson (2016), a prominent expert in this area, '[t]hese students do not have the level of knowledge that will allow them to participate as productive citizens in a modern society' (p. 5).
- The declining proportion of high performing students sits at odds with the skills requirements of an advanced economy, which will increasingly depend on the capability of that group to be employed in highly skilled jobs. Basic foundational skills in science and mathematics developed at school are likely to be fundamental to future work.

3 However, poor academic performance is not generally the result of any single risk factor, but rather a combination of various barriers and disadvantages that affect students throughout their lives and consequently will require a range of policy interventions beyond education.

Second, while Australia's performance in international studies have either stagnated or decreased, high performing countries (Singapore is an example close to home) continued to improve despite their already elevated standing.

The declining proportion of high performing students sits at odds with the skills requirements of an advanced economy

Third, the declining or stagnating results have occurred during a time of considerable policy focus on schooling, including funding increases. These efforts have focused on changes to schools' *shares* in funding (as well as the quantum); reviewing curriculums; attempting to raise year 11 and 12 retention rates; testing academic proficiency and an emphasis on STEM. These 'input-focused' policy measures, while desirable, appear to be insufficient in achieving the overall objective: strong foundational skills for all.

School workforce and teacher education

Raising student performance depends on the capabilities and practices of teachers and principals, engagement with parents and the community, the way schools run and the curriculum they use. Thousands of educational researchers globally have looked at how to get good outcomes in schools, and there have been over 40 Australian reviews on teacher education alone in the past decade, including one undertaken by the Commission. Common themes have emerged, including the importance of workforce quality and proven teaching approaches. Engaging with parents and the community, altering school curriculum and ensuring targeting of funding are important complementary initiatives.

To improve student *outcomes*, the policy consensus favours direct measures to address the effectiveness of the teaching occurring in schools (see education evidence based below), the quality of the school workforce and the quality of teacher education. And for good reason, as there are strong links between the ability and aptitude of individuals entering the teaching profession, the quality of their training and their eventual teaching effectiveness.

Despite this, there is evidence that literacy and numeracy levels of the pipeline of new school teachers have declined. Unlike high-performing countries, *Australia is not selecting the next generation of teachers from high-performing school leavers*. Countries with high academic outcomes have tended to pursue deliberate policies to attract the most able people into teaching, including offering salaries and working conditions that enable teaching to compete with other professions.

A related concern is that many teachers are 'teaching out of field' (that is, they are barely, if at all, qualified in the disciplines they are teaching). For example, in information technology, about 30 per cent of year 7 to 10 teachers have neither studied the subject at second-year tertiary level or above, nor been trained in teaching methodology for that subject at the tertiary level.

Teaching out of field not only affects students, but anecdotal evidence suggests that it also contributes to teacher attrition. Addressing the high levels of teaching out of field will require special recruitment efforts and targeted high quality professional development for existing teachers willing to acquire the knowledge and teaching skills in the relevant disciplines.

In the 2016-17 Budget, the Australian Government announced a range of measures to improve teacher quality and teacher effectiveness, which are consistent with the Commission's recommendations in the *Schools Workforce study*. These include:

- linking teacher salary progression to demonstrated competency and achievement against the Australian Professional Standards for Teachers, rather than just length of service
- requiring graduate teachers to achieve registration at the Proficient Level of the Professional Standards within three years
- providing incentives for high-performing teachers to work in disadvantaged schools (Australian Government 2016c).

In May 2017, the Australian Government established the Review to Achieve Educational Excellence in Australian Schools, to provide advice on how extra Commonwealth funding provided in the 2017-18 Budget should be invested to improve outcomes. Some State Governments have also introduced measures to improve teacher quality and effectiveness, including introducing minimum entry requirements for teacher training (Anderson 2016; NSEA 2017). However, measures that deal with the 'flow' will only slowly address deficiencies in the 'stock'.

Nevertheless, the measurable performance indicators are alarming in a productivity, as well as, a personal welfare context. Accordingly, it is critical that efforts by governments to improve teacher quality continue to be monitored and rigorously assessed for outcomes given the accepted wisdom is that the quality of teachers is what sets high-performing systems apart. Progress on translating that wisdom into tangible outcomes could be assessed in the next five years, possibly in the next Productivity Review.

Countries with high academic outcomes have tended to pursue deliberate policies to attract the most able people into teaching

A national evidence base will also help improve education outcomes

Understanding what works 'best' and for whom requires micro-performance data that look into the classroom, particularly at teaching practices, to provide insights and evaluations into how to improve education outcomes across schools and students. SP 3 discusses the benefits of comparative performance indicators.

All Australian governments and a large number of organisations invest considerable effort in collecting data and disseminating educational evidence. Most of these data are collected for monitoring, benchmarking and assessing performance in achieving objectives at the system level as well as promoting transparency and accountability, and informing resource allocation ('top-down'). But relatively few collections are for the purpose of evaluation, such as identifying ways of improving student achievement ('bottom-up'). Not only are there gaps in the evidence of the evaluation of policies, programs and education practices, greater understanding is needed on how to turn best practice into common practice on the ground. Understanding how to successfully implement best practice is as important as evaluating what works best (PC 2016g).

Without improving and applying evidence to policy making and teaching in schools and classrooms, there is a substantial risk that increased resourcing of schools will continue to deliver disappointing outcomes. Even small improvements in outcomes for all students from applying evidence to policy making in schools and classrooms would offer significant benefits to Australian families as well as for the capabilities and productivity of Australia's future labour force.

Recommendation 3.1
IMPROVE EDUCATIONAL OUTCOMES OF SCHOOL STUDENTS

Australian governments should:

- address teaching out of field within a tight time-frame
- improve the skills and effectiveness of the existing teacher workforce, with comprehensive professional development initiatives and other mechanisms, supported by evidence that these are genuinely effective
- continue the current reforms to improve the quality and effectiveness of new teachers, but test their value.

HOW TO DO IT

Teaching out of field should be addressed through targeted professional development of existing teachers willing to acquire the relevant knowledge. Teacher salary differentials should also be used to overcome subject-based teacher shortages.

To improve teacher effectiveness, a more rigorous micro evidence base about what works in schools and how it should be implemented is required. But existing laws mean that data sharing between governments is poor. This should be the subject of institutional-level reform, as outlined in the Productivity Commission's recent inquiry reports into Data Access and the Education Evidence Base.

The next 5 yearly Productivity Review could assess the impact and effectiveness of policies to raise student performance outcomes.

3.3 Confidence and stability is needed in the VET system

At the heart of Australia's VET system is the objective of ensuring that employers can hire employees who are work-ready. VET plays a key role in providing training for nationally recognised qualifications in job-related and technical skills (NCVER 2007; NSW Department of Industry 2016).

As simple as that objective appears, realising it is not straightforward given the demands placed on the VET sector. Not only does the system need to provide broad ranging job-related training relevant to employers, it must do so for a wide variety of students with very different needs. It is expected to be a place where young people leaving school can pursue non-academic pathways, where workers can retrain and gain new skills to keep pace with a changing economy, and where people marginalised by the traditional education system can get a second chance (Oliver and Yu 2015).

Despite its important but complex role, the VET sector has been beset with a raft of problems leading to a sector characterised by rapidly rising student debt, high student non-completion rates, poor labour market outcomes for some students, unscrupulous and fraudulent behaviour on the part of some training providers. These outcomes reflect a range of problems in the VET sector.

First, the expansion of VET FEE-HELP access after 2012 is a well-documented example of how policy can fail if governments do not ensure proper policy design along with suitable regulatory oversight. This policy failure has caused considerable uncertainty and reputational damage to the sector as well as diverting government resources and focus to develop new policies to repair the damage. The Australian Government has announced a series of reforms that should start the process of returning confidence and stability to the sector. Better oversight of providers and tighter controls on service users' access to government funds under VET FEE-HELP would have had administrative costs, but could have helped avoid other costs that ended up being much larger (PC 2016d).

Second, existing training packages — that is, nationally endorsed training standards and qualifications — do not always serve the needs of the employers and students. (The Commission has also found a lack of user focus in other publicly-funded services, such as the higher education system (section 3.5), health services (chapter 2), and public infrastructure (chapter 4)). Instead, these training packages are sets of highly detailed and technical standards that have proliferated over the years, yet at the same time take so long to develop that they can be out of date before they reach the end users. As a result, employers complain of qualifications that do not meet their needs and individuals find it hard to know where to obtain a quality training program (Caplan (2016) in Beddie, Hargreaves and Atkinson 2017).

If training does not deliver what employers need, employers are likely to not participate in accredited training and find other ways to skill their workers (Beddie, Hargreaves and Atkinson 2017). Survey evidence points to this already happening. About half of all employers use unaccredited training, with close to 90 per cent of those employers being satisfied with the training. In contrast, only 76 per cent of employers using the VET system to train workers in vocational qualifications were satisfied (NCVER 2015).

Third, training packages are too specific to current job requirements. They need to be broadened to ensure they also equip people with sufficient skills to adapt to changes in the workplace. Being 'work-ready' does not need to be job-specific (Moodie 2015). Instead, training packages could focus on core skills that are needed in most workplaces (literacy, numeracy, digital and communication skills) with the addition of technical skills for the sector, as well as for a particular job (Beddie, Hargreaves and Atkinson 2017).

Fourth, declining VET student numbers at a time when university enrolments are increasing highlights a serious problem with the attractiveness of vocational training (Noonan 2016). VET is funded by the Australian Government as well as State and Territory Governments. While the Australian Government's overall funding has increased, some State and Territory Governments' contributions have declined (Noonan 2017). Student fees have also significantly increased, effectively shifting costs to the Australian Government and to students. In an era of demand-driven funding for universities, the widespread availability of income-contingent loans for these students, combined with the prestige of a university qualification, the VET sector struggles to compete with universities for some courses and qualifications.

In light of these and other problems, the Commission's stakeholders raised a number of areas where VET could be reformed, including the provision of more generic, transferable skills, ensuring youth have good career advice prior to entering VET, and improving VET teacher capabilities and effectiveness. All of these issues are critical to a well-functioning skills' formation system. **Above all, the system's design should reflect the needs of its customers, with regulators and providers adapting to meet that goal.**

It is likely that the *broad* directions suggested by stakeholders will improve the VET sector, but realising any benefit depends on the right design, a recognition that users have diverse views about the details of any reforms, and that implementation is a key to success.

Some stakeholders have urged a comprehensive re-assessment of the VET system, especially given concerns about the system's responsiveness to users, declining student enrolments and the emergence of the universities as competing suppliers. However, undertaking a comprehensive assessment of the VET sector is beyond the scope of this inquiry, though one may well be justified.

Introducing grading in the VET system would help employers in recruiting and job matching

Nevertheless, consistent with its thrust across all the themes in this inquiry, the Commission has some over-the-horizon perspectives, designed to stimulate innovation more broadly. When a system is recovering from such disastrous intervention as has occurred here, it is justifiable to concentrate resources on making it functional again, but it is also important to make some investments in ideas for the future.

Consistent with this chapter's focus on the acquisition of skills as a contribution to higher productivity and individual wellbeing, this section examines a potentially significant reform that provides employers with better signals of the level of proficiency of VET students.

Better signalling of proficiency for vocational training

In the VET system, competency-based assessments provide people with a qualification based on their ability to perform a task to a minimum standard. Typically, there is no grading of the relative performance of students. Yet many dimensions of performance lie on a continuous scale (speed, reliability, ability to switch between tasks, organisational skills and problem solving capabilities).

The introduction of proficiency grading would:

- create incentives for attainment of excellence for students (because it positively affects job prospects and wages)
- provide information to employers to enable efficient recruitment and job matching
- give the VET system the necessary status to compete with other routes (such as university) to a successful career
- assist future learning pathways for students wanting to upgrade from a vocational qualification to a university qualification (such as upskilling from an 'enrolled' to a 'registered' nurse).

Grading does not necessarily mean VET students would receive a traditional letter grade or a score out of 100. Some proficiency scales only introduce relative performance once a student is deemed competent (for example, competent with merit or distinction). The term 'grading' is used in this section more generally to indicate some level of relative proficiency.

Graded assessment has been used in Australia (Gillis, Clayton and Bateman 2008; Hancock 2014). Some governments (Queensland and Western Australia) piloted statewide systems in the early 2000s. But the policy focus shifted to ensuring the quality of delivered courses and the effectiveness of teaching in the VET sector, with grading no longer the emphasis. Although some individual training providers in Australia have implemented graded assessment 'in an attempt to meet demands from end-users for more detailed information about the quality of student performance', approaches diverge widely (Gillis, Clayton and Bateman 2008, p. 6).

While introducing a graded proficiency system into vocational assessment would provide valuable information, some parts of the sector are currently ill-equipped to move to this system. An Australian Government discussion paper on the quality of assessment in VET raised concerns about the capacity of VET teachers and assessors to consistently identify the competency of students, much less deliver performance grading, noting:

> ***… while there has been an effort to encourage VET practitioners to assess holistically, it is generally agreed there remains room for improvement in this area. Some learners have also raised concerns that assessment tasks were seen as 'too easy' and people were 'let through' who should not have been*** *(DET 2016, p. 4).*

Given the current state of the sector, it is unlikely that providers and governments together can immediately adopt a proficiency-based grading system and certainly not across the full suite of vocational skills.

But since planning for such a systemic change will take some time, it can and should start now. In developing strategies to strengthen VET teacher and assessment quality, the Australian Government, in consultation with States and Territory Governments, should examine how and where graded proficiency could be introduced.

There are grounds for the earlier adoption of a proficiency approach for those qualifications where employers and other educational institutions identify a pressing need for more granular assessment. A comprehensive consultation process with employers, training providers and students should be used to identify suitable areas for early adoption. This would also provide lessons about the best pathways to developing proficiency-based assessment more broadly.

An early mover advantage could be supported by initially not making proficiency-based assessment mandatory, but allowing it to arise from the employer demand. Publishing and promoting successful early adopters would add value and help to extend the benefits. The government role would be primarily directed towards validating the system for grading.

Recommendation 3.2
PROFICIENCY NOT JUST COMPETENCY

The Australian Government should develop tools for proficiency-based assessment for skills where employers want to know how well an employee can perform a task, rather than whether they can perform it at all.

HOW TO DO IT

The Australian Government — in conjunction with State and Territory Governments and the Australian Industry and Skills Committee — would initiate planning for proficiency-based assessment processes. The Australian Government should not compel vocational education and training (VET) providers to adopt proficiency-based assessment.

Models would be the subject of employer and VET provider review, with a process that supported early adopters to trial and deliver proficiency assessments. Before their broader application, an evaluation of the trials should be completed, with wider consultation across employer groups and institutions.

3.4 Independent skills assessment framework to support innovative forms of learning

To cope with the likely risks and pressures in the labour market, the education and training system will need to be flexible enough to teach new skills quickly and efficiently. This will probably mean that non-formal and informal education, including emerging forms of learning, will play a larger role in the future skills formation of workers.

Developing skills and demonstrating competency will be important, regardless of the method of learning. But having an accepted currency for signalling credentials will be essential if genuinely new models for educational provision are to challenge higher-cost traditional models of skills. There are grounds to supplement current arrangements and provide recognition of skills and capabilities developed either outside the traditional learning system or from a variety of formal institutions (or a combination of both).

Independent validation of learning is not new. A driver's license is an exemplar — it is issued for anyone demonstrating competency regardless of the method of learning.[4] There is widespread acceptance that people are able to acquire driving skills without formal (or paid) instruction, with confirmation of their skills by testing.

Not-withstanding that the Australian qualification framework recognises prior learning, this appears to mainly relate to fast tracking through formal educational courses rather than replacing those courses altogether.[5] Further, the current validation of informally acquired learning is typically undertaken by an educational institution. These institutions are also involved in selling a competing product, so are likely to

4 In addition to a driving test, some State Governments require drivers to demonstrate, using a log book, that they have completed a minimum number of supervised driving hours.

5 In its inquiry into discrimination against older Australians, the Australian Human Rights Commission (2016) found a number of problems with the existing system of recognised prior learning. It recommended the Australian Skills Quality Authority undertake a strategic review of the availability and administration of the system at a national level.

face a potential conflict of interest when assessing the learner. And often if the learner is deemed not-yet-competent in certain areas, the institution can provide them with the training needed to make up the shortfall (for a fee).

Innovative business models lower costs of learning

New forms of learning are emerging, made possible by developments in technology. In particular, technology is reducing the time and financial costs of acquiring knowledge. These new forms of learning are attractive to workers and employers.

- Formal qualifications may still require regular physical attendance in a facility at a set time determined by the provider — this is ill-suited to people who are working, have caring responsibilities, are geographically distant, or who want to undertake a course at a speed that suits them. Online skills acquisition has none of these disadvantages.
- Online learning can be free, and indeed Australians can free-ride on high quality global online courses, such as massive open online courses (MOOCs) and online videos. Leading universities like MIT and Stanford offer advanced courses through free MOOCs. At a cost, online learning often also provides an option for testing a student's proficiency — providing certification of the actual skills acquired.
- Online learning can be more responsive to changes in market demand for particular skills. Online business models also have greater potential scope to deliver these new topics faster than traditional university courses.
- The online environment is well suited to the incremental acquisition of skills over a person's career, which is likely to be the key to ensuring job security as the nature of jobs and occupations evolve.

Some institutions and businesses are acting unilaterally. They are providing short, modular, affordable courses focused on the skills and capabilities that employers are seeking, using online options to make it easier for people to combine work and training. Examples include:

- the Georgia Institute of Technology, Udacity and AT&T collaborating to offer an accredited Master of Science in Computer Science that students can earn exclusively through MOOCs. A fee is paid for accreditation ($7 000), but for a fraction of the cost of traditional ($25 000) on-campus programs. The MOOC attracts people in their mid-30s who do not want to leave their job, while the traditional degree attracts students in their early 20s wanting to study full-time with an on-campus experience
- Udacity's nanodegree in self-driving cars draws on instructors from industry leaders such as Mercedes-Benz and Nvidia. Students pay a few hundred dollars per month for as long as it takes to finish the course with rebates if they complete it within a year
- some Australian universities have partnered with EdX to offer micro-masters, such as the Australian National University's evidence-based management program, courses that can either be taken on their own or counted towards a full Master's degree

- Pluralist is an online education platform company that connects people of differing levels of knowledge to experts by offering a variety of video training courses for software developers and IT administrators. Experts are paid based on how often their video is viewed — providing an incentive for them to keep updating their content
- Griffith University offers virtual field trips in the hospitality industry. This approach recognises that the industry requires work-ready graduates with the skills to cope with real world problems, while increasing student numbers and time limitations require alternatives to face-to-face learning experiences.

There are also opportunities for innovative work-based learning that lead to professionally-recognised qualifications in areas once seen as solely the domain of university-based learning. As part of the UK *Trailblazer Apprenticeships* program, for example, Price-Water-house-Coopers (PwC) developed (alongside 30 other employers) a 'Higher Apprenticeship' that recruits students directly from school. After three years, this leads to a professional qualification as either a Chartered Certified Accountant (ACCA) or Chartered Accountant (ACA) (BIS 2013; Newton et al. 2015; PwC 2017). This approach is feasible because the skills learned as an accountant are vocational in orientation and there is an independent test of capability to acquire recognition as an ACCA or ACA. Moreover, as in traditional trade apprenticeships, the work that students undertake as part of their learning contributes to the output of the business, which allows the course to be offered without the level of fees charged at universities. The Australian Government has also been trialling the concept with PwC in Australia (NCVER 2017; Singhal 2017).

Need to have a common currency for signalling credentials

The credibility of these emerging education and training options is generally based on the reputation of the businesses and/or the institutions involved. For example, the involvement of Google in the Udacity Android nanodegree provided sufficient credibility for Flipkart, an Indian e-commerce platform, to hire these graduates without interview, based on their nanodegree project and Udacity profile. As a result, the online model for provision of education from existing universities is likely to grow without any government role, as will arrangements that involve commercial parties, such as Google or PwC.

However, there are impediments to the growth of genuinely new models for educational provision.

- The capacity of students to self-assemble a qualification from multiple sources — a MOOC here or there, self-learning, and work experience — is unlikely to provide dependable accreditation or a signal to employers of the inherent ability of the student.
- While universities generally determine their own testing and certification standards, there is some oversight of standards by the Tertiary Education Quality and Standards Agency to set quality standards. In contrast, there is no oversight to ensure the quality of testing in these new models of learning, providing limited credibility of the knowledge learnt.
- University and VET qualifications are often tied to the regulation of occupations — further upholding the value and reputation of traditional forms of learning and the associated accreditation.
- Copyright arrangements are constraining growth in the sector, as innovative firms and educational institutions are unable to access, or are required to pay substantial amounts for, material to be incorporated into MOOCs and other online learning. A replacement

of Australia's narrow purpose-based copyright exception system with a principles-based fair use system would remove some unnecessary restrictions on these new models of learning — while still providing a balance between the interest of the holder of the rights and the users.

Consequently, there is a gap between what is demanded (flexible, affordable and easily-acquired skills) and what is accepted as a universal signal of skills and ability in the labour market. A framework or system that enables recognition of and trust in new types of learning is a missing element. As outlined in *The New York Times*:

> ***Free online courses won't revolutionize education until there is a parallel system of free or low-fee credentials, not controlled by traditional colleges, that leads to jobs.*** *(Carey 2015, p. 1)*

The emerging education sector is well aware of the problem of acceptance and recognition in the jobs market for their products and are already seeking solutions. These include universities awarding certificates, nanodegrees and micro-masters (as outlined above), digital badges (similar in concept to scout badges) and online platforms, such as Degreed and Accredible, acting as a central repository for modular learning. Degreed plan to take this process one step further by creating a network of subject-matter experts to assess learners skills along with standardised grading. DeakinDigital, based at Deakin University, tests capabilities and issues credentials that certify people's ability in non-technical areas such as problem solving and communication. These solutions are in their infancy, subject to proliferation (hence lacking the credibility provided by large-scale uptake), and are yet to be understood sufficiently to serve as a signalling tool in the labour market.

Certification frameworks ensure the outcomes of an education system have value to society. Traditional, higher costs methods of learning, such as a four-year university degree or an apprenticeship, have these regimes. But the financial and time costs of these traditional methods are a major barrier to skills formation.

If Australia's education system is to be adaptive to the forthcoming labour market challenges, it is necessary to have an education system that values these new models of learning. A certification framework will go some way to doing this. The proposed regulatory framework could involve any combination of:

- endorsing existing rigorous independent assessment solutions
- contracting out the assessment of skills to approved organisations to conduct skills assessments
- direct provision of accreditation by a government body (if necessary).

Any system would require a rigorous, independent and employer-accepted assessment of the quality of learning. Ideally, a party without any training responsibilities would assess a person's skills using a validated approach, to avoid a conflict of interest. This model is more applicable to some fields than others. For example, IT and economics are disciplines in which skills are readily measurable and where it is possible to acquire knowledge assembled from low-cost sources.

This validation framework would not be restricted to skills developed through MOOCs, online video platforms or traditional educational institutions, but could include any skills generated through other activities (such as volunteering). While designed to assist all workers, particular groups may benefit more, including youth entering the labour market, women returning to the labour market after a break, and older workers.

Currently, the lack of a certification framework impedes the growth and acceptance of new models of skills formation, reduces investment in education and training, sustains an inefficient legacy model of providing skills, and so leaves workers vulnerable to poor labour market outcomes, which has an impact on the capabilities and productivity of Australia's labour force. There are prospectively large gains to productivity and efficiency from supporting new models of learning.

Recommendation 3.3
DISRUPTION OF EDUCATION THROUGH INDEPENDENT ASSESSMENT

The Australian Government should develop a framework to facilitate the independent accreditation of skills obtained through any learning method.

HOW TO DO IT

A capacity to assess and accredit skills and competencies acquired outside of traditional settings should be established and funded by the Australian Government. For university-level qualifications, this may be the Tertiary Education Quality and Standards Agency.

The Australian Government, in conjunction with employers, the Industry and Skills Committee and the Australian Skills Quality Authority, should investigate areas of vocational education and training where an independent certification model could robustly test a person's skills.

3.5 Improving university outcomes

Universities have always been relevant to skills formation, but their role has grown from being a niche provider for a very small share of Australians, to a system accessible to most and used by many. In 2011, the share of the population aged 15 years and above with a bachelor's degree or higher (19 per cent) was over nine times the figure for 1971 (2 per cent). This figure is even higher for younger cohorts, with nearly 40 per cent of 30-39 year olds holding a bachelor degree or higher in 2016.

The university sector has a range of issues, but our focus is on student outcomes

In spite of (or because of) its recent growth in importance, there are a range of structural challenges facing the university sector. Just some of these risks include:

- maximising the public benefits of university research — particularly where this research is (directly or indirectly) taxpayer-funded
- governance arrangements for public universities — such as whether the lines of ownerships and responsibility between government and university managers (such as the Vice-Chancellors) are sufficiently clear and consistent

- an evolving academic workforce — including challenges with the ongoing casualisation of many roles (particularly teaching-only staff) and the divergence between roles
- the role of non-university higher education providers — whether these providers are simply VET organisations that can offer applied degrees in specific areas, or whether they have the potential to become diverse teaching-only universities
- the reliance on international students — including the impact of increased enrolments on the quality of education for domestic students and the reputational risks for Australian universities in the international student market
- overcoming remaining obstacles to access for disadvantaged student groups — such as ensuring adequate income support so that, if required by circumstances, students are able to support themselves (and, for mature-age students, their families) while studying
- administration costs and arrangements — including whether the administration of many universities has become overly bureaucratic and expensive to maintain
- research collaboration and commercialisation — improving the incentives for collaboration on applied research between the university and the businesses sectors.

Most of these issues facing the university sector will not diminish over time either. Indeed, given current enrolment growth rates following the move to a demand-driven university model, it will not be too long before the university sector is the key vehicle for skills formation in the economy. Meanwhile, ongoing technological change is already disrupting university business models as the methods of acquiring and disseminating knowledge evolve (such as the growth of MOOCs, discussed above). These changes are only likely to increase the scale and urgency of the challenges facing the university sector.

It will not be too long before the university sector is the key vehicle for skills formation in the economy

The Commission has concentrated on the value and impacts of universities' teaching functions, given the role that teaching plays in the development of workforce skills and knowledge (figure 3.2). This approach aligns with the focus elsewhere in this report on improving the value of services for consumers (such as patient-focused health care in chapter 2 or user-responsive road and city design in chapter 4), rather than addressing institutional issues with the providers. A full discussion of university education and the policy options below is in Supporting Paper 7 (SP 7).

Figure 3.2 Issues in the university sector and the Commission's focus

- Maximising the public benefits of research
- Public governance arrangements
- Challenges in an evolving academic workforce
- Role of non-university higher education providers
- Risks from the reliance on international education exports
- Overcoming remaining obstacles to access for disadvantaged students
- Administration costs and arrangements
- Improving incentives for research collaboration and commercialisation
- Skills development and student outcomes

STUDENT OUTCOMES ARE OFTEN POOR ...

University students do not always get great outcomes from their education.

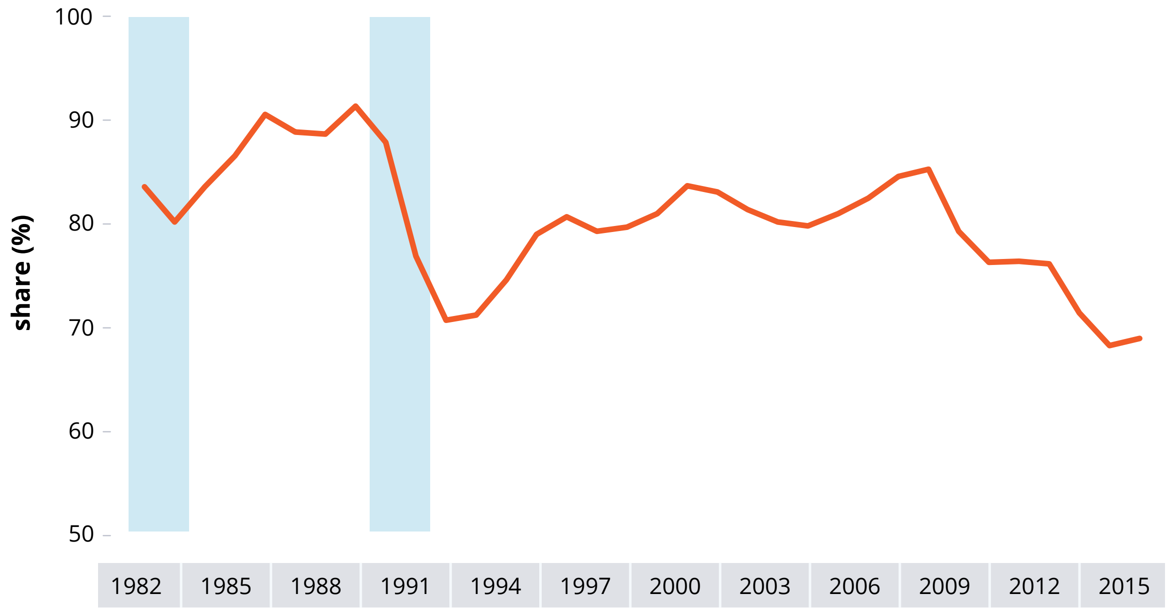
First, many students do not even complete their degrees. In 2014, more than 26 per cent of students had not completed their degree program within nine years of commencing. Having over a quarter of students not complete their qualifications represents a significant loss of resources for those students (in time, effort and money), as well as for taxpayers. Recently, rates of short-term attrition have also been trending upwards — short-term rates have risen from 12.5 per cent in 2009, to 15.2 per cent in 2014.

Although these rates remain within their historically normal ranges and much of the increase reflects a few outlying providers, they also do not yet include the long-term effects of the shift to a demand-driven system. As proportionally more students enter university, it is possible that more of them will be poorly prepared — not only students who may not have done well in secondary school (as measured by Australian Tertiary Admission Ranks or ATARs), but also students with marginal attachment or engagement at university (such as some mature-age or part-time students). On the other hand, the overwhelming majority of variation in attrition rates comes from individual factors (such as student motivation) or university-level differences, such that it is also possible there is no link between expanded access to university and rising attrition rates.

For those who do complete their degrees, post-graduation outcomes have been getting worse. Full-time employment rates for recent graduates have been declining, even as the Australian economy has continued to grow (figure 3.3). Many of those who do not work full-time are not in that position by choice, with the underemployment ratio among graduates at 20.5 per cent in 2016, compared with about 9 per cent in 2008. Graduate starting salaries have also been growing slower than wages across the broader economy (declining from nearly 90 per cent of average weekly earnings in 1989 to about 75 per cent in 2015).

Figure 3.3 Undergraduate full-time employment

As a proportion of those available for full-time employment, four months after completion[a]



[a] Shaded areas indicate recessions.

Although long-run unemployment remains low for those with a bachelor degree (at 3.1 per cent in May 2016), this can hide a range of serious issues. For starters, unemployment is much higher for younger graduate cohorts (at 6.5 per cent for 24 year olds). Further, over a quarter of recent graduates believed they were employed full-time in roles unrelated to their studies, to which their degree added no value. To the extent that someone without a costly university education could have undertaken these roles, this can then have cascading employment and income effects down the skills ladder.

Post graduation outcomes have been getting worse

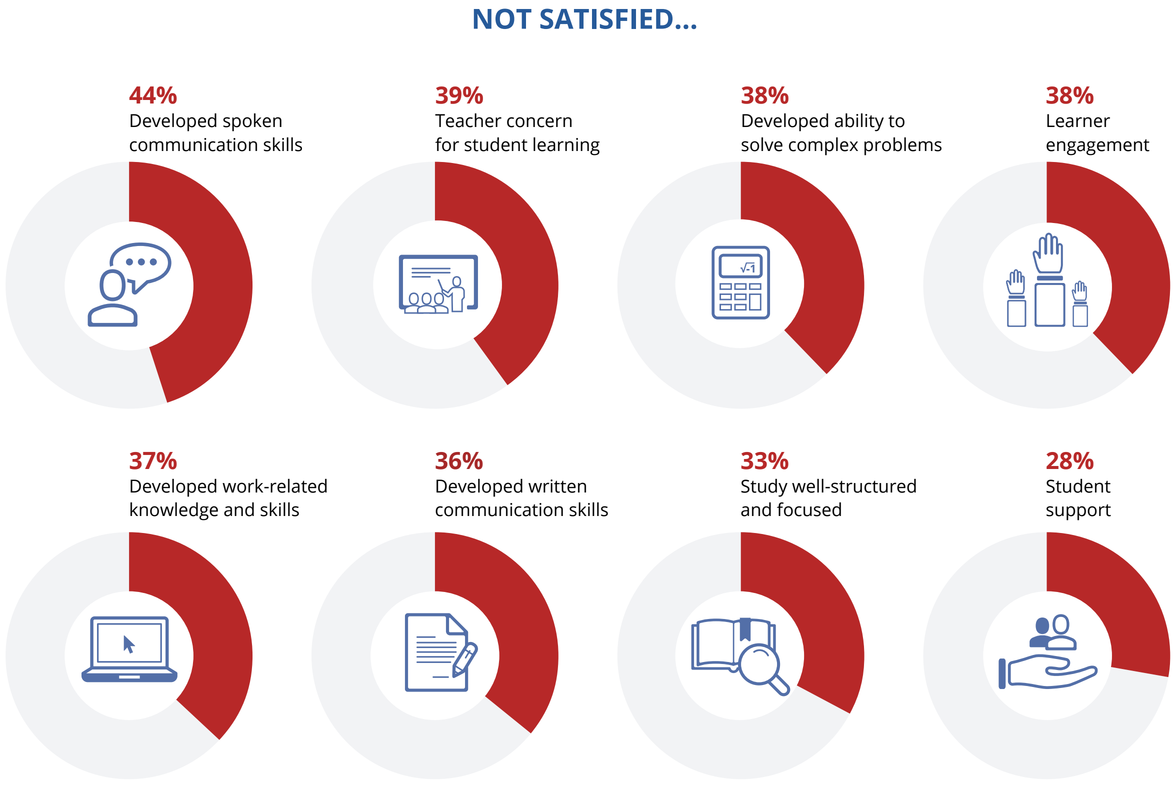
Many employers are also not satisfied with the quality of recent graduates, with about one in six supervisors saying that they were unlikely to consider or would be indifferent to graduates from the same university.

University students are also not satisfied with the teaching in their courses (figure 3.4). Australian universities continue to perform poorly on student satisfaction measures relative to the United Kingdom or the United States.

Of course, the problems in student outcomes are often not the fault of the universities, nor the education they provide. The inherent capabilities and choices of students are vitally important to their future, while labour market conditions and mere chance are also decisive.

Figure 3.4 **University students are often not satisfied with their courses**

Percentage of students who did not give a positive rating, 2016



... BUT UNIVERSITY STAFF ARE MORE FOCUSED ON RESEARCH

Not-withstanding the critical role of their teaching function, universities tend to given pre-eminence and prestige to their research functions. The selection process and career development of academics generally depends more on their research results and publication numbers than on their teaching ability.

Indeed, even where staff have an interest in teaching excellence, teaching-focused roles have a poor reputation, and are not seen as conducive to career progression (surveys indicate that while over 80 per cent of academics think that 'effectiveness as a teacher' should be highly rewarded in promotions, less than 30 per cent think it actually *is* rewarded).

In turn, universities are encouraged to recruit research-centric staff by international university rankings that are based largely on research capabilities. As universities rely on their international rankings to attract footloose international students (and their associated revenue), this encourages a 'gladiatorial obsession' with relative research performance in the rankings of the top 100 universities, while a focus on teaching quality is not rewarded. That universities must foster excellence in research is unquestioned. However, universities are in the unique position of not just generating ideas that push out the boundaries of knowledge, but in also transferring that knowledge to students — a diffusion role that is not subject to the same level of status as research.

How might teaching incentives be realigned?

Part of the reason why universities may be more focused on research prestige and less on teaching outcomes is because they do not face sufficient incentives to improve the latter (not just financial incentives, but also institutional and regulatory incentives). More closely aligning the interests of universities and their staff with those of the people paying the bills — students and taxpayers — could be one mechanism to drive improvements in student outcomes. The objective would be for universities to respond by improving their teaching quality, as well as to consider the effect of their admissions criteria, pre-commencement information and ongoing student support services on student outcomes. Overall, this could result in:

- greater human capital development — by improving the value and relevance of the skills and knowledge that students are taught during their degree
- better matching of students to the universities and courses that suit students' long-run interests (reducing wasted education investments) .

By improving student outcomes, it could also lead to lower amounts of Higher Education Loan Program (HELP) debts that are not expected to be repaid ('doubtful debts'), incidentally reducing costs for taxpayers.

However, creating, designing and implementing new incentive structures for institutions as complex as universities is not easy. A risk is that universities alter their behaviour in unanticipated ways, with undesirable consequences. Moreover, changes to one part of the university system (such as funding arrangements for teaching) can have incidental and profound effects in other areas (such as research), which creates new policy questions. Accordingly, initiatives that aim to fix one problem in the system can reverberate — requiring a cascading series of policy interventions.

As a result, the Commission has indicated *potential* changes, rather than recommending them at this stage, as further work would be needed on impacts, development and testing, prior to implementation. A formal Reference to undertake such a systemic review is one possible course for policy makers.

IMPROVING INFORMATION AVAILABILITY TO UNDERPIN WISE CHOICES

Given the resource and time costs of university education that are borne by students, as well as the fundamental effect this has on productivity, careers and life choices, the sparse provision of reliable meaningful information about the quality of courses, degrees and universities is perplexing. Generally, students cannot determine in advance whether a university's teaching is good quality or if the degree suits their capabilities and preferences, inhibiting their ability to make good decisions. Three years of effort on a degree that has no real currency is bad for both the student and the economy. In turn, universities have weak incentives to improve teaching quality if prospective students are unable to determine their quality.

The Australian Government has already acknowledged that the sources of information on university teaching quality and student outcomes need to be improved. The Quality Indicators for Learning and Teaching (QILT) data and website are being expanded, while recent work by the Higher Education Standards Panel aims to improve the range and relevance of pre-commencement information available to prospective students.

However, further improvements will be needed once these changes are complete. In particular, as is already recognised in schools, there is merit in measuring the degree to which universities causally contribute to the outcomes of their students ('value added'). This is because the absolute outcomes for students are as likely to reflect the quality of the students, as they are to reflect the quality of the universities:

> ***Top universities that attract A+ students and turn out A+ graduate[s] surprise no one. But what about universities that accept B+ students and produce A+ graduates? Which is doing the better job?*** *(OECD 2013)*

As in so many other policy areas discussed in this report, good data and its availability to trusted parties are also going to play a large role in establishing the genuine impacts of universities. This will require the collection of more information from universities, as well as greater use of linked administrative data from government agencies, such as the Department of Human Services and the Australian Tax Office (SP 3). Better data on student outcomes would not only inform students, but would also create lessons for universities about what creates good outcomes. Teaching methods, syllabuses and teacher quality matter a great deal to the educational outcomes in schools, but this recognition is lacking in universities.

ENHANCING CONSUMER (STUDENT) RIGHTS

In much of the economy, a consumer receiving a service that is not 'fit for purpose' or that is not supplied with 'due care and skill' has recourse to compensation or re-provision (a 'right to return') of the service. Until recently, universities were, by dint of a technicality, free of obligations under Australian consumer law (ACL). That appears to have changed with the introduction of the demand-driven system, opening up the avenue for a student to seek compensation or re-provision of the course if there are sufficient deficiencies in curriculum design, course delivery, student support, supervision quality or the 'fitness for purpose' of a qualification.

Clarification of Australia's consumer law may be needed to ensure that higher education providers are accountable for the quality of their services to their students

Whether, in fact, the ACL will adequately give students that recourse is unclear, as it has not yet been tested in court. Although the ACL can help to protect consumers' interests, actions can be difficult to mount, there will always be some ambiguity about what constitutes a breach, and case-by-case restitution can be costly.

The United Kingdom has recently clarified their consumer law *to ensure that it applies fully to higher education providers.*

Recommendation 3.4
COVERING UNIVERSITIES UNDER CONSUMER LAW

The Australian Government should monitor consumer law developments in Australia and the United Kingdom (UK), to ensure that the Australian Consumer Law applies to the higher education sector.

HOW TO DO IT

If, on further examination, it appears that action in Australia is difficult to mount and that the UK arrangements have had a positive impact, the Australian Government should clarify in legislation that the Australian Consumer Law does relate to higher education. This should give the student the right to compensation or the 'right to a repeat performance', on the same basis as other products that prove to be not fit for purpose.

INTRODUCING 'SKIN IN THE GAME'

One way to realign the incentives of universities is to introduce 'skin in the game' — financial incentives linked to student or taxpayer outcomes. Currently, universities provide education services to students with no responsibility for their post-graduation outcomes or the quality of the teaching they provide. Linking student outcomes to university payments could help to overcome this.

The Australian Government has already announced one such mechanism as part of the 2017-18 Budget, with plans to allocate 7.5 per cent of Commonwealth Grant Scheme (CGS) funding on a performance-contingent basis. Potential measures of performance under this measure seem likely to include student retention, satisfaction and outcomes, although designing and implementing the metrics will involve significant challenges. The Commission has considered some desirable features of such measures and some possible pathways forward on the Government's proposal in SP 7.

Further complementary policy options could also be considered to try to reduce attrition rates. As universities can have some influence over student retention through their admission criteria, pre-commencement information and ongoing student support services, linking financial incentives (or penalties) to student attrition would place part of the consequences with them. While the Government's proposed performance-contingent funding seems likely to include measures of attrition as a key variable for determining the reward (or penalty) provided to universities, complementary policy options in this area could also include:

- the requirement that universities bear a moderate share of the HELP debt of students who do not complete their qualifications, as currently only the Australian Government and students jointly bear these obligations. The relative obligations borne by the three parties could depend on when students exit and the individual circumstances
- paying the university a completion bonus for each graduating student — such as by withholding a share of the CGS grants until the student is awarded their qualification.

However, such options face some challenges and require further development and consideration before they could be implemented.

First, both may create some incentives for universities to refuse to fail under-performing students. Whether these incentives are material is unclear because universities employing this strategy would put at risk their long-run reputation; leave the university open to action under the consumer law; and potentially lose any proposed performance-contingent funding.

Secondly, universities have only limited influence over student attrition rates — the choices and preferences of the students themselves and external factors (such as the economic climate or family responsibilities) are also highly influential. As such, the extent to which universities should be penalised for student attrition depends on the degree to which they affect student outcomes. If implemented, it would be prudent to start small and recalibrate based on observed outcomes.

The teaching-research nexus

Part of the rationale for universities undertaking both research and teaching functions is the 'teaching-research nexus' — the theory that close proximity to world-class researchers makes students more engaged, develops their critical thinking, aids their research skills and keeps them up to date with the latest research findings.

However, these skills and attributes can be nurtured by high-quality teaching-only academics as well. For instance, teaching-focused staff with adequate support can keep up to date with the latest research findings. Indeed, the skills and attributes that make an academic a good researcher will not necessarily also make them a good teacher. In line with this, there is little empirical evidence that a positive nexus exists (particularly at the undergraduate level).

Despite the lack of evidence, the nexus is reinforced by regulatory requirements that restrict the title of 'university' to only those institutions undertaking both research and teaching. This matters because the title 'university' has a special status for employers and students, regardless of the extent to which universities enhance skills acquisition. However, in many other countries (including the United States and England), there is recognition that a university can undertake excellent teaching without conducting research. As research is expensive to conduct, this can also create barriers to entry and provide a competitive advantage to existing institutions in Australia's university-centric market.

As part of the 2017-18 Budget, the Government announced it would examine the requirement for universities to conduct research as part of the review of the Higher Education Provider Category Standards. If, as a result, the higher education market was opened to teaching-only universities, rigorous quality standards and auditing would still be needed, in order to avoid repeating the mistakes of the VET sector (discussed in section 3.3 above).

Observation 3.1

There is no compelling policy rationale for requiring high-quality providers to conduct research in order to be able to label themselves as a 'university'.

TEACHING SURPLUSES, RESEARCH FUNDING AND CROSS-SUBSIDIES

The existing funding arrangements often result in domestic students paying for university research as part of the cost of their education, despite that research being of little direct benefit to them.

Currently, most domestic students attend university in a Commonwealth-supported place (CSP). The Australian Government regulates the resources provided to the universities for each CSP by providing a pre-determined taxpayer subsidy for each student (Commonwealth grants) and placing maximum limits on student contributions (which normally get paid through the HELP loan system). Resource amounts vary by field of study, with annual resources per equivalent full-time study load (EFTSL) ranging from $12 158 (for humanities subjects), to over $30 000 (for medicine and agriculture subjects).

Government regulation of CSP resourcing is necessary because price competition is difficult to establish in the *domestic* university market. This is primarily because the vast majority of domestic students have access to income-contingent HELP loans and consequently have a low price sensitivity, which was a necessary by-product of enabling university access on merit, rather than family income.

Further, in the absence of good information, lower prices may undermine the prestige of a university and its capacity to attract good students. In addition, students are often not geographically mobile, implying that many universities often only compete within a city-sized market, rather than across Australia. While there is some movement of students from their home state to attend university, in the four biggest states, well over 80 per cent of commencing students originate from the same state, likely reflecting the cost of moving out of their parents' home (the dominant accommodation choice for higher education students).

There is strong evidence that the maximum CSP prices set by the Australian Government are often well in excess of the full costs of some courses. Universities do not compete down prices for such courses (an indicator of the imperfect competition described above). This generates 'teaching surpluses' for certain high-margin courses, which universities can then use to fund research. Across all universities, the cross-subsidy from teaching to research generated by Commonwealth-supported domestic students was estimated to be $1.5 billion in 2013. This is nearly half the amount that universities receive from the Australian Government in direct research funding ($3.5 billion).

This has several concerning outcomes. For one, such cross-subsidies are invisible to students and, given the standard accounting methods used by universities, are not disclosed accurately to the Australian Government either.

Of most relevance to this inquiry, such *cross-subsidies may also have adverse impacts on skill formation, ultimately affecting Australia's productivity.* Under the demand-driven system, the number of places available for students in a given course is determined solely by the university. Cross-subsidisation creates strong incentives for universities to offer more places for prospective students in high-margin courses and fewer places in low-margin courses, in order to maximise teaching surpluses for research.

This can result in oversupplies or undersupplies of graduates in certain fields, based solely on the incentives created by arbitrary Government funding levels and student contribution caps. Students in oversupplied programs can then struggle to find employment after graduation, wasting the resources used to educate them, while under-supplied courses can often be in areas that are vital for the community (such as dentistry or health).

New funding arrangements that align total CSP resources to expected teaching costs (both fixed and variable) would help to minimise these inefficiencies. Some initial work on the cost of teaching by discipline has already been undertaken by the Australian Government as part of the 2017-18 Budget, alongside the roll-out of improved accounting methods for universities (specifically allocating expenses by purpose, not just type).

However, reducing cross-subsidies would decrease funding for research (by definition). Without offsetting policies, this would strain university budgets in the short term and potentially affect Australia's long-term research capacity (and hence productivity).

The Australian Government could consider options that addressed the need for adequate research funding, while still reducing the adverse impacts of existing high-margin courses. For example, it could set cost-reflective prices for courses, saving costs and then return it to universities through increased research funding. However, that would raise questions about the best ways to allocate such funding, which the Commission has not investigated in detail. Once that avenue of inquiry was opened, it would logically extend to all university research funding, and indeed, potentially, to the Australian Government's policies for funding research in the wider economy. Consequently, further consideration of offsetting measures would be needed before implementation, as well as consultation with the affected parties.

Observation 3.2

There is a strong in-principle case that per-student CSP resourcing (from combined student contributions and Commonwealth grants) should more closely reflect the expected cost of teaching.

As this would likely remove a significant source of revenue from universities, it would also create a range of research funding issues.

The funding model in present use has not been updated to deal with the shift to a demand-driven model and, if left unchanged, could adversely affect Australia's future skills formation.

Improving the role of HELP in productive skills formation

The HELP scheme is a critical program for ensuring that higher education is accessible to all Australians, and (given the growing significance of the sector for skills formation in an evolving economy) is a foundation for future productivity. However, its design poses several problems for economically efficient decisions about skill acquisition.

Much of the recent debate about around higher education policy has focused on the sustainability of the growing value of HELP debt that current and former students owe the Government. The value of outstanding HELP debt has increased from approximately $12.4 billion in June 2006 to over $47.8 billion in June 2016. Projections indicate that this trend will continue, up to nearly $200 billion by 2025 (SP 7).

The proportion of HELP debt that is not expected to be repaid is rising strongly

The proportion of doubtful HELP debt is also rising strongly. While some temporary factors have contributed to this recent increase, there are also a range of significant long-term challenges to debt repayment, including:

- growing numbers of retirement age students with limited expected participation in work
- the growth of part-time employment with earnings below the repayment threshold, particularly for second incomes in otherwise wealthy households
- offering HELP loans for VET qualifications, which have lower expected private benefits
- the potential automation of some entry-level jobs, limiting graduate opportunities
- potential growth in student non-completion rates, as the opening of the university sector to more students may lead to the entry of less academically-prepared students.

Many of these structural challenges can lead to the unproductive use of HELP, particularly on wasted education investments. An exemplar is the case of those post-retirement age students who do not pay off their debts and who have acquired skills that have a lower likelihood of benefitting the public at large. While the scale of some of these problems are small now, they look likely to grow. However, such expenditure is not uniformly wasteful either. Therefore, the government should avoid arbitrary limitations and rules, such as indiscriminate age limits that discourage up-skilling and retraining.

To address these challenges and reduce the costs of the HELP system, the Government announced a range of reforms as part of the 2017-18 Budget, including changes to the HELP repayment schedule. From 2018-19, debtors will begin making repayments at a rate of 1 per cent once they reach $42 000 income, rather than the current threshold of $55 874 with an initial repayment rate of 4 per cent. By requiring more individuals to make repayments (estimated at nearly 200 000), this increases repayments and reduces costs.

However, most of the long-term structural challenges remain unaddressed by lower HELP repayment thresholds. In particular, many university-educated part-time workers in otherwise wealthy households will still be under the threshold. Similarly, post-retirement age students will be largely unaffected if they have left the workforce, as their earnings will likely remain below the threshold.

Further, although lower repayment thresholds would increase HELP repayments, it may also distort workforce participation decisions. This is because the HELP system results in 'repayment cliffs' at each subsequent income threshold, which can induce 'income bunching' at those thresholds.

Although the lower repayment *rate* (of 1 per cent) would help to minimise the disincentive effects of the reforms, lower repayment *thresholds* are also likely to disproportionately affect part time workers, who generally have more control over their hours worked, and so may respond with reduced workforce participation. More broadly, subjecting over two million debtors (given that nearly all debtors will be paying more under cascading changes to subsequent income thresholds) to increased marginal tax rates can also have labour supply effects, even if only temporarily while the loan is repaid.

An alternative to lowering repayment thresholds is to allow outstanding debts to be collected from deceased estates (rather than being written off, as currently occurs). The fiscal gain would, of course, be much deferred. But it would reduce doubtful debts substantially (by approximately two-thirds according to one estimate), and would not have as much of a distortionary effect on participation decisions, as the marginal impact of improved collection would generally occur post-retirement.

It would also be consistent with the treatment of other tax debts and private debts, and would better address many of the long-term structural challenges faced by the HELP debt system (including post-retirement age students and part-time workers in otherwise wealthy households). Collection from deceased estates could also be structured to protect against financial hardship for the debtor's family members.

Observation 3.3

Decreasing HELP repayment thresholds can affect workforce participation decisions for some marginal debtors.

A better method of recovering outstanding HELP debts and addressing long-term challenges to HELP debt sustainability is collection from deceased estates. Equity concerns posed by such an approach can be alleviated by creating a provision for small estates, only collecting from the estates of debtors beyond prime working age and providing the Australian Taxation Office with discretionary powers to waive remaining debts.

3.6 Revisiting lifelong learning: an expanding role for education and training throughout life

The preceding discussion has largely focused on reforms to the supply side of the education and training system. Demand for education can also be affected to the extent that quality is improved (university teaching), accessibility and flexibility is enhanced (online courses), the value of learning increases (better recognition and accreditation of learning), or prices change (CSP funding or HELP design). But there is an underlying presumption that there are students motivated to attend these institutions.

The demand for education and training, particularly among some cohorts, such as older workers, cannot be assumed. In the face of technological change, ensuring the skills relevance of the existing workforce will become increasingly important. Additional measures may be needed (or barriers removed) to help workers (and/or their employers) realise the pay-off from up-skilling and retraining.

As the potential breadth of training requirements are wide and varied, reforms will cut across the whole education system. Some workers, for example, may need to develop foundational literacy and numeracy skills, while others may need information and guidance about pathways to up-skill their already high levels of education.

Front-ended study dominates learning

In Australia, an individual's education and training is typically front-ended — that is, their formal learning occurs early in their life, after which they enter the workforce and continue working until retirement, interspersed with on the job training. The school, VET and university systems play the main role in educating and training young people at the start of their life.

Historically, this model of learning has been effective, as it maximises the amount of time a person can earn higher wages from their additional skills, maximising returns to education. It also lowers the effective cost of education and training because it takes place at a time in people's lives when they can obtain part-time casual jobs while studying, and when full-time jobs are difficult to obtain or would not pay well.

While participation in formal education is substantially lower for older cohorts and continues to decline with age, Australia's post-secondary school education and training system has played a role in providing some mature workers the opportunity to:

- return to the education system to obtain an initial qualification ('second chance')
- undertake different or higher qualifications, such as postgraduate study or transitioning from a VET qualification to an undergraduate degree (up-skilling and retraining).

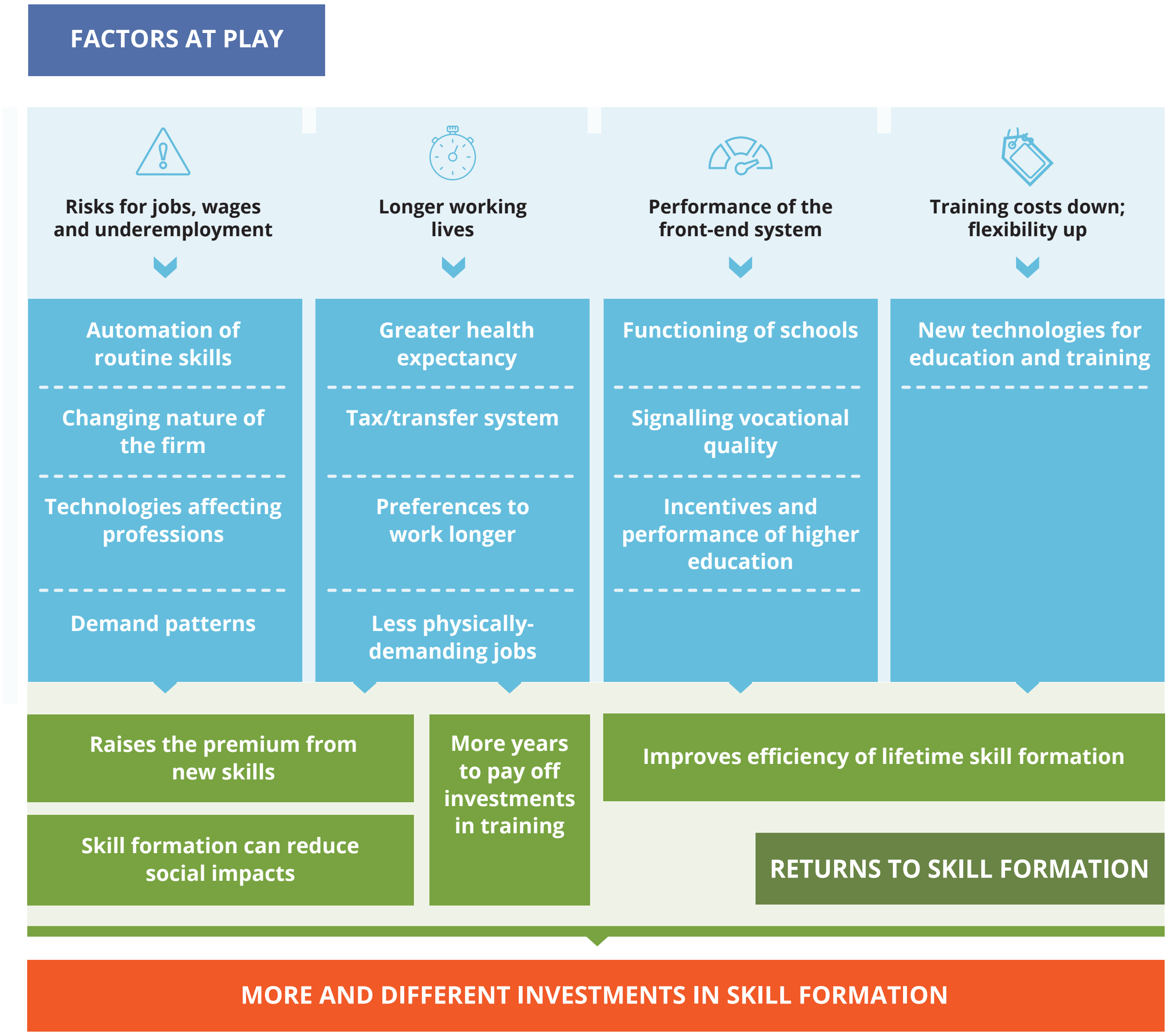
Grounds for greater investment in skills development

While education and training in the first 20-25 years of life remain critical, there are grounds for more systematic and greater investments in the skills of people throughout their working life. In particular, the returns from *further* training and education may rise over the coming decades. Three main mechanisms lie behind this:

- The duration of working lives should increase (raising returns to further education).
- The cost and accessibility of training and education can be expected to improve — if policy settings allow this (section 3.4).
- The nature of occupations and jobs are likely to change sufficiently quickly that skills become redundant and existing workers are vulnerable to unemployment, underemployment and poor skills utilisation (SP 8).
  - This stems from the potential acceleration of automation into occupations previously not considered feasible. It was, for example, previously thought that driving a vehicle was so reliant on subtle perception that machines could never undertake the task — this is clearly no longer the case. With the advent of trials of driver-less vehicles around the world, automated long haul freight distribution is increasingly seen as viable. Its widespread adoption would displace many truck drivers.
  - The impacts of digitalisation are also changing the nature of the firm. There is increased scope to offshore jobs in the services sector, including in areas previously expected to be safe from outsourcing (such as human resources jobs). And firms — enabled by exchange platforms like Airtasker — are able to contract out short-term, discreet tasks. The prevalence of the gig economy is often grossly exaggerated. Nevertheless, as discussed in the Commission's recent report on digital disruption, it may grow in significance, with a greater proportion of workers thus relying on a portfolio of work and a wide range of skills, rather than long-term employment with a limited number of employers and a narrower set of skills.

In summary, technological change is making it worthwhile to undertake more training, new ways of learning make the additional investment easier and cheaper, and people working longer gives them longer to obtain the benefits from more training (figure 3.5). These factors increase the return on additional relevant investment in education and training.

Figure 3.5 Skills formation for existing workers — drivers and implications



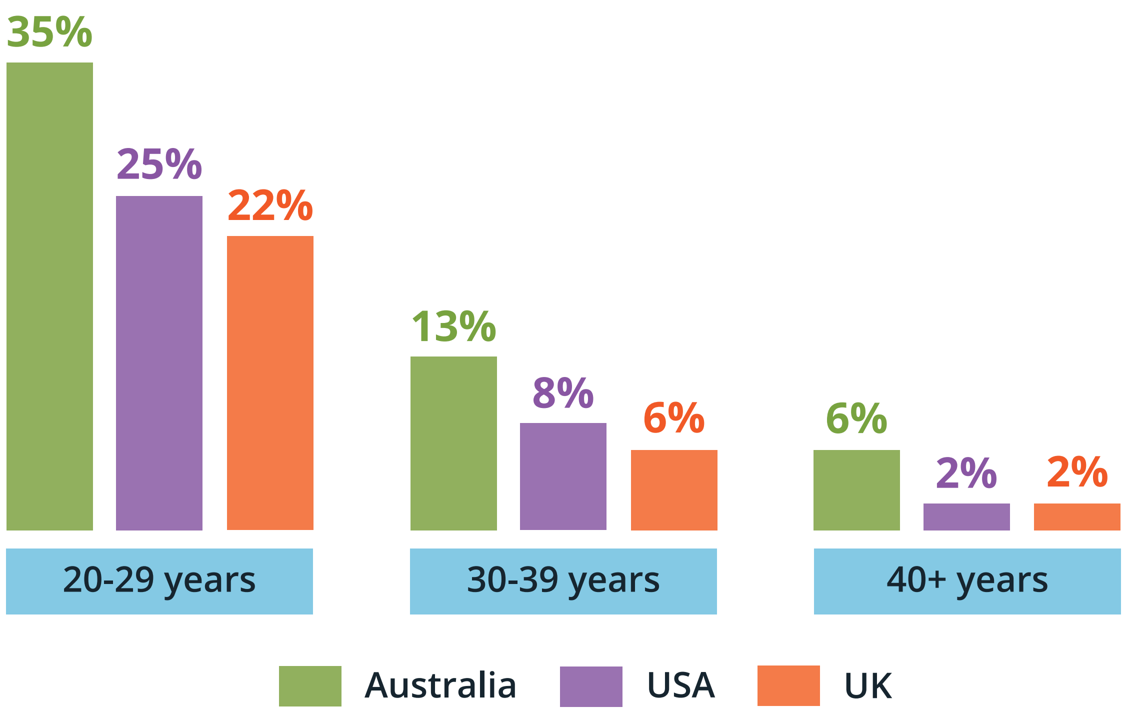
The level of adult participation in education and training in Australia is high compared with other countries (figure 3.6). However, this participation tends to relate to the enhancement of professional skills associated with already acquired post-school qualifications. The extension of opportunities to other groups will be important for minimising structural adjustment costs and distributional impacts of potentially large shifts in the labour market. As *The Economist* has emphasised, focusing on narrow groups for lifelong learning poses large risks for people and society:

> *… the lifelong learning that exists today mainly benefits high achievers — and is therefore more likely to exacerbate inequality than diminish it. If 21st-century economies are not to create a massive underclass, policymakers urgently need to work out how to help all their citizens learn while they earn.* (The Economist 2017, p. 2)

Barriers to employment and training among the working, especially older workers, are well-known (discussed further in SP 8). The ageing of the workforce means that a greater number of workers will be facing barriers that may result in poor job matching, underemployment, unemployment or early retirement. Increased and unexpected vulnerabilities from technological advancement adds a new element to structural change, creating a broader group of people who are not necessarily aware of potential risks or the pay-off from re-skilling.

Figure 3.6 **Adult participation in formal education, 2012**

Per cent of age group



Source: OECD *Education at a glance*, online statistics.

LACKING A TRIGGER TO PROMPT SOME WORKERS TO RETRAIN

An essential component for improved living standards is early intervention. Policy settings should be such that actions are taken before workers are retrenched or made redundant. Redundancy is a poor starting point for re-skilling. It means there is a potentially lengthy interruption to employment, which then reduces subsequent job prospects.

The problem facing vulnerable employees is one of creeping gradualism. The risks of job loss grow slowly, varying by place and skill, so that there is no obvious trigger for acquiring new skills before the risks are realised.

For example, long-distance truck drivers, as noted above, are at risk of displacement if automated vehicles are adopted for long-haul freight distribution. But they do not know when. It might happen only for some trucks on some routes, or may occur for some companies ahead of others. Regulatory uncertainty about the safety of autonomous vehicles also make predictions difficult.

For the workers in this situation, switching occupations not only involves a gamble in terms of forgone wages and conditions, but it removes people from the familiar milieu of their job and their colleagues — workplaces are often valued as much for the relationships they create as their earnings.

Risks of job loss grow slowly, so there is no obvious trigger for acquiring new skills

HOW DO I KNOW? ACCESS TO INFORMATION

Beyond the multiple new approaches discussed above for access to flexible, innovative and affordable skills formation, there remain some barriers to well-informed choice for skill formation options.

Governments have taken some steps to overcome the information barriers to skills development and employment. There are a burgeoning number of websites to assist people considering particular occupations and looking to undertake training, including:

- My Future — a national career information and exploration service
- My Skills — a directory of training opportunities in the VET sector
- Job Outlook — a careers and labour market research site
- Quality Indicators for Learning and Teaching (QILT) — information on higher education course and graduate employment outcomes.

The Australian Government is also developing a new website to provide a single point of entry for information about higher education admissions policies and processes. There is evidence that improved availability of course outcome information helps people, including disadvantaged workers between the ages of 25-54, seek out courses with good expected labour market outcomes.

But just as the Commission found in health care (chapter 2), the enthusiasm to use the web for information provision carries with it the risk of a confusing maze of information, working against the very purpose for which such sites exist. One improvement would be to consolidate the information about training and education into one website. While the websites listed above are usually linked, they do not provide a single, comprehensive information source for either school leavers or those in the workforce to review their employment and study options. A single platform may make it easier to navigate for the end user — particularly workers who have not had much contact with the education and training system for a number of years. A single platform will also make it easier to market to the public, providing greater awareness of the information available. Increased knowledge and use of a single platform represents a cost-effective method to promote careers and training information. However, any such portal must be properly maintained to be useful, with a single agency accountable for its quality and usability.

There is also scope for improvement in the content of the existing tools. The Australian Human Rights Commission (2016) found that ‘information and guidance available to older people considering formal skills training is inadequate and does not support people to overcome barriers’ (p. 93). It also found that there were gaps in the provision of information for VET courses on the My Skills website. And information is often far too lacking in granularity to be really useful:

> *Currently, graduate occupation information is limited to ANZSCO major group level (for example, Technician and trades workers, Managers, Labourers), which provides no indication to prospective students on the likelihood of their finding work after graduating in the occupation for which the course is designed to prepare them.*
>
> *(Polidano, Van de Ven and Voitchovsky 2017, p. 10)*

The improvements announced by the Australian Government in the 2016-17 Budget to the QILT website will provide a more accurate picture of graduate earning outcomes, but as noted earlier, the measures should be developed to provide an indication of value added. Increased collaboration between the Government, educational institutions and employers could help with the development, expansion and funding of an online tool. The process of consultation between them in developing a single tool would be valuable in its own right.

Recommendation 3.5
MAKE IT EASY TO ACCESS LEARNING OPTIONS

The Australian Government should ensure that Australians of all working ages can readily access comprehensive and up-to-date information about career and education options, including how to make career changes later in life.

HOW TO DO IT

As a first step, the Australian Government should consolidate the existing range of career guidance and education information websites into a single portal to provide school leavers and existing workers with a comprehensive one stop shop. It should outline:

- future career opportunities
- areas of skills need
- educational requirements for different careers
- the range of education institutions providing relevant qualifications
- measures of the performance of institutions (vocational education and training and universities) in each course, including student experiences and outcomes (such as future employment and income).

A further step is for the Australian Government to establish a cross-portfolio review of the policies needed to develop a workforce with greater capacity to adapt to structural change. The review would examine the changes needed in the education and training and tax and transfer systems along with the need for awareness raising approaches

LESSONS FROM THE INVESTMENT APPROACH AND INNOVATIVE FUNDING METHODS

The investment approach in the Australian Government's 'Try, Test and Learn' (TTL) program may have lessons for the development of employment and skill initiatives focused on older cohorts at high risk of losing their jobs due to structural adjustment. The TTL is an early intervention program that aims to improve the economic and social participation of young carers, young parents and young students at risk of long-term unemployment. These groups were identified as promising targets for interventions since actuarial assessment suggested that the cost savings from avoiding prolonged welfare dependency were high. The TTL model is not prescriptive in nature, but harvests ideas for small-scale interventions gathered through submissions from the community sector, government, academics, business, and individuals. The advantage of many of the ideas put forward under the TTL program is that they are low cost and readily able to be abandoned or scaled up. Many use online platforms and peer support (a 'free' input). Through this initiative, the Australian Government is seeking to develop a body of evidence of 'what works' and to discover how behaviours, pathways or systems can be changed to improve workforce participation.

While the funding round for TTL is not complete and programs are yet to be implemented, a similar model could be used for workers who may also face protracted periods of welfare dependency after occupational dislocation — particularly if they shift to a disability payment. The evaluation outcomes from the TTL will provide lessons for the future development of a new program targeting that group.

There are no easy answers, but we know change is needed

From an economy-wide perspective, all of the prior discussion in this chapter of labour market trends coalesces around workers:

- whose original formal qualifications are at risk of becoming redundant, under pressure from automation or a shift to services-based consumption
- who are vulnerable if the school system has not adequately develop the necessary foundational skills for future learning
- whose skill needs might depend more on the gradual accumulation of new skills through multiple avenues, rather than acquisition of an entire formal qualification obtained from a conventional skills provider
- with employers that have weaker incentives to offer re-training if gig economy and offshore workers are readily available
- who through inertia may underestimate the need for skills as the economy and its needs change slowly around them
- who may be poorly informed of the options that are already available.

These workers may be otherwise destined to remain on support payments or in poorly-matched employment. The return of such workers to higher wage and more sustainable jobs may well require a **re-think of skills provision**. Improvements in living standards are inevitable if the counter-factual is to remain on social support.

Since the dominant provider of education in this country is and seems likely to remain a role of governments, and since the fiscal burden of a failure to acquire new skills will remain with government under our social safety net if no action is taken, the case for better-designed and more accessible mature age education seems well-made.

Policy solutions may not be easy or uniform for this diverse group, but given the uncertainty about how technology will affect the labour market, it is important that this issue be at the forefront of public debate. Government, industry and individuals need to continually assess and re-assess the impact on the labour market based on evidence. Structural change is not new but some approaches used to tackle it could be — in particular early intervention.

4

BETTER FUNCTIONING TOWNS AND CITIES

What matters?

Better functioning towns and cities

Benefits assessment: About $29 billion increase in GDP in the long-term

PROBLEMS	SOLUTIONS	BENEFITS
PUBLIC INFRASTRUCTURE		
› Inadequate attention to planning › Continuing likelihood of poor investment decisions	› Subject proposed projects and alternatives to benefit-cost evaluations and public scrutiny › Greater inclination to invest according to likely returns, rather than high-visibility, high-cost projects › Implement recommendations from 2014 Commission inquiry as a priority	› Significant project savings, lower taxes and/or debt › Greater contribution to economic growth › Greater capacity for society to earn a return on investment
ROAD FUNDING AND INVESTMENT		
› Congestion ever increasing › An increasingly unsustainable funding base	› Establish Road Funds in each State and Territory to collect hypothecated road-related charges › Determine spending in accordance with road users' preferences › Set the plan to move over the medium term from the current array of road charges to increasing use of direct pricing › Conduct road user charging pilots, starting with new road additions in major capitals	› Road service provision that meets needs and demands of users › Greater confidence in investment selection leads to greater confidence in use of pricing instruments › Establishes a sustainable funding base
PLANNING AND LAND USE POLICIES		
› Planning and zoning systems highly prescriptive and complex › Misalignment in State and Local level planning	› Apply competition policy principles to land use policies › Ban regulations that favour particular operators or set proximity restrictions › Adopt known best-practice development assessment model › States engage genuinely with, and set clear parameters for, councils on planning strategies	› Encourage business investment, employment and competition › Reduce costs and complexities of development processes
ACCESS TO HOUSING		
› Stamp duties on property transfers discourage people from moving and lead to less productive use of land	› Transition from stamp duties on properties to a broad-based tax based on unimproved land values	› Increase intra- and inter-city labour mobility › Improve housing choice over the longer term

4 BETTER FUNCTIONING TOWNS AND CITIES

4.1 The importance of large towns and cities

Australia's cities and large towns (areas with populations greater than 100 000; hereafter called 'cities') have come to account for an overwhelming majority of where people live and work. Unsurprisingly, cities account for most of the country's output. About 80 per cent of Australia's GDP is produced in cities, and 40 per cent in Australia's two largest, Sydney and Melbourne (DIRD 2015). Capital cities represent over two-thirds of total employment and accounted for 80 per cent of employment growth in 2015-16 (figure 4.1).

Figure 4.1 The contribution of cities to growth
Contributions to total employment growth by decade

Source: (ABS 2017a) Cat. no. 6291.0.55.001 – Data Cube LM1 - Labour force status by Age, Greater Capital City and Rest of State (ASGS), Marital status and Sex, February 1978 onwards.

Cities are discrete units in some ways that are important to reform, for example better regulation, or infrastructure; and a focus on them as economic units can allow a clearer pathway to enhancing productivity. Their efficient functioning is important also for smaller towns, including as sources of demand and points of export for many of the goods produced by them.

In 2015, Melbourne grew by more people every 5 days than Hobart added in the entire year

Australia's cities have become more important over time as centres of jobs and populations, reflecting in significant part changes in Australia's comparative economic advantages. Today, the largest cities are dominated by service industries, including professional (such as legal and medical), business and financial services. Population growth trends strongly suggest this will persist.

In 2015, Melbourne grew by more people every five days than Hobart added in the entire year. On current trends, it is projected that over 80 per cent of Australia's population growth to 2050 will occur in the capital cities. In aggregate, 10.8 million additional people are projected to live in Australia's capital cities by that year, compared with 2.4 million more people in non-capital city areas (ABS 2013b). The growth of service sectors in particular is anticipated to continue, and with it the prominence of cities (box 4.1). Service sectors are generally labour-intensive, and the large pools of labour and concentrations of knowledge in cities effectively make cities a source of natural advantage (Baldwin 2016; Ellison and Glaeser 1999).

Despite the possibilities offered by communications technologies to further reduce physical proximity as a factor in being able to undertake work, it is far from certain that they will diminish the importance of proximity in 'doing business', with human contact and informal opportunities to learn remaining important.

Notably, the first companies to limit employees' access to remote working arrangements and insist on physical proximity between staff were technology companies themselves (Daley 2016).

Box 4.1 Services sector businesses are attracted to cities

As growth in cities drives improvements in residents' average wealth, cities overall tend to become more dominated by services sectors, reflecting that consumers spend a larger share of nominal income on services (relative to goods) as they become wealthier. It also reflects the ongoing industrialisation of emerging economies, where labour costs in tradeable goods manufacturing generally remain low relative to advanced countries like Australia, leading to a shift in such activity to those economies.

Agglomeration economies increase the returns to businesses from physical proximity to each other and to suppliers. Services industries, in addition to generally requiring less land and other physical capital to operate, also benefit from locating close to each other, and having access to the pools of highly skilled labour that cities tend to provide on account of their size. The presence of such industries, and the higher wages they tend to pay, often provides an incentive for skilled workers elsewhere to relocate to cities. This can add to population growth pressures over time but, managed well, contribute to cities' growth potential.

Sources: Connolly and Lewis (2010); Ellison and Glaeser (1999); Greenstone, Hornbeck and Moretti (2010).

What is desired of cities from a productivity perspective?

Views on how well cities are functioning will inevitably reflect personal preferences. Survey indicators of their good functioning usually include access to housing in the forms and locations desired; good mobility; a sense of safety on the part of those who live and visit; thriving businesses that provide good employment opportunities; access to quality services, and an environment that reflects appreciation for the social, environmental and aesthetic importance of urban design.

In a dynamic sense, thriving cities would grow while retaining these features. Lately, this quality is being referred to as a city's 'resilience', meaning its ability to withstand and respond to chronic stresses (such as congestion, threats to public safety, and natural resource scarcity) and acute shocks including disease outbreaks or terrorist attacks.

Conversely, features that usually signal poor functioning include sustained overcrowding, transport congestion leading to significant wasted time and costs, high levels of social unrest and crime, large-scale homelessness and large, entrenched, disparities in opportunity that can contribute to widening dispersions in income and social tensions.

From a productivity perspective, many aspects of cities that affect how they function overlap with those that also matter for people to be healthy, for labour markets to provide long-term opportunities for all workers, for markets to work efficiently, and for services to be delivered where needed and of the required quality.

Cities are, however, distinguished by their spatial and geographic dimensions and their high concentrations of people, which mean that policies affecting the availability and use of space, organisation of activity and the pace and distribution of population growth have a particular impact on outcomes.

POLICIES THAT PARTICULARLY MATTER

Policies that particularly matter in this context include:

- migration settings, with the bulk of temporary immigrants living in cities for educational and work purposes, and the significant majority of permanent migrants settling in capital cities (PC 2016f). Immigration drove 60 per cent of national population growth over the past decade
- those that determine or significantly influence how land is used, where and how people can undertake activity, and ease of movement — whether this is people, inputs (resources) or final goods and services.

The latter includes land use and planning policies, which:

- determine where homes, businesses and structures for major facilitative services such as telecommunications and transport can be located, their allowable types and densities, and hence a large part of the potential benefit from using the land
- seek to regulate movement and the use of shared or public spaces. Well-targeted policies can promote agglomeration economies and help minimise or manage frictions associated with concentrations of activity. Controls over noise and traffic, for example, are now ubiquitous where firms and people cluster. More flexible zoning designations supporting

complementary land uses can enable the better sharing of facilities, suppliers and customers; matching of labour to firms; and opportunities for the diffusion of knowledge. How well urban costs and benefits are managed are systemically related to productivity and earnings

- affect the capacity of cities to absorb population growth; a function of the capacity of existing infrastructure, housing and services, and the flexibility of policy settings that apply in these areas to provide for growth
- through their influence on the availability of amenities and quality of the built and natural environments, help create a sense of belonging and local identity for residents, as well as attracting skilled people to cities. Improvements in Melbourne's city design to make streets and public places more people-friendly and 'green', for example, led to a substantial increase in pedestrian traffic throughout the day. Development of businesses that open at night along its CBD laneways reduced social ills (crime, and simply the feeling of being unsafe). Melbourne has been named the most liveable city in the world multiple times in the past 10 years (EIU 2016).

Other policy areas brought closely into focus include those relating to the provision and management of public infrastructure and tax settings, such as stamp duty on property transfers, both of which affect the cost of transactions and moving.

As such, distinct policy goals with respect to city productivity include:

- ensuring the efficient allocation and use of land
- minimising (or managing) the frictions associated with population growth and concentrations of people and activity.

How are Australia's cities functioning?

The subjective weights people place on different aspects of cities belie simple or singular judgements on city functioning. And some aspects of efficiency (for example, the degree of congestion) are more observable than others (such as the opportunity cost of alternative land uses). Nevertheless, a picture can be discerned through surveys and some indicators.

On the positive side, indicators show that Australia performs highly with respect to many measurable indicators of wellbeing (OECD 2016b). In built environments, air quality, energy and water efficiency have all improved over time (ABS 2010; Australian Government 2016d, 2016e).

The volume and rate of individual crime types has fluctuated over the past few years but, overall, crime rates have been decreasing (AIC 2015). While the experience of jurisdictions differs (with, for example, the number of property crimes increasing in 2015 in some jurisdictions), there has been little change in the national offender rate since 2008-09 (ABS 2017c).

Australia also performs well on measures of social cohesion. Domestic surveys suggest that the satisfaction that Australians feel with their lives has generally been maintained over time, reflecting a range of factors including trust, safety, health and a sense of community (ABS 2014). Several of Australia's major capital cities (Sydney, Melbourne, Adelaide and Perth) also compare favourably to most other cities around the world in terms of safety, health care, educational resources, and the environment (*The Economist* 2016).

Nonetheless, there are signs of growing stress. Congestion on roads and other facilities has grown significantly over time and given the above trends will continue to do so unless new solutions are found for reducing these costs (ACIL Allen 2014; Harper et al. 2015; IV 2016a). The growing avoidable social costs of congestion for Australia's eight capital cities were estimated at about $18.7 billion in 2014-15, and are estimated to rise to at least $31.4 billion by 2030.

On land use and planning systems, there has been some progress on new housing supply after an extended period of slow growth, especially in New South Wales and Victoria. This should help to reduce supply-side pressures on housing prices. There is evidence, however, that new housing stock is not meeting the preferences of workers and prospective purchasers.

Most States and Territories have made progress toward implementing best practice (risk-based) development assessment processes, but few in reforming their zoning systems, with change slow and reflecting seemingly little appreciation of the impact that poor zoning regulations can have on incremental business investment.

Capital cities are the dominant location of small businesses in most industries (that is, other than in agriculture and mining (ABS 2013a)), which by their nature have the least ability to cope with irrational impediments to investment. Most often, large property developments are the focus of attention. But across hundreds of thousands small businesses, poor quality urban regulations stifle diversification by and competition between businesses, and increase the costs and complexity of development.

Poor zoning regulations hurt business investment

Access to suitable housing and increases in distances travelled to jobs is a problem in several capital cities. About 60 per cent of net employment growth between 2006 and 2011 was within 10 kilometres of the CBDs of the largest five capital cities, but net population growth located in the same area was approximately half this amount.

In Sydney, the majority of jobs that can be reached in 45 minutes by car are located in the inner city whereas on the city fringes this is the case for fewer than 20 per cent of jobs. Similarly for Melbourne, residents living in the inner city can reach more than half the jobs within a 60 minute public transport trip but residents living in outer urban areas, such as those in the western-suburbs and around Dandenong, can access fewer than one in ten of those jobs (Kelly and Donegan 2014).

Many of these problems have been known for a considerable time. Left unaddressed, the efficiency of cities and their liveability are likely to deteriorate.

4.2 Policy focus

This chapter focuses on:

- improvements in public infrastructure provision and use, and particularly on roads, the most prevalent and widely used form of transport
- planning and land use policies
- conveyance duties on property, which discourage people from moving to their desired locations and the freeing up of properties for more valued uses.

Firstly, however, we comment on policy responsibility for cities, an area where all levels of government are at work and clarity on the roles of each would be beneficial.

4.3 Many hands are at work in cities policy

State and Local Governments generally lead the policy and program delivery activity in cities. As such, any cities agenda needs to be jointly accepted and understood with these levels of government, or its impact will be lessened by the absence. State and Territory Governments (and, on delegation, Local Governments) control land use, other than on limited parcels of Commonwealth land such as airports or defence facilities. And the networks of roads and public transport are their responsibility both legally and in a long-term investment sense.

Cities have been regarded by the Australian Government occasionally as a matter of national interest and subject to forms of targeted intervention (largely via funding) since 1991 (under the *Building Better Cities Program*). Yet it has quietly and with comparatively limited analytical attention continuously influenced urban development for decades through its funding contributions to land transport infrastructure; aviation and airport regulation; interstate rail freight; public housing development; and migration policies (which have affected population growth).

The Australian Government's most recent targeted intervention program, the *Smart Cities Plan*, indicates an intention to intervene beyond the usual process of providing (tied) grants. Funding will be regarded as 'investments' that may require policy and regulatory reform as a condition of funding; funding may be offered to help meet a range of policy objectives, such as affordable housing and urban renewal; and the Australian Government will seek to work in more formal partnerships with other governments and parties on projects (PM&C 2016).

The Australian Government's latest plan acknowledges that all levels of government involved have a stake in spending decisions, and collaboration is required if projects are to be successful. As yet in its infancy, it is not clear how governance arrangements will, in practice, work.

Where the Australian Government provides funding for areas that are the core responsibilities of other governments, it should ensure that both planning and accountability meet the standards regularly sought, but often not delivered in areas of major infrastructure investment.

As chapters 5 and 6 note, interventions still only sometimes feature both effective benefit/cost analysis driving project selection, and clarity about who is accountable in the event that significant risk events occur. Moreover, where the Australian Government seeks to compel policy changes, this should be on matters such as ensuring the quality of decisions or the consistency of policies where their effects cross borders.

These general better practice pieces of advice aside, there are three evident areas where jointly governments can improve productivity in cities and towns.

4.4 Public infrastructure

The governance arrangements for determining infrastructure investment priorities in Australia are crucial in determining whether taxpayer funds are well spent, and ensuring investments lead to actual improvements in the quality of people's lives. Large, long-lived new infrastructure developments invariably detract from measured productivity in the short term, and rely on the prudence of investment decisions and the efficient use of assets to ultimately lead to an increase in productivity.

The 2014 Commission Inquiry on Public Infrastructure observed a number of serious shortcomings in decision-making, particularly on electricity, water and telecommunications infrastructure.

These included: the existence of inadequate incentives and accountabilities for ensuring that projects are properly analysed; decisions being driven by political or other considerations rather than by economic and social merit; and the existence of incentives for preferred projects to be selected at an early stage and maintained even if new information show them to be deficient.

It recommended an overhaul of the processes used in the development and assessment of infrastructure investments, highlighting in particular the need for:

- sound **cost–benefit** studies for large projects and public consultation on proposals (noting that a cost-benefit study is not a yes/no decision-making document, as is sometimes misrepresented. It is instead an essential information source for those who are paying — usually taxpayers — and those who are deciding)
- more involvement in resource allocation processes by **those who pay**
- ex-post **evaluation** of project outcomes
- better **long-term planning** to avoid developments encroaching on transport routes and subsequent selection of sub-optimal routes or expensive alternatives.

This focus has broad support from the private sector, academia and at bureaucratic level. Despite this, the bigger the intervention, the less likely it is to reflect these desirable characteristics.

Progress has been limited overall

Since 2014, the Australian Government has made several changes to the governance arrangements and tasks expected from Infrastructure Australia, notably requiring 5-yearly audits of Australia's asset base and the development of a 15-year infrastructure plan to identify investment priorities. It has also tried several models for engaging with States and Territories on infrastructure investment. The latest model is City Deals under the auspices of the Smart Cities Plan. As yet, it is too early to assess the effectiveness of this initiative.

There have also been some changes to governance and institutional arrangements at the State level. For example, Infrastructure Victoria (IV) was established in 2015 following the termination of the East West Link project (box 4.2). IV's key tasks include preparation of a 30-year infrastructure strategy for Victoria, providing advice to the Victorian Government on infrastructure matters, and publishing relevant research.

Despite these changes, there have been continuing instances of poor, very costly, decisions. Observers have noted that the current WestConnex (Sydney) and West Gate Tunnel (Melbourne) projects have cost estimates significantly lower than experience would indicate. The difference in cost estimates between the median and 'worst case' scenarios for both WestConnex and West Gate Tunnel projects was 6 per cent whereas the average actual difference across all projects completed in the past 15 years was 26 per cent (Grattan Institute 2016). Providing reliable cost estimates is crucial in the project selection process.

On corridor preservation, the Australian Logistics Council has expressed concern about the degree of urban encroachment on transport corridors and thus on future freight supply capacity (ALC, sub 18). Overall, there has been little change in infrastructure planning, management and governance arrangements, and hence the underlying concerns raised in relation to the quality of infrastructure decisions in the 2014 report remain.

Despite these changes, there have been continuing instances of poor, very costly, infrastructure investment decisions

Adopt known good practice – and past lessons

In the current environment of low interest rates, below-trend economic growth and low levels of public debt by international standards, there have been calls to increase infrastructure investment (Lowe 2017).

Popular commentary can take this to apply to any and all infrastructure. That would be unwise. Spending simply to boost measured economic output without regard to infrastructure's likely economic returns should be resisted. Infrastructure investment is inherently a 'micro' choice that should be based on whether it is the best solution to address a local problem (such as to provide additional or better quality services, or reduce congestion).

With rapidly growing populations in some of our major cities, it is particularly important that infrastructure projects be selected carefully and built efficiently, mindful of their long-lived nature and how they can shape the development of cities (in particular, through shaping the options available for the use of land near transport services or corridors).

The Commission's 2014 recommendations regarding the governance arrangements over infrastructure projects are still valid and applicable to all governments. The example of the East West Link, which involved substantial waste of taxpayer funds, further highlights the problems that arise from unilateral decision-making regardless of costs or benefits. Governments should not lock in contracts to bind future governments unless there are considerable savings in doing so, that are *assured* to offset any risks. And conversely, governments should not cancel a project without devising an exit strategy that minimises resulting costs.

Box 4.2 East West Link

The East West Link project was one of the largest transport infrastructure projects proposed in Australia. The project was to be an 18 kilometre cross city road including tunnels connecting Melbourne's Eastern Freeway to CityLink (stage 1), and the Port of Melbourne precinct to the Western Ring Road at Sunshine West (stage 2). The estimated total cost of the East West Link, had it proceeded to completion, was in excess of $22.8 billion in nominal terms.

The initial business case indicated that stage 1 of the project would generate costs that exceed benefits. The Victorian Government nevertheless signed a contract appointing the private contractor, East West Connect, to finance, design, construct, operate and maintain stage 1 just prior to the caretaker period leading into the November 2014 Victorian state election. This followed an indication by the then Opposition that it would not proceed with the project if it formed Government.

The newly elected Victorian Government reached an agreement with East West Connect to terminate the project. The costs to Victorian taxpayers of terminating the project were in excess of $1.1 billion.

The Victorian Auditor General cited a lack of transparency of the business case for the overall project and the decision to prioritise stage 1 as a driver behind the significant wasted expenditure. In response to this finding, the Victorian Parliament passed legislation establishing Infrastructure Victoria in September 2015. The Victorian Government indicated that Infrastructure Victoria would take the short-term politics out of infrastructure planning and ensure that Victoria's infrastructure needs are identified and prioritised based on objective, transparent and evidence-based analysis.

The problem of the poor connection between Melbourne's Eastern Freeway and City Link has since been identified by Infrastructure Australia in its February 2017 Infrastructure Priority List as a "high priority initiative" given this corridor had the highest cost of congestion in Melbourne in 2011.

Sources: Victorian Auditor-General (2015); Infrastructure Australia (2017, 2015).

A 10% reduction in the cost of delivering infrastructure would save $2.9 billion a year

Transparency on project proposals is critical to allow analysis of the assumptions and methodology used by those who are not proponents or otherwise having a large stake invested (financially or politically) in a particular project.

The potential benefits from better decision-making are substantial. The Grattan Institute suggests that, over the past 15 years, approximately 30 per cent of transport infrastructure projects valued over $20 million were announced before a funding commitment had been made (Terrill 2016). These projects accounted for about three-quarters of the total value of cost overruns. Overall, governments spent $28 billion more on transport infrastructure than announced. Based on current levels of investment, a 10 per cent reduction in the cost of delivering infrastructure would amount to an annual saving of approximately $2.9 billion.

Recommendation 4.1
IMPROVE GOVERNANCE ARRANGEMENTS FOR PUBLIC INFRASTRUCTURE

HOW TO DO IT

- It is essential that governments ensure that proposed projects are subject to benefit-cost evaluations, and that these as well as evaluations of alternative proposals for meeting objectives are available for public scrutiny before decisions are made.
- The institutional and governance recommendations of the Productivity Commission's 2014 Public Infrastructure Inquiry remain valid and should be implemented by all governments as a priority. The 2014 Report has a dedicated chapter on how to do it.

4.5 Transport

Roads, railways (passenger and freight) and public transport are all crucial to the day-to-day functioning of cities. They facilitate commercial operations, enable people's daily access to work, and with growth in online trade, are an increasingly important component of freight supply chains to consumers. An efficient transport system is also essential for urban and regional access to social services and amenities.

Growing populations will place pressure on already strained transport systems. The overall freight task in Australia is projected to increase by 26 per cent within a decade from 2015, and 86 per cent by 2031, much of which will comprise deliveries utilising roads within capital cities.

Yet available choices for new investments are constrained by the increasingly limited availability of unutilised land. Costs of new transport structures have risen accordingly, with new developments (for example WestConnex) requiring land reclamation, costly compensation arrangements, or otherwise more expensive alternatives (such as tunnels).

In this context, a key policy challenge is to improve transport efficiency within existing constraints. More efficient utilisation of existing transport infrastructure and better integration of transport services, where possible, is needed. The planning and delivery of public transport services has some desirable characteristics in an urban context that road planning lacks. Unlike roads, most public transport is provided on a fee-for-service basis, which allows some cost recovery (helping to ensure their sustainability) and better management of demand (for example, through peak and off-peak prices).

Without policy change, the avoidable social costs of congestion are expected to rise to at least $31.4 billion by 2030

The regime of heavy vehicle charging is also moving, albeit slowly, toward being cost reflective, ensuring that users pay for the relatively greater wear and tear they impose on roads, and incentivising the development of more efficient delivery modes. Freight movements in cities are the subject of some coordinated planning: for example with the Moorebank Intermodal Terminal Precinct in Sydney, which is adjacent to a dedicated rail freight line, and the M5 and M7 motorways.

On roads, the emphasis toward efficiency and demand responsiveness has, by comparison, been on technology. For example, there has been greater use of integrated traffic management systems to manage demand and traffic flows.

Many Australians remain dissatisfied with transport services. However, concern about public transport services has significantly declined and public transport is regarded optimistically as a source of future improvement in local transport services. The opposite is true for roads (box 4.3). The avoidable social costs of congestion for Australia's capital cities have risen significantly over time, estimated at $5.7 billion in 1990, $9.3 billion in 2000 and double that at $18.7 billion in 2015.

Box 4.3 Motorists' perceptions of roads and road quality

The Australian Automobile Association's 2016 Motoring and Mobility Report, which involved surveying representative focus groups and online polling of 3,700 Australians, found that road congestion, road and transport funding, and the state of road conditions was a major concern of those surveyed. Those surveyed also reported that the state of roads had deteriorated over the past year. About 77 per cent considered that congestion had worsened and 67 per cent expected that it would worsen further in the coming year.

Motorists' perceptions on the state of roads and road congestion appear to have deteriorated since the last survey in 2013. The Royal Automobile Association of South Australia's travel time surveys also highlight worsening congestion along major road transport corridors.

Market research conducted by the Royal Automobile Club of Victoria has previously found that motorists consider that congestion on Melbourne's roads is getting worse. In 2014, 88 per cent of survey respondents said they believed congestion was worse than it was five years ago, with most of those saying it was much worse. This was up from 83 per cent in 2006.

Australians appear pessimistic about the prospect of any change. The Institute of Transport and Logistics Studies 2017 Transport Opinion Survey found that Australians have become less confident over time about prospects for improvement in transport services. Their highest priorities for improvements were public transport, followed by roads. But whereas Australians are optimistic that public transport improvements will lead to better local transport services, roads are anticipated to be the main reason for their worsening.

Sources: AAA (2013, 2016); ITLS (2017); RAA (2016); RACV (2017).

In part, transport network inefficiencies reflect that the approach to regulation and reform of transport services in Australia has largely focused on individual modes, and each are at different stages. Misaligned investment choices between roads and public transport and poor public transport investment decisions by governments in the past have reduced growth in public transport capacity relative to demand (ARA 2014; IA 2015; Kelly and Donegan 2015). Despite improvements in public transport planning demand for many services continues to outstrip capacity, particularly at peak hours.

There is room to improve other transport modes in Australia. But roads deserve special attention. Of all publicly funded transport infrastructure in cities, roads are the most prevalent and widely used, yet most susceptible to poor decision-making and inefficient usage patterns. Road investment and planning lags significantly behind other modes, with minimal links between existing charges and the services users receive, the quality and availability of services and road user preferences, and the costs and funding of service provision and prices. We focus on roads for these reasons. But the improvements outlined in this review will, over time, help clarify policy choices on how best to improve the efficiency of transport networks as a whole, and better meet the needs, and inform the choices, of users.

The need for road funding and investment reform

Roads are the single largest item of infrastructure spending for governments. In 2014-15, $24.2 billion was spent on road investment and maintenance. Expenditure has risen by an average of 4.6 per cent per year over the decade to 2014-15.

Motorists pay for road use through a range of fees and charges levied by the Australian and State and Territory Governments (table 4.1). Together, these fees and charges amount to an average of over $1 300 per vehicle per annum. Most of the revenue from these charges is pooled into governments' general (consolidated) funds, from which expenditure on roads (and other public services) is allocated through budget processes.

The indirect nature of raising revenue for roads means that there is no guarantee that investments are being made in areas that will provide the greatest value to road users. This is compounded by incomplete data, particularly at the Local Government level. Planning and management arrangements that do not directly consider road users' preferences and the absence of explicit prices for road services to inform choices on alternative investments and road use are also to blame.

Table 4.1 Annual road fees and charges levied by governments[a,b,c]

Per vehicle, average annual estimates

CHARGE TYPE	INDICATIVE COST ($2015-16)
Fuel excise (Australian Government)	607
Registration fees (State and Territory government)	270
License fees (State and Territory government)	22
Stamp duty (State and Territory government)	139
Other taxes (State and Territory and Australian Government)[c]	296
Total fees and charges	**1 334**

[a] Excludes all personal costs of vehicle ownership, including fuel costs, depreciation and maintenance costs, non-compulsory insurance policies and other costs. [b] Updated to $2015-16 using the consumer price index. [c] Includes Luxury Car Tax, Fringe Benefits Tax, and smaller discretionary items.

Sources: Originally from Infrastructure Australia's *Australian Infrastructure Plan* (2016), sourced from (BITRE 2014) *Yearbook 2014: Australian Infrastructure Statistical Report.*

Prominent, and not infrequent, instances of poor decision-making on major projects have raised serious questions about project selection and delivery.

Surveys gauging user perception of transport quality and issues suggest that the substantial investments in new capacity that have been made in recent years may have provided some relief, but also induced greater use of roads. Governments have recognised the need for changes to road regulation but there has been, overall, little progress.

Technology now exists that could readily address the lack of price signals for road investment and complement other revenue sources. But the willingness to trial such developments requires a catalyst.

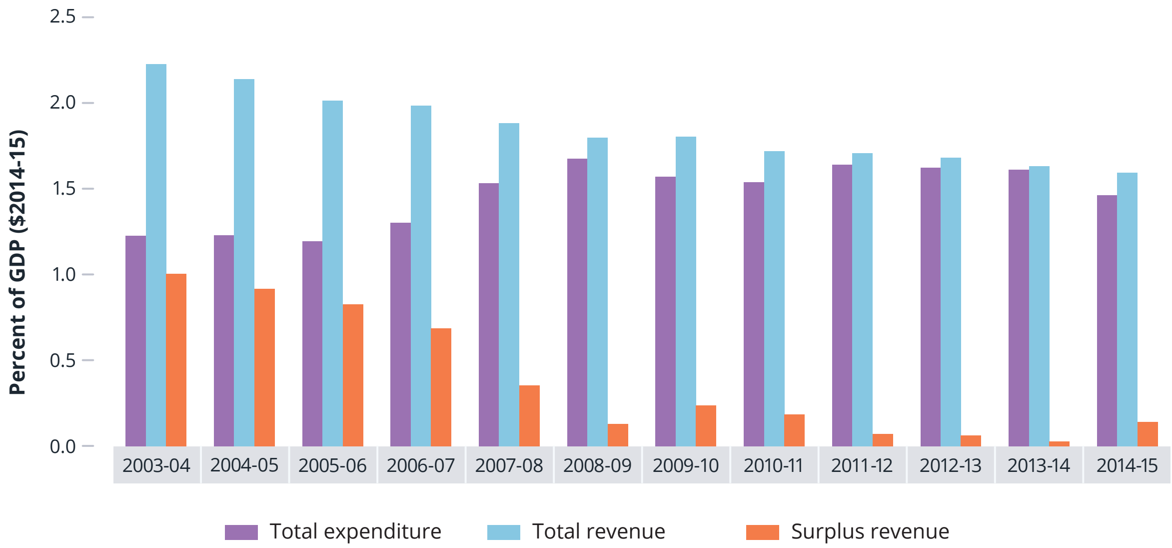
The most immediate driver of change is the continuing slowing of growth in road-related revenues, which will put pressure on current road supply models — since demand for (and the cost of) improvements shows no such slowing.

The willingness to trial such developments in road technology requires a catalyst

ROAD FUNDING ARRANGEMENTS ARE UNSTABLE

Up until now, road-related fees and charges have generated sufficient revenues to meet road spending needs (figure 4.2). Looking forward, however, this will not be the case.

Figure 4.2 Road-related revenues are in structural decline[a,b]
Road revenues and expenditure to GDP



[a] Aggregated over all levels of government. [b] Includes work done for and by the public sector, but excludes that done by the private sector for the private sector.

Source: BITRE (2016) *Australian Infrastructure Statistics Yearbook 2016.*

It is projected that road-related revenues will fall in real terms relative to demand for road services (even under conservative assumptions about population growth). In particular, fuel tax revenues (the largest single road-related charge, accounting for about 45 per cent of total road-related charges in 2015-16) have declined and are projected to continue to fall in real terms due to the improved fuel efficiency of cars, changes in travel preferences of commuters, e-commerce and the anticipated shift toward electric vehicles (which use no fuel, or little in the case of hybrids) — all of which reduce average fuel consumption.

At the same time, automated vehicles and new technologies enabling more convenient ride-sharing are revolutionising transport. Though nascent in Australia, they have the potential to substantially improve overall network efficiency, and individuals' mobility. However, this greater access is likely to reduce the marginal cost of trips for many people and, in doing so, may induce higher average demand (Schaller 2017), which could increase travel times (even if speeds improve on certain parts of the network). To the extent that newer and automated vehicles are electric (or hybrid electric) powered, an increase in their use will exacerbate funding pressures.

These trends imply a need to move to a form of funding road expenditure that is *responsive* to road user demand (rather than simply predictive of it), does not discriminate by vehicle type, and is directly related to actual road usage. The present system displays few of these features.

We need a form of funding roads that is responsive to road demand rather than simply predictive of it

At best, the current funding and spending model implies a diversion of funds from other areas of the budget to meet road needs, or greater debt or increases in taxes. Or all three, perhaps tempered by an undesirable reduction in road quality standards.

SPENDING IS VULNERABLE TO POOR DECISION-MAKING

All levels of government are involved in funding roads, with the Australian Government providing funds to other levels of government. While all levels of government have their own project assessment and selection policies, there is no nationally consistent framework for determining expenditure priorities. As a result, what roads get funded by different levels of government, and the standards such projects need to meet, are constantly shifting (SP 9).

Spending decisions are not directly and systematically informed by users' preferences, whether on the quality or availability of services, willingness to pay or the relative merits of competing priorities.

Little information is provided to users in order to better manage demand and more efficiently use existing assets.

In many other markets (even other public transport markets), these functions are fulfilled by prices, allowing consumers to recognise the options — a choice between long-term cost increases from major new supply or a shift to variable prices depending on usage, for example — and road providers to reflect these in policy and spending decisions. Governments instead largely assume an inexorable increase in demand, with investments not sufficiently informed by what more efficient use of road assets might imply for new investments.

As discussed in the section on infrastructure above, the accountability mechanisms for ensuring that the projects with the highest net benefits are chosen are relatively weak. With no consistent framework for allocating grants, projects made possible through such funding can be particularly subject to the political imperatives of the day, rather than determined by either the performance of roads against consistently assessed need or consistently developed service standards. In some grants programs, formulas for determining horizontal equalisation are used to proxy for demand, while in other (typically larger) programs, not even an inadequate proxy is evident.

In this context, road expenditure decisions can be reactive to perceived need, subject to political suasion, and may not be exposed to adequate evaluation.

Toward better meeting road users' needs

If the stresses noted above are to be managed, there should be a shift in policy focus towards consumer-oriented and directed services. Key features of a better system for road funding and delivery therefore include:

- investment and maintenance decisions on roads being informed by users' preferences, and pricing that makes transparent the costs of providing services and allows the development of sensible alternatives for meeting service goals
- users' choices between modes, and on the use of roads, being guided by prices that help to allocate finite capacity, resulting in more efficient utilisation of the transport network
- public confidence in the price-setting process through independent vetting of the prudence and efficiency of proposed expenditure, and the quality of services actually provided (such that, for cost recovery purposes, prices only reflect the efficiently incurred costs of providing services that are valued by users)
- stable and adequate funding for road services, which also implies a shift to user charges and away from a predominately tax-driven model
- clear accountability for decisions and outcomes, facilitated through improved institutional frameworks that embody community consultation and transparency on service costs and quality.

The value of more efficient use of the road network alone is estimated to be equivalent to approximately 0.7 per cent of GDP in the long run, or a permanent increase to the level of annual GDP of approximately $20 billion.

Over 20 years, the net present value of these GDP gains is $63.7 billion, or $4.5 billion in annuity value terms (taking into account a likely phased introduction of reforms). On top of this, there would be allocative efficiency benefits from the closer matching of services to those actually preferred by road users, and reduction of inefficiencies associated with poor project design and delivery (SP 9).

THE ROLE OF PRICING

Cost-reflective pricing is a key mechanism for disciplining expenditure and, particularly in cities, ensuring the more efficient use of scarce capacity. The lack of cost recovery from users of roads creates uncertainty on funding, and provides a weaker onus on the part of governments to justify to users what, and how, services are delivered.

The situation with roads stands in stark contrast to the provision of other government services, such as electricity, urban water and even other public transport services (buses and passenger rail) where, although arrangements are imperfect:

- the more transparent linking of services and costs that accompanies pricing places more pressure on regulators and road managers to seek efficient methods of regulation and service delivery, and to better tailor services to customer preferences
- prices help users to choose between different transport and or utility service options, where available, and/or to manage their demand and associated costs (for example, through peak and off-peak pricing or other differentiated tariff structures)
- demand management through pricing helps or provides scope to improve the efficiency of asset/network utilisation
- recovery of costs directly from users reduces the taxation burden on those who do not directly or primarily benefit from relevant regulation and services.

In Australia, charging for road use has been narrowly limited to toll roads and notional heavy vehicle charges, neither of which meet the primary purpose of a price, which is to create a known cost of use that allows alternatives for meeting service goals to develop and more informed choices to be made. While there are a few differential pricing arrangements on some toll roads (for example the Sydney Harbour Bridge and Harbour Tunnel), poor design of toll road contracts, including mis-allocations of risk and rewards, have failed to deliver value for money in several cases (SP 9).

There is broad consensus on the merits of moving from the current set of disparate charges on motorists to direct pricing as an objective of road regulation (for example, AAA 2008, Harper et al. 2015, Henry et al. 2009, IA 2016, IV 2016b) (box 4.4).

From a policy respective, cost-reflective user pricing should ultimately apply across all types of road users. Road reform efforts in Australia to date have focused on heavy vehicles, reflecting that their size and weight impose proportionately larger costs on the network. This represents at best only a partial market solution for what is a network-wide problem — congestion in cities and large urban centres is predominantly a byproduct of light vehicle use, for which no cost-reflective prices exist.

And the looming pressure on fuel excise as a source of revenue is primarily a shift that involves private cars. The solution — if taxpayers in general are not to pay more — must involve pricing the movements of light vehicles as well as heavy vehicles.

Box 4.4 Some benefits of direct road user pricing

Many motorists are not aware of any link between the taxes and charges they pay for use of the road network and how road services are provided. As part of its Melbourne Road Usage Study, Transurban found that 88 per cent of survey respondents had little or no knowledge about the primary road-related charges in Australia, such as fuel excise.

More direct and transparent charging for light vehicle use could yield significant benefits. Analysis by Infrastructure Victoria suggests that by 2030, congestion will cost every Melbourne resident an extra $1 700 per year, or $7 each working day, but that better charging for roads could cut travel times on congested roads at peak hour by up to a third; and that if traffic was reduced by just 5 per cent during the morning peak hour, conditions on roads would be equivalent to school holiday road conditions every day of the week.

Sources: IV (2016a); Transurban (2016).

Current technologies (of which viable examples have been demonstrated, and are presently being further developed in Australia) make it eminently plausible to create a system of funding roads that is directly linked to demand.

If implemented, this should replace current road charges like fuel excise and registration fees, that is, *charges should be pooled and hypothecated*, so that users who are paying directly can be assured that indeed they are paying for improved road network services and not some other function of government.

Governments will need to determine how mechanisms are designed to account for distributional issues, such as the impacts of pricing on rural and remote roads. As for other areas of government services, subsidies may be the practical tool; and for road users in such districts, the signs of change between today's system and the future under direct pricing may be very few indeed. In an economic sense, however, the benefit would accrue from making funding requirements and competing alternatives clearer.

Moving toward implementing pricing of roads in urban areas and key network links requires major changes in the institutional and governance arrangements for roads.

These are crucial to giving motorists confidence that new methods of charging, and infrastructure decisions made using that funding, are designed to reflect user choice and preferences. The Commission notes that the Australian Government has recently committed to further investigate this issue, in particular to undertake a study into road reform through Infrastructure Australia beginning later in 2017 (Australian Government 2017a).[6]

Conducting trials in major capitals that utilise the opening of new (unpriced) additions to the system and testing behaviour under different pricing regimes (for example, refunding users' excise while measuring their use of new infrastructure with a charge and netting off the outcome over a sustained period) would be a significant advance in knowledge and awareness.

6 The Australian Government has also indicated a commitment to regional and urban rail investment in the 2017-18 Budget, as well as an independent inquiry to inform a national freight and supply chain strategy.

INITIAL STEPS ALONG THE REFORM PATHWAY

There are things governments can do in the short term that will help improve governance and provide discernible benefits to road users. Many of these steps are needed as technical preconditions to user pays road pricing, but are beneficial in their own right.

- Take steps to better understand and measure the road asset base, especially at the local level. The task of measuring the asset base should include identification of roads that should, in fact, be priced, roads that might be subject to community service obligations (CSOs), as well as clarifying the standards that apply to roads.
- Ensure independent appraisal of major road expenditure proposals by formally allocating an assessment role to existing independent economic regulators or advisers.
- Hypothecate road-related funds to roads expenditure by creating a separately budgeted Road Fund for each State and Territory (States are the legal custodians of roads). Hypothecating funds would create a nexus between the current indirect charges paid by drivers and spending decisions, and provide network operators with a predictable revenue profile, which should help the planning of investments. It will also make more transparent any gaps between revenue raised and the expenditure implied by current service availability and quality.
- Over time, the indirect charges hypothecated to Road Funds should be replaced by direct charges.
- Authorities should restructure governance arrangements to ensure that representatives of those who pay for roads — that is, users — contribute to project selection and funding decisions. Processes to appoint such representatives should be independent of government. The Commission envisages that appointees will have both the right mix of technical skills and community interests to effectively gauge and promote users' preferences.
- Authorities should also allow for road investment or maintenance desired by communities that are willing to pay for it. Recent road and transport funding decisions by governments highlight missed opportunities to employ pricing as a practical funding method for infrastructure clearly desired by the community (SP 9).

Recommendation 4.2
SHORT-TERM REFORMS TO IMPROVE ROAD PROVISION

Several steps can and should be undertaken by State and Territory Governments in the short term to improve the quality and value for money from road services, and as preconditions for a subsequent move to road pricing.

HOW TO DO IT

Actionable reforms include:

- restructuring governance arrangements to: i) ensure that representatives of those who pay for roads — that is, users — contribute to project selection and funding decisions, and ii) provide for independent appraisal of all major road expenditure proposals
- measuring the road asset base and identifying roads that should, in fact, be priced, as well as clarifying the standards that should apply to roads
- hypothecating road-related fees and charges to roads expenditure so that charges paid by drivers for using roads are linked to spending on roads.

HOW A ROAD FUND MODEL COULD WORK IN A PHASED REFORM PROCESS

Reform to the governance of road funding is critical in conveying to road users that new charges they pay are being spent on providing road services they desire. The model of ring-fenced, single-purpose Road Funds proposed in the Commission's Public Infrastructure inquiry (2014d) remains desirable in this context. Road Funds would provide a collection point for all road-related revenues, ensure the linking of road user preferences with investment, maintenance and financing decisions, and provide for transparent processes for selecting projects. How Road Funds would interact with independent project assessors/price regulators is discussed in SP 9.

Given the current thinking on heavy vehicle reform through COAG, there is merit in designing the initial structure of Road Funds alongside reforms to heavy vehicle charging mechanisms, and limiting the remit of the Road Funds to heavy vehicle revenue collection and related expenditure initially. This sequences heavy vehicle with broader road transport reform, and simplifies the initial design of Road Funds by limiting their role to State and Territory expenditures on arterials.

Each State and Territory's Road Fund should be designed with a view to full network coverage. In order to align funding with expenditures across the full network, the revenue feeding into Road Funds should expand over time to include revenues from light vehicle users. This would see States' management of revenue sources more appropriately reflect expenditure requirements and the needs of their communities (with a role for Local Governments in determining investment needs).

In the period of transition to direct user charging, there is a facilitative role for the Australian Government to provide assurances on funding adequacy (for example, a 'no disadvantage' rule) as the composition of road-related revenues evolves (discussed further in SP 9).

Recommendation 4.3
ESTABLISH ROAD FUNDS

State and Territory Governments should establish Road Funds to hypothecate road-related revenues to expenditures. Initially designing Road Funds on the basis of heavy vehicle revenues and expenditures will help to sequence heavy vehicle and broader road transport market reform objectives and facilitate compositional shifts to new road funding sources over time.

ENGAGING THE COMMUNITY THROUGH PILOTS

Pilots in the United States and Australia show that trials of user charging technology, despite being limited in their ability to replicate real world conditions, can be effective means of raising awareness among the community of road funding challenges, understanding needs and preferences of road users, and testing different technology and charging solutions for how to deal with these needs (SP 9).

However, the public sector has not made any serious effort in Australia to trial charging. While ever this is left to the private sector to carry the burden of investigation, two problems emerge:

- it may seem to motorists to be about toll roads, which is not the objective
- it will potentially not address public interest issues, which will be crucial to any actual introduction.

Pilots are thereby a useful mechanism for State and Territory Governments to engender community support for change. A further useful result of pilots would be replicable and scalable technology solutions for road user charging. Given that some major roads cross borders, the high desirability of seamless charging mechanisms across those borders, and the necessity of coordinated reform (to the extent that national taxes are replaced with road prices) the Australian Government also has an interest in advancing reform and could potentially assist the States and Territories to establish and run pilots.

Recommendation 4.4
ROAD USER CHARGING PILOTS

To communicate the need for road funding reform to the community, State and Territory Governments should consider the use of road user charging pilot programs, as has been successful in overseas jurisdictions.

HOW TO DO IT

Conducting trials in major capitals that utilise the opening of new (unpriced) additions to the system and testing behaviour under different pricing regimes (for example, refunding users' excise while measuring their use of new infrastructure with a charge and netting off the outcome over a sustained period) would be a significant advance in knowledge and awareness.

4.6 Realising the productive potential of urban land

Many State and Territory Governments have made good progress in planning reform over the past five years, and are continuing to pursue changes (SP 10).

Notably, the Victorian Government reformed its residential, industrial and commercial zoning regulations in 2014 to reduce the number of restrictions and the degree of prescription on the intensity of land uses allowed in each zone type. The Victorian Government further amended its residential zone regulation in March 2017 to reduce restrictions on the height and density of developments.

The Queensland Government has legislated to ensure better alignment of local development plans with state objectives. It has also streamlined its development assessment (DA) processes and, in 2013, created the State Assessment and Referral Agency (SARA), a single lodgement point for when the state has jurisdiction as either the assessment manager or referral agency for development applications.

The NSW Government has established a clearer and more integrated hierarchy of state, regional and district plans for the Greater Sydney region, with clearer links to local planning controls. In addition, the Government has simplified the planning system by reducing the number of State planning instruments and reduced red tape on development approvals for low impact residential buildings.

The above and other measures were instituted following failure by the NSW Government to achieve legislative passage of a package of major reforms in 2013. The Government has recently proposed further legislative changes, including to require decision-makers to give reasons for their decisions, and further improve the coherence and transparency of state and local-level planning. But this package does not include some key 2013 reforms, including to overly restrictive zoning regulations.

Both the Tasmanian and South Australian governments are embarking on broader reforms of their planning systems.

Tasmania is aiming to replace its 29 interim planning schemes with a statewide planning scheme that will include a set of planning rules (including zoning and land use codes) from which councils must choose to reflect the objectives of their community. The intention is that local variations will only be allowed to reflect unique local circumstances.

The South Australian Government is seeking to overhaul its planning system over the next five years. A key aim is to replace its 1 500 plus zones and myriad council plans with a more consistent and succinct set of development rules that, among other things, orientate regulatory effort to areas of greater risk.

The Western Australian Government introduced standard 'deemed provisions' in 2015, which set uniform processes for structure plans (plans to coordinate the future subdivision and zoning of land) and local development plans, as well as DAs undertaken at the local level. Prior to this, each local planning scheme included its own procedures and processes, resulting in up to 150 different variations.

The Commission's stock-take of progress on reform indicates that the following areas remain priorities across jurisdictions:

- reducing the number and complexity of restrictions on land use created by prescriptive zoning systems
- better planning and provision for growth
- the need to continue moves towards a risk-based approach to assessment of development proposals.

These are considered below along with reforms to stamp duties on property transfers.

Urban planning responsibilities

Responsibility for urban planning rests with the States, Territories and Local Governments. States are generally responsible for:

- releasing land for new developments
- strategic plans for metropolitan areas or regional areas
- overarching planning and development policies, such as the broad objectives of and purposes for land use (whether residential, business, recreational or other), with which State or local approval authorities must comply.

Local Governments have responsibility for developing and implementing land use plans at the local level, with local plans expected to be consistent with metropolitan strategic plans and applicable State planning policies. Local Governments process the vast majority of development proposals.

Reducing land use restrictions

The majority of development and land use activities (that is, not State-significant developments) is carried out under authority of local planning instruments that list the types of development that are allowed in each zone of a Local Government area. State legislation sets out the types of allowable zones (whether residential, business, rural, environmental protection or other), objectives for activity within those zones, and the specific types of developments that may be carried out in accordance with the purpose of those categories of activity.

A longstanding concern is the multiplicity of zone categories and degree of prescription on allowable activities within those categories. For example, New South Wales has eight types of business zone categories, each specifying the types of developments that may be undertaken with the consent of the relevant Local Government. Local Governments use these zoning categories to develop specific plans for their areas, which usually include additional specific types of developments that require consent. Local Governments may further specify development parameters, such as building height restrictions and floor to space ratios, guided by high-level standards set by the state government.

Even the smallest jurisdictions, Tasmania and the ACT, have 5 to 6 types of commercial zones, with each having 23 zone types in total. Western Australia has 20 zone categories, five of which pertain to commercial uses. Victoria, following its 2014 reforms, stands apart from other jurisdictions in having fewer business zones (just two), with more broadly stated allowable uses. Within metropolitan Melbourne, authorities may no longer impose floor space limits in commercial zones.

For development proponents, the prescriptiveness and differences in treatment of land uses at the local level can lead to different treatment of the same types of land use across council areas and discourage investment. The large format retail industry, which sells bulky goods, noted that in New South Wales:

> ***LFR uses generally fall under the land use definitions for 'Bulky Goods Premises', 'Hardware and Building Supplies' and 'Garden Centres'. There is often subjective and varying treatment of these land use definitions in Local Environmental Plans, creating uncertainty as to whether particular developments would qualify as a LFR use.. The lack of flexibility is emphasised by the fact that the definition for 'Bulky Goods Premises' requires LFR operations to involve the sale of bulky goods that require large area for handling, display or storage and direct vehicle access for customer loading purposes. All other Australian jurisdictions only require either 'arm' of the definition to be satisfied …*** *(LFRA 2015, pp. 11–12)*

By creating barriers to entry and diversification, zoning classes and the prescriptiveness of permitted land uses can also limit investment, new employment, and productivity improvements in, and competition between, businesses.

Tasmania's and South Australia's reforms are seeking to reduce the degree of local variations. At the time of writing, the new regimes had not yet been tested on this element.

ZONING SYSTEMS SHOULD BE RE-ORIENTED TO PROMOTE OVERALL COMMUNITY INTERESTS

The need for restrictions, and the benefits and costs they create, should, as for other policy areas, be evaluated taking into account the interests of the community as a whole.

Sound regulatory design would also suggest that zoning frameworks should provide as much flexibility as possible in how land is used. This would allow new and innovative firms to enter local markets and existing firms to expand, as well as providing greater flexibility to adjust to changing business activities and community preferences. It would enable genuinely incompatible land uses to remain separated, but provide scope for complementary uses to develop and compete. As the NSW Government has noted, it would also minimise the need for spot rezoning, which would in turn reduce costs, delays and investment uncertainty (NSW Government 2013).

The orientation of planning systems towards controlling specific types of development means that greater regulatory prescription is required to recognise new business or community activities, and is the only means by which Local Governments can give effect to specific objectives for their areas. The logic of current systems is thus one of increasing regulation over time, with the potential for inconsistent or perverse outcomes inherent given the scope for fine distinctions to be made between types of developments based on particular councils' preferences.

Policy settings that have particularly egregious impacts on competition include the creation and enforcement of activity centres and regulations that require consent authorities to consider the commercial impacts and viability of established businesses when assessing development proposals. Provisions that explicitly or implicitly favour particular operators or set proximity restrictions between businesses should be eliminated nationwide. These policies are at odds with competition policy and used to protect shops and shopping centres in designated areas from competition.

Estimates indicate that the potential benefits of reducing the prescriptiveness of zoning systems are significant. In a 2013 report commissioned by the NSW Government, the CIE estimated the economic value inhibited by land use restrictions for Sydney could be in the order of $8 billion to $16 billion, which in annualised terms is equivalent to $665 million to $1.3 billion per year.[7]

Recommendation 4.5
APPLY COMPETITION PRINCIPLES TO LAND USE POLICIES

There should be national agreement to apply competition policy principles to land use regulation and policies.

There should be a particular ban on regulation that explicitly or implicitly favours particular operators and sets proximity restrictions.

Planning and provision for growth

There are concerns about misalignment of State and Local Government planning strategies. Scope for misalignment arises from several sources, including disagreements between levels of government on visions for urban areas, particularly how they might accommodate population growth; the scope and sometimes the necessity for interpreting how State strategic plans and statutory planning requirements are to be applied at the local level; and the discretion and authority of Local Governments to determine local land uses in accordance with their particular preferences (box 4.5).

A common cause of tension between State and Local Governments is housing policy. For example, the Victorian Auditor General recently found that a number of Local Governments had prohibited medium-density housing development in areas that the 2013 State Planning Policy Framework had designated as permitting. Local Governments have also created 153 local variations to the new residential zones introduced in 2013, resulting in local schemes being inconsistent with the objectives of the state planning policies and adding unnecessary complexity in planning schemes. The Auditor General has suggested that the State Government needs to provide more guidance and training to Local Governments to support its reforms.

Victoria is not alone. More generally, State and Territory planning policies should provide formal guidance on how Local Government strategies should be developed, including specification of policy priorities, preferred methods for achieving them, and that make clear the relevance of State/Territory planning policies to which local councils must have regard. Guidance should also include a clear hierarchy for state and local plans.

7 Annualised for a period of 30 years at a real discount rate of 7 per cent. This reflects estimates of land value premiums and how quickly these premiums are reduced as land is rezoned.

This would help to ensure that State policy goals and standards are delivered, reduce the time and the degree of contention involved in setting local plans, and provide greater regulatory certainty to development proponents. The provision of formal guidance by States on their strategic plans and application of planning policies would also help to ensure accountability for decisions at each level of government.

Box 4.5 Impediments to coherent State and local development strategies

Community consultation on planning strategies is perceived as cursory in many jurisdictions. As an example, Local Government representatives in South Australia considered that the 30 Year Plan for Greater Adelaide 'was launched on a public that had missed the start of the conversation and was expected to take a leap of faith to board the urban renewal train.' (Kelly and Donegan 2015, p. 139).

An example of good practice at the local level is Western Australia's establishment of an advisory group representing residents, business owners and environmental groups to provide input on road extensions proposed in the State's Scarborough Master Plan (WAMRA 2016).

Recent work by the Commission into transitioning regional economies (2017d) suggests that more successful communities are led by individuals who take an active role in identifying strategies for how to best facilitate development. Local leadership was exemplified in the case of Stawell (Victoria), where the Local Government took a lead role in seeking ways to redevelop and repurpose a gold mine for use as an underground physics laboratory. By engaging the community and working in partnership with the Victorian and Australian Governments, Stawell was able to find a new source of economic growth that built on its existing strengths and resources.

Councils in several jurisdictions (including, Tasmania, Western Australia and Victoria) consider that States do not provide sufficient clarity and directions in their strategic plans, necessitating excessive assessment efforts to meet requirements, which nevertheless do not guarantee they are connected to strategic and regional priorities.

Industry groups and other observers have also raised the need for clearer direction from most States and Territories on the application of planning instruments, noting that the necessity for interpretation is a source of avoidable variation in local planning rules.

Sources: EDO Qld (2017); PC (2017d); PCA (2015).

PROVISIONING FOR NEW GROWTH AREAS

Adequately planning and providing for both new growth and infill development areas depends on, among other things, the efficient provision of public infrastructure services, particularly transport, which provides connections to established employment, education and health services and retail opportunities.

Provisioning for diverse land uses and for public amenities, including public recreational and 'green' space, helps make those areas desirable places to live. Provisioning is also important given that these features are often hard to retrofit due to costs associated with demolition, buy back of land to meet public open space obligations, and interruptions to economic activity and mobility.

Most jurisdictions have developer contributions systems to help fund and deliver infrastructure. There is scope for greater use of market testing of infrastructure costs to help ensure that charges levied on developers are efficient (SP 10).

Recommendation 4.6
BETTER PROVISION FOR GROWTH

HOW TO DO IT

Take steps to improve consultation and planning processes, as outlined in Conclusion 10.2 of Supporting Paper 10. This includes:

- State, Territory and Local Governments genuinely engaging with the community on alternatives for meeting development goals
- State and Territory Governments providing formal guidance on how Local Government planning strategies should be developed and on the application of overarching planning policies
- State, Territory and Local Governments ensuring adequate provision in growth strategies for infrastructure and public amenities (such as 'green' space) given the difficulty of retro-fitting these features.

Streamlining development assessment systems

The leading practice model for DAs is track-based assessments developed by the Development Assessment Forum (DAF) in 2005. The model categorises development proposals into assessment 'tracks' and hence subjects them to varying degrees of scrutiny corresponding to the level of impact or risk posed.

All jurisdictions have made progress in streamlining DA processes in line with the model (SP 10). A 2015 report by the Property Council of Australia (PCA) ranked the Northern Territory and the ACT as particularly well-performing jurisdictions in terms of their track assessment frameworks.

There is nevertheless room for further progress in most jurisdictions.

A common theme across jurisdictions is that, where streamlined track assessments exist, approval times vary between local councils. A 2016 study suggests that for large or high-value residential projects, where the State planning department is responsible for assessing the DA, there are more speedy response times than where councils make the decision. For example, in Victoria, the Minister for Planning is responsible for assessing large-scale projects in the City of Melbourne with a floor space exceeding 25 000 square meters, which has partly contributed to strong growth in inner city apartments. In Brisbane, it is a large Local Government — the Brisbane City Council — that generally has assessment responsibilities for development within the central business district, and its application of a code assessment framework to large developments has contributed to apartment growth in Brisbane. In contrast, in areas where the DA process is handled by local councils, with their own specific overlays and zoning restrictions (such as in inner and middle suburbs of Sydney and Melbourne), the approval process is often slower and housing supply takes longer to adjust.

In its 2013 White Paper on planning reforms, the NSW Government proposed that 80 per cent of all DAs should be subject to the fast-tracked approval pathways of either complying developments (proposals deemed low impact that can be approved upon satisfaction of set criteria, such as property extensions up to two storeys) or code assessment (other proposals that could also be approved through set criteria).

Following the failure of reforms to pass the NSW Parliament, the NSW Government has decided to not pursue code assessment as a pathway and instead committed to ongoing improvement of the complying development track. In 2011-12, the proportion of complying developments as a proportion of all DAs was 23 per cent. In 2014-15, this was 32 per cent. A report commissioned by the NSW Government estimated that the original reforms would be worth between $358 million and $550 million per year in reduced risks associated with developments and avoided costs of delay and documentation.

While the ongoing reforms to the planning systems in Western Australia and South Australia have identified the need to establish further track-based development assessment paths, these reforms are yet to be implemented.

Recommendation 4.7
IMPLEMENT BEST PRACTICE IN DEVELOPMENT ASSESSMENT

State and Territory Governments should implement known best practice in development assessment processes, as embodied in the model developed by the Development Assessment Forum.

Stamp duties prevent mobility and efficient use of the housing stock

Stamp duties on residential property add to the price of houses, and can discourage people from moving to locations that may be closer to preferred jobs, family networks and schools (PC 2014c). This can result in increased commuting times and costs (Henry et al. 2009) and the potential effects on mobility become more accentuated the greater are the frictions of moving between work and home. Stamp duties on commercial property further discourage businesses from investing in existing land and capital, and stamp duties on residential property can discourage people from downsizing and encourage over-investment in upgrading property. All of these factors result in the retention of land for relatively unproductive purposes.

In Sydney, stamp duty on residential property for the median house and unit price as of May 2017 of $1 198 650 and $762 590 was $51 419 and $29 807 respectively.[8] This represents 4.3 per cent and 3.9 per cent of the purchase price, respectively.

The impacts of these costs on community welfare are significant. A recent Treasury working paper estimated that each additional dollar collected by way of stamp duties on residential property reduces the living standards of Australian households by 72 cents in the long run due to the lower investment and mobility effects.

The ACT Government has moved away from stamp duties to taxes based on land value. Specifically, it is phasing out stamp duties over a 20 year period, and replacing these with higher general rates for residents and commercial properties (box 4.6). As yet, other jurisdictions have not done so.

8 Stamp duty on residential property assumes the purchaser is not a first home buyer, who may be exempt, or a 'foreign purchaser', who faces a different rate.

Stamp duties increase the cost of buying a house and can discourage people from moving to locations that may be closer to preferred jobs

Box 4.6 Phasing out stamp duty in the ACT

Stamp duty on conveyances have been progressively reduced since June 2012, with the aim of phasing out the duty completely over a 20 year period. Since the reform program started, duty on a $500 000 property has been cut by 34 per cent. The Territory's 2016-17 budget estimates that, by 2020-21 (the half-way point of the tax reform program), duty on a $500 000 house will have been cut by 51 per cent.

To replace the loss of stamp duty revenue, the ACT Government increased general rates for both the residential and commercial sectors. Average general rates have increased by about $452 compared with what they would have in the absence of reform. In addition, residential land tax (on investment properties) has been made more progressive. The ACT Government estimated that land tax rates would decrease by an average of $208 for 76 per cent of properties, while 12 per cent would incur an increase of $602.

To address welfare impacts from the new system, the general rates rebate for eligible recipients was increased from $481 to $565, and the eligibility criteria for deferring general rates was expanded to include people aged over 65, and land values above $390 000. As at 2017, eligible households receive up to 50 per cent rebate on general rates up to a maximum of $700. Households who were eligible for the general rates concession rebate on 30 June 1997 are eligible for the uncapped general rates concession, up to the value of the concession received in 2015-16.

Sources: ACT Government (2017); ACT Revenue Office (2017); ACT Government (2012).

A SHIFT TO TAXES BASED ON LAND VALUE

Taxes based on land values avoid the imposition of penalties for moving, and the inequity of tax burdens falling disproportionately on those who choose to move, whether for work or lifestyle reasons. Tax revenue is also more stable because it is not as exposed to the volatility of the housing market.

The Grattan Institute estimates that shifting from stamp duties in all States to a broad-based land tax could add $9 billion annually to GDP. The majority of benefits would accrue directly to those jurisdictions in the form of more productive use of land and the workforce.

A shift to broad-based land taxes may detrimentally affect owner-occupier households with low incomes, such as many retirees, who may have less flexibility to move and limited capacity to pay taxes from current income. Ensuring that such groups are not unduly disadvantaged by the new system is an important reform design consideration. In addition, the aim of this policy change is not to increase tax revenue per se (although revenue may increase over time from a more stable tax base), so tax rates should seek at least revenue neutrality. Following the example of the ACT, transition over several years would help adjustment.

State Governments and the Northern Territory Government would need to use an alternative to rates-based reform. Unlike the ACT, rates revenues accrue to Local Governments. Moving from stamp duties to taxes on the unimproved value of land for all properties (similar to rating systems) would seem to be a sound option. Indicative calculations suggest that a switch from stamp duties to land taxes based on an assumption of revenue neutrality would result in low land tax rates (box 4.7).

Options for addressing welfare impacts include concessional rates for tax, the deferment of tax for eligible landholders or help via the income support system. Western Australia, for example, offers eligible seniors (those holding a government pensioner or senior card) a 50 per cent rebate on council rates. State-based deferral arrangements also exist for seniors paying Local Government rates in South Australia, Western Australia and general rates in the ACT.

Unintended effects from concessional or deferment arrangements such as restrictions on working hours, which may create labour market distortions, would also need to be considered in the design of deferment policies and setting of eligibility criteria. These matters are further discussed in SP 10.

In summary, key elements of reform would include:

- Replacement of stamp duties on property transfers with a broadly-based tax based on land values. The shift to a broad base is essential to ensure that revenue is raised efficiently and the tax burden is not disproportionately imposed on a few groups.
- Provision for tax deferral for certain low income groups, so that taxes do not force people with less capacity to move. These include people such as owner-occupier retirees, who may be attached to the family home and their community.
- Deferred taxes would be paid from estate at death or on the sale of the property (whichever comes first).
- Low interest rates on deferment of taxes, for example bond rates, consistent with the policy objective of deferment.

Box 4.7 Broad-based land tax rate

The 2011 NSW Financial Audit proposed two alternative methods for transitioning from transfer duty to a land tax. The first scheme proposed a transition from transfer duty to an annual Stamp Duty Replacement Tax (SDRT) levied on the value of all land. The report proposed rates of the annual SDRT of 0.75 per cent of the unimproved land value of properties with land value less than $775 per square metre and a marginal rate of 1 per cent on land value above this threshold. These rates were estimated to ensure the present value of SDRT payments would equate to the transfer duty that would otherwise have been paid.

The other approach proposed a transition away from transfer duty to SDRT on all properties at a low rate, with gradual increments over time. This is similar to the ACT's scheme. The main advantage of this approach is that budget neutrality can be maintained.

A 2015 report by the Grattan Institute suggested that replacing stamp duties with a levy on unimproved land values would be about 0.4 per cent of unimproved values of all land using Valuer-General valuations.

These reports confirm the Commission's analysis, which suggests a switch from stamp duties to land taxes based on an assumption of revenue neutrality would result in generally low land tax rates.

Sources: NSW Financial Audit (2011); Daley and Coates (2015).

Depending on the sequence and pace of States undertaking reforms, the Commonwealth may need to be involved in facilitation, among other things to ensure that the Commonwealth Grants Commission's horizontal fiscal equalisation (HFE) process does not provide disincentives to improve the efficiency of State taxes in this way. The Productivity Commission's report into HFE, which will be produced in draft October 2017, will look at the incentives the current system creates for undertaking such reforms.

Recommendation 4.8
REMOVE STAMP DUTIES AND IMPLEMENT TRANSITION TO LAND TAX

State and Territory Governments should move from stamp duties on residential and commercial properties to a broad-based land tax on the unimproved value of land.

HOW TO DO IT

Phase out stamp duties on residential and commercial property transfers and replace them with a broad-based tax based on unimproved land value.

Transition over several years to aid adjustment.

A shift to land-based taxes should include provision for low income households to defer property taxes and fund them from their estate at death or on the sale of the asset (whichever comes first), with low interest rates applying to debts.

5

IMPROVING THE EFFICIENCY OF MARKETS

What matters?

Improving the efficiency of markets

Benefits assessment: conservatively estimated at over $3.4 billion annually

PROBLEMS	SOLUTIONS	BENEFITS
ENERGY IS AN APPALLING MESS		
› Investment in electricity generation is now being seriously damaged by absence of clarity over future emission reduction costs › Governance arrangements fail to deliver clear guidance and allow pricing to be used against consumer interests › The renewable energy certificate system allows some generators to impose additional costs for frequency management and intermittency on consumers. This cost should be borne by generators as part of their bid costs	› Adopt a national emission reduction policy supported by all governments. The carbon price should be reflected in electricity prices › Governments set specific outcome-oriented strategic direction for expert bodies, and leave them to be fully accountable for implementation › The pricing rules should be structured so that the prices that renewables generators receive reflect the additional costs they impose on the system	› Investment proceeds on a sustainable basis, with choice of technology determined by rational pricing › Major savings relative to business as usual and reduction in the impacts that come with uncertainty, ad hoc interventions, and slow response times › Along with an efficient policy on carbon (so the price reflects the associated emissions of the electricity delivered), this will achieve a more level playing field for all generators that should lower long-term prices
CREATING AN INNOVATION ECOSYSTEM		
› Data are an underutilised resource, and consumers have no ability to use it to gain competitive offers from alternative suppliers › Copyright is poorly balanced between creator and user. As data become more powerful, the current system will cost the economy more and more	› Establish legal rights of consumers over their own data and facilitate greater access to public data › Revitalise competition policy in a digital world › Remove competition law exemption for intellectual property › Restore the balance — a time limited monopoly in return for sharing ideas. Offer copyright based on 'fair use'	› Allows consumers to better match their preferences, gain better leverage and supports the creation of new services and other opportunities to innovate › A more open system for research, education and innovation
DON'T ABANDON REFORMS TO REGULATION TO THE TOO-HARD BASKET		
› Regulator behaviour continues to be a source of unnecessary costs for business › Consumers can lack credible information, complaint avenues and rights of redress › There is considerable unfinished business in regard to reform of regulation. Reviews have persistently identified sensible recommendations › New anomalies in policy are emerging. These include: lagging firms and lack of innovation, whether employment in the gig economy is different, better ways to manage environmental risks, and regulation to make privatisation work well	› Digital technologies offer new ways for regulators to engage, including encouraging RegTech › Digital solutions can greatly improve consumer information, but to ensure credence government may need to act, as well as enforcing consumer rights › Draw upon regulation reforms cited in existing studies and reviews (appendix B) › Use evaluation data to reduce industry assistance to highly probable net benefit levels. Cease using procurement as a tool for creating unsustainable industries › Some deserve further inquiry › Plus flexibility for regulators to respond with 'sandbox' type trial solutions	› Potential for substantially lower regulatory costs and faster responses for business › Less need for heavy handed regulation as consumers impose greater market discipline › Existing unfinished business alone could add over $3 billion a year to GDP. Welfare gains on top of that are highly likely › Early development and testing of solutions, learning from other countries. Agile, anticipatory action or rapid response to risks that emerge

5 IMPROVING THE EFFICIENCY OF MARKETS

Australia is a substantially market-based economy. The more efficiently markets function as an allocation mechanism in the economy — by setting prices that align demand and supply and facilitate exchange — the closer Australia can get to peak productivity.

Market rules are not set and forget

Getting the incentives right for, and removing barriers to, innovation helps the private sector (and increasingly the services delivered by the public sector) move this peak higher.

Governments play a major role in making the rules that are essential to establish confidence and thus make markets work well. But regulation can also be abused, act against efficiency or persist well beyond its use-by date.

These market rules — providing consumers and workers with necessary protections, managing market power (particularly that inherent in public infrastructure), determining the incentives for innovation, and for skill formation and factor mobility — are not set and forget. They need regular attention to ensure that the system remains competitive, while at the same time providing the coordination needed where collective action is required to address common problems such as setting standards, developing data sharing, and cybersecurity (figure 5.1). This attention involves fine tuning of the regulatory system and processes as well as major reforms.

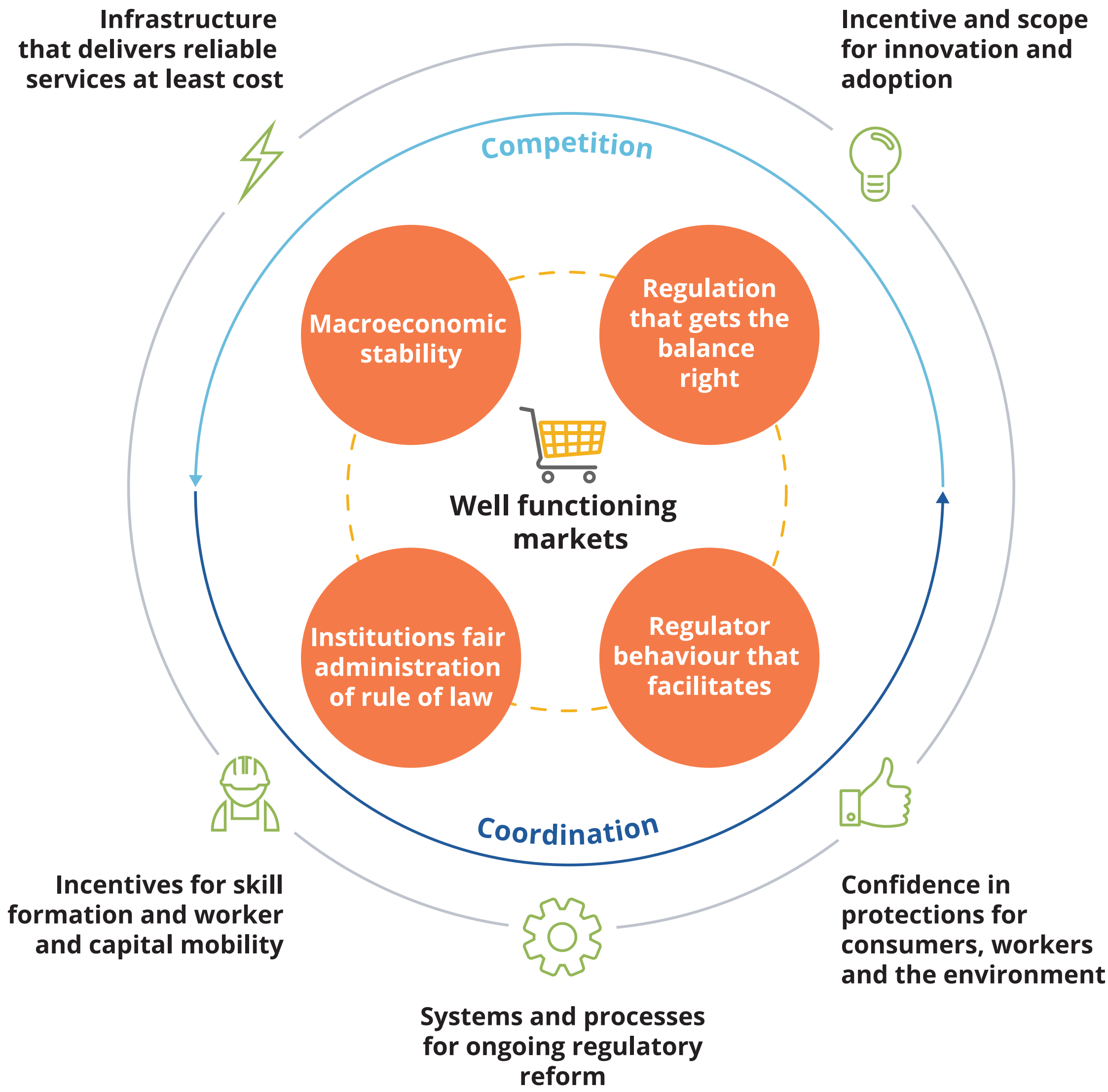
Despite the importance of an ongoing process of microeconomic reform, there is a clear view from participants in this report that governments at all levels have dropped the ball (reflected in, for example, AiG sub 36, Australian Chamber of Commerce and Industry (ACCI) sub. 37, Minerals Council of Australia (MCA) sub. 30). But this is not just about making things easier for business, ultimately the aim is to benefit consumers and offer employees the ability to argue for wage increases supported by higher productivity.

And the absence of a direct assault on slowing productivity (via reviews of market regulation) is not because nothing has been identified.

> ***There is a surprising amount of agreement on what we should do. I really don't think the problem of this room or this nation is the economics. We kind of know what to do. What we aren't good at doing, and arguably are increasingly worse at doing, is achieving it.*** *(Richardson 2016)*

This chapter brings together the findings from a number of reviews and proposes some priority areas for reform — notably energy and data related reforms. The costs of getting the energy system wrong are just too large to contemplate, and even muddling through will impose billions in additional costs. Reforms in data alone could well deliver annual benefits of over $5.5 billion dollars. Moreover, reforms to intellectual property could deliver an additional $1.9 billion from higher rates of innovation. This is not to forget the ongoing need for 'good housekeeping' to keep the regulatory system fit for purpose. Indeed, there is a good story here, as a set of such reforms identified by the Commission would, in addition to improved consumer wellbeing, deliver an annual boost to GDP of over $3 billion, and at least this again with reforms to government procurement and industry assistance.

Figure 5.1 Key elements in efficient markets



Reforms in data could deliver annual benefits of over $5.5 billion dollars

This chapter begins with the area of most pressing need for attention — energy markets (section 5.1 and Supporting Paper 11 (SP 11)).[9] There is no business, no farm, and no household that is immune from the effects of energy market problems, so their resolution will deliver the greatest market regulation reform benefits in the future time-frame of this Review.

Innovation is the next highest priority. There is a serious need to translate ideas into investment (SP 12). Many developed nations are seeing a slow-down in take-up of innovation and Australia is no exception. The OECD has dubbed this a 'breakdown in the diffusion machine' (McGowan, Andrews and Millot 2017).

While governments can help to create an environment more conducive to innovation, it is really up to business to make the running. Where governments can make a major difference is by freeing up data access and availability and removing obstacles imposed by the current prescriptive system of copyright exceptions (section 5.2 and SP 13).

How regulators behave affects innovation and, more generally, the regulatory burdens on business. Digital technologies offer regulators better ways to engage, including helping consumers better discipline markets (section 5.3 and SP 13).

Reforms to existing regulations to promote competition and to reduce unnecessary regulatory burdens is a constant subject of review, but is too often disappointing in delivery. Opposition from the beneficiaries of unproductive regulation is always with us, but the ability to overcome this via evidence and analysis has been dulled over time. Communication and explanation needs a reset.

Appendix B provides a broader group of reform options determined following a systematic examination of past reviews. Despite their familiarity these should not be ignored, in the search for productivity enhancement. They may be familiar, but many are still unaddressed.

Governments could add some or all of these to a core reform agenda drawn from the other chapters of this Review.

5.1 Fixing the energy mess

Australian energy markets, particularly those in eastern Australia, are in a fragile state. While the statewide blackout in South Australia, on 28 September 2016, was initially caused by nature, the duration of the blackout brought issues about the security and stability of the national electricity grid to the fore. The estimated cost of the statewide blackout in South Australia was $367 million. With electricity and gas making up 2.5 per cent of GDP, and being an essential input for all industries, the cost of failure to resolve the problems will only rise in the future. It is too difficult to put a price tag on getting energy policy right, in large part as the counterfactual — what would happen if we continue to try to muddle through without clarity on carbon pricing — is impossible to define (SP 11). Nonetheless, the returns from the reforms outlined here would be worth many billions.

Lack of clarity on emission reduction policies, increasing reliance on intermittent and variable renewable energy, moratoria on gas exploration and development, and the commencement of gas exports from the east coast, have all contributed to a system under pressure.

The challenge is how to resolve these issues while maintaining an affordable, reliable and sustainable supply of energy going forward — dubbed the 'energy trilemma' by the recent Finkel Review (2017).

9 References for the energy section of this paper and greater detail is available in SP 11. References for the other sections, and estimates of benefits, can be found in SP 12, SP 13 and appendix B.

Significant policy and technical work has been undertaken in response to these challenges, of which the Finkel Review is the most recent.[10] Finkel set out an approach that seeks to find an option, amongst many, that is politically palatable. The issues affecting the sector are complex, and their solution requires considerable technical expertise as well as good regulatory and institutional design. This requires solving the immediate problems, but also needs to be mindful of transforming the energy system so that it will deliver for consumers in the long as well as the short run.

This Review focuses on setting out what the reform process must achieve to resolve the problems that bedevil the sector. These are framed within a structure that emphasises the basics, things that have been lost along the way in the energy wars. Governments must:

- restore national agreement on simple, clear objectives — that recognise the inherent tensions between prices (costs), reliability and emissions, and provide guidance on acceptable trade-offs — then leave the field to expert implementation
- determine which institutions do what — then let them get on with their work, holding them to account for their stated responsibilities
- ensure that the energy sector can access the full set of instruments in doing their work — not locking in or out technologies, or excluding other solutions by design
- set out a clear roadmap for reforms — ideally with cross-jurisdictional commitment.

Clear objectives

Energy is an input into all industries and households, and so even minor deficiencies in efficiency have cumulatively large impacts. Cost matters for all electricity users, but the need for reliability varies. For large energy intensive export-orientated manufacturers, such as metals processing industries (which are often regionally based), unplanned or long disruptions to supply can be particularly costly. Hospitals and other essential services, and computer banks need reliable power. But many households can cope well with short interruptions, or are happy to reduce consumption for short periods, particularly if scheduled.

The costs of getting the energy system wrong are just too large to contemplate

Building in redundancy to improve reliability (whether in interconnectors, transmission, distribution, or generation) comes with higher costs that are passed onto consumers. 'Gold plating' the poles and wires was responsible for a substantial share of the rise in the cost of electricity over the past decade.

In part this was due to poor regulatory arrangements that rewarded over-investment, but in part it reflected an over-emphasis by governments on reliability. System reliability in power is not a yes/no question. There are known and effective mechanisms to manage reliability according to different user's preferences. This recognition, after a damaging period of price rises, may now be in prospect. But the temptation to fiddle will remain present while the regulatory system is under reconstruction.

10 The Finkel Review's issues paper identified 20 other reviews that were underway or had been recently completed. Following the recent problems in South Australia and with the National Electricity Market, a number of additional reviews have been undertaken or commissioned.

There is also a trade-off between reliability, cost and emissions (sustainability in Finkel's trilemma). Currently, the regulated price is not designed to deal with this.

It is a principle of every properly-designed pricing system that the charge should reflect its harms. Thus carbon emission intensity is necessarily a matter to be reflected in the regulated pricing system. The compromises necessary to do this are much-debated, but what should be accepted is that low carbon technologies (such as solar and wind generation) are inherently part of the properly-priced future.

Some renewable technologies also impose systemic costs. They can be intermittent — with limited predictability of supply, and require frequency management services. These issues can be managed, such as by battery storage, greater linking across the network (the wind is blowing somewhere), and other ancillary services, but these raise costs, which is not well-reflected in the current system of regulated pricing.

Governments need an emissions target[11] to provide certainty for the sector about the trade-offs allowed between emission reduction and cost. From these judgments better decision-making will flow on how and where to invest in future system reliability. From the user's perspective, reliability can be as much about predictability as the ability of the system to always deliver on demand — the system must be able to deliver a reliable supply to users who face high costs of disruption.

A broadly accepted commitment on emission reduction targets over the investment profile for electricity assets is essential to give firms sufficient confidence to make the investments needed to deliver electricity at the lowest possible cost and the right levels of reliability for users over the next few decades.[12]

In the case of Finkel, 49 out of 50 is not a pass mark.

Governments need an emissions target to provide certainty for the sector

The right institutional structures

The existing regulatory arrangements governing the industry emerged out of the wider energy reform process that commenced in the 1990s. A 'national' market (really an east coast and central market) was created, the generators/producers and networks became better managed and many passed into private hands.

The regulatory system to address market power became more sophisticated. There were failings along the way, and at some times the glacial pace of change in vital areas was frustrating (as in transmission reliability frameworks, retail competition and price controls), but the direction was known, and things largely worked well.

11 This is the allowable level of emissions across sectors and/or the economy, and differs from the Renewable Energy Target (RET), which sets the share of electricity that must come from renewable sources.

12 By some calculations, achieving the Paris Accord commitments of a reduction of 26 to 28 per cent on 2005 CO_2 emissions will require 50 per cent of electricity to be generated by emissions-free sources (it requires a 65 per cent reduction in the emission intensity of the economy between 2005 and 2030).

Over the past decade, however, the growth of renewable generation, much of which is inherently non-synchronous and non-dispatchable,[13] has posed new challenges.

This, coupled with more geographic dispersion in the location of renewable generation, makes it technically harder for the system operator to maintain system reliability and security. These problems can be addressed by ancillary services that can modulate frequencies, and provide complementary generation, batteries, or other storage that can ramp up quickly as needed. But governance arrangements have not proved capable at adapting to these changing realities and dealing with emerging issues as they occur, or at least not quickly enough.

GOVERNMENTS NEED TO SET POLICY DIRECTIONS AND LET THE EXPERT BODIES DELIVER

The core of the regulatory architecture is three expert bodies — the Australian Energy Market Commission (AEMC), the Australian Energy Regulator (AER) and the Australian Energy Market Operator (AEMO). They respectively develop policy with governments, regulate and run the system. In theory, such institutions have the advantage *for* governments that they can moderate the inevitable political pressures governments face to act spontaneously given popular concerns. But in practice, insufficient use has been made of the independent expertise and public explanations of those three bodies when forming energy policy.

Resolving the issues currently confronting Australian energy markets will require the cooperation of *all* Australian governments. A sound system would have:

- Australian governments jointly setting a clear long-term strategic vision using *outcome-focused language* that integrates energy and environment policy
- the COAG Energy Council restricting itself to developing policy to achieve this vision, with subsequent implementation clearly the role of the AEMC and AER
- the same regulatory roles and responsibilities for the AER in each state over which it has jurisdiction
- a nationally consistent approach to regulation for all companies operating within particular market sectors and consistency in its regulatory determinations across companies and states
- economically efficient network pricing for the use of electricity and gas transmission and distribution networks.

Gas markets

The development of export facilities at Gladstone in Queensland, which allow liquefied natural gas (LNG) to be exported, have linked the east coast gas market into global markets and supply chains. This, inevitably, means that domestic prices for gas will be exposed to the price of exports (net of additional costs of processing and delivery). But what seem to be over-optimistic forecasts about production (or costs) from Queensland gas fields has seen the LNG exporters look to the southern states for supply which has pushed up domestic prices beyond the 'net back' export price. Pipelines which once carried gas to the markets in the south reversed direction as gas was diverted north.

13 Non-synchronous refers to electricity having variable frequency and voltage and lacking inertia (which assists in dealing with changes in frequency). Non-dispatchable reflects the intermittent nature of solar and wind technologies. Unlike most renewables, hydroelectricity is synchronous and dispatchable, as are the traditional sources of coal fired and gas generation.

More fundamentally, the difficulty for generators in accessing long-term supply contracts at acceptable prices, coupled with uncertainty in carbon pricing, reduced the viability of investment in gas-fired generation — the natural complement to renewables. Adding to the uncertain investment climate, the Australian Competition and Consumer Commission (ACCC) has raised concerns about constrained pipeline capacity, which benefits the capacity rights holders, and market of some pipeline operators. It has looked at whether price regulation is needed, and is currently pursuing a much wider ranging inquiry into the supply and demand for wholesale gas. An additional problem being addressed is the lack of a secondary market for trading of unused pipeline capacity.

The significant increases in the domestic price of gas have been a key factor in the rising wholesale electricity prices. These factors have also affected manufacturers that rely on gas as a feedstock. The Australian Government has introduced legislation that will allow it to use export controls to divert gas to the domestic market to ensure adequate domestic supply. Such action could impose sovereign risk, and is undesirable.

Removing the moratoria on gas exploration and development in Victoria, Tasmania and the Northern Territory, which have slowed the growth in supply, are one place to start.

There are more effective models of community engagement which exploration firms can, and should, seek to apply if given the opportunity. Local employment and investment should be upfront considerations, not left to others to guess at. Royalty regimes may need review. Bans are unlikely to be lifted simply because of pricing concerns. The decision to intervene in exports may actually relieve a pressure on States with bans.

A voluntary industry-wide code of practice might help the gas industry improve their relationship with the community, but must be accompanied by moves of substance. None of this is intended to question the science and the efforts of Chief Scientists to establish safer practice. But as is often the case, the science is not enough to carry the policy debate.

To build community confidence in gas exploration and production a code must go beyond other desirable aspects of gas exploration — safety regulation, sound scientific evidence, and monitoring and enforcement of compliance — and include clear guidelines and arrangements to manage community impacts and support landholders in negotiating land access agreements.

Solutions should be technologically neutral and efficiently priced

PRICES SHOULD REFLECT THE ADDITIONAL COSTS IMPOSED BY SPECIFIC TECHNOLOGIES

There has been considerable change in the electricity system over the past decade. On the demand side, ‘peakiness’ has risen with the widespread growth in the use of air conditioners, and roof-top solar generation servicing the household during the day. On the supply side is renewable technologies, and a shift to two-way transmission from households and some firms, that both draw on, and sell into, the system from their own generation. Technologies, such as battery storage, continue to develop which, with falling costs, will change the calculus in the future. So the institutional structures and regulatory regime must be able to accommodate these trends.

The Commission has previously criticised the use of renewable energy targets (RET) on the basis that they are not technology neutral, and so are distortionary compared with the policy of putting a price on carbon. But we have also acknowledged they have been an important tool in delivering on emissions reduction commitments. Finkel's recommendation for a low emission energy target (LET) would be an improvement on the RET. It would better reward lower emitters, and depending on its detailed design, would move Australia's energy market closer to the outcomes that would arise from full carbon pricing. The critical point is that while there are various ways of placing prices on carbon, establishing an agreement on one of them, even if not perfect, provides a guide for investment toward the lowest cost emission reduction options. These costs must include any additional cost imposed on the network by choice of any particular technology.

The RET is specified in terms of gigawatt hours of renewable electricity and not in terms of emissions. It was formulated and operates independently of wholesale electricity markets and is not explicitly incorporated into the spot price. This has created problems as it effectively pushes the cost of intermittency and frequency management onto the purchasers of electricity rather than onto the producers of renewable energy.

While the low marginal cost of renewable generation means that these producers can sell into the grid when they were producing (as they would have the lowest priced bid), they do not have to pay for the reserve capacity of other generators that are needed when renewable production falls relative to demand. This may be a problem with any certificate-based scheme based on the production rather than the delivery of electricity. Prices need to be able to be based on not just when the electricity is delivered (by bidding into the spot market for five minute contracts), but also its availability. Ideally prices would also vary by carbon content, rather than making the carbon related payment separate from the market for wholesale electricity. This outcome can be achieved in a number of ways. One way is for the generator to be made responsible for any additional costs, such as ancillary services to manage frequency variability, associated with the electricity it delivers into the wholesale market.

THE OPTION TO ACCESS THE GRID MUST BE PRICED

The uptake of distributed generation (in particular roof-top solar) is changing how transmission and distribution networks are used, and what for. This poses risks for the owners of these assets and challenges for the regulators in regard to maintaining system stability and reliability and in setting prices. For the system operator, these small producers are invisible, but affect the flow of electricity that must be managed.

For example, if the regulated cost of connection to the grid rises above the cost of self-reliance for more than a few customers, a dangerous spiral of users moving off grid, pushing up charges for the remaining customers, leading to more going off grid, could arise. For transmission lines, the risks are likely to be greater, and regulators need to be concerned about the long-term viability of these assets. The regulator and regulated providers need to be alive to the implications of cost recovery, pursued to its illogical conclusion.

There are various ways that the owners of transmission and distribution systems can go about pricing their services, but these will need the approval of the regulator. One option is to have an 'insurance' charge applied to premises that can access the grid, even if they do not draw power from it (other than in an emergency). Different charges might apply to those premises that both buy from, and sell into, the grid reflecting the different costs imposed by this use of the asset. Regulators will need to ensure that, whatever pricing regime is developed, the owners of the networks bear the costs of their decisions to under or over invest and that they cannot just pass this onto consumers (or potential consumers) in regulated prices.

DEMAND MANAGEMENT CAN BE A LOWER COST TECHNOLOGY FOR IMPROVING RELIABILITY

The system savings from demand management are considerable. Smoothing the transmission load by shifting energy demand from peak to off-peak periods reduces the carrying capacity required and would have reduced the past investment in transmission augmentation by billions of dollars. This horse has bolted, but the same mistake must be avoided in the future. Long-term contracts that allow wholesalers to actively manage demand reduce the need to maintain higher levels of spare generating capacity to meet spikes in demand — the 'reserve plant margin'.

Progress has been made in this area, but the peaks could be further attenuated through other demand-side measures. Forced load shedding or requesting people to reduce consumption at times when the system is expected to be under stress, such as during heatwaves, are not an efficient way of managing demand. Residential and other small customers need to have price incentives to reduce demand at such times. Progress is being made on the information and technology to support demand management, but most small consumers still do not face demand reflective pricing, including time of day pricing.

Looking to the future

While immediate action is needed to manage the looming risks of blackouts next summer, there is a real danger that the electricity system Australia needs in the future will not be delivered if the regulatory mess persists.

Short-term certainty over a carbon target is not likely to alter any investors' preference for sitting on the fence.

The financial viability of refurbishing existing coal-fired power today appears very doubtful, as uncertainty *is actually priced* into current investment models. Advocates of older generation technologies who oppose (regulated) prices that reflect emissions are actually doing themselves a major disservice. Lacking information on risk, investors most likely will not commit. Thus doing nothing on emissions intensity (via price, or via some other proxy) is most likely to ensure that the fear of redundancy for coal will become a reality. A future without a coal-fired baseload has very different implications for the transmission and distribution system, and for the operability of the National Electricity Market (NEM).

Recommendation 5.1
URGENT ACTION IS NEEDED TO FIX AUSTRALIA'S ENERGY MARKETS

Australian governments must cooperate to reform the national electricity market as a priority.

HOW TO DO IT

Australian governments must work cooperatively to resolve the issues currently confronting Australian energy markets. They must:

- stop the piecemeal and stop-start approach to emission reduction, and adopt a proper vehicle for reducing carbon emissions that puts a single effective price on carbon
- clearly articulate the acceptable trade-off between reliability and cost
- achieve more efficient pricing, by ensuring that:
  - prices paid to producers reflect any additional costs they impose on the system (such as frequency management)
  - access to the grid, rather than just use, can be priced (so people using the grid as a back-up pay for this service)
  - prices to consumers reflect the nature of the demand that they require from the system
- provide clear strategic direction to the expert bodies, and a clearer accountability for outcomes
- let the market regulators and participants get on with their work, holding them to account for the outcomes
- ensure that short-term fixes are technologically neutral and move the system toward a sustainable long-run outcome.

5.2 Enabling an innovation culture

The creation and adoption of knowledge, ideas, products, processes and ways of doing business — in short innovation — are critical for maintaining Australia's high standard of living, ensuring its ongoing international competitiveness, creating jobs and delivering future economic prosperity (SP 12).

While innovation can only be driven by firms willing to make investments and take risks, governments can assist by providing a business environment where innovation is welcomed. This requires a regulatory regime that allows experiments and does not punish failure that brings no harm to others. It requires government to invest in the fundamental elements of a high tech society — a well-educated workforce, good communications and other infrastructure, and a strong research base. And at any point in time, there are a variety of improvements in support and other programs that will deliver better results from public investment in R&D and commercialisation (box 5.1). But by themselves these are not game changers.

What is a game changer is improving access to, and the availability of, data, and making sure that firms can operate in an environment of intellectual license.

Box 5.1 Governments and the innovation ecosystem

Governments can help or hinder the development of the innovation ecosystem. Too much support can potentially hinder development if firms become focused on extracting subsidies or getting other special treatment by government. While most innovators say they want government to get out of the way, some have commented on a 'waiting for government' mindset in Australian firms.

> *Too often "solutions" are about asking state and federal governments for something rather than about fostering a new kind of private-sector driven entrepreneurship and risk. (Plunkett 2017, p. 5)*

Governments need to assess whether their interventions are helping or hindering, including by considering the incentives they are creating for firms to wait rather than innovate. Some recent reviews have made recommendations that aim to better align the incentives so that public funding is less likely to crowd out private investment (SP 12). These include:

- reforming the Research and Development (R&D) tax incentive, which accounts for a third of the almost $10 billion public investment in innovation related activities (including basic research funding), as recommended by the Ferris, Finkel and Fraser review
- consolidating small grant programs to reduce duplication and overlapping programs within and across jurisdictions, and evaluating the impacts of these programs.

More comprehensive evaluation of the effectiveness of industry support programs, including those aimed at stimulating innovation, will be easier with the development of the Business Longitudinal Analysis Data Environment (BLADE).

As governments set the regulatory environment, they can facilitate the innovative activity of firms (SP 13) through:

- ensuring that new products can meet regulatory requirements quickly, which can be critical in bringing them to market. This requires a responsive regulatory regime, that also gives consumers confidence that the risks are managed
- adopting open and common standards across jurisdictions, which can reduce costs for users and assist firms to sell into other markets
- providing leadership in setting up strategies to build cyber security systems and capabilities and coordinating the adoption of standards and infrastructure needed to support the internet of things.

Finally, as governments are major purchasers of goods and services, government's willingness to offer opportunities to more innovative firms can play a role in providing space for firms to experiment. Successful sales to government can provide a platform for penetration into other markets.

Data and its analytics is the most significant renewable resource discovery this century

Improving access to data

Data (and its analytics) is the most significant renewable resource discovered this century.

Extraordinary growth in data generation and usability has enabled a plethora of new business models, products, services and insights. These in turn are transforming everyday life — driving safety and efficiency, improving the use and allocation of resources, and enabling better decision making.

Data frameworks and protections developed prior to sweeping digitisation need reform, and were the focus of the Commission's 2017 Inquiry on Data Availability and Use. Governments could stimulate innovation and new opportunities by:

- making the substantial data that they collect and curate more readily available in forms that still protect the security of data and the privacy of data sources
- empowering consumers to use and benefit from their own data.

Data that allows performance monitoring and comparison of government activities is a fundamental starting point. Governments themselves can make better use of data to improve delivery of services and enhance their own functioning and efficiency.

Access to data more broadly would enable capable and trusted researchers to play a more active role in developing solutions to seemingly intractable problems. This can be achieved through early and routine release by governments of non-sensitive datasets, and the adoption of robust processes for assessing and managing risks associated with other datasets to better allow sharing. This theme is also taken up in chapter 2, as data are at the core of delivering higher quality, integrated health services.

In addition to these benefits from improved access to data, the Commission's Inquiry on data highlighted the role of data as a potential barrier to competition, but also an important enabler of consumer control and choice.

The central plank of the Commission's report and recommendations was an overarching data access law (a Data Sharing and Release Act) that would give consumers — individuals and small businesses — a comprehensive right to access their data and direct that it be provided to third parties. This would enhance competition by enabling consumers to have their data, for example that accumulated over years by their bank or telecommunications company, transferred to potential alternative suppliers.

The ability to drive competition in this way will likely significantly increase in value as data collection continues to grow. But the benefits of the comprehensive right could extend beyond competition between existing providers by enabling further innovation in products and services. The Commission's report recommended allowing each sector to develop its own rules about what data the comprehensive right will apply to, and how they will release that data.

If these reforms can release even 5 per cent of the potential value of public sector data they are worth over $4 billion to the Australian economy. Moreover, the reforms that allow consumers greater control over sharing their data could be worth over $1.5 billion a year through greater, and better informed, choice in banking, insurance and utilities (SP 13).

Even shifting the dial by 0.1 percentage point is worth almost $1.9 billion to our economy

Creating an environment of intellectual license

Intellectual property (IP) arrangements, including copyright, play an important role in ensuring creators and inventors are rewarded for their efforts. However, as noted in the Commission's Inquiry into Intellectual Property Arrangements (IP Inquiry), while copyright encourages investment in creative works by allowing creators and rights holders to exploit their value, it is poorly targeted and broader in scope than needed. It provides the same levels of protection to: commercial and non-commercial works; to those no longer being supplied to market; and to those where ownership can no longer be identified.

Conditions in licences and assignments of patents, registered designs, copyright, and eligible circuit layout rights are currently exempted from most of the laws dealing with anticompetitive business practices by subsection 51(3) of the Competition and Consumer Act 2010 (CCA). Both the Competition Policy (Harper) Review and the IP Inquiry recommended repealing the section, noting that commercial transactions involving IP rights should be subject to competition law in the same manner as transactions involving other property and assets (Harper et al. 2015; PC 2016c).

A consumer is estimated to infringe current copyright laws over 80 times a day

A system of exceptions to copyright enables limited use of copyright material without the authorisation of rights holders. However, the IP Inquiry found Australia's current exceptions for fair dealing are too narrow, inflexible and prescriptive. They do not reflect the way people consume and use content in today's digital world, nor do they accommodate new legitimate uses of copyright material. For example, the existing law only introduced limited permission to make a personal-use copy of a videotape in 2006, which was 26 years after VCRs were introduced, and 8 years after the arrival of DVDs, which superseded VCRs. As a result of the existing prescriptive exceptions, a representative consumer is estimated to infringe the copyright of non–commercial and commercial works over 80 times a day.

Problems caused by the current prescriptive system include frustrating the efforts of online businesses seeking to provide cloud computing solutions, preventing medical and scientific researchers from taking full advantage of text and data mining, and limiting universities from offering flexible Massive Open Online Courses (MOOCs).

Moving from the current legislated mechanisms that only enable use of copyright material in tightly defined situations ('fair dealing' exceptions) to a principles-based system, which considers whether use of copyright material would harm the right holder's interests ('fair use'), would allow Australia's copyright arrangements to adapt to new circumstances, technologies and uses over time. This is the approach taken in the United States and many other countries.

Moving to fair use would unlock many opportunities and avoid unnecessary payments. For example, moving to fair use would avoid the current situation where education and government users pay $18 million dollars per year for materials that would be accessible under fair use provisions (chapter 3).

Draft legislation released in December 2015 proposed expanding the safe harbour protection from copyright infringement to include search engines, universities and libraries. However, the provisions relating to safe harbour were removed from the bill as introduced with the government noting it would further consider feedback received on the proposal. The removal raised concerns from a number of tech firms that offer two-way platforms (that allow users to upload their own content that is then bought by other users) such as Redbubble and Envato. Fair use provisions recommended by the Commission could address this problem by allowing use of copyright material in a way that does not impact on the revenue stream from the intellectual property rights of the creators (SP 13).

It is very hard to say what impact this and the other changes recommended in the IP Inquiry would have on productivity, but even shifting the dial by 0.1 percentage point in multifactor productivity is worth almost $1.9 billon to the australian economy (appendix B).

Recommendation 5.2
CREATING AN ENVIRONMENT MORE CONDUCIVE TO INNOVATION

Australian governments must be more responsive and willing to experiment to create a more innovative ecosystem for Australian business.

HOW TO DO IT

There are a number of things Australian governments can do to create an environment more conducive to innovation without giving firms an incentive to seek support. Such action will help, but four other areas where governments can make a material difference is in:

- establishing consumer rights over their own data, including the right to transfer their data
- removing the barriers to greater use of public data, including developing secure access that still respects privacy
- adopting a copyright law with fair use exceptions
- removing the competition law exemption for intellectual property.

5.3 Improving the performance of the regulatory system

Regulator behaviour and the regulations they enforce can raise the cost of doing business, but they are often essential in making the market work. We highlight some areas where new technologies are changing how the regulatory system can interact with markets to the benefit of consumers and firm efficiency (SP 13).

Consumers lack the power to provide market discipline

A regulatory system that empowers consumers, through information and effective complaint and redress systems, helps bring market discipline to bear on providers. Digital technologies (such as social media and comparison platforms) are providing new ways of collecting, analysing and supplying information on the consumer experience of goods and services. But they need credible quality assurance mechanisms to be effective.

Governments can help empower consumers through improving access to reliable and timely information and ensuring that consumers have effective access to complaints and redress mechanisms.

While improving the information available to consumers enhances their ability to impose market discipline, these mechanisms work best where there is a strong consumer safety net in place. That is, market participants that seek to exploit consumers, workers and other organisations face real sanctions, and consumers have access to redress. This requires regulators with teeth.

Regulator behaviour results in higher compliance costs than required

Reviews that have focused on the costs of red tape have found that much of the unnecessary compliance costs can be traced back to how the regulators implement the regulations rather than requirements in the regulations themselves. The Australian Government's *Public Governance, Performance and Accountability Act 2013* requires greater monitoring of the performance of regulators with the aim of improving their performance.

While this is an improvement on past governance arrangements, it may fail to properly engage the regulated entities, which are best placed to identify what it is that needs to be done to reduce unnecessary costs, and to report back if this is being achieved. After several years of operation the Regulator Performance Framework should be reviewed to assess if there are better, and less onerous, ways to achieve the desired improvements in regulator performance. Improvements in performance can also be hampered by lack of capabilities in the regulator. Capability reviews, such as the review of Australian Securities and Investments Commission (ASIC), can identify what is needed to bring about change in a regulator, including whether the governance arrangements are sufficient.

Digital technologies also offer regulators new ways of engaging with their clients:

- Digital interfaces offer a way of providing a much more seamless and integrated process for business seeking information, approvals, notifications and other compliance requirements. Governments have moved to introduce single entry portals, some more successfully than others, and latecomers should look to the leaders for guidance on what works. As much, or more, attention is needed to ensuring agency cooperation as to delivering technical solutions.
- Technologies allow greater sharing of data that can support real time risk identification and management. More systematic learning from regulatory actions can be used to inform firms how best to comply at least cost. Machine learning offers the opportunity to distil information on regulatory requirements in a way that can be tailored to the needs of individual firms.
- RegTech — digital solutions that enable firms to meet regulatory requirements at considerably lower cost — can embed 'compliance by design'. ASIC's Innovation Hub, established in 2015 to assist FinTech start-ups developing innovative financial products or services to navigate the regulatory system, reported engagement with 30 RegTech companies. The NSW Government has recently released a new digital strategy, with commitments to make the client the centre of service delivery. An important aspect of this strategy is to ensure that all legislation enables digital by design — that is, it will not prevent new digital technologies and business models from being adopted.

- As they lower the cost of information exchange and disrupt current practice, digital technologies can provide the catalyst for better coordination across regulators in some areas. Priority areas include chemical regulation, which remains fragmented.
- Better information can also be used to design and deliver more efficient cost sharing arrangements.

5.4 An agenda for regulation reform

Making markets function efficiently requires action on at least four fronts:

- ensuring macroeconomic stability
- providing the legal basis for exchange
- ensuring that markets treat players equally
- providing coordination where cooperative approaches fail to emerge organically (North 1991).

Market regulation reform focuses on the last two of these areas. The main tool at the disposal of governments is better-judged regulation, to instil competition, manage externalities (where the behaviour of one firm impacts on others) and to encourage collective action where it is needed to develop markets. There is no shortage of guidance to governments on what should be included in the traditional regulation reform agenda, and a brief outline is provided here with more details in appendix B. Looking to the next five year review, some areas where the policy solutions are not obvious, and further research is needed, are raised.

The traditional regulatory reform agenda

Many sound recommendations have been made in a variety of reviews that would address impediments to markets operating more efficiently, but these have yet to be implemented or are progressing more slowly than desired.

After trawling through hundreds of recommendations from multiple reviews and assessing them on their merit and materiality, the Commission has harvested a rich repertoire of opportunities for an orthodox microeconomic reform agenda — that are set out systematically in appendix B, where references and benefit estimates can be found. The appendix arranges reforms in two overarching themes:

- improving competition
- reducing unnecessary regulatory burden.

Reforms quantified in appendix B come to more than $3 billion a year

Realistically, it is beyond the capacity of government to do ***all*** of the reforms outlined in appendix B immediately. The Commission recognises that political capital and bureaucratic resources are finite, and there is a need for an agenda led by initiatives that will indicate to a doubting public how reforms will improve their lives. But just selecting judiciously from these reforms as part of an agenda will provide a significant boost to national productivity. The net gains to the economy from the listed reforms quantified in appendix B come to more than $3 billion a year, to which can be added potentially large gains (in the many billions) from reforms to industry assistance, government procurement and reforms to IP (see above). While most of the individual estimates are uncertain, taken together they add to a considerable case for reforming regulation and industry assistance. Deloitte Access Economics has estimated that a package of microeconomic reform, combined with favourable economic conditions in Asia, would raise Australia's GDP by 2.5 per cent (Deloitte Access Economics 2017).

Some areas that need better guidance on future directions

Digital technologies are posing new challenges for regulators and regulation. For example, control of data and networks is growing as a source of market power. But the trade-off between the benefits offered and the persistence of the ability to extract rent is less clear than in the case of natural monopolies. The Commission has advocated a wait and see approach in this situation. But there are other questions that have emerged during the process of this Review where a more proactive approach is needed to discover the right way governments should regulate. Four areas that should form part of a research agenda are discussed below.

BOOSTING COMPETITION GIVEN THE SMALL SIZE OF THE AUSTRALIAN MARKET, OLIGOPOLIES, AND THE NATURE OF SHAREHOLDER DISCIPLINE

Competition is a force for good in that it drives the owners of firms to pursue productivity and deliver goods and services that consumers want or other firms need. But it is less effective if the interests of the managers of firms do not align with those of the owners of firms. And it is harder to achieve where the market is relatively small and economies of scale and scope are large. The rising share of lagging firms suggests that owners have become less effective in driving good management.

There could be several systemic factors. Digital disruption has made it easier for firms to outsource much of their production, focusing on the design and develop and the delivery and service ends of the production value chain (PC 2016b). Notionally this should boost productivity, but it may well take more management skills and investment to do well (Berger 2014).

A number of studies, in Australia and elsewhere, have pointed to the quality of management as a major factor in the performance of firms (Bloom et al. 2007). A study that applied the London School of Economics management measures to Australian manufacturing firms (with more than 50 employees) found overall they rated only moderately above average, with considerable variation in performance (Green 2009). There are a number of elements worthy of investigation to better understand why firms are lagging, and what role, if any, policy can play in addressing this problem. The firm longitudinal data (BLADE) will provide researchers with a better resource for conducting this research, which should inform the next five year productivity review.

In questioning how well markets are functioning, various researchers have pointed to more fundamental change reducing the ability of corporate governance arrangements to focus firms on long-term growth (SP 1). For example, big pension funds are increasingly the main shareholders so have a role to play in holding company management to account. How well they are doing this needs to be assessed.

At a firm level, an incentive to manage for short-term profit will tend to result in underinvestment in innovation and a more incremental approach to research and development (R&D). Concerns have also been raised about the incentives that firms have to train staff, given the growing view that employment is no longer for life. At a system level, such trends imply less interest in collaboration in R&D investments that benefit other firms, and a greater reliance on workers to fund their own training, or for the government to fund both the training and the R&D.

Adding to these trends could be the apparent market preference for the breakup of vertically integrated firms. It has been argued that has contributed to the loss of manufacturing in the United States (Berger 2014). The firms that emerged from this were more specialised, and had less interest in and resources available for supporting training and research that would benefit other firms. This type of 'depletion of the industries ecosystem' leaves many firms less able to respond to changing market opportunities (Berger 2014, p. 6). It also affects on-the-job training for workers.

Another trend has been a rise in the market share of private equity firms, which have lower disclosure requirements. Publicly listed firms are required to provide considerably more information to allow shareholders to assess performance, and there are examples of poor outcomes from private equity takeovers of public companies. For example, following the collapse of retailer Dick Smith, a Senate inquiry into the causes and consequences of the collapse of listed retailers in Australia was established in February 2016. While submissions were taken and the inquiry granted an extension, it lapsed at the 2016 federal election and the Senate agreed not to re-refer the inquiry to the new Parliament (Senate Standing Committee 2016). More investigation is required to assist governments to understand if these types of trends reflect the current regulatory rules governing corporate behaviour. The extent to which the market rules can promote positive spillovers across firms must be considered in formulating any policy response.

Beyond setting rules to encourage good corporate governance, there is a question of whether government has any role to play in assisting firms to improve their performance. Those that argue that government can be proactive often cite the German system where the many medium-sized manufacturing firms are supported by an 'ecosystem rich in research consortia, Fraunhofer Institutes, specialist suppliers, technical universities, apprenticeship training, and local and regional banks' (Berger 2014, p. 6).

However, there is yet to be any reliable evidence that such industry programs will work in Australia (Baily 2016; PC 2007).[14] In part, the relatively high concentration of firms in many industries makes it more difficult to ensure that the returns to such investments are widely shared. In part, it is because the scale available to Australian firms means efforts have to be concentrated to achieve critical mass so that investment can become self-sustaining. The alternative, which is not uncommon, is what can be termed the 'vegemite solution', where governments spread their funds widely in the name of fairness, but lacking any critical mass to make a difference. Research to build an evidence base is needed to better understand the causes of poor performance in the Australian market. This will include evaluation of the effectiveness (or not) of government programs, and assessment of the transferability of models that work well elsewhere.

14 A possible exception is the Rural Industries Research and Development matching grant system, which is supported by a sound governance regime to ensure that R&D projects are directed by industry. The Commission's review of the system (PC 2011c) found that it had been effective in raising productivity in agricultural industries but that, as the gains were mainly captured by industry, the public contribution should be reduced.

There is a question over whether better information on relative performance can make a difference. There are some industries, notably utilities, in which benchmarking is used as a regulatory tool. This includes water and wastewater utilities in the United States, where benchmarking is used to induce the utilities to control costs and become more efficient (Berg and Holt 2002).

More general benchmarking services are less common. An exception is the Inland Revenue Department (IRD) in New Zealand, which provides industry benchmarks and tools for businesses to work out their own performance ratios from the data they provided to the IRD (the Australian Taxation Office (ATO) do this for small businesses). The IRD also offer advice on why your business may perform outside the industry benchmark (IRNZ 2017). Such information can prompt businesses to ensure that they have not made a mistake on their tax returns, which is of benefit to the IRD, as well as prompting a firm to seek external advice. The ATO and ASIC, could consider providing such a service.

Observation 5.1

There is a fundamental lack of adequate assessment in Australia on why such a high share of firms are lagging behind in productivity growth. An evidence base is needed to assess why, including the role that corporate governance, firm ownership, digital technologies, and measurement problems might be playing in this result, to guide whether government policies could make a difference.

EMERGING TRENDS IN THE LABOUR MARKET AND PERHAPS A THIRD CATEGORY OF WORKER

The distinction between contractors and employees in new digitally-driven services is an emerging issue that was not covered in depth in the Commission's 2015 Workplace Relations Framework Inquiry. Platforms like Uber, Airtasker and TaskRabbit rely on contractors to supply labour in a market where software brings the customer to the supplier (the 'gig' economy). Such platforms can be beneficial for workers (flexibility about when and how many hours to work) and consumers (lower price and greater quality). But there are also risks for both parties, and most particularly a concern that such employment forms might constitute sham contracting. This occurs when a worker is subject to a degree of direction that is more typical for an employee, while not being given the protections of the Fair Work Act or other laws that relate to employees.

The legality of the employment arrangements underpinning Uber and similar platforms is increasingly under challenge in countries that share the Australian common law definition of a contractor (Foulsham and Geddes 2015). Were all platform-mediated employment to be re-defined as involving contracts *of* employment (an employee) rather than contracts *for* employment (a contractor) it could thwart the adoption of improved services (including in disability care). It could also deny people who want flexible jobs the chance of a job at all.

A shift in the nature of employment also has implications for the nature of the retirement income system, which assumes a high level of 'employee-ship'. For the present, the issue is small. For the future, should this become a significant category of worker, some reconsideration of how workplace standards are applied may be necessary.

Observation 5.2

So-called 'gig' employment falls somewhere between an independent contractor and casual employment. The current system does not envisage this, like many other regulatory structures facing digital disruption. If growth persists in the gig economy, challenges may arise for the workplace relations and other systems.

EXPLORATION OF GREATER USE OF MARKET INSTRUMENTS TO GET THE REGULATORY BALANCE RIGHT FOR ENVIRONMENTAL REGULATIONS

Regulation that aims to protect the environment can impose requirements on firms to demonstrate that any harm will be adequately mitigated and that the benefits from the activity outweigh the costs of any long-term harm. Being exposed to the actual costs of redress or make good can internalise this decision for the firm. As long as they are aware of the consequences of their action and any failure to manage risks, and cannot avoid the financial liability, their decision about whether to go ahead with a project should get the balance between benefits and costs right. The difficulty has been in constructing a mechanism that can impose this liability.

For example, it has been argued that the current laws allow firms to evergreen or put mines into 'care and protection' to avoid remediation responsibilities. And there are examples of firms splitting off assets to reduce the firm's exposure to remediation obligations (for example, Peabody Energy (Environmental Justice Australia 2016)).

More work is needed to explore if market-based approaches could better hold firms to account for ensuring that agreed environmental protection is achieved. That is, establishing property rights over the long-run health of the environmental assets, so firms have to pay for any damage. Hence they have to balance the risk that they will fail to manage the environmental impacts against the profits that they expect to make.

Observation 5.3

Delay may be an inevitable outcome for projects that pose major environmental risk, as governments seek to get the requirements right to protect the environment. It would be worthwhile exploring whether governments (and the community) could make greater use of market mechanisms to hold firms to account for remediation of the area directly affected by the project and redress for any damage imposed outside this area.

THE CORRECT REGULATORY SETTINGS ARE ESSENTIAL FOR PRIVATISATION TO DELIVER NET BENEFITS

Infrastructure Australia (2016) has made a number of recommendations in relation to privatisation, a topic also considered in the Commission's report on Public Infrastructure (2014d).

The first of these reports recommended that governments should exit direct service delivery where a competitive market for supply of infrastructure services exists. What this constitutes needs to be established. Action is also needed to embed sound principles into planning and tendering for public infrastructure projects and to make sure they are followed.

Caution has also been flagged in privatising infrastructure assets. For example, the Senate Inquiry into Privatisation of State and Territory assets and New Infrastructure advised caution, rigour, consultation, and regulation when privatising (2015).

The Chair of the ACCC, Rod Sims, in a recent speech, argued that unless privatised assets face competition they need effective regulation:

> ***The lack of effective regulation will see higher prices for users and so can see reduced investment by them, thus causing inefficiencies. In addition, the higher price received for the sale of an unregulated asset can effectively be a tax on users or consumers, now and into the future. And it can be a poorly targeted tax on consumers.*** *(ACCC 2016)*

As with defining sufficient competition, more attention needs to be paid to determining the best approach to regulation. Price monitoring may be insufficient in some contexts, and commitments to service quality, which could include operating hours and frequency of service, may be required to ensure consumers continue to be able to access what is often an essential service. Sims suggested a 'negotiate/arbitrate' approach, which gives the users the threat of referring a dispute over pricing, and possibly other issues, to independent arbitration as a possible solution.

In other work (on negotiations in Workplace Relations), the Commission has identified more sophisticated variants that could be employed. The best approach may well vary across the different types of infrastructure, and more attention should be given to the best regulatory design to manage investment, service and price risks in each case.

Observation 5.4

> Privatisation has the potential to deliver considerable improvements in the quality of service delivery and lower prices for consumers. However, the regulatory arrangements that govern the market are critical for a privatised entity to deliver on these benefits. Nowhere is this more important than in infrastructure and considerably more effort is needed in developing guidance on how to regulate in anticipation of privatisation.

6

MORE EFFECTIVE GOVERNMENTS

What matters?

More Effective Governments

Benefit assessment: Invaluable; primarily a lift of confidence in capacity to govern ourselves

PROBLEMS	SOLUTIONS	BENEFITS
INTERGOVERNMENTAL RELATIONS AND NATIONAL REFORM		
› Without national agreement on reforms to shift the dial on productivity, income growth will languish › COAG, the apex of intergovernmental relations, is currently not an effective reform vehicle › Imbalance in Commonwealth-State funding power lowers confidence in Commonwealth-State cooperation › Over-reliance on financial payments to incentivise reform	› Governments agree to develop a Joint Reform Agenda. Agenda to be negotiated within a year (2018) › Renew collective commitment at COAG, as part of the reform agenda › Commit to tax changes that would improve revenue-sharing arrangements as an essential part of the Agenda › Independent monitoring of progress and impacts › Practical division of responsibilities based on the nature of the policy problem at hand and the parties most willing to design effective change	› Maximise prospects for lifting productivity and, from it, national income and welfare › Reduce inefficiency, ability to cope with digital and other shocks to our economy › Improve tax accountability
MANAGEMENT OF PUBLIC FINANCES		
› Tax system costing the community more, raising relatively less › Weak budget constraints, especially at the Commonwealth level › Insufficient cross-government understanding of long-term national spending pressures	› Start tax reform with government revenue-sharing arrangements › Strengthen accountability mechanisms: » more precise fiscal targets (Cth) » longer-term projections for major programs » new tasks for PBO › A 'whole of nation' intergenerational report	› Circuit breaker › Tax system better supports growth and capacity to provide services › Higher credibility › Ability to provision for shocks
CAPABILITIES OF GOVERNMENTS		
› Poor adherence to policy due diligence requirements › Skills of staff, including on policy development and risk management, not supported › Limited accountability for already accepted public sector reform initiatives	› No policy areas should be immune from proper appraisal › Require evaluations, link continuation of program funding to rectification of problems › Public service commissions formally evaluate progress against current skills; advise improvements › Secretary-level charter on skills	› Stronger policy development and delivery capabilities › Defund poor quality programs › Renew ability to judge risk well › Reduced likelihood of mistakes
LOCAL GOVERNMENT		
› Transparency on Local Government performance	› States and Territories draw on the experience of Victoria and require better performance reporting by Local Governments	› Improved accountability to residents and taxpayers › Provide an incentive for Local Governments to improve their performance

6 MORE EFFECTIVE GOVERNMENTS

6.1 Introduction

The concept of 'effective government' might seem for many people to be a tedious subject.

The Productivity Commission begs to differ.

Without a renewal of commitment from time to time amongst the institutions that set societal objectives, preserve standards and make public services effective, there is little prospect of advancement in the living standards of Australians.

Moreover, the effectiveness of government functioning is critical for continuously improving living standards. Governments set and re-set the legal and commercial rules of the game that give greater certainty to investors, and standards to protect employees and consumers. Governments choose our service levels — in defence and trade, as well as the more obvious health and education — and they set incentives and provide information for the development of natural resources, and rules to protect the environment. They fund infrastructure, and collect and reallocate tax revenue to reduce inequities in opportunity and outcomes.

Above all, they manage the complex interaction of all these, across three levels of government, a task that often only comes to notice when it fails badly. It is this area that is of most concern in this chapter of the Report.

The effectiveness of governments, in terms of what they do and how well they do it, are ultimately judged through election processes. But elections are years apart and can only focus on select topics. Inevitably, there must be substantial reliance by the community on commitment within the terms of governments and the nature of leaders themselves to care about sound processes and relevant capabilities; and external checks and balances to back them up or call them out when they are lapsing.

6.2 How are governments performing?

International comparisons using common measures of what might be considered the basics of good governance suggest Australian governments perform relatively well (figure 6.1). Australia is seen as stable politically, with good legal process and reasonable accountability. This has been a major factor in our past economic performance and the achievement of income growth across all households (chapter 1).

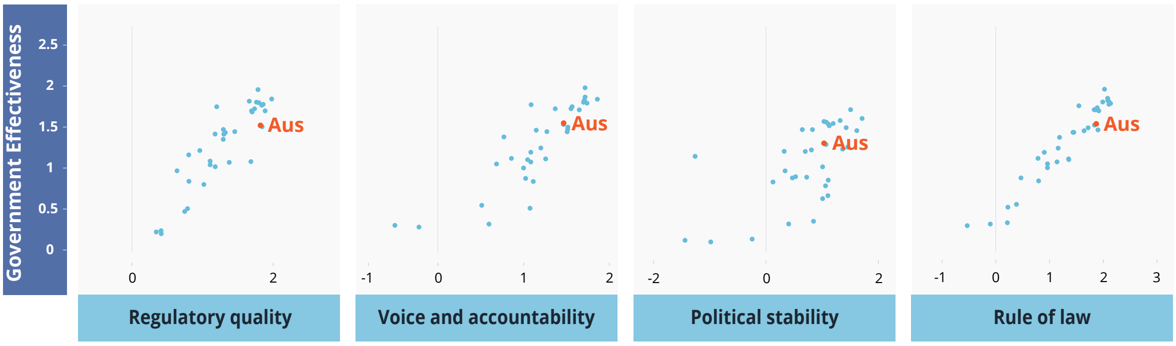
Being amongst the best in a backward-looking sense will not necessarily offer us any guide for how to handle future challenges. Our primary mechanisms for coordinating and delivering reform across the three levels of government have not been *renewed* in a decade (although the subject matter and forms of agreement have shifted often). Lifting prospects for future growth in national income and living standards will require concerted, and in many areas, joint, action by governments. A renewal of commitment would lift confidence in this not being another agenda item amongst a long list, and contribute to an understanding of the priority for such change.

Confidence is low *between* governments in Australia — reflected, for example, in the reaction to a new competition policy reform agenda at COAG in December 2016, or disputes over energy supply. We may comfort ourselves that there are cycles in these things, or that it was ever thus, but neither judgment would suggest anything like a recognition of the slowing capacity for future growth that this report outlines.

Confidence is low between, and in, governments

Figure 6.1 Australian governments fare well by OECD standards[a]

Measures of government performance, OECD countries, 2015



[a] Measures are from results for all countries, with data extracted for OECD countries. Values on the vertical axis are standardised deviations from the global mean.

Source: World Bank, World Governance Indicators Database (2015).

There is no sense of a national challenge needing collective effort towards solutions. And collective effort is core to lifting national productivity, as has been demonstrated in previous chapters. States and Territories are crucial partners if national reforms are to be effective.

Confidence *in* governments is also low. Surveys suggest that Australians' trust in public institutions is at historic lows (box 6.1). Perhaps things are not that extreme, but it is best to recognise that we — this Commission, too, is part of the institutional fabric — are not travelling well. While the reasons for this are complicated, feelings of economic insecurity and lack of opportunity associated with slowing economic growth and a stalling in real income must be relevant. Reversing this must be part of the solution. There have similarly been falls in trust in many governments around the world coinciding with the protracted period of stagnation since the global financial crisis.

Trust in governments is a practical precondition for effective policy-making. Trust signals confidence that governments will competently fulfil their mandates and generally act, in accordance with understood values, in the interests of most citizens. Trust contributes to stable administration, but it is also necessary for responding to change — to gain support for new policy directions, and to trigger the desired behavioural responses from firms, employees and the public.

Box 6.1 Trust in governments has fallen

There are multiple, somewhat inconsistent measures of trust and confidence in governments from surveys, an inevitable outcome given the subjective nature of the concepts:

- Cameron and McAllister found that the share of Australians who agreed that 'people in government can be trusted' was down to 26 per cent, the lowest result since the survey began in 1969; the previous lowest result was 30 per cent in 1979.
- The Gallup World Poll found that trust in governments decreased by an average of 2 percentage points between 2007 and 2015. The decrease was sharper in Australia, albeit not substantially.
- The 2017 Edelman Trust Barometer found that Australians' trust in governments dropped 8 points to 37 per cent from 45 per cent in 2016.

Despite the variations, some common themes emerge. First, in recent years, the majority of Australians do not have trust or confidence in government. Second, the level of trust has fallen significantly. And third, Australia is not alone, with many countries showing high levels of erosion of confidence in their governments.

The main concerns cited in global surveys where trust has fallen were shared across countries: poor economic growth, globalisation, the pace of innovation, and associated concerns about job insecurity and income inequality; eroding social values; and unease about the handling of global risks and pressures such as large scale immigration and geopolitical tensions.

Historically, there is strong evidence of a relationship between economic growth and trust in governments. In short, people tend to trust — or ignore — governments when economic conditions are good. Fears are magnified and governments noticed more when they are not.

Domestic surveys further suggest perceptions of a lack of integrity (self-interest and unkept promises) and clear guiding values on the part of elected representatives, and disaffection with the adversarial nature of parliaments.

Sources: Cameron and McAllister (2016); Gallup World Poll (2016); Edelman Trust Barometer (2017); OECD (2017c); Markus (2015); Blind (2006).

6.3 Progressing reform

A new reform agenda

This five yearly productivity review process offers an opportunity to renew a commitment to reforms aimed at lifting living standards over the medium term.

The Minerals Council of Australia (sub. 30) endorses this view:

> ***The current review is an opportunity for the Productivity Commission to help reinvigorate a comprehensive microeconomic reform agenda that promotes productivity gains.*** *(page 2)*

A reform agenda should be a set of integrated reforms that form a coherent package. This Report proposes what could form the core of an agenda that is jointly pursued by governments. However, we can and do expect it to be negotiated.

Some reforms will be easy and others hard, but all must be informed by a clear objective to get a particular market or sets of related markets to work efficiently with due consideration for phasing of the impacts of adjustment. Commitment to a package allows for clearer signalling of reforms and sequencing to ensure that foundations are in place to support later changes.

It is plausible to see jurisdictions negotiating a package of reforms to achieve a commitment to policy change not seen for the past 15 or more years

The process used in generating this Report has sought to involve State, Territory and Local Governments. Meetings and exchanges have been held at the working level in many of the areas identified as offering the greatest opportunities, and central agencies have also been consulted. Our approach suggests that it is plausible to see a package of reforms being negotiated amongst jurisdictions, and become the subject of the kind of medium-term reform commitment not seen for the past 15 or more years.

Recommendation 6.1
SEEK COMMONWEALTH-STATE/TERRITORY AGREEMENT TO A FORMAL JOINT REFORM AGENDA

HOW TO DO IT

A formal commitment and an institutionally-supported process are both needed to sustain cooperation on reforms of this nature beyond any one term of government.

Recognition should be offered that not all parties are likely to progress all changes at the same rate. But neither should a veto be offered to any one party, once agreement is achieved. A year (2018) should be allowed to strike such an agreement.

The role of monitoring and reporting on an agreed Joint Reform Agenda should be assigned to an independent body, such as a revamped National Competition Council or the Productivity Commission.

> The monitoring body should be empowered and resourced to collect information on the progress and outcomes of reforms at Commonwealth and State and Territory levels and to report on a biennial basis.
>
> Local Government should be invited to participate, once an agreement is struck.
>
> An overall assessment of the progress and impact of the reform agenda should be included in the 5 yearly Productivity Reviews to be undertaken by the Productivity Commission.

Doing the fundamentals well

It is one thing to address a restoration of confidence between governments, and another thing to restore it in governments.

Restoring the latter requires clear explanations of why a reform agenda of the kind proposed in this report will be of value to individuals and firms, those upon whose response to proposed reforms rests the achievement of any gains.

That response requires more than just clarity of purpose, although that is unarguably needed. It also requires work to ensure that the 'basics' are right — as the public's support for major reform is unlikely to be sustained if core tasks are not also done well. And beyond this, it requires persistence of view. Frequent switching of targets encourages a lack of belief in any objective and interest in any new idea.

The rest of this chapter focuses on strengthening the 'must haves' of sound governance and public sector productivity. We examine a loss of confidence in how national finances are being managed to indicate where its contribution to the overall credibility and efficiency of government could be lifted. We look at public sector capability; and at the damaging burden-shifting rhetoric that accompanies the current tax-sharing arrangements.

Treated as implicit in this paper is political leadership. No amount of commentary or analysis can substitute for a willing recognition by our leaders that we face a disappointing outlook for many Australians if a low growth world persists.

We could hope that forecasts of returning growth paths are right. But the private investment to back that remains noticeably absent. And demographic changes, including an ageing population, are anticipated to result in lower output and income per person over the next decade. Lifting participation will support growth to a small degree. Future episodes of high demand for Australian products may temporarily lift incomes. But achieving productivity-boosting reforms are as ever the most sustainable way of improving living standards.

Individuals and business need clear explanations of how reform will benefit them

6.4 Public finances

The States and Territories' reliance on the Commonwealth for revenue (45 per cent of income in 2015-16) and major areas of shared responsibility create serious points of tension between the levels of government (Supporting Paper 14 (SP 14)).

Any improvements in the government sector, a growing part of the economy under pressure from demographic change, technology and public expectations, will require high levels of cooperation.

At this juncture, however, it could not be said that revenue sharing is a source of improving confidence amongst governments — all public comments and much of private advice to this Inquiry suggest the reverse. Accordingly, if this can be addressed, it would offer a substantial fillip to the workability of intergovernmental relations.

How reform of the tax system can lift confidence between governments

Australia's national tax system is regarded as one of the most complex in the world. Adding to that burden, it is under pressure from (amongst other structural factors) technological advance changing the structure of business activities; highly mobile investment and multinationals' intra-firm purchasing and lending arrangements; and greater international labour mobility.

Australia's national tax system,
regarded as one of the most complex in the world,
is costing the community more and raising relatively less

Principles for tax systems are well-recognised and include, among others, sustainability, simplicity, equity and efficiency. The latter is not a static concept, but captures the desirability that a tax system should limit the damage it does to effort, innovation, investment and growth (Pearl 2016). The current system hits few of these targets. Instead, it may limit economic growth, reduce labour supply and do little to address inequity (SP 15).

The scope for government inefficiency and blurred accountability for programs is significant given the heavy reliance by other levels of government on the Commonwealth for funding, with the latter raising 80 per cent of total tax revenue in Australia.

AN INSTITUTIONAL CIRCUIT BREAKER

Two reviews of tax settings (the 2015 *Re:Think* process and 2009 Henry Tax Review) have tried to advance broad reform in the past ten years and failed. There is little reason to consider that a further general review is likely to work. While there are several reasons for the failure of these processes, one evident factor is that the sheer comprehensiveness of proposed change is in fact not a positive factor.

Rather, the challenge of adopting either all of a report, or cherry-picking it, can both sow the seeds of its own downfall. A comprehensive reform package is too large to readily contemplate (a government would have to bet its future on it). Yet cherry-picking draws immediate fire, both from the interests who may lose (for example, the mining tax) and from the architects or supporters of comprehensive reform.

The Commission is not proposing a suite of tax reforms as part of this Report. But it is arguing that tax reform must not be considered dead.

A joint commitment to change is required, lest the necessary cooperation between levels of government on matters such as (but not limited to) the reforms in this Report languish due to budget and service quality pressures — particularly on the smaller States and Territories.

This commitment could match the medium-term nature of the reforms in this Report. Inherently, many of the biggest bang for buck commitments in this Report have three to five year implementation horizons. Thus a commitment to revision of tax structures *to address revenue-sharing*; that is, not a commitment that must necessarily add to the tax burden but one that adopts objectives for tax reform that relieve revenue-sharing pressure points. The objective is clear to the public and its rationale is reasonably self-evident. The case for change can then rest less on comprehensiveness (desirable in principle though that is) and more on relief from structures that have outlived their usefulness.

One source of options for such change is the report on Horizontal Fiscal Equalization that the Commission will produce in draft by October 2017. This review should not be viewed as a cynical effort to side-track tax reform, nor is it merely a chance to fiddle with the formulae for a portion of the grants made to States and Territories.

Tax reform must not be considered dead

Recommendation 6.2
TAX REFORM AS AN INTEGRAL PART OF THE JOINT REFORM AGENDA

To improve confidence between levels of government, and support more efficient provision of public services, governments should adopt a commitment to tax changes that improve revenue-sharing arrangements between governments as an essential element of a Joint Reform Agenda.

There is then every reason for the participants to pursue reform together.

Budget accountability

The Parliamentary Budget Office has observed that the nationwide fiscal position has deteriorated significantly over the past decade, driven largely by the Commonwealth's fiscal position. Some States are in good health fiscally, yet the focus is continuously on what the Commonwealth can do to buy reform. This is not a well-considered position, viewed in the context of this report.

In recent years, the worsening in the Commonwealth's fiscal balance has significantly reflected over-optimism embedded into a system that inherently favours a return to past performance after a shock. A consequence has been that at times both revenue and expenditure forecasts have been clearly astray and persistent borrowing has been required. The Commonwealth's forecast dates for a return to surplus have been revised five times since 2010-11.

The national net debt position has shifted from a negative 6.8 per cent of GDP in 2007-08 to 21.2 per cent est.) in 2016-17, 88 per cent of the latter generated by the Commonwealth.

The Productivity Commission is very conscious of the difficult task involved in forecasting revenue, especially in the wake of the global financial crisis.

Yet the credibility of governments is affected by their ability to budget reliably. And the strength of budget constraints influences government productivity (that is, the design and efficiency of programs), and current and future tax burdens.

The question of public confidence in government getting the basics right posed earlier is relevant here. A key question, given the persistent uncertainty of revenue forecasts (the dependence of the current budget forecast on higher productivity and a return to wage growth well above recent experience is the latest revenue-oriented uncertainty), is whether expenditure can be subject to better mechanisms that heighten the likelihood of targets being met and longer-term pressures being prudently managed.

Experience suggests there are limits to the capacity of rules to influence government spending behaviour (box 6.2). But efforts are required and there are good practical options that may strengthen a key discipline and exemplar of how government is viewed.

Box 6.2 Better rules have improved budget transparency

The only mechanism for compulsion on fiscal policy matters at the federal level is the *Charter of Budget Honesty Act 1998*. At the time of its introduction, the Charter created a global benchmark for disciplines on policy formulation and reporting, requiring:

- fiscal strategy to be based on specific principles and in a medium-term framework
- publication of the fiscal strategy and regular reporting of progress against it, as well as updates on the fiscal and economic outlooks
- release of an intergenerational report at least once every five years to help ensure policy decisions have regard to their financial effects on future generations
- the Secretaries of the Departments of Treasury and Finance to release a pre-election fiscal and economic outlook report.

There was a further major change in fiscal accountability arrangements in 2012 with the creation of the Parliamentary Budget Office, which provides policy costings and independent advice on matters relating to the budget, including the longer-term impacts of major policies.

These changes have markedly improved reporting on fiscal strategies and performance, and prompted better parliamentary debate on proposed policies — for example, by reducing the advantage government had in relation to policy costings and development, and shifting the focus from the accuracy of costings to the in-principle merit of proposals.

Most of the points made by Treasurer Costello in his 2nd reading speech for the Charter of Budget Honesty Bill resonate today:

> *... The need for improved fiscal outcomes in Australia is clearly demonstrated by the persistence of Commonwealth deficits over the past 25 years, the ratcheting up of Commonwealth general government net debt and falling levels of national saving.*
>
> *... Spending money the government does not have is merely racking up debts for future generations and making their lives harder rather than easier ... This bill will rectify this situation by implementing institutional arrangements to improve the formulation and reporting of fiscal policy.*

Sources: ANAO (2014); Watt and Anderson (2017); Costello, 2nd Reading speech, *Charter of Budget Honesty Bill 1996* (1996).

FISCAL TARGETS

States and Territories appear generally to be having more success than the Commonwealth with approaches to budget practice (SP 15). The task is often (not always) simpler for States and Territories, but that does not mean no lessons can be learned by the Commonwealth.

A distinction between most States and the Commonwealth is that the former have specific fiscal targets. The types of targets adopted vary from State to State but typically limit growth in expenses or net debt to specific or calculable levels.

The terms of the Australian Government's current fiscal strategy are less precise than most State Governments'. It seeks as its principal objective the achievement of fiscal surpluses, on average, over the economic cycle, via, among other things, reducing the ratio of payments to GDP and stabilising and then reducing net debt over time. The targets do not, for example, specify timeframes for reaching surplus or reducing debt. And economic cycles themselves are far less apparent in Australia today than when such a target was originally set.

The Commonwealth's fiscal strategies have relaxed since 2008-09, the first year of the recent period of deficits (figure 6.2), indicating a lowering of expectations. In part, this may pragmatically reflect that unforeseen events have prevented commitments being achieved. But it has also softened any discipline that the strategies may once have imposed on aggregate expenditure.

The Commonwealth can learn from State & Territory approaches to budget practice

Fiscal targets are not prerequisites for achieving fiscal sustainability and they are, by nature, crude tools. There is no neutral answer to the question of the optimal size of government. But credit ratings affect the cost of debt, and large debt positions increase vulnerability to shocks, so the size of debt — which need not necessarily correlate to the current size of government, of course — cannot be ignored.

There are risks on the upside (over-reaching the target) as well as the downside. Overall, specific targets can be a useful public policy tool to help alert all sides of politics to developing imbalances. And, to the extent that they successfully remain un-breached, to convince the public that the basics are being well-managed.

The Australian Government should undertake to update its fiscal target of balance over the economic cycle, adopting a time-limited fiscal target with regular evaluation and reporting.

The Parliamentary Budget Office could be tasked by the Joint Select Committee on the Parliamentary Budget Office to report annually on the ability of budgets to achieve the target, and at midyear how the progress of measures through the Parliament (or lack thereof) and subsequent discretionary decisions of Government have altered the likelihood of the fiscal target being met.

BETTER UNDERSTANDING THE UNDERLYING DRIVERS OF BUDGETS

Governments' budget reporting horizons cover the budget year plus 3 years, yet significant measures increasingly impact beyond the short term. Currently, Commonwealth Budget Papers report projections of underlying cash, net operating balance, net debt and net financial worth to 10 years, but do not include spending and revenue projections either at the aggregate level or for most major programs. These, however, have been periodically produced by the Parliamentary Budget Office, after the delivery of Budgets. States and Territories do not give budget projections beyond the forward estimates period.

A 10 year horizon on the projected impacts *of selected major programs* would better inform decision-making. This has been recognised for the National Disability Insurance Scheme, one of the few programs on which some additional information is provided in the Commonwealth's 2017-18 Budget, which is projected to be the largest contributor to expenditure growth over the next ten years.

Figure 6.2 Commonwealth fiscal strategies over time

Budget year	Strategy	Budget outcome (Percentage of GDP)	Net debt (Percentage of GDP)
2007-08	**Fiscal strategy** › Maintain budget balance, on average, over the course of the economic cycle › Maintain budget surpluses over the forward estimates period › Not increasing the overall tax burden from 1996-97 levels › Improve the Government's net worth over the medium to longer term	1.7	-3.3
2008-09	**Fiscal strategy** › Achieve budget surpluses, on average, over the medium term* › Keep taxation as a share of GDP, on average, below the level of 2007-08 › Improve the Government's net financial worth over the medium term	-2.1	-0.8
2009-10		-4.2	3.8
2010-11		-3.4	6.5
2011-12		-2.9	10.4
2012-13	**Deficit exit strategy**** › Hold real growth in spending to 2% a year until the budget returns to surplus	-1.2	10.5
2013-14		-3.0	13.3
2014-15	**Fiscal strategy** › Achieve budget surpluses, on average, over the course of the economic cycle › Reduce ratio of payments to GDP › Pay down debt by stabilising then reducing Government securities on issue › Improve net financial worth over time	-2.3	15.3
2015-16		-2.4	18.5
	Budget repair strategy › Deliver budget surpluses building to at least 1% of GDP by 2023-24 › Offset new spending measures with spending reductions elsewhere		
2016-17	**Fiscal strategy** › Achieve budget surpluses, on average, over the course of the economic cycle › Reduce ratio of payments to GDP › Stabilise then reduce net debt over time › Improve net financial worth over time	-2.1	18.6
2017-18		-1.6	19.5
	Budget repair strategy › Deliver budget surpluses building to at least 1% of GDP as soon as possible › Offset new spending measures with spending reductions elsewhere		

Note: Budget outcome figure refers to underlying cash balance as per cent of GDP. Net debt figure is per cent of GDP. Data for 2016-17 and 2017-18 are estimates

* In 2009-10 the fiscal strategy involved achieving budget surpluses, on average, over the course of the economic cycle.

** There was no deficit exit strategy in 2008-09.

Source: Budget Papers.

Another example is parent visas, which provide a short-term benefit to the budget via visa charge income, but impose very large costs in the longer term through their impacts on expenditure on health and aged care, and social transfers. In previous work, the Commission estimated the budgetary costs associated with the 2015-16 parent visa intake alone to be $2.88 billion in present value terms over the lifetimes of the visa holders. By comparison, the revenue collected from these visa holders was only $345 million. Ten year estimates of the fiscal effects of the current parent visas would show a similarly stark disjuncture between revenue and costs, and would therefore provide the insights for a more informed policy decision on the pricing or desirability of these visa types than the current decision-making framework.

10-year projections for selected major programs would increase the likelihood of more sustainable policies

In a different area, the value of outstanding income-contingent student loans provided under the Higher Education Loan Program (HELP) scheme is expected to rise significantly over the coming years — from $47.8 billion in June 2016 to nearly $200 billion by 2025. The Government has made policy changes to try to curb this growth, including replacing the VET FEE-HELP scheme and increasing repayment levels (discussed in SP 7). However, the projected effect of these changes on the level of outstanding HELP debts is not published, as the Budget considers HELP debts to be an asset, while the Department of Education and Training only publishes historical data.

Uncertainty about projections rises with the projection period. But that is little reason to neglect the longer-term impacts of policy proposals and settings. Introduction of 10-year projections for major programs and aggregates in fiscal strategy statements would increase the likelihood of more sustainable policies by improving understanding of their underlying drivers.

PUTTING THE 'INTERGENERATIONAL' BACK INTO INTERGENERATIONAL REPORTS

Intergenerational Reports (IGRs) are currently prepared by the Australian and New South Wales Governments. They aim to raise public awareness about the budgetary challenges associated with demographic change — including population ageing — and aid public scrutiny of the conduct of fiscal policy by assessing the long-term (40 year) sustainability of current programs.

There is no whole-of-nation perspective on the sustainability of current policies affected by demographic change. This makes IGRs of limited utility given State and Territory Governments' reliance on financial transfers from the Commonwealth, and the involvement of both levels of government in major service delivery areas (for example, the Commonwealth meets about 40 per cent of health costs, while the States and Territories meet 23 per cent, and the Commonwealth provides about 40 per cent of total state spending on social security and welfare) (Australian Government 2017, Budget Paper No. 3 p. 7).

A whole-of-nation IGR would be a major undertaking and require active cooperation across governments. But it would provide a more accurate picture of the major drivers of public finances and the impacts of policies in joint service areas affected by demographic change, better enabling the development of policy alternatives.

At present, the impact of decisions made by one level of government on others is not always clear. For example, the Commonwealth's announcement in the 2014-15 Budget to change the way it contributed to long-term growth in hospital costs would have transferred the impact of rising health expenditure to

State and Territory Governments. Ultimately, this decision was reversed, but it showed up in the 2015 IGR as a source of future improvement in the Commonwealth's position even though it would have worsened the States and Territories'.

A whole-of-nation Intergenerational Report would provide a more accurate picture of long-term influences on national finances

There is scope for more substantive treatment of intergenerational impacts in IGRs, such as the effect of current tax settings on favoured asset classes and intergenerational wealth transfers, which are increasingly relevant to the incidence of taxes and the types of policies that might be envisaged (for example, housing equity withdrawal for aged care, or property-based taxes, as mentioned in chapter 4). A national IGR would, again, better reveal the impacts of policies and choices available.

Several parties have suggested shifting responsibility for IGRs at the federal level from Treasury to the Parliamentary Budget Office (SP 15). This would help to ensure that the IGR is a non-partisan report and facilitate a consolidated view of governments' fiscal sustainability. The PBO's capacity to undertake such a task would be improved if Parliament accepts the recommendation of a recent review of the PBO's functions to further develop its ability to analyse underlying budget drivers, including, but not limited to, its analytical capabilities on demographic change (Watt and Anderson 2017).

Recommendation 6.3
IMPROVE FISCAL STRATEGY DISCIPLINES

Governments should adopt measures that will better inform and improve accountability for spending and fiscal strategy decisions.

HOW TO DO IT

- The Australian Government should adopt specific fiscal targets to assist budget management and credibility.
- To strengthen the credibility of targets and the likelihood of them being met, the Joint Select Committee on the Parliamentary Budget Office could ask the Parliamentary Budget Office to report annually on the ability of budgets to achieve targets, and at mid-year on whether and how the progress of measures through the Parliament and discretionary decisions of Government have altered the likelihood of targets being met.
- All governments should adopt longer-dated projections of selected major programs to better inform the formulation of budgets.
- All governments should develop a whole-of-nation intergenerational report (IGR).
- Shifting responsibility for the IGR at the Commonwealth level to the Parliamentary Budget Office would ensure that the IGR is a non-partisan report and help achieve a consolidated view of governments' fiscal sustainability.

6.5 Capabilities of governments

The quality of what emerges from government depends much on the quality of intangibles — the human and knowledge capital, institutional processes and relationships within and between governments — used to produce its outputs.

These are also key determinants of governments' own productivity, an increasingly important factor in our productivity performance given the relative growth in services that are procured or delivered by governments.

Government is growing, not reducing, its role in markets, driven by our expectations of improved services; demographics; the appetite for applying new technology; and the persistent rise in security needs.

The non-market sectors, in which governments are the predominant service providers or funders, now represent 20.3 per cent of industry gross value added and 27 per cent of total employment — up from 17.2 per cent and 21 per cent in 1990, respectively (ABS 2016, 2017b). There must inevitably be a drag on national productivity if government productivity is also not under constant pressure to improve.

The following sections consider the mechanics of government: intergovernmental arrangements; policy development processes; and public service capabilities.

Intergovernmental relations

The scope of activities jointly covered by the Commonwealth, States and Territories is extensive, with expenditure on joint health, education and road transport responsibilities alone accounting for nearly 40 per cent of all government spending in 2015-16 (box 6.3).

At any point in time, there are likely to be serious questions as to the willingness of governments to cooperate in some reform areas. Today, energy and climate change might be at the top of the list. Education may have receded for the moment. Health has been an ongoing source of tension.

In a federated system — which this Report takes as given — and under pressure over revenue sharing as previously discussed, this is inevitable and wringing hands over it is unproductive. We bought it, we own it, we need to maintain it and make it work in the public interest. To do so effectively means constant attention to the difference between — on the one hand — inevitable outbreaks of political difference, and — on the other — persistent failure of governments to address looming damage to the wider public interest. It is the latter that should draw attention in a paper of this nature.

Federation
— We bought it, we own it, we need to maintain it and make it work in the public interest

Box 6.3 Areas of joint Commonwealth and State & Territory responsibility

The Commonwealth, States and Territories are jointly involved in either funding or service delivery in a large number of policy areas. Among others:

- Australian Government expenditure accounted for about 61 per cent of total public expenditure on health of $108 billion. States and Territories accounted for the majority of the remainder. As an industry, health care and social assistance employs more people than any other sector in Australia, accounting for nearly 13 per cent of total employment.
- The Australian, State and Territory Governments together spent over $84 billion on education in 2014-15 (14 per cent of total government expenditure).
- All levels of government (including local) are involved in funding transport infrastructure, as well as being involved in its regulation.
- The Australian, State and Territory Governments are also involved in regulating energy supply, intervening regularly to influence the 'market'.

Many of the areas in which both the Commonwealth and the States and Territories are involved are subject to national agreements. Under these agreements, certain payments are used to support specified projects, and to facilitate policy reform and improvements in service delivery (SP 14).

Sources: ABS, Government Finance Statistics Australia, Education, Cat no. 5518.0. (2017); ABS, Government Finance Statistics Australia 2015-16, Cat no. 5512.0 (2017); Vandenbroek, Parliamentary Library (2016); Australian Government (2017b); Australian Institute of Health and Welfare (2016); Queensland Government (2017); NSW Government (2017).

Despite the opinion of some, it would be erroneous to conclude that intergovernmental relations are 'broken'. There is markedly more harmony among first ministers (COAG) in dealing with social policy and national security issues than on economic reform issues. The Commission understands that Ministerial Councils on Health, Agriculture, Treasury and Transport work reasonably well, as does cooperation among officials in preparation and follow-up.

In areas covered by this Report, consultation by the Commission across senior representatives of governments involved in both bilateral and full national exchanges indicate that there *is* a willingness to acknowledge the merits of other positions and work to effect change. And also a recognition that there is a dearth of other options.

While COAG may be long in the tooth and often appears an unseemly forum for exchanges with too much focus on the short-term, it remains the preferred vehicle amongst protagonists for exposing longer-term reform options to public scrutiny and breaking (occasionally) out of portfolio-level intractable disputes.

The fact that there is:

- less success in this forum on longer-term matters in recent times; and that
- market-based reforms that are often the basics of productivity improvement have been generally too easily dismissed as politically difficult

does not make it redundant, but it does argue for proactive and serious renewal. And renewal is necessary for a project like a Joint Reform Agenda to have a reasonable period of *collective* consideration before seeking final acceptance at a COAG level.

At least two matters deserve closer attention in considering renewal: the underlying trends that have changed the nature of federal relations, which have implications for how governments allocate roles and responsibilities for solving problems; and the high level of reliance by States and Territories on Commonwealth funding, which creates a range of inefficiencies.

THE APPROACH TO INTERGOVERNMENTAL RELATIONS HAS NOT KEPT PACE WITH HOW FEDERATION HAS EVOLVED

The increase in the Commonwealth's policy reach into areas that have traditionally been the responsibility of the States is a product of several long-term phenomena:

- High Court decisions such as the Uniform Tax cases (1942, 1957), the Tasmanian Dam case (1983), the State tobacco tax case (1997) and the Pape case (2009), which have expanded the Commonwealth's powers, including to raise revenue[15]
- social and economic changes (for example, the freer movement of people, goods and ideas, globalisation, the influence of trade agreements on domestic policy), which have broken down or blurred traditional boundaries between jurisdictions and linked local and national interests (the construction of a major port and the efficient functioning of cities is now seen as a local, state and national issue; concerns about the impact of inefficient taxes on economic growth drove the replacement of a range of State taxes with the GST in 2000, further shifting revenue-raising power to the Commonwealth) (Wilkins 2007).

There is likely to be continuing evolution in the matters deemed to be of common interest across governments. There are also continuing changes in how public services are demanded and can be delivered (changes to the delivery of health care services to better meet the needs of the community are discussed in chapter 2). These imply that negotiation on the roles of different levels of government are highly likely to be a periodic feature of intergovernmental relations for the foreseeable future.

But governments have not addressed this in any systematic way.

Over the past three decades, the model for achieving national reform has shifted from focussing on resolving select matters spurred by common concerns, such as dealing with the land rights implications of the High Court's decision in the *Mabo* Case and improving productivity in the wake of the early 1990s recession, to one that is more ad hoc, with many more matters now subject to intergovernmental agreements.

A major factor that has come to dominate the dynamic of intergovernmental relations is the reliance of State, Territory and Local Governments on the Commonwealth for core funding. Specific purpose payments as a share of grants have grown since 2000, reflecting the Commonwealth's desire for assurance on the prudence or efficiency of spending and, with its increasing interest in policy areas, to incentivise reform through control of payments (box 6.4).

15 More recently, the Chaplains case clarified limits of Commonwealth policy reach, finding that, in most cases, the Commonwealth requires some form of legislative authority in order to expend public money.

Box 6.4 States and Territories' heavy reliance on Commonwealth grants

In 2015-16, the States and Territories collectively raised only 55 per cent of their total revenue — by jurisdiction this ranged from just over 30 per cent for the Northern Territory to close to 70 per cent for Western Australia. Of the funding provided to the States and Territories by the Commonwealth in 2015-16, 46 per cent was tied funding (specific purpose payments (SPPs) for health, education, housing and other expenditure) and the remainder was nearly all redistributed as untied payments funded by GST revenue collected by the Commonwealth on behalf of the States.

Most SPPs are provided to the States and Territories through agreements under the umbrella 2008 Intergovernmental Agreement on Financial Relations. There are seven national agreements covering healthcare, health reform, education, skills and workforce development, disability services affordable housing and Indigenous policy. Payments linked to the national agreements are indexed annually and funding distributed to States and Territories by share of population.

Other SPPs support specific projects or reforms. These include the National Partnership Payments, which typically require the States to have met agreed outcomes specified in the relevant agreement to receive funding. There are also Project Agreements that provide a simpler form of National Partnership for low value or low risk projects. The latter are usually time limited.

Health and education account for about two-thirds of all funding for SPPs. National Partnership Payments accounted for just over a quarter (26 per cent) of SPP funding.

While the level of untied grants increased with the introduction of the GST, tied grants have increased as a proportion of the States and Territories' funding, and for this portion of funded activity, outcomes are conditional on the actions of both tiers of government.

Significant time and resources are devoted to negotiating and monitoring adherence to the terms and conditions of funding agreements. In health and aged care, the mix of funding and policy responsibilities among the various tiers of government has undermined the capacity for genuinely integrated care (chapter 2).

States and Territories' heavy reliance on grants also creates uncertainty for budgeting and planning as grants can be unilaterally reduced to meet the changing priorities of the Commonwealth (natural disaster funding being one example).

Sources: PM&C .(2015); Australian Government (2016a).

Added to this in recent times is the era of social media and immediate communications for all — creating instant snap judgments — which has left governments in an invidious position: try to meet people's expectations and do so in real time; or try to explain why this might be undeliverable and risk the judgment of failing to communicate or failing to appreciate the issue (or generally, both).

The Commission was told that funding is often the focus of and a major lubricant for intergovernmental cooperation. We were also told that some matters are being elevated to COAG not because of their policy import but because they have funding implications, which under budget constraints require authorisation at first ministers' level (especially if trade-offs are required across portfolios). The situation contrasts with the National Competition Policy program, where financial payments from the Commonwealth to the States were an ancillary, though important, reform tool whose rationale was based in the revenue that States might forgo for undertaking reforms.

Several have criticised COAG gatherings as now being overly adversarial, too transactional, overburdened with agenda items and focused on arguments about funding.

Set-piece forums like COAG must always carry high expectations, and so disappointments. These aggregate over time, and the forum itself must bear the responsibility.

THE POOR INCENTIVES ASSOCIATED WITH BUYING REFORM, AND ALTERNATIVES TO IT

In a circumstance of strong fiscal dependency (vertical fiscal imbalance as it is usually labelled) there is a deep temptation to achieve change through control of payments.

But the temptation should be resisted, in favour of other alternatives.

The power of financial payments as a tool to compel is limited by budget capabilities at the Commonwealth level. It compounds a poor fiscal position to recognise that, if buying reform is the only way to move ahead, we will be unable to apply any necessary productivity-enhancing change until the fiscal position improves. Since much of productivity-enhancing reform is the source of catalytic behaviour in private investment and so in employment, a perverse outcome is that tax revenues cannot recover *because we can't afford to buy reform.*

There is a deep temptation to achieve change through control of payments, but this should be resisted

Added to that fiscal perspective is the cost — to efficiency and decision-making capability — of conditions and judgments that inevitably have to be made in support of payments. This reinforces the problems of poor accountability, where the States and Territories can point to insufficient funding or the conditions set by the Commonwealth for suboptimal outcomes and the Commonwealth to the States and Territories for poor local decisions or delivery.

Pursuit of an *agreed* agenda — *negotiated* to ensure that State/Territory preferred reforms that improve the productivity dividend are added to the mix as a way of encouraging worthy change and offsetting potential cost — is an objective that should be tried before defaulting to purchasing change.

A possible exception to this might be where a reforming party to the agreement can demonstrate exceptional financial loss. But this can be set as a post-reform settlement, rather than as an upfront schedule of payments regardless of whether the loss actually ensued.

The bulk of reforms in this report do not require significant implementation expenditure, and all are aimed at doing things better. In all instances, we envisage better quality outcomes and/or savings, a further reason to ensure that any costs are actual net across the package of reforms, rather than gross.

This is not to say that reform will be costless. However, parameters for negotiation on a reform agenda should support both sound policymaking and negotiators in achieving agreement. The impact of skewed cost burdens on any party is not ignored; rather the case is treated with respect and given a chance to demonstrate its bona fides.

Finally, relying on funding as a primary incentive for change is inimical in the longer-term to efficient government. The scope for inefficiency and poor outcomes, and necessity of spending significant time and resources on negotiating budget deals due simply to imbalances in revenue-raising, can and should be reduced.

DIVISION OF ROLES AND RESPONSIBILITIES

Australia's federation compares relatively well to other federations (SP 14). This is not least because governments have cooperated at critical times, including recently in responding to the global financial crisis. From a governance perspective, Australia is a single national entity *because* of federation, making it incumbent on all levels of government to do their best to make intergovernmental relations work.

Many commented to the Commission that the probability of governments working effectively together rests predominantly on the personal qualities of leaders and, to a lesser extent, senior officials, rather than structures that support their engagement, such as meeting arrangements. That is, such structures can play an important role in supporting the efficient functioning of COAG, but often 'follow' the cooperation of leaders, and on their own have little effect.

In this context, any advice on measures to support cooperative arrangements risks being self-evident, but the greater risks lie in this advice being ignored. Failure to deal with the implications of structural changes for federal relations has already created significant costs.

On the allocation of roles and responsibilities in areas of shared interest, governments should make practical decisions based on the nature of the policy problem at hand, future risks and how best to solve challenges, rather than primarily on who has funding capacity, or historical circumstances. In this report, we have found compelling arguments to re-orient control in healthcare and roads management to State and Territory Governments.

In a similar vein, governments should pursue bilateral or multilateral agreements (rather than across-government agreements) where this would be a more efficient and effective way of solving a problem.

The objective should be for the each level of government to have distinct roles in areas of shared responsibility, with incentives that recognise and promote the accountability of each government to their electorate.

This reinforces among other things that in areas of State and Local responsibility where the Commonwealth provides funding, State and Local Governments should be able to rely upon predictability in funding and flexibility in its use, subject to necessary measures to ensure accountability for decisions. Further, the conditions on Commonwealth funding to other jurisdictions should seek to ensure sound decision-making by those jurisdictions, rather than dictate outcomes.

And reform to relieve pressure arising from revenue-sharing arrangements, as recommended earlier, would support more effective intergovernmental relations.

Principles for governance cannot replace action, but they can provide useful and important guidance for governments, as seen in the past. The principles communicated by Premiers and Chief Ministers in 1991 (box 6.5) still provide a sound framework for cooperation by governments.

Box 6.5 Federation principles — Premiers and Chief Ministers' conference Adelaide 1991

- *Australian nation principle:* all governments in Australia recognise the social, political and economic imperatives of nationhood and will work cooperatively to ensure that national issues are resolved in the interests of Australia as a whole.
- *Subsidiarity principle:* responsibilities for regulation and for allocation of public goods and services should be devolved to the maximum extent possible consistent with the national interest, so that government is accessible and accountable to those affected by its decisions.
- *Structural efficiency principle:* increased competitiveness and flexibility of the Australian economy require structural reform in the public sector to complement private sector reform: inefficient Commonwealth-State division of functions can no longer be tolerated.
- *Accountability principle:* the structure of intergovernmental arrangements should promote democratic accountability and the transparency of government to the electorate.

Recommendation 6.4
RENEW INTERGOVERNMENTAL RELATIONS

STEPS TO ADVANCE CHANGE

First, while not broken, the system of cooperative exchange at the apex of Australia's federation — COAG — is in need of renewal. This is not an expensive undertaking — it has a cost only if it is insincere.

In order to arrive at agreement on fundamental reform at the apex, a practical division of responsibilities that is focused on the nature of the policy problem at hand and the parties most willing to design effective change should be taken. This means not treating the existing intergovernmental committee structures as sacrosanct.

Seeking reform primarily through control of payments should be least preferred.

Policy development and evaluation

Few comment when governments function well and the reverse occurs when things go wrong. But the lack of confidence evident in the survey work cited earlier in this chapter, aligned with the immediacy and snap judgments of media, ensure that each failure becomes less an exercise for learning how to do better and more an exercise in swift judgment regardless of fault.

There is sufficient evidence from recent reviews of government performance (box 6.6), however, to indicate that the continuation of approaches in several areas will not serve us well.[16] Of particular importance are non-adherence to standard requirements for due diligence on policies, and a culture of excessive risk aversion leading to the belated discovery of mistakes and centralisation of decision-making.

Several reviews have noted that excessive risk aversion has led to provision of advice that is assumed governments want to hear, and a reluctance to report risks or mistakes for fear of being blamed.

16 The focus of this section is predominantly on Commonwealth administration, where there is comparatively more information on sector-wide performance.

Box 6.6 Selected reviews of government performance and capabilities

Ahead of the Game Blueprint for Reform of Australian Government Administration (2010)

The Advisory Group looked at ways to improve APS performance in the provision of services, programs and policies for the Australian community. It recommended greater citizen involvement in design of government services. Also, that the APS strengthen its capacity to provide strategic policy and delivery advice, invest in capability through improved human resource management, strengthen the focus on efficiency and quality by building a reliable evidence base on the efficiency of public agencies, and remove red tape. The Government accepted all of the Advisory Group's recommendations.

Report on large government policy failures (Shergold review) (2015)

The review was asked to recommend ways to enhance the capacity of the Australian Government to design and implement large public programs and projects following a series of major failures. The review made 28 proposals relating to the provision of robust advice, supporting decision-making, improving risk culture, enhancing program management, greater public service diversity and adapting to changing policy environments. The review confirmed findings from the *Ahead of the Game* report regarding the need to improve experience through mobility programs, and the concerns of capability reviews regarding public sector project management skills and program management practices. The Government instructed Secretaries of Departments, through the Secretaries Board, to consider the report and its conclusions.

Independent Review of Internal Regulation (Belcher review) (2015)

The Belcher review, commissioned by the Secretaries Board, found that many internal Commonwealth regulatory requirements were appropriate and efficiently administered but there was also evidence of over-regulation, inefficient regulation, and unclear and inaccessible regulations and guidance. It also observed that there was a culture of risk aversion, which is reflected in a disposition towards over-regulation of both the public sector and regulated industries. Recommendations to address these issues included removing duplication of reporting, improving access to information, clarifying guidance and better ways of engaging with risk. The Review confirmed the findings of many capability reviews (below) regarding excessive risk aversion and centralised decision-making. The Secretaries Board agreed to implement all recommendations, although it noted that some required consideration by the government.

Capability Reviews of Commonwealth agencies (2011-2016)

Capability reviews arose out of a recommendation of the *Ahead of the Game* report. The reviews were to be conducted on a regular basis to assess strategy, leadership, workforce capability, delivery and organisational effectiveness. Common findings included significant levels of risk aversion and centralised decision making at senior levels, which restricted innovation. Many departments were observed to struggle with project management. While some agencies collected vast amounts of data they failed to use that data profitably because they lacked the skills or because of dated IT systems.

Independent reviews of recent programs (various)

Reports by Commonwealth and State audit offices, commissions of inquiry and parliaments on programs including: the VET FEE-HELP scheme; Victorian East West Link Project; Queensland's shared IT services; NSW's Learning Management and Business Reform project; Centrelink Online Compliance Intervention system; the Home Insulation and Building the Education Revolution programs, and management of contracts.

At the Commonwealth level, aversion to risk and the centralisation of decision-making has seen innovation being suppressed and skills in making judgements atrophy. With limited experience of judging the taking of risk when the costs are small and predictable, the ability to handle crisis (when they are large and unpredictable) is increasingly challenging.

Despite attempts to inculcate cultural change, including introduction of new legislation (the *Public Governance, Performance and Accountability Act 2013* (Cth) (PGPA Act)) to rebalance guidance in favour of supporting capabilities and better managing risks, the most recent reviews indicate that attitudes of risk aversion prevail.

With no experience of judging the taking of risk when the costs are small and predictable, the ability to handle crisis when they are large and unpredictable is increasingly challenging

The Belcher review observed that such attitudes are giving rise to over-regulation both of the public service and externally. The PGPA Act itself was introduced alongside a range of procedures, manuals and policies specifying how agencies should conduct their operations.

On due diligence, it is apparent failures in public administration do not arise, for the most part, from want of guidance. A major problem is that this is not always adhered to, but it is also clear that rules are only good if they are able to be applied and applied well — a function of will, capabilities and their practical use.

Common causes of avoidable mistakes have included: not basing justification for, and design of, policy interventions on adequate evidence, including advice from stakeholders; failure to properly undertake or heed the advice of regulatory impact appraisals; not following cabinet processes; and haste resulting in poor planning.

The complexity of issues has also not always been matched by the capabilities of staff. At the Commonwealth level, reviews indicate there is an underlying need to strengthen policy advising capacity, particularly on the development of evidence-based policy (including through data analysis and stakeholder engagement), program planning and implementation. Other reviews have pointed to the sheer workload on public servants, which stifles strategic thinking.

CULTURAL CHANGE IS NEEDED TO MAKE RULES WORK

Governments and public service heads have largely accepted the proposals of the review reports we have scrutinised but, at least at the Commonwealth level, it is difficult to discern significant change.

This is not to say that there are not examples of good practice or improvement. Inquiry participants have pointed to, for example, alternative service delivery models emerging in the social services sector as exemplars of innovative collaboration among stakeholders, and several agencies have sought to change their internal cultures by reducing decision approval points and increasing the degree of delegation (SP 15).

There has been little in the way of public commitments on what will be done in response to the sector-wide and agency capability reviews, however, or follow-up to determine their impacts. Recent reports indicate that more needs to be done across the public sector.

On one hand, this raises questions about the effectiveness of arrangements in place to implement the recommendations of reviews.

Or perhaps it is the case that the cultural issues start even higher up — at Ministerial level and beyond in the public arena, as public servants are blamed for results that are primarily not of their making. Such lessons reverberate powerfully, regardless of the words of reviews.

We suggest below measures to improve the likelihood of advance in public sector reform. More importantly, a fundamental change in culture seems to be required — that which gives *permission* for agencies (by ministers) and staff (by agency leaders) to take well-calculated risks in pursuit of improvements in policy and administration, and hence creates genuine scope to change the way things are done.

Cultural change starts with Ministers and agency CEOs

Ultimately, Ministers need to encourage — indeed, require — the sort of organisational change that is needed to obtain sound policy advice and administration. A further critical ingredient is confident leadership by agency heads — to provide their staff the 'space' to undertake thoughtful policy design, encourage creativity in ideas, and also support their staff in giving governments full and constructive advice.

ACCOUNTABILITY FOR CHANGE

To help ensure progress on identified problems, and prompt support for change where this is needed:

- the Australian Public Service Commission (APSC) should evaluate what has been done in response to the themes arising from agency and sector-wide reviews over the past five years, and the impacts of changes. If progress is found to be poor, an educative process should be put in place, for example, in conjunction with the Australia and New Zealand and School of Government, or similar body, to re-authorise and train public servants in better managing programs and supporting innovation
- in agreeing (either in part or whole) to the recommendations of reviews, responsible entities should commit to specific deadlines for delivery.

Separately, the APSC is currently assessing the capability review program with a view to designing a new agency review framework. The above measures could be complemented by the issuance of charter letters by the Secretary of the Department of Prime Minister and Cabinet to department CEOs, stating expected agency capabilities, leadership qualities and reform priorities to lift those (for example, to counter risk aversion, and support evidence and stakeholder input-based policy) (SP 15).

The Joint Committee on Public Accounts and Audit (JCPAA) has in the past reported on progress in implementing the recommendations of Commonwealth public sector reform initiatives. The JCPAA could be tasked by parliament to oversee progress on agreed sector-wide reforms on an ongoing basis.

PUBLIC SERVICE WORKFORCE

The available evidence suggests that public sector capabilities would be improved by:

- in recruitment, training and performance management processes, placing emphasis on the development of specific skills to support evidence-based policy development, policy delivery and risk management, and/or program evaluation, as appropriate
- encouraging more staff exchanges and secondments within and outside of the sector, which would develop staff and increase opportunities for interesting work
- greater devolution of decision making responsibility to junior staff (with training and support) to build capabilities and reduce the risk of policy failure by allocating responsibilities to staff best (including most efficiently) positioned to handle them.

The APSC has designed a range of workforce capability initiatives targeting these outcomes but evidence on the adoption of specific strategies — which include talent management, learning and development and formal staff exchange programs — is mixed (SP 15). Accountability for progress on these matters would be helped by the institution of charter letters, as discussed above.

Recommendation 6.5
ENSURE ACCEPTED PUBLIC SERVICE REFORMS ARE IMPLEMENTED

HOW TO DO IT

The Australian Public Service Commission (APSC) should evaluate what has been done over the past five years in relation to the themes arising from agency and sector-wide reviews. The APSC evaluation should be used to inform subsequent training initiatives to address any shortcomings.

The Australian Government should:

- require the entities responsible for implementing the findings of reviews to commit to deadlines for delivery and report publicly against implementation timelines
- require the Secretary of the Department of the Prime Minister and Cabinet to issue a charter letter to each department head at the start of government terms outlining expected agency capabilities and public sector reform priorities to lift those.

The Joint Committee on Public Accounts and Audit could be tasked by Parliament to oversee progress on agreed sector-wide reforms on an ongoing basis.

Improvements in internal disciplines

Policy appraisal requirements (both ex ante and ex post) are only one of the conditions that need to be satisfied for good policy development, but a critically important one, with their importance highlighted by the many instances of avoidable costs or failure. The focus should be on making a sound case for policy, however, rather than simply adhering to rules. Appraisal processes can have little effect when there are political exigencies. And a common complaint is that Regulatory Impact Statement (RIS) requirements are applied or policed dogmatically, with the policy object lost for the compliance trees.

A clear lesson on the handling of situations under time pressure is that risk management needs to be given even greater importance. An important element of this and a safeguard for governments is consultation with stakeholders on policy ideas and how they could be implemented, which helps better identification and understanding of risks.

More generally, several reviews have highlighted the importance of close collaboration between the public service, service delivery agents and stakeholders in designing and implementing programs. These are tasks that necessarily cannot be wholly undertaken by senior executives, and point again to considered devolution of responsibility to lift agency capabilities and ensure that enough effort is being devoted to identifying, monitoring and correcting the potential for things to go wrong.

On risk appetites and management, particularly in dealing with new or intractable problems, governments should consider whether experimentation or pilots could help. They are a practical way of informing the better design of policy, but as a sanctioned part of policy development processes could help:

- better define acceptable levels and avenues of risk (in a systemic sense) for the agency given the insights that they can bring into service users' behaviour
- agencies develop better management responses over time to the materialisation of risks (and in doing so provide some predictability on how issues will be managed when they arise, and by whom)
- by encouraging and providing an avenue for innovation in policy and program design — and recognising that good ideas can come from any person — change attitudes of risk-aversion and over-caution in the public service; and
- ensure that policy risks, when they do not pay off, do not result in considered experimenters being punished.

And lessons from trials can be taken from elsewhere (below).

Be willing to use evidence-based advice developed elsewhere

Most policy issues are shared in common with governments elsewhere. The costs and risks of policy development should be reduced by making greater use of learning from their experiences, adopting or adapting what has worked elsewhere, and not delaying introduction of new processes and approaches by adopting unique Australian standards. There should be a predisposition in favour of accepting high quality international standards (for example, chemicals) and using existing information already developed elsewhere (for instance NICE in the United Kingdom for clinical practices and drug therapies).

This will become increasingly obvious (and costly) in motor vehicles, as the local industry phases down, should unique Australian standards persist. The recent experience with potential new emissions standards will need to be repeated on multiple fronts in future years, as regulation catches up with reality. Governments that eschew unnecessary red tape should recognise that being in accord with international standards is not a matter of pick and choose.

In the same vein, governments should adopt a global orientation in using evidence. There are now thousands of randomised control trials (RCTs) undertaken every year, and while the outcomes from many will be context-dependent, there is little systematic analysis of the lessons from globally undertaken RCTs that could be a basis for better programs and service delivery in Australia. Unnecessary bureaucratic obstacles to the use of RCTs (for example, unnecessary ethical clearance for low-risk interventions) should be removed.

PROGRAM EVALUATION LINKED TO DECISIONS

Strengthened requirements for program evaluation would support government budget prioritisation and resource allocation decisions.

At the Commonwealth level in the decade to the mid-1990s, all budget funded programs were required (by statute) to be evaluated every 3 to 5 years, with evaluations integrated into the budget process. Evidence suggests that evaluation findings made a substantial contribution to Cabinet debate and the development of policy options. For example, surveys conducted by the Department of Finance show that across the 1990-91 and 1994-95 budget years, the proportion of new policy proposals influenced by the findings of an evaluation rose from 23 per cent to 77 per cent. Evaluation findings were also used by line departments to improve operational and internal management systems.

The evaluation system ended due to a combination of concerns from line departments about the administrative burden of planning and conducting evaluations, a lack of program evaluation skills, and a shift toward greater contestability in policy advice, which lessened the demand for systematic use of evaluations in the budget process (Tune 2010).

This is a pity. A lack of evaluation work is evident regularly when the Productivity Commission (and perhaps other agencies with similar interest, such as the Auditor General) are asked to scrutinise areas where policy delivery is perceived as weak or failing.

Taking into consideration the lessons from the past, a more effective program evaluation system would include the following features:

- There should be greater use of sunset clauses on programs with a fixed deadline for the completion of an evaluation before new funding is committed, an approach similar to that used for assessing the efficacy of regulatory instruments.
- Similarly, governments should consider making the continuation of program funding conditional on completion of an evaluation and the rectification of significant problems identified, where this would be an effective incentive.
- Evaluation priorities should be risk-based, with larger or 'repeat offender' programs subject to the earliest scrutiny, similar to the approach to performance audits by audit offices.

There should be no areas that are immune from the normal standards for appraisal. And clearly failing programs should be defunded.

Recommendation 6.6
STRENGTHEN INTERNAL CAPABILITIES

Australian Governments should implement a suite of changes to strengthen policy development and delivery.

HOW TO DO IT

No policy areas should be immune from proper appraisal — ex ante and ex post. But Regulatory Impact Statement processes should emphasise sound policy-making rather than simply adherence to rules.

To help ensure that programs remain well-targeted and administered, governments should make greater use of sunset clauses on programs with a fixed deadline for the completion of evaluations before new funding is committed.

Similarly, governments should make the continuation of program funding conditional on completion of a written evaluation (and the rectification of significant problems identified in the evaluation).

Governments should adopt high quality international standards wherever possible and make better use of information and evidence developed elsewhere (including randomised controlled trials).

6.6 Supporting Local Government

Local Government forms an important third tier of government, acting on the delegation or authority of the States with respect to functions that are deemed to be most effectively and efficiently implemented at the local level, and otherwise providing public services to serve the particular needs of local communities.

There has been a general increase in the scope of Local Government responsibilities, reflecting greater devolution of State and Territory functions over time and the desire of Local Governments to fill perceived gaps. For example, it is not unusual for councils to be responsible for food safety inspections, childcare, housing, and distance education services.

A core function of most is administering planning and zoning regulations, although the degree of complexity in undertaking these functions differs (planning regulations are discussed in chapter 4).

Common concerns raised by inquiry participants included the ability of Local Governments to meet greater demands, and questions about incentives for, and visibility of, performance. Previous inquiries and studies by the Commission have pointed out that State Governments have delegated functions to Local Governments often without clear policy frameworks, well-designed support or adequate resources to fulfil these functions (for example, in relation to planning functions and natural disaster management).

In 2014-15, Local Governments raised almost 90 per cent of their own revenue

Do Local Governments have the capacity to perform their roles?

IS BIGGER BETTER?

The increase in scope of activity has raised concerns about the capacity of Local Governments to perform their roles. Much of the effort to improve the efficiency and capacities of Local Governments has involved the amalgamation of smaller councils into larger entities, which has allowed councils to take advantage of scale in the provision of services and pool resources and technical capabilities. As an alternative to mergers and amalgamations, neighbouring Local Governments have also entered into collaborative arrangements on a voluntary basis to share resources and provide services.

Amalgamations initiated by State Governments have proved to be highly contentious.

The evidence as to whether amalgamations do result in more efficient and effective service delivery is mixed. Economies of scale do clearly exist; the question is do they offset other perceived losses such as local connectedness to their council. A simple and preferable step before amalgamations would be for residents and ratepayers to receive a professional assessment of the trade-offs of 'standing alone', a cost/benefit consideration that would be better informed over time by more meaningful comparative indicators of performance (below).

CONSTRAINTS ON THE REVENUE RAISING CAPACITY OF LOCAL GOVERNMENTS

State Governments and the Northern Territory impose restrictions on the revenue-raising capacity of their Local Governments either through requiring them to provide concessions to particular groups and/or through capping Local Government rates.

In 2014-15, Local Governments raised almost 90 per cent of their own revenue, with grants and subsidies making up the remaining 10 per cent. (Local Governments are responsible for about 5 per cent of total public sector spending and collect 3.5 per cent of Australia's total taxation revenue) (SP 16). However, there is considerable variation in the own-source revenue raising capacity of Local Governments, with those in remote areas having fewer sources of revenue and greater reliance on grants.

Caps on property rates are currently in place in New South Wales and Victoria. For a State Government, rate capping can constrain rate increases and protect ratepayers from excessive rate rises by Local Governments. Given Local Governments remain a responsibility of the States, they have an interest in ensuring Local Governments act responsibly, and the rate capping process allows State Government supervision of rate increases. However, for Local Governments, rate capping means they must either find another revenue source or reduce expenditure. In principle, this should force greater prioritisation of demands or improvements in efficiency, but constraints would also ideally be set by the electorates to whom they are accountable.

The use of independent regulators in New South Wales and Victoria to set rate increases, and review and approve any proposed variations to rates, has helped to 'de-politicise' the process and provided some flexibility, allowing genuine local needs to be met. Some, however, have criticised rate capping on the basis that its absence in other jurisdictions gives no cause for a concern that large rate increases would occur if capping were removed.

One area where the impact of constraints on revenue-raising should be more closely assessed is the capability of councils.

The quality of Local Government decision-making is often criticised and yet this level of government is responsible — in principle, at least — for one of the most important decisions that can generate employment nationwide: the investment by a myriad of small and medium sized business in land or building developments and service improvements. Poor capability will be reflected in poorer investment outcomes, all other things being unchanged.

Available evidence suggests that there is considerable variation in workforce capability, with smaller rural and regional governments often facing difficulties in being able to provide and maintain the range of technical and professional skills — for example, engineering, IT and health related roles — required to undertake their role.

Local Governments, where possible, have responded by sharing professional and technical staff between councils. For example, Local Governments in north-western Tasmania and in the Riverina region of New South Wales have arrangements in place to share staff. Nevertheless, State Governments also need to be cognisant of the resources available to Local Governments, both in terms of finances and workforce capacity, before devolving additional responsibilities to them.

Better performance measures needed to incentivise improvement

There are longstanding concerns that there is little way to discern whether Local Governments are, in fact, delivering services efficiently and providing the services that communities value most. Participants have noted that performance incentives for council administrators are not linked to providing the services communities want or providing them efficiently (Taylor sub. 28).

At present, there are multiple aspects of performance that Local Governments around the country are required to report on, including financial performance, service delivery and governance. While much work has already been done on collecting the information, it needs to be accessible and comparable. Providing data on the scope, quality and efficiency of service provision across comparable councils would allow communities to better engage in council processes and make more informed decisions at elections. This type of benchmarking can provide more information that councils can use to identify the scope for improvements, as well as placing greater pressure on them to improve.

Victoria's recently introduced Local Government Reporting Framework provides comparatively more useful information (box 6.7) that could be drawn on by other jurisdictions. In undertaking its scheduled review of rate capping by 2021, it would be useful if the Victorian Government also looked at the companion issue of the effectiveness of the performance reporting regime in promoting the quality and efficiency of council services. In principle, strengthened accountability through this mechanism should lessen or obviate the need for stringent rate controls.

Box 6.7 Victoria's *Know Your Council* reporting framework

The Victorian government's Local Government performance reporting framework requires councils to report indicators across four categories: service performance, financial performance, sustainable capacity and governance and management.

The indicators are provided on the 'Know Your Council' website, which allows the public to see detailed profiles of individual councils. Council profiles include information on the geographic and population attributes of the council area, finances, and performance results for the four categories. Websites provide opportunity for the council to explain or comment on their results.

The public can also compare performance of similar councils. Victorian councils are divided into five categories: metropolitan, interface, regional city, large shire and small shire.

Source: Local Government Victoria.

RECOMMENDATION 6.7
SUPPORT LOCAL GOVERNMENT PERFORMANCE

State and Territory Governments should draw on the experience of Victoria and require more meaningful (including comparable) performance reporting by Local Governments, providing support on this where needed.

HOW TO DO IT

The Victorian Government's reporting framework could be used as a model or starting point for other States and Territories. The more effective use of performance measurement would:

- improve the accountability of Local Governments to residents and taxpayers
- identify best-practice methods in Local Governments for future policy development
- provide an incentive for Local Governments to improve their performance by highlighting differences in performance between similar Local Governments.

A

REVIEW PARTICIPANTS

A REVIEW PARTICIPANTS

Table A.1 Public submissions received

PARTICIPANTS	SUBMISSION NO.
Professor John Foster	1
Les Godfrey	2
Anatomics Pty Ltd	3
DigEcon Research	4
Name Withheld	5
Gregory Perryman	6
Master Electricians Australia	7
Land Values Research Group	8
Tom Lewis	9
Queensland Nurses' Union	10
Katarzyna Klepek	11
Lisa Denny	12
Jason Murphy	13
Alison Procter	14
Institute of Public Affairs	15
Early Learning Association Australia	16
Prosper Australia	17
Australian Logistics Council	18
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Local Government Association of Queensland	39
John Cleeland	40
ACT Government	41
Australian Bureau of Statistics	42
Centre for Independent Studies	43
Clearways	44
Peter Brohier	45

Table A.2 Brief submissions received

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Alana Garn	1
Aleksei Raymont	2
Amanda Bremner	3
Amanda Ireland	4
Angus Dunn	5
Blake Buckland	6
Bronwyn Cullen	7
Brooke Renwick	8
Catherine Burney	9
Chris Scott	10
Christopher Key	11
Daniel Thomas	12
Darren Corr	13
David Vesey-Brown	14
Debbie Wallace	15
Dimitrios Coutsourelos	16
Eddie Hoade	17
Emma Liggett	18
Fiona Wrigley	19
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Hamish Morgan	24
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Harley Bailey	26
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Julie Beales	38

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Keith Knight	39
Lesley Reimer	40
Lincoln Lancaster	41
Luke Flemming	42
Luke Sturdy	43
Luke Torsello	44
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Australian Commission on Safety and Quality in Health Care
Australian Institute of Health and Welfare
Australian Local Government Association
Australian Steel Association
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Department of Education and Training
Department of Employment
Department of Foreign Affairs and Trade
Department of Health
Department of Health (New South Wales)
Department of Health and Human Services (Victoria)
Department of Industry, Innovation and Science
Department of Infrastructure and Regional Development
Department of Premier and Cabinet (New South Wales)
Department of Premier and Cabinet (Victoria)
Department of Premier and Cabinet (Queensland)
Department of Premier and Cabinet (Western Australia)
Department of Premier and Cabinet (South Australia)
Department of Premier and Cabinet (Tasmania)
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Department of Social Services
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Department of Treasury and Finance (Northern Territory)
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Table A.4 Conference - 13 December 2016

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Fiona McKenzie, Australian Futures Project
Margaret McKenzie, Australian Council of Trade Unions

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Table A.4 Conference - 13 December 2016

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B

REGULATION REFORMS

B REGULATION REFORMS

Many sound recommendations have been made that would work toward addressing impediments to markets operating more efficiently, but are yet to be implemented or are progressing more slowly than desired. This appendix pulls together a number of these recommendations from a selection of reviews that formed the basis for chapter 5. They are organised into two sections:

- improving competition
- removing unnecessary regulatory burdens.

Each section identifies beneficial recommendations yet to be implemented, or those where progress has been slow. Identified recommendations are summarised in tables along with the review source. Where possible the benefits that they are expected to deliver are quantified, or the nature of the benefits is described (box B.1). While the Commission has attempted to review the progress on each of the entries in these tables, this has not been an easy task. Even where government has formally responded to a recommendation the response is reported in the tables, but even in these cases it can be difficult to track down progress on the implementation, and the extent to which the implementation matches the commitment made in the response. This experience points to the lack of accountability for progress in many areas, even of those recommendations that governments have agreed to implement.

The annual net gains to the economy from the reforms quantified in the tables below come to about $3 billion a year, to which can be added potentially large gains (in the order of another $5 billion) from reforms to industry assistance, government procurement, and intellectual property (IP). While the actual impact of many of the individual estimates are uncertain, taken together they add to a considerable case for reforming regulation and industry assistance. Deloitte Access Economics has estimated that, with favourable economic conditions in Asia, a package of microeconomic reform could raise Australia's GDP by 2.5 per cent (Deloitte Access Economics 2017).

Box B.1 Estimating the net benefits of recommended reforms

The tables include estimates of the net benefits of reform. In most cases these are indicative only as very few reviews have undertaken a comprehensive cost benefit analysis of the proposed reforms. Ideally net benefit estimates take into account the cost of implementing the reform, and estimate the gains net of costs relative to a counterfactual — what would have happened without the reform. This is a substantial task, with inherent uncertainty as it requires projecting the future. But even indicative estimates can be a useful guide for policy makers to both prioritise and make the case for reforms.

The estimates in the following tables should only be regarded as indicative, and where possible reflect the likely annual benefits that would be sustained over time. In keeping with the focus on efficient markets the estimates are of economic benefits arising from:

- cost savings to businesses or to consumers — usually estimated for a typical or average business or consumer and scaled up by the size of the industry. So those goods and services that are widely used, or where a lot of businesses are affected, will deliver higher benefits. Cost savings flow directly to improvements in productivity and should be reflected in GDP
- increases in activity — usually estimated as a growth in demand (which can be stimulated by removal of price distortions, or where barriers that have rationed demand are removed). Again the size of the benefit depends on the scale and scope of the activity, and usually a percentage increase is applied to this base to get an estimate of the benefit. However, as expanding activity can take resources away from other (lower value) activities a 'dampening' factor should be applied. Running the shock through a CGE model is the best way to get a reliable estimate, and the results will depend on whether the expanding activity is able to attract new resources into the economy (such as foreign investment, increased labour participation, or targets those more likely to be unemployed)
- improvements in the quality of goods and services (for the same level of inputs) — these can be reflected in higher prices, and hence profits for firms, and modelled as an increase in measured productivity and hence GDP. Implicit in this approach is the rise in productivity (higher quality for the same inputs) flows through to a rise in income for the workers and/or owners of firms, that supports higher prices for some goods and services without having a major impact on the overall demand for others. Improvements in quality are not captured in price benefits to consumers, and so add to consumer surplus.

If a price increase or cost reduction driven by an improvement in productivity can be estimated, it is relatively straight forward to estimate the benefit to GDP, which on average is about 1.1 times the productivity shock. It tends to be slightly higher than this where the improvement is to products that are inputs into many other industries (energy has a higher multiplier for example), and slightly lower when the gain is mainly in final goods and services. To work out how this is distributed across industries a CGE model is required. Multiplier analysis overstates the effect as it assumes that there are resources available to work in any expanding sector, at no cost to any other sector. Estimating the impact on consumer surplus can be done in a CGE model, on the basis of the impact on the representative consumer. A household model is needed for more detailed analysis of the distribution of impacts.

In many cases, reforms result in transfers, where one party has been able to earn economic rents, due say to lack of, competition. Reforms transfer these rents back to consumers, so there is a distributional effect, but the effect on GDP is limited to the benefits from an improved allocation of resources. Estimating these allocative effects requires a model of demand and supply, which is beyond the scope of this review to develop for each reform. The estimates provided in this appendix draw on available estimates of changes in costs, activity, quality, transfers, and reductions in dead weight loss, where these estimates are available.

B.1 Improving competition

Competition is a means to an end — driving firm efficiency and controlling market power to get consumers the goods and services they want at the least cost. Competition can also encourage firms to innovate, although this seems to depend on the overall level of competition and current market share in quite complex ways (Aghion and Griffith 2008).

Regulation can both enforce and erode competition. Australia ranks relatively well on the OECD indicators of product market regulation (ranked 4th in the OECD for the least product market regulation and for ease of trade and investment flows) (OECD 2014), and the extent of restrictiveness has returned to pre-global financial crisis days, but that should not be grounds for complacency.

Competition can be eroded by barriers to market entry or exit created by governments (through selective subsides, regulations or laws). Competition is also eroded by abuse of market power. In many countries the degree of industry concentration has risen, in part due to merger activity. This trend is evident in Australia, which starts from a relatively high base.[17]

In addition to market forces operating in the direction of reduced competition (Supporting Paper 1 (SP 1)), market power from control over networks and data can be exploited to the significant detriment of consumers and the efficient functioning of the market (PC 2016b). Regulatory vigilance is necessary as market forces can operate in the direction of reduced competition, and even well-meaning regulation can come to restrict competition to the net detriment of the community. In some cases regulation, or better regulation is needed to create a more competitive market.

In considering the reform agenda in relation to improving competition, the recommendations are organised by the problems they seek to address:

- impediments to exit or entry
- preferential treatment of some firms over others
- impediments to the allocation of labour and/or capital.

Removing impediments to entry or exit

Restrictions on entry reduce the competitive pressures on incumbents, while those on exit make it harder to move resources to more productive uses. There can be good reasons to both restrict entry and manage exit, for example, to ensure that a service provider, such as a medical doctor, is competent, or in relation to exit to give clients time to find a new supplier. But such restrictions need regular review to ensure they remain fit for purpose. This section reports on recommendations that have been made to:

- remove or reduce restrictions on who can undertake activities
- remove or reduce restrictions on what, when and where activities can be undertaken
- allow other firms to access resources that one firm has control over.

The priority reforms under this problem area were identified as: addressing competitiveness in the pharmacy sector, phoenixing, and product standards.

17 The four firm concentration ratio in Australia estimates suggest oligopolies dominate in supermarkets and groceries (91 per cent), domestic airlines (91 per cent), internet service providers (90 per cent), pharmaceutical products manufacturing (58 per cent), pharmacies (59 per cent), rail freight transport (72 per cent), and postal services (98 per cent) (Leigh and Triggs 2016).

For pharmacy, the current Review of Pharmacy Remuneration and Regulation (DoH 2017) will lay down a roadmap for reform. The Independent Financial Analysis (RSM Australia 2017, p. 84 table 25) suggests the introduction of a flat dispensing fee of $10 would save government almost $280 million in 2015-2016, and an economic gain of some $352 million, rising over time. The difference comes from the cost of financing and the deadweight loss associated with taxation, so the net economic gain is approximately $75 million.

A number of barriers to exit were identified in the Business Set-up, Transfer and Closure Inquiry (hereafter *Set-up Inquiry*) (PC 2015b). The Government has responded to the recommendations to improve insolvency and liquidation processes that should increase the ability of firms to recover and for entrepreneurs to start again. More is needed however, to address the risk of phoenixing, where firms close down without meeting their obligations to staff and creditors, only to start up again with largely the same business. The Australian Securities and Investments Commission (ASIC) has identified 11 494 companies as potentially engaged in phoenix activity, while the Australian Taxation Office (ATO) put the number at 19 800 (Gartrell 2017). The Commission recommended that company directors present 100 points of identification and register with ASIC to reduce the scope for this activity. Introducing such company director identification numbers would be a start, and one that the Government has committed to implement (Australian Government 2015c). The Commission reported PwC estimates that such activities cost employees (in lost wages and superannuation), other businesses (creditors) and the government (in lost tax payments and meeting workers entitlements) between $1.8 and $3.2 billion a year, so a reduction of even 10 per cent would be of considerable value (however, a substantial share of this is a transfer). The real gain comes from more efficient use of resources and the improvement in trust that a reduction in the risk of phoenixing would bring over time. The gains will not just be found in tax revenue improvement; sub-contractors and staff are often casualties of phoenixing.

A priority area for review flagged by the Competition Policy Review (2015) *(Harper Review)* was mandatory product standards, which can create significant barriers to competition by restricting substitution. Mandatory product standards can also hamper innovation and also cost firms more than is needed in order to meet safety or other regulatory objectives. In light of the greater potential for product disclosure and consumer feedback available with digital technologies (SP 13), review is timely. The potential for savings varies with the product and current regimes. For example, moving to adopt international standards in children's toys is estimated to save the industry $5.9 million in compliance costs (ACCC 2017). While reviews to assess the need for 'made in Australia' regulation and identify the least cost way to achieving the objectives take time and effort, if savings similar to toys applied to as little as 1/25th of gross national expenditure, product standard reforms would be worth about $350 million a year in 2016-17 (which is likely to underestimate actual costs).[18]

Other notable areas where there are benefits from reform include addressing restrictions in: retail trading hours, taxi regulation, professional and occupational licensing, the national access regime, and air services agreements.

18 The ACCC (2017) estimates the saving to firms of adopting international standards or a light handed approach as $5.9 million – which is about 0.5% of industry revenue (NPD Group 2012). Bearing in mind that not all goods and services must meet specific Australian standards, even if the compliance cost share of GNE was even one 25th of that, then the same gain from product standard reform to the economy (GNE is $1.75 trillion), would be around $350 million.

Queensland, South Australia and Western Australia retain restrictive rules on retail trading hours, and the Economic Structure and Performance of the Australian Retail Industry *(Retail Inquiry)* recommended their removal (PC 2011a). The net benefits of removing such restrictions have been assessed in the order of $200 million in Queensland alone (QCA 2013). These benefits should be similar for Western Australia and South Australia, making the change worth approximately $600 million.

Deregulation of taxis, like pharmacy, were unfinished business from the National Competition Policy (NCP) era. Previous reviews have identified the benefits of deregulation, further reviews are not needed. For example the NSW Independent Pricing and Regulatory Tribunal (IPART) found that between 15 and 20 per cent of Sydney taxi fares are received by taxi plate owners as economic rent (IPART 2014). For taxis, the horse has bolted with ride sharing services now legalised in almost all jurisdictions (and technology may well also undermine unduly beneficial pharmacy arrangements — see chapter 2). Nevertheless, as recommended by the Inquiry into Microeconomic Reform in Western Australia (ERA 2014) (*WA Reform*) the rules around taxis need attention in order for this section of the ride sharing industry to be able to compete. Greater competition reduces rents to the owners, returning these in lower costs and better services to consumers. Deloitte Access Economics has estimated that 60 per cent of the estimated 14.5 million Uber rides are new business, with 36 per cent induced by the differentiated service and 25 per cent due to the lower price. Taxis provide about 350 million passenger movements a year, so if Uber induces an additional 2.5 per cent activity, with an average fare of $20, the industry will grow by approximately $175 million (ATIA 2014; Deloitte Access Economics 2016). This expenditure will crowd out some other areas of expenditure, but on net, as many of the workers are using ride sharing to expand their working hours and use capital that would otherwise sit unused, there is a net gain that would be lost if governments try to regulate the services like taxis.

There are other more specific changes that have been recommended that could warrant attention. For example, the Annual Review of Regulatory Burdens on Business *(Regulatory Burden Review: Business and Consumer Services)* (2010) recommended changes to the 1958 Migration Act, to exempt lawyers holding a current legal practising certificate from the requirement to register as a migration agent in order to provide 'immigration assistance' under section 276. While the overall gain is small, such default licencing would expand the options available for those seeking migration services and reduce any rents that licenced agents can earn.

Other recommendations relating to restrictions on who, what and where, require more planning to implement well. The Harper Review suggested that while professional and occupational licensing can promote important public policy aims, such as quality, safety and consumer protection, restrictions on competition should be revisited given licensing that restricts who can provide services in the marketplace can prevent new and innovative businesses from entering the market. It can also limit the scope of existing businesses to evolve and innovate. There are professional and occupational licensing requirements in many areas, most of which are important (for example there is a high societal value placed on ensuring that architects and surgeons are competent and follow well developed codes of practice). The problem lies in the scope of services that they have control over and the opportunity that regulation offers to exclude others with sufficient skills from providing competing services. Agencies that restrict who can do what should regularly test how valid such restrictions remain as technical change opens up new ways of interacting and service delivery. A move to competency testing in some professions (chapter 3) should also open up new pathways into professions, so planning to manage this transition and maintain consumer protection needs to be progressed. Opening up professions to greater competition could offer substantially cheaper options for essentially equivalent services. The gains for consumers could be considerable. Restrictions from occupational licensing have been estimated to result in up to 2.85 million fewer jobs in the United States, with an annual cost to consumers of $203 billion (Kleiner, Krueger and Mas 2011).[19] Scaling US cost estimates of licensing requirements (required for 29 per cent of workers) (Kleiner 2015) for Australia, licensing could be costing consumers up to $15 billion a year. This is largely a transfer from consumers to licenced workers, so the net gain must come from an expansion in the number of workers who are able to enter the market.

Air services agreements also restrict entry. The Harper Review noted that where these agreements restrict capacity, costs will be borne by travellers through higher prices and fewer options. Improved competition in air services has the potential for considerable pay-off to Australian consumers and businesses, not least in the contribution it can make to increasing tourism, including in regional areas (PC 2015a). The OECD (2014) reports estimates of market growth of up to double the volume and falls in fares about 25 per cent as a result of opening up air services markets across several OECD countries. Many of these gains may have already been realised in the Australian market, but greater competition could be achieved that should put downward pressure on airfares, largely to the benefit of consumers at a cost to airlines.[20]

Under the area of control of resources by firms, there are several changes currently before the Parliament in regard to the National Access Regime under Part IIIA of the Competition and Consumer Act 2010 recommended by the Harper Review and the inquiry into National Access Regime (*Access Inquiry*) (PC 2013c). These are important to clarify when infrastructure assets can be declared in order to improve investment certainty. Estimating the impact of greater certainty is difficult, and most investments are likely to proceed regardless, so the savings are more likely to be in later court costs in defending against declarations.

These recommendations are summarised in table B.1.

19 They estimate the national costs of licensing by assuming the estimated 15 per cent wage premium comes from market power (as opposed to greater productivity from enhanced human capital), that labour supply is perfectly elastic and the labour demand elasticity is 0.5. Then the 38 million licensed workers in the United States in 2010 (about 29 per cent of the eligible workforce) is multiplied by the wage premium multiplied by the elasticity of 0.5 which results in a loss of 2.85 million jobs. With average annual earnings of $41 000 this would be $35 652 if there is no wage premium for licensing. Therefore, $41 000 – $35 652 = $5 348 is the economic rent for a licensed worker. Consequently, licensing results in an annual cost to consumers of $5 348 x 38 million which is approximately $203 billion (Kleiner 2015).

20 The International Air Transport Association (IATA) (2015) estimate that a 1 per cent fall in airfares increases domestic air passenger kilometres by 0.7 per cent. They predict that the real best discounted airfares will continue to fall over the next 6 years, but at a slower rate (-1.4 per cent compared with -5 per cent over the 1999 to 2014 period). If competitive pressures from reform pushes airfares down, this would result in greater growth in passenger miles, which are currently about 65 million kilometres. How this translates into economic benefits is hard to estimate, and depends largely on additional growth in international travellers. The net gain from domestic travellers is small, as most of the effect would be a transfer in revenue from airlines to passengers.

Table B.1 Recommendations to address impediments to entry and exit

REFORM RECOMMENDATION	SOURCE	GOVERNMENT RESPONSE	BENEFITS
Regulation restricts who/what/when can undertake specific activities			
Implement the recommendations on pharmacy	Pharmacy Review Harper Review 14	Pharmacy: N/A Harper: Noted	Fiscal savings estimated to be over $280 million in 2015-16, with a net gain of $75 million
Implement company director identification numbers	Set-up Inquiry 15.6	Noted	A 10% reduction in phoenixing is worth between $180 and to $320 million in lower debts, with a smaller net gain over time
Review mandatory product standards	Harper Review 8	Supported	Could be in the order of $350 million a year in cost savings for firms
Remove restrictions on retail trading hours	Retail Inquiry 10.1 Harper Review 12	Retail: Noted Harper: Supported	$200 million for each of the 3 states, totals $600 million a year
Accelerate taxi reform and adopt best practice for ride sharing regulation	WA Reform 30-40	N/A	Contribution to industry revenue of about $175 million, but benefits already largely being realised
Review occupational licensing, combine with a move to competency testing where suitable	Harper Review 8 Set-up Inquiry 3.3	Harper: Supported Set-up: Supported	Savings for consumers could be up to $15 billion, but worker income declines so small net gain
Embed consideration of competition impact in air services agreements	Harper Review 8	Supported	Gains to consumers largely at a cost to airlines, but scope to increase tourism, including into regional areas. Tens of millions
Firms control resources required for others to compete			
Implement reforms to Part IIIA [7]	Harper Review 42 Access Inquiry: all	Harper: Supported all but one Access: Supported	Potential savings from lower future dispute costs. Low millions

Preferential treatment of some firms relative to others

Treatment that favours one firm relative to others undermines competition. It can arise through trade policies — tariffs, anti-dumping actions, non-tariff barriers in health or inspection or standards — that treat imports differently from domestically produced goods, or that favour exports. It can also arise where governments provide subsidies or other forms of industry assistance to some firms, giving them an advantage over their competitors.

Regulation can also benefit some firms at a cost to their rivals, as can government procurement rules and guidelines. IP rules can protect firms beyond what is needed as an incentive for innovation, and some firms are exempted from competition law. Preferential treatment does not only relate to private firm, government businesses can receive preferential treatment, undermining the principles of competitive neutrality.

The protection offered to firms by these types of restrictions allow them to be less productive than they would be if they faced greater competition. This can be a substantial drag on the economy — for example, while tariffs benefit some (as they can charge higher prices), they impose additional costs on businesses that require imports (or the higher price domestic equivalent) as inputs to their businesses. Tariffs imposed an input tariff penalty on these businesses of $7.2 billion in 2015-16, much of which is inevitably passed through to consumers (PC 2017c).

A number of reforms have been recommended to reduce preferential treatment of some firms. Of these, three stand out as having considerable benefit: reducing the array of direct industry assistance, improving choice and innovation in procurement arrangements, and removing the restrictions on coastal shipping.

The annual Trade and Assistance Review (TAR) reports on industry assistance programs funded by the Australian Government. Many programs are targeted at industries and support activities, such as R&D, that have the potential to benefit other firms and industries through positive spillovers. Putting aside the question of whether these programs do deliver such benefits (and about this there is some doubt (SP 12)), some of these arrangements clearly benefit selected firms or activities relative to their competitors. This is the case with arrangements to support the biofuel industry, including excise arrangements (which are increasing from zero in 2015-16 rising to 32.8 per cent over 5 years for domestic production, compared with 39.5 cents a litre for imports) and ethanol mandates (3 per cent in Queensland and a target of 6 per cent in New South Wales). The Regulation of Agriculture Inquiry (PC 2016h) (*Agriculture Inquiry*) found that these subsidies and mandates delivered negligible environmental benefits and imposed unnecessary costs on farmers and the. The potential savings are relatively small, now that the ethanol production subsidy program has been abolished (in 2015), but equal treatment with exports and removing the mandates will reduce distortions and reduce costs. Another example of poorly targeted assistance is the drought support programs of concessional loans (up to $250 million a year over 11 years (Australian Government 2015a)) that the Government Drought Support Inquiry (*Drought Inquiry*) found discriminates between farmers, and does not encourage better management for drought (PC 2009a, 2016i). The benefits of removing this subsidy go beyond the budgetary savings, as farmers who prepare for drought will no longer be effectively penalised by this decision. Gains to farmers, and the economy, from shifting to risk management rather than crisis management are hard to quantify, but the benefits go beyond the economic to social and environmental gains.[21]

21 The savings to government in relief costs can be considerable — the US Federal Emergency Management Agency estimated that they save at least $2 in future disaster costs for every dollar spent on drought risk mitigation (WMO and GWP 2017).

There is merit in planning to reduce and remove industry assistance that discriminates between firms and competing activities, and does not deliver a net public benefit. For example, Queensland Sugar Ltd has been given charity status that allows it to access payroll tax and other concessions giving it an advantage over other sugar marketers (PC 2016h). It will take some planning to develop specific recommendations to remove assistance that restricts competition, while retaining those that generate large public benefit (Banks 2012; NCOA 2014). This effort is worthwhile as the saving to budgetary assistance could be considerable given that the Australian Government spent $4.6 billion on assistance and gave out $3.7 billion in tax concessions in 2015-16 (PC 2017c). For example, a 20 per cent reduction would save the budget $1.5 billion, and conservatively another $200 million in avoided deadweight loss of taxation. However, it is the removal of distortions and improvement in competition that brings longer term gains. The big saving will be in shifting the management effort of firms in industries commonly known to seek taxpayer support away from this behaviour and instead towards productivity improvements and other structural responses. Governments have persisted in making too many rescue attempts in a small, but intensely supported set of industries. Employees are misled and communities suffer when, eventually and usually irresistibly, markets catch up with mendicants.

There are two areas where recommendations relate to embedding better processes: ensuring that government procurement is competitive, and that competitive neutrality is maintained. This requires attention to the institutions as well as the regulations. The Harper Review noted that governments can take steps to encourage diversity, choice and innovation in procurement arrangements and recommended that all governments review their policies governing procurement and commercial arrangements. While the Australian Government supported this in principle, recent activities such as submarine and rail track purchases suggest that the principles are not yet embedded (PC 2016i, 2017c). Recommitment to transparent and competitive procurement processes would give confidence that public money is being well spent, which is needed to build trust in the capacity of governments to deliver. Poor infrastructure procurement processes have been estimated to cost governments approximately $239 million a year, and improvements could deliver gains worth $2.5 billion over a 15 year period (Deloitte Access Economics 2015). With government procurement making up 34 per cent of government expenditure and 12.4 per cent of GDP (OECD 2015, 2013 data) even a 1 per cent improvement is worth $2.1 billion in 2017.

The Harper Review and the Set-up Inquiry made a number of recommendations that would address areas of preference given to domestic producers at a cost to consumers. The removal of restrictions on coastal shipping have long been advocated. Coastal shipping is only 6.5 per cent of sea freight by weight, of which 65 per cent was carried under licence (BITRE 2017). The recommendations relate to removing restrictions on cabotage (Harper Review) and on entry of foreign vessels (Agriculture Inquiry). These recommendations seek to undo some of the 2012 changes that have been estimated to have increased freight rates by 16 per cent, and cost between $242 and $466 million over the period 2012-2025 (Deloitte Access Economics 2012). In a slightly different vein, international liner shipping is the only industry that is exempt from Australia's competition laws, and this exemption should be removed (Harper Review). This means that if the international companies collude on cargo pricing to the detriment of Australian consumers, there is no capacity for action to be taken.

At least nine reviews have recommended the removal of parallel import restrictions on books, the inquiry into Intellectual Property Arrangements (*IP Inquiry*) (PC 2016c) is the latest. This Inquiry found the number of books that could be sourced more cheaply overseas could be substantial, leading to an annual saving of about $25 million for Australian consumers. The Government has agreed to the recommendations, but is yet to act (Australian Government 2015b).

Several reviews (The Harper Review and the Australian Automotive Manufacturing Industry Inquiry (PC 2014a) (*Automotive Inquiry*)) have recommended that the restrictions on the import of second hand motor vehicles is unwarranted and costly and should be removed. It has been estimated that these restrictions mean second hand cars cost twice in Australian what they do in New Zealand, which does not restrict imports. With 4.5 million second hand cars traded each year (Ludlow 2015) removing these restrictions would greatly benefit consumers (if the saving applies to half the market with an average price of $12 000 falling to $6 000, this is a saving of $13.5 billion). However, those selling their cars would pay for much of this. On a net basis, the gains are modest, although the competitive pressure may help to drive down new car prices, which would be a direct gain to Australian consumers.

Containing anti-dumping activity is a clear area where action is needed. Policies in this area are hard to reconcile with the trade liberalisation objectives that have underpinned Australia's microeconomic reform program in past decades (PC 2016a). Like other forms of industry assistance, the direct saving to governments or consumers is small relative to the dynamic effects as firms that have sought this form of protection will have no other option than to focus on improving their productivity and developing new market opportunities.

To stimulate investment in innovation, IP rights entrench benefits to firms that own the IP. Where the inventiveness of the step is minimal, or the rights are too generous, this comes at a cost to other firms, and consumers. For example, the IP Inquiry estimated that reforming extensions of term will lower the cost of pharmaceuticals, benefiting consumers and saving the government an estimated $258 million each year. Additional public health benefits will arise from improved access to affordable medicines. To better foster creative endeavour and to benefit consumers, recommendations included raising the inventive test for patent eligibility and reforming the extensions of terms for patent term for pharmaceuticals. Raising the inventiveness test will elevate patent quality over time, improve the signal value of patents, reduce thickets, limit strategic misuse and shorten pendency, which should stimulate innovation and business activity. Restructuring renewal fees will reduce the risk that poor quality patents remain entrenched. In addition, the recommendation to change copyright law from 'fair dealing' to 'fair use' has the potential to liberate one-off use of content to the benefit of all (chapter 5). Collectively these reforms can remove barriers to other patents and efforts to develop new products. It is difficult to estimate what these changes are worth, but since innovation is a main source of productivity growth, even shifting it by 0.1 percentage point, would be worth $1.9 billion to the Australian economy.[22]

The Harper Review highlighted the value of embedding the principle of providing consumer choice where possible in the delivery of government funded services. Well informed choice can be used to promote competition, and has intrinsic value as it empowers consumers. The principles in relation to choice and competition do, however, need to include consideration of the capacity of individuals to make and act on choices, the potential costs to some individuals of being given the responsibility of making choices, and the value for public money that can be delivered through enhanced choice and competition. The benefits of such changes will vary greatly with the service and program design, and are more likely to result in

22 In 2017, Australian GDP was $1.7 trillion, and the multiplier (in a CGE model framework) is about 1.1, so a 0.1 percentage point improvement in MFP raises annual GDP by $1.9 billion. If MFP averages 0.7 per cent, this is a 14 per cent improvement in MFP.

better outcomes for clients than necessarily reducing government expenditure. The Commission's draft report on Human Services (2017b) provides an indication of the types of benefits that could be achieved through the greater use of contestability, competition and choice, for example being able to access any dentist using a publicly funded voucher, rather than waiting for an appointment with a public dental clinic, could significantly improve attendance and with this oral health. As with ensuring competitive neutrality for government business activities that compete with private providers, institutional arrangements need to be robust. The need for improvements in competitive neutrality policy, complaints processes and reporting identified by Harper deserve attention. While all State and Territory Governments and the Commonwealth have processes in place, these are costly to firms to use, so ensuring that the principles are adhered to will avoid these costs.[23]

Table B.2 Recommendations to address the preferential treatment of some firms over others

REFORM RECOMMENDATION	SOURCE	GOVERNMENT RESPONSE	BENEFITS
Industry assistance benefits some firms over others			
Remove subsidies for ethanol and mandate for use	Agriculture 9.6	N/A	Potentially low millions through less distortions
Plan to reduce industry assistance that discriminates between firms and competing activities	Harper Review 7 NCOA 32 Agriculture 9.6	Harper: Noted NCOA: Included in 2014-15 Budget Agriculture: N/A	A 20 per cent reduction would save the budget $1.5 billion, but more importantly redirect firm effort toward productivity enhancing activities, worth in the tens of billions over time
Government procurement is not fully competitive			
Review public procurement and commercial arrangements	Harper Review 2,18	Harper 2: Supported Harper 18: Supported in principle	Cost savings to governments in the order of several billions are possible. Even a 1 per cent improvement is worth $2.1 billion

continued next page

23 In addition to the firm's time, government resources are applied to resolving these claims. For example, the Commission has completed 15 investigations since 1999, which take about 2 weeks of staff time to address. In the states there is a similar number of investigations for example, the Victorian Commissioner for Better Regulation has published 7 investigation reports since 2007.

Table B.2 Recommendations to address the preferential treatment of some firms over others

continued

REFORM RECOMMENDATION	SOURCE	GOVERNMENT RESPONSE	BENEFITS
Trade policies provide protection from competition			
Remove restrictions on cabotage and entry of foreign shipping	Harper Review 5 Agriculture 9.5 NCOA 4	Harper: Noted Agriculture: N/A NCOA: Will be considered	Between $19 and 36 million a year
Remove parallel imports of books restrictions	Harper Review 13 IP Inquiry 5.3	Harper: Supported in part IP: N/A	Annual savings of about $25 million for Australian consumers
Remove restrictions on the importation of second hand motor vehicles	Harper Review 13 Automotive Inquiry 5.4	Harper: Rejected for second hand vehicles Automotive Inquiry: Noted	Mainly transfers, low millions, but could put downward pressure on new car prices
Scale back or remove anti-dumping duties	Anti-dumping 2009 & 2016 NCOA 32	NCOA: Included in 2014-15 Budget A-D 2009 6.6: Not accepted	Low millions from refocused effort and lower input costs for industry
Exemptions from consumer & competition law			
Remove the exemption of international liner shipping from the CCA	Harper Review 4	Remains open to	Addresses a possible risk
IP provides unwarranted protection from competition			
Raise the inventiveness step in IP patents, move to fair use & reform plant breeders rights	IP Review 6.1, 6.2, 7.1, 7.2, 7.3, 7.4, 8.1 & 13.1	N/A	A 0.1 percentage point boost to productivity from greater innovation is worth $1.9 billion to the economy
Reform extension for pharmaceutical patents	IP Review 10.1	N/A	Government saving of $258 million each year plus less tangible benefits to health
Government supported firms violate competitive neutrality			
Review institutions to ensure competitive neutrality is embedded for government business activities that compete with private providers	Harper Review 15, 16, 17 & 24 Senate Inquiry into Australia Post	Harper: 15 & 16 Supported, 17 Remains open to 24 Supported in principle. AusPost: Partially supported	Relatively small second-order gains

Impediments to the efficient allocation of capital and labour

To make the best use of the resources available to firms in Australia, capital and labour need to be able to move freely to where the opportunities arise. Firms also seek flexible resources that don't lock them into specific production systems and markets, although this is inevitable with some specialised types of capital. Such flexibility benefits the Australian economy, for example it was estimated that 'perfect' labour mobility of registered workers during the mining boom would add 0.3 percentage points to GDP, an increase of 14 per cent (PC 2009b, p. 73).

Actions that could make a significant difference might include workplace relations reform, phasing out stamp duty, and changes to foreign investment rules.

On the labour side, there are some impediments to the flexibility of workers, but most of the workplace relations law works well to get the balance right between the desires of firms for a fully flexible resource and the need to protect workers from exploitation.[24] The Workplace Relations Framework Inquiry (*Workplace Inquiry*) (PC 2015d), made recommendations to improve the system to reduce costs for business while maintaining protection for vulnerable workers. The Commission did not go as far as some commentators had hoped (for example, Institute of Public Affairs, sub. 15), finding that adversarial relationships between employers and employees were more a function of poor relationship management than the workplace relations framework. The recommendations to separate the wage regulation function from the Fair Work Commission, with a new body to determine minimum and award wages, would go some way to addressing the concerns of employers. In particular, a refocus on substance rather than process should reduce costs and improve effectiveness. Along with other recommendations on transfer of ownership of businesses, better security for greenfield investments, less obdurate industrial bargaining, more difficulty in deploying strategic strikes for capital-intensive businesses, higher penalties for unlawful conduct, eliminating restraints on the use of subcontractors (these mainly affect construction, but it is a large industry), and more control over secondary boycotts, could readily increase GDP by 0.05 per cent. This would add some $850 million a year to the Australian economy, an amount that would grow in line with economic growth.

24 For example, several submissions to this Productivity Review (Institute of Public Affairs, sub. 15, Minerals Council of Australia, sub 30) pointed to the workplace relations system as restricting management's ability to manage, but a management benchmarking study found that Australian had the second lowest labour market rigidity score of the 16 countries in the study (Green 2009, p. 36). Grattan (2012) noted that attempts to correlate historic changes in workplace relationship regimes with economic outcomes are either inconclusive or unconvincing. They suggested a priority for research, therefore, is to 'quantify the economic impact of IR on workplace flexibility and thus economic growth'. They argued that 'without this assessment, it is impossible to judge whether industrial relations arrangements strike an acceptable balance between employer and employee interests, at a reasonable economic cost.'

Commonly held views that Australian workers are not very mobile have been found to be misplaced (PC 2014c), with the mining industry having the most mobile workforce. Nevertheless, there are some impediments in the tax treatment of housing that raises the costs of buying, and hence moving, that should be on the agenda of State Governments to phase out and replace with more efficient land taxes (as the ACT Government has done, and was recommended by the Henry Review of Taxation (2009)). This issue is considered in more detail in chapter 4.

On the capital side, the Set-up Inquiry concluded that access to finance was not a barrier for most small businesses, as most do not seek finance from external sources (instead drawing on personal finance, including owner savings, personal credit cards and personally secured bank loans). Developments in FinTech, which should provide lower cost options, are likely to expand the access of small businesses to credit and equity in the future. The Financial System Inquiry (2014) (*Murray Inquiry*) made a number of recommendations to improve competition in the financial system, and with this access to finance, and reducing information imbalances for small and medium-sized business. The Australian Government has also recently moved to improve the ability of the regulatory regime to accommodate FinTech (SP 13). Most of the Murray Inquiry recommendations have been acted on, and identifying areas for reform should be deferred until the current inquiries into competition in the banking sector and the superannuation system are completed.

As a net capital importer, Australia relies on access to foreign capital to meet our investment needs. Discrimination against foreign capital arises where the government goes beyond what is needed to ensure national security in setting lower thresholds for approval by the Foreign Investment Review Board. The Agriculture Inquiry recommended that thresholds should be increased and applied equally regardless of the origin of the investor or the sector of the economy, an approach also recommended by the Annual Review of Regulatory Burdens on Business: Business and Consumer Services (2010) (*Business Review*) and non-residential commercial real estate. The savings from reversing these restrictions, and more generally improving the approval processes for foreign investment, could be substantial. ATA (sub. 19) cites ITS Global estimates that the annual cost of the approval process of foreign investment and costs of delay is $4 billion (p. 2). Treasury estimates put the cost of restricting foreign investment by one per cent of GDP at about half a per cent in Gross National Income (GNI) each year over the following decade (Gali and Taplin 2012). So the benefits of reversing recent changes could be considerable. If the effect is to reduce direct foreign investment by 2 per cent, this reduces total investment by approximately 0.22 per cent (as direct foreign investment makes up approximately 11 per cent of investment), assuming there is no response by domestic investment to changes in foreign investment. This would reduce GNI by about 0.027 per cent, or about $450 million.

Table B.3 Recommendations to address impediments to the efficient allocation of labour and/or capital

REFORM RECOMMENDATION	SOURCE	GOVERNMENT RESPONSE	BENEFITS
The rules setting mechanisms in the labour market reduce flexibility			
Implement the workplace relations inquiry recommendations, in particular reform of the Fair Work Commission	Workplace inquiry: all	WR: N/A	Net gains in the order of 0.05 per cent are worth $850 million
There are tax and other barriers that reduce people's capacity to move for work			
Plan to move from a reliance on stamp duty to land taxes	Henry Review 50 & 51 Geographic Labour Mobility 12.2	Not supported	Substantial benefits from increased labour mobility, investment and more productive use of land
Foreign investment faces different restrictions			
Remove recent changes to thresholds and discriminatory conditions	Agriculture 13.1 Business Review 3.1, 3.2	Ag: N/A Reg: Partially and broadly supported	If the chilling effect reduces foreign direct investment by 2%, this has a cost of $450 million

B.2 Removing unnecessary regulatory burdens

While rules matter to ensure that markets operate efficiently, they are also required to manage risks to consumers and to the environment. While these regulations deliver benefits, they also impose costs on businesses and the economy as they restrict the activities of firms. Accordingly, the task of policy is to implement proportionate well-designed regulations — that balance the benefits to the community and future markets against the costs in today's market.

Regulation that impedes efficient investment

Regulation should aim to achieve its regulatory intent without unintended distortions to investment. This can come about through price regulation that creates incentives to under invest if it constrains returns to below the market rate, as California found when electricity prices were set at below the cost of supply, which led to regular blackouts. Price regulation that provides returns that exceed the market rate can result in over investment, as in the case of 'gold plating' of the poles and wires in electricity distribution in Australia (PC 2013a). Uncertainty about regulation can also hamper investment, as do long delays in decision making. For example, the decline in investment in electricity generation has been attributed to uncertainty around Australia's emission policy (chapter 5). Lack of regulation can be another problem, particularly when it comes to common property assets, and lack of guidance on responsibilities means that resources are over exploited. Regulation that locks in particular technologies can also restrict investment in new technologies. These distortions to investment have longterm consequences that can be severe, hence reviews that have identified regulations that do distort investment incentives deserve policy attention.

A major area ripe for reform for many years is land use zoning. In some cases zoning regulation prevents activities even though they would not impact negatively on the surrounding land uses. In other cases it is the uncertainty about what is permitted that is the problem for investment decision making. These issues are taken up for cities and towns in chapter 4, and SP 10. The Agriculture Inquiry made a number of recommendations in regard to improving land use decisions, and to accelerating reform to land tenure arrangements that should be implemented.

The Major Project Development Assessment Processes Study (PC 2013b) (*Major Projects Study)* found that although less publicly evident today with the end of the mining boom, major infrastructure and resources projects (including agriculture) are still delayed or subjected to other cost-inflation by unco-ordinated and ill-designed regulation. It is generally not that the objective of the regulation is in question — environmental considerations, for example, are not second-order matters. It is inconsistency, constant moving of targets and opposition without consideration of solution that are at the heart of poor approvals processes.

The problem of delays is particularly acute for major project approvals. A one year delay in a major offshore LNG project was estimated to have cost between \$500 million and \$2 billion, while for an average size project the equivalent delay costs are approximately \$40 million (PC 2013b, p. 201). Taking the number of announced projects as a guide to how many enter the system in a year (it was 55 as at April 2015 (DoI 2015)), and assuming that better processes would reduce the delay costs for this group as a whole by 10 per cent, the gain is $220 million in avoided costs. In the agricultural sector a more significant issue is investment not going ahead at all, given a proponent's knowledge of potential costs, timing and uncertainty of outcome.

A recent report on major project approvals by the Business Council of Australia (BCA) (2016a) endorsed the recommendations in the Major Project Study that were aimed at reducing the costs of the application and approval processes, noting that little action had yet been taken on many of the recommendations. This is clearly an area where action is needed. Concerns about vexatious litigation seeking to increase costs for projects by causing delays have led to calls to repeal section 487 of the EPBC Act (including the BCA (2016b)) and Institute of Public Affairs (sub. 15)). Such a change would remove the ability of environmental groups to challenge development approvals, substantially shifting the balance of power in the favour of the mining companies and others seeking land use approvals. As the courts have the ability to deal with vexatious litigation, and environmental groups play an important role in getting the balance right between protecting the environment and its economic and social benefits and the economic benefits that flow from development, from a community-wide perspective this change is unlikely to be an improvement.[25]

An area where reforms have largely been achieved has been in the removal of agricultural marketing restrictions. It is included in this category as restrictions such as quotas and pooled pricing had a major impact on the incentives to invest in process or quality improvements, or in expanding production. Governments have moved recently to remove the last of these restrictions (on potatoes in Western Australia, which had added an extra dollar per kilo for consumers, although the 2015 'Real Choice' Act sugar marketing in Queensland has yet to be repealed). Controls remain on rice marketing, which the Agriculture Inquiry recommended should be removed. Moreover, governments should commit to not responding to calls to reregulate by the vested interests who benefit from these types of restrictions at a cost to other agricultural producers and consumers (as happened with sugar in Queensland).

Lack of regulation can also impede investment. This arises mainly with common property resources. The recent inquiry into Marine Fisheries and Aquaculture Inquiry (2016e) (*Fisheries Inquiry)* identified the need for regulation of recreational fishers where they compete for the resource with commercial fisheries. While fisheries are a small industry, the health of the marine environment matters for many other industries. The recommendations that land–use proposals take into account their impact on fisheries and that all governments adopt fishery harvest strategies and allocation policies has much greater potential to protect marine areas than many other costly policies related to fishery management.

Another priority area for review is private health insurance, as regulation of prices restricts competition and impedes investment in the development of new products. However, any consideration of removing price regulation must form part of a larger reform of health insurance (social and private) (chapter 2).

25 The recent House of Representatives Standing Committee on the Environment (2016) made nine recommendations to improve the administration and transparency of the register of environmental organisations. While most would improve transparency, recommendations requiring additional reporting, and that registered charities be required to allocate a share of the budget to on-ground work and limit their advocacy work, would treat environmental organisations differently to other charities and impose an unnecessary regulatory burden. These organisations have recently been asked to report on the share of their expenditure that goes to different activities (such as advocacy and on-ground works), which is not required of other organisations that have deductible gift recipient status (Taylor 2017).

Table B.4 Recommendations to address regulation impeding efficient investment

REFORM RECOMMENDATION	SOURCE	GOVERNMENT RESPONSE	BENEFITS
Regulator uncertainty delays investment			
Implement land use recommendations and accelerate land tenure reforms	Agriculture 2.1, 2.2 & 2.3 Set-up Review 4.2	Ag: N/A Set-up: Supported in principle	Included in cities estimate. Impacts on agriculture in the millions
Development approvals cause unwarranted delays			
Implement the Major Projects study recommendations	Harper Review 9 Major Projects	Harper: Supported Major N/A	A 10 per cent reduction delay costs for announced projects would save about $240 million
Agricultural marketing regulations distort incentives			
Remove the remaining restrictions on rice marketing and hold the line against backsliding on potatoes and sugar	Harper Review 8 Agriculture 12.1, 12.2 & 12.3 Inquiry into Microeconomic Reform in WA	Harper: Supported Ag: N/A MicroWA: N/A	Largely done, benefits in preventing backsliding
Regulation is insufficient to support market activity			
Include recreational fishers in allocation policies in multiple-user fisheries	Fisheries 4.1, 4.2 & 4.3	4.1 supported in principle, 4.2 and 4.3 supported	Benefits to fishers in low millions, but potentially large benefits to the environment and in avoiding conflict
Embed inclusion of fisheries impact in land use assessments	Fisheries 2.1	Noted	Sustainability benefits for fishers
Implement fishery harvest strategies	Fisheries 2.2, 2.3 & 2.4	Supported	Benefits to fishers in currently unregulated areas. Low millions
Price regulation creates incentives to over or under invest			
Review private health insurance price regulation	Harper Review 8	Supported	Reform of health insurance potentially has very large benefits, but may be negative unless part of a holistic reform

Regulations restrict activities beyond what is needed to achieve the regulatory objective

Regulators and policy departments need a process to identify where regulations go beyond what is required. In some cases this is desirable because technologies and tastes have moved on and so the restrictions are no longer necessary. In other cases the restrictions could have been too stringent from the start.

Regulatory stocktakes are a useful means to identify where these situations arise, and governments should continue to seek feedback either through ad hoc reviews or by embedding processes where regulators can identify these cases so that action can be taken to revise or remove the regulation. Some States and Territories signed up to a new round of NCP style reviews in December 2016 that provides a good opportunity to also consider how to reduce regulatory burden. This implements a new framework for competition and productivity-enhancing reforms. At this stage, Victoria, South Australia and Queensland have yet to sign up to the agreement (COAG 2016) — they should do so. The agreement contains the essence of the Harper Review recommendations, including a new set of competition policy principles and a recommended agenda of reviews. However, the agreement differs from the Harper recommendations by not supporting the establishment of a new agency to provide leadership and drive implementation of the evolving competition policy agenda, and instead retaining the National Competition Council (NCC). While the NCC oversaw the NCP and its independence was seen as an important contributor to the success of the NCP, the Harper Review noted that the NCC now retains only a limited role in relation to advising ministers on infrastructure and gas access matters and it has not maintained the capacity to readily step into a broader role again. The NCC will need to be reinvigorated and re-staffed[26] so it has the capability to do this work effectively.

The areas for reform identified below are in no way comprehensive, drawing mainly from the recent Agriculture Inquiry, but do give a starting point for things where the work has been done to identify regulation that imposes unnecessary restrictions.

There is a clear case for removing restrictions include the ban on genetically modified (GM) crops, where there is no evidence to support the claimed harm. In Tasmania and Victoria reviews of the moratorium on cultivating genetically modified organisms estimated the economic costs of extending the moratorium. Extending the moratorium for a further 5 years in Tasmania (in 2014) was estimated to impose a net cost of $1.5 million. Similarly extending for a further eight years in Victoria (in 2007) was estimated to impose a direct net cost of $110-$115 million (PC 2016h). Removal of the remaining moratoria could result in cost savings of about $330 million over a similar time period.[27]

Rules around heavy vehicle movements could be substantially improved giving farmers and transporters greater scope to move machinery and get products to market. Agriculture accounts for nearly 27 per cent of road freight by volume, costing farmers approximately $1.1 billion a year. For farmers, these costs average 21 per cent of the farm gate price (ranging from 4 to almost 50 per cent), so even a small improvement can be of considerable benefit. A 1 per cent reduction in costs from relatively simple changes to regulations should be easy to achieve without sacrificing any safety or raising other concerns, and is worth $11 million to farmers.

26 The NCC no longer employs its own staff. Since July 2014, secretariat services have been provided by the ACCC. (NCC 2015)
27 Assumes South Australia would face similar costs as Victoria and New South Wales would face greater costs as crop production is almost 2 times that of Victoria (DAWR 2017), (3 x $110m).

In the area of infrastructure, there are often caps, curfews and other restrictions on how infrastructure is operated. Infrastructure Australia (2016) identified these restrictions as impediments to the efficient operation of infrastructure assets. Regulations can be particularly insidious when developed as part of a privatisation plan to either force the new owners into existing practices, or to ensure that rents can be achieved, which boost the sale price. A better understanding of how to regulate privatised utilities, that can be put in place as part of a privatisation program, is required (chapter 5).

One area that attracted public support in the IP Inquiry was the recommendation on geo blocking. This is the practice of restricting a consumer's access to websites and digital goods and services within their home market, usually to price discriminate between markets. The Inquiry found that geo blocking technology is widely imposed on Australian consumers and it frequently results in Australian consumers being offered a lower level of digital service (such as a more limited music or TV streaming catalogue) at a higher price than in overseas markets. The Inquiry recommended that the Copyright Act be amended to make it clear that it is not an infringement to circumvent geoblocking technology, and to avoid international agreements that would prevent or ban this activity.

Table B.5 Recommendations to address regulations that restrict activities beyond what is needed to achieve the regulatory objective

REFORM RECOMMENDATION	SOURCE	GOVERNMENT RESPONSE	BENEFITS
Agriculture			
Remove ban on GM crops	Agriculture 6.1	N/A	$330 million
Infrastructure			
Review the need for caps, curfews and other restrictions on operations	Infrastructure Australia 1.3	Supported in principle	Potentially large – part of the set of reforms to infrastructure worth billions
Copyright			
Strengthen Copyright Act to make clear circumventing geo-blocking is not a copyright infringement	IP Inquiry 5.2	N/A	Greater consumer certainty will drive competition and reduce price differentials between Australian and overseas markets — which were about 49 per cent in professional software, 67 per cent in music, and 61 per cent in games in 2013

Regulation imposes unnecessary compliance costs

Reducing the compliance costs of regulation has been a major focus of government over the past decade. ACCI (sub. 37) reported the result from their National Red Tape Survey, that nearly half respondents agreed that the impact of regulation had prevented them from 'making changes to grow their business' (p. 32). The IPA (sub. 15, p. 12) reports estimates that red tape costs the Australian economy 'at least $176 billion' a year in foregone economic output (11 per cent of GDP), although it is likely that at least some of these costs are necessary to achieve output. Estimates reported by the Commission put the cost of red tape closer to 4 per cent of GDP (PC 2011b). Red tape reduction campaigns and regulatory budgets claim to have saved billions, but firms still report feeling swamped in red tape. One of the problems is that governments have been less successful in reducing duplication across departments and jurisdictions. Resolving this will require ceding decision making authority to one regulator, or developing data sharing and coordinated protocols. Resolving the problems with Commonwealth recognition of State and Territory environmental approvals should be a priority area.

The Regulation Impact Assessment (RIA) process is largely aimed at ensuring that governments go about regulating in the way that is least costly for businesses, not-for profit organisations and the community. The effectiveness of the RIA processes in delivering better (and less costly) regulation was reviewed by the Commission in the Regulatory Impact Analysis Benchmarking Study (2012). This study found that the problem is not the RIA guidelines, but factors such as commitment to their implementation in time challenged environments, and an apparent culture of risk aversion in some public services, which defaults to regulation as a policy lever. While the study did not make recommendations, it pointed to better practice, yet as touched on briefly in chapter 6, even adhering to these suggestions may not be sufficient to achieve the more efficient and effective regulation that good process should deliver. Culture change is an essential element.

As with regulation that imposes unnecessary restrictions, regulatory stocktakes and feedback processes from regulators can assist in identifying where unnecessary costs arise. In many cases, it has been found to be the way a regulation is implemented that imposes unnecessary costs. The study on Identifying and Evaluating Regulation Reforms (*Regulation Study*) (2011b) reported that the behaviour of regulators accounted for up to 50 per cent of the unnecessary compliance costs. The *Public Governance Performance and Accountability Act 2013* (PGPA Act) includes a new framework for assessing the performance of Commonwealth regulators. The performance assessment process requires consultation with the regulated entities to assist in identifying the best metrics for each regulator to report against under these six areas (Australian Government 2014). Regulators have to undertake a self-assessment, which is validated by a stakeholder consultation mechanism, and certified by the regulator's accountable authority (usually the portfolio department). Regulators are responsible for taking action to address areas for improvement. At the portfolio level, departments have to establish a program of external reviews of their regulators, which has to be agreed by the Minister. The self-assessments are inputs into these Review panels, which then report to the regulator's accountable authority, and the portfolio's deregulation unit. This report is provided to the Minister and made public. The government may then decide whether to commission annual external reviews of major regulators.

This process is similar to that proposed by the Commission in the Regulator Audit Framework (PC 2014e) that was follow-up work to the Regulator Engagement with Small Business Study (*RIA Study*) (PC 2014e). These guidelines for auditing the performance of regulators proposed that the KPIs for each regulator be selected based on the areas where improvements were most needed as identified by the regulator and their client base. In this way, the priority for performance improvement would be driven more by where it was likely to make the greatest difference for the regulated entities. It would have meant that regulators would not necessarily have reported against all the KPIs at the same level of detail. This design feature was aimed at reducing the reporting burden for regulators and by extension their regulated entities. It would also have required regulators to engage constructively with their regulated entities, in a way that the current framework may not achieve given it only requires the regulators to 'consult' and 'validate'. But the framework is, none the less, a major advance on transparency and accountability for Commonwealth regulators. Like all such reform, it should be reviewed to assess if it has been effective in reducing the regulatory burden imposed by regulator behaviour, and is contributing the improvement in the efficiency and effectiveness of the regulatory system. With regulators, as with policy departments, good processes and systems are not sufficient — culture change is necessary. This was a central focus of the recent ASIC Capability Review (Australian Government 2016b), and many of the recommendations of this review may well be of benefit to other regulators.

Compliance costs associated with planning systems and development approvals continue to be a priority area for reform, reflecting the substantial progress made in streamlining application processes for other types of approvals, such as business registration. The Centre for International Economics has estimated that reform of NSW's development assessment processes could result in potential net benefits of between $358 and $550 million (CIE 2013) (further discussed in SP 10).

The Business Review (along with other Regulatory Burden Reviews) identified reporting requirements and the ability to access accurate information as a major source of frustration for business. Ways of using digital technologies to improve communication and application and approval processes are discussed in SP 13. Governments should be encouraged to expedite the single portal approach to accessing regulatory information and attaining approvals, and to draw on successful examples, such as the New South Wales service portal. A one-stop shop for major development approvals, as recommended by the Hawke Review of the EPBC Act in 2009 (Hawke 2009) and the Commission's report, has recently been established.

The major projects approval process highlights an area that consistently came up as imposing unnecessary compliance costs — that of cross jurisdiction differences in regulation that require activities to achieve multiple approvals or licences. Other areas identified where existing recommendations could be implemented include achieving nationally consistent laws on electrical goods safety (Australian Consumer Law Enforcement and Administration (PC 2017a) (*Consumer Law Study*) and agreement on the requirements for responsible serving of alcohol (Business Review). There are other areas where planning is required, with the Agriculture Inquiry proposing a review of the National Heavy Vehicle Regulator as part of the planned review of national transport regulation reforms. The Harper Review also asked why the regulations surrounding retail, including treatment of liquor and tobacco displays, were so different across jurisdictions, and whether this is warranted. More generally, governments should seek to embed processes that facilitate the coordination of regulatory requirements in areas such as occupations that will facilitate mutual recognition of licences across jurisdictions. The Review into Mutual Recognition Schemes (*Mutual Recognition Study*) (PC 2009b) recommendations reflected the view that mutual recognition should be implemented on a more opportunistic basis as problems arise, as previous efforts have proved costly and business groups have raised the question of whether the costs of establishing mutual recognition or harmonisation are worth the benefits.

In other areas recommendations flag the need for preparatory work to be able to implement the recommended approaches. For example, the Independent Review of the Environmental Protection and Biodiversity Conservation (EPBC) Act 1999 (Hawke Review) recommended that state environmental assessment processes should be fully accredited under the EPBC Act, with the Australian Government retaining oversight via monitoring and reporting arrangements. But questions have been raised about the capacity of the state institutions to implement the requirements effectively (Quinlan, Heenan and Govinnage 2016). The Major Projects Study made a number of recommendations aimed at developing the cooperation needed to achieve such recognition. Resolving this should reduce costs to firms needing approvals, and facilitate the use of state environmental assessment processes in developing markets for offsets.

Table B.6 Recommendations to address regulation that is unnecessarily burdensome

REFORM RECOMMENDATION	SOURCE	GOVERNMENT RESPONSE	BENEFITS
RIA process fails to contain unnecessary compliance costs			
Institutional change to embed RIA as a regulatory development tool	RIA Study	Supported	Potentially large in terms of improved policy making processes
Slow, complex and duplicative regulatory processes			
Accelerate rollout of one-stop shop, single portal access to information and approvals	Business review	Progress underway	Savings in copying best practice
Streamlining development assessment processes	Retail Study 8.1, 8.2, 8.3 & 8.4, CH 4, SP 10	Supported in principle	Reduce risks and costs associated with development (SP 10)
Cross jurisdictional differences in regulations can impose additional costs			
Implement consistent laws on electrical goods safety	Consumer Law Study 6.1	To be considered later 2017	Small savings for business and hence consumers
Harmonise responsible service of alcohol requirements	Business Review 3.4	Accepted in principle	Small savings for often young and mobile workers
Take an opportunistic approach to mutual recognition for occupations	Mutual Recognition Study 5.2, 5.3, 6.1, 6.2	N/A	Lowers costs by being reactive to where need arises
Develop reliable and comparable state environmental assessment processes to allow recognition one project, one assessment, one decision approach to be implemented	Major Projects Study 6.1, 6.2, 7.1, 7.2	N/A	Potential for savings for land use projects, and improved basis for offset arrangements

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