2012 Productivity Paper

Boosting Australia's Productivity.

Chamber of Commerce and Industry of Western Australia

Contents

About CCI

The Chamber of Commerce and Industry of Western Australia (CCI) is the leading business association in Western Australia.

CCI is a private, not-for-profit business organisation and is one of the most influential and respected chambers of commerce in the country. Our 120 year history has established it as the undisputed voice of private enterprise in WA and it exists to assist members in running a profitable and efficient business.

CCI's mission is to help foster an economic environment that encourages the growth of responsible private enterprise and to provide a range of relevant and cost-effective services to business.

In keeping with its mission to help businesses in Western Australia run efficiently and profitably, CCI provides a one-stop-shop for any type of help or advice on managing, building or maintaining a business, regardless of size or sector.

Executive Summary

Productivity growth is the most important driver of growth and living standards. Productivity measures the efficiency with which an economy uses its limited supplies of land, labour, capital, knowledge and expertise to produce goods and services. Improvements in productivity mean that an economy can produce more using the same amount of resources, which leads to higher real incomes, greater choice for consumers and better living standards overall.

While the Australian economy has performed well in recent years, its success has been the result of the historically high terms of trade, rather than improvements in productivity. In fact, Australia's productivity growth has slowed over the past decade and on some measures has even gone backwards. A similar trend has occurred in WA.

Reversing the slump in productivity will be central to improvements in standards of living over the longer term and will help the country navigate some of the substantial challenges on the horizon including the structural change in the economy, the introduction of a price on carbon and the ageing of the population.

Ultimately, the decisions and actions by the private sector determine the level of productivity growth. It is collectively the decisions by the private sector to implement new products, processes and technology that deliver productivity improvements at an organisational level and, in turn, the economy overall.

While productivity is ultimately driven by the decisions made by businesses, the Government has an important role to play in facilitating productivity improvements by ensuring that its policy settings allow the efficient allocation of resources and do not provide a disincentive to businesses to make productivity enhancing changes to their operations.

This paper sets out a broad agenda for Governments at a State and Commonwealth level that will help reverse the slump in the nation's productivity. These reforms focus on improving the supply-side capacity of the economy, reducing the cost of doing business and facilitating improvements in employment, income and wealth.

Reversing Australia's declining productivity will require a new wave of economic reform. The reform agenda should look to promote competition, which delivers productivity improvements by providing businesses with the incentive to improve the quality, quantity and efficiency of their operations, in order to maximise profit. However, this will require a genuine commitment from the State and Federal Government to collectively and cooperatively consider this agenda.

As well as ensuring a policy environment that facilitates productivity improvements, there is also a role for Government to directly invest in productivity enhancing infrastructure and education and training, which otherwise would not be adequately provided by the private sector.

Policy agenda to boost productivity

- **Reduce the regulatory burden on businesses** by removing cumbersome and ineffective regulations, streamlining approvals processes and ensuring new regulations are appropriately assessed to ensure they do not hamper flexibility.
- Create a **flexible and modern industrial relations system** which provides businesses with the flexibility to respond to changing economic conditions. Amendments to the *Fair Work Act* are needed to achieve this, while improvements can also be made to the State industrial relations system.
- Policies are needed to **address labour shortages** which inhibit productivity by driving up wages and prices, increasing staff turnover and job vacancies. These should include measures to increase workforce participation and ensure the migration system is responsive to business needs.
- **The tax system needs to be reformed** to remove the most inefficient and distortionary taxes. An ambitious reform agenda is needed that will consider the Commonwealth and State tax system as one regime and not be constrained by the need to be revenue neutral.
- Further investment is needed to **improve educational attainment** levels and deliver training relevant to industry needs. Reforms are needed to ensure our education and training system is consistent with international best practice. Key areas should be in relation to improving teacher quality and engagement between the education sector and industry.
- Infrastructure is a key enabler of economic and productivity growth and further investment is needed to **address the nation's infrastructure constraints**. There is a pressing need to improve infrastructure planning to avoid gaps and to encourage greater private sector involvement in infrastructure provision to ensure the nation's needs are met in a fiscally constrained environment.
- To remain competitive in an increasingly globalised economy, we must **unlock future innovations** and leverage off our world class tertiary sector. We need to look overseas to determine the best ways to achieve this.

Reversing Australia's declining productivity will require a new wave of economic reform.

Why does productivity matter?

Productivity is an important driver of an economy's performance and improvements in real standards of living.

Productivity measures the efficiency with which an economy uses its limited supplies of land, labour, capital, knowledge and expertise to produce goods and services. Improvements in productivity mean that an economy can produce more using the same amount of resources which leads to higher real incomes, greater choice for consumers and better living standards overall.

The Productivity Commission has identified a range of factors which contribute to national productivity growth over both the short and longer term. Those which have an immediate impact on productivity include technological change, organisational change, industry restructuring and resource reallocation. Over the longer term, investment in education and training and research and development and innovation play an important role.

Productivity improvements have been central to Australia's economic performance over the past four decades. According to the Productivity Commission, over the past four decades, growth in multifactor productivity accounted for over one-third of the growth in Australia's real incomes.[1]

More recently, however, Australia's wealth has been driven by the surge in commodity prices from the boom in global mineral and energy markets. At the same time, Australia's productivity growth has slowed and, on some measures, has gone backwards (see Chart 1).

Chart 1: Productivity & Gross National Income

Index, December 2000 = 100

Source: ABS Cat. 5206.0

While the resources boom has certainly created much wealth for the nation, it will not last forever. Reversing the slump in productivity will be necessary to ensure the nation's continued economic success and improvements in living standards for all Australians over the longer term.

Reversing the productivity decline is also critical to ensure the nation can navigate through the range of economic challenges on the horizon.

The Australian economy is undergoing a significant period of structural change, on the back of the rapid development and urbanisation that is occurring in our region. The surge in demand from Asia for our natural resources has delivered a substantial boost to the economy through the record high terms of trade and surge in investment activity. These trends are expected to continue for many years to come.

However, it has also created challenges in the form of labour shortages and wage pressures, capacity constraints and, for some sectors that compete in international markets, a high Australian dollar.

Environmental issues also pose a significant challenge for the nation, with the introduction of a price on carbon adding to cost pressures for businesses both directly and indirectly affected by the tax.

The ageing of the population also presents a major structural challenge for the Australian economy. Like other developed nations, Australia's population is ageing, to the extent that one in four people will be over the age of 65 by 2056. This demographic change will have significant implications for the labour force by reducing the number of people able to participate. At the same time, the Government's budget will come under pressure from the associated higher demand for services and lower tax take.

Boosting productivity will be critical to help our economy cope with these adjustments, by making businesses more competitive and mitigating the effects of an ageing population on the size of our workforce.

Measuring Productivity

There are a number of ways to measure productivity, by assessing the ratio of output produced to inputs used.

Single factor productivity measures, such as labour or capital productivity, measure the ratio of output to a single type of input.

Multifactor productivity, a more comprehensive measure, measures the ratio of output to more than one type of input. It is this measure which provides the more useful and accurate insight into trends in productivity across the economy. Multifactor productivity considers factors such as technological change, innovation, energy and materials.

Recent Trends

The ambitious reform agenda undertaken by successive Governments since the 1970s has provided the impetus for a period of remarkable growth and wealth creation, as a result of significant improvements in productivity.

In particular, the 1990s represented a period of substantial productivity gains. This was reflected in growth in real GDP per hour worked, which averaged 1.7 per cent during this decade, up from 1.2 per cent in the previous decade. Other measures of productivity also showed a substantial improvement over this period. Labour productivity averaged three per cent, compared to the previous decade average of 1.5 per cent. Multifactor productivity also surged during the 1990s, rising on average by 1.7 per cent per annum, compared to 0.4 per cent in the 10 years previously.

This period of rapid productivity improvements saw the Australian economy record strong rates of growth over this period, with GDP rising by 3.3 per cent per annum on average during the decade.

However, these productivity gains have slowed in recent times and on some measures Australia's productivity has actually gone backwards. Growth in real GDP per hour worked slowed to an annual average rate of just 0.6 per cent over the past five years, with a 1.1 per cent fall recorded in 2010-11. Similarly, labour productivity has averaged just 1.2 per cent over this period, with a 0.3 per cent fall in the past year. Multifactor productivity has recorded the weakest performance of all productivity indicators, falling on average by 2.7 per cent per annum over the five years to 2010-11.

While Australia is not the only advanced nation to record a productivity slowdown in recent years, our performance has lagged other countries in recent years. Australia's productivity performance has lagged other OECD nations (see Table 1). In addition, the 2012-13 *World Competitiveness Index*, which ranks productivity performance across 144 countries, shows Australia's ranking has slipped from 14th in 2005-06, to 20th place in 2012-13. The key factors weighing on Australia's performance compared to other countries included the rigidity of the labour market and bottlenecks in transport infrastructure.[2]

Table 1. Growth in multi-factor productivity, per cent

Country	1989-1998 Average	1999-2008 Average
Australia	1.51	0.46
New Zealand	0.71	0.51
Canada	0.39	0.52
Japan	1.21	1.27
United States	0.86	1.28
Sweden	0.82	1.35
Finland	2.22	1.92
Korea	3.60	3.51

Source: OECD

The slowdown in Australia's productivity performance has clearly been driven by several industries.

The weakest productivity performance over the past decade has been in the electricity, gas, water and waste services sector (utilities), where multifactor productivity has declined on average by 3.1 per cent per annum. While this sector only makes a relatively small contribution to the economy, it still has significant implications for productivity growth.

Mining was also responsible for the slump in overall productivity in recent years, with multifactor productivity falling on average by 2.7 per cent per annum.

Productivity also went backwards in manufacturing and information, media and telecommunications sectors (down 0.1 per cent).

The primary reasons for the decline in productivity growth in these industries is the time lag for new capital to come on stream, capital deepening to extract the same resources, increasing scarcity of the resources and the drought in the agricultural industry.[3]

Economic Reform in Australia

The Australian economy is widely recognised as one of the strongest and most resilient in the world and has benefitted significantly from greater exposure to market forces in recent years.

Prior to the 1970s, the Australian economy was domestically focused, with 'non-market' based policies ranging from protection from imports, central wage determination and State ownership of infrastructure. However, from 1965 the Vernon Committee brought to light the structural problems that such restrictions created, which prevented the Australian economy from benefitting from technological advancement and integration with the rest of the world.

As a result, an ambitious reform agenda was undertaken by successive Governments during the 1970s and 1980s, which included a range of structural changes to expose the economy to market forces including the dismantling and reduction of tariffs, deregulation of financial markets, the floating of the Australian dollar, privatising government enterprises and deregulating markets.

A range of empirical studies have demonstrated the positive impact these reforms had on productivity and in turn economic growth across Australia. For example, a study by the IMF found that trade liberalisation, labour market reform and increased competition lifted Australia's trend multifactor productivity growth in the 1990s by between 0.5 and 0.9 of a percentage point. Meanwhile, the Productivity Commission also reinforced the important role that the National Competition Policy reforms played in boosting productivity during this period.

While labour and multifactor productivity estimates aren't available at a State level, CCI has constructed its own estimates for Western Australia.[4] Overall, these estimates have found Western Australia's productivity trends have broadly matched those experienced nationally (Chart 2).

The 1990s also represented a period of strong productivity growth in WA. This was reflected in growth in real GDP per hour worked, which averaged 1.7 per cent during this decade, up from 1.2 per cent in the previous decade.

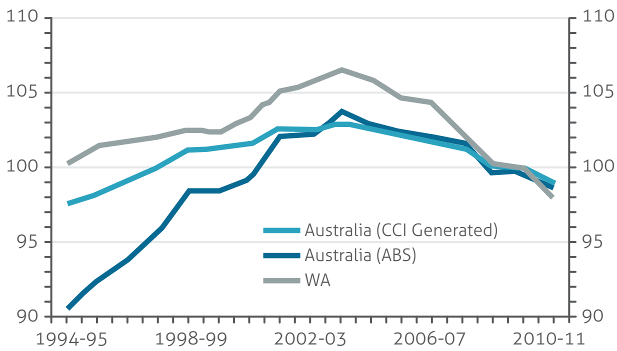
Western Australia's labour productivity performance has generally been stronger than for the nation as a whole, with growth averaging 2.2 per cent in the two decades to 2009-10, compared to 1.8 per cent for the nation as a whole.

However, labour productivity growth has slowed in recent years. Between 2002-03 and 2009-10, the State's productivity growth eased to 1.7 per cent per annum, although nationally growth slowed to just over one per cent per annum. In the period prior to this, labour productivity growth in both jurisdictions averaged 2.3 per cent.

Meanwhile, Western Australia's multifactor productivity performance has been worse than the national economy, with MFP declining by an average of 0.2 per cent per annum in the decade ending 2009-10, with the decline most acute towards the end of the decade. The more severe decline in WA's multifactor productivity over this period likely reflects the impact of strong capital accumulation in the mining sector, which is yet to translate to increased output.

Chart 2: Multifactor Productivity

WA & Australia, Index, 2009-10=100



Source: CCI Economics

WA's recent productivity performance: the business perspective

As part of the June quarter 2012 *Commonwealth Bank-CCI Survey of Business Expectations*, firms were asked about the productivity performance of their business over the past year and the factors that influenced this result.

Overall, the results showed that just over 35 per cent of respondents believed their productivity had increased over the past 12 months. Meanwhile, 30 per cent reported a fall.

Firms operating in the construction (40 per cent) and services (39 per cent) sectors were more likely to report increased productivity over the past 12 months, while medium size (37 per cent) also performed well on this measure. By contrast, large firms (36 per cent) and manufacturers (35 per cent) were the most likely to have reported a decline in productivity over the past 12 months.

Businesses were also asked to nominate which factors had influenced their productivity performance over the past year.

Of those firms that reported increased productivity over the past 12 months, 37 per cent indicated that the quality and skills of labour was a key driver. This could have taken the form of greater education and training, or simply a better utilisation of existing staff in their business. Labour quality was a particularly important productivity driver for small businesses (48 per cent) and manufacturing firms (55 per cent).

The next most significant driver of productivity improvement for businesses was staff turnover, with just under 30 per cent indicating addressing turnover rates helped to improve their productivity. Reducing staff turnover was most beneficial for medium sized firms (44 per cent) and the services industry (52 per cent and the top issue).

Labour shortages were also a significant driver of productivity for those businesses, with 27 per cent rating it as an issue. This would imply that businesses that addressed staffing concerns in their operations saw improved productivity. Both manufacturing (50 per cent) and mining (35 per cent) firms were more likely to report that addressing labour constraints improved their productivity.

Some 27 per cent of firms that reported productivity improvements cited the adaptation of new technologies as a key driver. The State's small business sector (39 per cent) and manufacturing firms (32 per cent) were the most likely to have used new systems and processes for productivity gains.

Meanwhile, the drivers of falling productivity were somewhat different. Of those 30 per cent of firms that reported a fall in their productivity over the past 12 months, some 46 per cent indicated their wage bill was a driver. In this case, it would appear that a high wage bill may limit a business' ability to reduce its cost per unit, expand its operations or invest in new technologies. High wage costs were of particular concern to small firms (63 per cent).

The impact of rising utility and fuel costs was also identified as an important driver of falling productivity in some businesses. Just under 37 per cent of firms in this group selected this as an issue, with small businesses (53 per cent) and construction companies (50 per cent) expressing most concern.

The same proportion of firms (37 per cent) identified Government regulation as a driver of falling productivity. Excessive red tape was of particular concern amongst medium sized firms (66 per cent and the top issue) and businesses operating interstate and overseas (62 per cent).

Reversing the Slump; the Reform Agenda

Productivity is ultimately driven by the private sector through the decisions made by thousands of individual organisations to introduce new products and processes, management practices and structures, work arrangements and technologies.

However, this does not mean that raising productivity is the sole responsibility of the business community. The Government has an important role to play in facilitating productivity improvements by ensuring that its policy settings allow the efficient allocation of resources and provide the private sector the flexibility to adapt their operations in line with changing business conditions.

Reversing Australia's declining productivity will require a new wave of economic reform to ensure a flexible operating environment for businesses. The reform agenda should also look to promote competition, which delivers productivity improvements by providing businesses with the incentive to improve the quality, quantity and efficiency of their operations, in order to maximise profit. However, this will require a genuine commitment from the State and Federal Government to collectively and cooperatively consider this agenda.

As well as ensuring a policy environment that facilitates productivity improvements, there is also a role for Government to directly invest in productivity enhancing infrastructure and education and training.

The following sections set out the reform priorities that the Government should focus on to lift Australia and Western Australia's productivity.

Reversing Australia's declining productivity will require a new wave of economic reform to ensure a flexible operating environment for businesses.

Reducing regulation and red tape

While regulation can help Government achieve its economic, social and environmental objectives, excessive regulation can have a negative effect on productivity by diverting resources away from their most efficient use, hampering businesses' ability to adapt to changing economic conditions and producing disincentives to investment and innovation.

Reducing the red tape burden on business must be part of any strategy to improve the nation's productivity. The role of regulatory reform in driving productivity was recognised in the 2010 OECD *Review of Regulatory Reform*. The report noted that there is significant research which demonstrates that regulatory environments that encourage competition have a positive impact on economy-wide productivity in OECD countries.[5]

Governments at both a State and Commonwealth level must ensure that the regulatory framework is not overly onerous and does not distort competition and innovation. As well as reviewing current regulations, it is also important that any new regulations are appropriately assessed to ensure they do not hamper business flexibility and responsiveness.

There are a range of mechanisms in place to identify areas of regulatory burden. This has been evidenced by the numerous studies and programs at both a Commonwealth and State level over the years, identifying areas of excessive regulatory burden on businesses and setting out areas for reform.

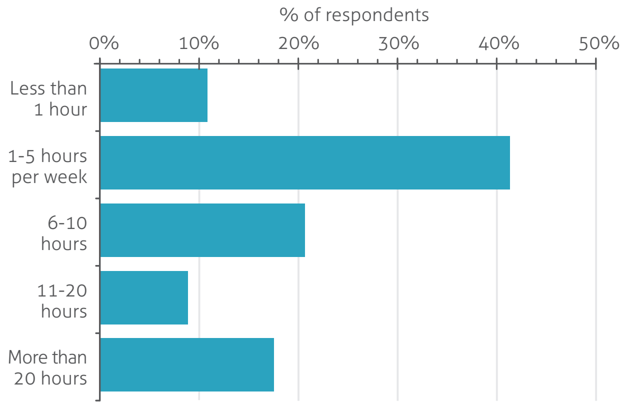
The Productivity Commission's 2011 *Annual Review of Regulatory Burdens* revealed that, while the Commonwealth Government does have appropriate measures in place to identify areas of cumbersome or ineffective regulation, there is room to improve these structures. In particular, the areas identified for improvement include prioritising and sequencing reviews and reforms, providing more information on reform progress, providing information in advance to improve consultations, incentives and mechanisms for good practice by regulators and building up skills within Government in evaluation and review.

A further issue is that there is no mechanism to ensure the recommendations of these reviews are actually acted upon. As a result, implementation of these programs has been slow or nonexistent, with businesses still reporting that regulation and red tape remains a burden. The 2011 *CCI-WA Business News Cost of Doing Business Survey* showed that nearly two thirds of respondents found that regulatory compliance costs had increased over the past five years, with a similar proportion stating that these increased costs are having a tangible negative effect on their bottom line over the same time period.

More recently, the ACCI *National Red Tape Survey* found that over the last two years, compliance times for Government regulation had increased for almost 80 per cent of businesses, with most of them (47 per cent) having to spend between one and five hours per week complying with regulation requirements. Close to one in five are reported to spend more than 20 hours per week (Chart 3).

Chart 3: Compliance Costs

Time taken to comply with regulations.



Source: ACCI National Red Tape Survey

Furthermore, 81 per cent of businesses said that the overall cost of complying with regulation had increased in the last two years, with 31 per cent saying that their overall cost of compliance was between $10,000 and $50,000. Almost 36 per cent of respondents said the largest cost factor was implementing different regulations and practicing them within the businesses. Almost 40 per cent of businesses felt that regulatory requirements impeded on their ability to grow their business.

There are a number of programs currently underway to reduce the regulatory burden. Under the COAG National Partnership Agreement to Deliver a Seamless National Economy, the Commonwealth and States and Territories committed to progress 36 reforms to reduce the regulatory burden, improve competition and enhance the processes for creating and reviewing regulations. However, with three months until the deadline, the COAG Reform Council has identified 12 areas for reform that may not be completed in time including the harmonisation of occupational health and safety laws, a national trade licensing system, improved regulation of chemicals and plastics, a nationally consistent approach to personal criminal liability for company directors, national regulation of the legal profession and energy reforms.

There have recently been attempts to reinvigorate this agenda. The inaugural COAG Business Advisory Forum brought together business leaders, industry groups and Government to discuss ways to cut regulation and improve competition as part of an agenda to boost the nation's productivity. From this meeting COAG agreed to progress a number of reform areas including:

- *national environmental reform* including streamlining environmental approvals and assessments and removing jurisdictional overlap;
- *major development project approvals* including benchmarking Australia's major project development assessment processes against international best practice and examining reforms that could be undertaken at the State and Territory level to improve the approval process for major projects;
- *rationalisation of climate change mitigation programs* including fast tracking the completion of a review aimed at identifying unnecessary carbon reduction and energy efficiency programs and removing those which are not complementary to the carbon tax;
- *further energy market reform* including bringing forward State based reviews of competition in retail electricity and gas markets;
- *development assessments* and continuing to progress reforms in this area; and
- *best practice approaches to risk based regulation* to be informed by work currently being undertaken by the Productivity Commission on the Regulatory Impact Assessment arrangements.

While the agreement to progress these reforms is a step in the right direction, the Commonwealth and State Governments must now ensure these reforms are implemented in a timely manner.

At a State level, the WA Government also has its own agenda for reducing the regulatory burden as set out by the Red Tape Reduction Group report in 2010. This report identified red tape reforms which had the potential to deliver an estimated $44 million in savings to WA businesses in a single year; however, the majority of these recommendations still remain untouched.

CCI believes that a key reason that momentum for regulatory reform in WA has been lost is that responsibility for this area is spread across different agencies and bodies within the State Government. CCI believes a concerted and structured effort to reduce red tape is needed. In addition to establishing an independent red tape reduction agency, State Parliament should dedicate one day each year to removing unnecessary red tape and making current regulations more efficient.

Approvals are also a priority reform area to be addressed by the WA Government, in addition to work being done by COAG to reduce jurisdictional overlap. The Government has recently made much needed improvements to approvals processes, through the establishment of the lead agency framework, Development Assessment Panels and the revised offsets policy. The ongoing development and improvement of the online Environmental Assessment and Regulatory System (EARS), has also been received positively by industry and should be used as the basis for a whole of Government online system for approvals.

Meanwhile, with the introduction of the price on carbon emissions at a Federal level, the State and Federal Governments must remove existing climate change measures which add unnecessarily to the costs of meeting climate change targets and reduce the options available to business. Measures including the renewable energy target, environmental approval conditions and energy efficiency schemes achieve no additional environmental gain and add to the costs of climate change mitigation. They should be removed, freeing business to respond to market signals.

Reform priorities

- COAG's agreement to progress the regulatory reforms identified by the Business Advisory Group is a positive step. However, the Commonwealth and State Governments must now ensure these reforms are implemented in a timely manner. The Commonwealth and State Governments should articulate a timeframe for implementing the six priority areas for regulatory reform and ensure that it is adhered to.
- A 'productivity payments scheme' should be introduced, as outlined by the Business Council of Australia's discussion paper presented at the COAG Business Advisory Forum. This should be designed on the basis of the National Competition Payments and be used to reward States for delivering future productivity enhancing microeconomic reforms.
- To ensure an efficient, timely and coordinated approach to regulatory reform, all responsibility for regulatory reform matters in WA should be transferred to a centralised, sufficiently resourced independent agency, group or taskforce, which has the necessary powers to carry out its responsibilities.
- A key priority for this agency should be to map out the various regulatory reform agendas at both a State and national level that need to be coordinated. In particular, there should be a focus on completing the COAG National Reform Agenda for a Seamless National Economy (see above).
- The WA Government should implement the remaining recommendations of the Red Tape Reduction Group as a priority including:
  - the introduction of whole of Government initiatives to reduce the amount of duplication of information required by Government agencies;
  - introducing State and individual agency targets to reduce the existing regulatory burden in WA;
  - introducing agency plans to simplify and modernise existing regulations and processes;
  - introducing Chief Executive Officer accountability for regulatory reform through conditions introduced to their performance contracts; and
  - introducing a mandatory review or repeal clause for all new acts and regulations.
- State Parliament should dedicate one day each year to removing unnecessary red tape and improving the red tape that needs to stay.
- The WA Government should fully implement the recommendations of the Industry Working Group report *Review of Approval Processes in Western Australia.* The Government should prioritise Phase 2 reforms, particularly the establishment of a single decision-making authority on approvals, and ensure approval agencies are adequately staffed and resourced with the necessary tools and procedures to deliver a consistent and timely service.
- The State and Federal Governments should remove all non-complimentary climate change measures, such as the renewable energy target, in order to ease the burden on business and allow it to respond to market signals created by the carbon price.

A flexible and modern industrial relations system

The industrial relations system is a key factor affecting productivity, insofar as it affects the ability of businesses toeffectively respond to changing economic conditions.

Australia needs an industrial relations system that supports a responsive labour market in the modern globalised economy and focuses on engagement between employers and their employees based on free enterprise principles, economic sustainability and mutual responsibility.

The industrial relations system should allow and facilitate flexibility in employment arrangements while ensuring that all participants are treated fairly. It should also encourage changes in the structure of industries in order to capitalise on opportunities created by new markets, process and technology.

At present, Australia's industrial relations system is too prescriptive, which compromises economic growth and inhibits productivity gains. The current centralised and highly regulated system is designed around a culture of conflict and adversarial behaviour and, as a result, efforts to foster enterprise based productivity and innovation have been hampered. At the same time, the system's lack of flexibility has limited the ability of business to adapt to changing circumstances.

The impact of the industrial relations system on Australia's productivity has been reflected in the 2012-13 *World Competitiveness Index*. The report shows that Australia ranks poorly in relation to labour market efficiency, with the nation's rating slipping to 42 in the world from 13 the previous year. In particular, Australia was ranked 123 out of 144 countries in relation to flexibility of wage determination and 120 in relation to 'hiring and firing' practices. This rates alongside less developed nations such as Gabon, Nepal and Ecuador.

By re-regulating the labour market, the current Fair Work laws impose interference in enterprises replacing one complex, comprehensive and detailed prescriptive regulatory framework with another. Award modernisation consolidated and amalgamated old Federal and State Awards but did not align conditions with modern enterprises. Restrictive 'modern' awards, together with an increased safety net of national standards, creates a disincentive for enterprise bargaining.

Compulsory arbitration through workplace determinations forces outcomes that go beyond minimum standards. Not only is the employer's right to make its own decisions removed, but the requirement to pay higher rates with no right to introduce flexibilities to offset higher costs imposes restrictions that impact levels of service.

The new bargaining rules, that allow unions to include matters that are not directly relevant to employment conditions but are designed to increase a union's influence, have increased the incidence of costly industrial action. The agreement approval process has resulted in significant delays to implementation of wage increases under agreements and created uncertainty for employers and employees. Unions have been given increased power and unprecedented access to work sites even where there are no union members resulting in interference and disruption to business.

While it is early days to assess the medium to longer term effects of the Fair Work legislation beyond the transitional complexities, the business community has expressed a number of concerns.

Industrial relations reform will be an important part of promoting economic prosperity and driving productivity in the private sector.

Changes to the State industrial relations system could also help to improve productivity across the country. There should be a referral of private sector industrial relations powers to the Federal Government to achieve a single national system covering all employers and employees, removing costly duplication and confusion, especially for small business.

The *Public and Bank Holiday Act 1972* should also be amended. Currently businesses that operate seven days a week are required to pay public holiday penalties on two days (rather than one) where a public holiday falls on a weekend. This results in additional costs to business. By amending the legislation to provide for the substitution of a public holiday where it falls on a weekend, rather than an additional day, this unintended consequence and unnecessary cost to business can be rectified.

Industrial relations reform will be an important part of promoting economic prosperity and driving productivity in the private sector.

There is also significant concern in WA about the potential impact of significantly reduced powers and penalties for unlawful behaviour in the building and construction industry, following the abolition of the Australian Building and Construction Commissioner (ABCC).

Based on past history, there is a strong likelihood that unlawful behaviour will again become endemic which would result in a significant level of disruption to business caused by illegal industrial activity. In the absence of a return of the ABCC, a code of conduct for the building industry would clarify what constitutes acceptable workplace practices on construction sites as a contractual condition for public infrastructure projects, with a strong inspectorate established to enforce these obligations.

Reform priorities

- Industrial relations reform is needed that builds on the Fair Work legislation, but incrementally shifts the focus from conflict to collaboration - 'one size fits all' to an individual workplace/enterprise focus, process to productivity, innovation and flexibility and prescriptive rules to a balance between employer and employee rights and responsibilities. Key elements of the reform agenda are:
  - rationalising 122 modern awards to 20 industry awards and simplifying award conditions over a two to three year period;
  - availability of a range of agreements negotiated at the enterprise level, all subject to a better-off-overall test to provide protections;
  - a bargaining system focused on outcomes not process with agreements approved once they are agreed by a majority of employees;
  - employees are able to choose who to represent them;
  - employers and employees are able to tailor the national employment standards to suit their circumstances subject to safeguards;
  - industrial action would remain lawful if taken in relation to agreement bargaining;
  - responsibility would be placed on employers and employees at the workplace level to resolve disputes rather than through determination by a centralised tribunal;
  - compulsory conciliation would follow protracted lawful industrial action. Consent arbitration would be available if requested by all parties if compulsory conciliation fails;
  - a union's entry to a workplace would be subject to the union being covered by an agreement related to the site or enterprise; and
  - a simpler unfair dismissal process is included where employees claims are resolved through an inquisitorial process that tests merit, not an adversarial court like approach that is prone to commercial settlements. Employees with more than 12 months service would be able to make a claim.
- The WA Government should refer its industrial relations powers to the Federal Government to achieve a single national system covering all employers and employees and remove costly duplication and confusion, especially for small business.
- The *Public and Bank Holiday Act 1972* should also be amended to provide for the substitution of a public holiday where it falls on a weekend, rather than an additional day.
- A code of conduct for the building industry is needed to clarify what constitutes acceptable workplace practices on construction sites.

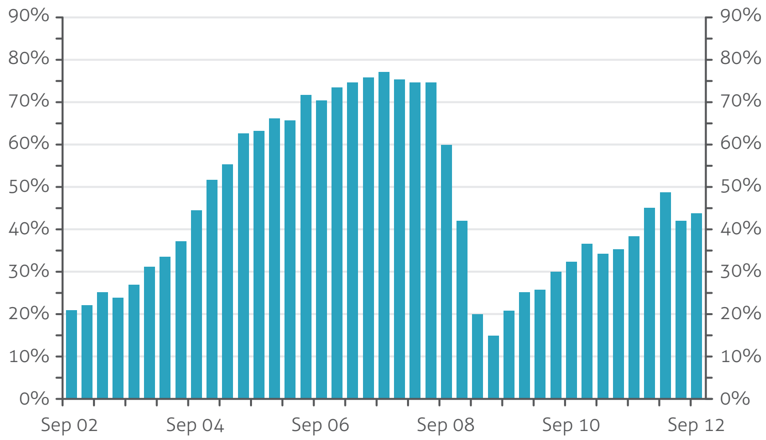
Addressing labour shortages

A flexible and responsive labour market is an important aspect of boosting productivity. The strong economic growth in Western Australia recorded since the beginning of the decade has seen the unemployment rate drop to historically low levels and the available pool of labour dry up. As a result, labour shortages have emerged as a key issue facing businesses, particularly in WA.

Labour shortages can have a substantial impact on productivity, as businesses cannot expand production to meet demand which can lead to broad wage and price pressures, increased staff turnover and job vacancies - all of which affect productivity. Addressing labour shortages is therefore a critical aspect of boosting the nation's productivity.

The extent of WA's labour force challenges has been illustrated in recent times. In the years before the global financial crisis hit, labour shortages emerged as the most significant challenge for the State, with around three quarters of businesses finding labour difficult to source (Chart 4). These constraints were not limited to the mining sector, but widespread across all industry sectors, regions and business sizes. Labour shortages remain a key issue for business and are expected to become even more acute in coming years in line with the State's expected strong growth profile.

Chart 4: CBA - CCI Survey of Business Expectations, % "Scarce"



Participation

A key strategy to increase the size of the labour force is through strategies to raise workforce participation among underrepresented groups including people with a disability, mature aged workers, Indigenous Australians and women.

Business should be provided with information and advice on how to introduce flexible work options to encourage greater participation of people from diversity groups in the workforce. A range of strategies and incentives can be implemented by Government and employers to improve participation rates of people from diversity groups.

Estimates show that Australia could increase its GDP by 13 per cent or $180 billion if it closed the gap between male and female participation rates.[6] Changes to child care such as improved availability, extended hours of operation and increased places and introducing the capacity to salary sacrifice as a legitimate work expense (similar to a motor vehicle or superannuation contributions) would assist women to return to the workforce.

The 2010 *Intergenerational Report* estimates that the number of people in Australian aged from 65 to 84 will more than double over the next 40 years, with the number of people 85 and older set to quadruple. Providing additional support options such as flexible work options, phased retirement and restructure of heavy duties to mature age employees are strategies than can be implemented to improve attraction and retention rates.

There are currently over 800,000 Australians on the Disability Support Pension (DSP) with only 8.5 per cent of those reporting earning outside the DSP.[7] More effective services are needed to support people to transition from education and training to employment and assist those on the pension to participate in the workforce.

In 2010, the numbers of working aged Aboriginal people estimated to be in the workforce aged 15 years and over were 166,100, representing 46 per cent of the Aboriginal population working age.[8] Boosting the overall levels of educational attainment amongst Aboriginal people will improve participation levels in the workforce.

Informing employers on the potential labour pools that can be tapped into is an important measure. Provision of advice and support on adjusting workplaces and practices to attract and retain workers from diversity groups will be necessary to ensure participation rates are increased across the economy.

Migration

In addition to improving participation rates of Western Australians, migration is an important strategy to grow the size of the labour force.

The role of migration in boosting productivity is complex as it can be affected by a range of factors. While the labour market does adjust to correct imbalances between labour supply and demand, this process takes some time. As a result, migration helps ensure that labour supply can be responsive to the demand for workers and in turn boosts productivity in the short term.

In addition, migrants can also contribute to productivity growth over the longer term, by facilitating the transfer of knowledge and innovation from overseas (see Innovation section) or raising the overall education level of the workforce (see Education and Training section).

In 2006, the Productivity Commission undertook a detailed research paper investigating the economic impacts of migration including a simulation of an increase in the number of skilled migrants. The overall effect of this change was modelled, weighing up a range of factors related to skilled migration which have either a positive or negative impact on the economy and productivity.

The negative factors considered included the foreign ownership of capital, terms of trade, capital dilution and changes in sectoral composition. These were offset against increases in the labour supply, skill composition and prices.[9] The results showed that additional skilled immigration will, all other things being equal, improve productivity. The research showed that a 50 per cent increase in skilled migration (from 2004-05 levels) will deliver a 0.27 percentage point increase in labour productivity, measured by GDP per hour worked, by 2024-25.[10]

Overseas migration has traditionally been the largest source of population growth in WA. In 2011, net overseas migration (the net gain or loss of population through immigration into Australia and emigration from Australia) accounted for 58.3 per cent (39,306) of total population growth in Western Australia.

By contrast, interstate migration is the smallest source of population growth accounting for just 13 per cent of total population growth. In 2011, this only accounted for a net gain of 8,500 people, although this is the highest number on record. It is expected as the structure of the Australian economy continues to change, this phenomenon will continue and will provide a valuable pool of future labour. It is therefore important to promote Western Australia as a place to live and work to attract greater numbers of people to the State.

Temporary overseas migration is a more targeted solution to addressing skills shortage areas. Over the year to June 2012, the number of 457 visa applications granted in WA by the Department of Immigration and Citizenship grew by 75 per cent to 16,290 - the highest number on record (going back to 2006-07). The vast majority (92 per cent) of these were granted for managerial, professional or technical occupations and just under half of the applications were for work in the mining and construction sectors.

While migration is an important way to address labour shortages and boost productivity, there are some issues with the current system which limit its effectiveness.

There have been numerous changes to the migration program to simplify the system. Notably the most recent changes on 1 July 2012 have led to a simplification of the visa processing system for both employers and potential migrants. While CCI recognises that many of the changes that have been made are designed to make it easier for employers and potential migrants to navigate, constant changes are causing confusion for employers. The Federal Government needs to invest in providing current and relevant information to assist businesses to understand how to effectively access and use the skilled migration program to meet labour and skills needs that cannot be sourced locally.

The recent change to combine all existing skilled migration lists into one consolidated list is a positive step. This reduces some of the duplication and confusion that occurs when consulting with industry, as well as simplifying the system for employers. However, given the widespread skill shortages occurring in Western Australia, the list of occupations able to be sourced through temporary subclass 457 visas should be expanded to occupations such as scaffolders, riggers, cryogenic laggers, drillers and belt splicers. These occupations are continuously sought through labour agreements by employers. This will provide greater flexibility for employers to meet their unique workforce needs, particularly within the resources sector.

To source lower skilled labour to fill positions that cannot be filled through local workers, the Federal Government has established a range of project, region and industry specific types of labour agreements including standard Labour Agreements, Regional Migration Agreements for set regional areas, Enterprise Migration Agreements for major resource projects and Template Labour Agreements for specific industries. However, while it is encouraging that the Government is developing options for industry to access workers, the design of these instruments and the rate of implementation of the newer initiatives are limiting take up by employers, regions and projects.

CCI has received feedback from industry that labour agreements are overly complex, timely and costly to establish. As a result, employers tend to be reluctant to use Labour Agreements unless a large number of workers are required. The length of time required to negotiate the conditions of an Agreement, along with obtaining Ministerial sign off, often does not allow project timelines to be met.

Regional Migration Agreements (RMA) are a type of labour agreement intended to be established between the Australian Government and a State or Territory Government, local council or industry association to allow employers in certain regional areas. RMAs were designed to replace the need for the regional concession component of the temporary 457 visa program, which allowed additional occupations and a lower English language test score to be met, to attract overseas workers to regional areas. However, while 457 regional concessions were removed in 2009, a clear set of guidelines outlining requirements of proponents to enter into an RMA arrangement have yet to be released.

Given that the RMA initiative is proving to be difficult to establish, CCI would like to see the Federal Government re-introduce a regional 457 visa concession instead. This will provide businesses with a flexible approach to recruit overseas workers to regional areas.

Enterprise Migration Agreements (EMAs) are negotiated with either the project owner or prime contractor of a major resources project and acts as an umbrella migration arrangement for the project. The conditions that allow a project proponent to qualify to enter into an EMA are onerous and exclude many large projects. EMAs are available to resource projects with capital expenditure of more than two billion dollars and with a peak workforce of more than 1,500 workers. To date, only one EMA has been established in Australia.

Template Labour Agreements are designed to meet the semi-skilled needs of employers in particular industries. The Agreements allow employers to streamline the process of setting up a Labour Agreement by utilising an agreed set of terms and conditions of a pre-determined Labour Agreement suitable to the industry. There are currently templates designed for the fisheries industry, on-hire and fast food businesses. The Federal Government is currently in the process of designing a Template Labour Agreement for the tourism sector. The Government should consider designing templates for other industry sectors such as transport, aged care and other associated health services to improve industry access to semi-skilled occupations that do not appear on the Consolidated Skilled Occupations List.

Migration helps ensure that labour supply can be responsive to the demand for workers and in turn boosts productivity in the short term.

The increasingly difficult English language levels required to gain access to visas is also a barrier to recruiting overseas workers. The recently announced changes to the International English Language Testing System (IELTS) will make it more difficult to access skilled workers from overseas. To qualify for a temporary 457 visa, skilled migrants must meet a level of 5 in each component of IELTS. Anecdotal evidence suggests that many skilled migrants, particularly those with trade qualifications such as chefs, often meet the reading and oral parts of the IELTS test, but fall short in the writing component. CCI believes that an average of five across the components of the test should be sufficient for many skilled migrants to function adequately in an Australian workplace.

Skilled migrants and their partners and dependent, require early and effective services in order to lessen the burden on communities and workplaces. As it currently stands, migrants entering Australia through permanent residency or humanitarian streams receive the same benefits and support as any Australian citizen is provided. The large numbers of skilled migrants coming to Australia through temporary migration streams, such as those on 457 visas, are not provided with any Government assistance. While some employers provide exemplary settlement support to their temporary workers, many employers are unaware of appropriate support that they are able to provide to improve their workers adjustment to the Australian way of life. It is imperative that employers are educated on how to assist temporary workers to cope with Australian life and culture during their employment term.

The Working Holiday Maker program provides an additional pool of workers. As at 31 December 2011, there were 130,612 Working Holiday visa holders in Australia (combined first and second visas). This is a 14.5 per cent increase over the number of Working Holiday visa holders in Australia at 31 December 2010.11 However, the nature of the visa conditions means employers inevitably lose workers after the six months investment in the provision of training and experience. Employers should be provided with greater flexibility to retain good workers by being able to offer employment options beyond the current six month limit.

The Federal Government also needs to ensure businesses are aware of the Graduate Visa option for skilled international students who have received training and education within the Australian higher education system. The 485 Skilled Graduate visa allows overseas students to remain in Australia for 18 months to complete a post-graduate year, gain skilled work experience in their chosen field or improve their English language skills after completion of their course of study. This additional time in Australia allows skilled graduates with an Australian education to gain experience in their field of study, which provides them with additional points when seeking to transition into permanent residency.

The number of Skilled Graduate visas granted in Australia increased from 18,906 in 2010-11 to 35,800 for 2011-12 (or 89.4 per cent) to make up 25.8 per cent of all visas granted to student visa holders post study. Figures are yet to be released on the number of students on 485 skilled graduate visas that transition to permanent residency, however, anecdotal evidence suggests that both employers and students are unclear on how to benefit from this 18 month extension. CCI is aware that many students take up employment not related to their chosen field of study within the 18 month period. No additional points can be allocated when applying for permanent residency if this occurs.

Reform priorities

- Information provision, advice and support are needed to encourage employers to improve hiring and workplace practices to increase participation of people in diversity groups, which are underrepresented in the labour force. Refer to the Tax Reform section for further recommendations on improving participation rates through tax measures.
- The Federal Government should implement a more active approach to labour mobility from the Eastern States to promote Western Australia as a place to live and work, including consideration for regional concessions for employees or tax incentives for employers to support the growth areas of the economy.
- The Federal Government needs to design and deliver a broad reaching information campaign on the current migration system on how employers, particularly small to medium enterprises, can access labour and skills effectively and efficiently. The constant change in policy and negative rhetoric from political agenda harms the capacity of Australian business to attract skilled workers from the international pool.
- The process to establish any of the labour agreement instruments available, whether it be Labour Agreements, Enterprise Migration Agreements, Regional Migration Agreements or Template Labour Agreements, needs to be clarified and simplified to increase uptake by employers.
  - project values and workforce size thresholds for Enterprise Migration Agreements should be lowered, to allow smaller major projects access to the migration instrument;
  - a clear set of guidelines outlining requirements of proponents is needed for Regional Migration Agreements; and
  - the Government should work closely with industries experiencing severe semi-skilled labour shortages, such as the aged care sector and other associated health services to develop template labour agreements.
- The Government should reintroduce regional concessions for the 457 visa program to allow regional employers an additional incentive to attract and retain workers in regional areas.
- The State Government needs to improve the information provision to employers to improve the level of support provided to temporary migrants on arrival in Western Australia. Providing information on how to access services to improve settlement in WA, particularly regional WA, will increase the productivity of migrants and their dependents to contribute to the WA economy.
- An average score of five across the IELTS components should be made the minimum qualifying rate when determining suitable language skills for entry.
- Options of extended periods of employment to Working Holiday Maker visa holders should be able to be offered to those working in skill shortage areas, particularly to those visa holders working in regional Australia.
- The Government needs to ensure employers are aware of the opportunity to offer international student graduates an 18 month extension on their stay, through the Skilled Graduates visa, to gain an Australian employment experience.

Tax Reform

While tax is a necessary part of an economy to fund the provision of essential Government services, it can also impact on a nation's productivity.

The tax system influences economic decisions and can prevent resources from being allocated to their most productive use. For example, the tax system is an important consideration for businesses and individuals deciding where to invest and the types of assets to purchase, or whether to participate in the workforce.

Despite recent efforts by the Federal Government, there remains considerable scope to strengthen and streamline the tax system, which will in turn facilitate productivity improvements. Reform is needed to ensure the tax system has a minimal impact on businesses and individuals, promotes competition, and encourages employment, investment, and economic growth.

The Government has yet to articulate the ambitious reform agenda that is needed to strengthen and streamline the tax system and help deliver productivity improvements. While the *Review of Australia's Tax and Transfer System* in 2008 (the Henry Tax Review) set out a long term and comprehensive vision for the nation's tax system, the Government has only committed to a handful of the Review's 138 recommendations to date. The subsequent Tax Forum, which was held in 2011 to discuss and debate the recommendations of the Henry Review, also failed to deliver reform of the scope needed to strengthen and streamline the State's tax system.

More recently, the Government reneged on its commitment to cut the company tax rate by one per cent, instead introducing a small business loss carry back scheme, which will see businesses with up to $1 million in turnover allowed to carry back tax losses of up to $1 million against tax paid in the previous year.

However, the option for a company tax cut is still being investigated by the Business Tax Working Group. While this is a positive step, it is disappointing that it will be contingent upon finding savings within the existing business tax system to offset this reduction. The Business Tax Working Group's discussion paper has highlighted depreciation allowances, exploration allowances and research and development tax breaks as possible savings options. CCI is concerned that businesses would be forced to give up important tax arrangements which are beneficial across many sectors to fund the company tax cut. Instead, the reduction in the company tax rate should be funded by a reduction in Government spending.

The issue of tax reform must remain on the agenda as part of a broader effort to improve the nation's productivity. Such an ambitious reform agenda should not be constrained by the need to be revenue neutral and will require all taxes to be considered.

The key tax reform priority over the longer term is to address the imbalance between the revenue raising capacity and spending responsibilities for the States. Until this is addressed, the ability to reform the most inefficient and burdensome taxes is limited. The ability to achieve the scope of taxation reform needed is dependent upon considering the Commonwealth and State tax system as one regime and will involve fundamental change to the tax mix - either by abolishing the most distortionary taxes altogether, or replacing them with more efficient taxes.

Table 2. Corporate Tax Rates

Country	1989-90 Corporate Tax Rate	2009-10 Corporate Tax Rate	2009-10 Ranking (Change)
Australia	39.0%	30.0%	15 (-6)
Austria	30.0%	25.0%	5 (-4)
Belgium	41.0%	34.0%	20 (-7)
Canada	41.5%	29.5%	14 (0)
Denmark	40.0%	25.0%	5 (+5)
Finland	44.5%	26.0%	8 (+9)
France	42.0%	34.4%	21 (-6)
Germany	54.5%	30.2%	19 (+4)
Greece	46.0%	24.0%	4 (+14)
Hungary	40.0%	19.0%	2 (+8)
Ireland	43.0%	12.5%	1 (+15)
Italy	46.4%	27.5%	11 (+8)
Japan	50.0%	39.5%	23 (-3)
Mexico	36.0%	30.0%	15 (-8)
Netherlands	35.0%	25.5%	7 (-2)
New Zealand	33.0%	30.0%	15 (-12)
Norway	50.8%	28.0%	12 (+9)
Portugal	40.2%	26.5%	10 (+2)
Spain	35.0%	30.0%	15 (-10)
Sweden	53.0%	26.3%	9 (+13)
Switzerland	30.6%	21.2%	3 (-1)
United Kingdom	34.0%	28.0%	12 (-8)
United States	38.7%	39.2%	22 (-14)

Source: OECD

However, addressing these imbalances will require major systemic overhaul, which will take some time if it is to be well planned and provide taxpayers with sufficient support and assistance throughout the transition process.

In the meantime, there are a range of reforms that could be implemented immediately which will improve the operation of the tax system and facilitate improvements in productivity. Many of these reforms at both a Commonwealth and State level involve streamlining the tax system, by simplifying tax scales and thresholds, and indexing thresholds to a reasonable measure of price change to address bracket creep.

A key focus in the short term should be to reduce the high level of complexity of the tax system and improve its efficiency and transparency. Reducing the complexity of the tax system is an important way to improve productivity at the business level, particularly in the current environment of rising business costs.

While Australia is a relatively low taxing country by OECD standards, the system is highly complex. International comparisons show that Australia was ranked the third worst out of the 20 largest economies in the world in terms of the volume of tax legislation, according to a 2007 study by the Joint Committee of Public Accounts and Audit.

As well as reducing the complexity of the tax system, reform is also needed to encourage investment. Although Australia has historically attracted high levels of capital, these levels of investment are not guaranteed over the longer term. Given that many countries have been cutting tax rates on capital and business in recent years, Australia's tax system needs to be further reformed to ensure the nation remains an attractive place to invest and do business (Table 2). The ability to attract foreign investment is particularly important to support economic growth given the nation's traditionally low savings rate, as well as the productivity enhancing technology, expertise and market links that this also brings.

Changes should also be made to the tax system to encourage workforce participation, improve labour mobility between States and ensure that Australia can attract and retain workers from overseas (see Labour Shortages section).

Reform priorities

- The States must be provided with access to a sustainable source of revenue which will allow the most inefficient and distortionary taxes to be abolished. Given that consumption is one of the most efficient tax bases and provides a stable source of revenue, broadening the base and increasing the rate of GST should be considered. However, this would also require reform to the current methodology by which GST is allocated to the States, given the unsustainable decline in WA's share in recent years. Providing the States access to the income tax base will also help alleviate revenue pressures and is a priority area for reform.
- Inefficient taxes, including payroll tax and duties, should be abolished once the States have access to a more sustainable revenue stream.
- In the absence of a broader reform agenda, the WA Government should provide permanent payroll tax relief. The payroll tax rate should be cut by at least 0.5 per cent to align with the average of other States and the exemption threshold raised to $1.5 million so that genuine small businesses employing up to 20 full time workers are on average exempt from payroll tax.
- The WA Government should also adjust transfer duty scales to take into account the property boom that occurred in 2001 and index the thresholds to prevent further bracket creep. The multitude of rates and scales that apply to different classes of motor vehicles for vehicle duty should be replaced with a flat tax regime for all classes of motor vehicles.
- Reducing the complexity and compliance costs of the tax system should be a central part of any tax reform agenda. The Government should implement the Henry Review's recommendations aimed at making the tax system more responsive and accountable. New tax legislation must be carefully assessed, with necessary cost/benefit analysis undertaken to determine the net social impact of taxation changes for their compliance impact.
- The Government should impose a fiscal rule to maintain the company tax rate below the OECD average to improve Australia's international competitiveness and ability to attract investment from overseas.
- Any reduction in the company tax rate should be funded through cuts to Government spending, rather than through savings within the existing business tax system which will remove or reduce important tax incentives such as depreciation allowances, exploration allowances, and research and development tax breaks.
- Reform to Capital Gains Tax (CGT) is needed to ensure that Australia can continue to attract investment. The tax rates for CGT should be reduced, with one option to introduce a stepped rate, which will see the proportion of capital gains that is taxed diminish over time.
- Changes should be made to the personal income tax system to encourage workforce participation and ensure that Australia can attract and retain workers. In particular, the top marginal tax rate should be cut to equal the company tax rate, adjustments should be made to reduce the number of thresholds and these should be indexed to wages growth.
- The personal tax system should be used to encourage greater labour mobility between States and further work is needed to determine the best approach. One option may be to increase the value of the zone rebate, ensure that it is representative of average wages, and index this rate to ensure that its value is preserved over time. Establishing special economic zones with preferential tax treatment may be another option.

Investing in education and training

Education and training plays an important role in encouraging a more productive workforce and driving economic growth. Not only are more skilled workers potentially more productive in their own right, but a highly skilled workforce is likely to impact significantly on the effectiveness of capital investment and the ability of workplaces to embrace innovative work practices and technological advances.

The relationship between educational outcomes and productivity was reinforced by a recent study by the Productivity Commission, which shows that increasing levels of education are likely to lead to increases in individuals' labour productivity and earning potential.

While it is difficult to measure educational quality, the level of educational attainment can generally be used as a proxy. Empirical evidence suggests that a rise in one year in the average educational attainment of the workforce leads to an eight per cent increase in labour productivity.[12]

Historically, Australia has had a relatively low level of educational attainment compared with other industrialised countries even though Australian school expenditure has considerably been increased. According to OECD data, between 2000 and 2009 real expenditure on education in Australia has increased by 44 per cent. Despite this increase, Australia recorded a statistically significant decrease in Programme for International School Assessment (PISA) reading scores from 2000 to 2009.[13]

Governments and the business community have an important role to invest in a robust and efficient education and training system that will improve educational attainment and deliver productivity improvements over the longer term.

CCI released an extensive discussion paper on education reform in 2009, *Building a Better Tomorrow: Education Reform in WA*, which explored the critical need to ensure all student groups are productively engaged in education for the benefit of the individual and long term advantage of the State. Successful reform within the WA education sector does not necessarily need to be driven by spending more money, but ensuring that enhanced educational outcomes are delivered.

In recent years, many OECD countries have increased education expenditure, often with little improvement in results. Australia has significantly increased overall levels of funding in the education sector yet student performance has fallen.[14]

Learning from high performing nations will be key to improving WA's education and training system. The latest OECD results show that the world's top performing school systems are Hong Kong, Korea, Singapore and Shanghai. In Shanghai, the average 15 year old mathematics student is performing a level two to three years above their Australian counterpart.[15]

These systems focus on implementing practical learning, improving teacher education and improvement to lift the educational attainment levels and standards of students.

Improving early childhood education

Research shows that investing resources to support children in their early years of life brings long-term benefits to them and to the whole community. Early childhood development outcomes are therefore important markers of the welfare of children and can predict future health and human capital.[16]

The quality of children's earliest environments and the availability of appropriate experiences at the right stages of development are crucial determinants in a child's learning and development capability. Providing environments that promote optimal early childhood development greatly increases children's chances of successful transition to school, achieving better learning outcomes while at school and better education, employment and health after school.

As soon as a child enters into the education system there is opportunity to develop foundation skills that will lead to improved learning capacity and capability of an individual throughout their life. It is in the early stages of development that critical skills are developed by children that will be built on for the rest of their education and are the building blocks needed to attain employability skills leading to a career.

The first five years of a child's life are when they do their most important learning. In fact, children develop most of their intellect, personality and skills by the age of five. Providing access to high-quality, affordable, early-education programs is one of the best ways to ensure positive outcomes for children, particularly those who are disadvantaged.

In the year before entering full-time school, 92.6 per cent of all Australian children were reported to be in some form of non-parental care and/or educational programs. However, the current child care system is generally geared towards providing monitoring and sitting functions, with little focus on teaching children foundation skills. The opportunity needs to be taken to ensure children are given developmental encouragement when entering institutions prior to formal school education. This will require a suitable availability of teachers with early childhood qualifications to work in child care organisations.

Language, literacy and numeracy

There is a direct link between language, literacy and numeracy and productivity outcomes. Research by the OECD suggests that increasing the literacy level of a country by one per cent leads to a 2.5 per cent rise in labour productivity and a 1.5 per cent increase in GDP per head.[17] However, is estimated that 20 per cent of adults in Australia now have poor literacy skills and computer literacy is even lower.[18]

Embedding language, literacy and numeracy components within early childhood education, the formal school education curriculum and tertiary courses and training packages is necessary to ensure continuity and consistency of skills learnt, developed and maintained throughout an individual's education and career.

Early identification of learning difficulties will also ensure targeted assistance can be provided to individuals. A failure to identify people at risk has contributed to a high level of underperforming students and high levels of adult language, literacy and numeracy deficit levels we are now experiencing. Australia, through various measurement programs, monitors the developmental progress of youth from early childhood through the Early Development Index and primary school aged students through the NAPLAN testing program. It is important that these tools are seen as monitoring mechanisms and not reflective on a school or regions reputation as an adequate education provider.

Teacher quality

The quality of an education system is largely a function of the quality of its teachers. Teacher quality has an immense impact on influencing student achievements. Teachers' knowledge and skills are the most vital in-school factors influencing children's learning. For children from disadvantaged backgrounds or troubled home environments, quality teaching is even more important.

The quality of teaching has a significant impact on student achievements. Research by the Grattan Institute shows that if Australia improved the effectiveness of teachers by 10 per cent, the resultant increase in student learning and productivity would boost real GDP growth by 0.2 percentage points per annum, or by $90 billion by 2050.[19]

According to a study by the OECD, the most effective education systems are the ones that recruit teachers from the same pool of talent that go into law or medicine and give teachers rigorous training and substantial support.

The quality of the Australian teaching profession has declined over time, with a 2006 study by the Australian National University's Centre of Economic Policy Research showing that the aptitude of new teachers had fallen considerably since the 1980s. Between 1983 and 2003, the average percentile rank for people entering teacher education fell from 74 to 61, while the average rank of new teachers fell from 70 to 62. This also compares poorly to the best systems globally such as Shanghai, Singapore and Korea, where students entering into teaching courses are recruited from the top 10 per cent of the graduating cohort. WA recruits from the top 39 per cent of graduates.[20] Improved standards of entry for teaching will significantly improve the community perceptions of the profession as a career, further enhancing the standards of teaching.

A key aspect of this issue in recent times is in relation to teacher pay, which declined substantially between 1983 and 2003 compared to non-teachers with a degree. Another factor is pay dispersion in alternative occupations. For an individual with the potential to earn a wage, a nonteaching occupation looked much more attractive in the 2000s than it did in the 1980s. Both the fall in average teacher pay and the rise in pay differentials in non-teaching occupations have contributed the decline in the academic aptitude of new teachers over the past two decades.[21]

It is vital that we ensure suitable applicants are selected for entry into the teaching profession, beyond just academic performance. Undertaking aptitude assessments in the selection process should also consider temperament and capability, as well as academic performance.

Programs that promote, encourage and seek out outstanding individuals to become teachers need to be supported. For example, the Teach for Australia program sets out to transform professionals who have the qualities inherent to exceptional teachers and assist them to pursue teaching as part of their career journey. Innovative programs such as this contribute to lifting the standards of teacher quality and raise the profile of the teaching profession.

Lifelong learning and career development also needs to be greater promoted within the education and training sector. It is important that teachers and trainers are provided with ample opportunity to improve their teaching skills, professional development and industry awareness throughout their career. While Australia has 90 per cent teacher participation in professional development activities and virtually all lower secondary teachers receive some professional development, the length of time spent on development averages to only be around 10 days per year.

There are also issues with the types of professional development opportunities provided to teachers and the impact it has to teaching quality. According to a survey undertaken by the OECD, the most effective types of professional development, according to teachers, are those in which they are given the opportunity to participate in the least, such as programmes leading to qualifications and research activities.[22]

Completion rates

Improving secondary school and tertiary education completion rates has become a key focus of the Australian Government. It has set targets of 90 percent of students completing year 12 (or equivalent) and 40 per cent of 25 to 34 year olds in Australia holding a bachelor degree or above by 2025.

While this should be commended given the impact attainment levels has on improving living standards and labour force participation and opportunities, policies will need to be targeted to ensure those that need greater support to achieve these targets are given ample assistance to do so.

Education performance varies markedly between disadvantaged and non-disadvantaged groups. According to the most recent Foundation for Young People, '*How young people are faring 2011*' report, lower levels of year 12 attainment occur among people who live in regional, rural or remote areas, have a disability, come from homes where English is not their first language, have parents who have not completed year 12 or have fathers who are unemployed or working in manual occupations.[23] Education performance is also relatively low in almost all outer suburbs of the major cities because of the more limited choice of schools available.[23]

The disparity between students from disadvantaged backgrounds and regional locations are key areas to be addressed to improve educational attainment.

Industry relevant educational and skill outputs

It is important that the education system outcomes are relevant to the needs of industry and employers.

Industry has a key role in providing advice to curriculum developers, educators and career advice providers on career pathways, employability skills and the changing needs of industry. This will improve the understanding of potential workers of what is actually required from employers and provide insights and exposure to industry career requirements.

The availability of career education, advice and guidance with suitably qualified career counsellors who understand the current labour market conditions, challenges and opportunities can assist in the effective transition of students into the workforce. Ensuring schools have adequate resources allocated to deliver useful and relevant guidance to students should be made a priority. The change of the national school curriculum should include career education in the school curriculum.

Inconsistency of the quality of career information that is provided by school career advisers is also a concern. Ensuring that career guidance workers and those people in the school system that provide a career advice function are trained appropriately in career development is important. Education providers and career advice givers are not always supplied with industry relevant and up to date career information to distribute.

Creating greater linkages between industry and the education and training sector to better provide input into career development advice, material and skill development are needed. Industry should be more involved with the development and delivery of industry relevant career information.

Our education system needs to be able to deliver quality graduates through ensuring courses are teaching industry relevant skills and knowledge. This can only be done by ensuring industry relevant course material is being taught to students and applied learning is taking place and through work placements, practical activities and access to real or simulated equipment.

Likewise, a strong training system is critical to ensure that people are provided with the necessary skills for WA to maintain an appropriately skilled workforce and ensure ongoing improvements in productivity. It is important that the VET system, through VET providers and training package design, keeps abreast of new technologies and changes in industry practice.[23]

Training providers need to be encouraged to create stronger links with industry to deliver skills needs and address skill deficits. Industry Skills Councils need to ensure that training packages are delivering fundamental skills and knowledge to students. Training providers need to ensure they have strong networks with industry and employers to ensure relevancy of training.

As with the education sector, ensuring students are armed with employability skills that meet the needs of employers is important. State Government investment and support in training needs to be focused on addressing identified skills gaps and not 'training for training sake'. Training needs to lead to improved employment outcomes.

Training providers must ensure the skills required by employers in all sectors of the economy are being delivered to industry standards. Linking industry skill requirements more closely with what is being provided by the training system will allow employers to have greater success in sourcing skilled workers.

To be a world class system that attracts the best researchers, teachers and students and delivers quality educational outcomes that meet the needs of industry now and into the future, we also need to improve the linkages between industry and the university sector.

Australia's universities are currently tasked to provide high quality education and the pursuit of fundamental research. A long term plan needs to be developed for WA's overall university system to ensure we are delivering quality educational outcomes, as well as improving university capacity and capability to support innovation in industry. The plan needs to focus on:

- recruiting excellent staff and training local teachers to be high quality educators;
- delivering high quality students with industry relevant skills;
- encouraging research collaboration with industry; and
- establishing innovative research partnerships across institutions, states and nations.

However, the question remains as to the best way to address these issues and improve links between industry and academia. Further work is needed to investigate international best practice models in this area (see Innovation section).

Industry has a key role in providing advice to curriculum developers, educators and career advice providers on career pathways, employability skills and the changing needs of industry.

Reform Priorities

- A consistent approach to the delivery of quality programs in the early childcare system is required. Additional resources, including qualified teachers, will need to be factored in to ensure early childhood providers have adequate resources to deliver developmental education of children in the early years.
- Targeted funding and programs are needed to identify students with below standard language literacy and numeracy skills. Remedial support and assistance should be provided to ensure students rectify deficiencies.
- An overall strategy is needed to improve the quality of students moving into teaching and lift the social standing of the teaching profession. Part of the strategy should include raising minimum cut-off scores to gain entry into teaching courses and offer aptitude testing to possible candidates, to allow for the temperament and capability of applicants to be considered before entering teaching disciplines.
- Teachers, both student teachers and qualified teachers, require improved development and learning opportunities. The teaching development needs to provide opportunities for teacher to teacher mentoring to take place, peer feedback techniques, research opportunities and use classroom observation techniques for continual improvement.
- Understanding the basic methods being undertaken by high performing nations to increase educational attainment levels is necessary to make improvements to Australia's education system. Pilot programs, based on successful models that trial mentoring, classroom observation methods and increasing teachers' learning capacity through research should be implemented.
- Partnerships between industry and the training and education sector need to be encouraged.
- Working with industry sectors, training organisations should establish a secondment system that allows experienced workers to undertake trainer qualifications to deliver training to apprentices and trainees on a rotational basis. Likewise, programs that encourage outstanding professionals with teacher attributes to become teachers as part of their career journey should be supported and promoted.
- Schools, irrelevant of type or location, need to be adequately resourced to deliver appropriate career advice to students. Career education needs to be embedded into secondary school curriculum to ensure students are provided with the knowledge, advice and guidance to make informed decisions on future education and training options that are relevant to the broader economy.

Investing in infrastructure

High quality economic infrastructure is a key enabler for industry growth, productivity and the attraction of investment. Investment in infrastructure directly contributes to economic growth by adding to the capital stock and by increasing the amount and quality of capital available per worker. Infrastructure also plays a major role in facilitating private sector production and distribution.[24]

The need for further investment in infrastructure in Australia was recently highlighted by the OECD. The report showed that there is a shortage of infrastructure which is affecting the productivity performance of the national economy, as a result of low levels of infrastructure investment during the 1990s, a rising population, and the significant growth in the resources sector. This has been reflected in the proportion of GDP devoted to infrastructure investment in Australia, which has fallen from around eight percent in the 1970s and 1980s to around four per cent today.

Infrastructure Partnerships Australia has estimated that Australia's infrastructure deficit is in the order of $700 billion over coming decades - meaning that roughly $700 billion worth of projects will not be able to be completed without substantial changes to policy and resource availability.

Concerns about the shortfall of infrastructure across the country have also been reflected in Infrastructure Australia's report to COAG, which noted that the nation's infrastructure networks are 'barely adequate for current needs and that they are beginning to impose significant long term costs'.

Economic Growth: The Theory

Economic theory offers alternative explanations for economic and productivity growth.

Neoclassical economic growth theories (the Solow Model) emphasised the role of increasing inputs of labour and capital in generating economic growth.

While accumulation of capital and labour drive growth, this is limited by the 'law of diminishing returns'. As the quantity of inputs increased, the contribution to output of additional units of capital and labour slows.

While there is evidence for this model as a description of the actual experience of some countries around the world, this has been limited. As a result, traditional theories seem at best only a partial explanation of the economic growth process.

It has long been recognised that changes in technology affect the growth process, but the manner in which technological change affects growth, and the mechanisms by which technological change take place, were too poorly understood to be incorporated into economic models.

However, new growth theory, or endogenous growth theory (the Romer model), is now trying to incorporate technology and innovation into growth models prompted by evidence that much, if not most, economic growth is driven by technological change rather than capital accumulation. Endogenous growth theory emphasises the role played by continuous investment in human capital, which has spillover effects to the broader economy and mitigates the impact of diminishing returns to capital.

International studies also show that there is scope to improve infrastructure investment across the country. The World Economic Forum's 2012-13 *Global Competitiveness Index* showed that while Australia's infrastructure ranked 36 out of 144 countries assessed, this result was boosted from a very high result for a specific component of the index, available airline seat kilometres. Australia's performance was relatively poorer in relation to fixed infrastructure networks such as transport, energy and communications.

Infrastructure constraints are a particularly important issue for WA, given the unique characteristics of the State. WA's strong population growth, dominant resources sector, large geographical area and low population density mean that the demand for infrastructure and the cost of supply in the state are significantly higher than the national average. These factors have meant that there is also a substantial shortfall of infrastructure in WA.

The extent of the infrastructure deficit in Western Australia was also reflected in the 2010 Engineers Australia report card, which gave the State a 'C+' for overall infrastructure provision.[25] The report also states that there is an urgent need to increase capital works, in order to prepare for the state's growth potential and that this would require a high level of investment for at least a decade.

The impact of infrastructure shortages on businesses was identified in the December quarter 2011 *Commonwealth Bank-CCI Survey of Business Expectations*. The survey asked businesses about the types of infrastructure that were experiencing bottlenecks, with roads, telecommunications, energy, and air and sea ports being identified as the problem areas. These shortages were leading to higher operating costs, timing delays and lost opportunities for many local businesses. A previous question from the *CCI-Bankwest Survey of Business Expectations* in June 2005 came to a similar conclusion with energy, water and road infrastructure identified as the top priorities for business.

Addressing these infrastructure shortfalls will be a critical aspect of improving the capacity of the economy, and in turn productivity, in the years ahead.

The Government has an important role to play in relation to infrastructure investment, particularly in relation to planning and coordination.

There is a pressing need to improve infrastructure planning to avoid gaps and ensure that funding is allocated transparently towards projects that will deliver the greatest long term benefits. These issues with infrastructure planning in WA were identified by the Economic Audit Committee in its 2009 report, which noted that the efficiency and effectiveness of infrastructure delivery in WA has generally been diminished by a lack of strategic asset planning, while there has been little by way of long term prioritisation of public infrastructure planning in recent years.

To address this issue, the EAC recommended that the Infrastructure Coordinating Committee (ICC) be reinvigorated and tasked with facilitation of coordinated strategic infrastructure planning, including the development of a long-term (up to 20 years) whole of State land use and infrastructure investment plan under the oversight of the ICC. The WA Government has since acted upon this recommendation to bring back the ICC; however, an overarching infrastructure plan has not been developed.

While CCI supports the need for better infrastructure planning in the State, there are some concerns about the operation of the ICC including its lack of consultation with business and industry, lack of transparency about its activities and the advice it provides to Government. An independent body would be better placed to provide advice to Government on the State's future infrastructure needs.

A State Infrastructure Plan would also be a significant first step in ensuring the State is able to meet its future infrastructure needs, by providing the private sector with a clear sense of direction and priority in regards to infrastructure requirements. CCI has been calling for successive State Governments to produce such a plan.

There is also a role for direct Government funding of infrastructure in cases where risk and uncertainty prevents private sector involvement and/or where it delivers social rather than economic benefits (public goods) and where the market does not support competition (natural monopolies).

The responsibility for funding infrastructure is an issue that has grown increasingly complex in recent years. Funding should be consistent with the federalist principle of subsidiarity, which states that the lowest sphere of Government that can efficiently create and then maintain the infrastructure should do so. Meanwhile, the funding for such projects should flow from the spheres of Government that benefit from its creation.

The State Governments are ultimately responsible for developing infrastructure. In Western Australia, there is currently a record asset investment program underway. However, there is still scope for further investment in infrastructure without breaching the AAA credit rating. Based upon the figures contained in the 2012-13 budget, CCI estimates that the State Government could increase its net debt in the order of $6 billion to fund infrastructure before triggering a ratings review.

While infrastructure provision is largely a State Government responsibility, there is also a role for the Commonwealth in funding infrastructure, given that the bulk of additional tax revenues from the projects flow to the Commonwealth through the income taxes of employees and business company taxes.

The Federal Government has sought to play a greater role in infrastructure provision in recent years, with the establishment of Infrastructure Australia (IA) in 2008. IA was set up to develop a strategic blueprint for addressing infrastructure bottlenecks and providing advice on infrastructure policy, pricing and regulation and the associated impact on the delivery, operation and use of national infrastructure networks. The role of IA was expanded in 2011 to include providing independent policy advice on national infrastructure reform such as the National Port and Freight Strategies, while working with Governments and the private sector to develop a deeper pipeline of priority infrastructure projects in the Australian market.

While the Commonwealth is playing a greater role in infrastructure provision, it is critical that funding is directed towards projects that will deliver the greatest return to the nation overall.

A key criticism leveled against IA is that it remains essentially an advisory body and there is no imperative for the Government to adhere to its recommendations. The Federal Government has at times ignored the recommendations of IA, sometimes giving the green light to projects the body has warned against. This was reflected in a 2010 Australian National Audit Office report, which found the Federal Government allocated $2.2 billion in taxpayer funds to eight infrastructure projects that Infrastructure Australia had questioned as economically unviable or 'not ready' to proceed. The report identified six rail, road and port infrastructure projects announced in the 2009-10 budget, as well as two rail projects funded in the 2010-11 budget, had not made Infrastructure Australia's shortlist of priority projects.[26]

There is also a need for greater recognition of Western Australia's infrastructure needs at a national level, particularly given that the Commonwealth is a key beneficiary of these developments. Just $1.6 billion of Commonwealth infrastructure funding will be directed towards projects in WA over the current forward estimates period - less than one tenth of the total Federal infrastructure spending over this period. At the same time, WA is set to receive just 7.8 per cent from the infrastructure fund from MRRT revenue, while the State's share of GST revenues is also being substantially eroded.

In this regard, it is critical that the WA Government continue to lobby for WA projects to be funded through Infrastructure Australia, particularly given the important role that WA plays in driving the national economy. CCI acknowledges that the WA Government submitted seven proposals for funding by Infrastructure Australia in 2009, some of which were identified by CCI as key projects for the State.

In addition, the current GST distribution arrangement between the Commonwealth and the States is limiting the Western Australian Government's ability to increase its investment in line with growth in the economy. By ensuring infrastructure is more appropriately accounted for and recognised in the equalisation methodology, the Federal Government could contribute to funding the infrastructure Western Australia needs.

The private sector can also play a major role in financing, designing, building, operating and maintaining infrastructure. In order to deliver growing infrastructure needs, Governments in Australia and around the world are increasingly engaging the private sector to construct and possibly deliver infrastructure services that were traditionally seen as public sector responsibility.

The Federal Government recently established the Infrastructure Finance Working Group to explore ways to encourage greater private sector investment in infrastructure. The group's final report was handed down in April 2012 and sets out three key areas for reform including major reform of infrastructure funding, improved infrastructure planning to provide a deep pipeline of projects that give industry certainty and ways to encourage more flexible and efficient markets that attract private investment. In particular, the report recommends:

- a review of Government balance sheets to create the capacity to invest in new infrastructure assets;
- the identification of opportunities for co-funding between the Commonwealth, States and private sector on nationally significant Public Private Partnership (PPP) projects;
- the identification of regulatory reforms that decrease the costs involved in bidding for PPP projects, both to reduce overall project costs and remove barriers to entry for new players; and
- opening up the infrastructure market to alternative sources of finance, such as superannuation funds, to build on the already strong interest from these investors in certain types of assets.

At a State level, the Economic Audit Committee also reinforced the need for greater private sector involvement in infrastructure provision. The group's final report recommended that agencies be evaluated for options for exposure to competition from the private sector.

Reform priorities

- The Infrastructure Co-ordinating Committee should be replaced with a new, independent body to oversee the development and implementation of infrastructure planning in the State. The group should be chaired by a prominent and respected member of the community and bring together expertise from business, industry and Government to outline infrastructure priorities for the State.
- This new independent body should be tasked with the development of a long term infrastructure plan for the State, to ensure the appropriate prioritisation of infrastructure projects and create a transparent project pipeline to assist project proponents with their investment decisions. Such a plan should be based on costbenefit analysis and opportunity cost evaluation, to ensure that funding is provided to projects that will deliver the greatest benefit. The infrastructure plan should have a timeframe and project pipeline for the next few decades, as well as a framework to allow the smooth interdependence of various types of infrastructure. The need to grow infrastructure in a fiscally responsible manner means that an infrastructure plan should also consider how projects will be funded.
- Reform to the GST distribution process is needed to ensure that funding allocations better represent the State's infrastructure needs. A number of reforms could also be made within the boundaries of the current system that will deliver a more appropriate allocation of revenue, improve transparency and reduce complexity, including a move to revenue only equalisation, discounting a portion of mining revenue to maintain the incentive to develop industry and excluding commonwealth payments from the equalisation process.
- The Federal Government should give Infrastructure Australia (IA) decision making power to remove politics from infrastructure provision and ensure projects that have passed through the rigorous economic assessment processes applied by IA will deliver the greatest benefit to the nation and will be prioritised.
- The WA Government should continue to lobby for a greater share of funding through Infrastructure Australia and ensure sufficient resources are devoted to developing strong business cases for the projects put forward for consideration.
- Both the Commonwealth and State Governments should look for opportunities for greater private sector involvement in infrastructure provision including through public private partnerships, contracting out services and privatisation.
- To facilitate this, Government should implement the findings of the Infrastructure Finance Working Group report, particularly in relation to reforming funding and ensuring a more flexible and efficient market for infrastructure funding.

Encouraging innovation

The role of innovation and technological improvements in driving economic and productivity growth has been firmly established in economic theory. In an increasingly globalised economy, a critical aspect of any productivity agenda and the nation's continued economic success will be to unlock future innovations.

While research and development is an important driver of innovation it is not the only one. Innovation also reflects the practical and tangible changes at an enterprise level in response to changing economic conditions, to improve profit and to better to meet the needs of customers. This may involve designing a new product or service, changing business processes and practices or introducing a new technology.

Government cannot directly control innovation at the enterprise level. However, it can support innovation by continually reforming and updating the regulatory and institutional framework in which innovation takes place.[27] The reform agenda outlined earlier in this paper will be essential to ensuring an environment that is conducive to innovation.

Improving the dissemination of knowledge and technology is an important driver of innovation. In particular, the ability of Australian organisations to access the benefits of innovations from overseas is an important aspect of encouraging innovation as the organisation level. This has been recognised in research by the OECD, which shows that firms in protected sectors have lower rates of innovation and productivity growth than firms in areas that face the full force of international competition.[28] In this regard, Government also has an important role to play in ensuring that its policy settings facilitate the free exchange of goods, services and labour and encourage investment activity from overseas. As well as appropriate policy settings, CCI believes that collaboration between industry and academia is a critical aspect of unlocking future innovations. With Australia home to some of the best universities worldwide, tapping into this knowledge and expertise to ensure research is driven by commercial imperatives will be essential to our future success.

The need for a more collaborative innovation environment was recognised by the Australian Government in its 2009 plan to improve innovation, titled *Powering Ideas: An Innovation Agenda for the 21st Century*. This document set out a plan to improve the innovation system and lift productivity. Its key recommendations revolve around creating greater linkages between universities and other research organisations, who act as the primary generator of ideas and the public and private sectors, who are the drivers of the economy, in order to create and implement new and innovative solutions to emerging and existing public policy and business challenges. However, much of this was to occur through existing programs such as Enterprise Connect, mission based funding compacts for universities and Innovation Councils.

CCI believes that there are currently issues which are preventing us from fully leveraging off the knowledge and expertise generated by the university sector (see Education and Training section) and that more needs to be done to investigate new options to facilitate these links.

However, the question remains as to the best way to address these issues and improve links between industry and academia. Further work is needed to investigate international best practice models in this area. The United States is typically regarded as a leader in this area and should be investigated as a starting point.

Given the substantial benefits to society from innovation and research and development, there may also be a role for Government to support spending on research and development where there is a significant public good to be gained by the innovation. However, it is important that any Government programs to support research and development are focused on areas which will deliver the greatest benefit to the Australian and WA economies, rather than to support industries that are not commercially viable.

These programs should:

- have a long term focus, aimed at addressing the challenges facing the nation;
- be aligned with the future direction and requirements of industry;
- be transparent with a clear set of key performance indicators (KPIs) that are regularly reviewed and reported on; and
- be administratively efficient so that the cost of administering or complying with the program does not exceed the benefits that it generates.

There are currently a large number of Commonwealth and State Government programs aimed at fostering innovation. While some of these programs may have merit, others are narrow and aimed at supporting uncompetitive industries rather than encouraging innovation. There is a need to review the current programs to ensure they are delivering outcomes, as well as investigating new options for encouraging innovation, based upon international best practice. As a starting point, the State and Federal Governments should review the plethora of programs aimed at fostering innovation against the criteria outlined above, with a view to abolishing those which no longer align with the needs of industry or deliver a long-term benefit to the economy.

Appropriately skilled workers are also an important element in driving innovation at an enterprise level.

However, research shows that a lack of suitable skills is hampering innovation at a business level. According to a survey undertaken by Australian Industry Group in 2008, skills shortages are limiting the ability of many businesses (some 60 per cent of respondents) to be innovative.

Businesses have identified a range of skills that are required for innovation including transferrable skills such as problem solving, technical skills and management skills. In particular, the study found that problemsolving is rated as the most important transferrable or 'soft' skill (31.7 per cent), followed by communication (25.8 per cent), adapting to change (23.5 per cent) and teamwork (18.9 per cent). However, the survey also found that more than half of firms are finding communication skills to be lacking.

In this regard, there are significant reforms that could be undertaken by the Government to ensure an educated and skilled workforce which will, in turn, help improve innovation at a business level (see Education and Training section).

Intellectual property (IP) rights (such as copyrights and patents) are also an important incentive to encourage business investment in research, development and innovation. While Australia does provide protection for intellectual property rights, there are issues with the current arrangements.

A key issue has been the backlog of outstanding applications. This has been put down to the overall increase in patents in Australia in recent years, along with difficulties in attracting and retaining staff at IP Australia.

The Government is looking to address this and other issues with the IP system, through the introduction of the *Intellectual Property Laws Amendment (Raising the Bar) Act*, which will come into effect on 15 April 2013.[29] This Act looks at new ways to support and encourage innovation in Australia and addresses five key areas.

- Raising the quality of granted patents (aligning Australian patents with international standards to help give innovators more certainty when applying overseas).
- Free access to patented innovations for regulatory approvals and research, which will ensure experimentation and approval for generic manufacturers is not delayed.
- Reduce delays in resolution of patent and trademark applications.
- Improving methods for trade mark and copyright enforcement, with the Act seeing an increase in the penalties for trademark infringement. This will bring the Australian system in line with our major trading partners.
- Simplifying the IP system by removing unnecessary hurdles and simplifying the application process.

The Government should review the IP system following the implementation of the *Intellectual Property Laws Amendment (Raising the Bar) Act*, to ensure the legislative changes have effectively addressed concerns with the system.

Recommendations

- Government should ensure its policy settings encourage an environment conducive to innovation. The reforms set out earlier in this paper should help achieve this. In addition, it is particularly important for the Government to ensure its policy settings enable local businesses to access innovations from overseas through the free flow of trade, people and ideas.
- Collaboration between industry and academia is a critical aspect of unlocking future innovations and ensuring the economy remains competitive. However, the question remains as to the best way to achieve this and further work is needed to investigate international best practice models in this area. The United States is typically regarded as a leader in this area and should be investigated as a starting point.
- The WA and Australian Governments should investigate new options to encourage innovation and undertake a review of programs aimed at encouraging research and development, with the view to abolish those which no longer align with the needs of industry or deliver a long-term benefit to the economy.
- Intellectual property rights (such as copyrights and patents) are an important incentive to encouraging business investment in research and development. The Government should review the IP system following the implementation of the *Intellectual Property Laws Amendment (Raising the Bar) Act*, to ensure the legislative changes have effectively addressed concerns with the system.

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