THE ECONOMIC EFFECTS OF INDUSTRIAL RELATIONS REFORMS SINCE 1993

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the Australian Chamber of Commerce and Industry
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Disclaimer

This work has been produced for the Australian Chamber of Commerce and Industry according to their terms of reference for this report. The terms of reference are to analyse what would be the economic impact should all the major industrial relations reforms in Australia from 1993 onwards be reversed. These reforms include the Industrial Relations Reform Act 1993, the Workplace Relations Act 1996 and the Workplace Relations Amendment (WorkChoices) Act 2005.

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Executive Summary

This study analyses what would be the economic impact should all the major industrial relations reforms in Australia from 1993 onwards be reversed. This involves:

- reviewing the reforms that have occurred;
- calculating their direct impacts on the labour market based primarily on using the findings of recent studies by the OECD; and
- reversing those direct impacts in an economy-wide model to assess the implications for the Australian economic outlook.

Post-1992 Industrial Relations Reforms (section 2 of report)

Australia has a long history of a highly centralised and regulated wage determination process. However, that has gradually changed with major industrial relations reforms including the Industrial Relations Reform Act 1993, the Workplace Relations Act 1996 and the Workplace Relations Amendment (WorkChoices) Act 2005.

The main theme of the pre-WorkChoices changes was to encourage a greater emphasis on setting wages and conditions based on the circumstances of the enterprise and its employees. This was achieved largely through a simplified award system, the introduction of AWAs, and a changed role for unions in the bargaining and arbitration process.

The WorkChoices legislation both strengthens the emphasis on setting wages and conditions based on the circumstances of individual enterprises and their employees, and simplifies and improves the regulatory elements of the system. The key developments associated with WorkChoices are: the creation of a national system of industrial relations; the establishment of the Australian Fair Pay Commission, which is an independent body to set minimum and award classification wages (but not other employment conditions which have been set by Parliament); a simplified agreement making and lodgement process; and a significant relaxation of unfair dismissal provisions.

Direct Labour Market Impacts (section 3 of report)

The direct effect of industrial relations arrangements on the labour market are estimated primarily by using the results from recent studies by the OECD that analyse panel data for some 20 OECD countries. The OECD studies examine the impacts of policies and institutions on unemployment and labour productivity, and the findings of the studies can be used to isolate the impact of specific industrial relations policies. The impacts on unemployment and productivity are considered in turn.

The unemployment impacts in our modelling are based primarily on the results from a recent OECD Economics Department Working Paper (Nicoletti and Scarpetta 2005). Using that information, the Australian industrial relations reforms from 1993 onwards are estimated conservatively to have **reduced the structural unemployment rate by at least 1.77 percentage points.** This comprises separate effects from decreased union membership of the workforce, increased decentralisation of wage setting and liberalisation of unfair

dismissal laws[1]. Based on the OECD study, the effect on the structural unemployment rate could be much larger, however, we have adopted a conservative estimate for the purposes of economic modelling, reflected in our interpretation of the decrease in union membership.

For the productivity impacts, our modelling is based on another recent OECD Economics Department Working Paper (Scarpetta and Tressel, 2002). Under that information, the industrial relations reforms from 1993 onwards are estimated to **increase labour productivity by 1.4 per cent**. Some of this increase is still developing as it reflects the recent liberalisation of unfair dismissal laws as part of the introduction of WorkChoices.

Rahman in the Treasury Economic Roundup (2005) uses the same OECD study to infer a bigger productivity gain. Writing before the WorkChoices reforms, he inferred that "reforming Australia's employment protection legislation may reduce the productivity gap (with the frontier economy) by about 2 percentage points". This translates to a productivity gain of 2.4 per cent. Our more conservative estimate of a productivity gain of 1.4 per cent is based on a conservative estimate of the likely impact of the WorkChoices reforms on the Australian value for the OECD's index of Employment Protection Legislation.

These estimates of unemployment and productivity impacts also appear conservative when compared with the strong performance of the Australian labour market over this period. For example, the actual unemployment rate has dropped from 10.6 per cent to 4.3 per cent over the last 14 years, a fall of 6.3 percentage points, yet only 1.77 percentage points of this fall is being attributed to industrial relations reform. Similarly, post-1992 there has been relatively strong growth in labour productivity, and the assumed contribution from industrial relations reform of 1.4 per cent represents less than one year of normal productivity growth.

Two Future Scenarios (section 4 of report)

These direct gains to the labour market would be foregone under a "no reform" scenario in which all major industrial relations reforms from 1993 onwards are reversed. The implications of this for the economic outlook can be shown by the differences in economic outcomes between two scenarios extending to 2012 and simulated using Econtech's MM2 model. The two scenarios are:

- a baseline scenario based on a continuation of existing industrial relations policies; and
- a "no reform" scenario assuming that all major industrial relations reforms introduced from 1993 onwards are reversed – this involves adding 1.77 percentage points to the structural unemployment rate and reducing labour efficiency by 1.4 per cent.

In the "no reform" scenario all the major industrial reforms that have been introduced in Australia from 1993 onwards are reversed from the first quarter of 2008. If the reforms were reversed over a longer time frame, the effects would also emerge over a longer time frame. Similarly, if only some of the reforms were reversed, the effects would still materialise but be smaller.

[1] The estimates of the effects of rate of union membership and decentralisation of wage setting are from Nicoletti and Scarpetta (2005), while the effects of unfair dismissal laws are from the Australian study of Harding (2005).

This report focuses mainly on the differences in economic outcomes between the "no reform" and "baseline" scenarios. These differences show the effects of reversing all industrial relations reforms that have occurred from 1993 onwards. While the margins of error for the two individual scenarios considered separately reflect the uncertainties of projecting the economy five years into the future, the differences between the scenarios have relatively low margins of error because they reflect assumed variations in only one factor – industrial relations policy. Thus, the differences or deviations between the two scenarios provide relatively robust estimates of the effects of reversing industrial relations reform, given the assumed changes in the structural unemployment rate and labour efficiency.

Economy-wide Effects of Reform Reversal (section 5 of report)

The main differences in economic outcomes between the two scenarios are driven by the loss of potential output associated with reversing the reforms. This loss of potential output is around 4.4 per cent in the long term. This arises from the estimated loss in labour productivity of 1.4 per cent, and the loss of employment arising from the estimated increase in structural unemployment of 1.77 percentage points and the resulting "discouraged worker effect" as higher unemployment discourages participation in the labour force.

The crucial part of this analysis is in estimating these effects on labour productivity and structural unemployment. As noted above, we have made these estimates largely on the basis of a conservative interpretation of key studies by the OECD on the impacts of industrial relations arrangements on the labour market. The implied, estimated loss in potential output of about 4.4 per cent would have similar effects on the economic outlook irrespective of whether it is simulated in MM2 or any other reputable economy-wide model.

The key results to 2011 under the "no reform" scenario compared with the baseline scenario are summarised below. These results are generally expressed as differences between the "no reform" scenario in 2011 and the baseline scenario in the same year. The focus is on the year 2011, because for key variables such as unemployment and GDP, the results in 2011 are broadly representative of the long-run or lasting results.

- By 2011, the level of real GDP is 4.8 per cent lower in the no reform scenario than in the baseline scenario in the same year, which largely reflects the loss in potential output arising from a higher structural rate of unemployment and lower productivity. This loss in the level of GDP is reflected in lower average, annual economic growth in the four years to 2011 of a low 1.9 per cent, compared with a normal 3.1 per cent in the baseline scenario.
- This loss in real GDP of 4.8 per cent in 2011 translates in dollar terms to $57 billion in 2006-07 prices. This is equivalent to $ 2,700 per person.
- The percentage impact on business investment is even greater. This is because business investment is sensitive to the falling profitability resulting from a wages breakout and lower productivity. The loss in business investment in 2011, relative to the baseline scenario in the same year, is estimated to be 5.6 per cent or $11.0 billion in 2006-07 prices.
- By 2011, there is an employment loss of 2.9 per cent, or about 316,000 jobs, compared with the baseline scenario in the same year. This is reflected in a rise in unemployment of 199,000, and a shrinkage in the labour force of 117,000, both compared with the baseline scenario in the same year.

- In the "no reform" scenario, higher structural unemployment leads to a breakout of wage inflation. This, together with lower productivity, flows through to higher CPI inflation, which shows a sharp increase to 5 per cent for 2009 and 2010.
- Higher CPI inflation ultimately leads to a loss of consumer real wages, despite the initial breakout in nominal wages, and this result reflects the loss in labour productivity. By 2011 the level of consumer real after-tax wages is 1.7 per cent lower in the "no reform" scenario than in the "baseline" scenario in the same year. This translates to a loss in annual, after-tax, average wages of $787 in 2006-07 consumer prices.
- With inflation beyond the Reserve Bank's comfort zone of 2 to 3 per cent, interest rates are pushed higher. By the end of 2011, the cash rate is 6.9 per cent, which is 1.4 percentage points above its level of 5.5 per cent in the baseline scenario.
- For a household with a new mortgage of $300,000[2], this means that in 2011 monthly repayments are $273[3] higher than in the baseline scenario in the same year.
- Higher interest rates, combined with the weaker labour market, mean that in 2011 private dwelling investment is 7.1 per cent below the baseline scenario in 2011.
- For the balance of payments, the baseline scenario shows gradual improvement from 2009 in the balance on goods and services, while the "no reform" scenario shows no improvement over the same period. By 2011 the "no reform" scenario has a deficit on the balance of goods and services which is 1.3 per cent of GDP higher than in the baseline scenario.
- In terms of industry effects, all non-government sectors experience significant percentage losses in production and employment compared with baseline scenario as higher structural unemployment and lower productivity reduce potential output across the economy.
- The largest percentage losses in output in 2011 are in the trade-exposed industries of manufacturing which falls by 11 per cent (compared to the baseline scenario in the same year), mining down 8 per cent, agriculture down 7 per cent and transport down 7 per cent. These trade-exposed sectors are particularly affected by the loss of international competitiveness from the combination of a wages breakout and lower productivity.
- In 2011 the four trade-exposed sectors experience an annual loss in total output compared with the baseline scenario of $25.3 billion (at 2006-07 prices). The respective losses for manufacturing, mining, agriculture and transport are $12.9bn, $5.7bn, $2.4bn and $4.3bn.
- Only the government services sector is largely insulated. This is because government spending is determined exogenously by policy, and so is insulated from poorer economic conditions.
- The percentage employment effects follow a similar pattern to the production effects, but are smaller. This is because they reflect the increase in the rate of structural unemployment, but not the loss of productivity.

[2] $300,000 is the value of the AFG Mortgage Index at December 2006. This index measures the average value of new AFG mortgages across Australia. AFG is Australia's largest mortgage broker.

[3] This is based on a typical margin for a mortgage broker standard loan of 1.25 percentage points above the cash rate and the most common mortgage repayment term of 25 years.

- All states experience losses in Gross State Product. In percentage terms these state losses vary around the national loss in GDP of 4.8 per cent in 2011, except in the government-based ACT economy, where the loss is only 2.9 per cent.

1. Introduction

Since the beginning of Australia's industrial relations reform process in 1993, the unemployment rate (seasonally adjusted) has fallen substantially from 10.6 per cent in May 1993 to 4.3 per cent in June 2007. The extent to which this reduction in unemployment is due to industrial relations reform, rather than other structural factors or the economic cycle, is an important policy consideration.

The industrial relations reforms over this period have aimed to shift Australia from a highly centralised and regulated process for setting wages and conditions, to a process in which there is greater emphasis on the circumstances of the enterprise and its employees. The major industrial relations reforms have included:

- the Industrial Relations Reform Act 1993;
- the Workplace Relations Act 1996; and
- the Workplace Relations Amendment (WorkChoices) Act 2005.

Recently, there have been suggestions that the industrial relations reform has gone too far, leading to the idea of reversing some industrial relations reforms. To provide economic background for policy formulation and debate in this area, the Australian Chamber of Commerce and Industry (ACCI) commissioned Econtech to conduct a study of the way in which Australia's economic outlook would be affected should all the major recent industrial relations reforms since 1993 be reversed. This involves:

- reviewing the reforms that have occurred since 1993;
- assessing their direct impacts on the labour market using studies by the OECD; and
- reversing those direct impacts in an economy-wide model to assess the implications for the Australian economic outlook. Specifically, we compare a baseline scenario based on a continuation of existing industrial relations policies with a "no reform" scenario that assumes that all major industrial relations reforms since 1993 are reversed.

This report is structured as follows.

- Section 2 provides an overview of the evolution of industrial relations policy in Australia, focussing on the period since 1993.
- Section 3 presents an overview of the theories and evidence for assessing the industrial relations reforms, and estimates their direct impacts on the labour market.
- Section 4 presents the methodology that Econtech has used to model the economy-wide effects of reversing the industrial relations reforms.
- Section 5 presents the modelling results.

While all care, skill and consideration have been used in the preparation of this report, the findings refer to its terms of reference, which are to analyse what would be the economic impact should all the major industrial relations reforms in Australia from 1993 onwards be reversed. These reforms include the Industrial Relations Reform Act 1993, the Workplace Relations Act 1996 and the Workplace Relations Amendment (WorkChoices) Act 2005.

The findings in this report are subject to unavoidable statistical variation. While all care has been taken to ensure that the statistical variation is kept to a minimum, care should be taken

whenever using this information. This report only takes into account information available to Econtech up to the date of this report and so its findings may be affected by new information. Should you require clarification of any material, contact us.

2. Overview of the Evolution of Industrial Relations Policy

For most of the period from 1904 until the late 1980s the Australian industrial relations system was characterised by a highly centralised and regulated approach. Since that time, this has changed to a more decentralised and less regulated approach.

2.1 Centralised System

The centrepiece of the earlier system was the concept of arbitration of wage and employment conditions implemented by semi-judicial authorities. Wages and conditions of work for most categories of labour were specified by a complex system of highly specific, centrally-determined awards. These awards were based on compulsory arbitration by the Australian Industrial Relations Commission (AIRC) and its predecessors or by individual tribunals at the state level.[4] The primary focus of these awards was to provide a safety net for employees rather than being concerned with enterprise-level productivity. However, paid rates awards, specifying pay rates exceeding the minimum award rate, were also specified. Wage decisions bore little relation to the circumstances of individual firms, did not facilitate cooperation between firms and employees and led to a relatively high degree of wage uniformity across enterprises. A longstanding issue was the extent to which the focus on minimum conditions for employees was at the expense of employment prospects for low skilled workers or those with marginal work prospects, thereby contributing to unemployment.

From 1983 to 1987 the centralisation of wage outcomes was increased with the implementation of the Accord (in various forms) between the ACTU and the Australian Labor Party. A key element of the Accord was the reliance on national wage adjustment of industry and occupation awards as the primary mechanism for wage determination. The Accord (with the cooperation of the Conciliation and Arbitration Commission) aimed to maintain the real value of the "social wage", which was understood to include improvement in health and social welfare policies as well as wage outcomes (Wooden and Sloan, 1998, p. 177).

From about the late 1980s, an awareness developed of the need for wage outcomes to facilitate productivity improvements but the centralised mechanisms did not appear to be effective in achieving productivity gains. This led to an increasing political and social consensus that delivering sustained and significant productivity gains would require linking wages and employment conditions to the circumstances of individual enterprises.

The Industrial Relations Act 1988 created a formal stream of enterprise bargaining through certified agreements that allowed trade unions and individual firms to determine enterprise level wages and work conditions as long as they were certified by the AIRC to be in the public interest. However, there were still barriers to decentralised bargaining for smaller and medium sized firms and the Commission tended to obstruct the implementation of enterprise bargaining by not approving enterprise agreements (Wooden and Sloan, 1998, p. 178). Amendments to the Industrial Relations Act 1988 in 1992 reduced the ability of the

[4] The reason that there is a mix of Federal and State institutions is that the Federal Constitution left the States with the primary responsibility for regulating industrial relations but gave the Federal Parliament a limited power, in section 51(35), to make laws with respect to "conciliation and arbitration for the prevention and settlement of industrial disputes extending beyond the limits of any one State".

Commission to become involved in the enterprise bargaining process. However, the scope for enterprise bargaining was still restricted by the extensive involvement of unions with an industry focus.

2.2 Movement to a Decentralised System

The Industrial Relations Reform Act 1993, which was enacted in March 1994, provided greater scope for wage bargaining to be focussed on the specific circumstances of enterprises and their employees without the involvement of unions. The new arrangements now provided for two streams of enterprise bargaining. The first stream was Certified Agreements made with trade unions. The second stream was Enterprise Flexibility Agreements, which could be negotiated at workplaces with few, if any, union members.

The terms and conditions in an agreement had to meet a 'no disadvantage test' when compared with the relevant award, to be assessed by the Australian Industrial Relations Commission (AIRC). However, unions were able to object to Enterprise Flexibility Agreements where their rules provided the potential for the workforce of an enterprise to be part of a union. As a result, the take-up of Enterprise Flexibility Agreements was quite limited. The Act also established a right to strike and introduced a federal system of protection against unfair dismissal, jointly administered by the AIRC and a new Industrial Relations Court

Following the election of the Federal Coalition government in 1996, the Workplace Relations Act 1996 was enacted. The main developments under this Act were: that individual agreements known as Australian Workplace Agreements (AWAs) could be struck directly between employers and employees without union involvement and with more flexibility; the award system was simplified; and the role, rights and involvement of unions with respect to bargaining and strike action were restricted. These key changes can be described as follows.

- AWAs provided a new form of workplace agreement. Under AWAs, terms and conditions of employment could be agreed without union involvement and with restrictions on their ability to object to AWAs. In addition, the terms and conditions in AWAs were subject to a new 'global no-disadvantage' test, where individual conditions were allowed to fall below award level, provided that on balance the overall terms and conditions of employment were not reduced. The test was assessed by the Office of the Employment Advocate with limited reference to the AIRC in difficult cases.
- The reduced role of unions in the bargaining and arbitration process was reflected in the following changes: the prohibition of industrial action (i.e. strike and lock out) during the period of an agreement's operation; a requirement to notify proposed industrial action outside the period of the agreement; the prohibition of strike pay and secondary boycotts; the power of the Industrial Relations Commission to make an order to bring unlawful industrial action to an end; more effective limits on the union right of entry to a workplace; outlawing of closed shops and union preference clauses; and the phasing out of paid rate awards.
- Under the simplified award system, awards were restricted to a safety net of minimum wages and other core conditions of employment (20 allowable matters) with all other terms of employment being settled at the enterprise workplace level.

> Allowable matters included employee classification, hours of work, rates of pay, leave provisions, loadings for overtime and casual work and redundancy.

Under these changes, employees not covered by awards retained access to minimum rates of pay and conditions and employees on AWAs that were not comprehensive could still remain under an award for particular conditions of employment. AWAs were formal individual contracts and could override both awards and collective agreements. The AIRC was required to arbitrate claims to adjust the minimum safety net but had little scope to rule on claims above the minimum.

Termination of employment provisions were retained but amended so that 'unlawful termination' cases were heard by the Federal Court and 'harsh, unjust or unreasonable termination' cases were dealt with by the AIRC (Rimmer, 1997, p. 72).

Five States retained their own award systems but introduced legislation aimed at encouraging formalised enterprise bargaining (Cairncross and Buultjens 2006, p.477). In 1996, the Victorian Government referred its industrial relations powers to the Federal Government and the Federal system now operates in Victoria.

In the period between the introduction of the Workplace Relations Act 1996 and the Workplace Relations Amendment (WorkChoices) Act 2005, which came into operation in 2006, numerous laws relating to industrial relations were introduced but many were blocked in the Senate (OECD 2006a, p. 120). Bills that were not passed covered aspects of termination of employment, particularly for small business, award simplification, agreement making and secret ballots prior to industrial action.

However, in 2001 unfair dismissals laws were eased slightly. An amendment was passed that required new employees to be employed for three months (a standard which could be varied by written agreement) before they could claim unfair dismissal compensation. The amendment also required the AIRC to take into account the different sizes of businesses when assessing whether their dismissal procedures were reasonable and the degree to which the absence of dedicated human resource management expertise would be likely to impact on the procedures followed in effecting the termination.

Amendments were also passed in 1999 which made separate wage rates for youths more widely available and exempt from the age discrimination provisions of the Act.

Further changes were made to restrict industrial action. In 2002 an amendment was passed with the main purpose of helping the AIRC to suspend or terminate a bargaining period on the grounds that the notifying party is not genuinely trying to reach agreement. In 2004 a new law empowered the AIRC to make interim orders to stop or prevent industrial action.

The main theme of these changes was to encourage a greater emphasis on setting wages and conditions based on the circumstances of the enterprise and its employees. This was achieved through a greatly simplified award system, the introduction of AWAs, and a reduced role for unions in the bargaining and arbitration process.

At the same time, unfair dismissal protection remained largely intact, a 'global no-disadvantage' test remained and the AIRC retained substantial powers particularly with respect to minimum wages and conditions and unfair dismissal provisions. Thus, the

legislative changes provided an enabling environment for pay and conditions to be negotiated to better reflect individual circumstances and significantly reduced the scope for unions to take industrial action that disrupted the work process. However, the changes also permitted a continuation of the status quo for many aspects of the determination of wage and employment conditions (see Rimmer 1997).

In the construction industry arena, there have also been comprehensive reforms aimed to improve workplace relations. The Commonwealth, State and Territory Governments developed a National Code of Practice for the Construction Industry (the Code) in 1997. The Code establishes a set of principles and standards of behaviour that are expected to apply in dealings between clients, their representatives and members of the construction industry. It emphasises the maintenance of the highest ethical standards in all construction-related activities. The industrial relations elements of the Code cover workplace arrangements, over-award payments, project agreements, freedom of association, dispute settlement procedures, strike pay and the impact of industrial disputes.

In August 2001, the Cole Royal Commission into the Building and Construction Industry (the Royal Commission) was established to inquire into the nature, extent and effect of any unlawful or inappropriate conduct in the building and construction industry. The Building Industry Taskforce (the Taskforce) was established on 1 October 2002, following the Cole Royal Commission's findings that the building and construction industry was characterised by a widespread disregard for the law. The Taskforce was established as an interim body to secure the law in the industry prior to the establishment of a national agency. The Taskforce operated for three years, until the establishment of the Office of the Australian Building and Construction Commissioner (ABCC) on 1 October 2005.

The Building and Construction Industry Improvement Act 2005 (BCII Act) established the ABCC and gave it powers to commence court proceedings, enter worksites, intervene in court proceedings and interview. The BCII Act also established significant civil penalties for failures to comply with requirements of the Act and significant criminal penalties for failures to comply with requirements of the ABCC. It also prohibits coercive and discriminatory industrial behaviour associated with building work. Since its launch, the ABCC has established itself as an active regulator of the building and construction industry.

Recently, Econtech (2007) has estimated how the activities of the ABCC in conjunction with industrial relations reform have boosted productivity in the construction industry. By comparison, this report has a more general focus in that it is concerned with how industrial relations reform has boosted productivity and employment across the economy.

2.3 WorkChoices

In response to some of the remaining limitations of the institutional arrangements, the Australian Federal Governments Workplace Relations Amendment (WorkChoices) Act 2005 came into effect on 27 March 2006. WorkChoices makes significant amendments to the Workplace Relations Act 1996. The key developments are: the creation of a national system of industrial relations; the establishment of the Australian Fair Pay Commission, which is a new, independent body to set minimum and award classification wages (but not other employment conditions which are to be set by Parliament); a greatly simplified agreement making and lodgement process; and a significant relaxation of unfair dismissal provisions. Subsequently, an amendment was passed by Parliament in June 2007 that will require "fair

compensation" for workplace agreements for workers earning $75,000 or less and for all workers under collective agreements.

Under the new system, the Federal industrial relations system will replace the State systems for constitutional corporations and most employees. As the States, except for Victoria, are unwilling to refer their industrial relations powers, the Federal Government will rely on the corporations power to extend the existing Federal system to cover corporations.

The key changes introduced by WorkChoices are as follows.

- A national system that will cover up to 85 per cent of employees (OECD 2006a, p.124). There will be a transitional period of 3-5 years depending on the status of corporations and Federal/State coverage.
- The establishment of the Australian Fair Pay Commission to replace National Wage Cases at the Australian Industrial Relations Commission. The primary objectives of the Commission are to consider: (i) the capacity of the unemployed to obtain and remain in employment; (ii) employment and competitiveness across the economy; and (iii) providing a safety net for the low paid, for young people and the disabled. The requirement to specifically take into account the unemployed was a new development.
- The Parliament has set minimum conditions for annual leave, other leave and maximum ordinary hours of work. These conditions, together with the wages set by the Fair Pay Commission, constitute the Australian Fair Pay and Conditions Standard. More generous provisions in awards will be preserved and overtime pay will continue to be set in awards. However, the award system is to be rationalised, with fewer and simpler awards.
- A simpler agreement approval process will apply. Agreements have to be lodged with the Workplace Authority (formerly the Office of the Employment Advocate) with an attestation that the Agreement was negotiated in compliance with the Fair Pay and Conditions Standard, but a formal approval process will not apply (other than the post-lodgement fairness test).
- Unfair dismissal laws were eased significantly. Businesses up to and including 100 employees will be exempted from unfair dismissal laws but will be covered by rules relating to unlawful determination which generally relate to discrimination. For larger businesses, there will be exceptions allowed on 'operational grounds'.
- The new workplace agreements and contracts of employment must not contain provisions that are less favourable than the Australian Fair Pay and Conditions Standard and (under the recent amendments) workers on workplace agreements and earning less than $75,000 must receive "fair compensation", as must all workers on collective agreements.
- Freedom of association and restrictions on the right of unions to enter workplaces are retained, the process of pattern bargaining is outlawed, a secret ballot must be held before protected industrial action can be taken and the role of unions in agreement making has been clarified.
- The Minister for Employment and Workplace Relations can issue a declaration where protected industrial action threatens the welfare of the population or part of it or is likely to cause significant damage to the economy or an important part of it. A

declaration will terminate all relevant bargaining periods and authorise the Minister to issue written directions to reduce or remove the threat including directing specified negotiating parties to take or refrain from taking specified actions. The dispute will be referred to a full bench of the AIRC to settle the matters at issue by a workplace determination.

- The AIRC will be responsible for simplifying awards, supervising protected industrial action and playing a role in relation to the termination of employment. It will not be able to make new awards and will only be able to vary awards within specified parameters.
- A Workplace Authority and Workplace Ombudsman have been established to assist employers and employees in making agreements and resolving disputes at the workplace level.

Table 2.1 summarises the developments of Australian industrial relations policy in the past decade (Workplace Relations Act 1996 and WorkChoices 2005) in terms of the impact on key labour market policies and institutions.

Table 2.1
Reforms to Australian Industrial Relations Institutions and Policies

Labour Market Policies and Institutions	Workplace Relations Act 1996	WorkChoices Act 2005
Minimum wages and conditions	Unchanged and AIRC powers largely retained	Potential for change with new objectives for determining the minimum wage, a new Fair Pay Commission to determine the minimum wage and government determination of other minimum employment conditions
Other wages and employment conditions	Greater scope to take account of individual circumstances in a flexible manner but subject to a global no-disadvantage test	A notification rather than a formal approval process will apply for AWAs and collective agreements but subject to a 'fair' compensation test
Unfair dismissal provisions	In 2001, termination of employment provisions retained but some relaxation of provisions that were largely focussed on small business.	Businesses up to 100 employees will be exempt from unfair dismissal laws; for larger businesses there will be exemptions based on 'operational grounds'
Scope for strike and industrial action	Reduced	Further reduced
Union contract coverage	Likely to decline reflecting freedom of association provisions and AWAs	Likely to decline more significantly reflecting the greater ease-of-use of AWAs and non-union enterprise bargaining
Centralised bargaining	Continuing trend to greater decentralisation	Increasing trend to greater decentralisation

Source: Econtech

3. Assessing the Reforms – Theories and Evidence

This section begins by setting out the key economic theories that relate to various aspects of labour market institutions and policies. It then reviews international and domestic evidence to isolate the impact of labour market reforms on unemployment. Finally, it considers the effects of the reforms on labour productivity.

3.1 Economic Theory

3.1.1 Minimum wages and employment conditions

The standard theory of the impact of minimum wages is that a minimum wage set above the level of the marginal value that the worker contributes to the production process will discourage employment and lead to higher unemployment. A similar result will arise where employment conditions are excessive. In either case, least and marginally productive categories of workers would be priced out of employment. This also limits the opportunity for them to improve their skills and productivity through work experience. It may also discourage them from seeking employment, leading to them to entirely drop out of the labour force.

There is an exception to the standard theory where firms have some monopsony power i.e. bargaining power that leads to wage outcomes less than would arise in a competitive market. Under such circumstances, a rise in the minimum wage reduces unemployment up to a certain point and starts to increase it thereafter. However, compared with other countries, in Australia the minimum wage is already high relative to the median wage, so that unemployment is likely to be positively related to the minimum wage.

In addition, it is important to recognise that there is not a single basic minimum wage in Australia but a multiplicity of minimum wages set for numerous occupational job classifications. The multiplicity of minimum wages has the potential to further discourage employment. Historically, it is also associated with inflexibility in wage relativities.

Just as an excessive minimum wage may increase unemployment, so may inflexibility in wage relativities. That is, to the extent that wages and conditions are in excess of the marginal value of the work effort, employment will be discouraged. If wage relativities do not accurately reflect the marginal value of work effort, job mismatch will occur with pockets of excess demand and supply for different types of labour. This is likely to increase the structural rate of unemployment.

Inflexibility in wage relativities also means that wages cannot play their role of providing a market signal for the highest-valued allocation of labour across the economy. The contribution that flexibility in relative wages can make is seen in the current resources boom in Australia. An upward adjustment in wages in the mining sector relative to other sectors has attracted labour to the mining industry, facilitating a substantial boost to national income. Without such flexibility in relative wages, wages in the mining industry may not have been able to rise to attract the needed additional labour.

The flexibility that now exists in the determination of wages in Australia is likely to have been critical in ensuring that wage increases in the mining sector were not matched by similar increases in other sectors where economic conditions did not warrant such an

increase. Thus, the flexibility that is now an important feature of Australia's wage determination process is considered to be a key reason why overall economic growth has been sustained over such a long time frame in Australia without a significant inflationary surge. If inflexibility in wage relativities had continued to be a significant feature of the economy during the current boom in the mining sector, there may have been a general wages break-out leading to substantially higher inflation, an increase in interest rates, and a significant loss of jobs in the rest of the economy leading to higher overall unemployment.

In general, widespread formal or informal inflexibility in wage relativities also means that **adverse** shocks are more likely to be reflected in employment and production losses than wage and relative price adjustments, and hence lead to a larger adverse impact on unemployment.

3.1.2 Unfair dismissal legislation

The presence of unfair dismissal legislation makes it difficult to dismiss workers. This is likely to have two main effects on firm behaviour. First, it will be harder for firms to dismiss less productive workers. Second, firms will be more reluctant to employ new workers, because of the difficulties of dismissal. This reduction in flexibility is likely to mean lower productivity, as well as less turnover of labour. In a competitive labour market, lower productivity means firms will pay lower wages.

The reduction in labour market turnover from unfair dismissal legislation also puts the unemployed at a disadvantage relative to the employed. A more stagnant labour market is likely to impact adversely on the long-term unemployed by increasing the average duration of unemployment.

Unfair dismissal legislation also creates an incentive to prefer to hire more casual or other workers who are not protected by the legislation than would be the case in the absence of the legislation.

While it is clear that unfair dismissal legislation reduces labour market turnover and impacts adversely on the long-term unemployed, the overall outcome for the unemployment rate is difficult to predict based on theory alone, so that empirical evidence is particularly important. The assessment of the international and national evidence presented later in this section concludes that there is an adverse impact of unfair dismissal legislation in Australia on the structural unemployment rate and labour productivity.

3.1.3 Trade unions, industrial action and collective bargaining

The participation of trade unions in wage setting can have implications for both unemployment and productivity. These implications are now considered in turn, beginning with unemployment.

Bargaining that is at an intermediate level such as an industry, rather than at the enterprise level or co-ordinated across the economy, can add to unemployment. This is because strong industry-based trade unions may have the ability to push wages above levels consistent with worker productivity. In addition, industry bargaining, to the extent that it reflects primarily the preferences and labour market prospects of existing workers, particularly prime-aged workers, may also lead to little concern about the impact on workers with marginal employment prospects. However, this unemployment problem with industry-level bargaining may be partly overcome by a highly co-ordinated bargaining process that focusses on the aggregate employment implications of wage determination. This argument is taken into account in economic literature that has identified two ends of the spectrum that may be conducive to more employment-friendly wage outcomes (Calmfors and Driffill 1988 and OECD 1997, pp. 64–65).

At one end of the spectrum is decentralised bargaining which recognises the particular circumstances of individual enterprises. The elasticity of demand for a firm's products is generally much greater than at the industry level as there are more substitutes for a firm's product than for the output of an industry. As a result, enterprise-level bargaining is much more likely to be sensitive to the particular circumstances of individual firms than is industry-level bargaining.

At the other end of the spectrum, highly coordinated bargaining systems are also likely to lead to wage moderation to the extent that they induce unions to take account of the effects of wage determination across sectors on aggregate employment. Coordination of wage determination also facilitates implicit or explicit social contracts where wage restraint is agreed to on the understanding that other policies will be implemented that increase the social wage, similar to developments under the Accord arrangements in Australia. Where bargaining takes place at the national level and involves a small number of large encompassing groups, the incentive for the bargaining agents to redistribute income towards themselves without taking into account the social cost will be quite small (Wooden and Sloan 1998, p. 187).

Thus, intermediate systems focussed on industry-wide bargaining, rather than the circumstances of individual enterprises or employment in the economy as a whole, may yield the worst employment outcomes. Such intermediate systems do not benefit from the market discipline that prevails at the decentralised level and they do not take account of the external effects of wage determination outcomes across the economy. The early Accord period saw greater co-ordination in the wage determination process, but this was followed by a move to a more intermediate system and then, reflecting dissatisfaction with the employment and productivity outcomes, a move to much more decentralisation, particularly with the most recent reforms.

The form of wage setting also has implications for productivity. The OECD (Scarpetta Tressel, 2002) found that labour market deregulation had a positive impact on productivity.

This is consistent with the idea that wage setting at the enterprise level provides greater scope for wage-productivity bargains, based on the specific circumstances of enterprises.

Strikes and other disruptive industrial action can also impair productivity. Hence, legislation or other developments that restrict the scope for unions to organise industrial action can mean higher labour productivity.

In summary, decentralised bargaining systems and highly co-ordinated bargaining systems may both be able to deliver wage moderation, and thus promote employment. However, a decentralised bargaining system is likely to allow more flexibility in relative wages and conditions and therefore less unemployment due to job mismatch. Intermediate systems focussed on industry-wide bargaining are likely to deliver the worst employment outcomes. Decentralised bargaining systems have the added important advantage of promoting productivity.

3.1.4 The Tax and Welfare System

The tax and welfare system can have an important impact on the incentive to be employed. In particular, the incentive to work provided by wage income can be partly offset by a range of disincentives. These disincentives include tax on the wage income and partial or total loss of welfare benefits, both of which are taken into account in the concept of the effective marginal tax rate. So one way of limiting disincentive effects is to design the personal income tax scale and benefit means test to keep effective marginal tax rates low.

Another way of limiting this disincentive to work is to discourage people from choosing to be unemployed. Examples in Australia include the work-for-the-dole scheme and the work test for continuation of unemployment benefit.

The international evidence presented in 3.2.2 generally confirms that high taxes on labour income and generous unemployment benefits contribute to higher unemployment and reduced work hours.

3.1.5 Active labour market policies

Active Labour Market Policies (ALMPs) typically consist of job placement services and labour market programs such as job-search, vocational training, hiring subsidies and, in some cases, job creation schemes. The purpose of these policies is to provide active assistance to the unemployed to improve their chances of obtaining work. They include measures to improve the efficiency of the job matching process and to develop the work skills of the unemployed, as well as linking eligibility criteria for unemployment insurance to participation in ALMPs.

In principle, ALMPs are considered to be more likely to be successful if they are effective in reducing transactions costs in the job search process, as such transaction costs can be an important aspect of market failure. Improving workforce skills is also likely to improve the prospects of finding employment for certain workforce occupations. The rationale for other measures such as subsidies and job creation schemes is not as clear.

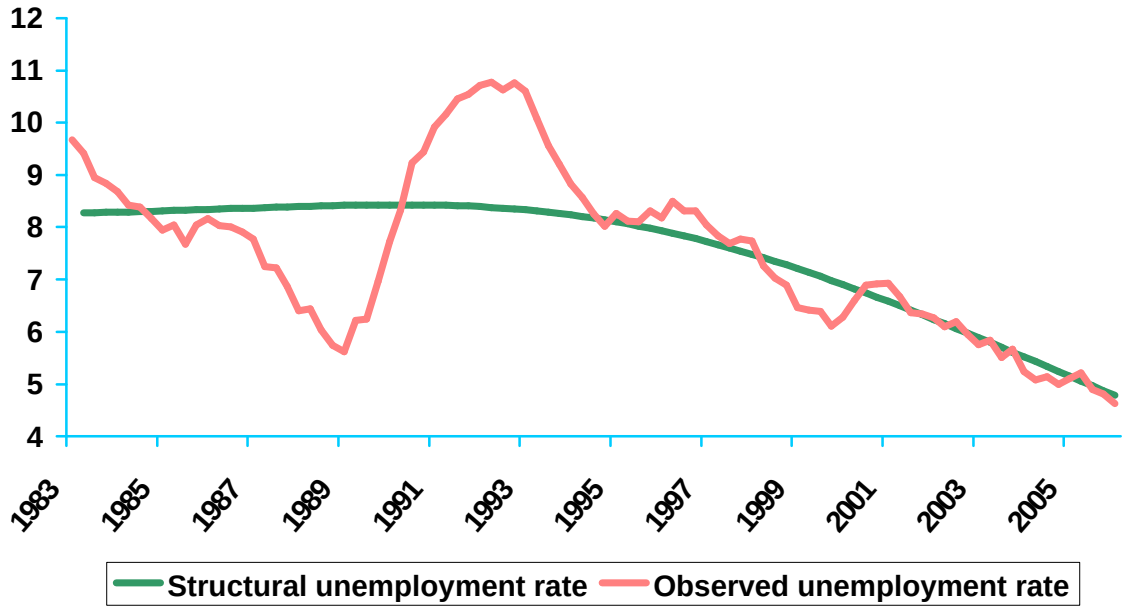
3.2 Labour Market Reforms and Unemployment

This part of the study discusses the impact of the Australian labour market reforms on unemployment. It provides an overview of trends in unemployment in Australia and reviews the international and national evidence. It then draws on this evidence to provide an estimate of the impact of industrial relations reforms on unemployment.

3.2.1 Trends in unemployment in Australia

The evolution of the unemployment rate from 1984 to 2006 is depicted in Chart 3.1. As can be seen from the chart, Australia's unemployment rate has varied considerably during the last decade. After a low of under 6 per cent for 1989, the Australian unemployment rate increased rapidly to a peak of 10.7 per cent for 1993. Since this peak, the unemployment rate has trended downwards to its current rate of under 5 per cent.

Chart 3.1
Actual and Trend Unemployment Rate
(per cent)



Sources:
ABS Cat No. 6202.0 for the observed unemployment rate.
Econtech use of the Hodrick-Prescott Filter in an inverted Phillips Curve equation for the structural unemployment rate or NAIRU.

In understanding movements in the unemployment rate and associated economic effects, it is important to consider the structural unemployment rate. Chart 3.1 compares the actual unemployment rate with the structural unemployment rate or NAIRU (non-accelerating inflationary rate of unemployment). The NAIRU is the rate of unemployment consistent with stable inflation. The NAIRU was estimated for Chart 3.1 using an inverted Phillips-curve equation, which shows the relationship between inflation and unemployment.

The NAIRU was relatively stable at approximately 8 per cent for the period 1983-1993. However, since then, the NAIRU has trended down to an estimated structural unemployment rate of under 5 per cent in 2006.

This decline in the NAIRU of 3 percentage points is even more important than the larger decline in the observed rate of unemployment. This is because the NAIRU represents the long-term, sustainable unemployment rate. Structural policies such as industrial relations reforms and other microeconomic reforms have a durable impact on unemployment by shifting the NAIRU. The estimated fall in the NAIRU of 3 percentage points suggests that Australia's widespread reform efforts have had considerable success in achieving a lasting reduction in unemployment.

Besides being affected by the NAIRU, the actual unemployment rate is also affected by the business cycle. However, the effects of the business cycle on unemployment are only temporary.

The following sections interpret the international and Australian evidence to identify the role of industrial relations reform in the reduction in the structural unemployment or NAIRU in Australia.

3.2.2 International evidence

Overview of the main methodologies

In an influential paper, Blanchard and Wolfers (2000) examined the effects on unemployment of both shocks to the economy and the nature of institutions for 20 OECD countries for the period 1960 to 1996. They found that the same adverse shocks had larger and more persistent effects on unemployment in countries with labour market institutions that perform poorly from an economic perspective.

In the analysis, poor labour market institutions were represented by high unemployment benefits of long duration, high employment protection, a high tax wedge between wages facing employers and employees, and high union density and contract coverage. Individual results for these factors are discussed in sub-sections below. Bean (2000) uses a similar cross-country methodology for 18 OECD countries for the period 1956-99 and focuses on the experience in Australia and finds similar results as discussed below.

Recent OECD Economics Department Working Papers (Nicoletti and Scarpetta 2005 and Bassanini and Duval 2006) also use a similar methodology to Blanchard and Wolfers for some 20 OECD countries for the periods 1980 to 2002 and 1982 to 2003. Nicoletti and Scarpetta find that "generous benefit systems, high labour tax wedges and high union density tend to curb employment rates".

Minimum wages and employment conditions

Nickell (2003, p.22) notes that the balance of the international evidence suggests that in many countries minimum wages are low enough not to have much of an impact on employment, but with the exception of young people. He also notes that only around half the OECD countries had statutory minimum wages over the period 1960 to 1995 and that some of the impact of minimum wages will in any case be accounted for in quantifying the effects of union density, union coverage and co-ordination of wage bargaining.

The Australian evidence is reviewed in Section 3.2.3. The evidence indicates that, consistent with the fact that minimum wages in Australia are high by international standards, there are likely to be adverse impacts on employment from Australia's minimum wage system, particularly for workers with marginal employment prospects.

Unfair dismissal legislation

Blanchard and Wolfers (2000) find that higher employment protection (i.e. legislation that makes it more difficult to dismiss workers) has a statistically significant and economically important adverse impact on unemployment. Using a similar methodology for 18 OECD countries for the period 1956-99, Bean (2000) also finds that high levels of employment protection have a very strong statistical effect in raising unemployment persistence.

However, other studies have not been as conclusive. Nickel (2003, p. 22) summarises the empirical evidence as follows:

> "The results presented by Lazear (1990), Addison and Grosso (1996), Bentolila and Bertola (1990), Elmeskov et al. (1998), Nickell and Layard (1999) do not add up to anything very decisive, although there is a clear positive relationship between employment protection and long-term unemployment."

In a recent OECD study Nicoletti and Scarpetta (2005, Table 2) also found mixed results for the impact of employment protection legislation on non-agricultural business employment. They found that strict employment protection legislation had a negative and statistically significant impact in the baseline regression that omitted the measure of product market regulation as an explanatory variable. They also found that employment protection legislation had a negative, statistically significant impact when combined as an interaction variable with a measure reflecting an intermediate degree of centralisation and coordination of the wage bargaining process. However, in regressions that included product market regulation but excluded interaction effects, the impact of employment protection legislation was not statistically significant.

Bassanini and Duval (2006) find no significant effect of employment protection legislation on aggregate unemployment in their baseline regression. However Bassani and Duval (2006, Table 1.5) found when systemic interaction effects were accounted for, strict employment protection legislation had a highly statistically significant impact in raising the structural unemployment rate. They also found that employment protection legislation: has negative effects on youth entry into the labour markets; benefits older workers; and is associated with substitution of part-time for full time female work.

The inconclusive nature of some studies in this area, including the two OECD studies, may be explained by the somewhat arbitrary nature of the OECD employment protection legislation index that these studies use. Di Tella and MacCulloch (2002) developed a new data set based on surveys of business people for 21 OECD countries covering the period 1984-90. Using this data base they find evidence that relaxing job security provisions increases the employment rate and the participation rate, with potentially large effects. For example, in the case of France, total employment would increase by 2.8 per cent if its labour markets became as flexible as those in the United States.

The Australian evidence is reviewed in Section 3.2.3. The evidence indicates that there are likely to be adverse impacts on employment from the unfair dismissal laws that were in place in Australia prior to the commencement of WorkChoices.

Trade unions, industrial action and collective bargaining

Blanchard and Wolfers (2000) find that that higher union density (the proportion of trade union members relative to all wage and salary earners) was associated with higher unemployment and the effect was statistically significant. Higher union coverage (the share of workers covered by union bargaining) also increased unemployment but the result was not statistically significant when all the effects were considered together.

Bean (2000) finds that union power raises unemployment. At the same time, he finds that a high degree of union-employer coordination in certain economic contexts, i.e. one where bargaining takes account of effects on other sectors and the economy as a whole, reduces the impact on unemployment and speeds adjustment to a lower level of unemployment. He also finds that a low degree of nominal wage rigidity reduces both average unemployment and the impact of shocks on unemployment.

The OECD study of Nicoletti and Scarpetta (2005) also finds that high union density has an adverse impact on employment outcomes with the effect being highly statistically significant across all specifications. They also find that both highly centralised and highly decentralised wage setting systems deliver employment outcomes that are superior to intermediate systems such as industry-based bargaining.

In summary, the international studies generally provide support for the conclusion that high union density and intermediate systems focussed on industry-wide bargaining have adverse impacts on employment.

The Tax and Welfare System

In the international literature, the impact of the tax and welfare system is proxied by measures of different dimensions of the unemployment benefits system and also the tax wedge. Relevant measures of the unemployment benefits system include (Nickell 2003, p.18): the level of benefits; the duration of entitlements; the coverage of the system; and the strictness with which the system is operated. The **tax wedge** is a measure of the gap between the costs of employment to the firm relative to the after tax pay of the employee.

Blanchard and Wolfers (2000) measure unemployment benefits by the replacement rate (the ratio of pre-tax unemployment benefits to pre-tax wages) and the duration of entitlements as the number of years over which unemployment benefits are paid. They find that both have a

statistically significant positive effect in increasing unemployment. They also find that a higher tax wedge has a statistically significant adverse impact on unemployment.

Bean (2000) uses a similar measure of the replacement rate and also finds that generous unemployment benefits raise average unemployment, increase the sensitivity of unemployment to shocks and raise unemployment persistence. He does not examine the effects of the tax wedge.

Nickell (2003, p.18) refers to a number of studies where he notes the average of the results indicates a 1.11 percentage point rise in equilibrium unemployment for every 10 percentage point rise in the benefit replacement ratio. He also cites a number of studies where there is strong evidence that the strictness with which the benefit system is operated, at given levels of benefit, is a very important determinant of unemployment duration (see Abbring et al. (1999) and van Den Berg et al. (1999) for the Netherlands, the Danish Ministry of Finance (1999), Chapter 2 for Denmark, and OECD (2000), Chapter 4 for cross-country evidence).

In an OECD Economics Department Working Paper, Nicoletti and Scarpetta (2005) also find that generous benefit systems and high labour tax wedges "tend to curb employment rates". The OECD (2006b, p.94) also concludes that recent experience reinforces concerns that a high tax wedge increases unemployment and reduces work hours.

In summary, the international studies generally provide support for the conclusion that generous benefit systems and high tax wedges have adverse impacts on employment.

Active Labour Market Policies

The general finding is that Active Labour Market Policies (ALMPs) have a negative impact on unemployment but the studies fail to agree on the magnitude (Nickell 2003, p. 20 and Bassanini and Duval 2006, p. 90). This result is found both in studies using cross section information and microeconometric approaches. However, an exception is that job search assistance schemes tend to have positive outcomes, while employment subsidies and labour market training must be well designed to have a positive impact (Martin 2000 and OECD 2005).

Martin and Grubb (2001) find that public job creation and wage subsidy programs often entail large dead-weight losses (subsidised jobs are created that would have been created even without the subsidy) and substitution effects (workers who qualify for a subsidy replace others who do not), with disappointing results in terms of bringing the unemployed back into unsubsidised work. In addition there is a need to take account of the costs of financing large scale employment programs.

Bean (2000) found that spending on ALMPs tends to lower average unemployment and reduce the duration of unemployment.

In summary, the international studies generally provide support for the conclusion that some types of ALMPs, particularly job search assistance schemes, have positive impacts on employment.

3.2.3 Australian evidence

Minimum wages and employment conditions

The OECD (2006a) estimates that the ratio of minimum wages (for both manual and non-manual workers) relative to average wages for Australia was 57.6 per cent in 2004, which was the highest ranking across 20 OECD countries.

The OECD also notes that several studies find an elasticity of employment with respect to real wages or the minimum wage in the range of -0.2 to -0.8. The study by Leigh (2003, 2004) is of particular interest given that it focusses on the employment impacts of the statutory minimum wage and was conducted within a quasi-experimental setting. Leigh examined six rises in the statutory minimum wage in Western Australia, comparing the differences in employment in Western Australia before and after each rise with differences in employment over the same period in the rest of Australia (the control group). This approach has the advantage of establishing a more robust counterfactual compared to studies focussing on the effects before and after a policy or institutional change. Leigh found a statistically significant estimate of the elasticity of demand for labour of -0.29, implying that a 10 per cent increase in the minimum statutory wage would reduce total employment by 2.9 per cent. However, he found much higher elasticities for young people of -1.01.

Minimum employment conditions (apart from wages and redundancy standards) do not appear to have changed materially in the past decade and are unlikely to be substantially affected by the WorkChoices Act. The establishment of the Australian Fair Pay and Conditions Standard, with the definition of the minimum conditions (apart from pay) set by the government, and the "fair compensation" test for workers making workplace agreements, should preserve minimum wages and conditions for most workers on lower incomes. However, one key change that WorkChoices has introduced is the prospect of unemployment specifically influencing minimum wages in future decisions. (The Fair Pay Commission is specifically required to take into account the impact of the minimum wage on the unemployed and competitiveness across the economy as well as the need for a safety net.)

The specific requirement to take account of the impact of the minimum wage on unemployment and competitiveness across the economy, as well as the need for a safety net, should lead to more employment of workers with marginal work prospects and contribute to a reduction in the structural unemployment rate. As productivity continues to grow, real minimum wages would also be expected to increase. Additionally, it is expected that the new arrangements, by encouraging higher productivity, will lead to higher average real wages compared with outcomes under the old arrangements. However, the extent to which unemployment rates are reduced will depend on the tax-transfer system, including the generosity of unemployment benefits and effective marginal tax rates.

Unfair dismissal legislation

As noted earlier, in Australia unfair dismissal laws were eased slightly in 2001 and significantly in 2006. Compared to other OECD countries, Australia's employment protection legislation is now less strict (OECD 2006, p. 126). However, there is evidence that the unfair dismissal provisions that existed up to 2006 had at least a small adverse

impact on unemployment, and particularly affected the long-term unemployed and those with marginal work prospects.

Harding (2002) undertook a survey of the effects of unfair dismissal laws on 1,802 businesses, where a careful attempt was made to avoid open-ended i.e. 'leading questions'. He estimated that unfair dismissal laws would reduce employment of workers on the average wage by a minimum of about 0.46 per cent and employment of workers on the minimum wage by a minimum of about 1 per cent. The estimated impacts represent lower bounds because: (i) the effects were not quantified for 18.2 per cent of respondents; (ii) indirect compliance costs are likely to have been underestimated; and (iii) the extent of screening in the questionnaire is considered to bias downwards estimates based on factoring up the costs for the economy as a whole. The survey also indicated that the long term unemployed and those who changed jobs frequently for no apparent reason were the most disadvantaged.

Freyens and Oslington (2006) undertook a survey in 2004 of 1,800 small and medium enterprises and estimated that removing the conciliation and arbitration elements of unfair dismissal would result in a loss of 11,600 jobs. However, if mandatory severance and notice requirements were removed, they estimated an upper estimate of the employment impact of 157,000 jobs. They caution, however, that with such a scenario there would be likely to be an offsetting impact to the extent that bargained wages would rise to compensate for the loss of redundancy pay. They also report anecdotal evidence from another survey of dismissals being negotiated into redundancies which suggests that their estimate of 11,600 is on the low side. In addition, Wooden (2006a) argues that Freyens and Oslington only measured direct costs of unfair dismissals and ignored many potentially larger costs associated with the additional management procedures necessary to reduce unfair dismissal claims. It should also be recognised that both Harding and Freyens and Oslington do not capture the impact on productivity of retaining low productivity workers. This is considered below in section 3.3.5.

WorkChoices increases the flexibility for firms to be able to dismiss workers in certain circumstances. The international and Australian evidence considered together suggests that there is likely to be at least a small but noticeable gain in employment from the recent changes to the unfair dismissal provisions, particularly for the long term unemployed. The estimates of Harding are considered to be a conservative estimate of likely outcomes.

Trade unions, industrial action and collective bargaining

With the passing of the Accord and the reforms announced in 1993, 1996 and 2005, the wage setting system has become increasingly decentralised. Working days lost through industrial disputes have declined from an annual average of 216.5 days **not worked** per 1000 employees in the period from the March 1985 quarter to the December 1993 quarter to an annual average of 65.5 days for the period from the March 1994 quarter to the December 2006 quarter.[5] The reduction is even more dramatic if the annual average of only 12.3 days for the June 2006 quarter to the March 2007 quarter is considered.

The influence of unions as reflected in union membership and award coverage has declined. Their role in the wage bargaining process has been reduced, while enterprise agreements, AWAs and individual contracts have become more important.

[5] ABS "Industrial Disputes: Australia", 6321.055.001, Table 2b.

Wooden (2006a, p. 109) argues that industrial relations reforms will constrain inflationary pressures through two mechanisms: first, by reducing the flow-on of wage increases from high productivity firms to low productivity firms and second by reducing the ability of unions to bid wages above their market clearing levels. He notes the following.

> "The estimates of Lye and McDonald (2005) suggest that the decline in union density since the mid-1970s has effectively reduced the 'minimum' equilibrium rate of unemployment by about three percentage points while the effect of the growth in coverage of enterprise agreements during the 1990s was to reduce it by almost one percentage point."

By comparison, this study's estimate of the reduction in structural unemployment due to industrial relations reform is more modest, as seen in section 3.2.4.

The Tax and Welfare System

Based on the situation in 2005, Wooden (2006b) notes that it was still true that the tax transfer system, including the means-testing of eligibility for payments, meant that many low-income families faced relatively high effective marginal tax rates. He showed that the effect was most relevant for sole parents, and couples with children where there is only one earner or one and half earners.

For workers on average incomes, the tax wedge used in international studies has been relatively stable for Australia for the period from the mid-1990s to about 2006 (OECD 2007). However, the changes to the tax system in the 2006/07 and 2007/08 Federal Budgets will improve incentives to work for low and middle income earners. To the extent that this occurs, it should create stronger incentives for increased labour force participation and increased work hours.

While these changes to the tax system are important, this study is concerned with isolating the impacts of industrial relations reform alone. Hence the differences between our "no reform" scenario and our "baseline" scenario only reflect the effects of industrial relations reform alone, not the additional effects from improvements to the tax and welfare system.

Active Labour Market Policies

There have been a number of changes to ALMPs since the early 1990s as follows:

- The Working Nation Program focussed on re-integrating the long-term unemployed back into the labour market (1994).
- A Work for the Dole scheme was introduced that emphasises the obligation to work or train in return for state support (1997).
- The Job Network program introduced competition into the labour services market (1998).
- In response to a number of shortcomings with respect to finding employment for job seekers with marginal employment prospects, an Active Participation Model was implemented to improve linkages between the Job Network and other complementary employment and training programs (July 2003).

There is limited information to assess the extent to which these ALMPs have had a significant impact in reducing unemployment. Bean (2000) examined the residuals from his model for Australian unemployment over the 1990s. His measure of ALMP only captures expenditure on ALMPs and not the incentives associated with work for the dole and the efficiency effects of competition in the labour services market. He finds that the equation tracks quite well in the second half of the 1990s, suggesting that labour market reforms not captured in his model had not had much impact at that stage.

Reviews of the micro evidence by DEWR (2002 and 2004) for a more recent period found that key programs were effective forms of assistance.

3.2.4 Estimate of the Impact of Industrial Relations Reforms on Unemployment

The evidence from this section is now brought together to estimate the effects of the major industrial relations from 1993 onwards on the structural unemployment rate. Over this period, it was found that the structural unemployment rate or NAIRU has fallen by around 3 percentage points. This section has considered the following five areas of labour market reform as possible contributors to this fall in structural unemployment:

1) minimum wages and employment conditions;
2) unfair dismissal legislation;
3) trade unions, industrial action and collective bargaining;
4) the tax and welfare system; and
5) active labour market policies.

This report is concerned with industrial relations reform, which refers to the first three factors, and the reforms from 1993 onwards have had a particular emphasis on the second and third factors. Hence, this report concentrates on estimating the effects of changes in the second and third factors on the structural unemployment rate. The third factor - trade unions, industrial action and collective bargaining - is considered first, followed by the second factor - unfair dismissal legislation.

OECD Study: Impacts of Lower Union Density and Decentralised Wage Setting

In the area of trade unions, industrial action and collective bargaining, there are several variables that have been suggested as drivers of lower structural unemployment. With a range of variables to be taken into account, it is important to use a consistent, credible and independent framework for estimating the direct effects of this factor on structural unemployment. For this purpose, we rely on the OECD Economics Department Working Paper of Nicoletti and Scarpetta (2005).

Nicoletti and Scarpetta (2005) is an OECD study based on a comprehensive database for 20 OECD countries from 1980 to 2002. It uses regression analysis to estimate the impact of various product market and labour market reforms and institutions on non-agricultural business employment.

The equation that is used here to estimate the impact on employment of reforms in the area of trade unions, industrial action and collective bargaining (Nicoletti and Scarpetta 2005,

Table 2, regression 7) shows that the non-agricultural business **employment rate is adversely affected** by:

1) high union density (measured as the proportion of workers who are members of trade unions);
2) a wage determination system that is intermediate in terms of degree of centralisation and coordination (e.g. has an industry focus), with both highly decentralised and highly centralised systems having a positive significant impact on employment;
3) a high "tax wedge" between wages paid by employers and wages received by employees;
4) high unemployment benefits;
5) strict product market regulation; and
6) public ownership of business enterprises.

The effects for each of the above variables were found to be highly statistically significant. The first two variables relate to our area of interest of trade unions, industrial action and collective bargaining. That is, this area is captured in the Nicoletti and Scarpetta equation by union density and whether the wage determination system is classified as centralised or intermediate (e.g. industry focused) or decentralised.

One issue before proceeding is that Nicoletti and Scarpetta (2005) models effects on the employment rate, while our modelling requires this to be translated to effects on the unemployment rate. Fortunately, this translation is straightforward. While it is obvious that a higher employment rate will be associated with a lower unemployment rate, it turns out that for our purposes the relationship is very simple. In particular, a 1 percentage point fall in the structural unemployment rate is associated with almost exactly a 1 percentage point rise in the employment rate.[6] That is, changes in the unemployment rate and employment rate are equal in magnitude but opposite in direction.

The regression coefficients estimated by the OECD study show the direct effect of each of the six variables on the employment rate. We can apply these to the Australian data for the change in each measure from 1992 to the present to identify the contribution of each measure to the change in the employment rate. The OECD study measures the employment rate by the ratio of employment in the non-agricultural business sector to the working-age population.

As noted above, our particular interest is in the contribution of variables 1 and 2 - union density and whether wage setting is centralised, intermediate or decentralised. These effects on the employment rate are calculated in Table 3.1. This involves applying the coefficients estimated by the OECD study to the changes in each measure over the periods of interest.

[6] This simple outcome reflects two offsetting effects. First, while higher employment will reduce unemployment, it will also encourage new entrants to the labour force, muting the fall in unemployment. If only this effect is considered, changes in the unemployment rate would be expected to be smaller than changes in the employment rate. Second, the unemployment rate is expressed relative to the labour force, while the employment rate is expressed relative to the working-age population, which is larger than the labour force. If only this effect is considered, changes in the unemployment rate would be expected to be larger than changes in the employment rate. As it happens, in our MM2 model these two effects are almost exactly offsetting, so that changes in the unemployment rate and employment rate are equal in magnitude but opposite in direction.

Table 3.1
Estimated effect on employment rate according to industrial relations factor

	coefficient	changes		employment share		
		1992-2003	2003-2006	1992-2003	2003-2006	1992-2006
union density	-0.188	-17	-3	3.12	0.50	3.62
centralised system	1.223	-1	0	-1.22	0.00	-1.22
decentralised system	1.501	1	0	1.50	0.00	1.50

Sources:
"OECD coefficient": OECD study of Nicoletti and Scarpetta 2005, Table 2, regression 7.
Changes in factor: ABS for union density, OECD for centralised and decentralised system

Beginning with **union density**, Table 3.1 shows a major contribution to the employment rate from a reduction in union membership (union density). In particular, the fall in union membership from 1992 to 2006 is estimated to have added 3.62 percentage points to the employment rate. This is based on ABS data that shows that union membership declined from 39.6 per cent in 1992 to 20.3 per cent in 2006[7].

It is worth recalling from the review of the literature presented in Section 3, that Lye and McDonald (2005) reach a similar conclusion. In particular, they find that the decline in union density since the mid-1970s has effectively reduced the 'minimum' equilibrium rate of unemployment in Australia by about three percentage points.

At the same time, some care is needed in interpreting these results as showing a particular channel through which industrial relations reform has raised employment. First, while union membership is influenced by labour market reform, it is also influenced by other factors. Below we consider the extent to which the decline in union membership should be attributed to labour market reform. Second, declining union membership may be a by-product of labour market reform, but it is not the target of labour market reform. Rather, declining union membership serves as an indicator of various aspects of labour market reform that are more difficult to measure than union membership, such as an increased enterprise focus for wage setting.

We considered three possible drivers of the 20 percentage point decline in union membership that occurred over our period of interest.

The first possible driver was changes in the industry pattern of employment from high union membership to low union membership industries. ABS data for union membership at a detailed (52) industry level is available for 1994 to 2006, and was used to investigate the role of this driver. Over this period, union membership declined from 35 to 20 per cent. If the industry mix of employment is held constant at the 1994 mix, the decline in union membership is from 35 to 21 per cent, almost as large as the actual decline. Hence, changes in the industry mix of employment play only a minor role in explaining the decline in union membership. Rather, the decline in union membership is widespread across industries.

The second possible driver is the general global move to more market-oriented economies. Bassanini and Duval (2006, footnote 47, p. 23) note that union density in their sample of

[7] Applying the regression coefficient in Table 3.1 of -0.188 to this fall in union membership of 19.3 percentage points (17 percentage points of which occurred from 1992 to 2003 and 3 percentage points from 2003 to 2006, as seen in Table 3.1), gives the reported contribution to the employment rate of 3.62 percentage points.

OECD countries (excluding New Zealand) fell by an average of 10 percentage points from 1982 to 2003. However, the fall in density was 26 percentage points in Australia.

This points to the third factor behind the decline in union membership in Australia, namely industrial relations reform. This is further supported by the observation that the other OECD country in the Bassanini and Duval sample with an unusually large fall in union membership is New Zealand, which like Australian engaged in extensive industrial relations reform.

On balance, and to be conservative, we have assumed that only one-third of the decline in union membership in Australia since 1992 is due to industrial relations reform. This scales back the impact of industrial relations reform via lower union density on the employment rate from the OECD-based estimate of 3.6 percentage points (see Table 3.1) to 1.2 percentage points. As noted above, this converts to a similar fall in the structural unemployment rate. Hence we estimate that **reductions in union density arising from industrial relations reform have reduced the structural unemployment rate by 1.2 percentage points**.

Turning to the next industrial relations factor of whether wages and conditions are set at a centralised, intermediate or decentralised level, the OECD-based results in Table 3.1 support the widely-supported hypothesis discussed earlier that employment outcomes are worst in intermediate (e.g. industry-based) industrial relations systems. Compared to an intermediate system, a centralised system in certain economic contexts adds 1.2 percentage points to the employment rate while a decentralised system adds 1.5 percentage points. This implies that Australia's gradual shift from a centralised to a decentralised system has added a net 0.3 percentage points to the employment rate. As noted above, this converts to a similar fall in the structural unemployment rate. Hence we estimate that **the shift from a centralised to a decentralised wage setting system has reduced the structural unemployment rate by 0.3 percentage points**.

This estimate is conservative. To the extent that the former industrial relations system included intermediate or industry-focussed elements, the gain in the employment rate under the new system would be greater. As reported in section 3.2.3, Lye and McDonald (2005) find that the growth in coverage of enterprise agreements during the 1990s has effectively reduced the 'minimum' equilibrium rate of unemployment in Australia by almost one percentage point. We use the more modest estimate based on the OECD study.

The direct impacts of labour market reforms on unemployment have also been considered in another recent OECD study undertaken by Bassanini and Duval (2006). However, the estimates based on Nicoletti and Scarpetta are preferred to those of Bassanini and Duval for three reasons. First, the results from their various regression equations are more consistent so are results are less sensitive to our choice of regression equation. Second, they separately estimate the effects of decentralisation and centralisation of the wage bargaining process (compared with an intermediate system e.g. industry bargaining). Third, they focus on the effects on employment, which take account of both unemployment and participation rate effects, rather than unemployment effects alone.

Harding Study: Impact of Unfair Dismissal Laws

The two OECD studies do not provide consistent evidence on the impact of unfair dismissal legislation on employment. Some regressions in both studies show a significant, adverse effect, but other regressions do not.

The results of Di Tella and MacCulloch (2002) support the conclusion that the problem may lie with the somewhat arbitrary nature of the OECD employment protection legislation index used in the OECD studies. As noted earlier, Di Tella and MacCulloch developed a new data set based on surveys of business people for 21 OECD countries covering the period 1984-90. Using this data base they find evidence that relaxing job security provisions increases the employment rate and the participation rate, with potentially large effects. For example, in the case of France, total employment would increase by 2.8 per cent if its labour markets became as flexible as those in the United States.

From the literature review presented earlier, we consider that the study by Harding (2002, 2005) provides a reasonable, conservative estimate of the impact of Australia's earlier unfair dismissal laws on employment. Harding (2005, p.23) estimates that these laws reduced employment by at least 0.46 per cent. However, WorkChoices exempted businesses with 100 or fewer employees from the laws and according to Harding (2005, Table 10) these smaller businesses had borne 93 per cent[8] of the cost of the laws. On that basis, exempting smaller businesses from unfair dismissal laws has added 0.43 per cent[9] to employment. When allowance is made for discouraged worker effects, this implies that **exempting smaller businesses from unfair dismissal laws has reduced the structural unemployment rate by 0.27 percentage points**.

Total Effect on Structural Unemployment

Thus, we estimate that the major industrial relations reforms since 1992 have reduced the structural unemployment rate by a total of around **1.77 percentage points**. This estimate is considered to be a conservative one given the conservative estimates that have been adopted for the impact of the decline in union membership (1.20 percentage points), the move from a centralised to a decentralised system (0.3 percentage points) and the impact of liberalising unfair dismissal laws (0.27 percentage points). This estimate also falls well within the estimated reduction in the NAIRU over the same period of about 3 percentage points.

Reversing the reforms would add back the same amount of 1.77 percentage points to the structural unemployment rate.

[8] These smaller businesses accounted for $1,231 million out of $1,329 million of the annual cost of the laws, or 93 per cent.

[9] Applying the smaller business cost share of 93 per cent to an employment loss of 0.46 per cent gives an employment loss of 0.43 per cent.

3.3 Labour Market Reforms and Labour Productivity

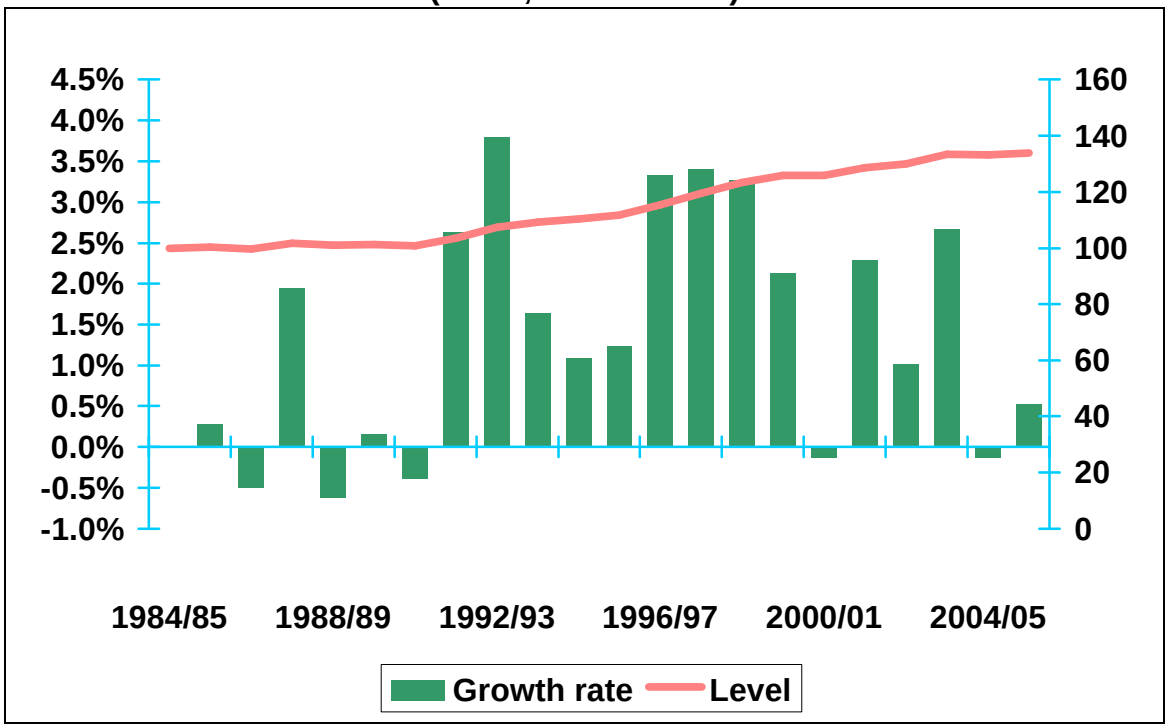
This part of the study discusses the impact of the Australian labour market reforms on labour productivity. It provides an overview of trends in labour productivity in Australia, reviews the international and national evidence of the impact of labour market reforms on labour productivity and also summarises the findings from the impact of profit sharing schemes. It then draws on this material to provide an estimate of the impact of labour market reforms on labour productivity.

3.3.1 Trends in Labour Productivity

Chart 3.2 depicts aggregate labour productivity for Australia for the period 1984/85 to 2005/06. It shows both productivity levels and annual growth rates.

Australia's labour productivity, defined as output per worker, stagnated in the late 1980s before growing rapidly during the 1990s. Since the turn of the century labour productivity growth has moderated, before increasing again in recent quarters. Overall, labour productivity increased at a strong, average, annual compound rate of 1.7 per cent from 1992/93 to 2005/06, the period of industrial relations reform.

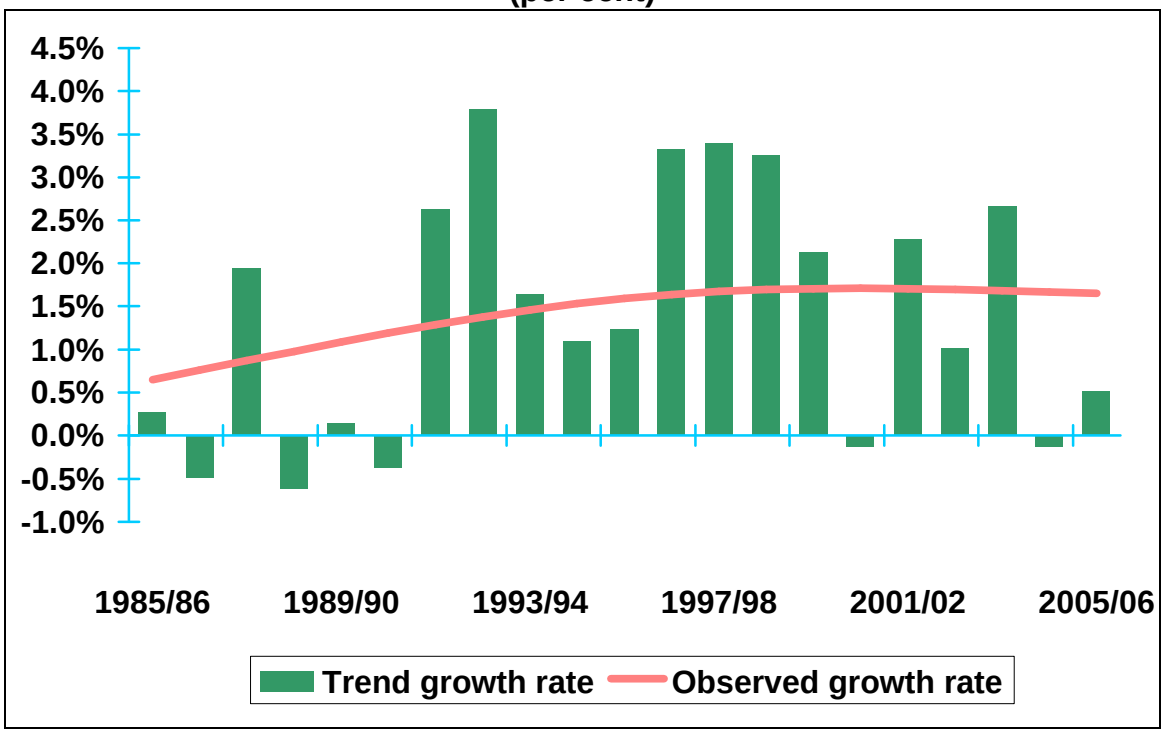
Chart 3.2
Labour productivity in Australia
(Index, 1984/85=100)



Source: Econtech calculation based on ABS series 5206.0 and 6202.0

The estimated trend in labour productivity growth is depicted in Chart 3.3.[10] It shows that Australia's trend labour productivity growth rate rose from under 1 per cent in the 1980s to 1.6 per cent during the 1990s and that this trend continued until 2005/06.

Chart 3.3
Actual and Trend Labour Productivity Growth
(per cent)



Source: Econtech calculation based on ABS series 5206.0 and 6202.0

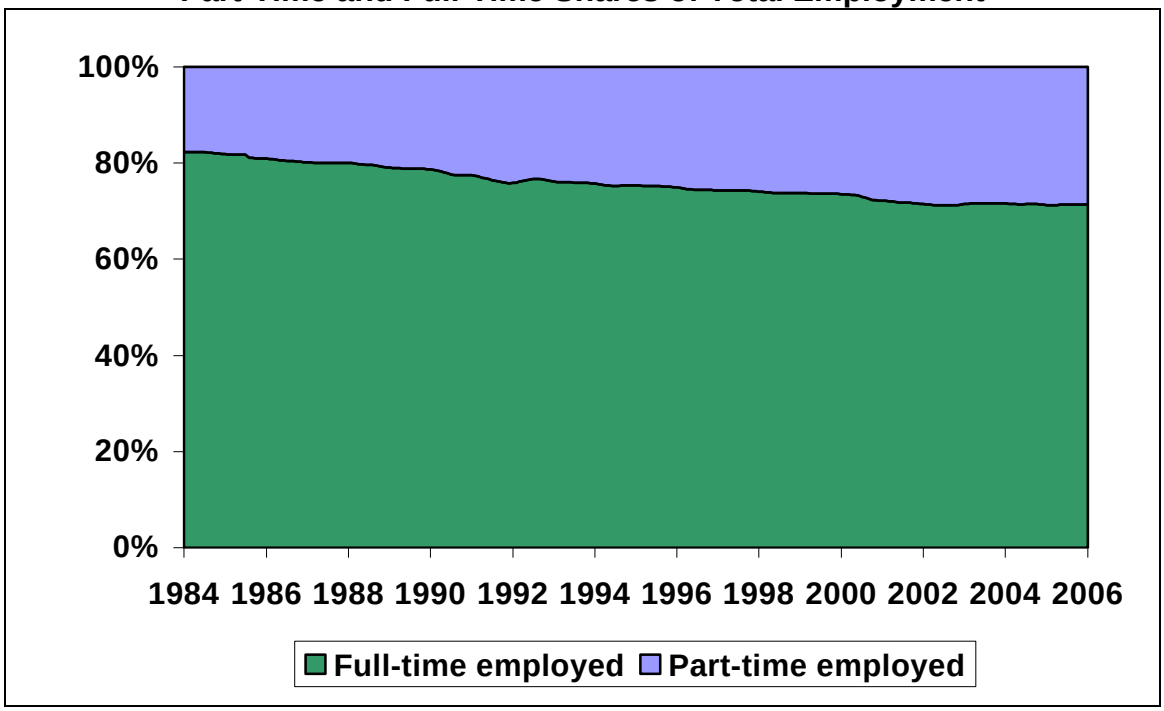
Australia's strong labour productivity performance since the 1990s is even more impressive once trends in the composition of employment are considered. Chart 3.4 shows a substantial increase in the share of employment accounted for by part-time workers. In the period from September 1984 to September 2006, this share rose from 17.7 per cent to 28.6 per cent.

This increase in the importance of part-time employment would normally have a negative effect on estimates of labour productivity growth that are based on real GDP per employed person. However, data on labour productivity measured in terms of GDP per hour worked show a similar pattern and trend as the data for GDP per employee (Chart 3.5).

The strong growth in labour productivity since 1992/93 supports the view that industrial relations reform has boosted productivity. However, productivity growth is also influenced by a wide range of other factors. This makes it important to investigate specific evidence for links from labour market reform to productivity growth. We begin with the international evidence before turning to the Australian evidence.

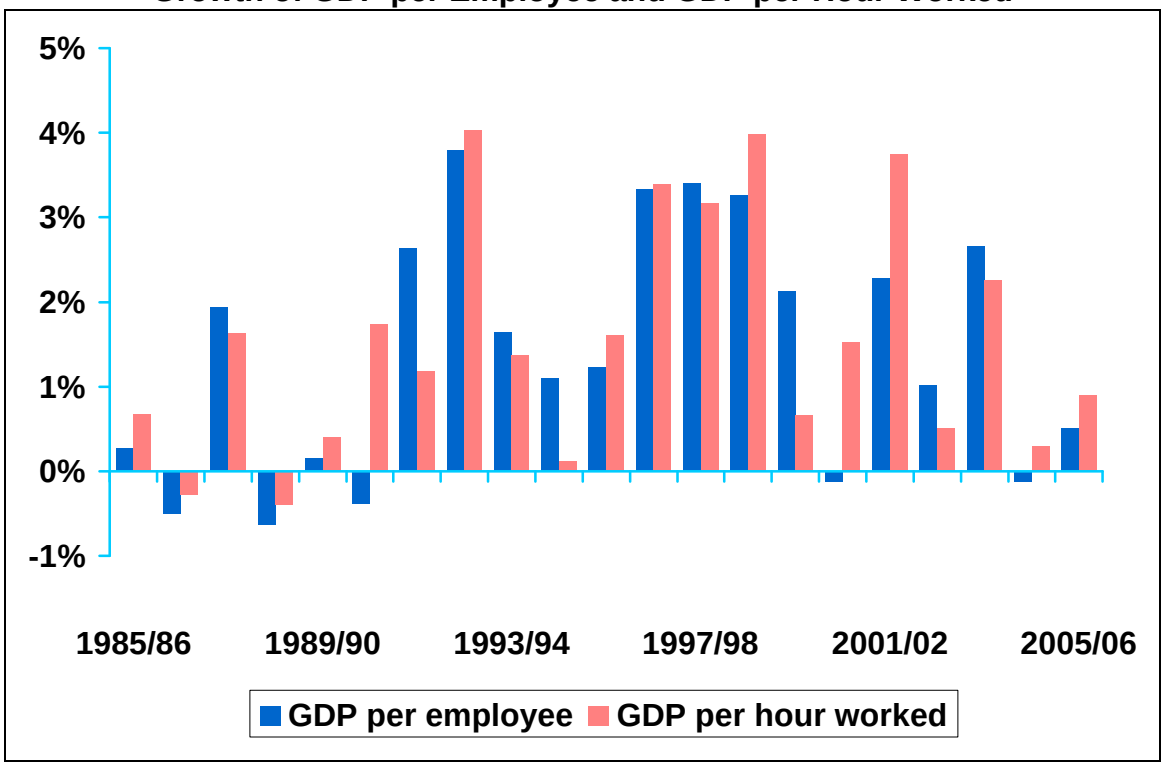
[10] The trend labour productivity growth series was estimated using the Hoddrick-Prescott-Filter (HP-Filter) which estimates the trend using a sophisticated smoothing procedure.

Chart 3.4
Part-Time and Full-Time Shares of Total Employment



Source: ABS series 6202.0

Chart 3.5
Growth of GDP per Employee and GDP per Hour Worked



Source: Econtech calculation based on ABS series 5206.0 and 6202.0.

3.3.2 International evidence

In an OECD Economics Department Working Paper, Scarpetta and Tressel (2002) undertook a comprehensive study of the effects of regulations and institutions on productivity. They used data for a panel of 23 industries in 18 OECD countries extending from 1984 to 1998. Not surprisingly, they find that anti-competitive product market regulations are negatively associated with productivity performance.

Of particular importance for this report, they also find "a negative impact of tight employment protection legislation [i.e. unfair dismissal laws] on productivity". As suggested by Harding (2005), this would be because of the "opportunity cost in terms of lost productivity of continuing to employ those workers whose performance is unsatisfactory".

The OECD (2007b) in its recent Employment Outlook reports the results of a study by Bassanini and Venn (2007) for a sample of 16 industries and 18 OECD countries for the period 1982-2003. Australia was not included in the sample. They find that employment protection legislation has a statistically significant negative effect on labour productivity growth and multifactor productivity growth. It notes that although the effect is small, it is significant from a policy perspective, since it cumulates over time.

In estimating the negative effects of employment protection legislation on productivity, this report uses the Scarpetta and Tressel (2002) study rather than the Bassanini and Venn (2007) study. This is because the Scarpetta and Tressel study examines more factors relevant to an assessment of changes in Australia's industrial relations policies. Besides examining the impact of unfair dismissal legislation, it also examines how this impact depends on the degree of centralisation and co-ordination of the bargaining system, and it also takes specific account of the effects of product market regulation.

3.3.3 Australian evidence

Writing before the WorkChoices reforms, Rahman in the Treasury Economic Roundup (2005 p.39) (2005) uses the results in the Scarpetta and Tressel (2002) study to infer that "reforming Australia's employment protection legislation may reduce the productivity gap (with the frontier economy) by about 2 percentage points". This translates to a productivity gain of 2.4 per cent.

Rahman also estimates the impact on labour productivity growth from removing all employment protection legislation using the results of a study by Gust and Marquez (2002). The study estimates the link between labour productivity growth, ICT technology adoption and employment protection legislation.

3.3.4 Profit sharing schemes

One way to gauge the potential impact of enterprise bargaining and associated labour market reforms on labour productivity is to make use of studies that estimate the effect of profit-sharing and employee share ownership plans (ESOPs) on labour productivity. Enterprise-level bargaining is not equivalent to a profit-sharing plan but nevertheless shares several characteristics with it. In addition, the greater scope for enterprise bargaining is likely to facilitate the greater use of profit sharing plans and pay based on performance.

Like profit sharing arrangements, enterprise and individual level bargaining enhances an employee's identification with a company and provides a stronger incentive for more work effort and the adoption of more efficient work practices. However, it is considered that. although there are similarities, enterprise-level bargaining would not generally provide the same incentives for workers compared to profit-sharing plans and ESOPs. Thus ESOPs need to be interpreted as providing indicative estimates of potential productivity gains.

Kruse (1992) estimated the effects of profit sharing agreements for a sample of 2,976 American companies. Using a panel regression technique, Kruse found a positive impact of profit sharing plans on worker's productivity after controlling for several other firm characteristics. The estimated effects on worker productivity of Kruse's study are all around 3 per cent. In addition to Kruse's study, Jones and Kato (1995) estimate the impact of ESOPs on worker's productivity for a sample of 109 Japanese companies. Their results corroborate Kruse's finding with an estimated effect on worker's productivity of 4 to 5 per cent. The labour productivity effect is found to materialize over a 4 to 5 year period.

In Australia, two studies which were both co-authored by Professor Mark Wooden analyse the effects of individual and enterprise-level bargaining on worker's productivity. Tseng and Wooden (2001) find some evidence for a positive effect of enterprise-level bargaining on worker's productivity but caution that their results should not be interpreted in a strong causal sense. Loundes et al. (2005) use a similar approach and also find supportive evidence for positive effects but again cannot draw causal conclusions due to the quality of the data available for their study.

3.3.5 Estimate of the Impact of Labour Market Reforms on Labour Productivity

This section provides an assessment of the effects of industrial relations reforms on labour productivity. Of course labour productivity is also been affected by product market reforms. For example, in Australia, product markets have been reformed by exposing former government business enterprises to market forces and reducing average effective import tariffs for import competing industries from 35 per cent in 1972/73 to about 5 per cent in 2002/03 (OECD 2005b, p.71).

While there is a broad consensus that these industrial relations and product market reforms in Australia have boosted productivity (OECD, 2003 and Productivity Commission, 2002), distinguishing the contributions of the separate reforms using Australia data alone is made difficult because of the overlapping timing of different reforms.

A more promising approach is to use international evidence on the significance of different types of reforms for productivity. As noted earlier, in an OECD Economics Department Working Paper, Scarpetta and Tressel (2002) undertook a comprehensive study of the effects of regulations and institutions on productivity. They used data for a panel of 23 industries in 18 OECD countries extending from 1984 to 1998. They modelled the factors that caused multi-factor productivity (MFP) in each industry to lag behind the "frontier economy", which for many industries is the USA.

For Australia, the key findings of Scarpetta and Tressel (2002, Table 8) are that:

- a one standard deviation increase in the value of the product market regulations index would lead to an increase of 7.5 per cent in the MFP gap to the frontier economy; and

- a one standard deviation increase in the value of the employment protection legislation (EPL) index would lead to an increase of 10.8 per cent in MFP gap to the frontier economy.

Writing before the WorkChoices reforms, Rahman in the Treasury Economic Roundup (2005 p.39) (2005) used these results to estimate the effects of reforming Australia's unfair dismissal laws on the productivity gap (with the frontier economy). Our calculations based on Rahman are shown in the second last column of Table 3.2.

Table 3.2
Estimated Effect on Labour Productivity of EPL Reform

	Baseline	EPL reform	
		Rahman	Econtech
Australia productivity index	83.0	85.0	84.2
Frontier economy productivity index	100	100	100
percentage points gap	17	15	15.8
change in gap (% points)		-2.0	-1.2
% change in gap		-11.8%	-6.8%
% change in Australian productivity		2.4%	1.4%
change in EPL index (std deviations)		-1.1	-0.6

Source: Econtech estimates.

The frontier economy (based on world best-practice productivity for each industry) has a productivity index of 100. Rahman finds that GDP per hour in Australia in 2002 was 17 per cent below the US, which is the frontier economy for many industries. Hence the Australian productivity index is set at 83, being 17 percentage points below 100.

Rahman uses the results of Scarpetta and Tressell (2002) to estimate that "reforming Australia's employment protection legislation may reduce the productivity gap (with the frontier economy) by about 2 percentage points". Thus Table 3.2 shows a decline in the productivity gap from 17 to 15 from employment protection legislation (EPL) reform. By the same token, this also implies an improvement in the Australian productivity index from 83 to 85. This represents a 2.4 per cent gain in productivity from EPL reform.

It is possible from this to deduce the improvement in the EPL index from EPL reform that has been assumed by Rahman. As noted above, in Scarpetta and Tressell (2002) a one standard deviation change in the EPL index changes the productivity gap by 10.8 per cent. Since Rahman's results imply a change in the productivity gap of 11.8 per cent, he assumed a fall in the EPL index of around 1.1 standard deviations as a result of EPL reform in Australia.

To our knowledge, the OECD has not published fresh EPL data for Australia that takes into account the liberalistion of unfair dismissal laws in WorkChoices. However, after inspecting the historical OECD data for the 18 countries including Australia, in this study we have adopted a more conservative assumption than Rahman on the impact of WorkChoices on the EPL index for Australia. Our more modest estimates are shown in the final column of Table 3.2. With a smaller assumed fall in the EPL index, the resulting estimated gain in productivity from liberalising unfair dismissal laws is 1.4 per cent, rather than 2.4 per cent.

While this estimate refers to a gain in multi-factor productivity of 1.4 per cent, this is most appropriately modelled here as a gain in labour efficiency of the same percentage. In models that exhibit balanced growth in the long run such as Econtech's MM2, a gain in labour efficiency ultimately leads to similar percentage gain in the capital stock. This in turn leads to similar percentage gains in output and multi-factor productivity. Hence the simulated percentage gain in multi-factor productivity is similar to the assumed percentage gain in labour efficiency.

In summary, we estimate that recent major industrial relations reforms are adding **1.4 per cent** to the level of productivity. Reversing the reforms would subtract the same amount of 1.4 per cent from the level of productivity.

4. Modelling Approach

This section provides details of the modelling approach used to estimate the economic effects of industrial relations reforms on the Australian economy. The section is structured as follows. Section 4.1 outlines the scenarios that are simulated using Econtech's MM2 model to quantify the economic effects to the Australian economy. Section 4.2 outlines the main data inputs that Econtech uses to build the alternative scenarios and describes how these inputs are derived. Section 4.3 discusses the main features of the economic model (MM2) that is used to estimate economic effects of industrial relations reforms on the Australian economy.

4.1 Scenarios

To simulate the economic impacts of industrial relations reforms on the Australian economy, the following two scenarios are modelled.

- The "baseline" scenario, which is based on a continuation of existing industrial relations policies. This corresponds to Econtech's latest forecasts.
- The "no reform" scenario, which assumes that all major industrial relations reforms since 1993, and including those introduced in 1993 and WorkChoices, are reversed. All other assumptions are the same as for the baseline scenario.

In the "no reform" scenario all the major industrial reforms that have been introduced in Australia from 1993 onwards are reversed from the first quarter of 2008. If the reforms were reversed over a longer time frame, the effects would also emerge over a longer time frame. Similarly, if only some of the reforms were reversed, the effects would still materialise but be smaller.

This report focuses mainly on the differences in economic outcomes between the "no reform" and "baseline" scenarios. These differences show the effects of reversing all industrial relations reforms that have occurred from 1993 onwards. Note that while the margins of error for the two individual scenarios considered separately reflect the uncertainties of projecting the economy five years into the future, the differences between the scenarios have relatively low margins of error because they reflect assumed variations in only one factor – industrial relations policy. Thus, the differences or deviations between the two scenarios provide relatively robust estimates of the effects of reversing industrial relations reform.

4.2 Inputs

It was estimated earlier (see sections 3.2.4 and 3.3.4) that the industrial relations reforms since 1993 have reduced structural unemployment by 1.77 percentage points and increased underlying labour productivity by 1.4 per cent. Reversing those reforms would reverse these effects. Hence, the "no reform" scenario involves adjusting the "baseline" scenario to increase the structural unemployment rate by 1.77 percentage points and to reduce labour efficiency by 1.4 per cent.

The increase in the structural unemployment rate of 1.77 percentage points is achieved by an upward residual adjustment to the wage equation of 0.00922. The reduction in productivity

is phased in over four quarters and is applied to the model's labour productivity index (PSKILL).

4.3 MM2 Model

The economic impact of industrial relations reforms on the Australian economy was estimated using Econtech's MM2 model. MM2 is a fully integrated macro-industry econometric model which can be used to fully capture both the direct and indirect impacts of industrial relations reforms on the Australian economy over time. MM2 is designed for macroeconomic forecasting and policy analysis and also contains broad industry detail.

MM2 has the following important features that make it well suited for the analysis in this report.

- MM2 is a macro Computable General Equilibrium (CGE) model that fully recognises the interrelationships between the supply and demand sides of the economy. The model recognises that the demand side is important in influencing economic activity in the short term, but at the same time its converges to the long run of a CGE model.
- The MM2 has been developed to be consistent with Australian data. Equation dynamics were developed by applying the general to specific approach in an error correction framework. The equations were subjected to a battery of diagnostic testing.
- For consistency with economic theory, the MM2 has long-run properties of steady state growth, profit maximisation, external balance, fiscal balance, and equilibrium rates of inflation and unemployment. The theory-related dynamic properties of the MM2 include rational expectations in financial markets, and a hierarchical adjustment process featuring a Keynesian short run, a classical medium run, and a neoclassical long run.
- The supply side of the MM2 is just as important as its demand side. Thus Gross Domestic Product (GDP) on the production side is modelled in some detail, as well as the expenditure side. In fact, the modelling of production complements, and fully-integrates, with the modelling of expenditure. GDP on the production side is disaggregated into the 18 broad Australian and New Zealand Standard Industry Classifications (ANZSIC) industries, linked together through an input-output table.

MM2 is based on the common view that while demand shocks may affect economic activity in the short term, in the long term economic activity is supply driven. Specifically, in long-run equilibrium:

- the unemployment rate converges to a NAIRU (non-accelerating inflation rate of unemployment);
- economic growth is steady and balanced; and
- the exchange rate appreciates/depreciates at a steady rate, allowing domestic inflation to be permanently below/above foreign inflation.

More information about MM2 is presented in Attachment A

5. Results

The main differences in economic outcomes between the "no reform" and "baseline" scenarios are driven by the loss of potential output associated with reversing the reforms. This loss of potential output is around 4.4 per cent in the long term, when the economy has fully adjusted to the shocks. This arises from the estimated loss in labour productivity of 1.4 per cent, the estimated rise in structural unemployment of 1.77 percentage points, and the resulting "discouraged worker effect" as higher unemployment discourages participation in the labour force.

The crucial part of this analysis was in estimating the effects on labour productivity and structural unemployment. As documented in section 3, we have made these estimates largely on the basis of a conservative interpretation of key studies by the OECD on the impacts of industrial relations arrangements on the labour market. The implied, estimated loss in potential output of around 4.4 per cent would have similar effects on the general economic outlook irrespective of whether it is simulated in MM2 or any other reputable economy-wide model.

Section 4 described the scenarios that were simulated using MM2, outlined the main data inputs that Econtech used to build the scenarios and described how these inputs were derived. This section provides estimates of the economy-wide, industry-specific and state-specific impacts of reversing the industrial relations reforms.

5.1 Economy Wide Impacts – National Effects

The results presented here relate to a baseline scenario and a "no reform" scenario, assuming all reforms from 1993 onwards are reversed.

Table 5.1 contains the deviations of all of the scenarios combined relative to the baseline scenario for several key macroeconomic variables in terms of percentage differences or percentage point differences for 2011. Table 5.2 shows the deviations in terms of levels for GDP, investment, employment, unemployment and the labour force for 2011.

Table 5.1
Deviations from Baseline, Key Macroeconomic Variables, 2011
(per cent or percentage points)

Variable	Unit	Change
GDP	percentage	-4.8%
investment	percentage	-5.6%
real after-tax wage	percentage	-1.7%
employment	percentage	-2.9%
unemployment	percentage points	1.8
CPI	percentage points	1.3
90-day bill rate	percentage points	1.4

Table 5.2
Deviations from Baseline, Key Macroeconomic Variables, 2011
(simple differences)

Variable	Unit	Change
GDP	$bn 2006-07	-57
investment	$bn 2006-07	-11
real after-tax wage	$ per year 2006-07	-787
employment	'000 of people	-316
unemployment	'000 of people	199
labour force	'000 of people	-117

Charts (5.1 to 5.6) depict the two scenarios in terms of growth rates for real GDP, employment and the consumer price index, the percentage rates for short-term interest rates and unemployment, and the balance of goods and services in the balance of payments as a percentage of GDP.

Charts (5.7 to 5.10) show the percentage deviations (for real GDP and employment) or percentage point deviations (for inflation, interest rates, unemployment and the balance of goods and services in the balance of payments) relative to the baseline scenario for the no reform scenario.

Considering the scenarios in terms of growth rates, the "baseline" scenario shows that real annual GDP growth declines from a relatively high rate of around 3.6 per cent in 2007 to average 3.1 per cent in the four years to 2011, consistent with longer term potential output growth.

In contrast, the "no reform" scenario shows that annual growth of real GDP declines to average a low 1.9 per cent in the four years to 2011. Economic growth over this period is reduced by lower employment associated with high structural employment, as well as lower productivity.

The "baseline" scenario for employment shows that annual employment growth of around 2 per cent is maintained to 2009, before declining to around 1 per cent, more in keeping with growth in the working-age population. Average annual employment growth in the four years to 2011 is 1.5 per cent.

The "no reform" scenario for employment shows a much sharper decline in employment growth, so that by 2011 employment growth is around 0.4 per cent. This lower growth for employment results from higher structural unemployment and the flow-on discouraged worker effect. Average annual employment growth in the four years to 2011 is 0.7 per cent.

The baseline scenario for inflation shows annual inflation within the Reserve Banks' comfort zone of 2 to 3 per cent. Until the end of 2008, strong domestic demand requires that the cash rate is around 6.5 per cent to contain inflation. Thereafter, the cash rate moves to a neutral setting of 5 to 6 per cent. For example, at the end of 2011, the cash rate is 5.5 per cent.

On the other hand, in the "no reform" scenario, restrictions in labour supply implied by higher structural unemployment leads to a breakout of wage inflation. Higher structural unemployment means that the potential labour supply is less, meaning there is greater scope for wage inflation pressure. This wages pressure will continue until labour demand is

brought back into balance with the diminished potential labour supply.

This higher wage inflation, together with lower productivity, flows through to higher CPI inflation, which shows a sharp increase to 5 per cent for 2009 and 2010. This is well beyond the Reserve Bank's comfort zone, leading it to push interest rates higher. By the end of 2011, the cash rate is 6.9 per cent, which is 1.4 percentage points above the rate of 5.5 per cent at the same point in time in the baseline scenario.

For a household with a new mortgage of $300,000, this means that monthly repayments are $273 higher than in the baseline scenario in the same year[11]. Repayments are calculated based on a typical margin for a mortgage broker standard loan of 1.25 percentage points above the cash rate and the most common mortgage repayment term of 25 years.

Because of higher price inflation, consumer real wages are ultimately lower than would otherwise be the case, despite the initial increase in wage inflation. This loss in consumer real wages reflects the loss in labour productivity compared with the baseline scenario. By 2011 the level of consumer real after-tax wages is 1.7 per cent lower in the "no reform" scenario than in the "baseline" scenario in the same year. This translates to a loss in annual, after-tax, average wages of $787 in 2006-07 consumer prices. (See Tables 5.1 and 5.2.)

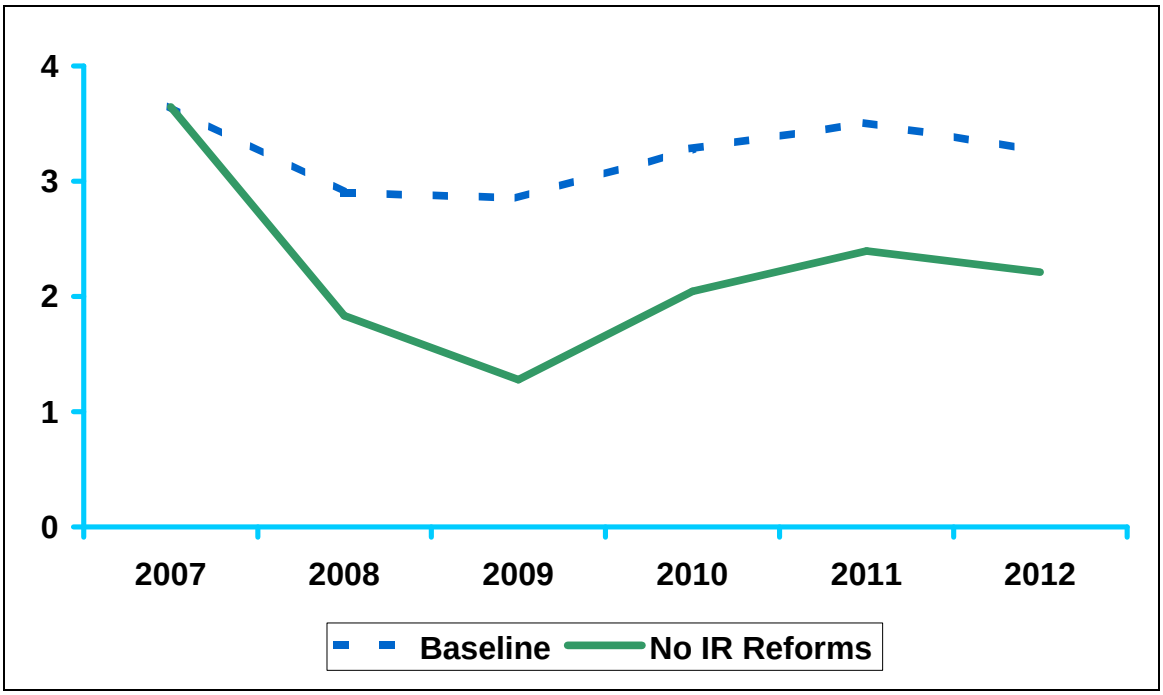
The baseline scenario for unemployment shows that unemployment rate varies between 4 and 5 per cent, and is 4.7 per cent in 2011. This represents a continuation of the recent strong performance of the labour market.

In contrast, the "no reform" scenario for unemployment shows that unemployment increases steadily over the forecast period to be around 6.5 per cent by 2011. This is 1.8 percentage points higher than in the baseline scenario, matching the assumed increase in the rate of structural unemployment.

Turning to the balance of payments, the baseline scenario shows gradual improvement from 2009 in the balance on goods and services, while the "no reform" scenario shows no improvement over the same period. By comparison, in 2011 the "no reform" scenario has a deficit on the balance of goods and services which is 1.2 per cent of GDP higher than in the baseline scenario.

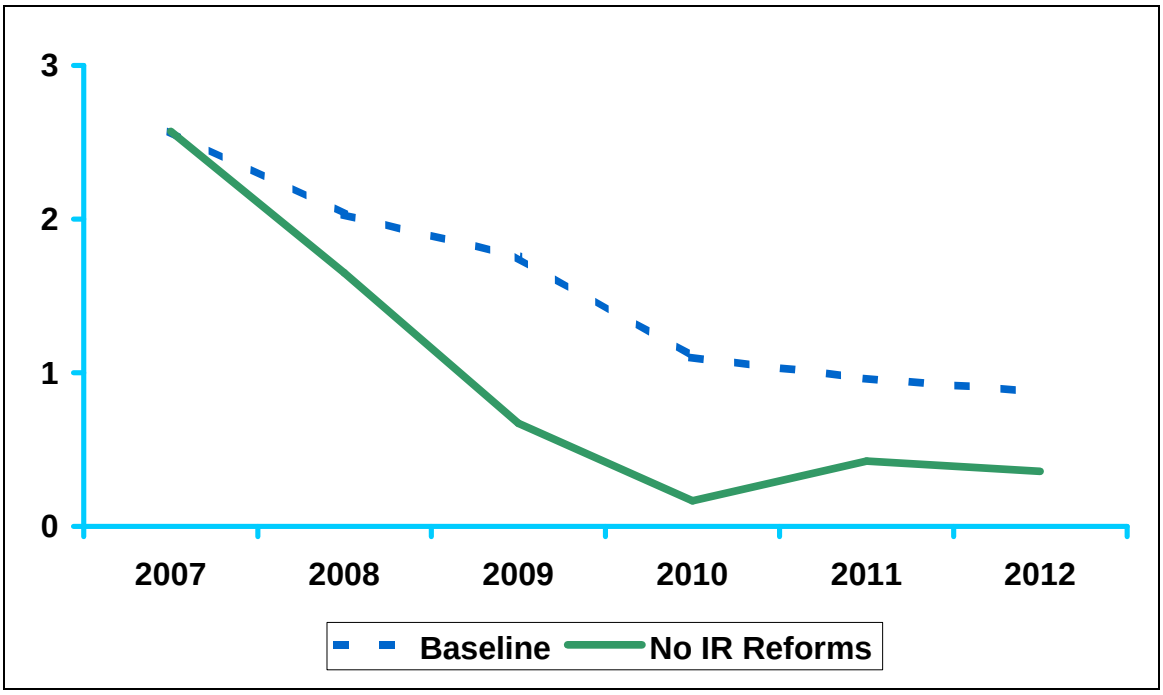
[11] $300,000 is the value of the AFG Mortgage Index at December 2006. This index measures the average value of new AFG mortgages across Australia. AFG is Australia's largest mortgage broker.

Chart 5.1
Real GDP Growth (per cent)
With and Without Industrial Relations Reforms



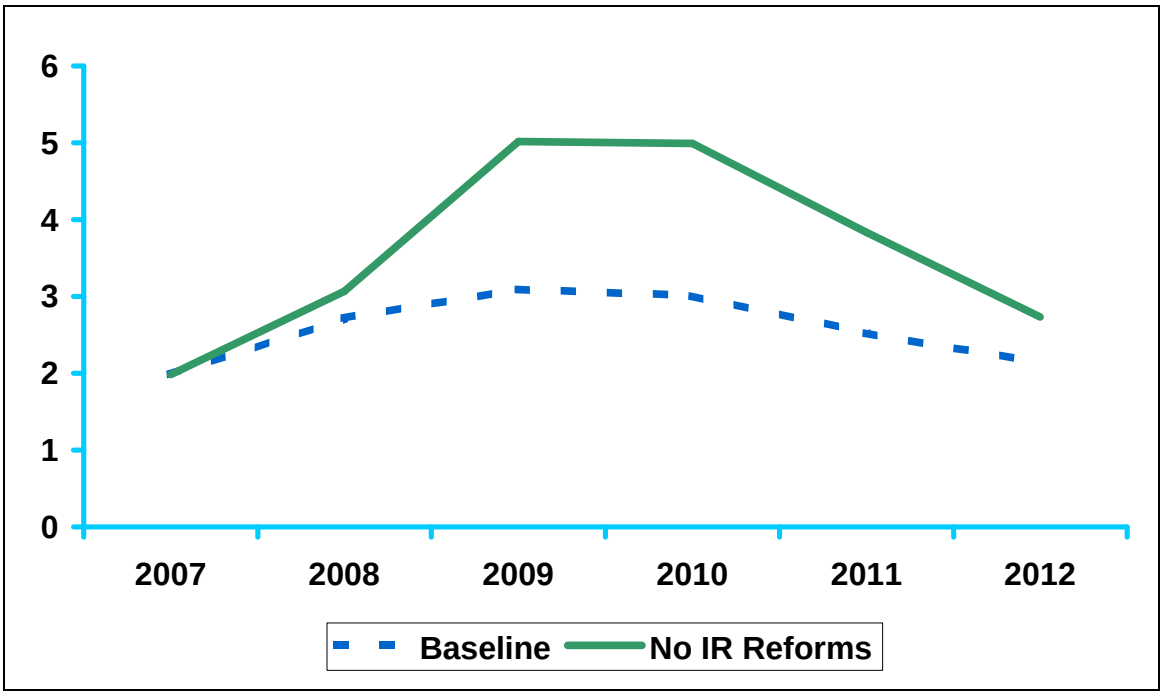
source: MM2

Chart 5.2
Employment Growth (per cent)
With and Without Industrial Relations Reforms



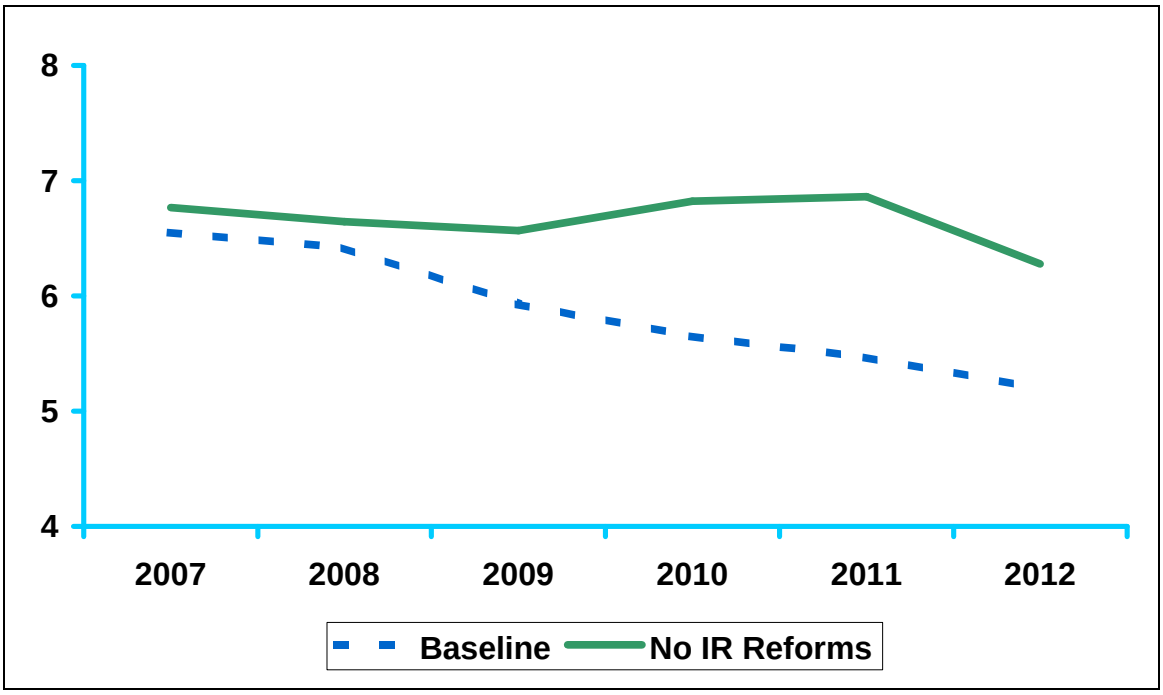
source: MM2

Chart 5.3
CPI Change (annual per cent)
With and Without Industrial Relations Reforms



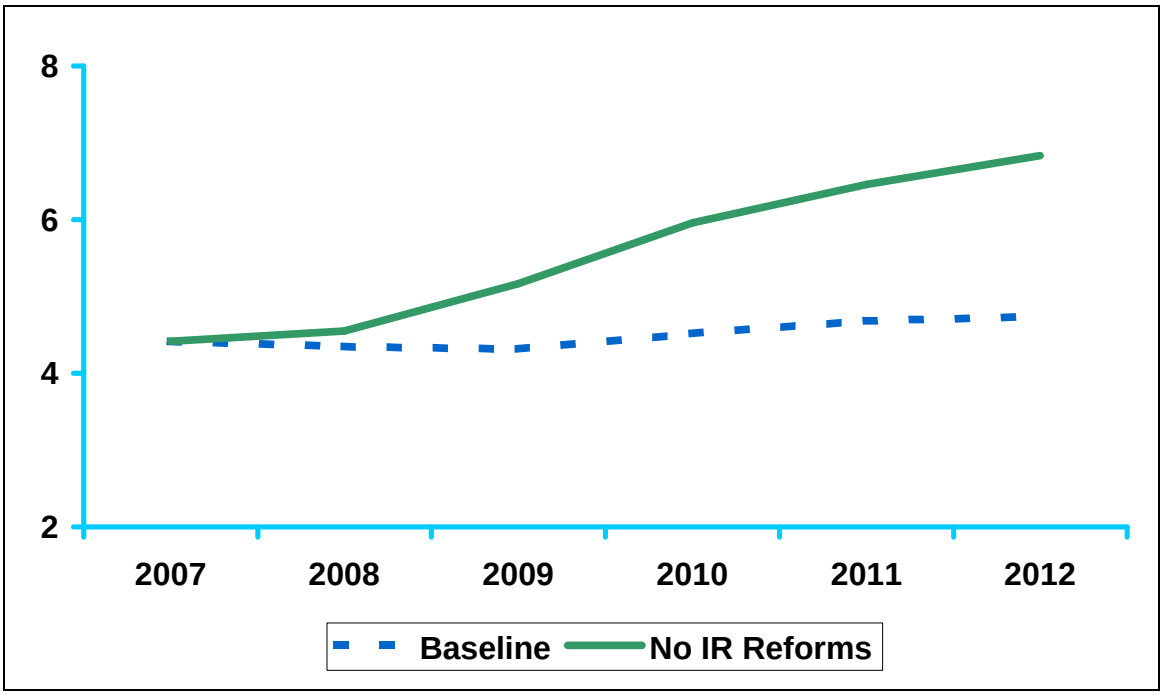
source: MM2

Chart 5.4
90-day Bank Bill Rate (per cent)
With and Without Industrial Relations Reforms



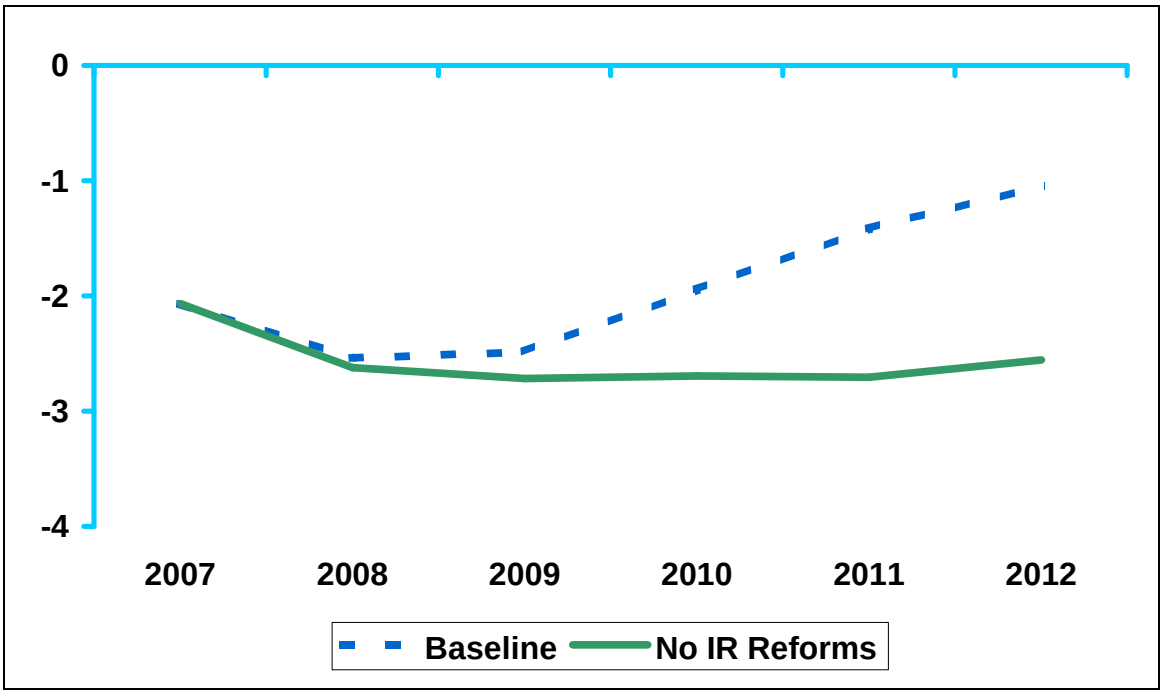
source: MM2

Chart 5.5
Unemployment Rate (per cent)
With and Without Industrial Relations Reforms



source: MM2

Chart 5.6
Balance on Goods and Services (per cent of GDP)
With and Without Industrial Relations Reforms



source: MM2

Turning to the charts on the deviations, Chart 5.7 and Table 5.1 highlight that by 2011 the level of real GDP is 4.8 per cent lower in the no reform scenario than in the baseline scenario in the same year. As seen in Table 5.2, this loss in real GDP in 2011 translates in dollar terms to $57 billion in 2006-07 prices. This is equivalent to about $2,700 per person. These losses in GDP reflect both higher structural unemployment and lower productivity.

There is a larger percentage impact on business investment compared with private consumption. This is because business investment is more sensitive to falling profitability resulting from the wages breakout and lower productivity. The loss in business investment in 2011, relative to the baseline scenario in the same year, is estimated to be 5.6 per cent or $11.0 billion in 2006-07 prices.

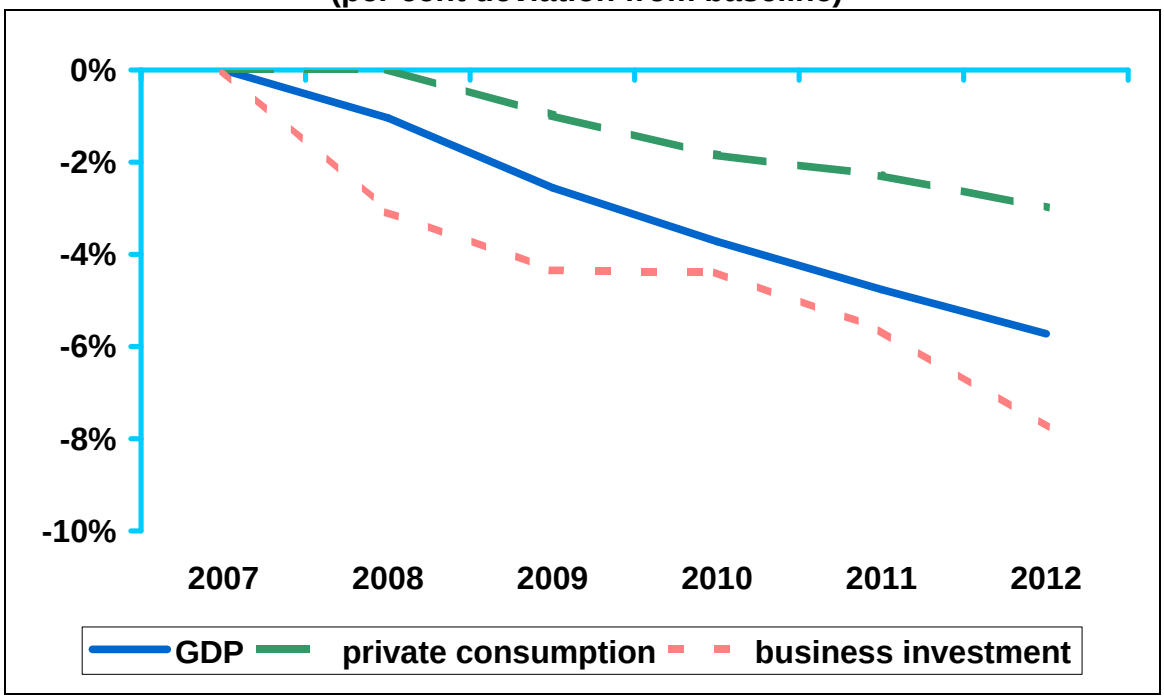
Chart 5.8 highlights that the impact on inflation is greatest in the 2009 and 2010 period before declining to a difference of under 1.3 percentage points by 2011. The associated effect on short term interest rates reaches a peak of a 1.4 percentage point difference by the end of 2011.

Higher interest rates, combined with the weaker labour market, mean that in 2011 private dwelling investment is 7.1 per cent below the baseline scenario in the same year.

Chart 5.9 and Tables 5.1 and 5.2 highlight the impacts on the labour market. By 2011, there is an employment loss of 2.9 per cent, or about 316,000 jobs, compared with the baseline scenario in the same year. This is reflected in a rise in unemployment of 199,000, and a shrinkage in the labour force of 117,000, both compared with the baseline scenario in the same year. Lower labour force participation occurs as potential job seekers are discouraged by a higher unemployment rate.

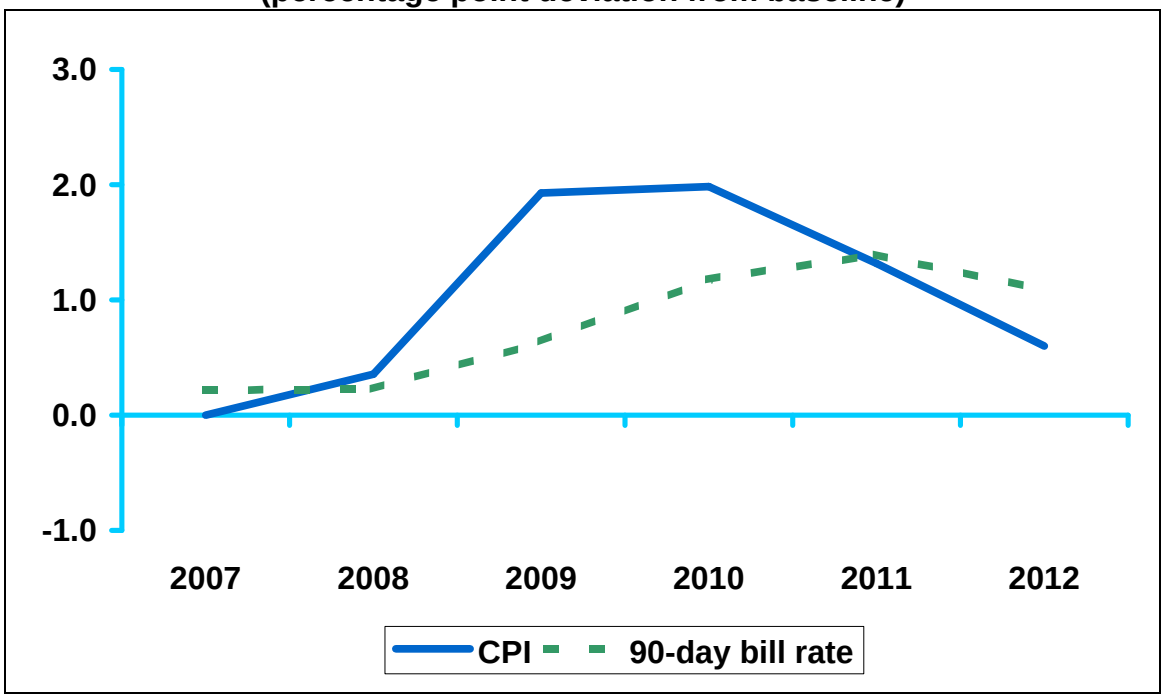
Chart 5.10 shows the impact on the current account balance. By 2011 the “no reform” scenario has a deficit on the balance of goods and services which is 1.3 per cent of GDP higher than in the baseline scenario. This is due to a loss of international competitiveness associated with the wages breakout and lower productivity.

Chart 5.7
Real GDP, Private consumption and Business investment
(per cent deviation from baseline)



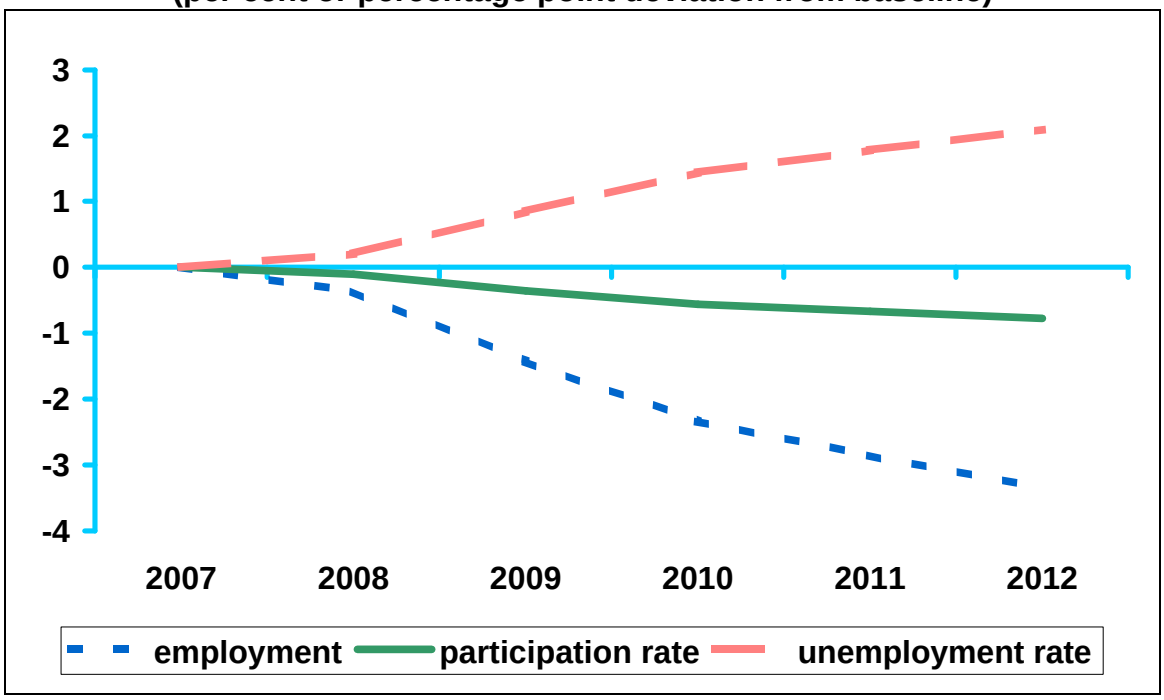
source: MM2

Chart 5.8
Inflation and Short term interest rates
(percentage point deviation from baseline)



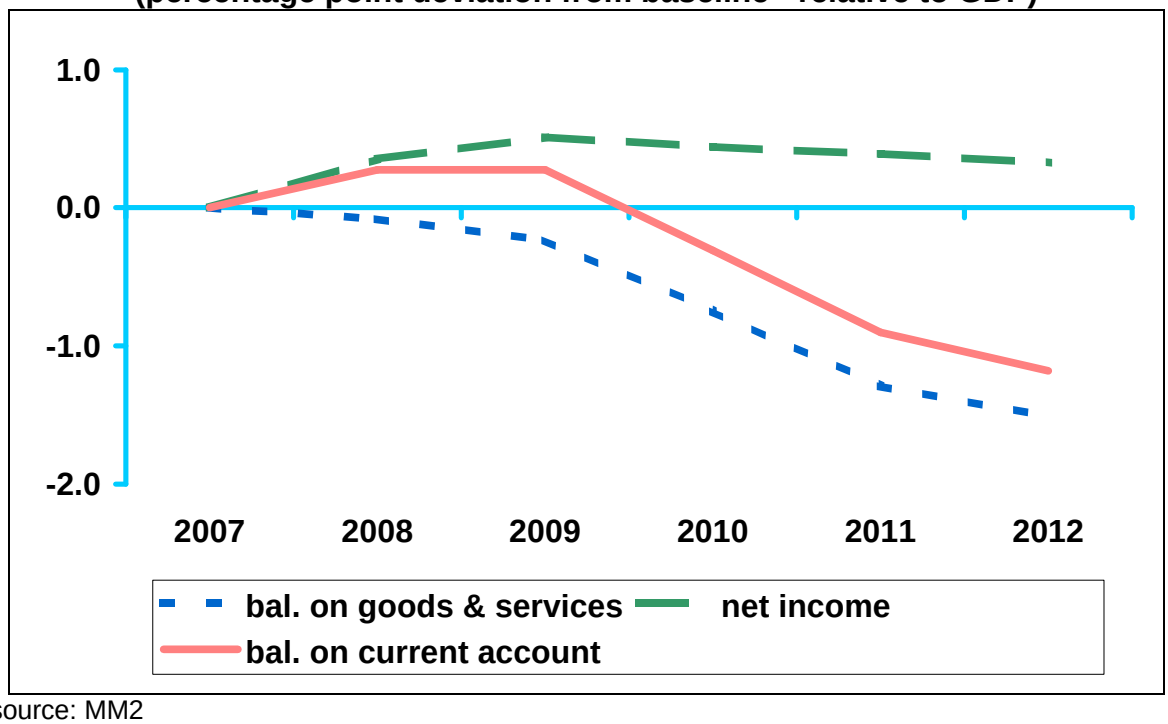
source: MM2

Chart 5.9
Employment Effects
(per cent or percentage point deviation from baseline)



source: MM2

Chart 5.10
Current Account Effects
(percentage point deviation from baseline - relative to GDP)



source: MM2

5.2 Economy Wide Impacts – Industry and State Effects

Charts (5.11, 5.12 and 5.13) depict the percentage impacts in 2012 of the two scenarios on GDP and employment by industry. Charts (5.14 and 5.15) depict the effects on GSP and employment by state. Table 5.3 shows the output and employment deviations for trade-sensitive industries.

All sectors experience significant percentage losses in production and employment compared with the projections for the baseline scenario. Higher structural unemployment and lower productivity reduce potential output across the economy.

The largest percentage losses in output in 2011 are in the trade-exposed industries of manufacturing which falls by 11 per cent (compared to the baseline scenario), mining down 8 per cent, agriculture down 7 per cent and transport down 7 per cent. These trade-exposed sectors are particularly affected by the loss of international competitiveness from the combination of a wages breakout and lower productivity.

In 2011 the four trade-exposed sectors experience an annual loss in total output compared with the baseline scenario of some $23 billion (at 2004-05 prices). The respective losses for manufacturing, mining, agriculture and transport are $12.9bn, $5.7bn, $2.4bn and $4.3bn.

Only the government services sector is largely insulated. This is because government spending is determined exogenously by policy, and so is insulated from poorer economic conditions.

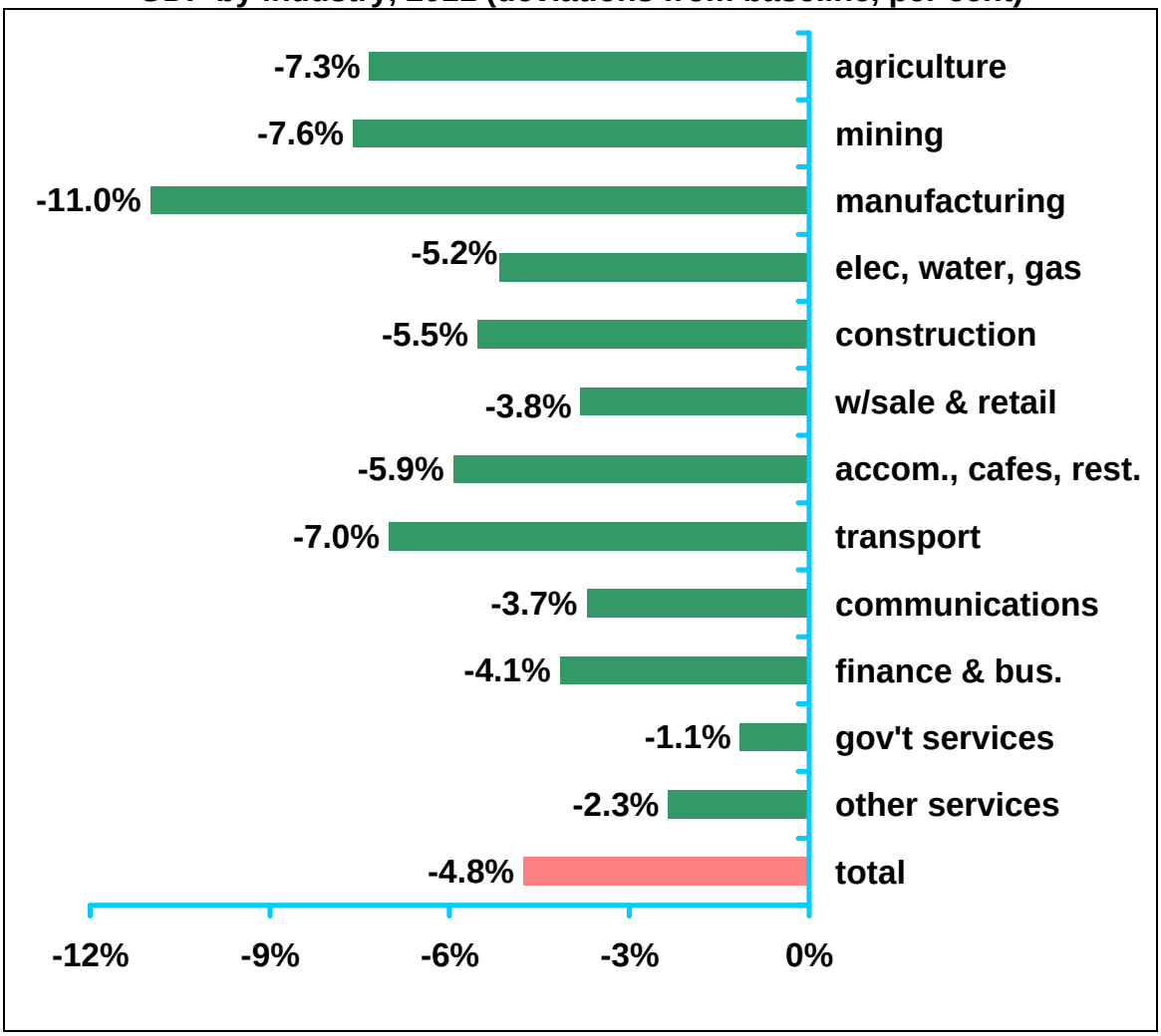
The percentage employment effects shown in Chart 5.12 follow a similar pattern, but are smaller. This is because they reflect the increase in the rate of structural unemployment, but not the loss of productivity. Chart 5.13 re-expresses these effects in terms of losses of thousands of jobs in each industry, compared with the baseline scenario in the same year.

Table 5.3
Industry Output and Employment Deviations from Baseline, 2011

	Output		Employment	
	$bn 2006-07	per cent	000 people	per cent
Agriculture	-2.4	-7%	-15	-4%
Mining	-5.7	-8%	-11	-7%
Manufacturing	-12.9	-11%	-85	-8%
Transport	-4.3	-7%	-21	-4%

Chart 5.14 shows the percentage losses in Gross State Product in 2011 compared with the baseline scenario in the same year. In percentage terms these state losses vary around the national loss in GDP of 4.8 per cent, except in the government-based ACT economy, where the loss is only 2.9 per cent. Again, this reflects the fact that government-related industries are largely insulated. Chart 5.15 shows the corresponding percentage losses in employment at the state level.

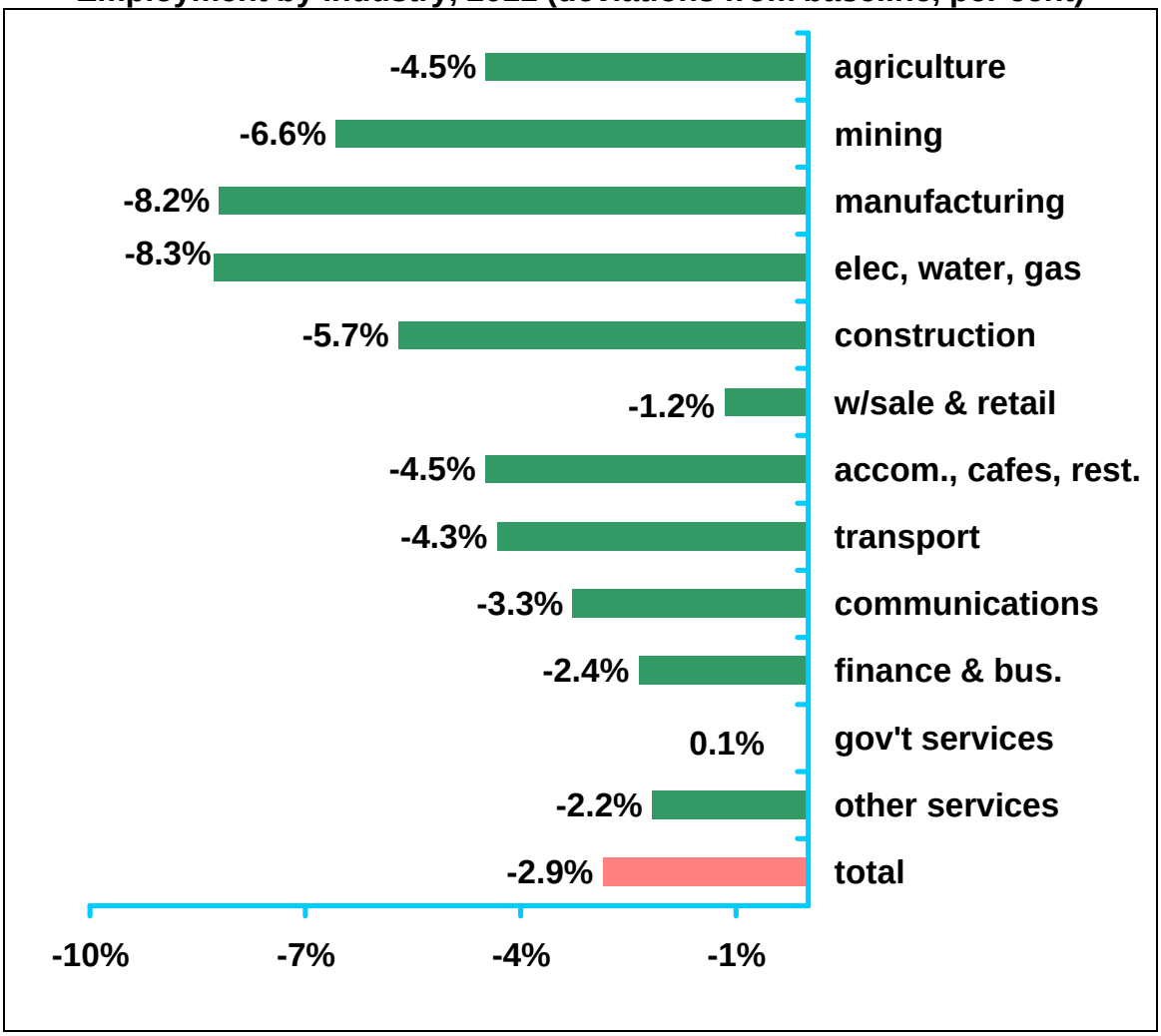
Chart 5.11
GDP by industry, 2011 (deviations from baseline, per cent)



source: MM2

notes: "w/sale & retail" includes Wholesale Trade and Retail Trade industries; "finance & bus." includes Finance and Insurance, and Property and Business Services industries; "govt services" includes Education, Health and Government Administration and Defence industries; and "other" includes Culture and Recreation Services, and Personal and Other services industries.

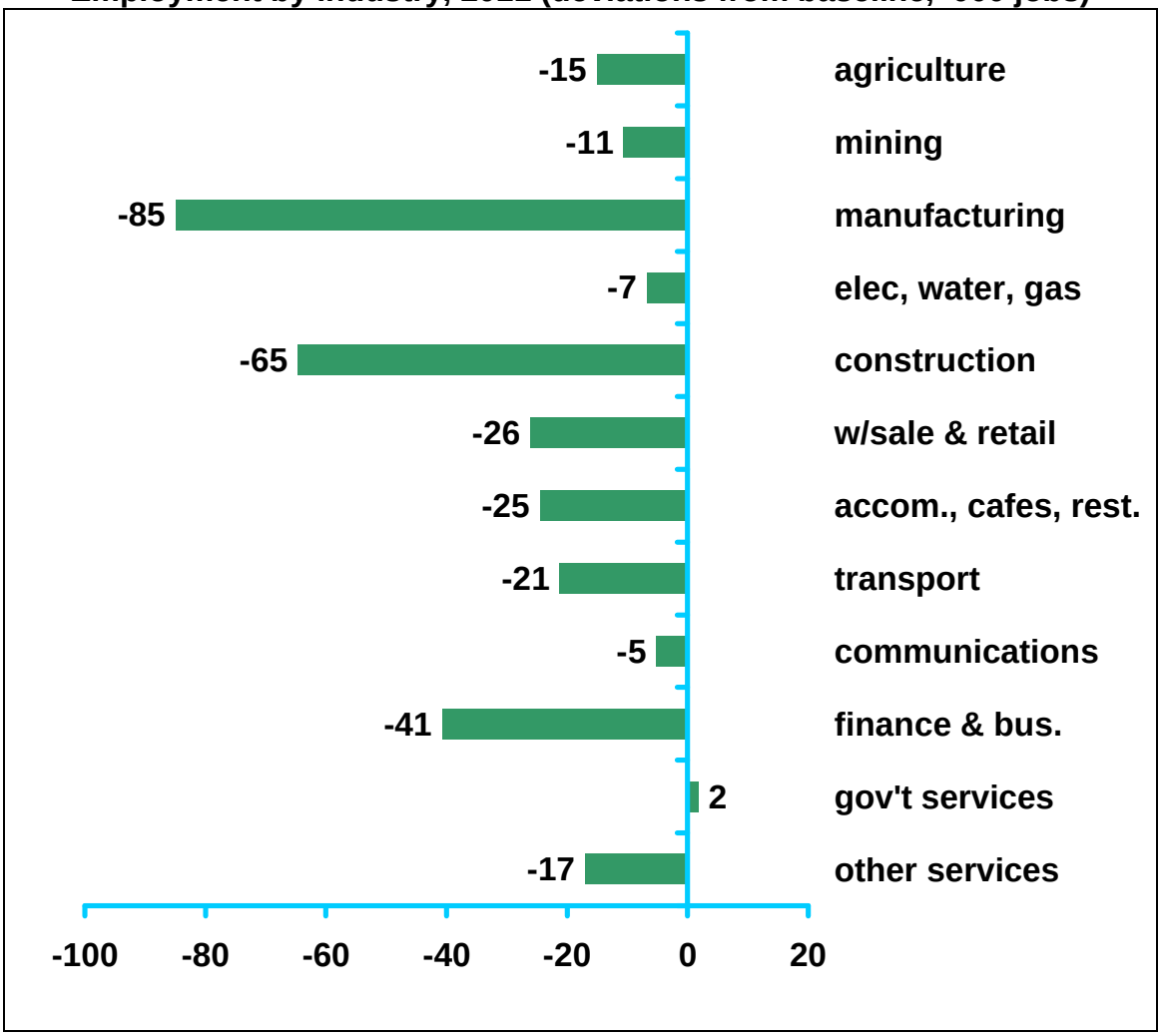
Chart 5.12
Employment by industry, 2011 (deviations from baseline, per cent)



source: MM2

notes: "w/sale & retail" includes the Wholesale Trade and Retail Trade industries
"finance & bus." includes the Finance and Insurance, and Property and Business Services industries;
"gov't services" includes the Education, Health and Government Administration and Defence industries;
"other" includes the Culture and Recreation Services, Personal and Other services and Ownership of Dwelling industries.

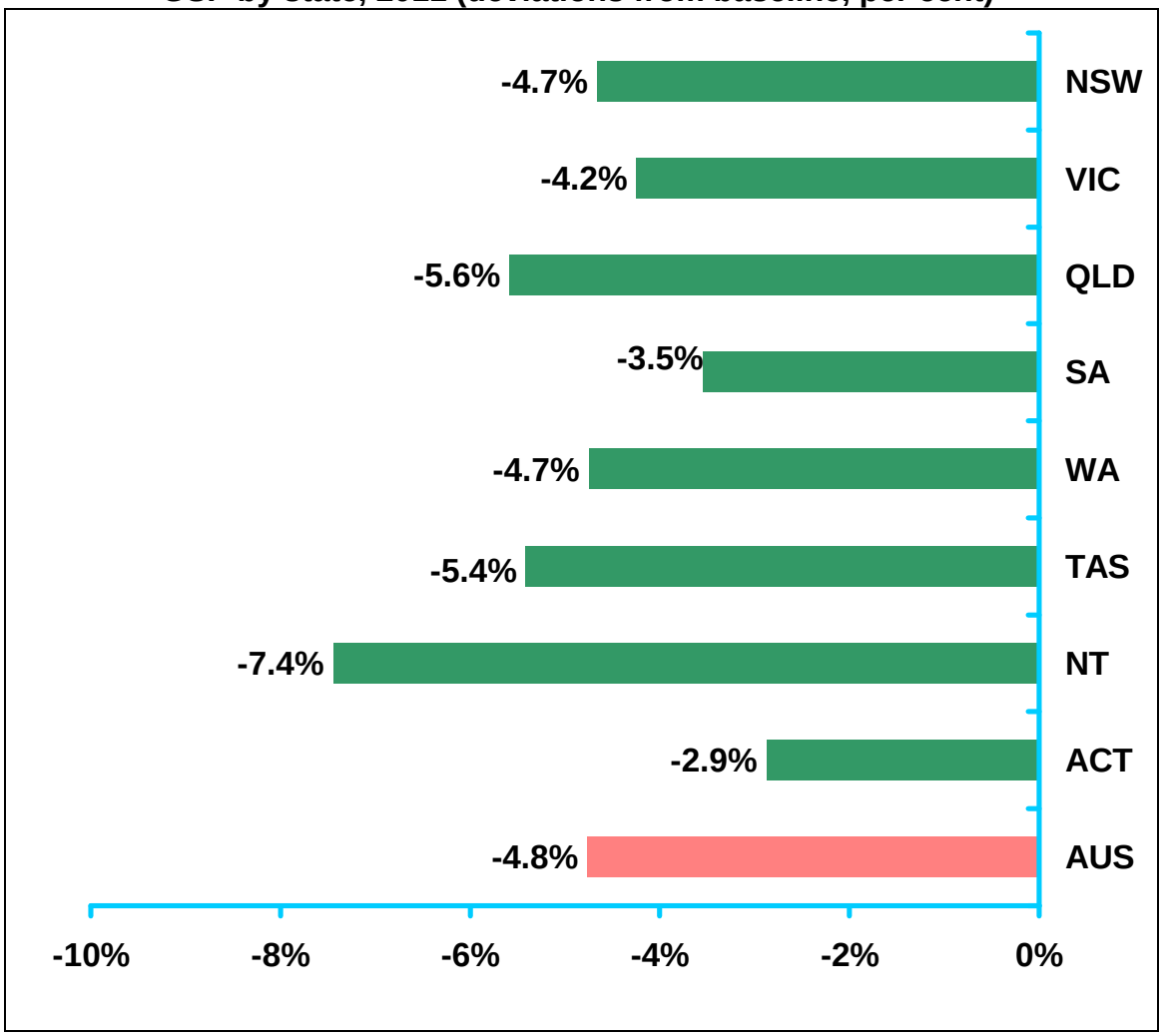
Chart 5.13
Employment by industry, 2011 (deviations from baseline, '000 jobs)



source: MM2

notes: "w/sale & retail" includes the Wholesale Trade and Retail Trade industries
"finance & bus." includes the Finance and Insurance, and Property and Business Services industries;
"gov't services" includes the Education, Health and Government Administration and Defence industries;
"other" includes the Culture and Recreation Services, and Personal and Other services industries.

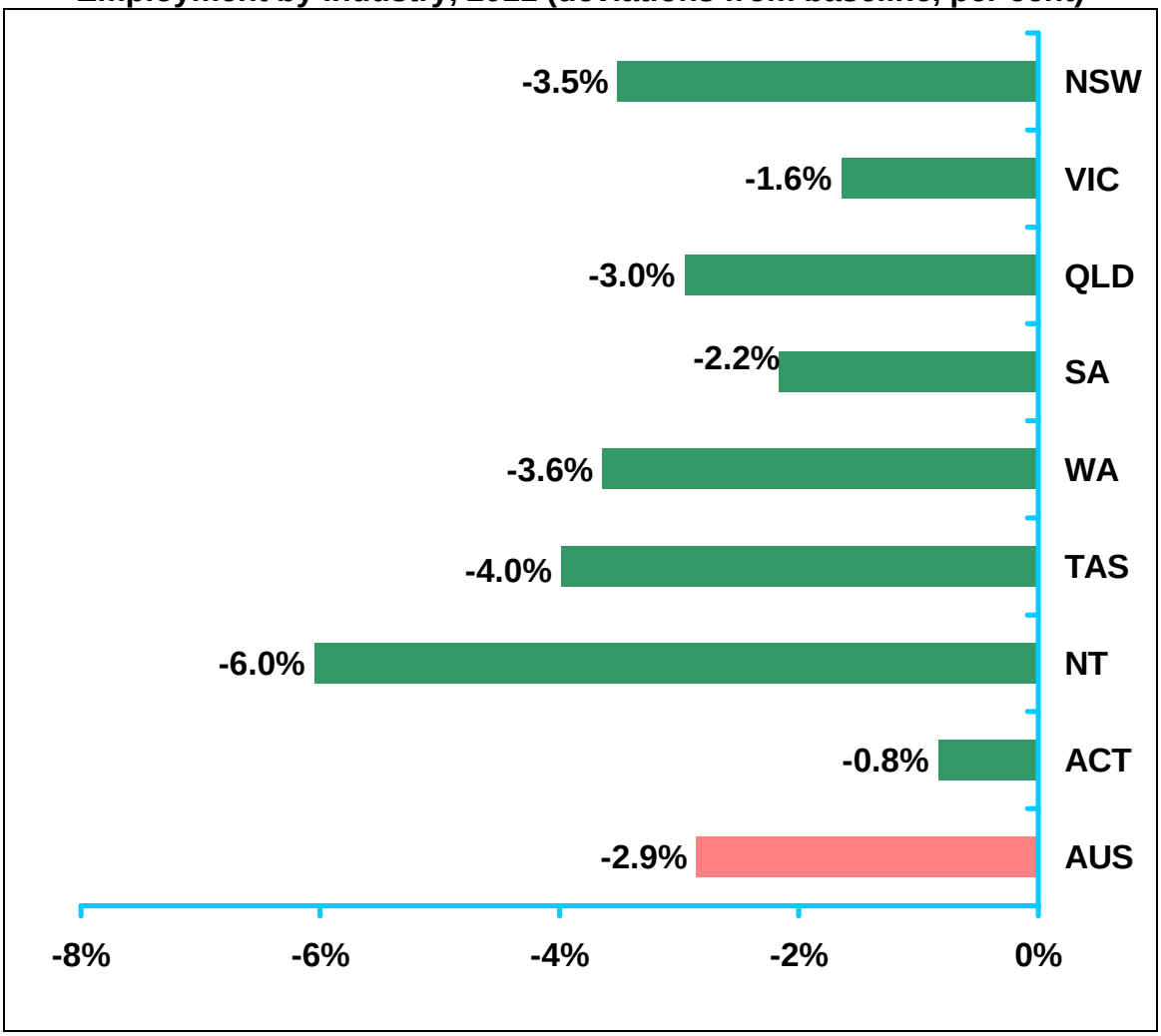
Chart 5.14
GSP by state, 2011 (deviations from baseline, per cent)



source: MM2

notes: "w/sale & retail" includes the Wholesale Trade and Retail Trade industries
"finance & bus." includes the Finance and Insurance, and Property and Business Services industries;
"gov't services" includes the Education, Health and Government Administration and Defence industries;
"other" includes the Culture and Recreation Services, and Personal and Other services industries.

Chart 5.15
Employment by industry, 2011 (deviations from baseline, per cent)



source: MM2

notes: "w/sale & retail" includes the Wholesale Trade and Retail Trade industries
"finance & bus." includes the Finance and Insurance, and Property and Business Services industries;
"gov't services" includes the Education, Health and Government Administration and Defence industries;
"other" includes the Culture and Recreation Services, and Personal and Other services industries.

Attachment A – Murphy Model 2 (MM2)

Econtech's forecasting tool, Murphy Model 2 (MM2), is Australia's leading national, industry and state forecasting model. It has a highly respected forecasting track record and is used by Federal and State Governments, industry associations, financial institutions and major companies. Subscriptions to forecasting reports and Windows-based forecasting software are available.

Development

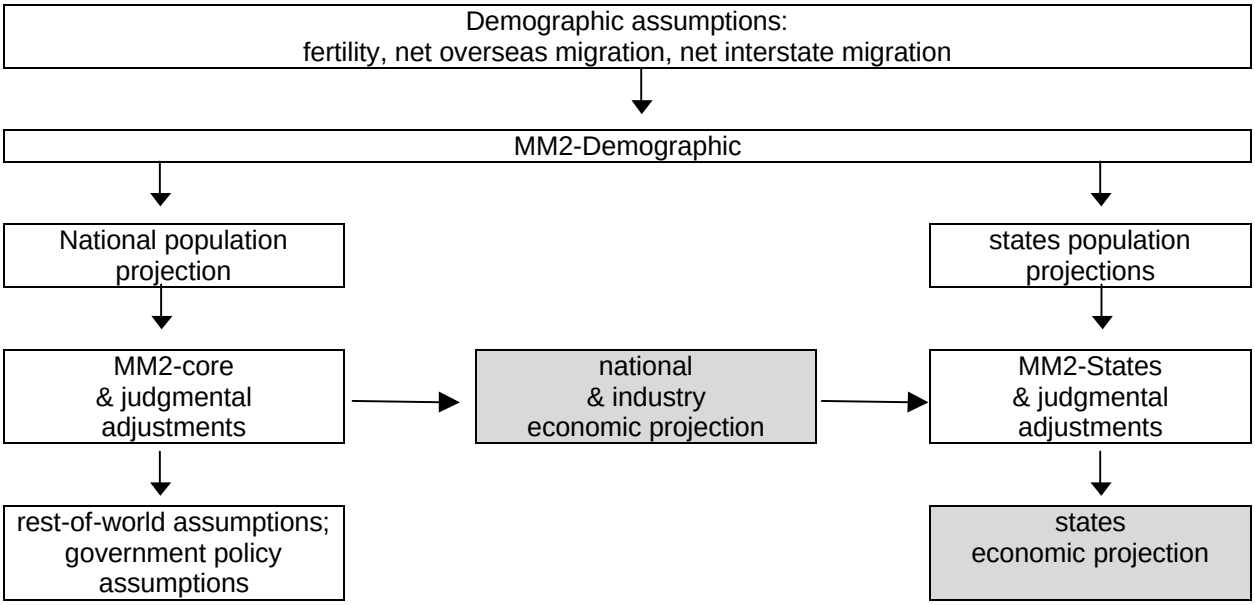
The original Murphy Model was developed by Chris Murphy, after ten years of experience in macroeconometric modelling at the Australian Treasury, Economic Planning Advisory Council, and the Australian National University. In 1988, Chris published the first version of the Murphy Model in Australian Economic Papers, and it was soon recognised as Australia's leading macro model.

In 1994, the first major redevelopment of the model was undertaken to distinguish 12 industry sectors. This marked the introduction of the Murphy Model 2 (MM2), a fully integrated macro and industry model.

In 1995, under contract to two state treasuries, the MM2-States was developed as an extension to MM2. The MM2-States allocates a number of MM2's key outputs across the eight Australian States and Territories.

In the same year, the current version of MM2-Demographic was developed under contract to the Australian Bureau of Immigration Research. Using assumptions for fertility, mortality, overseas and interstate migration, it generates consistent state and national population scenarios.

In 1996, the MM2 was further developed to expand the sectoral detail from 12 sectors to the 18 sectors corresponding to the Australian and New Zealand Standard Industrial Classification (ANZSIC) industry divisions. The linkages between the three models are illustrated below.



Features

MM2 is a state-of-the-art, fully-integrated macro-industry model with the following features:

- produces quarter-by-quarter nine-year-ahead forecasts;
- forward-looking financial sector for realism;
- Keynesian short-run for forecasting; and
- neoclassical long-run for policy analysis.

Documentation

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