

## Chapter 3: Minimum wages and their effect on employment

### Introduction

- 3.1 The Commission's wage setting parameter, as set out by s.23(a) of the WR Act, requires the Commission, when performing its wage setting function, to have regard to:

*the capacity of the unemployed and low paid to obtain and remain in employment.*

- 3.2 This chapter provides an overview of the theory and empirical evidence surrounding this debate overseas and in Australia for the Commission to consider. The chapter also presents new evidence pointing to the impact on employment of the minimum wage in Australia. Caution needs to be exercised in considering international evidence as not all circumstances are directly comparable with Australia.

### Economic theory

- 3.3 The minimum wage debate begins with one of the most fundamental relationships in economics. The law of demand developed through standard economic theory states that, other things being equal, as the price of a good (in this case labour) increases, the quantity demanded (of labour) decreases. Thus, an increase in wages unrelated to the demand from employers will cause less workers to be employed.
- 3.4 There is considerable evidence both from Australia and overseas to suggest that a minimum wage which is set too high can harm the employment prospects of low skilled workers and others who are most vulnerable in the labour market. An outline of this evidence follows.

## Empirical literature

### The minimum wage 'bite'

- 3.5 When examining the results of empirical studies, it is important to consider the relative value (or the bite) of the minimum wage. The bite is commonly measured as a proportion of the minimum wage to full-time median earnings.
- 3.6 When compared with other countries, Australia has the highest minimum wage as a proportion of full-time adult median earnings. Table 3.1 below illustrates Australia's position relative to other countries in mid-2004. Since this time, however, Australia has seen the absorption of the 2005 Safety Net Review. This has revised the FMW as a percentage of median full-time adult earnings to 57.5 per cent.<sup>1</sup>

---

<sup>1</sup> ABS *Employee Earnings, Benefits and Trade Union Membership*, August 2005 (Cat No 6310.0), unpublished data; Metal, Engineering and Associated Industries Award 1998.

**Table 3.1: Adult minimum wages relative to full-time median earnings, mid 2004.<sup>2</sup>**

Country	Percentage	
Australia <sup>3</sup>		
LFS	58.8	
ES	55.1	
France	56.6	
New Zealand	53.6	
Ireland	51.7	
Belgium	48.5	
Greece <sup>4</sup>	47.9	[55.9]
Netherlands <sup>5</sup>	46.4	[50.1]
United Kingdom <sup>6</sup>	43.2	
Canada	39.5	
Portugal <sup>4</sup>	38.0	[44.4]
Japan	33.7	
United States	32.2	
Spain <sup>4</sup>	30.0	[35.0]

Source: (Except UK) Minimum wages and mean and median earnings for full-time workers: OECD estimates and OECD Earnings Structure Database, as cited in the UK Department of Trade and Industry, Low Pay Commission Report 2005 - National Minimum Wage, February 2005, Tables A4.2. [http://www.lowpay.gov.uk/lowpay/report/pdf/DTi-Min\\_Wage.pdf](http://www.lowpay.gov.uk/lowpay/report/pdf/DTi-Min_Wage.pdf) (accessed 26 May 2006).

3.7 The international evidence demonstrates the relationship between the minimum wage bite for unemployment. Chart 3.1 presents the OECD estimates for structural unemployment for 13 OECD countries with minimum wages in 1999. The figure illustrates that a high bite is accompanied by high levels of structural unemployment.

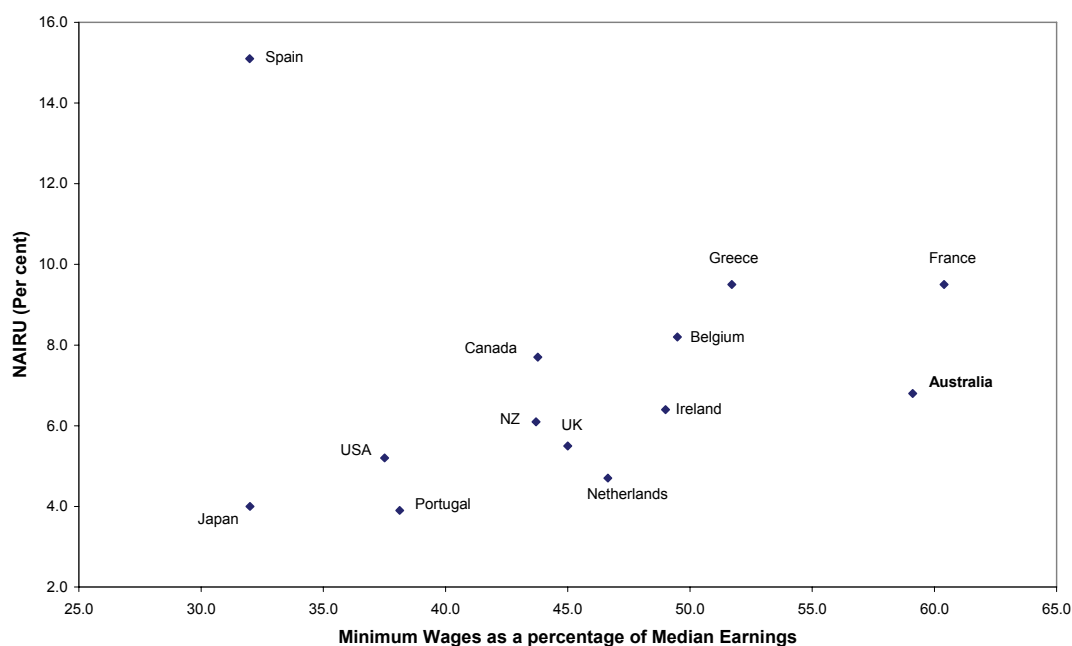
<sup>2</sup> In all cases, the minimum wage refers to the basic rate for adults. In some cases, the median earnings data for full-time workers for mid-2004 are estimates based on extrapolating data for earlier years in line with other indicators of average earnings growth. All earnings data are gross of employee social security contributions.

<sup>3</sup> Two estimates of median earnings are available based on the Labour Force Survey (LFS) and an enterprise survey (ES). In each case, the data refer to weekly earnings and are ABS surveys. The minimum wage refers to the Federal Minimum Wage.

<sup>4</sup> The ratio including annual supplementary pay of two additional months of salary is given in parentheses. The ratio including 8 per cent supplement for holiday pay is given in parentheses.

<sup>6</sup> LPC calculation using Annual Survey of Hours and Earnings (including supplementary information), applying the adult rate of £4.50 (applicable in mid-2004). On the basis of the minimum wage of £4.85, the figure would be 46.6 per cent.

**Chart 3.1: Rate of structural unemployment (NAIRU) and the relative levels of minimum wages in 1999 <sup>(a)</sup>**



Source: M Keese and A Puymoyen, "Changes in earnings structure: Some international comparisons using the OECD structure of earnings database", *OECD Labour Market and Social Policy Occasional Papers*, 2001, forthcoming, Table B. 5.2; OECD, *Economic Outlook No 68, 2000*, Table V.1. OECD, *Employment Outlook: 2003 Towards More and Better Jobs*, Table 1.3. OECD, *Social Employment and Migration Working Paper No.18 Indicators of Unemployment and Low Wage Traps*, Table 1.

Note: (a) The figures for the UK and Ireland refer to 2001.

### **International evidence**

- 3.8 The overwhelming weight of academic evidence supports the conventional economic theory that there is a significant negative relationship between high minimum wage increases and employment levels.
- 3.9 Tables 3.2 and 3.3 below summarise the results of key international empirical studies that have been undertaken since 1990 to investigate the relationship between minimum wage increases and employment. The tables clearly show that the majority of studies (39 out of 54 studies listed) find an inverse relationship between increases in minimum wages and employment. More than two thirds of these studies find a statistically significant inverse relationship.

3.10 Given the relatively large minimum wage bite in Australia, minimum wage increases will potentially have a much larger effect in this country. This should be kept in mind when considering the international studies presented in this submission.

**Table 3.2: Summary of results from international minimum wage studies, 2000-2005**

Country	Author/s	Year published	Findings
Canada	Campolieti, Fang and Gunderson <sup>i</sup>	2005	Significant negative relationship
UK	Dickens and Draca <sup>ii</sup>	2005	No clear, statistically significant evidence of employment losses
UK	Machin and Wilson <sup>iii</sup>	2004	Marginally significant negative relationship
17 OECD countries	Neumark and Wascher <sup>iv</sup>	2004	Clear negative correlation between the level of the minimum wage and youth employment-population ratios.
USA	Neumark, Schweitzer and Wascher <sup>v</sup>	2004	Significant negative relationship
Brazil	Lemos <sup>vi</sup>	2004	Slight negative relationship
UK	Stewart <sup>vii</sup>	2004	No significant adverse employment effects
Canada	Yuen <sup>viii</sup>	2003	Significant negative relationship
Indonesia	Alatas and Cameron <sup>ix</sup>	2003	No evidence of a negative relationship
UK	Machin, Manning and Rahman <sup>x</sup>	2003	Significant negative relationship
Various countries in Latin America	Maloney and Mendez <sup>xi</sup>	2003	Significant negative relationship
UK	Stewart <sup>xii</sup>	2003	Overall no compelling evidence of negative relationship, marginally negative relationship for adult male workers
Selected developing countries	Saget <sup>xiii</sup>	2001	Significant negative relationship
USA	Keil, Robertson and Symons <sup>xiv</sup>	2001	Significant negative relationship
USA	Williams and Mills <sup>xv</sup>	2001	Significant negative relationship on teenage employment
France	Kramarz and Philippon <sup>xvi</sup>	2001	Significant negative relationship
USA	Burkhauser, Couch and Wittenburg <sup>xvii</sup>	2000	Significant negative relationship
USA	Burkhauser, Couch and Wittenburg <sup>xviii</sup>	2000	Significant negative relationship
USA	Neumark, Schweitzer and Wascher <sup>xix</sup>	2000	Significant negative relationship
USA	Hsing <sup>xx</sup>	2000	Significant negative relationship on ratio of part-time to full-time employment
USA	Bazen and Marimoutou <sup>xxi</sup>	2000	Significant negative relationship

**Table 3.3: Summary of results from international minimum wage studies, 1990-1999**

Country	Author/s	Year published	Findings
US and France	Abowd, Kramarz and Margolis <sup>xxii</sup>	1999	Significant negative relationship
Cross-country	Neumark and Wascher <sup>xxiii</sup>	1999	Results varied but were 'generally... consistent with the view that minimum wages cause employment losses among youth'
USA	Partridge and Partridge <sup>xxiv</sup>	1999	Significant negative long term relationship
USA	Card and Krueger <sup>xxv</sup>	1999	Little evidence' of a negative relationship
USA	Neumark <sup>xxvi</sup>	1999	Significant negative relationship
USA	Belman and Wolfson <sup>xxvii</sup>	1999	No evidence' of a negative relationship
Cross-country	OECD <sup>xxviii</sup>	1998	Significant negative relationship on teenage employment; No significant negative relationship on adult employment
Spain	Dolado, Felgueroso and Jimeno <sup>xxix</sup>	1998	Significant negative relationship
USA	Bernstein and Schmitt <sup>xxx</sup>	1998	Mixed results
NZ	Chapple <sup>xxxi</sup>	1997	Inconclusive results
France	OECD <sup>xxxii</sup>	1997	Significant negative relationship
France and USA	Abowd, Kramarz, Lemieux and Margolis <sup>xxxiii</sup>	1997	Significant negative relationship
France	Bazen and Skourias <sup>xxxiv</sup>	1997	Significant negative relationship
Columbia	Bell <sup>xxxv</sup>	1997	Significant negative relationship
Mexico	Bell <sup>xxxvi</sup>	1997	No clear relationship
France	Dolado, Kramarz, Machin, Manning, Margolis and Tuelings <sup>xxxvii</sup>	1996	Negative relationship with qualification that analysis could be affected by different business cycles
Spain	Dolado, Kramarz, Machin, Manning, Margolis and Tuelings <sup>xxxviii</sup>	1996	Significant negative relationship
Canada	Kan and Sharir <sup>xxxix</sup>	1996	Small or negligibly negative relationship
USA	Currie and Fallick <sup>xl</sup>	1996	Significant negative relationship on probability of remaining employed
USA	Card and Kreuger <sup>xli</sup>	1995	No negative and a possibly positive relationship
UK	Machin and Manning <sup>xlii</sup>	1994	No negative relationship
France	Benhayoun <sup>xliii</sup>	1994	Significant negative relationship
Netherlands	Van Soest <sup>xliv</sup>	1994	Significant negative relationship
Greece	Koutsogeoropoulou <sup>xlv</sup>	1994	Significant negative relationship
NZ	Maloney <sup>xlvi</sup>	1994	Significant negative relationship
USA	Klerman <sup>xlvii</sup>	1992	Significant negative relationship
USA	Card <sup>xlviii</sup>	1992	Positive relationship
USA	Neumark and Wascher <sup>xliv</sup>	1992	Significant negative relationship
France	Bazen and Martin <sup>i</sup>	1991	Significant negative relationship
USA	Wellington <sup>ii</sup>	1991	Significant negative relationship
UK	Bazen <sup>iii</sup>	1990	Significant negative relationship

***Heterogeneity of low paid workers***

- 3.11 Low paid workers display varying characteristics which influence their vulnerability to high minimum wage increases. An important international study which looked at this issue and worthy of particular attention by the Commission is a 2003 Canadian study by Yuen<sup>7</sup>.
- 3.12 Yuen found that increases in the minimum wage caused greater employment reductions among those teenagers and young workers who had been in low wage employment for relatively longer periods of time than workers in jobs for shorter periods.
- 3.13 Yuen attributes this to a worker's current wage rate being an imperfect reflection of the worker's permanent level of productivity. Workers who had been in low paid jobs for longer periods had lower productivity than those who worked in the same low paid jobs for shorter periods. Higher productivity workers tended to use lower paid jobs as a stepping stone to higher paid jobs. This highlights the heterogenous nature of low wage workers.
- 3.14 Yuen's analysis shows that relying on current wage rates to identify those most likely to be affected by changes in minimum wage policy may be insufficient. Estimates of the aggregate impact of wage increases fail to illustrate the unequal impact on low wage workers. Such estimates do not identify the impact of minimum wage increases on those most vulnerable.
- 3.15 The central point raised by Yuen is the importance of looking at the impact of changes in wages on the employment of people at the margins of the labour force, particularly the low paid and unemployed. These are workers who are paid at minimum wage rates and who have low productivity.

***Fallacy of the inflated denominator***

- 3.16 Another related issue identified by Brown<sup>8</sup> is "the fallacy of the inflated denominator". Brown cautions against looking at the impact of minimum wage increases on total employment. Of these, the overwhelming majority of people are not paid wages at or close to the minimum wage. As such, it is more

---

<sup>7</sup> T Yuen, 'The effects of minimum wages on youth employment in Canada: A panel study' *The Journal of Human Resources*, 2003, Vol 38, No 3, pages 647-672.

<sup>8</sup> The impact of minimum wage increases on employment is often measured in terms of the Kaitz index, which is simply a ratio which represents minimum wages (the numerator) as a proportion of total wages (the denominator).

appropriate to look at the impact of minimum wage increases on that segment of the population most affected.

- 3.17 In other words, the higher the proportion of workers in any demographic group that earn more than the minimum wage, the smaller the effect on that group's employment (in proportional terms) would be.<sup>9</sup>

### **Australian evidence**

- 3.18 Australian studies generally focus on the link between aggregate real wage growth and aggregate employment.<sup>10</sup> Therefore, they are not directly comparable with many of the international minimum wage studies discussed previously.
- 3.19 As the Commission is empowered to set wages across the whole range of classification scales and not just the FMW, they are of relevance to the Commission's deliberations.
- 3.20 Table 3.4 below outlines the findings of Australian studies on the issue of the impact of wage increases on employment. This is a considerable body of work developed over many years of looking at the Australian labour market. A body of work, moreover, that is unanimous in finding that wage rises in Australia potentially cost jobs.

---

<sup>9</sup> C Brown, 'Minimum Wage Laws: Are They Overrated?', *Journal of Economic Perspectives*, 1988, Vol 2, No 3, page 144.

See also:

M James, M Wooden and P Dawkins, 'Minimum wages and the fallacy of the inflated denominator', *Economic Papers*, Vol 20, September 2001.

<sup>10</sup> Presumably this is because of the difficulty of empirically modelling the employment impact of a scale of award wage increases on employment.

**Table 3.4: Australian academic research on the relationship between wages and employment**

Author(s)	Year	Elasticity	Methodology	Time period
P Lewis <sup>11</sup>	1983	-0.6	Used a disequilibrium model to estimate the elasticity of total employment to real wages	1966-1986
C Pissarides <sup>12</sup>	1987	-0.8	Used Layard-Nickell type model to estimate the employment elasticity with respect to real wages	1967-1987
P Lewis & M G Kirby <sup>13</sup>	1988	-0.8	Total employment with respect to real wages	1969-1987
B Russell & W Tease <sup>14</sup>	1991	-0.6	Total male employment elasticity with respect to real wages	1969-1997
G Debelle & J Vickery <sup>15</sup>	1998	-0.7 (-0.4)	Used Layard-Nickell type model to estimate the employment (hours) elasticity with respect to real wages	1979-1997
M Dungey & J Pitchford <sup>16</sup>	1998	-0.4	Used a disequilibrium model to estimate the elasticity of total employment to real wages	1984-1997
K Bernie & P Downes <sup>17</sup>	1999	-0.6	Used the Treasury Macroeconomic Model to estimate the employment (hours) elasticity with respect to real wages	1971-1998
P Lewis & G MacDonald <sup>18</sup>	2002	-0.8	Re-estimated the aggregate demand for labour, estimating the elasticity of the demand for labour with respect to real wages	1959-1998
A Leigh <sup>19</sup>	2003	-0.15	Estimated the elasticity of labour demand with respect to the Western Australian statutory minimum wage	1994-2001
D Harding & G Harding <sup>20</sup>	2004	-0.21	Based on a survey of small and medium employers, estimated the short run elasticity of employment demand with respect to the minimum award rate	2003

### ***Economic modelling***

3.21 Over a number of years the Australian Government has undertaken or commissioned economic modelling of the impact of increases in minimum wages on employment.

<sup>11</sup> P Lewis, 'Disequilibrium in the Australian Aggregate Labour Market', *Economics Letters*, 1993, Vol 11, pages 185-189.

<sup>12</sup> C Pissarides, 'Real Wages and Unemployment in Australia', Discussion Paper No 286, Centre for Labour Economics, 1987, London School of Economics.

<sup>13</sup> P Lewis and MG Kirby, 'A New Approach to Modelling the Effects of Incomes Policies', *Economics Letters*, 1998, Vol 28, pages 81-95.

<sup>14</sup> B Russell and W Tease, 'Employment, Output and Real Wages', *Economic Record*, 1991, Vol 67, No 196, pages 34-45.

<sup>15</sup> G Debelle and J Vickery, 'The Macroeconomics of Australian Unemployment', RBA Annual Conference Volume 1998-15, 1998, Reserve Bank of Australia.

<sup>16</sup> M Dungey and J Pitchford, 'Prospects for Output and Employment Growth with Steady Inflation', RBA Annual Conference Volume 1998-15, 1998, Reserve Bank of Australia.

<sup>17</sup> K Bernie and P Downes, 'The macroeconomics of unemployment in the Treasury Macroeconomic (TRYM) model', 1999, RBA seminar series.

<sup>18</sup> P Lewis and G MacDonald, 'The Elasticity of Demand for Labour in Australia', *Economic Record*, 2002, Vol 78, No 240, pages 18-30.

<sup>19</sup> A Leigh, 'Employment Effects of Minimum Wages: Evidence from a Quasi- Experiment', *Australian Economic Review*, 2003, Vol 36, No 4, pages 361-373.

<sup>20</sup> D Harding and G Harding, 'Minimum wages in Australia: an analysis of the impact on small and medium sized businesses – A report to the Department of Employment and Workplace Relations', 2004, Turning Point Research Pty Ltd.

- 3.22 Economic modelling provides useful information quantifying the impact of wage increases on employment. Economic models employ a comprehensive and consistent view as to how the economy operates supported by empirical research which estimates the nature of the relationships between critical economic variables.
- 3.23 Models can be used, therefore, to estimate the employment impact of changes to minimum wages given the current structure of the economy.

*MONASH model*

- 3.24 In 2005, the Australian Government Department of Employment and Workplace Relations (DEWR) commissioned the Centre of Policy Studies (CoPS) to model and report on the impact of a \$26.60 increase in award wages at the national, state and regional level. This increase was the ACTU's claim in the 2005 Safety Net Review of Wages before the AIRC. The analysis is contained in the report, 'The effects on the Australian economy of a sustained increase in award wage rates: results from the MONASH model' by Peter Dixon, John Madden and Maureen Rimmer.<sup>21</sup>
- 3.25 The authors found that approximately 74,000 jobs would be lost if award wages were increased by \$26.60 compared with holding award wages fixed.
- 3.26 The CoPS modelling also found that no region escaped the negative impact of the ACTU's claim.
- 3.27 DEWR subsequently commissioned CoPS to model the cumulative impact of safety net award wage increases on the Australian economy over the period 1997 to 2005 if the AIRC had adopted alternative decisions.<sup>22</sup>
- 3.28 This was undertaken for the following three scenarios: if the AIRC granted increases in line with ACTU recommendations; if the AIRC granted increases in line with the Australian Government's recommendations; and if the AIRC had granted no wage increases.

---

<sup>21</sup> P B Dixon, J R Madden and M T Rimmer, 'The effects on the Australian economy of a sustained increase in award wage rates: results from the MONASH model', *Centre of Policy Studies, Monash University*, 2005, 11 March. Available at: <http://www.workplace.gov.au/NR/rdonlyres/22FA2E04-2A69-4238-AE92-15AEF8BAC32B/0/SNRWages2005Report.pdf> (accessed 19 July 2006).

<sup>22</sup> P B Dixon and M T Rimmer, 'The effects on the Australian economy of alternative safety net award wage histories: results from the MONASH model', *Centre of Policy Studies, Monash University*, 2005, 27 September. Available at <http://www.workplace.gov.au/NR/rdonlyres/58838399-4456-4C46-90B8-AE7AA6C6FE03/0/Finalreportforweb.pdf> (accessed 19 July 2006).

- 3.29 The first scenario found that if the AIRC had followed the claims of the ACTU for higher wage increases than were granted this would have reduced aggregate employment by 3.8 per cent (365,000 jobs). The second scenario found that if the AIRC had followed the Australian Government's positions for lower wage increases than were granted, aggregate employment would have increased by 5.3 per cent (510,000 jobs). Finally, had no award wage increases been granted over this period, aggregate employment would have increased by 7 per cent (669,000 jobs).

*Treasury Macroeconomic model*

- 3.30 The Australian Government has previously assessed the impact of safety net adjustments using the Treasury Macroeconomic (TRYM) model.
- 3.31 The model pays particular attention to inflation. Wage rises flow more quickly into higher inflation than into lower employment in the TRYM model, and inflation partly flows back into higher non-award wage increases. Furthermore, the response of monetary policy authorities to higher inflation is likely to impact on the labour market.
- 3.32 The TRYM model has found that there would have been a positive impact on the labour market and the economy more generally, if the Australian Government's position had been accepted in the Safety Net Reviews since 1997.<sup>23</sup>

*Modelling by Econtech*

- 3.33 The Department recently commissioned Econtech using the Murphy Model Regional (MMR) to examine the economic impact of four hypothetical scenarios of minimum wage increases. The Econtech report 'Modelling the Economic and Employment Impacts of Various Scenarios for Increases in Minimum Wages' is at Attachment A.
- 3.34 The four scenarios do not represent recommended policy positions but rather are intended to provide indications of the potential impact of increasing minimum wages nationally, as well as across industries and regions.

---

<sup>23</sup> Commonwealth Submission, Safety Net Review of Wages, 2002-2003, paragraphs 6.34 to 6.51.  
Commonwealth Submission, Safety Net Review of Wages, 2001-2002, paragraphs 4.3 to 4.7.  
Commonwealth Submission, Safety Net Review of Wages, 2000-2001, chapters 7 and 8.  
Commonwealth Submission, Safety Net Review of Wages, 1999-2000, chapter 6.  
Commonwealth Submission, Safety Net Review of Wages, 1998-1999, chapter 7.  
Commonwealth Submission, Safety Net Review of Wages, 1996-1997, section 6.4.

- 3.35 The scenarios cover various qualitatively different types of wage increases - both percentage and flat dollar increases. The coverage of the increases is restricted to two options - increasing the lower third of APCS wage rates and increasing all APCS wages.<sup>24</sup>
- 3.36 Table 3.5 presents the relationship between wage increases and employment derived from the Econtech analysis. For example, a 10 cents per hour increase in all minimum rates is estimated to reduce employment by 0.33 per cent or 32,800 jobs. Accordingly, this relationship provides an indication that a 20 cents per hour increase in all minimum rates would reduce employment by 0.66 per cent or 65,600 jobs. The estimated employment losses for the other scenarios can be estimated in the same manner.
- 3.37 As is shown in Table 3.5, restricting the wage increases to the bottom third of minimum wage rates has the lesser impact on employment, as this will directly affect around 7 per cent of employees. Increasing all wage minima directly affects around 20 per cent of workers and has the largest impact of the scenarios.

**Table 3.5: Rules of thumb from four hypothetical wage increase scenarios**

Scenario		Change in Employment (%)	Decrease in the Number of Persons Employed
<b>Increase lower third of wages:</b>	1) 10 cents per hour (\$3.80 per week)	-0.11	10,700
	2) 1 per cent	-0.15	15,000
<b>Increase all minimum wages:</b>	3) 10 cents per hour (\$3.80 per week)	-0.33	32,800
	4) 1 per cent	-0.53	52,300

Source: Econtech (2006), See Attachment A

- 3.38 Flat rate increases have lower employment effects in scenarios 1 and 3. This compares with percentage increases (scenarios 2 and 4) which result in larger

<sup>24</sup> The Econtech modelling assumes that the wages of all award and APCS-reliant workers are increased in the same manner and by the same amount. This approach assumes that the transitional employees under the jurisdiction of the AIRC receive similar increases to those received by workers within the AFPC jurisdiction. Schedule 6 Part 2 s.8 of the WR Act describes the desirability of the AIRC providing consistent decisions as the AFPC. The 15% of workers remaining in state jurisdictions are also assumed to receive similar increases consistent with the movement to a uniform national system of minimum wages.

rises for higher wage minima and maintain wage relativities. This is most marked in the last scenario where high wage minima are increased.

- 3.39 In conclusion, the results of all the various modelling exercises both undertaken by the Australian Government and commissioned from independent modellers point to high minimum wage increases leading to employment losses. The latest Econtech modelling is particularly useful as it provides an indication of employment losses from different quantum of wage increases for different groups.

## Alternative approaches

- 3.40 There has been considerable debate in academic circles about whether there are any alternative analyses other than a standard economic approach to examining the relationship between high minimum wage increases and employment. The most commonly raised approach is monopsony in the labour market.
- 3.41 Monopsony is a proposition advanced by those who seek to disprove the negative relationship between high wage increases and employment. The monopsony model attests that an increase in minimum wages, within a certain range, can actually increase employment of low wage employees.
- 3.42 Monopsony exists when only one firm is the buyer of labour in a particular labour market. As the firm is the only buyer of labour, it is able to influence the wage rate. "Rather than being a *wage taker* and facing the horizontal labour supply curve that competitive firms are confronted with, monopsonists face an upward-sloping labour supply curve. The supply curve confronting them, in other words, is the *market* supply curve".<sup>25</sup>
- 3.43 While a number of academics<sup>26</sup> have discussed the theory of monopsony, there is no empirical evidence that supports the theory of monopsony for national labour markets. Certainly there is no evidence of widespread monopsony in the Australian labour market.

---

<sup>25</sup> R G Ehrenberg & R S Smith, *Modern Labor Economics, Theory and Public Policy*, 8<sup>th</sup> Edition, United States of America, Pearson Education, 2003, page 73.

<sup>26</sup>For example:

A Manning, *Monopsony in motion: Imperfect competition in labor markets*, Princeton, Princeton University Press, 2003.

- 3.44 In recent years, the most prominent academics of the view that increases in minimum wages does not cost jobs have been Card and Krueger<sup>27</sup>. Their USA study was conducted along the lines of a “natural experiment” in which the impact of change in the minimum wage is analysed by comparing those businesses affected by the change with those unaffected by the change.
- 3.45 The findings of Card and Krueger, however, have been heavily criticised and discredited in the *Review Symposium - Myth and Measurement* edited by Ehrenberg.<sup>28</sup> For example, Hamermesh argues that Card and Krueger are simply picking up short-run responses to changes in the minimum wage and that in the longer run a negative relationship between employment and the minimum wage would persist.
- 3.46 Hamermesh also argues that Card and Krueger ignore the knowledge held by many employers about forthcoming minimum wage adjustments before they are legislated. Therefore, many businesses may adjust employment levels in response to anticipated increases in labour costs before the minimum wage is actually raised.
- 3.47 A number of other researchers have found that Card and Krueger’s methodology was unsound. Burkhauser, Couch and Wittenburg<sup>29</sup>, for instance, claim that Card and Krueger failed to control for macroeconomic conditions. Indeed, Burkhauser et al re-estimated Card and Krueger’s model controlling for the economic cycle and found that the increase in the minimum wages had actually led to a fall in employment.
- 3.48 Further, there are major difficulties in applying Card and Krueger’s findings to countries such as Australia with a far higher minimum wage than in the United States. Importantly, Card and Krueger themselves emphasise that employment losses can result from increases to a minimum wage already set a high level.<sup>30</sup> In a 1998 article, Card and Krueger clearly state that “if the minimum wage is raised too much, we will see job losses; there is a tipping point”.<sup>31</sup>

---

<sup>27</sup> This was first argued by the authors D Card & A Krueger in *Myth and Measurement: The New Economics of the Minimum Wage*, Princeton, Princeton University Press, 1995.

<sup>28</sup> Review Symposium – Myth and Measurement: The New Economics of the MINIMUM Wage, R Ehrenberg (ed), *Industrial and Labour Law Review*, Jul 1995, Vol 48, No 4.

<sup>29</sup> R Burkhauser, K Couch and C Wittenberg, “A Reassessment of the New Economics of the Minimum Wage Literature with Monthly Data from the Current population Survey”, *Journal of Labor Economics*, 2000, Vol 18, No 4.

<sup>30</sup> D Card & A Krueger in *Myth and Measurement: The New Economics of the Minimum Wage*, (Princeton: Princeton University Press, 1995), page 393.

<sup>31</sup> D Card and A Krueger, “Unemployment Chimera”, *Washington Post*, 6 March 1998.

- 3.49 Accordingly, even if the criticisms of Card and Krueger's findings discussed above are ignored, it cannot be asserted that Australia is among the 'moderate range of minimum wages' to which their findings are applicable.

## International bodies

- 3.50 Consistent with the results of international and Australian research, major international economic institutions have recommended changes to minimum wage setting in Australia.
- 3.51 The International Monetary Fund (IMF) Staff Report on Australia for the 2004 Article IV Consultation stated there is scope to enhance flexibility in the workplace in Australia. In a section on structural policies, the IMF report noted there needs to be "a diminished role of the award system in setting the minimum wage, which has contributed to a relatively high unemployment rate for low-skilled workers".<sup>32</sup>
- 3.52 The OECD in its latest *Going for Growth* publication, stated in response to the challenge for Australia in promoting employment of the low-skilled was "that yearly adjustments to 'award wages' (the de facto minimum wages) should reflect better the productivity of award wage earners, especially those with low skills".<sup>33</sup> Elsewhere in the report, the OECD welcomes the establishment of the Fair Pay Commission and in particular that "...the criteria for deciding on the level of the minimum wage will include the capacity for the low paid to remain in employment".<sup>34</sup>
- 3.53 The OECD in its *Employment Outlook* for 2004 stated "safety net awards continue to restrict employer discretion at the bottom of the wage scale".<sup>35</sup> The OECD asked "whether the current minimum safety net approach – where minima are not only set for low paid workers, but there is a whole ladder of minima, including for higher paid employees – should not be replaced by a minimum wage".<sup>36</sup>
- 3.54 The OECD in its *Economic Survey of Australia* for 2004, commented that one of the remaining problems in industrial relations is that "safety net awards are

---

<sup>32</sup> International Monetary Fund, Australia, Staff Report for the 2004 Article IV Consultation, August 30 2004, page 13.

<sup>33</sup> OECD *Going for Growth* 2006, page 22.

<sup>34</sup> *Ibid*, page 22.

<sup>35</sup> OECD *Employment Outlook* 2004, page 153.

<sup>36</sup> *Ibid*, page 153.

arguably too high”, with the high minimum wage by international standards limiting the employment prospects of the low skilled.<sup>37</sup> The OECD encourages further reform of the safety net so that it takes “into account the employability of low-skilled workers”.<sup>38</sup>

- 3.55 The OECD, in its 2006 *Boosting Jobs and Incomes* paper, has gained significant publicity through its finding that “recent experience suggests that a moderate minimum wage generally is not a problem”.<sup>39</sup> According to some observers, this amounted to the OECD reversing its support for labour market and workplace relations reform.
- 3.56 It is important to note, however, that the OECD also stated in the report that “overly high minimum wages together with high payroll taxes may affect the employment prospects of vulnerable groups.”<sup>40</sup> In other words, Australia’s minimum wage ‘bite’ could be negatively impacting on the employment prospects of the low paid and unemployed. Further, as discussed in more detail earlier, unlike other OECD countries, Australia does not have a single minimum wage but a range of classification wages.
- 3.57 The paper contains a number of policy recommendations. The OECD recommends that member countries “[e]nsure that minimum wages are set at levels that do not harm job creation significantly for low productivity workers”.<sup>41</sup>

## Conclusion

- 3.58 An increase in minimum wages requires careful consideration, particularly with respect to its effect on the employment of low paid workers at the margin of the labour force and the unemployed. Academic studies both overseas and in Australia, and the results of economic modelling demonstrate that wages matter in determining employment levels. Also, the studies demonstrate that vulnerable low productivity, low paid workers are more likely to be affected by high increases in minimum wages.
- 3.59 The actual magnitude of the effect on employment from increases in minimum wages is subject to some debate. DEWR provides work commissioned from

---

<sup>37</sup> OECD *Economic Survey of Australia*, February 2005, page 157.

<sup>38</sup> *Ibid*, page 160.

<sup>39</sup> OECD *Boosting Jobs and Incomes, Policy lessons from Reassessing the OECD Jobs Strategy*, 2006, page 12.

<sup>40</sup> *Ibid*, page 12.

<sup>41</sup> OECD *Boosting Jobs and Incomes, Policy lessons from Reassessing the OECD Jobs Strategy*, 2006, page 22

Econtech which provides some indication of the impact on employment of increases in minimum wages of various quantum, and coverage and nature.

- 
- <sup>i</sup> M Campolieti, T Fang and M Gunderson, 'Minimum wage impacts on youth employment transitions, 1993-1999', *Canadian Journal of Economics*, 2005, Vol 38, No 1.
- <sup>ii</sup> R Dickens and M Draca, 'The employment effects of the October 2003 increase in the national minimum wage', *CEP Discussion Paper No 693*, June 2005.
- <sup>iii</sup> S Machin and J Wilson, 'Minimum wages in a low-wage labour market: Care homes in the UK', *The Economic Journal*, 2004, Vol 114, Iss 494.
- <sup>iv</sup> D Neumark and W Wascher, 'Minimum wages, labor market institutions and youth employment: A cross-national analysis', *Industrial and Labor Relations Review*, 2004, Vol 57, Iss 2.
- <sup>v</sup> D Neumark, M Schweitzer and W Wascher, 'Minimum wage effects throughout the wage distribution', *The Journal of Human Resources*, 2004, Vol 39, No 2.
- <sup>vi</sup> S Lemos, 'Are wage and employment effect robust to alternative minimum wage variable?', *IZA Discussion Paper No. 1070*, March 2004.
- <sup>vii</sup> MB Stewart, 'The impact of the introduction of the UK minimum wage on the employment probabilities of low-wage workers', *Journal of the European Economic Association*, 2004, Vol 2, No 1.
- <sup>viii</sup> T Yuen, 'The effects of minimum wages on youth employment in Canada: A panel study' *The Journal of Human Resources*, 2003, Vol 38, No 3.
- <sup>ix</sup> V Alatas and L Cameron, 'The impact of minimum wages on employment in a low income country - an evaluation using the difference-in-differences approach', *The World Bank Policy Research Working Paper 2985*, March 2003.
- <sup>x</sup> S Machin, A Manning and L Rahman, 'Where the minimum wage bites hard: Introduction of minimum wages to a low wage sector', *The European Economic Association*, 2003, Vol 1, No 1.
- <sup>xi</sup> WF Maloney and JN Mendez, 'Measuring the impact of minimum wages: evidence from Latin America', *National Bureau of Economic Research Working Paper 9800*, June 2003.
- <sup>xii</sup> MB Stewart, 'Modelling the employment effects of the minimum wage - Final report to the Low Pay Commission', University of Warwick, January 2003.
- <sup>xiii</sup> C Saget, 'Is the minimum wage an effect tool to promote decent work and reduce poverty? The Experience of selected developing countries', *International Labour Office Employment Paper*, 2001, No 13.
- <sup>xiv</sup> M Keil, D Robertson and J Symons, 'Minimum wages and employment', *Centre for Economic Performance Discussion Paper 497*, June 2001.
- <sup>xv</sup> N Williams and J Mills, 'The minimum wage and teenage employment: Evidence from time series', *Applied Economics*, 2001, Vol 33, No 3.
- <sup>xvi</sup> F Kramarz and T Philippon, 'The impact of differential payroll tax subsidies on minimum wage employment', *Journal of Public Economics*, 2001, Vol 82, Iss 1.
- <sup>xvii</sup> R Burkhauser, K Couch and C Wittenburg, 'A Reassessment of the New Economics of the Minimum Wage literature with Monthly Data from the Current Population Survey', *Journal of Labor Economics*, 2000, Vol 18, No 4.
- <sup>xviii</sup> R Burkhauser, K Couch and C Wittenburg, 'Who Minimum Wage Increases Bite: An Analysis Using Monthly Data from the SIPP and the CPS', *Southern Economic Journal*, 2000, Vol 67, No 1.
- <sup>xix</sup> D Neumark, M Schweitzer and W Wascher, 'The Effects of Minimum Wages Throughout the Wage Distribution', *National Bureau of Economic Research Working Paper 7519*, February 2000.
- <sup>xx</sup> Y Hsing, 'On the substitution effect of the minimum wage increase: new evidence', *Applied Economics Letters*, 2000, No 17, No 4.
- <sup>xxi</sup> S Bazen and N Marimoutou, 'Looking for a Needle in a Haystack? A Re-examination of the Time Series Relationship Between teenage Employment and Minimum Wages in the United States', *Econometric Society World Congress 2000, Contributed Papers 0495*, Econometric Society, 2000.
- <sup>xxii</sup> J Abowd, D Margolis and F Kramarz, 'Minimum Wages and Employment in France and the United States', *National Bureau of Economic Research Working Paper 6996*, March 1999.
- <sup>xxiii</sup> D Neumark and W Wascher, 'A cross-national analysis of the effects of minimum wages on youth employment', *National Bureau of Economic Research Working Paper No W7299*, August 1999.
- <sup>xxiv</sup> D Partridge and J Partridge, 'Do Minimum Wage Hikes Reduce Employment? State-level evidence', *Journal of Labor Research*, Summer 1999, Vol 20, No 3.
- <sup>xxv</sup> D Card and A Kreuger, 'A Reanalysis of the effect of the New Jersey minimum wage increase on the fast-food industry with representative payroll data', *Working Paper No 393*, Industrial Relations Section, Princeton University, December 1997, Revised January 1999.
- <sup>xxvi</sup> D Neumark, 'The employment effect of recent minimum wage increases: Evidence from pre-specified research design', *National Bureau of Economic Research Working Paper No W7171*, June 1999.
- <sup>xxvii</sup> D Belman and P Wolfson, 'Its bark is worse than its bite: the wage and employment effects of minimum wage in the US', *Australian Economic Papers*, June 1999.

- <sup>xxviii</sup> OECD, *Employment Outlook*, Paris, June 1998.
- <sup>xxix</sup> JJ Dolado, F Felgueroso and JF Jimeno, 'The effects of minimum wages: Evidence from Spain' in S Bazen, M Gregory and W Salverda, *Low wage employment in Europe*, (Cheltenham, UK: Edward Elgar, 1998)
- <sup>xxx</sup> J Bernstein & J Schmitt, 'Making work pay: The impact of the 1996-97 minimum wage increase', *Economic Policy Institute Paper*, (Washington DC: 1998.)
- <sup>xxxi</sup> S Chapple, 'Do minimum wages have an adverse impact on employment? Evidence from New Zealand', *Labour Market Bulletin*, 1997, Vol 2.
- <sup>xxxii</sup> OECD, *Economic Survey of France, 1997* cited in the 'OECD Submission to the UK Low Pay Commission', *Labour Market and Social Policy Occasional Papers No 29*, (Paris: 1997).
- <sup>xxxiii</sup> JM Abowd, F Kramarz, T Lemieux and D Margolis, 'Minimum wages and youth employment in France and the United States', *National Bureau of Economic Research Working Paper No 6111*, 1997.
- <sup>xxxiv</sup> S Bazen and N Skourias, 'Is there a negative effect of minimum wages on youth employment in France?', *European Economic Review*, 1997, Vol 41, Iss 3-5.
- <sup>xxxv</sup> LA Bell, 'The impact of minimum wages in Mexico and Columbia', *Journal of Labour Economics*, 1997, Vol 15, No 3.
- <sup>xxxvi</sup> LA Bell, 'The impact of minimum wages in Mexico and Columbia', *Journal of Labour Economics*, 1997, Vol 15, No 3.
- <sup>xxxvii</sup> J Dolado, F Kramarz, S Machin, A Manning, D Margolis and C Tuelings, 'The economic impact of minimum wages in Europe', *Economic Policy*, 1996.
- <sup>xxxviii</sup> J Dolado, F Kramarz, S Machin, A Manning, D Margolis and C Tuelings, 'The economic impact of minimum wages in Europe', *Economic Policy*, 1996.
- <sup>xxxix</sup> JS Kan and S Sharir, 'Minimum wage and the probability-of-getting-a job effects in simultaneous equations model of employment and participation in Canada 1975-91', *Canadian Journal of Economics*, 1996, Vol 29, Special Iss 1.
- <sup>xl</sup> J Currie and BC Fallick, 'The minimum wage and the employment of youth: Evidence from the NLSY', *Journal of Human Resources*, 1996, Vol 31, No 2.
- <sup>xli</sup> D. Card & A. Krueger, *Myth and Measurement: The New Economics of the Minimum Wage*, (Princeton: Princeton University Press, 1995)
- <sup>xlii</sup> S Machin and A Manning, 'The effects of minimum wages on wage dispersion and employment: Evidence from the UK Wage Councils', *Industrial and Labor Relations Review*, May 1994.
- <sup>xliii</sup> G Benhayoun, 'The impact of minimum wages on youth employment in France revisited: A note on the robustness of the relationship', *International Journal of Manpower*, 1994, No 15.
- <sup>xliv</sup> A Van Soest, 'Youth minimum wage rates: The Dutch experience', *International Journal of Manpower*, 1994, Vol 15, No 2/3.
- <sup>xlv</sup> V Koutsogeorgopoulou, 'The impact of minimum wages on industrial wages and employment in Greece', *International Journal of Manpower*, 1994, Vol 15, No 2/3.
- <sup>xlvi</sup> T Maloney, 'The "New Economics" of the minimum wage? Evidence from New Zealand', *Agenda*, 1997, Vol 4, No 2.
- <sup>xlvii</sup> J Klerman, 'Study 12: Employment effects of mandated health benefits', *Health Benefits and the Workforce*, US Department of Labor, Pension and Welfare Benefits Administration, (Washington DC: US Government Publishing office, 1992).
- <sup>xlviii</sup> D Card, 'Do minimum wages reduce employment? A case of California, 1987-98', *Industrial and Labour Relations Review*, 1992, Vol 46, No 1.
- <sup>xlix</sup> D Neumark and W Wascher, 'Employment Effects of Minimum and Subminimum Wages: Panel Data on State Minimum Wage Laws', *Industrial and Labor Relations Review*, Vol 46, No 1, October 1992.
- <sup>i</sup> S Bazen and JP Martin, 'The impact of the minimum wage on earnings and employment in France', *OECD Economic Studies*, 1991, No 16.
- <sup>ii</sup> AJ Wellington, 'Effects of the minimum wages on the employment status of youths: an update', *The Journal of Human Resources*, 1991, Vol 26, No 2.
- <sup>iii</sup> S Bazen, 'On the employment effect of introducing a national minimum wage in the UK', *British Journal of Industrial relations*, 1990, Vol 28, No 2.