THE EROSION OF MINIMUM WAGE POLICY IN AUSTRALIA AND LABOUR'S SHRINKING SHARE OF TOTAL INCOME

Margaret McKenzie

The long-run decline in labour's share of GDP in Australia over the last generation, and the consequent increase in personal income inequality, has coincided with a parallel erosion in the real economic 'bite' of Australia's minimum wage over the same period. This correlation is not surprising, since an active and ambitious minimum wage policy was one of the most important policy tools invoked to support real wage gains through the initial postwar decades. Minimum wages establish a floor for wage outcomes, and thus influence the distribution of economic output between labour and capital. So the weakening of minimum wage policy since the 1980s, evident not only in the statutory level of the minimum wage but also in the scope and strictness of its application, naturally helps explain at least part of the subsequent decline in relative labour incomes. Minimum wages have been relatively stagnant in real terms over this period, and have lagged well behind both overall average and median wages, and behind average labour productivity growth.

Organs of government including the Treasury (Belot and Doran 2017) and the Reserve Bank of Australia (Martin and Bagshaw 2017; Lowe 2017a; Lowe 2017b; Bishop and Cassidy 2017), and even parts of the private sector (Turner 2017), have recognised that stagnating wages are undermining Australia's economic performance. International institutions such as the IMF (IMF 2017) and the OECD (Schwellnus *et al.* 2017) have also supported the view that wages need to increase in real and relative terms, in order to support macroeconomic expansion and household financial stability. Most of these mainstream discussions of

McKenzie, M. (2018)

'The Erosion of Minimum Wage Policy in Australia and Labour's Shrinking Share of Total Income' Journal of Australian Political Economy No. 81, pp. 52-77.

the problems of wage stagnation ignore or barely allude to the role of labour market regulation and industrial relations in explaining weak wage growth. However, some mainstream analysts recognise these institutional factors behind wage stagnation: for example, Bishop and Cassidy (2017:16) acknowledges that 'low wage growth may reflect a decline in workers' bargaining power', while Watson (2016) concluded that increasingly casualised work and the erosion of collective bargaining have also suppressed wages.

This article investigates the relationship between minimum wages and the labour share of GDP empirically. It sets out a range of indicators to evaluate the trend in minimum wages against the criteria stated in minimum wage legislation. Based on these indicators, the article finds that the present process of minimum wage determination does not adequately attain the objectives originally proclaimed in Australia's minimum wage policy. Where a more ambitious vision of minimum wage regulation once helped to lead an ongoing improvement in workers' living standards, this is no longer the case. Instead, the minimum wage is treated as a bare-bones 'safety net', one which cannot even lift a full-time full-year worker out of poverty. Its effect is further undermined by the growing number of workers who are not even covered by minimum wage laws (due to their categorisation as self-employed or independent contractors), and by a demonstrated and systemic failure to enforce minimum wage laws even where they do apply. All this is has contributed to a widening gap between minimum and average wages in Australia, widening inequality, and the long decline in the labour share of income.

The next section of this article defines the minimum wage and examines its historical evolution in Australia (including its performance relative to other countries). The following section describes the formal process for setting the minimum wage and critically considers the stated objective for minimum wage policy, as defined in the Fair Work Act (2009) (FWA). Next comes a section reviewing the long-standing debate over the impact of minimum wages on employment and refuting the notion that stronger wage regulations would undermine employment growth and create unemployment. The concluding section calls for a reform in the guidelines for minimum wage policy to reestablish the original goal of ensuring a 'living wage' for Australian workers, thus helping to arrest and reverse the long decline in labour's share of GDP.

The Historical Evolution of Australia's Minimum Wage

The minimum wage is defined by the ILO as 'the minimum amount of remuneration that an employer is required to pay wage earners for work performed during a given period, which cannot be reduced by collective agreement or an individual contract' (ILO definition). The minimum wage can be set by statute, administration or other institutional agreement. Broadly, the minimum wage is 'established or strengthened to eliminate unduly low pay and promote decent work' (ILO topics). The minimum wage is often also defined in reference to the notion of the 'living wage'. For instance, the U.K. introduced its National Living Wage (NLW) for people aged 25 and over, with a target of reaching 60 percent of median earnings by 2020 (Living Wage Foundation U.K.).

In Australia the 'Harvester decision' of 1907 by the Commonwealth Court of Conciliation and Arbitration had defined a (national) 'basic wage' as one that is 'fair and reasonable', having regard to a human being living in a civilized community, enabling a family of five to live in frugal comfort (Hamilton 2017). A living wage has been advocated at various times since then in Australia (Buchanan *et al.* 2004), most recently by the Australian Council of Trade Unions (ACTU) as a target for setting the minimum wage (ACTU 2018:4).

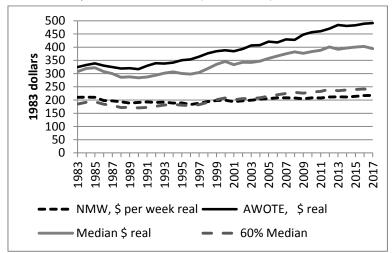
Figure 1 illustrates the historical evolution of the national minimum wage in Australia (stated in weekly terms, assuming 38-hour work week) over the past 35 years, in comparison to wage trends in the broader labour market. All series are described in real terms, by deflating by growth in consumer prices. There has been hardly any increase in real minimum wages at all over this long period. In fact, real minimum wages declined through the 1980s and 1990s, regaining some of its lost ground after the turn of the century. The real minimum wage in 2017 was just 3% higher than it was in 1983.

The stagnation in the real minimum wage contrasts sharply with significant increases in real wages across the broader labour market. Figure 1 indicates that real earnings (measured by inflation-adjusted average weekly ordinary time earnings) increased by 51% from 1983 through 2017. Median wages have increased more slowly than average

¹ Such targets tend in turn to raise the median over time.

wages (reflecting growing inequality within the labour market), but still increased (in real terms) by 28% over the same period. Both average and median wages have stagnated in real terms since the peak of Australia's mining boom in 2013.

Figure 1: Minimum, Average and Median Weekly Earnings, 1983 to 2017, Constant Dollars (1983 = 100)

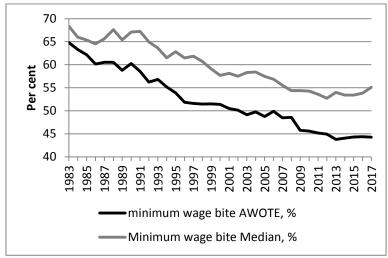


Sources: ACTU (2017 a), average full-time earnings - AWOTE from ABS 6302. Median ABS 6333, most recent. NMW from Bray (2013) and FWC. All series deflated by the CPI (ABS 6401).

The contrast between the stagnation in the inflation-adjusted minimum wage, and continued growth in overall wage levels in the labour market, means that the 'bite' of the minimum wage – that is, its economic impact relative to the overall level of wages paid – has been substantially reduced over this time. One common way of measuring this 'bite' is by expressing the minimum wage as a share of average or median wages. Figure 2 summarises the downward trend in median wages relative to both average and median wages in Australia. Average wages grew faster than median wages through most of this period due to growing wage inequality, hence the erosion of the minimum wage bite is more dramatic

measured in terms of average wages. Relative to average wages, the minimum wage declined dramatically from almost 65% of median wages in 1983, to less than 45% in 2017. Relative to the median wage, the erosion of minimum wages is only slightly less dramatic: falling from nearly 70% of median wages in 1983 to around 55% in 2017. This erosion in the effectiveness of minimum wages has paralleled the concurrent erosion in the labour share of GDP.

Figure 2: Minimum Wage 'Bite': Ratio to Average and Median Wages, 1983 to 2017



Sources: AWOTE from ABS 6302, Median from ABS 6333. NMW Bray (2013) and FWC. All deflated by CPI (ABS 6401) for the nearest previous quarter. ACTU calculations.

It should however be noted that these figures refer to full time weekly wages which conceals the decline in income faced by workers overall due to glacial growth in minimum wages and slow growth in wages generally. The share of part time workers has increased by more than double to nearly a third of all workers (31.7%) in Australia over the last forty years (ABS 6202), the third highest rate in the OECD at 2016. One third of these part time workers would like to work more hours (ABS

5204). Full time workers with full leave entitlements have fallen below 50% for the first time (ABS 6333, 6291.0.55.003), with the rise of casual and insecure work exacerbating the impact on household income.

In Australia a further contribution to declining labour share lies in the apparently increasing failure to enforce the minimum wage. This is the case across the workforce, but young people and migrant workers are particularly subject to illegal practices by employers. One in five young workers is paid below the required minimum wage level, including frequent underpayment for work in unsociable hours, based on a survey of 2016 (Young Workers Centre 2017:7-8). Eighty-four per cent of fast food employers are responsible for wage underpayments, including base rates, penalty rates and leave loadings, according to a 2015 audit of fast food sites (ER Strategies 2016:5-6). A Fair Work Ombudsman's audit of the hospitality sector found that 46% of restaurants, cafes and catering businesses had at least one wage payment contravention with incorrect payment by 47% of takeaway food businesses and contravention of workplace laws by 31% of accommodation/taverns and bar businesses (Fair Work Ombudsman 2015:6-7). A 7-Eleven internal audit in 2015 indicated that 69% of franchisees had payroll issues including fraud, and the 7-Eleven Wage Repayment Program paid out more than \$151 million across 3668 claims (7-Eleven 2015). Almost 80% of Caltex franchise stations were found in 2016 to have underpaid their staff (ACTU 2017b), and Caltex had had to establish a \$20 million fund for Caltex franchisee employees to be paid their entitlements (Caltex 2017).

Workers from overseas on temporary visas, make up about one in eleven workers in Australia, and are particularly vulnerable to 'wage theft' (ACTU 2017b). According to a National Temporary Migrant work survey in 2017, a substantial proportion of international students, backpackers and other temporary migrants were paid around half the legal minimum wage, with almost a third (30%) earning \$12 per hour or less and almost half (46%) earning \$15 per hour or less, more than \$3 per hour below the NMW. Underpayment was widespread but especially prevalent in food services, and in fruit and vegetable picking (excluding 457 (skilled work) visa holders, Berg and Farbenblum 2017:5-7).

'Sham contracts' are increasingly used by employers as an attempt to disguise an employer - employee relationship as instead being one between a client and independent contractor, in order to avoid paying employee entitlements. There were 1.3 million owner-managers of -58

enterprises without employees in 2016, up one-third from 20 years ago, with almost all of the increase accounted for by unincorporated enterprises (ABS 6291.0.55.003; ABS 6333). Most of these are workers in effect still working for an employer, but without the normal protections and security that come with a formal paid position. Major employers are increasingly shifting financial and business risks by 'contracting out' work to nominally independent contractors who must provide for their own basic entitlements (such as leave, insurance and superannuation). Complex supply chains including 'gig' and online work leave these workers with little or no bargaining power to negotiate decent pay, hours of work or safe work practices.

Australia was one of the first countries in the world to introduce a minimum wage. In recent years, however, Australia's minimum wage has grown more slowly than in many other countries. While the absolute level of Australia's minimum wage is still among the higher of the OECD countries, the erosion of the minimum wage bite in Australia has been among the most dramatic of any country. Indeed, the relaxation of minimum wage policy in Australia since the 1980s contrasts with a general trend toward more aggressive use of the minimum wage as a core instrument of labour market policy in other jurisdictions.

According to the ILO, the number of countries which have a minimum wage of some form has increased from at least 38 in 1996 to at least 108 in 2010, indicating growing interest in this tool of labour market regulation in many parts of the world. Other jurisdictions have had much faster increases in the minimum wage in recent years than Australia. In the UK, for example, increases in the NLW determined by its Low Pay Commission have ranged from 4.92% in 2011 up to 5.13% in 2015, and 4.1% at April 2017 - reaching £7.50 per hour. In total 2.3 million workers, or 8.5% of the workforce, in the UK are covered by a minimum wage (UK Government). The emphasis on stronger minimum wages is not universal, however. In the US, for example, the federal minimum wage has not been increased since 2009; in the face of this federal inaction, US states, counties and cities are commonly now setting their own higher minimum wage rates (US Department of Labor 2018; UC Berkeley Labor Centre 2018).

It is useful to compare minimum wages across countries by considering their 'bite' relative to the overall level of wages: that is, as a proportion of average or median wages. Australia's minimum wage as a fraction of median wage was for a long time the highest in the OECD, but has declined over the last four decades, at the same time as minimum wage bites in most other OECD countries have risen (OECD). Australia has therefore been drifting down towards the middle of the range of OECD countries, as measured by the minimum wage bite. Only in three of the higher income OECD countries (France, Slovenia and New Zealand) does the minimum wage meet the criterion used in the OECD measure for the relative poverty line, equal to 60% of median wages (OECD).

The Minimum Wage-Setting Process in Australia

A strong minimum wage policy has been a key part of Australia's unique labour market regulations for over a century. The Harvester Decision of 1907 by the Commonwealth Court of Conciliation and Arbitration defined the 'basic wage' for unskilled [white male] labourers at 7 shillings a day or 42 shillings a week as "fair and reasonable' wages, having regard to 'the normal needs of the average employee, regarded as a human being living in a civilised community', to enable a man, wife, and three children to live in frugal comfort' (Hamilton 2017). This precedent for establishing a minimum wage tied to the cost of living for workers and their families was later applied more broadly through Australia's industry-based award system, whereby arbitration courts established minimum standards for wages, benefits, and working conditions that applied to each specific sector of the economy. Union demands for improvements in wages and working conditions under this system were backed up by the ever-present option of industrial action. This ambitious institutional system of wage regulation thereby led an ongoing process of wage growth across the labour market; under this system, labour's share of GDP grew strongly through the postwar decades.

However, the radical changes implemented in Australian industrial relations beginning in the 1980s led to a marked change in the process and structure of minimum wage regulation - and a corresponding slowdown in the rate of growth of minimum wages in subsequent years. The process began with the introduction of the Prices and Incomes Accord in 1983 (in which wage restraint by unions was traded off for improvements in social benefits, such as Medicare and superannuation), and was later extended to include a shift to enterprise-based collective bargaining, and a growing set of restrictions on unions and industrial action. The expressed intention of these cumulating changes to the industrial relations framework was to promote economic efficiency and productivity increases, through the unleashing of competitive market forces within the labour market. The so-called 'deregulation' of the labour market was a central plank in the broader vision of microeconomic reform that guided the implementation of Australia's version of neoliberal policy.

Enterprise Bargaining Agreements (EBAs) were given a central role in determining wages and conditions by 1993. EBAs dictated that wages and conditions would be determined by negotiation between an individual employer and representatives of the workers within each enterprise.² Later, under the Coalition government of John Howard, increasingly severe restrictions were placed on union activity and industrial action (without which, union claims in bargaining were much less effective), and individual labour contracts (instead of enterprise-wide agreements) were encouraged. The range of conditions that could be included in awards was much reduced and, if they were to be preserved, had to be bargained back into EBAs. Workers in some industries won 'over award' pay arrangements in their EBAs. The gap between awards and bargained wages and conditions started to widen, with minimum wages growing very slowly. All this served to undermine the leading role of the minimum wage and the awards in regulating wages and working conditions, while simultaneously weakening unions' ability to use EBAs as a leading edge of progress in wages and working conditions. The EBA system thus led to increasing inequality between different groups of workers.

Another aspect of the erosion of the award system has been the effective removal of unions from minimum wage and award determination: what happens 'on the ground' (in the course of EBA negotiations) has no direct bearing on the determination of minimum wages and award provisions by the Fair Work Commission (FWC). Instead, unions and workers are now merely 'heard' by the Fair Work Commission (FWC) at its discretion, as having an 'interest' in proceedings affecting wages and awards; unions are thus positioned as just another 'interest group' in the

² Interestingly EBAs are now termed EAs with 'bargaining' dropped.

process of minimum wage regulation, rather than a direct party to a process of negotiation and arbitration.

Since 2010, the Expert Panel of the Fair Work Commission (FWC) has determined the National Minimum Wage (NMW) in its Annual Wage Review (AWR) under The Fair Work Act 2009 (FWA). The Panel also decides 'award' wages for different occupations and job levels across industries, including apprentices, juniors and people with disabilities. The awards process has been condensed into 122 'modern awards', and the role of the awards has been reconceptualised as a 'safety net' rather than a tool for lifting wages and standards more broadly. The National Minimum Wage (NMW) is set equivalent to the lowest rate in the manufacturing award. Changes in other wages are then set at specified percentages or amounts above that. In this way, an increase in the NMW flows through automatically into the other wages specified in the various awards (most of which are above the NMW). However, the awards in general are still interpreted as a bottom-line minimum, rather than as instruments to generally lift wages and conditions.

The stagnation of the real minimum wage in Australia over the last 35 years raises questions about the adequacy of the 'minimum wage objective' defined under Australia's Fair Work Act 2009. The Panel of the FWC must determine the minimum wage according to criteria set out in S284 of the FWA of 2009, which says:

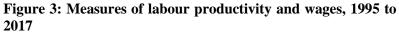
- (1) The FWC must establish and maintain a safety net of fair minimum wages, taking into account:
- (a) the performance and competitiveness of the national economy, including productivity, business competitiveness and viability, inflation and employment growth; and
- (b) promoting social inclusion through increased workforce participation; and
- (c) relative living standards and the needs of the low paid; and
- (d) the principle of equal remuneration for work of equal or comparable value; and
- (e) providing a comprehensive range of fair minimum wages to junior employees, employees to whom training arrangements apply and employees with a disability.

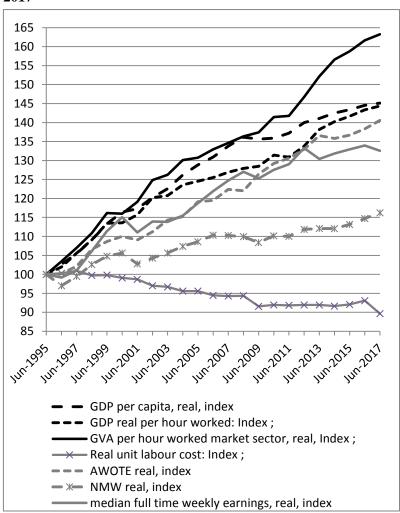
The objective for determining the modern awards is set out separately at FWA S134, and differs slightly but not substantively.

The formal 'minimum wage objective' circumscribes the scope and ambition of minimum wage policy in many ways. It reveals assumptions made about the relationships between the minimum wage and various other economic and social variables. In particular, the minimum wage (and corresponding modern awards objectives) have clearly embedded neoliberal assumptions, whereby raising the minimum wage 'too much' is held to be detrimental to business, employment and the broader economy. Yet account must be taken of 'relative living standards and needs of the low paid'. These criteria are open to alternative economic interpretations, and highlight the ideological tensions and contested nature of the process. But the formal determination process resists the introduction of precedent. And, for each annual wage review, evidence must be considered 'independently' from other years.

Labour productivity is mentioned as one of the major factors to be considered in the national wage review process. In contrast to the marked deceleration of wage growth in Australia (especially visible since 2013), productivity growth has remained relatively stable. The decoupling of real wages and real productivity implies, arithmetically, that labour's share of income must decline – as it has.

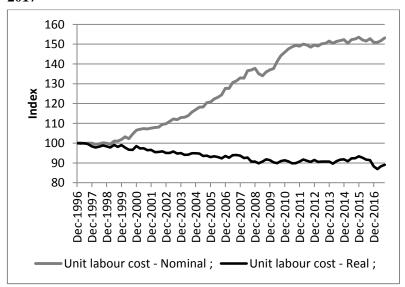
Figure 3 compares historical trends in labour productivity, the minimum wage, and broader indicators of wages in Australia. It is clear that, contrary to the stated minimum wage objective, the real minimum wage has lagged far behind ongoing growth in real labour productivity. Relative to the overall size of the economic 'pie', therefore, the minimum wage now provides a much lower starting point for workers to begin to negotiate for a share of that pie. The gap between labour productivity and wages growth has particularly increased since the GFC. The slow growth in the NMW and its divergence from average wages is also a major reason for widening inequality.





Sources: ABS 5204, 6302, 6401, 6333, NMW from Bray (2013), and ACTU calculations. Median earnings most recent. Wage growth and productivity movements determine real unit labour costs, which measure the inflation-adjusted cost of employing labour to produce a given quantity of output. Real unit labour costs have declined steadily in Australia since the ABS began publishing this data in the mid-1990s. They are now 11% below the level of twenty years ago, as illustrated in Figure 4. Nominal unit labour costs, also illustrated in Figure 4, incorporate the impact of overall price inflation (in addition to the distributional outcomes measured in real unit labour costs); nominal unit labour costs have decelerated dramatically, and have been near constant during the post-GFC period. This implies that increases in *nominal* wages are now largely offset by increases in *real* productivity: an extraordinary result which attests to the profound weakness of wage pressures in Australia's present economy.

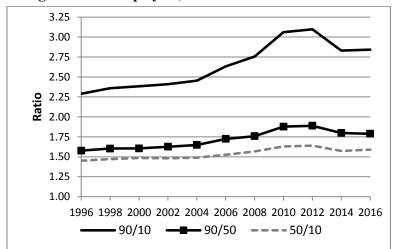
Figure 4: Nominal and real Unit Labour Costs, index, 1996-2017



Source: ABS 5206042, seasonally adjusted, ACTU calculations

The minimum wage objective also references the need to consider relative living standards and the needs of low paid workers in setting the minimum wage. Here, too, there is a large gap between the stated goals of the policy and observed reality. As noted above, minimum wages have fallen sharply as a proportion of both average and median full-time earnings over the past generation (shown above in Figure 4). The growing gap between average and median wages attests to increasing inequality (ABS 6306). Moreover, Australia's tax and transfer system has not been as redistributive as other OECD countries. Australia has one of the small percentage reductions in market income inequality through taxes and transfers, ranking thirteenth lowest out of 35 OECD countries (OECD 2016: Chart 5). For all these reasons, therefore, earnings inequality has risen markedly in Australia over the past two decades, as illustrated in Figure 5.

Figure 5: Measures of Earnings Inequality (full-time nonmanagerial adult employees).



Source: ABS 6306 various years, 6401 and ACTU calculations. Earnings figures pertain to full-time non-managerial adult employees.

Earnings inequality rose steadily from 1996 to 2012, and then seemed to decline slightly from 2012 to 2014. This dip was due to a decline in earnings at the top, associated with the end of the mining boom (and the moderation of very high wages paid to some resource-related jobs), not by higher real earnings for the 10th or 50th percentiles. Earnings inequality has begun to grow again since 2014. Based on the Gini coefficient, equivalised household disposable income was less equally distributed in 2013-14 (most recent data) than 20 years earlier, and the Gini is high by OECD standards (ABS 6523; OECD 2016:Chart 1).

Minimum wages (including wages specified through the modern awards) are disproportionately important to the total incomes of low income households. Jiminez and Rozenbes (2017) found that 'around 70% of award reliant employees are located in the bottom half of the household income distribution and almost half are located in the bottom three deciles. This compares with fewer than 15 per cent in the highest three deciles' (Jimenez and Rozenbes 2017:1). Thus the erosion of the minimum wage bite is clearly connected to the growth in earnings inequality between workers, as well as to the decline of labour's overall share of GDP.

Minimum Wages and Employment Growth

The minimum wage objective in the FWA also refers to the need to set minimum wages without damaging employment growth. This has been widely interpreted through a neoclassical economic lens, implying that higher minimum wages could have detrimental effects on employment (Junankar 2016). Underlying this position is the standard microeconomic model of a perfectly competitive market as applied to the market for labour, an input, in which the wage is assumed to equate labour supply with labour demand thereby achieving full employment. The minimum wage would raise the wage above the equilibrium level at least for low paid workers and create unemployment. It is assumed that workers are willing to work at that wage but employers do not wish to employ them.

However, the patterns of unemployment and underemployment in Australia are apparently unrelated to changes in the minimum wage in Australia, as shown in Figure 6. Rather, employment and unemployment variables are clearly dominated by cyclical trends in the macroeconomy.

20.0 18.0 16.0 14.0 12.0 10.0 8.0 6.0 4.0 2.0 0.0 Feb-1990 Feb-1998 Feb-1988 Feb-1994 Feb-1996 Feb-2000 Feb-2002 Feb-2004 Feb-1992 Underutilisation rate

Figure 6: Employment and Underemployment (percent of labour force)

Source: ABS 6202. Underemployment counts those part time employees who wish to work more hours.

There is a massive empirical literature testing the relationship between minimum wages and employment, in which the prior assumption is a negative correlation, especially for unskilled labour. The assumed negative correlation arises from the neoclassical microeconomic model in which the minimum wage increases wages above the equilibrium level of the wage and leads to unemployment. The recognised exception is the microeconomic case of monopsony in the firm's labour market, in which employment can increase but only over a particular range of wages, as argued by Stigler (1946). In the monopsony model firms have some market power which enables them to set wages. Firms compete by raising wages in order to attract workers and this can increase

employment. A minimum wage can be set within the employment-increasing wage range.

As Manning (2016) comments, in the conventional neoclassical view, the level of employment is a result of workers choosing between leisure and work, without constraint, on the assumption that efficient market forces will ensure that all supplied labour is gainfully employed: he calls this view the 'great recessions as a great vacation' hypothesis' (Manning 2016:15-16). The conventional analysis also fails to address institutional issues. The fact that all firms face the same regulatory framework means *ipso facto* that all firms face the same competitive conditions; they all face the same minimum wage increase in the same manner as any other regulation such as OHS.

The UK Low Pay Commission, said that research in more than 140 reports it commissioned 'has generally shown that the NMW has led to higher than average wage increases for the lowest paid, with little evidence of adverse effects on employment or the economy' (UK LPC 2015:xiii). The Low Pay Commission's original studies also found little evidence of negative impacts from raising the minimum wage (for instance Bewley and Wilkinson 2015; Riley and Bondibene 2015).

In the case of Australia, the Productivity Commission's (2015) *Inquiry into the Workplace Relations Framework* found little or no negative impact of minimum wage or other wage increases on employment in its review of published empirical findings, complemented by its own study. This is all the more convincing because its investigation began with the inherent expectation that raising the minimum wage would have a negative impact on employment. Instead, the Commission finds 'that real output is the main driver of employment over time' (Productivity Commission 2015:194, Appendix C; OECD 2015a:45).

Studies using matching theory to investigate minimum wage effects have found mixed and small impacts of the minimum wage on employment for the US (Rocheteau and Tasci 2007, 2008; Dube et al. 2016; Cengiz et al. 2017; Gorry and Jackson 2017). Matching theory models employment as an outcome of achieving an equilibrium level of unemployment and vacancies based on bargained wages, reflecting the relative market power of workers and employers, incorporating search costs and reservation wages. A higher minimum wage can increase employment if workers' and firms' search efforts can vary. Higher employment can result if workers increase their search efforts due to the

higher wage, more than firms reduce their vacancies. Matching theory has been criticized for not recognising that most unemployment comes from firms shutting down and that most vacancies come from firms opening up. Workers do not base their decision to take a job simply on a reservation wage, particularly where there are additional social costs and benefits of paid work. Nor do most employers often push down the wages of current employees in order to churn workers, even without the presence of unions (Quiggin 2014).

The econometric methodology of differences-in-differences has also been commonly applied, mainly in US studies. The principles underlying this methodology based on Angrist and Pischke (2009) are summarized in Reich et al. (2017). The change in an employment and wages before and after imposing the (new) minimum wage is to be compared between an area that got the minimum wage and one that did not. The treatment and control groups should behave similarly before the minimum wage was imposed. The minimum wage increase should have had a detectable effect on wages in the group that received it, but not on those that did not receive it. The minimum wage increase should not affect groups who did not receive it, e.g. high paid groups or areas with no change in the minimum wage (Reich et al. 2017:5). The 'natural' or synthetic controls which can be applied due to the patchwork of minimum wage ordinances across regions within the US make applying this methodology possible (Reich et al. 2017).

The classic study is that of Card and Krueger (1994), which found that increasing the minimum wage in New Jersey increased employment in its fast food outlets relative to those in neighbouring Pennsylvania (where there was no change in the minimum wage). Debate has continued over the findings ever since (Neumark et al. 2013; Belman and Wolfson 2014a; Dube et al. 2014:28; Allegretto et al. 2017). A more recent focus of research has been Seattle, which raised its minimum wage to US\$15 which was more than twice the national minimum. One important study found that in a boom period, low wage employees in Seattle with a minimum wage increase improved their employment less than those outside Seattle without a minimum wage increase (The Seattle Minimum Wage Study Team 2016, Jardim et al. 2017). This finding has been challenged on methodology grounds by other significant studies (Zipperer and Schmitt 2017, Reich et al. 2017, Dube 2017).

Studies using Australia data include Leigh (2003), who found a statistically significant elasticity (of -0.13) of labour demand with respect to the WA statutory minimum wage (Leigh 2003). However, Watson (2004) finds that work to be 'fundamentally flawed,' due to the use of macrodata, the absence of controls and a failure to address dynamic considerations. A later paper by Watson (2016) examines wage inequality in Australia from 1982 to 2012 using quantile regression, allowing the effects on wages to differ across the wage distribution, with different impacts at higher wages than at lower wages. Watson (2016) found that a large proportion of wage inequality was a result of change in the wage structure rather than the changing nature of the workforce. The distribution of wages became more unequal within all industries, particularly the expanding ones. Accordingly slow growth in minimum wages would be a factor in the increased inequality of wages.

Nonlinear studies investigate different effects on employment of a change in the minimum wage depending on its current level, and/or the rate of increase. Lopresti and Mumford (2016) find from median regressions that larger minimum wage increases are more effective at increasing the wages of those who had previously earned less than the minimum wage, and also had greater spillover effect on wages of more highly paid workers generally. Lundstrom (2017) uses a simulation method to find that 'a good time to raise the minimum wage is when it is already high.' Meta analyses (based on large surveys of published research) also support the finding that changes in the minimum wage have little impact on employment (for the US, Belman and Wolfson 2014b Chapter 4; for the UK, de Linde *et al.* 2014; RAND Europe cited by the UK Low Pay Commission 2016:83).

The Australian Council of Trade Unions (ACTU) presented point forecasts of the aggregate employment increase that would result from an increase in the NMW in its submission to the AWR in 2017 (ACTU 2017a:99-101). These calculations used first-round multiplier values provided in the Australian Treasury Budget Papers to analyse the effects of the post-GFC stimulus package (The Australian Treasury 2009:Statement 4:4-6, Table A), rather than wage-elasticity estimates. In what the ACTU argued was a conservative estimate, allowing for tax and savings leakages, an increase in employment of between 35,000 and 87,000 positions was projected to result from an increase in the minimum wage of 5.7% in one year, driven by corresponding increases in total

aggregate demand. That represents an increase of between 0.3% and 0.7% of total employment.

Conclusion

Australia once relied on a strong national minimum wage policy, amplified by a system of industry-wide awards which directly transmitted minimum wage changes through to hundreds of occupations and jobs, as a core of its deliberate effort to promote strong wage growth and greater earnings equality. That strategy has been mostly abandoned in the last 35 years, replaced by a neoliberal emphasis on market determination of wages, and the reconceptualisation of minimum wages and the awards system as a bare-bones 'safety net' - rather than a tool for leading wages and working conditions forward. In this context, there has been virtually no real growth in the national minimum wage during this period - in contrast with continuing growth in labour productivity, and modest growth in overall real wages. At the same time, there has been a significant increase in inequality in Australia. Changes to the industrial relations system in Australia have weakened the ability of workers to defend and promote their interests; the disempowerment of minimum wage policy has been a key component of this broader agenda. With wages growing much more slowly than productivity, the labour share of GDP has declined in tandem with the shrinking 'bite' of minimum

The stagnation of real minimum wages is at odds with the stated formal objective for minimum wage policy as formulated in legislation – which includes criteria such as labour productivity growth, earnings equality and the needs of low-paid workers, and the need to maintain employment Achieving these goals would require a revitalisation of minimum wage policy. Instead of moving still further from seeing the minimum wage as a 'living wage' (as originally conceived in the 1907 Harvester precedent), a renewed vision of stronger minimum wages would explicitly target the goal of allowing every full-time full-year worker to earn sufficient income to escape poverty. The notion of setting the minimum wage equal to the relative poverty line of at least 60% of median earnings (as specified in the U.K., among other jurisdictions) is a convenient and sensible target in this regard.

Margaret McKenzie is Economist at the Australian Council of Trade Unions, and Honorary Research Fellow at the Federation Business School, Federation University, Victoria, Australia.

mmckenzie@actu.org.au

The author wishes to thank Elyane Palmer and Damian Kyloh for providing information on the failure to enforce the minimum wage, Trevor Clarke regarding the industrial relations legal framework, Jim Stanford for his invaluable contribution and support, and three anonymous referees for helpful comments. Views expressed are solely the author's, as are any errors.

References

7-Eleven (2015) 7-Eleven Wage Repayment Program, http://www.wagerepaymentprogram.com.au/.

Aaronson, D., Agarwal, S. and French, E. (2012) The Spending and Debt Response to Minimum Wage Hikes, *American Economic Review*, 102(7), pp.3111–3139.

Allegretto, S., Dube, A., Reich, M. and Zipperer, B. (2017) Credible Research Design for minimum wage studies: a response to Neumark, Salas and Wascher, *ILR Review* 70(3), pp.559-592.

Angrist, J.D. and Pischke, J.S. (2009) Mostly harmless econometrics: an empiricist's companion, Princeton: Princeton University Press

Australian Council of Trade Unions (ACTU) (2017a) Submission to the Annual Wage Review 2016-17, https://www.fwc.gov.au/awards-agreements/minimum-wages-conditions/annual-wage-reviews/annual-wage-review-2016-17-4.

ACTU (2017b) The Shadow Economy: A Story of Wage Theft Tax Avoidance & Exploitation, Submission to the Black Economy Taskforce, 14 August.

ACTU (2018) Submission to the Annual Wage Review 2017-18,

https://www.fwc.gov.au/awards-agreements/minimum-wages-conditions/annual-wage-reviews/annual-wage-review-2016-17-4.

Australian Bureau of Statistics, Catalogues 5204, 5206, 5260.0.55.002, 6291.0.55.003, 6302, 6306, 6333, 6401.

Australian Government (2017) The Fair Work Act 2009, https://www.legislation.gov.au/Details/C2017C00288 FWA 2009.

Australian Treasury (2009) Budget Paper No.1 2009-10,

 $http://www.budget.gov.au/2009-10/content/bp1/html/bp1_bst4-03.htm.$

Belman, D. and Wolfson, P.J. (2014a) The New Minimum Wage Research, *Employment Research Newsletter*, Article 2, April.

Belman, D. and Wolfson, P.J. (2014b) What Does the Minimum Wage Do?, The Upjohn Institute, July.

Belot, H. and Doran, M. (2017) 'Low wage growth Australian economy's biggest challenge, Treasurer Scott Morrison says', ABC News, Posted 13 Mar 2017, 5:20pm http://www.abc.net.au/news/2017-03-13/scott-morrison-low-wage-growth-biggestchallenge-economy/8350032.

Berg, L. and Farbenblum, B. (2017) Wage theft in Australia: Findings of the National Temporary Migrant Work Survey, November.

Bewley, H. and Wilkinson, D. (2015) The impact of the national minimum wage on employment and hours, National Institute of Economic and Social Research, UK, 23 February.

Bishop, J. and Cassidy, N. (2017) Insights into low wage growth in Australia, RBA Bulletin March:13-20 https://www.rba.gov.au/publications/bulletin/2017/mar/.

Bray, J. R. (2013) Reflections on the evolution of the minimum wage in Australia: options for the future, paper commissioned by the Crawford School of Public Policy, ANU.

Buchanan, J., Watson, I. and Meagher, G. (2004) The living wage in Australia History, recent developments, and current challenges, in Figart, D. M. (2004) Living Wage Movements: Global Perspectives, Taylor and Francis.

Caltex (2017) 'Caltex assistance fund for franchisee employees', https://www.caltexassistancefund.com.au/ accessed 16 March 2018.

Card, D. and Krueger, A.B. (1994) Minimum Wages and Employment: A Case Study of the Fast-Food Industry in New Jersey and Pennsylvania, American Economic Review 84(4), pp.772-793, also included in Chapter 2 of Card and Kreuger (1995) and (2016).

Card, D. and Krueger, A.B. (2016) Myth and Measurement: The New Economics of the Minimum Wage, (1994) Twentieth-Anniversary Edition with a new preface by the authors Princeton University Press United States.

Cengiz, D., Dube, A., Lindner, A., and Zipperer, B., (2017) The effect of minimum wages on the total number of jobs: Evidence from the United States using a bunching estimator, April, Society of Labor Economists http://www.sole-jole.org/17722.pdf.

de Flamingh, J. (2015) In perpetuity no more: FWC Full Bench terminates Aurizon enterprise agreements during bargaining, 24 April, Corrs Chambers Westgarth http://www.corrs.com.au/publications/corrs-in-brief/in-perpetuity-no-more-fwc-full-benchterminates-aurizon-enterprise-agreements-during-bargaining/.

de Linde Leonard, M., Stanley, T. D. and Doucouliagos, H. (2014) Does the UK Minimum Wage Reduce Employment? A Meta-Regression Analysis, British Journal of Industrial Relations, 52(3), pp. 499-520.

Dube, A., Lester, T.W., and Reich, M. (2014) Minimum Wage Shocks, Employment Flows and Labor Market Frictions, IRLE Working Paper 149-13, http://irle.berkeley.edu/workingpapers/149-13.pdf.

Dube, A., Lester, T.W., and Reich, M. (2016) Minimum Wage Shocks, Employment Flows, and Labor Market Frictions, Journal of Labor Economics, 34(3), pp.663 - 704.

Dube, A. (2017) Minimum wage and job loss: One alarming Seattle study is not the last word, New York Times, July 20 https://www.nytimes.com/2017/07/20/upshot/minimumwage-and-job-loss-one-alarming-seattle-study-is-not-the-last-word.html.

ER Strategies 2016 Fast Food Industry Report 2015, January

 ${\it https://erstrategies.com.au/form/download-our-2015-fast-food-industry-report\#}.$

Fair Work Act 2009 [FWA] Australia,

 ${\it https://www.legislation.gov.au/Details/C2017C00323}.$

Fair Work Ombudsman (2015) National Hospitality Industry Campaign 2012-15, Restaurants, Cafes and Catering (Wave 2), June.

Fair Work Ombudsman (2016) National Hospitality Industry Campaign 2012-15 Takeaway Foods (Wave 3), March.

Gorry, A. and Jackson, J.J. (2017) A note on the nonlinear effect of minimum wage increases, *Contemporary Economic Policy*, 35(1), January, pp.53–61.

Hamilton, The Hon Reg (2017) The history of the Australian minimum wage, Fair Work Commission, Australia.

International Labour Organization [ILO] 'What is a minimum wage 1.1 Definition and purpose', Minimum Wages Chapter 1 http://www.ilo.org/global/topics/wages/minimum-wages/definition/WCMS_439072/lang--en/index.htm#1 accessed 16 March 2018.

ILO 'Minimum Wage Policy Guide', http://www.ilo.org/global/topics/wages/minimum-wages/lang--en/index.htm accessed 16 March 2018.

ILO 2016 Global Wage Report 2016/17 'Wage inequality in the workplace', http://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/---publ/documents/publication/wcms_537846.pdf.

ILO Statistics ILOSTAT www.ilo.org/ilostat

International Monetary Fund [IMF] (2017) 'Australia: IMF Staff Concluding Statement of the 2017 Article IV Mission Completing the Transition and Renewing the Foundation for Future Growth', November 19,

 $https://www.imf.org/en/News/Articles/2017/11/20/ms112017-australia-staff-concluding-statement-of-2017-article-iv-mission_{}$

IMF (2016) 'Chief Economist Interview', [Maurice Obstfeld] IMF Survey: The Global Economy in 2016, 4 January,

http://www.imf.org/external/pubs/ft/survey/so/2016/INT010416A.htm.

Jardim, E., Long, M.C., Plotnick, R., van Inwegen, E., Vigdor, J. and Wething, H. (2017) Minimum wage increases, wages, and low-wage employment: Evidence from Seattle, NBER Working Paper 23532 http://www.nber.org/papers/w23532.

Jimenez, C. and Rozenbes, D. (2017) Award-reliant workers in the household income distribution, MWRG Research Report 1/2017, February, Fair Work Commission, Australia.

Junankar, P. N. (2016) Introduction to Junankar, P.N. ed. (2016) *Economics of the Labour Market: Unemployment and the Costs of Unemployment*, Palgrave Macmillan.

Leigh, A. (2003) Employment Effects of Minimum Wages: Evidence from a Quasi-Experiment, *Australian Economic Review*, 36(4), pp. 361–73.

Living Wage Foundation 'What is the real living wage?', UK,

https://www.livingwage.org.uk/what-is-the-living-wage accessed 16 March 2018.

Lopresti, J.W. and Mumford, K.J. (2016) Who Benefits from a Minimum Wage Increase?, *ILR Review*, 69(5), October, pp.1171–1190.

Lowe, Philip (2017a) 'The Labour Market and Monetary Policy', Address to the Anika Foundation Luncheon, Sydney 26 July https://www.rba.gov.au/speeches/2017/sp-gov-2017-07-26 html

Lowe, Philip (2017b) 'Some Evolving Questions', Address to the Australian Business Economists Annual Dinner, Sydney, 21 November,

 $https://www.rba.gov.au/speeches/2017/pdf/sp-gov-2017-11-21.pdf\underline{.}$

Lundstrom, S.M. (2017) When is a Good Time to Raise the Minimum Wage?, Contemporary Economic Policy, 35(1), January, pp.29-52.

Manning, A. (2016) The Elusive Employment Effect of the Minimum Wage, CEP Discussion Paper No 1428, May.

Martin, P. and Bagshaw, E. (2017) 'RBA governor Philip Lowe says wage growth too low, rates to climb but not yet', Sydney Morning Herald, 11 August 2017 — 11:54pm, first published 10 August 2017 — 1:27pm http://www.smh.com.au/business/the-economy/rbagovernor-philip-lowe-wage-growth-too-low-rates-to-climb-but-not-for-some-time-20170810-gxtb2l.html.

Neumark, D., Salas, J.M.I. and Wascher, W. (2013) Revisiting the Minimum Wage-Employment Debate: Throwing Out the Baby with the Bathwater?, IZA DP 7166 January.

Neumark, D., Salas, J.M.I. and Wascher, W. (2014) More on recent evidence on the effects of minimum wages in the United States, IZA Journal of Labor Policy, 3(24), http://www.izajolp.com/content/3/1/24.

OECD (2015a) OECD Employment Outlook 2015.

OECD (2015b) In It Together: Why less inequality benefits all, May, http://www.oecd.org/social/in-it-together-why-less-inequality-benefits-all-9789264235120en.htm.

OECD (2016) 'Income inequality remains high in the face of weak recovery', https://www.oecd.org/social/OECD2016-Income-Inequality-Update.pdf, November.

OECD Statistics https://stats.oecd.org

O'Neill, M. and McGuiness, F. (2016) 'National Minimum Wage Statistics', UK House of Briefing Commons Library. Paper 7735. http://researchbriefings.files.parliament.uk/documents/CBP-7735/CBP-7735.pdf.

Productivity Commission [PC] (2015) Report of the Inquiry into the Workplace Relations Framework, December, Government of Australia.

Quiggin, J. (2014) 'In search of search theory', http://johnquiggin.com/2014/07/10/insearch-of-search-theory/.

RAND Europe (2016) The Impact of the National Minimum Wage on Employment: A Meta-analysis, Research Report for the UK Low Pay Commission, October.

Reich, M., Allegretto, S. and Godoey, A. (2017) Seattle's Minimum Wage Experience 2015-16, Centre for Wage and Employment Dynamics, Institute for Research on Labor and Employment, U of California, June.

Riley, R. and Bondibene, C.R. (2015) The impact of the National Minimum Wage on UK Businesses, National Institute of Economic and Social Research and Centre For Macroeconomics, February, Report to the Low Pay Commission, UK.

Rocheteau, G. and Tasci, M. (2007) The minimum wage and the labor market, Federal Reserve Bank of Cleveland, 1 May, https://www.clevelandfed.org/newsroom-and-events/publications/economic-commentary/economic-commentary-archives/2007-economic-commentaries/ec-20070501-the-minimum-wage-and-the-labor-market.aspx.

Rocheteau, G. and Tasci, M. (2008) Positive and normative effects of a minimum wage, Federal Reserve Bank of Cleveland, Working Paper no. 08-01 https://www.clevelandfed.org/en/newsroom-and-events/publications/working-papers/working-papers-archives/2008-working-papers/wp-0801-positive-and-normative-effects-of-a-minimum-wage.aspx.

The Seattle Minimum Wage Study Team [SMWST] (2016) Report on the Impact of Seattle's Minimum Wage Ordinance on Wages, Workers, Jobs, and Establishments Through 2015. Seattle: University of Washington.

Schwellnus, C., Kappeler, A. and Pionnier, P.A. (2017) Decoupling of Wages from Productivity: Macro-level Facts, OECD Economics Department Working Papers 1373, 27 January.

Stigler, G.J. (1946) The economics of minimum wage legislation, *The American Economic Review*, 36(3), June.

Turner, S. (2017) 'We need to talk about wage policy, says CBA's chief economist', Australian Financial Review, Oct 18 2017 at 3:13pm, updated Oct 18 2017 at 3:51pm http://www.afr.com/news/economy/we-need-to-talk-about-wage-policy-says-cbas-chief-economist-20171018-gz35z2.

UC Berkeley Labor Centre 'Inventory of US City and County Minimum Wage Ordinances', http://laborcenter.berkeley.edu/minimum-wage-living-wage-resources/inventory-of-us-city-and-county-minimum-wage-ordinances/, accessed 16 March 2018

UK Government 'National Minimum Wage and the National Living Wage Rates', https://www.gov.uk/national-minimum-wage-rates, accessed 16 March 2018.

UK Government (2017) 'Over 2 million of the UK's workers set for a pay rise on 1 April 2017', Press Release, 1 April https://www.gov.uk/government/news/over-2-million-of-the-uks-workers-set-for-a-pay-rise-on-1-april-2017.

UK Low Pay Commission (2015) National Minimum Wage Low Pay Commission Report,

UK Low Pay Commission (2016) National Minimum Wage Low Pay Commission Report Autumn, November.

US Department of Labor, 'Minimum Wage',

https://www.dol.gov/general/topic/wages/minimumwage, accessed 16 March 2018.

Watson, I. (2004) Minimum Wages and Employment: Comment, *Australian Economic Review*, 37(2), pp. 166–72.

Watson, I. (2016) Wage inequality and neoliberalism: the Australian experience, *Journal of Industrial Relations*, 58(1), pp.131–149, February.

Young Workers Centre (2017) Young Workers Snapshot: The Great Wage Rip Off, May, Victorian Trades Hall Council,

493954358/Young_Workers_Snapshot_The_Great_Wage_Ripoff_final.pdf?1493954358.

Zipperer, B. and Schmitt, J. (2017) The 'high road' Seattle labor market and the effects of the minimum wage increase, Economic Policy Institute Washington DC, June http://www.epi.org/publication/the-high-road-seattle-labor-market-and-the-effects-of-the-labor-market-and-the-labor-marke $minimum\hbox{-}wage\hbox{-}increase\hbox{-}data\hbox{-}limitations\hbox{-}and\hbox{-}methodological\hbox{-}problems\hbox{-}bias\hbox{-}new\hbox{-}limitations\hbox{-}and\hbox{-}methodological\hbox{-}problems\hbox{-}bias\hbox{-}new\hbox{-}limitations\hbox{-}and\hbox{-}methodological\hbox{-}problems\hbox{-}bias\hbox{-}new\hbox{-}limitations\hbox{-}and\hbox{-}methodological\hbox{-}problems\hbox{-}bias\hbox{-}new\hbox{-}limitations\hbox{-}and\hbox{-}methodological\hbox{-}problems\hbox{-}bias\hbox{-}new\hbox{-}limitations\hbox{-}and\hbox{-}methodological\hbox{-}problems\hbox{-}bias\hbox{-}new\hbox{-}limitations\hbox{-}and\hbox{-}methodological\hbox{-}problems\hbox{-}bias\hbox{-}new\hbox{-}limitations\hbox{-}and\hbox{-}methodological\hbox{-}problems\hbox{-}bias\hbox{-}new\hbox{-}limitations\hbox{-}and\hbox{$ analysis-of-seattles-minimum-wage-incr/.

