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ANALYSIS
Paying the Penalty? The High Price of Penalty Rates in Australian Restaurants

Phil Lewis

Abstract

As a result of decisions by numerous state and federal commissions and tribunals, most recently the Fair Work Commission, penalty rates have become an important influence on the labour market in Australia. The paper investigates how relevant are the myriad penalty rates to today’s social mores and the modern service-based economy. What are the consequences of penalty rates for employment, productivity, profitability and consumer welfare? What would be the impact of their removal? A number of data sources are analysed in the context of the economics of labour markets to answer these questions. The restaurant, café and catering industry is used as a specific example to illustrate the effects of penalty rates.

Introduction

Penalty rates by their very name imply that businesses must pay a penalty for imposing conditions which are said to disadvantage employees. The notion of a ‘penalty’ rate has its origin in a labour market quite different from that of much of the Australian labour market today. The Australian economy used to be characterised by mostly males working full-time in industrial jobs. There was little part-time or casual work. Working married women and jobs with flexible hours were rare (Norris et al. 2004). Most retail outlets shut at midday on Saturday and reopened on Monday. The weekends were, for many, the only time available for socialising, recreation, participating in sport and worship.

The Australian economy has undergone significant structural change over the past three decades, the pace of which accelerated in the late 1980s and 1990s. While policy has changed, industries have also embraced new technologies and have become increasingly involved in the global economy. There have been significant changes in labour demand (Lewis et al. 2010). The demand

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for full-time workers, particularly males, has not kept pace with supply. The growth in part-time work has been an important source of jobs growth. There has been a substitution of female workers, particularly part-time, for full-time male workers. For certain groups, the changes in demand have been particularly noticeable. For instance, a full-time job for anyone 15–20 years old is now an exception rather than the rule and if you are a youth in a part-time job there is an over 80 per cent chance you will be a student (Lewis and McLean 1998). Another major feature of the changing Australian labour market is growth in casual employment. The growth of casual work was an important phenomenon in the 1980s and 1990s and the proportion of all employees that is casual reached over 20 per cent by 2010 (ABS 2010).

Much of the changing composition of employment can be attributed to a changing industry mix. In 1975 the ‘soft’ services (such as health, finance, retail, education, restaurants, and so on) accounted for just over 50 per cent of all jobs, but by 2013 the sector accounted for more than 70 per cent of all jobs (ABS 2012a). By contrast, manufacturing’s share of total employment almost halved over the same period to about 10 per cent in 2013. There were also reductions in the relative shares of jobs in the ‘industrial’ services (such as construction, communications, electricity, gas and water). With respect to the distribution of employment by occupation the picture that emerges when combined with the industry distribution is that a ‘typical’ Australian worker today is a ‘white-collar’ employee in the service sector (Lewis 2008). It may be thought that for a modern service-based economy, such as Australia, imposing higher wages (penalty rates) when the demand for services is often greatest is something of an anomaly.

In this paper it is argued that penalty rates have significant negative effects on the economy. An industry particularly affected by penalty rates, namely the cafe, restaurant and catering industry, is used as an example to illustrate these effects.

Are penalty rates relevant to modern Australian society?

Penalty rates have their origins in social mores of the past. The thinking behind penalty rates is encapsulated in the original decisions of the Commonwealth Court of Conciliation and Arbitration (CCCA). For instance:
… the (extra rate for Sunday work) is given because of the grievance of losing Sunday itself – the day for family and social and religious reunion, the day on which one’s friends are free, the day that is the most valuable for rest and amenity under our social habits …

The norm of work should be six week days and Sundays free, the departure from the norm should be two time-and-a half rates, which is equivalent to one double rate. (CCCA 1919)

and:

Saturday, it is said, is the great day of recreation, while Sunday is the day of religious observance and family reunion. Saturday is the day on which competitive sports and various forms of organised social activities and public entertainment are held, as well as being the day which by common usage has come to be set aside for individual recreation in outdoor activity. (CCCA 1947)

For some, very much the same logic applies today to a very different economy. For instance, this view is encapsulated in this speech (D’Amore 2005) in the New South Wales parliament:

Shift loadings and penalty rates for work in ordinary time on weekends and work outside the normal span of hours are intended to compensate for the inconvenience associated with working unsociable hours. Work after 5.30p.m. is generally regarded as being in unsociable hours, and has a negative impact on both personal and family wellbeing. With a higher female participation in the work force, the pressures on family interaction are now greater. For individuals this pressure has increased with more work being performed during unsociable hours.

and:

Employees are less inclined to work on Saturdays and Sundays because they are dominant days for sport, leisure, community activities and religious celebrations. Time off during the week does not compensate for time lost on Saturdays and Sundays. This is the reason workplace arrangements have always recognised and endorsed penalty rates in the form of higher hourly payments for these days. Working unsociable hours interferes with family and personal commitments and has a negative impact on family relations, family and individual wellbeing.

The ABS produces estimates of individuals’ and households’ time use, including time spent on leisure activities. The ABS (2008a) definition of sport and outdoor activity includes organised and informal sport, exercise, walking, fishing, hiking
and holiday travel and driving for pleasure. According to the ABS (2008) (Table 1 below), the amount of time spent on sport and outdoor activity (25 minutes per day) was the second-most popular activity for men in 2006.

However, audio/visual media (154 minutes per day) far exceeds time spent on sport. For women, time spent on sport and outdoor activity (17 minutes per day), again was eclipsed by time spent on audio/visual media (122 minutes per day); talking and correspondence (36 minutes per day); reading (25 minutes per day) and other free time (18 minutes per day).

Table 1: Average time spent on leisure activities (2006, minutes per day)

<table>
<thead>
<tr>
<th>Activity</th>
<th>Males</th>
<th>Females</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Weekday</td>
<td>Weekend</td>
</tr>
<tr>
<td>Socialising</td>
<td>6</td>
<td>20</td>
</tr>
<tr>
<td>Visiting entertainment venues (a)</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>Attendance at sports event</td>
<td>*1</td>
<td>6</td>
</tr>
<tr>
<td>Religious activities (b)</td>
<td>*2</td>
<td>8</td>
</tr>
<tr>
<td>Community participation</td>
<td>8</td>
<td>7</td>
</tr>
<tr>
<td>Associated travel</td>
<td>7</td>
<td>22</td>
</tr>
<tr>
<td>Social and community interaction (c)</td>
<td>27</td>
<td>71</td>
</tr>
<tr>
<td>Sport and outdoor activity</td>
<td>20</td>
<td>37</td>
</tr>
<tr>
<td>Games, hobbies, arts, crafts</td>
<td>13</td>
<td>18</td>
</tr>
<tr>
<td>Reading</td>
<td>19</td>
<td>25</td>
</tr>
<tr>
<td>Audio/visual media</td>
<td>144</td>
<td>181</td>
</tr>
<tr>
<td>Other free time</td>
<td>20</td>
<td>29</td>
</tr>
<tr>
<td>Talking and correspondence (d)</td>
<td>21</td>
<td>31</td>
</tr>
<tr>
<td>Associated travel</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>Recreation and Leisure (c)</td>
<td>243</td>
<td>332</td>
</tr>
<tr>
<td>Total free time</td>
<td>270</td>
<td>403</td>
</tr>
</tbody>
</table>

*estimate has a relative standard error of 25 per cent to 50 per cent and should be used with caution.

- nil or rounded to zero (including null cells).

(a) includes cultural venues.

(b) includes ritual ceremonies.

(c) includes additional activities not separately included.

(d) includes talking on phone or reading/writing own correspondence.

Source: Australian Bureau of Statistics (2008a). Time Use on Recreation and Leisure Activities, Australia, Cat No 4173.0.
As Table 1 shows, the average amount of time that people spent on recreation and leisure activities increases on the weekend compared with weekdays, with men spending more time (332 minutes a day) on the weekend on these activities than women (273 minutes a day).

For men the amount of time spent on sport and outdoor activity increases by only 17 minutes per day on the weekend and for women by only five minutes per day compared with time spent during the week. Men spend more time on the weekend on sport and outdoor activity than women (37 minutes compared with 21 minutes).

Religious activity is found to be a relatively minor activity with respect to time use. Just as for weekdays, by far the greatest expenditure on free time is in audio/visual media (45 per cent for men and 39 per cent for women). The total amount of free time in the week is 33 per cent lower on the weekdays for men and 25 per cent for women.

Therefore, even under this extremely broad category of sport and outdoor activity, the time spent, even on weekends, is not large and pales into comparison with other activities. Clearly, for most, working on weekends would not significantly impose on their time spent on sport and outdoor activities.

![Figure 1: Christian affiliation, 1911 to 2006 (percentage of population)](source: National Church Life Survey (NCLS 2010); ABS Yearbook of Statistics 2006, Cat No 1301.0.

While it may well once have been the case that “Sunday is the day of religious observance”, this is only true of a minority of Australians today. Data compiled
from various sources for the National Church Life Survey (NCLS 2010) indicate that while over 60 per cent of Australians consider themselves Christians, this has fallen from over 96 per cent in 1911 (see Figure 1).

According to that survey, the number attending church fell from 44 per cent in 1950 to 17 per cent in 2007 (see Figure 2). Clearly, Sunday is not a day of religious activity for the majority of Australians. According to the NCLS (2010), regular church attendance is concentrated among certain demographics. About half of church attenders are employed, 28 per cent are employed full-time, 14 per cent are employed part-time and 9 per cent are self-employed. Some 30 per cent are retired, reflecting the older age profiles of attenders. Around 15 per cent indicate that they are performing full-time home duties or family responsibilities and 9 per cent are students. Around 3 per cent are unemployed.

Figure 2: Regular church attenders, percentage of population

Source: National Church Life Survey (NCLS 2010, derived from ‘various social surveys’).

Among young people, although 15–19-year-olds represents 9 per cent of the population they make up less than 6 per cent of church attenders. For the 20–29 age group, the respective per cent figures were 17 and 9 per cent.

The Australian economy today is dominated by the service sector – part-time work, casual work, working women and flexibility are the norm for many. Also, the social mores which defined Australian society have to a large degree changed radically over time. Among the most relevant here are the growth in participation in education and the consequent supply of part-time and casual labour, participation in the workforce of women with children, and the use of
leisure time for other activities, including church attendance and participation in sporting activities. Both of the latter account for a very small percentage of people’s leisure time on weekends.

The cafe, restaurant and catering services industry: A case study

Penalty rates apply to many service industries but are particularly relevant to the cafe, restaurant and catering services industry, which receives particular attention in this paper.

According to the ABS (2008b) at the end of June 2007, the latest year for which detailed data are available, there were 15,423 businesses in Australia involved in the provision of cafe, restaurant and catering services. There are no reliable more recent estimates of the structure of the industry but it is unlikely to have changed significantly since. Collectively, these businesses employed 195,814 people. Total industry value added by these businesses was $5.7 billion. During 2006–07, the operating profit before tax for these businesses was $576.4 million and their operating profit margin was 4.2 per cent.

This does not include the industry’s importance to suppliers such as food wholesalers, farmers etc. or to complementary industries in, for instance, the tourism sector which benefit from amenable services at low prices from the industry.

In relation to costs, labour costs – which account for 36 per cent of the total – are the most significant expense. By comparison, labour costs for other industries make up about 20 per cent of the total on the average (ABS 2012d).

The cafe, restaurant and catering services industry is highly competitive and consists mainly of small businesses, with smaller cafes and restaurants accounting for around two-thirds (67.5 per cent) of the total. For the whole industry there are about 10,300 businesses (67 per cent) employing fewer than 10 people and 14,000 businesses (91 per cent) employing fewer than 20. These businesses employ about 100,000 people in total and generate over $13.7 billion in income (ABS 2008b).

Cafe, restaurant and catering services are characterised by a large casual workforce which accounts for just over half of all employment. Permanent full-time employees account for under a quarter of all employment, while permanent part-time employees account for 15.5 per cent. Females account for just over half of all employment and most (57 per cent of female employment or 59,332 people) worked as casuals (ABS 2008b). The remaining categories of
employment – working proprietors and partners of unincorporated businesses; and salaried directors of incorporated businesses – account for 5.7 per cent of total employment.

Over 40 per cent of all employees in the industry are under 24 years old, compared to less than 14 per cent for the economy as a whole. Clearly, the industry is a major source of employment for young people. The growth of part-time work for young people has also been a major factor in improving participation of youth in education.

Most employees in the industry are single. Women with children make up 22 per cent of the workforce in the industry and of these 57 per cent work part-time (ABS, Census of Population and Housing, 2006, unpublished). The industry has, together with retailing, the highest percentage of women with children working part-time.

The Restaurant Industry Award 2010 (AIRC 2010) sets out the minimum pay and conditions for workers in the industry. Specifically it provides for:

34.1 Penalty rates for work on weekends and public holidays

An employee working ordinary time hours on the following days will be paid the following percentage of the minimum wage in clause 20 – Minimum wages for the relevant classification:

<table>
<thead>
<tr>
<th>Table 2: Minimum wage rates for the relevant classification, cafes, restaurants and catering</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of employment</td>
</tr>
<tr>
<td>-----------------------------------------------</td>
</tr>
<tr>
<td>Full-time and part-time</td>
</tr>
<tr>
<td>Casual (inclusive of 25% casual loading)</td>
</tr>
</tbody>
</table>

Source: (AIRC 2010).

In addition to these major features, there are a myriad of other conditions which employers must adhere to, such as: paying employees over 18 years of age the 21-year-old rate rather than the junior rate if they serve alcohol; penalties for working between 10pm and 7am; and a prohibition on lowest pay-grade workers from taking money from customers or showing them to their table!
The impact of penalty rates

In assessing the impact of penalty rates on employment, it is first necessary to address the question of what determines employment in any industry (and the wage paid). The simple answer is, the demand and supply of labour. The matter is, however, complicated by institutional arrangements governing employment such as legally binding minimum wages and employment conditions (including penalty rates).

Businesses determine the demand for labour. The demand for labour is generally thought to depend on the wage rate or, more correctly, the costs of employing labour, which typically includes many other costs apart from the wage (see, for example, Hamermesh 1993; Lewis and Seltzer 1996; Lewis and MacDonald 2002). A firm’s decisions about how much output to produce and how much labour to hire are made simultaneously. Firms hire extra labour when the value of the extra output produced is greater than the wage. Firms will only increase output if activities which were not previously profitable are made profitable. In the case of a restaurant, for example, if the size of the restaurant, number of cash registers, tables etc. remain fixed, each successive employee hired (or extra hour worked) will result in a lower increase in output than the one before. Businesses will employ more people (or increase hours of employment) as long as the extra revenue generated exceeds the extra cost of employing them. Therefore, extra output and extra employment requires a fall in labour costs and, conversely, a rise in labour costs will make otherwise profitable activities no longer profitable, so firms hire fewer people and produce less.

To get to grips with the effects of an imposed wage it is necessary to dig deeper into the operations of the labour market. In reality there is not a single labour market but rather very many labour markets each with their own supply and demand. An important characteristic of the multitude of labour markets is substitutability. Although it is common, particularly in the professions, to think of occupations being rigidly defined, in practice there is a great deal of substitutability of workers between and within industries and occupations.

In the case of a cafe/restaurant the potential for, or even necessity of, substitution is fairly obvious. Consider the following example. A cafe is staffed by a barista responsible mainly for the drinks; a cook who produces sandwiches and light meals; and various waiters/waitresses. The owner-manager does a whole range of tasks such as keeping the accounts and other paperwork, collecting supplies, hiring staff and doing virtually any of the jobs of other staff should the need arise. During peak times, or when colleagues are on breaks, the owner or other staff can take on different roles. One of the waitresses can only work between 9am and 3pm because she needs to drop off and pick up children from school.
Mostly students are employed the rest of the time because they can fit work in around their classes. Students are particularly keen to work on weekends since it doesn't clash with study and they don't have the family commitments that some of their colleagues may have. For some of those with family commitments, however, weekend work can work to their advantage since a partner can look after children and avoid the child-care costs incurred when both partners are working during the week.

Most empirical studies of individual labour markets point to the high degree of substitutability, with respect to demand, between types of labour. There is also strong evidence that, given the degree of substitutability, the demand for labour in more narrowly defined labour markets is highly responsive to relative wages (Hamermesh 1993; Lewis 1985; Daly et al. 1999). Also, generally, the lower skilled the worker, the more responsive is demand to relative wages (Hamermesh 1993).

As is well known, the industry's elasticity of demand for labour depends on the elasticity of factor substitution, labour's share of total costs and the price elasticity of the demand for the industry's output. The precise formula (which sheds a lot of light on the relationship between wages and demand) for the long-run elasticity of demand can be shown (Hamermesh 1993) to be:

\[ e = -(1-s) \sigma + s\eta \]

where:

- \( e \) is the elasticity of demand for hired labour (negative)
- \( s \) is the proportion of hired labour costs in the total cost of production
- \( \sigma \) is the elasticity of substitution between hired labour and other inputs (positive)
- \( \eta \) is the elasticity of demand for output (negative).

In other words, what this formula says is that:

a. when wages rise this causes an increase in costs which firms must adjust to. The bigger the share of total costs which are hired labour costs then the larger the impact on firms. Firms will attempt to replace higher-cost labour with other inputs, such as family and owner’s labour, and demand for hired labour will fall. Their ability to do this will depend on how easily hired labour can be replaced by other inputs, the elasticity of substitution, and how labour intensive the production process is (labour’s share of total costs).

b. firms also attempt to pass on the increased costs to buyers of their products. If demand for these products is very price sensitive (high elasticity of demand for output), then even small cost increases cause large falls in demand for output.
and demand for labour. Output demand tends to be elastic where there is a high degree of competition and consumers regard goods and services as relative luxuries. If demand for these products is relatively insensitive to price (low elasticity of demand for output) then relatively small cost increases cause only small falls in demand for output and demand for hired labour. Low elasticity of demand is usually found where there is little competition and consumers regard goods and services as relative necessities, such as basic food and shelter. Nevertheless, whatever the size of the response, wage rises always cause a fall in demand for hired labour.

The above formula is for elasticity of labour demand in the long run, after capital has had time to adjust to any change rate. There is also a corresponding elasticity of labour demand in the short run, before capital has had any time to adjust (Hicks 1932).

\[ e = \frac{\sigma \eta}{(\sigma s - [1-s]\eta)} \]

Using this framework the impact of wage changes in a particular industry can be predicted by making reasonable assumptions about the parameters, \( s \), \( \sigma \) and \( \eta \). We saw above that in the cafe, restaurant and catering services industry hired labour accounts for a higher percentage of total costs (\( s \)) than for other industries, the degree of substitution between employees (\( \sigma \)) is high and, since restaurant meals are generally thought to be luxury good (Hubbard et al. 2011), then \( \eta \) is high. This suggests that a fall in wages in the industry would be expected to result in a significant increase in the demand for hired labour.

Providing precise estimates of the impact of wage changes on employment in an industry is difficult because there are few empirical studies available for Australia. However, making some reasonable assumptions, based on the following Australian and overseas evidence, one can provide some broad estimates.

The empirical work for Australia on the degree of substitution between different types of labour has largely arisen out of the debates regarding the appropriate rates for junior wages. In an early study for the Bureau of Labour Market Research, Lewis (1985) estimated the elasticities of substitution between young and adult workers by gender. He concluded that there was a very high degree of substitutability between different categories of labour and hence a high negative effect of wages on employment.

A well-known Australian study undertaken for the Productivity Commission (Daly et al. 1998) uses econometric analysis of a large cross-sectional data set (the Australian Workplace Industrial Relations Survey 1995) to isolate the influence of wages from the influence of other factors affecting youth employment. It found there is a significant substitution between youth and adult labour and
hence a negative relationship between youth employment and youth wages. The best estimates suggest that a 1 per cent increase in youth wages would lead to a decrease in youth employment of 2–5 per cent in industries employing a relatively high proportion of youth.

Lewis and McLean (1999) carried out a simulation exercise on the effects of the ‘adults at 18’ proposal to abolish junior rates of pay for those over 18 proposed by the ACTU in the last junior wage case. Assuming elasticities of substitution of 1 between hired workers of different ages (a number far more conservative than those estimated by Lewis 1985 and Daly et al. 1998) they found that the effects of the proposal would have been to significantly reduce employment of 15, 16 and 17-year-olds.

There are few studies on the elasticity of demand for the output of the cafe, restaurant and catering services industry but they all conclude that it is large, which concurs with the general view among economists that ‘eating out’ is a luxury good. Published studies have estimated elasticities of demand for restaurant meals at -0.9 (Divisekera 2007), -1.46 (Eisenhauer and Principe 2009), -2.3 (Andersen et al. 1997) and between -1.49 and -3.8 (Jensen and de Boer 2006). The Divisekera (2007) study was for tourist demand, so is likely to be lower than for demand generally since tourists have fewer substitutes (fewer alternatives to eating out).

Studies (see, for instance, Cardoso et al. 2012) have considered the substitution of labour over times of the day or week as a result of differences in labour costs. For instance, firms may redirect production to those periods when overtime or penalty rates are not paid, in order to reduce labour costs. The degree of substitution has been found to be small (Cardoso et al.) for industries as a whole and the possibilities for reorganising production in the restaurant and catering industry would appear to be low. However, it is also possible that some ‘demand-shifting’ of output takes place to weekdays and away from weekend (public holiday) demand by consumers. For instance, if a restaurant is closed on Sunday, or charges higher prices, customers may shift their demand to a weekday. In this case the impact of penalty rates is to reallocate employment to weekdays. Unfortunately, there are little data on this to allow a judgement of its size.

On the basis of the above studies we can reasonably assume that $\sigma$, the elasticity of substitution for hired labour, is between 1 and 3; however, for completeness an elasticity of -0.5 is included in the analysis to account for the possibility that there is a lesser degree of substitution than suggested by the above studies; and $\eta$, the price elasticity of demand for cafe, restaurant and catering services, is between -1 and -3; and $s$ is 0.36.
Table 3 provides simulations of the elasticities of demand for labour based on these assumptions. Table 3 can be interpreted as follows. Assuming an elasticity of substitution of 2 and an elasticity of demand for industry output of -1 then a fall in wage costs of 1 per cent would increase employment by 1.47 per cent in the short run and 1.64 per cent in the long run. Using the combinations of smallest and largest pairs of elasticities, respectively, lower and upper bounds for labour demand elasticities can be read from the table. For instance, given the reasonable range of assumptions, a 1 per cent fall in wage costs would increase employment by between 0.5 and 3 per cent (both the short run and the long run).

Estimates of the elasticity of demand for hired labour for any alternative pair of substitution and output elasticities can also be read from Table 3.

On the basis of the estimates of the elasticity of demand for hired labour, the impacts of penalty rates on demand by employers can be projected. For brevity, only the two extremes – the lowest possible and the highest possible elasticities of demand for hired labour – are shown in Table 4.

**Table 3: Estimated wage elasticities of demand for labour, cafe, restaurant and catering services industry**

<table>
<thead>
<tr>
<th>Short Run</th>
<th>Elasticity of demand for output η</th>
<th>Elasticity of substitution σ</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.5</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>-0.5</td>
<td>-0.5</td>
</tr>
<tr>
<td></td>
<td>-1</td>
<td>-0.61</td>
</tr>
<tr>
<td></td>
<td>-2</td>
<td>-0.68</td>
</tr>
<tr>
<td></td>
<td>-3</td>
<td>-0.71</td>
</tr>
<tr>
<td></td>
<td>0.5</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>-1</td>
<td>-1.00</td>
</tr>
<tr>
<td></td>
<td>-2</td>
<td>-1.22</td>
</tr>
<tr>
<td></td>
<td>-3</td>
<td>-1.32</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Long Run</th>
<th>Elasticity of demand for output η</th>
<th>Elasticity of substitution σ</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.5</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>-0.5</td>
<td>-0.82</td>
</tr>
<tr>
<td></td>
<td>-1</td>
<td>-1.00</td>
</tr>
<tr>
<td></td>
<td>-2</td>
<td>-1.36</td>
</tr>
<tr>
<td></td>
<td>-3</td>
<td>-1.72</td>
</tr>
</tbody>
</table>

Source: Author’s estimates.

2 These elasticities of labour demand assume the firm is operating above the shutdown point, with a diminishing average product of labour. For a firm at the shutdown point the elasticity of labour demand to the wage is infinite. Shutdown can, and obviously does, happen as it does frequently on Sundays and public holidays.

3 Elasticities strictly refer to small changes in wages whereas increases due to (some) penalty rates are quite large. Assuming that σ and η are constant, the factor share, s, is endogenous in the following way: If σ exceeds 1, then the wage share falls with a rise in the wage rate, and the (long-run) elasticity becomes more negative, and the point elasticities in Table 3 are minimum bounds for the arc elasticity. If σ is less than 1, then the wage share rises with a rise in the wage rate, and the elasticity becomes less negative and the point elasticities become minimum bounds for the arc elasticities. If σ equals 1, then s is invariant to wage changes and the elasticity doesn’t change.
Table 4 can be read as follows. The first column of numbers is the percentage of ordinary time earnings under different penalty rates. So the requirement to pay 10 per cent extra between 10pm and midnight increases wages to 110 per cent of ordinary time. The other penalty rates can be read in the same way. The last two items probably require further explanation. “Junior 18 years” and “Junior 19 years” rows refer to the requirement that 18 and 19 year olds serving alcohol must be paid the adult rate. Therefore they receive 100 per cent of the adult ordinary time rate, which is 43 per cent more than their junior rate. Paying 19 year olds 100 per cent of the adult ordinary time rate represents an increased wage of 18 per cent of their junior rate.

Table 4: Changes in employment in the cafe, restaurant and catering services industry resulting from payments greater than standard hours

<table>
<thead>
<tr>
<th>Type of employment</th>
<th>Wage (% of standard adult rate)</th>
<th>Wage increase (%)</th>
<th>Employment percentage</th>
<th>Change (negative)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ordinary time</td>
<td>100</td>
<td>-</td>
<td>-</td>
<td>-</td>
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<tr>
<td>10pm-midnight</td>
<td>110</td>
<td>10</td>
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<td>30</td>
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<tr>
<td>Midnight-7am</td>
<td>115</td>
<td>15</td>
<td>7.5</td>
<td>45</td>
</tr>
<tr>
<td>Saturday</td>
<td>125</td>
<td>25</td>
<td>12.5</td>
<td>75</td>
</tr>
<tr>
<td>Sunday</td>
<td>150</td>
<td>50</td>
<td>25</td>
<td>**</td>
</tr>
<tr>
<td>Public Holidays</td>
<td>250</td>
<td>150</td>
<td>75</td>
<td>**</td>
</tr>
<tr>
<td>Junior 18 years</td>
<td>100</td>
<td>43</td>
<td>21.5</td>
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<td>Junior 19 years</td>
<td>100</td>
<td>18</td>
<td>19</td>
<td>55</td>
</tr>
</tbody>
</table>

Notes: ** denotes businesses would prefer not to employ anyone under these arrangements.

Source: Author’s estimates.

The final two columns show the number of hours of labour demanded under the specified rates of pay relative to demand under standard hours of pay for all hours worked. For instance, in “Midnight–7 am” column the extra wage of 15 per cent reduces labour demand to between 92.5 per cent (a fall of 7.5 = 15 × 0.5) and 55 per cent (a fall of 45 = 15 × 3.0) of what it would be if employees were paid the rate for standard hours. Penalty rates for Saturday work have the impact of reducing labour demand to between 87.5 per cent and 25 per cent of what it would be if employees were paid the rate for standard hours.

Some cells in the table contain **, which means that given these wages and assumptions regarding elasticity of demand businesses will not want to hire any labour. Notice that under both the high and low scenarios this is the case for penalty rates on public holidays. Businesses will close on these days, make
greater use of owner and family labour, or may choose to hire the absolute minimum amount of hired labour if they think it important to remain open as part of their business strategy. It is also possible that some businesses will come to some technically ‘illegal’ arrangements with employees outside of the award conditions.

To summarise, penalty rates for 10pm–midnight work are projected to have reduced demand for labour by between 5 and 30 per cent below what would be the case with no penalty rates. Penalty rates for midnight–7am work have reduced demand for labour by between 7.5 and 45 per cent below what would be the case with no penalty rates. Penalty rates for work on Saturdays are projected to have reduced demand for labour by between 12.5 and 75 per cent below what would be the case with no penalty rates. Penalty rates for work on Sundays are projected to have reduced demand for labour by between (under the low-estimate scenario) 75 per cent and 100 per cent (under the high-estimate scenario). Penalty rates for public holidays are projected to have almost eliminated demand for hired labour.

What can be said is that the removal of industry-specific minimum rates would allow greater flexibility for owners to manage their businesses and allow wages to be determined by the market. Most economists believe that competitive markets, through the price mechanism, represent the best way of allocating resources (Hubbard et al. 2011). Businesses will maximise their profits by selling the goods and services consumers want, when they want, at the lowest prices. Production will be efficient because businesses will organise capital and labour in such a way as to reduce costs and maximise revenue in order to maximise their profits. Employment will be at a maximum because businesses are producing the highest output that people are willing to buy. In order to be able to hire workers, businesses must offer wages and conditions that employees are willing to accept. This is the basis for allowing businesses flexibility to manage and prices (including wages) to be determined by the market.

These results suggest that the imposition of penalty rates has had a significant negative effect on employment and turnover in the industry. Since profit margins are low, lower turnover would significantly reduce profits.

**Some indirect costs of penalty rates**

The above effects on labour demand are a result of direct costs imposed by regulations governing penalty rates. However, there are also costs relating to allocative inefficiency costs and compliance costs related to penalty rates.
Allocative inefficiency costs arise because, in the presence of regulation, businesses will behave differently from the way they would without regulation (otherwise regulation would not be necessary), with subsequent impacts on the type, quantity and prices of goods and services. For instance, regulation might reduce competition which would increase prices, so that consumer welfare is reduced. Or restaurants having to meet industrial relations laws may have the effect of reducing the hours or days on which consumers can get a meal. In the longer term, regulation may well stifle innovation by restricting management prerogative on how to organise their business to reduce costs and provide better goods and services at lower prices.

Compliance costs fall into two general categories. The first relates to the costs of actually abiding by the regulation. These might involve hiring particular expertise (accountants or lawyers, for example), taking part in training or owners or staff having to devote time to educate themselves in what exactly is required under legislation and the costs of non-compliance. The second category of costs relates to demonstrating compliance with legislation. This mostly involves record keeping, which increasingly involves computer packages but is often referred to as paperwork or red tape. The boundary between actually complying with legislation and demonstrating compliance can be somewhat blurred. In the case of businesses in the cafe, restaurant and catering services industry, compliance costs arise from having to calculate penalty rates, to juggling staff to minimise wage costs, and demonstrating compliance with penalty rates. Clearly, the less regulation imposed upon these businesses the lower will be these costs.

How strong is the hand of restaurant employees?

The above analysis examines the impact on demand for labour of an increase or cut in wages of exactly the amount of the penalty rate and, conversely, the impact of a fall in wages exactly equal to the amount of the penalty rate abolished. However, the actual change in wages and, hence, the level of employment (hours worked) is determined by the interaction of supply and demand. Workers determine the supply of labour. They make decisions on where to work and the wage they are willing to accept on the basis of all the alternatives that are available. For instance, they will take into account what competitor employers are offering, and whether the job allows for flexibility to fit in with, say, study, parental duties or leisure time.

The greater the degree of competition for a person’s labour, the less will an employer be able to have control over wages, since the worker will easily be able to supply their labour elsewhere (Norris et al. 2004). It would be expected that
there is a great deal of competition for labour in the cafe, restaurant and catering services industry. The reduced labour demand arising from penalty rates reduces the availability of jobs, reducing competition on, say, Sundays, since many who want to work more hours cannot. Removing penalty rates would actually increase competition among employers for hired labour. Also, workers can find many jobs that demand similar skills and working conditions in the retail sector, hospitality, licensed clubs and the accommodation industries.

Several industries are competitors in the labour market for women with children with respect to a mix of part-time workers and the percentage of women. It can be concluded that there is a great deal of competition for female labour. This implies that there is little scope for the cafe, restaurant and catering services industry businesses to impose wages and conditions of employment which employees are not willing to voluntarily enter into.

One reason which could be put forward for the need for higher payments at certain times and days is the principle of ‘compensating differentials’ whereby additional payments have to be paid to employees in order to attract them to undertake unpleasant or dangerous work (Norris et al. 2004). In the context of penalty rates, the term ‘unsocial hours’ is often used to justify the need for compensating differentials (penalty rates) in order to attract employees during these hours. Certainly in the days when a typical worker worked full-time, five days per week or more, this may have been true but this is hardly true of the cafe, restaurant and catering industry. The final test of whether employees need to be compensated (receive higher pay) for unsocial hours is whether businesses can attract people to work these hours at the standard rate of pay. If they cannot then clearly the standard rate of pay would be too low and businesses would need to offer higher rates to attract people. The market would determine the appropriate penalty.

However, in a labour market such as that characterised by the cafe, restaurant and catering services industry, full-time work is the exception rather than the rule. Also, for students, the hours typically characterised as unsocial are actually the hours when they are free from obligations to attend their school, college or university. The industry is characterised by great flexibility in employment, which implies a great deal of scope for employees to choose the hours and days they want to supply their labour.
Who would benefit from removing penalty rates?

Those who are lucky enough to be employed benefit most from the current arrangements and might be worse off without penalty rates, although we cannot be sure because these people may well want more hours of work which they cannot currently get. The question arises as to who would benefit from changes to penalty rates.

Owners of cafe, restaurant and catering services businesses would benefit but not necessarily greatly. This is because the industry is very competitive. In a competitive industry most cost savings are eventually passed on to consumers in lower prices as output expands from both existing firms and by new firms entering the industry (Hubbard et al. 2012). Profit margins would be expected to fall to the rate they were before the fall in labour costs. The volume of profit per business will increase as turnover is increased. A greater ability of managers to organise the business in the most efficient way would be expected to improve the productivity of the sector.

Suppliers (and their employees) to businesses in the industry, such as food wholesalers, farmers, and commercial property renters, would benefit as output of the industry rises, increasing the demand for inputs. Complementary industries, such as those in tourism, for example, would benefit from customers having a greater range of choice and lower prices. Australia would be a more attractive destination for overseas tourists.

There would unambiguously be more employment in the industry as turnover increased. There would be greater choice of shifts available. There would be more employment opportunities for the unemployed, with the potential for providing a stepping-stone into further employment.

Some employees, although their wage rate may fall, may even receive higher total earnings without penalty rates since the potential to work a greater number of hours will increase.

The biggest beneficiaries from removing penalty rates would be consumers. They would pay lower prices, eat out more and at times which better suit their lifestyle.

The removal of penalty rates would make the economy more efficient and productive as distortions in the allocation of resources would be reduced.
The Fair Work Commission’s Restaurant Award

The arguments presented in this paper formed the basis for the restaurant industry case in the Fair Work Commission’s two-yearly review of the Restaurant Industry Award 2010 (Restaurant Award). In her judgement of 10 October 2013, Deputy President Gooley rejected a large range of proposals to vary the award, including proposals to reduce pay rates for small businesses, abolish weekend penalty rates and modify the classification structure of the award (FWC 2013).

However, in response to an appeal by the Restaurant and Catering Association of Victoria (RACV) the majority of the Full Bench (not without strong opposition from the minority) on the 14 May 2014 came to a monumental, if somewhat confusing, judgement (FWC 2014):

The RACV’s case that the reduction in the Sunday penalty rate from 50% to 25% would have significant benefits for employment and business turnover was not made out.

but

It is accepted however that Sunday penalty rates may have a limited effect on employment, particularly in relation to owner-operators working on Sundays in preference to engaging staff for additional hours.

and

... for transient and lower-skilled casual employees working mainly on weekends, who are primarily younger workers, the superimposition of the casual loading of 25% in addition to the 50% penalty tends to overcompensate them for working on Sundays and is more than is required to attract them for work on that day.

In summary, the penalty rate for casual low-skilled workers at the Introductory level, Level 1 and Level 2 (basic kitchen and waiting staff) on Sundays has been reduced from 50 per cent to 25 per cent. However, for workers at Level 3 to Level 6 (cooks etc.) the award is unchanged, as it is for those employed on a permanent basis who work on Sundays.

Also, somewhat intriguingly, the Full Bench (FWC 2014) found that:

The Restaurant Award shall be varied, effective from 1 July 2014, to allow employees classified as Food and Beverage Attendants Grade 1 to receive money from customers, and employees classified as Food and
Beverage Attendants Grade 2 to take reservations and greet and seat guests, subject to the requirement that no existing employee should have his or her classification reduced as a result of this variation.

While the above changes may seem to be relatively minor and there is still a reluctance to admit that employment and wages are related, the decision by the Full Bench has been greeted by commentators, industry associations and businesses as a monumental decision. Hopefully the FWC’s (partial) acceptance that (some) penalty rates are an unnecessary impediment to businesses has opened the door to further labour market reform.

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The Plain Truth about Plain Packaging: An Econometric Analysis of the Australian 2011 Tobacco Plain Packaging Act

Sinclair Davidson\(^1\) and Ashton de Silva\(^2\)

Abstract

From December 2012 standardised packaging for tobacco products – known as ‘plain packaging’ – has been mandatory in Australia. This paper evaluates the preliminary evidence – in the form of ABS household expenditure on tobacco data – to establish whether the policy has been successful. Despite our econometric efforts, the data refused to yield any indication this policy has been successful; there is no empirical evidence to support the notion that the plain packaging policy has resulted in lower household expenditure on tobacco than there otherwise would have been. There is some faint evidence to suggest, ceteris paribus, household expenditure on tobacco increased.

Introduction

Since December 2012 all cigarettes (legally) sold in Australia have been required to be packaged in a standardised package. In Australia this is known as the ‘plain packaging’ policy. Australia is the first country to introduce standardised cigarette packaging and media reports suggest that similar policies are being considered in, at least, Ireland, New Zealand and the United Kingdom.

In mid-2014 a media debate erupted as to the efficacy of the plain packaging policy (see, for example, Kerr 2014; Kerr and Creighton 2014; Smyth 2014a, b). Tobacco industry sources suggested that tobacco consumption had increased following the introduction of plain packaging (Kerr 2014). Anti-tobacco activists pointed to Australian Bureau of Statistics (ABS) (2014a) data indicating that while household expenditure on tobacco products had increased over 2013, it

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had dramatically fallen in the first quarter of 2014. Those activists interpreted that massive 2014 first-quarter decline as evidence the plain package policy had worked (Smyth 2014a, b).

The difficulty arises in that those two observations may well be consistent with each other. The difference between consumption and expenditure is, of course, price. To most laypeople, however, consumption of tobacco and expenditure on tobacco appear equivalent. Economists know better – consumption is a quantity measure, while expenditure is price times quantity. Journalists, however, seem to not always understand the distinction; Smyth (2014a, b), for example, refers to the ABS as reporting tobacco consumption falling in his *Financial Times* articles. The ABS, of course, reported no such thing – it reported Household Tobacco expenditure falling.

A further difficulty arises in that the ABS reports ‘real’ (chain volume) statistics for household expenditure that attempt to abstract from changes in prices. In practice, however, the ABS does not hold price constant, as many appear to imagine. Were that the case it would be easy to infer trends in consumption from trends in expenditure. To the extent that consumers face falling prices for tobacco products or consumers substitute cheaper brands of tobacco products for more expensive brands the relationship between quantity consumed and expenditure becomes indeterminate. (See Appendix 1 for a worked example on these points.)

Further clouding some commentators’ appreciation of the situation, the 2013 National Drug Strategy Household Survey results (Australian Institute of Health and Welfare 2014) indicated that overall tobacco consumption was down on 2010 data – but that cannot establish any efficacy of the plain packaging policy *per se* in addition to the long-term downward trend in tobacco consumption.

Whatever the right answer to the question, the merit of the plain packaging policy clearly extends beyond the health–tobacco nexus. Tobacco companies, unable to deploy their intellectual property in promoting their products, have pursued legal action against Australia at the World Trade Organisation. Public health advocates would want to have an understanding of the impact plain packaging has on tobacco consumption before advocating similar policies for other ‘repugnant goods’ such as alcohol or fast food or high-salt or high-sugar content foods.

In this paper we present some very preliminary evidence to show that there is no empirical support for the plain packaging policy. Like the anti-tobacco lobby, we employ ABS household expenditure of tobacco data. The advantages to using this measure are that it is publicly available and not proprietary to the tobacco industry. There are limitations to using expenditure data as a proxy for
consumption data – as we have outlined above; unfortunately, however, actual tobacco consumption data are not publicly available for analysis. Even if readers are uncomfortable accepting expenditure data as being a proxy for consumption, our results show that the first-quarter decline in household expenditure on tobacco is not explained by the introduction of the plain packaging policy.

In section 2 we set out some of the theoretical considerations that inform our problem. Section 3 contains some discussion of an ideal test and real-world limitations to conducting an ideal test. Section 4 contains our empirical tests and a conclusion follows.

**Theoretical predictions**

There are two questions of principle worth exploring. First, what would the impact of imposing plain packaging (i.e. removing the scope for non-price competition through branding) have on the pricing of tobacco products such as cigarettes? Second, what impact would the plain packaging policy have on the demand for cigarettes at a given price?

Cigarettes are more or less homogeneous products – medical researchers report that smokers are unable to differentiate different brands of cigarette (Campbell 2012). Branding and product differentiation allow firms to maintain consumer loyalty and/or charge price premia for their goods and services. Over the last 30 years, however, there have been ever-increasingly stringent regulations against tobacco advertising. The plain packaging policy is the logical conclusion of that regulatory push – there is now no means whereby tobacco companies can maintain consumer loyalty. Tobacco firms can now only compete on price. In the absence of non-price competition, and the presence of (more or less) perfect substitutability, the Bertrand equilibrium price now equals marginal cost, possibly resulting in an increase in consumption.

On that basis, the first implication of a plain packaging policy, *ceteris paribus*, would be that tobacco prices can be expected to fall. Related to this is the prediction that consumers will substitute away from high-priced cigarettes to lower-priced cigarettes.

The definitive source guide to tobacco data (Scollo and Winstanley 2012) has dated data but they (2012, section 13.3.2.2) report that price discounting is common in Australia – that ‘the majority of cigarettes in Australia are sold at considerably lower prices’ than the recommended retail price. They also report (2012, section 13.3.1.1) that the recommended retail price of their chosen representative packet of cigarettes (Craven A) had fallen in price in 2012 to $10.36 from $15.52 the previous year. Unfortunately, they do not report prices
for that brand in 2013. The ABS (2014b) reports, however, that the tobacco CPI has continued to rapidly increase and the growth in tobacco prices has outstripped overall CPI. At the same time there is evidence to suggest that tobacco consumers are substituting to cheaper brands of cigarette. Kerr and Creighton (2014) report that the ‘deep discount’ segment of the tobacco market has grown to a 28.2 per cent market share in 2014 from 3.4 per cent in 2010.

To the extent that branding disappears it also becomes easier for counterfeit or illegal tobacco to enter the Australian market. Ironically, the government-mandated standardised packs are themselves not trademarked and criminals can easily reproduce them. The second implication of the plain packaging policy, *ceteris paribus*, is that the market share of illegal tobacco will increase (Farrell and Fry 2013). Clarke and Prentice (2012) provide an analysis of both these claims and suggest that, at best, they are overstated. But what is important for our purposes is that Clarke and Prentice (2012) agree that a plain packaging policy could cause prices to fall and consumption to rise, and they recommend that increases in excise tax be employed to prevent tobacco prices from falling. By contrast, Farrell and Fry (2013) suggest that plain packaging would blur the distinction between legal and illegal tobacco and result in a greater demand for illegal tobacco. They suggest that this could result in perverse health outcomes given the objective of reducing tobacco consumption. A problem shared by both of these papers is that they both pre-date the introduction of the plain packaging policy. The Farrell and Fry paper, even though published in 2013, uses data from the late 2000s.

The second question relates to the demand for tobacco at any given price level after the introduction of plain packaging. The medical literature suggests that plain packaging reduces the utility of the smoking experience. Germain, Wakefield and Durkin (2010), for example, find that plain packaging reduces positive brand-image associations for adolescents, and raises negative expectations as to taste. Similarly, Wakefield et al. (2013) find that plain packaging reduces the perceived quality of tobacco products, and that consumers perceive plain-packaged tobacco products to be less satisfying than branded tobacco. Young et al. (2014) report an increase in the number of phone calls to Quitline – a helpline for smokers – after the introduction of the plain packaging policy, but do not indicate actual quit rates.

The difficulty with all these studies is that they do not demonstrate that tobacco consumers will actually stop smoking – rather that one aspect of the utility of the smoking experience has been lost. If smokers gain utility from both consuming a branded tobacco product and from the tobacco itself (nicotine, for example) then it may easily be the case that restricting branding could give rise to an increase in tobacco consumption as smokers attempt to maintain their overall smoking experience (see Lancaster 1966, 1975). Ironically some
smokers could find themselves consuming more tobacco while enjoying less of the smoking experience. The observation that consumers of low-tar (or so-called light cigarettes) tend to inhale more deeply or more frequently would be consistent with this argument (see Benowitz et al. 1983).

In short, from an a priori economic perspective it is possible that plain packaging could lead to increased tobacco consumption. By contrast, the public health literature suggests that plain packaging will result in reduced consumption by discouraging younger individuals from taking up tobacco consumption and by amplifying the message in the health warnings.

An ideal test and real-world limitations

Ideally, the impact of the policy change would be tested by examining the change in tobacco consumption, controlling for changes in price, income, population, etc. The challenge, however, is that ‘tobacco sales data are not publicly available’ (Department of Health 2014).

To date, the ‘success’ of the plain packaging policy has rested on very imperfect indicators – for example, the number of individuals calling Quit services and the like. There is, however, at present no definitive evidence to support the efficacy of the plain packaging policy. By contrast Kaul and Wolf (2014) are able to employ (proprietary) smoking data from Roy Morgan and show that the plain packaging policy had no impact on the incidence of 14–17-year-old tobacco consumers.3

In fact, the evidence to support the efficacy of most tobacco regulation in Australia is somewhat weak. Under Freedom of Information laws, Treasury (undated) has released some modelling of tobacco demand where tobacco excise data are used to proxy tobacco consumption. Unfortunately, those data are also not in the public domain. Nonetheless they employ OLS to estimate price and income elasticities for tobacco and include a regulation variable in their analysis. Unfortunately, the (undated) Treasury paper is insufficiently detailed to reveal the time period or specific regulations under consideration, but the Regulation variable in the analysis is not statistically significantly different from zero at the 5 per cent significance level.

Data limitations represent the clearest challenge to establishing the efficacy of the plain packaging policy and, indeed, most tobacco regulation. Ideally, total

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3 They fit a linear time trend to the consumption data and test for statistically significant deviations from the trend after the introduction of the plain packaging policy.
consumption, or per capita consumption, of tobacco would feature prominently in that analysis. For obvious reasons, however, standardised time-series data for illegal tobacco consumption is non-existent.

Excise data is collected on a per-stick basis (or per-stick equivalent basis) but that data is not publicly available. Similarly, tobacco firms have detailed information of their sales but those data are also not publicly available either. The National Drug Strategy Household Survey collects data on the incidence of tobacco consumption, but only on a three-year cycle.

At present the ‘best’ tobacco data are the Household Expenditure on Tobacco data produced by the ABS. These data, however, are a very imperfect proxy for tobacco consumption. The data series is from September 1959 to March 2014 (at the time of writing). It peaks in 1981 and since that time household expenditure of tobacco has declined. By contrast, Scollo and Winstanley (2012, section 2.10.1) report that tobacco consumption has been in long-term decline in Australia since 1960. They also report (2012, section 2.6.2) a comparison between known tobacco datasets and show that the ABS data under-report tobacco consumption relative to both industry estimates and Treasury estimates of tobacco consumption.

Three imperfect tests

In this section results from three tests are presented, the first of which is based on the regression approach using the ordinary least squares (OLS) methodology, similar to that used in Treasury (undated). Recognising that OLS at times does not handle economic time-series very well due to its stochastic properties, we subsequently employ a univariate form of the state space specification recently used in Davidson and de Silva (2013). In the third test we perform a historic forecasting scenario.

In all three empirical tests the ABS Household Expenditure data are used as a proxy for tobacco consumption.

Test 1: Regression

The regression analysis follows the format:

\[ \text{Expenditure}_t = \alpha_0 + \beta_1 \text{Price}_t + \beta_2 \text{Income}_t + \beta_3 \text{Regulation Dummy}_t + \epsilon_t \]  (1)

where:
Expenditure$_t$ = seasonally adjusted household tobacco expenditure (sourced from the ABS 2014a, table 8; this is a chain volume measure – see ABS 2013 for an explanation) divided by the estimated resident Australian population (also sourced from the ABS 2014c$^4$)

Price$_t$ = A tobacco price proxy; following Treasury (undated) we employ the ABS (2014b) CPI tobacco sub-index as the proxy for tobacco prices$^5$

Income$_t$ = seasonally adjusted gross disposable household income (sourced from the ABS 2014a, table 14 – these data are in current dollars$^6$) divided by the estimated resident Australian population (also sourced from the ABS 2014c)

Regulation Dummy = a series of binary variables designed to capture major regulatory change, Excise 1 captures the 25 per cent excise increase in April 2010, Excise 2 captures the 12.5 per cent increase in excise in December 2013 and Plain Packaging captures the introduction of plain packaging in December 2012. On the advice of the referee we also investigated whether the introduction of plain packaging after September had any impact on household tobacco expenditure.$^7$

To avoid complications associated with the introduction of the Goods and Services Tax in 2000, we estimate the model over the period 2001–14.

The data captured from the ABS are all quarterly data – ideally we would employ higher-frequency data, but unfortunately the ABS only reports national income data and CPI data on a quarterly basis. A referee has suggested that the use of resident Australian population is an inappropriate denominator for Expenditure and Income in our regression models, indicating that the number of households would be a more appropriate measure. Unfortunately, a high-frequency time series of the number of Australian households is not available for use. The Australian Institute of Family Studies, however, does provide an estimate of the average household size in Australia for the period 1911–2011. Using those data and the estimate of resident population, it is possible to estimate the number of households in Australia. The estimate for average household size over our estimation period, however, is a constant 2.6 persons per household. As such, we report results using population as the denominator.

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$^4$ The ABS population data are current to December 2013. To estimate the March 2014 population data we average the population estimate in the ABS population clock in June 2014 and December 2013.

$^5$ Although elsewhere in Treasury (undated) they report results for a proxy using price per stick.

$^6$ In unreported analysis we use the overall CPI to adjust the current dollars into real 2014 dollars and re-run our regressions – the results are marginally different but qualitatively identical.

$^7$ After 1 December 2012 all packs sold were required to be in plain packaging but plain packaged cigarettes were already on the market. After September 2012 all manufacturers were required to produce cigarettes in plain packaging and these packs became available for sale alongside branded packs.
The initial estimation of the model indicated a high level of auto-correlation and consequently an AR(1) term was added to the model. Initially we also included a time trend; however, the results indicated the time trend was redundant and it was excluded from the final analysis (results available upon request). Different versions of equation (1) were estimated. Results of the regression analysis are shown in Table 1 (with Newey-West p-values shown in parenthesis).

Table 1: Regression results

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<td>(0.0000)</td>
</tr>
<tr>
<td>Adj-R2</td>
<td>0.9889</td>
<td>0.9884</td>
<td>0.9886</td>
<td>0.9880</td>
</tr>
<tr>
<td>DW</td>
<td>1.8843</td>
<td>1.8547</td>
<td>1.8789</td>
<td>1.8159</td>
</tr>
</tbody>
</table>

Source: Authors’ analysis.

Columns 1 and 2 report regression results where the Plain Packaging dummy relates to the December 2012 introduction of the plain packaging policy, while columns 3 and 4 report results for an effective September 2012 introduction of plain packaging. Overall, the models appear to be well-specified, and the coefficients on Price are negative and statistically significantly different from zero. In columns 1 and 3 we have estimated the complete model. In columns 2 and 4 we have excluded Excise 2 from the analysis. This is to examine the impact of the plain packaging policy while not controlling for the 2013 increase in excise.

If the semi-elasticity of expenditure to price is negative, then the elasticity of quantity to price is certainly negative. Notice also that the positive sign on the Excise 1 coefficients is not hard to rationalise. Recall we are modelling expenditure data and not quantity demanded. As prices rise due to excise increases so expenditure rises too. We also observe over time that excise revenue to the budget has increased with increased excise.
The variable of interest for our purposes is the coefficient for Plain Packaging. In no instance is the coefficient negative and statistically significantly different from zero. In that sense we can argue that the plain packaging policy has not made any contribution to the long-term decline in household tobacco expenditure (our very imperfect proxy for consumption). By contrast, however, there are two instances (columns 2 and 4) where the Plain Packaging coefficient is positive and statistically significantly different from zero ($p = 0.0757$ and $p = 0.0000$). That result is consistent with the predictions from economic theory that suggest *ceteris paribus* that the absence of branding would result in an increase in the consumption of tobacco. It is important to note that in columns 2 and 4 we are not controlling for the 2013 excise. The difficulty that we face is that there is only a single data point for Excise 2 and it corresponds to a large decline in household expenditure on tobacco – future work will be needed to unravel the interaction between the plain packaging policy and the excise increase.

Overall, however, the regression result should be treated with some caution. The policy effect we are examining occurs at the end of the period, and the data themselves are subject to ongoing revision. As it stands, however, there is no evidence to support the efficacy of the plain packaging policy.

**Test 2: Univariate state space model**

In this section results from a method similar to that used in Davidson and de Silva (2013) are presented. Specifically we test, after accounting for historically defined patterns in the latent components,$^9$ *whether there is any evidence that household expenditure on tobacco has deviated from the norm following the introduction of the plain packaging legislation?*

The econometric technique we employ is also commonly referred to as an unobservable-components model (Harvey 1989).$^{10}$ Many economic studies have utilised this approach to assess economic policy and concepts (see, Harvey and Durbin 1986; Tawados 2009; and Sinclair et al. 2012, for example).

If we let $y_t$ denote an observation at time $t$, the formulation can be represented as follows:

$$y_t = Hx_t + \varepsilon_t$$

(2.1)

$$x_t = Fx_{t-1} + \nu_t$$

(2.2)

---

$^9$ Latent components are the estimated stylised features (i.e. the trend and seasonality) that combine to form the observations. In this instance we apply an approach that disaggregates expenditures into their trend and seasonal parts. In contrast to a traditional OLS regression technique, it can capture changes in these features over time.

$^{10}$ The model is fitted using the computer package STAMP 8.2 (Koopman et al. 2009).
where (2.2) captures how the observations evolve over time according to the latent components of the variable of interest. Two types of latent components are considered in our analysis, they being a trend and seasonality. These components are captured in the vector $x_t$. How these components evolve over time and combine to measure the observation ($y_t$) is (pre)determined by the values in $H$ and $F$. The first and second equations are typically referred to as the observation and state equations respectively. Commonly the errors in the equations are assumed to be a normal with a mean of zero and a fixed variance.

The motivation for using this approach in this context is similar to Davidson and de Silva (2013), namely:

1. It provides the means of modelling the series consistent with the spirit of the Sims (1980) approach; that is, we do not need to impose any prior theoretical restrictions on the model thus letting the data speak.
2. The variables can be modelled ‘as is’; that is, we do not need to perform transformations such as differencing that will necessarily result in changes in interpretation.
3. The model captures stochastic time-series characteristics, and thus is flexible enough to account for any variation in the latent components, such seasonal factors, over time. (Consequently in this section we employ original ABS (2014a) data and not the seasonally adjusted data we employed in the previous section.)

In testing whether consumption has deviated from the norm, a two-step procedure is undertaken. In the first instance an automated algorithm in STAMP was used to detect whether there were any structural changes (breaks) in the time path of expenditure.\textsuperscript{11} As there was no evidence of any breaks corresponding to the introduction of the plain packaging legislation we then manually tested for a break, taking account of the automatically determined breaks previously found.\textsuperscript{12} Table 2 presents the key results. Each row represents a structural change in the time path of the series. For example, a negative one-off impact seems to have occurred in 2000(3); similarly a downward shift in the underlying average in the last quarters of 1976 and 1978 seems to have occurred.

\textsuperscript{11} The automatic routine is based on Harvey and Koopman (1992).
\textsuperscript{12} Impulse breaks were also formally tested for each quarter 2012–2013. No evidence of an impulse break was found. Unfortunately, due to the first quarter of 2014 being the most recent observation we were not able to formally evaluate whether it represents a statistically significant decrease.
Table 2: Break coefficients

<table>
<thead>
<tr>
<th>Break Type</th>
<th>Coefficient</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outlier 1973(3)</td>
<td>338.183</td>
<td>0.0003</td>
</tr>
<tr>
<td>Outlier 1975(2)</td>
<td>325.659</td>
<td>0.0004</td>
</tr>
<tr>
<td>Outlier 1977(3)</td>
<td>-318.800</td>
<td>0.0007</td>
</tr>
<tr>
<td>Outlier 1981(4)</td>
<td>276.134</td>
<td>0.0027</td>
</tr>
<tr>
<td>Outlier 2000(3)</td>
<td>-377.562</td>
<td>0.0001</td>
</tr>
<tr>
<td>Level break 1976(4)</td>
<td>546.599</td>
<td>0.0000</td>
</tr>
<tr>
<td>Level break 1978(4)</td>
<td>-333.916</td>
<td>0.0033</td>
</tr>
<tr>
<td>Level break 1983(2)</td>
<td>-497.250</td>
<td>0.0000</td>
</tr>
<tr>
<td>Level break 2013(1)</td>
<td>90.218</td>
<td>0.4325</td>
</tr>
</tbody>
</table>

Note: One-off impacts denoted as outliers, level breaks represent a change in the underlying average. All breaks except the 2013(1) were automatically detected.

Source: Authors' analysis.

In conclusion, we have specifically tested for evidence of a deviation in expenditure from a norm defined by latent components typically found in economic data following the introduction of plain packaging. The result is that the hypothesis of a change is rejected (p = 0.4325). That is, there is no evidence to suggest household expenditure on tobacco has changed.

Test 3: A historically based forecasting scenario

In the third approach we apply an automated forecasting method that has been proven to have been successful on a vast array of time-series data. The method is based on a univariate single source of error state space model that captures 30 different specifications (Hyndman et al. 2008). The approach is fully automated and extremely flexible in that it is able to model various forms of time-series characteristics (Hyndman et al. 2002). Assuming, as before, that y(t) denotes expenditure at time ‘t’, the approach has a general form of:

\[ Y(t) = h(x(t-1)) + k(x(t-1))e(t) \]  \hspace{1cm} (3.1)

\[ X(t) = F(x(t-1)) + g(x(t-1))e(t) \]  \hspace{1cm} (3.2)

Though the specification is similar to the one used in test 2, it has been shown to be more general in nature (Hyndman et al. 2008) and therefore provides a natural alternative to the model considered in the previous approach given the design of this test.

In this approach we essentially ask: *what if the plain packing legislation had not been introduced?* Noting that the legislation became effective in December 2012,
we perform a forecasting exercise using the data available from 1959 to 2012. By comparing the actuals in policy period to the prediction intervals we can then determine whether, based on historical patterns, consumption has deviated from the expected path.

In Figure 1 the actual household expenditure on tobacco is contrasted with 80 per cent and 95 per cent prediction intervals. The solid line (actual data) is clearly above the lower 80 per cent bound, indicating that spending was not abnormally low in 2013. Interestingly, the actuals appears to be mapping directly onto the corresponding 80 per cent upper bound, suggesting, *prima facie*, that expenditure was high relative to historical expenditure levels. Given the actuals are within the 95 per cent prediction intervals, we conclude that there is no evidence that plain packaging has changed spending levels in this expenditure category.

![Figure 1: Actual tobacco expenditure and forecast prediction intervals](image)

**Figure 1: Actual tobacco expenditure and forecast prediction intervals**

*Source: Authors’ calculations.*

In conclusion, consistent with the other test results, the results suggest there is no evidence that household expenditure on tobacco has changed following the introduction of the plain packaging legislation.
Conclusion

Ronald Coase famously argued that if you tortured the data long enough they would confess. In this paper we have tortured the data, but there has been no confession. At best, we can determine the plain packaging policy introduced in December 2012 has not reduced household expenditure of tobacco once we control for price effects, or the long-term decline of tobacco expenditure, or even the latent attributes of the data.

To the contrary, we are able to find a suggestion that household expenditure of tobacco has, ceteris paribus, increased. In our forecasting exercise the actual data come close to breaking through the 80 per cent confidence interval. While we do not want to over-emphasise these results, we do conclude that any evidence to suggest that the plain packaging policy has reduced household expenditure on tobacco is simply lacking.

There are two very important caveats to our results. In the first instance, data on actual (legal) tobacco consumption (on a per-stick basis) do exist, though not in the public domain. Publicly available data on household tobacco expenditure are an imperfect proxy for tobacco consumption – as the ‘Tobacco in Australia’ report concedes. In any event, the ABS data are potentially subject to substantial revision and cannot answer well the questions being asked of them.

Establishing the efficacy of the plain packaging policy will take painstaking econometric analysis over a long period of time. This will involve having to untangle the effects of excise increases and changes in smoker behaviour, and substitution to illegal tobacco products. As things stand at the minute, it would be a very brave public-health advocate that claims vindication from one data point (subject to revision) in supporting the plain packaging policy.

Appendix 1

This appendix presents a hypothetical counter-example to the contention that chain volume measures of expenditure always accurately capture movements in quantity of cigarettes consumed. The example assumes that the total quantity of cigarettes remains at 100, but it shows that chain volume will be measured as falling.

The ABS reports household expenditure data in real terms – specifically they employ chain-volume measures. ABS (2014a) provides a detailed explanation
of its approach and ABS (2003) provides a worked example of how to calculate chain volume data. In this appendix we offer a slightly more complex example than the ABS presents.

First, we assume four brands of cigarette; Premium, Mid-Price, Low-Price, and Deep Discount. We also assume in each year that 100 cigarettes are consumed. We use market share data (from Kerr and Creighton 2014) to allocate those 100 cigarettes to each brand over four years. We then assume prices for each brand in the first year ($20, $15, $12, $10) – we have no knowledge if these prices are ‘realistic’ or not. Scollo and Winstanley (2012, section 13.3) provide a time series of prices for the ‘Craven A’ brand of cigarettes. They report a price of $12.68 in 2010, $15.52 in 2011, but only $10.36 in 2012. Unfortunately, they do not report a 2013 price. In this example, we wish to demonstrate a point, not provide a realistic or detailed explanation of the actual ABS data. We then increase prices in each period by $2 for each brand of cigarette.

Table A1 sets out the details. We then calculate an Index Value for each year, where

\[
\text{Index Value} = \sum \frac{P_1Q_1^2}{P_1Q_1} \times \frac{P_2Q_2^3}{P_2Q_2} \times \ldots \times \frac{P_n-1Q_n}{P_n-1Q_n-1}
\]

The Index Value becomes an index number simply by multiplying by 100. The Index Value can be expressed in dollar terms by multiplying it by the Total Expenditure figure in the reference year – in our case, year 1. These calculations are performed and shown in Table A.1.

The effect of our assumptions is that overall quantity of tobacco consumption is constant, but the composition of the consumption changes. Smokers are substituting from higher-priced brands to lower-priced brands. Each year, the price of cigarettes is rising and Total Household Expenditure is rising. That, however, is not reflected in the Chain Volume measure that attempts to strip out price effects. What is happening there is that the lower-priced brands are being more heavily weighted in the calculation by lagged prices (which are themselves lower than the current period prices). While controlling for increased prices in each period, the calculation does not adequately control for substitution effects and so the reported household expenditure in chain-volume terms falls, even as actual household expenditure in current terms is rising.

It is also possible to generate numbers that show chain-volume expenditure falling while quantity consumed increases. Such an outcome would reconcile the observations of both the tobacco industry and anti-tobacco lobbyists.
Table A1: Stylised example of household expenditure on tobacco

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Premium</td>
<td>P1</td>
<td>Q1</td>
<td>P1Q1</td>
<td>P2</td>
<td>Q2</td>
</tr>
<tr>
<td></td>
<td>20</td>
<td>19.3</td>
<td>386</td>
<td>22</td>
<td>18.4</td>
</tr>
<tr>
<td>Mid Price</td>
<td>15</td>
<td>54.7</td>
<td>820.5</td>
<td>17</td>
<td>52.7</td>
</tr>
<tr>
<td>Low Price</td>
<td>12</td>
<td>22.6</td>
<td>271.2</td>
<td>14</td>
<td>22.6</td>
</tr>
<tr>
<td>Deep Discount</td>
<td>10</td>
<td>3.4</td>
<td>34</td>
<td>12</td>
<td>6.3</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>1512</td>
<td>100</td>
<td>1693</td>
<td>100</td>
</tr>
<tr>
<td>Index Number</td>
<td>100</td>
<td>98.7</td>
<td>97.6</td>
<td>95.1</td>
<td>92.9</td>
</tr>
<tr>
<td>Chain Volume</td>
<td>1512</td>
<td>1493</td>
<td>1476</td>
<td>1438</td>
<td>1404</td>
</tr>
</tbody>
</table>

Source: Authors’ analysis.

References


—— 2013, Australian System of National Accounts: Concepts, Sources and Methods, ABS Cat. 5216.0.


—— 2014b, Consumer Price Index, ABS Cat. 6401.0.

—— 2014c, Australian Demographic Statistics, ABS Cat. 3101.0.


Reflecting on the Growth of Indigenous Self-employment

Boyd Hunter

Abstract

Indigenous self-employment has increased substantially in the last two decades. Government organisations and programs that finance and support the success of Indigenous business provide one explanation for this trend. However, private-sector initiatives also have a role to play. Self-employment is a heterogeneous statistical category that conflates employers with other self-employed who do not employ other workers. Furthermore, it does not take into account the legal status of the business that the owner-manager operates within. Nevertheless, the recent growth in self-employment means that there are enough Indigenous owner-managers in Australia that future analysis can meaningfully disaggregate census data to gain greater insights into Indigenous business.

Introduction

Historically, Indigenous people have largely been excluded from building businesses in Australia. For example, in the 1860s a group of Aborigines lead by Simon Wonga ‘squatted’ on a property near Melbourne they called ‘Coranderrk’, which was developed as a farm that generated considerable revenue (Pascoe 2008). While the local community initially gained some autonomy in the operation of the enterprise, financial control remained with the Aboriginal Protection Board. The appropriation of profits meant that there was no monetary incentive to develop the business; and hence after initial promise, the venture lapsed. Instead of the independent community enterprise envisaged by these Aboriginal proto-entrepreneurs, dependency on the state was perpetrated by bureaucratic control over their day-to-day lives.

Protection Boards, and related authorities, were dismantled in the mid-20th century, but they have left several legacies that ensure that Indigenous disadvantage has considerable inertia. The historical restrictions on Indigenous freedoms have limited the possibility for potential entrepreneurs to acquire an

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adequate education or secure employment. Having been dispossessed of land, and limited in the opportunity for capital accumulation and acquisition of labour market skills, it is not surprising that until recently relatively few Indigenous people have attempted to run their own businesses.

The research on Indigenous business is limited by the fact that we do not have universally accepted definitions of what constitutes an Indigenous business (Foley and Hunter 2013). If Indigenous people hold more than half the equity in a business then there is likely to be substantial Indigenous control in the operation of the business. Foley (2005) argues that majority equity criteria should be relaxed to include situations where only half the equity is held by Indigenous people, while the Forrest (2014) Report argues that this threshold could be reduced to at least 25 per cent Indigenous equity (in conjunction with other criteria; see recommendation 18).

Even if the concept of an Indigenous business was easy to define and measure, the debate would be held back by the lack of information on potential Indigenous businesses. This paper seeks to further the debate by documenting recent trends in Indigenous self-employment, especially those who employ other people. Obviously self-employment is conceptually different to a business, as it refers to an individual rather than a social organisation, but the self-employed have to bear the risk of their own economic activities and hence are entrepreneurial by definition (Cantilion 1730).

Using self-employment data from 2011 and earlier censuses, this paper documents the extent to which the historical exclusion of Indigenous entrepreneurs has changed, with a particular focus on the changing numbers of Indigenous employers. The central thesis of this paper is that Indigenous self-employed are a diverse group and that this diversity needs to understood and analysed. The recent growth in Indigenous self-employment means that there are now enough Indigenous owner-managers in Australia that future analysis can meaningfully disaggregate census data to gain greater insights into the various types of Indigenous businesses.

Policy and relevant context

Indigenous-specific government policies and programs may play an important role in recent trends in Indigenous self-employment. At the Commonwealth level, the Indigenous Employment Program (IEP) has committed some $991 million over the five years to 2014/15 (DEEWR 2011). Some of the key components of the IEP are Indigenous Wage Subsidy, which may assist Indigenous entrepreneurs who employ other Indigenous people. Two relevant components of the IEP in the context of this paper are the Indigenous Small Business Fund and the...
Indigenous Capital Assistance Scheme that offer Indigenous businesses access to commercial finance, and appropriate professional and mentoring support services. Other aspects of the IEP that support Indigenous business include: provide information on how to start a business; obtain financial literacy training; conduct feasibility studies; develop and implement business plans and risk-management plans; support the development and implementation of community or regional development plans and other strategic initiatives (Gray, Hunter and Lohoar 2012).

The Australian Government’s Indigenous Opportunities Policy (IOP) requires government officials responsible for projects involving expenditure of over $5 million ($6 million for construction) to ensure tenders include a plan for providing training and employment opportunities to local Indigenous communities and for the use of Indigenous suppliers that are small and medium enterprises (DEEWR 2013).

The private sector also has a direct role to play in supporting Indigenous business. One interesting development is the establishment of various Indigenous Chambers of Commerce in various states and in Canberra. The Indigenous Business Council of Australia is the peak body for these organisations, which provides a voice of Indigenous business owners from all sectors of the economy.

The mining sector has a particular interest in developing good relations with local Indigenous communities, especially where Native Title determinations have established the right to negotiate. Mining companies have policies that facilitate community relations and to otherwise influence public relations. For example, Fortescue Metals Group (FMG) has recently committed itself to $1 billion in contracts to Aboriginal businesses by June 2013 (see www.fmgl.com.au accessed online 26 September 2014). Rio Tinto has also made enormous commitment of a minimum 13.9 per cent of Pilbara expenditure to local Aboriginal businesses. Note that the contracted Indigenous businesses may not necessarily be directly in mining, even though they probably involve the servicing of mining and related local communities. These are enormous private-sector commitments to Indigenous business which, if realised, will have important implications for the size and operation of the Indigenous self-employment sector. I will return to such issues in the concluding sections.

The Australian Indigenous Minority Supplier Council (AIMSC), or as it is now known ‘Supply Nation’, was established in 2009 to foster the Indigenous enterprise sector by integrating Indigenous small-to-medium enterprises into the supply chains of Australian companies and government agencies. It aims to achieve this by advocating on behalf of the Indigenous business community to foster business-to-business transactions and commercial partnerships between corporate Australia, government agencies and Indigenous business;
and exchanging information, conducting research and leading the integration of Indigenous business into the Australian economy. Currently, the Supply Nation website indicates that it has 154 members from corporate Australia, not-for-profit companies and Australian government agencies, all of which are committed to doing business with Supply Nation certified suppliers. Note that at last count there are 287 Indigenous businesses certified by Supply Nation as being ready to ‘do business’ (up from 169 certified businesses in 2013). Since 2009, Supply Nation has claimed to achieve $108 million-worth of transactions between its members and certified suppliers, with $105 million-worth of contracts awarded to its certified suppliers (see www.supplynation.org.au, accessed 26 September 2014).

**Recent trends in Indigenous and other self-employment**

In order to understand the recent growth in Indigenous self-employment we need to identify comparable data. Previous analysis of trends has been constrained by substantial changes in the way official statistical collections ask about self-employment. However, recent census data is more inter-temporally consistent and hence it is worth revisiting the trends in Indigenous self-employment.

Between 1991 and 1996 there was a substantial decrease in the proportion of employed persons in ‘employer’ and ‘own-account worker’ categories for both Indigenous and other Australians, which appeared to be associated with a change in the way the question was asked (see Hunter 2013). In 1996 the Census question asked whether the business was in a ‘limited liability’ company rather than the historical question about ‘own business employing others’. The prevalence of self-employment in 2001 was more consistent with historical expectations when the question was changed back to that used in the 1991 Census. For 2006 and 2011, type of employment is split into two questions in order to produce data which are more closely aligned with standard labour-force concepts collected in the ABSs Labour Force Survey.

With the exception of the 1996 data, census information was collected in a broadly comparable fashion in the last five censuses. This data series shows a steady improvement in Indigenous self-employment since the early 1990s, although this improvement has been occurring from a low base (see Figure 1). The trend for non-Indigenous self-employment is less clear, as it increased to 2006 but fell in the last inter-census period. Overall non-Indigenous self-employment increased by less than Indigenous self-employment in the 20 years to 2011, with the net result being a reduction in the gap in Indigenous and non-
Indigenous outcomes in both relative and absolute terms. Notwithstanding this, the prevalence of self-employment in the Indigenous population is still around one-third that for other Australians.

![Figure 1: Trends in self-employment by Indigenous status, 1991–2011](image)

Sources: Self-employment numbers are drawn from Daly (1995), Hunter (2004) and ABS Table Builder for the last two censuses. The 1991 census estimates also use other labour force information from Altman, Biddle and Hunter (2009) to rescale the rates expressed as a proportion of the labour force. The 1996 estimates are omitted because the question was changed so that it was not comparable with 1991, but the 2001 Census question reverted to a more comparable form (see Hunter 2013, Appendix A).

The growth in the Indigenous population was much greater than that indicated by adding the number of births of Indigenous children and subtracting deaths within the population. Some potential reasons for this non-biological growth in the population include improved census enumeration of the Indigenous population, a decrease in the number of people for whom this question was not answered, and people changing their ethnic identification in the census over time (Biddle 2012). Theoretically, this non-biological growth can effect changes in composition of the Indigenous population; however, in practice the effects are very small in the short run. Hunter (1998) demonstrates the compositional effects are not significant for Indigenous Australians when comparing populations over a decade.
The increase in the numbers of Indigenous self-employed is even larger when one takes into account both population growth and the propensity to undercount Indigenous Australians in census data using the estimated residential populations (ERPs) for people aged 15 and over (see Figure 2). The number of Indigenous self-employed increased by a factor of 2.7, from 4,600 to 12,500, between 1991 and 2011. While this was largely driven by population growth, it may also provide some evidence of an emerging Indigenous middle class (Lahn 2012). Over the same period the number of non-Indigenous self-employed increased by a factor of 2.6, from 0.7 million to 1.8 million. Part of the reason for the slightly higher increase in the Indigenous self-employment vis-à-vis that for other Australians is the recent increase in the propensity to identify as Indigenous in official statistical collections (Biddle 2012). Nevertheless, it is noteworthy that, in contrast to the non-Indigenous statistics in Figure 1, the prevalence of Indigenous self-employment increased substantially in each of the last three censuses.

![Figure 2: Estimated number of Indigenous self-employed, 1991–2011](image)

Source: The estimates in Figure 2 are based on census counts which are adjusted to take into account Indigenous under-enumeration using the ERPs. Before 2011, ERPs are estimated to be consistent with the adjusted 2006 Indigenous population aged 15 and over (see ABS 2009; 2012).

Figures 3 and 4 seek to further unpack these trends by identifying what happened to Indigenous and non-Indigenous employers and other self-employed in the last
two censuses for remote and non-remote areas. The reason for focusing on the last two censuses is that both the census questions and geographic definitions used are directly comparable for that period.

![Figure 3: Recent trends in Indigenous employer status and remoteness](image)

**Figure 3: Recent trends in Indigenous employer status and remoteness**

Notes: Broad remoteness classification is based on the geographic boundaries used for the 2006 census. Remote and non-remote statistics are calculated using geographic concordances provided by the ABS for Statistical Area level 1. Other self-employed are owner/managers of either incorporated or unincorporated bodies without any employees.

Source: ABS Table Builder.

The first thing to note in Figure 3 is that the increase in the total Indigenous self-employment rate is driven by a small increase in employers in non-remote areas and a slightly larger increase in both employer and other self-employed in remote areas. Other self-employed actually decreased slightly in non-remote areas.

Notwithstanding the relative emphasis in the current public debate on Indigenous contractors in the mining sector, which is often physically located in remote areas, Indigenous self-employed in non-remote areas are still the largest group of Indigenous self-employed. While Indigenous contractors for the mining sector may be fly-in-fly-out (Fifo) workers – like a substantial proportion of the current mining workforce – the relative prominence of non-remote residences among Indigenous self-employed pre-dates the current mining boom (Hunter 2004; Foley 2006).

Figure 4 presents the same information for the non-Indigenous population (presented on a different scale to that used in Figure 3). In contrast to the
Indigenous population, the prevalence of non-Indigenous self-employment is higher in remote areas rather than non-remote areas; however, the prevalence of employers and other self-employed declined among the non-Indigenous population in both remote and non-remote areas between 2006 and 2011.

![Figure 4: Recent trends in non-Indigenous employer status by remoteness](image)

*Figure 4: Recent trends in non-Indigenous employer status by remoteness*

*Note: See note for Figure 3.*

*Source: ABS Table Builder.*

Indigenous self-employment remains exceptionally low in remote areas compared to non-Indigenous rates, but this ratio increased between 2006 and 2011 (from 0.05 to 0.08). Although there was an increase in Indigenous self-employment between 2006 and 2011, Indigenous residents of remote areas are still around 13 times less likely to be self-employed than other remote residents. Indigenous people in remote areas are drawn from a population less likely to have education, with limited access to credit and banking services (on average), and low levels of social capital; that is, having strong social networks outside the local community (Foley 2006).

**Income and estimating the size of the self-employment sectors**

Census data can also provide information on the average personal income that can be combined with the number of self-employed to estimate the monetary value of the size of the self-employment sector in 2006 and 2011. Table 1 reports
Reflecting on the Growth of Indigenous Self-employment

the average personal income in 2011 dollar terms ($2011) for employers and other self-employed by remoteness category. Before attempting to interpret such data we should note three limitations:

The first limitation is that the income of self-employed is notoriously difficult to measure accurately because of the probable use of non-monetary transfers (including possibility of involvement in the ‘grey’ or ‘cash’ economy), and concerns about the incentive of the self-employed to accurately report income (Taylor 1996).

The second limitation is that census data is measured in broad income categories and the self-employed in the top categories may have higher actual income than is conventionally assumed in census based analysis.

A third limitation is that the income of self-employed does not equate with the income of corporate entities – no individual may indicate they are self-employed with respect to larger businesses.

Another complicating factor is that business income and profits are different from individual income in crucial ways, including the fact that business costs – including allowances to maintain the value and sustainability of the capital investment – need to be deducted. Notwithstanding such qualifications, the changes in incomes of self-employed provide some insights into broad changes in the value of economic activity in the Indigenous self-employment sector.

The incomes for self-employed are relatively static for all categories with the exception of Indigenous employers in remote areas, whose income increased by 20 per cent in real terms. This probably reflects increased use of Indigenous contractors in the mining sector and an increased demand for the services of Indigenous employers. Note that the incomes of other Indigenous self-employed actually fell marginally in real terms. Incomes for non-Indigenous self-employed increased but the extent of the rise was less than that observed for Indigenous employers.
Table 1: Average weekly personal income by self-employment status and remoteness ($2011)

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Indigenous Employer</td>
<td>1,126</td>
<td>1,160</td>
<td>1,038</td>
<td>1,239</td>
</tr>
<tr>
<td>Other self-employed</td>
<td>738</td>
<td>725</td>
<td>660</td>
<td>652</td>
</tr>
<tr>
<td>Non-Indigenous</td>
<td>1,353</td>
<td>1,376</td>
<td>1,129</td>
<td>1,216</td>
</tr>
<tr>
<td>Employer</td>
<td>796</td>
<td>812</td>
<td>762</td>
<td>800</td>
</tr>
</tbody>
</table>

Note: See note for Figure 3. The average income in the top category is one and a half times the lower threshold for the category. The 2006 income is converted to $2011 using the Consumer Price Index (ABS 2013a).

Source: ABS Table Builder.

In contrast to the situation in non-remote areas, Indigenous employers in remote areas now have a slightly higher income in 2011 ($1,239) than non-Indigenous employers ($1,216). This may reflect the increased demand for contracting Indigenous services to the mining sector. Given that there was no increase in measured income for other self-employed in remote areas, it may be that self-employed who do not employ other workers are not the beneficiaries of the apparent expansion in the use of Indigenous contractors in the mining industry. Other possible explanations are that these other self-employed are concentrated in non-mining remote areas or that mining companies prefer to contract larger organisations where other Indigenous people are likely to work (i.e. Indigenous employers or other businesses with Indigenous employment goals, Reconciliation Action Plans etc.). The economic rationale for this second explanation is that mining companies are trying to save on transaction costs while meeting their own published corporate-social-responsibility targets. Accordingly, companies will avoid the cost of having a substantial number of individual contracts with smaller businesses (including businesses involving other self-employed, who are small by definition if measured by the numbers of workers involved).

Table 2 combines this information on income with the estimated number of self-employed, which is again calculated by multiplying the estimated residential population in an area by self-employment rates reported in Figures 2 and 3. Given that the most substantial change in average income was among remote areas, the estimated size of the self-employment sector is largely driven by the changing number of entrepreneurs. Note that I aggregate employer and other self-employed sectors to make a few basic points. The most obvious point is that even though the size of the Indigenous self-employment is growing over time, it is tiny relative to that attributable to other Australian self-employed. Notwithstanding the fact that Indigenous employers are doing relatively well in
remote areas, the size of the Indigenous self-employment sector is particularly small in those areas. In view of the rise of affordable flights and the Fifo workforce the location of a business is probably less important than it once was.

Table 2: Aggregate size of self-employment sector in 2006 and 2011 ($2011m per annum)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Indigenous sector</td>
<td>$389m</td>
<td>$541m</td>
<td>$28m</td>
<td>$50m</td>
</tr>
<tr>
<td>Non-Indigenous sector</td>
<td>$99,978m</td>
<td>$102,744m</td>
<td>$2,370m</td>
<td>$2,269m</td>
</tr>
<tr>
<td>Total</td>
<td>$100,367m</td>
<td>$103,285m</td>
<td>$2,398m</td>
<td>$2,319m</td>
</tr>
</tbody>
</table>

Note: See note for Figure 3.

Source: ABS Table Builder.

Even if one aggregates the size of the self-employment sectors in remote and non-remote areas it is hard to reconcile the incomes of Indigenous self-employed with public claims made about the value of contracts and transactions with Indigenous business. The 2011 census indicates that total Indigenous self-employed income was only $591 million per annum (i.e. adding the entries for remote and non-remote sectors). This does represent an increase of 42 per cent on the size of the sector in 2006, but is substantially less than the recent commitments to Indigenous contractors by FMG and Rio Tinto. Similarly Rio Tinto aims to allocate contracts to local Indigenous Pilbara businesses that are probably a substantial fraction of the estimated income of Indigenous self-employed in 2011. Even when we abstract from the current location of Indigenous self-employed, it is clear that if contracts of this magnitude were awarded over a short period, the capacity constraints of existing Indigenous businesses would be severely stretched. Ignoring the likely difficulty for Indigenous business in finding sufficient capital to grow their business, it is arguably improbable that the sector can expand rapidly enough to ensure that all inputs are productively employed. Attempting to grow a business quickly can raise a new set of challenges for management that, at the very least, impose a constraint in the level of sustainable and profitable expansion.

Of course one reason for the apparently disproportionate size of these commitments relative to actual income of the self-employed is that they are spread over more than one year. Another explanation is that census estimates of personal income do not include returns to capital (and hence leave out a substantial amount of business transaction value).
Who are the Indigenous self-employed?

Hunter (2004) showed that most Indigenous self-employed were involved in small-scale businesses that did not employ any other people. Furthermore, Indigenous self-employed were more likely to be involved in construction and retail sectors, while there was also a disproportionate number in agriculture industries in remote areas. Note that only two per cent of all Indigenous self-employed in remote areas in 2001 were involved directly in mining.

Indigenous business is generally less segregated from other Australian business than general employment statistics indicate, at least in urban areas (Hunter 2004). Segregation is commonly measured by the dissimilarity index which effectively estimates the proportion of the Indigenous businesses or workers who would have to change industry or occupation for the Indigenous population to have analogous characteristics to that of the non-Indigenous population (Duncan and Duncan 1955). Only 14 per cent of non-remote Indigenous self-employed would have to change industry, which provides some indirect evidence that Indigenous businesses are ‘following the money’ in those areas. That is, Indigenous businesses in non-remote areas are not disproportionately engaged in industries that are less profitable for the rest of the Australian economy.

Hunter (2004) also argued that occupational distributions of Indigenous and non-Indigenous self-employed were reasonably similar, especially in non-remote areas. Notwithstanding this, Indigenous self-employed were less likely to be managers than non-Indigenous self-employed (especially in remote areas), while they were less likely to be tradespersons in metropolitan areas. One explanation for these observations was the ongoing educational deficits, with Indigenous self-employed being almost half as likely to have Year 12 education as other self-employed. Another feature of Indigenous self-employed was that they tend to be younger than non-Indigenous self-employed, but older than the average Indigenous people.

Table 3 reports the 10 industries with the highest percentage of Indigenous and non-Indigenous self-employed at the time of the latest census in 2011. In these more recent data there are three industries where Indigenous self-employed are disproportionately represented relative to other Australian self-employed: performers; Painting and Decorating; and Gardening Services. The percentage of businesses in each industry is similar for the other seven industries in this table, but those three industries have Indigenous self-employment rates that are a substantial multiple of the relevant non-Indigenous rate. For example, Indigenous self-employed are 2.2 times more likely to work in creative industries than the non-Indigenous self-employed, which may indicate a comparative advantage in such industries (reflecting ongoing demand for Indigenous art and culture at large) and a substantial involvement in cultural and environmental tourism.
Table 3: Top 10 industries (disaggregated) for Indigenous and Non-Indigenous self-employed, 2011

<table>
<thead>
<tr>
<th>Indigenous</th>
<th>Non-Indigenous</th>
</tr>
</thead>
<tbody>
<tr>
<td>Road Freight Transport</td>
<td>House Construction</td>
</tr>
<tr>
<td>House Construction</td>
<td>Road Freight Transport</td>
</tr>
<tr>
<td>Building &amp; Other Industrial Cleaning Services</td>
<td>Building &amp; Other Industrial Cleaning Services</td>
</tr>
<tr>
<td>Carpentry Services</td>
<td>Accounting Services</td>
</tr>
<tr>
<td>Creative Artists, Musicians, Writers &amp; Performers (°2.2)</td>
<td>Beef Cattle Farming (Specialised)</td>
</tr>
<tr>
<td>Painting &amp; Decorating Services (°1.5)</td>
<td>Cafes &amp; Restaurants</td>
</tr>
<tr>
<td>Hairdressing &amp; Beauty Services</td>
<td>Hairdressing &amp; Beauty Services</td>
</tr>
<tr>
<td>Gardening Services (°1.4)</td>
<td>Computer System Design &amp; Related Services</td>
</tr>
<tr>
<td>Plumbing Services</td>
<td>Carpentry Services</td>
</tr>
<tr>
<td>Electrical Services</td>
<td>Electrical Services</td>
</tr>
</tbody>
</table>

Note: The industries are identified by four-digit Australia and New Zealand Standard Industrial Classification (ABS 2008). These 10 industries represent about one-quarter of business for both groups. Numbers in brackets indicate the extent to which the Indigenous rate exceeds the non-Indigenous rate (in multiples). This table analyses all self-employed because the numbers of employer and other self-employed are too small for the refined level of disaggregation required.

Given that the industries in Table 3 are based on highly disaggregated classifications, there are relatively few self-employed in each category. Consequently, even though there are six industries in common for both top 10 lists, this is noteworthy and probably indicates that industrial distributions are reasonably similar overall. Apart from the three industries identified above, the only other Indigenous industry not in the non-Indigenous list is plumbing. Of the four industries in the non-Indigenous list that are not in the Indigenous list, three involve a high level of professional skill and education where Indigenous people are historically excluded by virtue of ongoing educational disadvantage and dispossession: accounting, beef cattle farming, and computer system design.

Another noteworthy feature of Table 3 is that mining industries do not feature in the top 10 industries. This observation is not necessarily inconsistent with the large amounts of monies being allocated to Indigenous contractors by FMG and Rio Tinto, as the contractors may just be providing services and inputs that may not be classified as mining per se. Another rationale could be that a small number of Indigenous businesses may hold large and valuable contracts.

The geographic analysis of Hunter (2004) can be extended by greater disaggregation of census information using Indigenous Region-level data (provided in Hunter 2013). Indigenous employers and other self-employed are most likely to reside in the southeast corner of Australia that has the best Indigenous education outcomes relative to other jurisdictions (i.e. the states
of Victoria, Tasmania and NSW, and the ACT). This is also consistent with the higher population densities in such areas and hence a relatively strong demand of goods and services. With the exception of the ACT where public-sector employment is relatively prominent, non-Indigenous self-employment is also relatively strong in southeast Australia. However, in contrast to the Indigenous self-employed, the highest prevalence of non-Indigenous employers and other self-employed tends to be in remote areas, especially remote NSW. While there are likely to be a number of mining contractors involved in the concentration of self-employed in certain remote areas, the fact that there are substantial number of non-Indigenous self-employed in remote NSW is arguably associated with the concentration of farming and pastoralism in the Murray Darling basin.

Table 4 uses this regional data on self-employment private-sector participation to illustrate the propensity of Indigenous and non-Indigenous employers to hire Indigenous workers. Given that self-employment could be classified as private-sector employment, the measure of private-sector activity excludes all forms of self-employment. Indigenous and non-Indigenous self-employment rates in 37 Indigenous areas are used to predict a local private-sector employment rate using a simple regression model. The coefficient of determination (or R\(^2\) statistic) indicates that over 55 per cent of the variation in Indigenous private sector is explained by the distribution of Indigenous employers.

**Table 4: Regression of regional Indigenous private-sector employment rates in 2011 (all regressors measured as a percentage of the local population aged between 20 and 64)**

<table>
<thead>
<tr>
<th></th>
<th>Coefficient</th>
<th>Standard errors</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indigenous employer</td>
<td>9.0</td>
<td>(4.2)</td>
<td>**</td>
</tr>
<tr>
<td>Indigenous business without employees</td>
<td>-0.2</td>
<td>(4.1)</td>
<td></td>
</tr>
<tr>
<td>Non-Indigenous employer</td>
<td>-0.5</td>
<td>(0.7)</td>
<td></td>
</tr>
<tr>
<td>CONSTANT</td>
<td>23.3</td>
<td>(4.0)</td>
<td>***</td>
</tr>
<tr>
<td>R2</td>
<td>0.554</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Ordinary Least Squares regressions on employment rates for 37 Indigenous Regions. Robust standard errors reported in brackets. *, **, and *** denote coefficient is statistically significant at the 10%, 5%, and 1% level of significance. Regressions for non-Indigenous private sector employment were also estimated but they were not significant at the conventional levels. The private-sector employment rates exclude all self-employed (i.e. excluding employers and self-employed without other workers). In this regression, employers are regarded as ‘self-employed’.

Source: Indigenous Region data for 2011 Census from Table Builder.

Indigenous private-sector employment rates are significantly correlated with the local prevalence of Indigenous employers in the working-age population
Reflecting on the Growth of Indigenous Self-employment

(aged between 20 and 64), but not with the prevalence other Indigenous self-employed. The size of the effect of the employer variable is directly associated with the number of Indigenous workers employed in the private sector. So a one percentage point increase in the prevalence of employers in the Indigenous working-age population is associated with a 9 percentage point increase in the expected local Indigenous private-sector employment rate. In contrast, the prevalence of non-Indigenous employers is not significantly associated with higher rates of Indigenous private-sector employment.

This regression analysis is consistent with Indigenous businesses generating more private-sector jobs for Indigenous workers than other Australian businesses. One recent study of Queensland businesses indicated that Indigenous businesses were over a hundred times more likely to employ Indigenous workers than non-Indigenous businesses (Hunter 2014). One possibility is that Indigenous employers provide a more conducive working environment for Indigenous workers. Another possibility is that such businesses are involved in activities that are more likely to require Indigenous workers, such as cultural tourism or the Indigenous art sector.

Historically there is not much research available on the nexus between businesses and Indigenous workers, but *a priori* we would expect Indigenous employers to provide working conditions that are sympathetic with the needs and preferences of Indigenous workers (for example, because of greater cultural awareness/cultural competency). Hunter and Hawke (2001) used linked employee–employer data from the mid-1990s to find that workplaces with Indigenous employees were more likely than other workplaces to have a written policy on racial harassment and a formal grievance procedure to resolve disputes that arise on either racial or sexual harassment grounds. More recently, Tiplady and Barclay (2007) emphasise how mining companies legitimate their ‘social licence to operate’ by enhancing employment relationships with Indigenous workers. These findings are worth pursuing in future research as they clearly point to the possibility that demand for goods and services is not the sole reason for establishing an Indigenous business or employing Indigenous workers.

Table 5 presents some census data in relation to incorporated businesses (or proprietary limited companies) and unincorporated businesses (that may include Indigenous organisations and sole traders). By definition, the ABS assumes that owner-managers of incorporated businesses are employees and hence all such businesses have at least one employee. Among incorporated Australian businesses there are many more small businesses employing from one to 19 workers (90 per cent) than larger businesses. For incorporated Indigenous businesses the prevalence of small businesses was even higher (92 per cent).
Business owners who do not hire any employees are considered to be own-account workers and commonly include consultants and tradespeople (ABS 2013b). Amongst the unincorporated Australian businesses with non-Indigenous owner-managers, over two-thirds have no employees. For the unincorporated Indigenous businesses, over three-quarters have no employees. This indicates that sole traders or individual entrepreneurs are particularly important among unincorporated businesses. Unincorporated businesses which employ staff include many law and accounting firms, which are often run as partnerships, some tradespeople and some primary producers (such as farmers).

### Table 5: Incorporated and unincorporated businesses, number of employees, 2011

<table>
<thead>
<tr>
<th>Owner-managers of incorporated enterprises</th>
<th>Indigenous</th>
<th>Non-Indigenous</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nil employees</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>1–19 employees</td>
<td>92%</td>
<td>90%</td>
</tr>
<tr>
<td>20 or more employees</td>
<td>8%</td>
<td>10%</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>COUNTS (in 000s)</td>
<td>6.1</td>
<td>162.5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Owner-managers of unincorporated enterprises</th>
<th>Indigenous</th>
<th>Non-Indigenous</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nil employees</td>
<td>77%</td>
<td>69%</td>
</tr>
<tr>
<td>1–19 employees</td>
<td>20%</td>
<td>26%</td>
</tr>
<tr>
<td>20 or more employees</td>
<td>2%</td>
<td>4%</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>COUNTS (in 000s)</td>
<td>7.5</td>
<td>150.3</td>
</tr>
</tbody>
</table>

Note: An owner-manager of an incorporated enterprise works in his/her own business entity which is registered as a separate legal entity to its members/owners (also known as a ‘limited liability company’). An owner-manager of an unincorporated enterprise operates his/her own unincorporated economic enterprise, i.e. a business entity in which the owner and the business are legally inseparable, so that the owner is liable for any business debts that are incurred. It includes those engaged independently in a profession or trade (ABS Census data dictionary). The counts in this table are raw counts and are not adjusted for the census undercount.

Source: ABS Table Builder.

This research has focused on the trends in self-employment because the number of self-employed in the census is historically too low to conduct disaggregated analysis. However, Table 5 illustrates that there is a substantial number of incorporated and unincorporated businesses with Indigenous owner-managers and hence future analysis should track Indigenous business using the more meaningful categories in that table. By taking into account the legal status of the business and the number of employees, these data capture both the legal
status of the business and the likely industrial relations environment in the various workplaces. While the notion of self-employment has clear limitations, it has allowed us to illustrate the growing importance of Indigenous businesses.

Implications for research and policy

The remainder of the paper identifies some possible implications of the recent growth in Indigenous self-employment for researchers and policymakers. For example, it is difficult to reconcile the measured size of the Indigenous sector with the public claims made by mining companies and others about the extent of contracting to Indigenous businesses. One explanation is the rather loose or flexible definition of what constitutes an Indigenous business or contract. Setting majority Indigenous equity as the criterion for Indigenous business provides a clear definition, but one still has to establish who is an Indigenous person. Large recent increases in the number of Australians identifying as Indigenous means that it is difficult to take Indigenous identification as given, even in the short run (Biddle 2012). Notwithstanding this, majority ownership should be considered as it would provide clear and meaningful data, albeit with much smaller numbers than are currently evident in census analysis (including this paper).

Supply Nation uses a majority-equity definition of an Indigenous business where a business is ‘at least 51 per cent owned by Indigenous Australians and the principal executive officer is an Indigenous Australian and the key decisions in the business are made by Indigenous Australians’. This definition is easy to defend in that one would expect these circumstances to be associated with a considerable measure of Indigenous control. However, the definition is contestable in that it will exclude many firms that may otherwise be classified as Indigenous. For example, a business partnership of an Indigenous and non-Indigenous couple would be excluded by this definition as the Indigenous equity will only be 50 per cent and could well show up in census statistics. It is not surprising that Supply Nation currently certifies only 287 Indigenous businesses, which is a small fraction of the Indigenous entrepreneurs identified in recent census data.

Several important issues arise from the definition of Indigenous businesses that will impact on public claims made on Indigenous contractors. Unlike the situation in the US and Canada, contractors can sign off on the basis of Indigenous participation in providing services even though no Indigenous businesses were involved in the services finally provided (Willmett 2009: 41. Note in some US states it is a felony to fraudulently claim certification as a minority business enterprise). There is no statutory protection of the status of
minority business in Australia and hence anyone can claim to be an Indigenous contractor even though actual Indigenous involvement is minimal or even non-existent. Irrespective of whether these misrepresentations are deliberate, or a failure to realise an aspiration to involve Indigenous business, they mislead public debate.

If Indigenous business was consistently defined in terms of majority equity in the company, the value of the sector implied from census data or publicly claimed by mining companies would probably fall dramatically. It is desirable to have a meaningful and robust definition of what constitutes an Indigenous business so that there is some accountability about public claims such as those being made by mining companies, Supply Nation or others.

Ngarda Civil & Mining is an example of a successful Indigenous business that illustrates some of the difficulties in defining and measuring Indigenous businesses. Ngarda is an Indigenous mining contractor with around 350 employees (of whom over half are Indigenous) and an annual turnover of more than $150 million. Ngarda claim that they are the largest Indigenous-owned-and-operated contracting company in Australia. According to the company’s website (ngarda.dev.madpilot.com.au viewed 13 March 2014), Ngarda is jointly owned by Leighton Contractors (50 per cent), the Ngarda Ngarli Yarndu Foundation (25 per cent) and IBA (25 per cent). However, this ownership profile would exclude Ngarda from being classified as being an Indigenous business according to the Supply Nation definition, despite considerable involvement and control by Indigenous people and local communities.

While the majority-ownership definition may affect some large companies such as Ngarda, it is likely to have an even larger effect in reducing the numbers of small Indigenous businesses due to the exclusion of partnerships involving married couples where one partner is non-Indigenous. As Foley (2005) argues, business partnerships involving couples are an important means for Indigenous businesses to overcome the financial, social human-capital constraints facing potential entrepreneurs.

Forrest (2014) argues for an even lower equity threshold, with businesses being eligible for tax-free status and government contracts with as little as 25 per cent equity held by Indigenous stakeholders. The inclusion of board membership in Forrest’s proposed definition is concerning as it greatly enhances the scope for strategic behaviour of what are ostensibly non-Indigenous businesses seeking preferential treatment. The idea of creating preference for Indigenous businesses can be a potentially fraught area of policy as it may create an incentive for ‘shadow listings’ or false claims, as firms chase work under the guise of identified organisations. Some companies may be tempted to install Indigenous people on their boards, in a nominal rather than a substantive capacity, to secure the
Reflecting on the Growth of Indigenous Self-employment

proposed benefits of tax-free status and government contracts. If a substantial number of faux Indigenous businesses were created, this may displace legitimate Indigenous businesses that can demonstrate substantial equity and control from Indigenous stakeholders. On balance, the definition of Indigenous business needs to be clear to minimise rent-seeking and other strategic behaviour.

The self-employment data reported above provide one indicator of Indigenous entrepreneurs that abstracts from the ownership and control issues. However, it is an imperfect proxy as there is no necessary concordance between businesses and people. Ngarda exemplifies this issue in that it is highly unlikely that any one Indigenous person would identify themselves as being self-employed in the census solely for their responsibility in running that business. IBA staff would consider themselves public servants while the members of the Ngarda Ngarli Yarndu Foundation may consider themselves as part of a local Indigenous community organisation. Given that no part of the property or income earned by the Foundation may be paid or otherwise distributed to members, individual economic status is likely to be independent of membership (see www.nnyf.com.au, accessed 26 September 2014). Similarly, other incorporated bodies such as community-controlled businesses and Native Title organisations are unlikely to be included in estimates based on self-employment data from the census. Clearly the definition of an Indigenous business will always be contestable, but policymakers need to clearly identify which economic agents are being targeted and articulate what outcomes the policies are seeking to influence.

Does this research have implications for ‘closing-the-gaps’ targets in employment? In a mechanical sense, the growing number of Indigenous self-employed makes a tiny contribution to improving Indigenous employment outcomes relative to the rest of the Indigenous labour market (Hunter 1999). Nonetheless, this paper argues that the Indigenous self-employed play a significant role in providing jobs for other Indigenous workers. While the evidence presented in this paper is somewhat indirect, it provides grounds for further research analysing the question: Do Indigenous businesses provide working environments that are conducive to employing and retaining Indigenous workers and otherwise overcoming Indigenous labour market disadvantage? If the answer to this question is in the affirmative, then facilitating Indigenous business may be an effective strategy for substantially reducing the gap between Indigenous and non-Indigenous employment outcomes.

Indigenous business is important in its own right, not only to the extent that it facilitates Indigenous employment in a culturally appropriate workplace. To the extent that having a robust middle class is integral to the achievement of sustainable and independent Indigenous development, it may be time to consider having a separate closing-the-gap target for self-employment. This paper has demonstrated that there is a substantial gap in the entrepreneurial outcomes
for Indigenous and non-Indigenous Australians. A more appropriate definition of what constitutes an Indigenous business would, in all likelihood, increase the number of Indigenous businesses covered by the targets and supported by relevant policy initiatives. For example, if Supply Nation included partnerships the pool of potential Indigenous sub-contractors would expand considerably and enhance the prospects for linking Indigenous businesses with other companies who need their services. Whatever the definition of Indigenous business adopted, building the capacity of Indigenous business should be a high policy priority.

Some researchers have suggested that ‘business’ and Indigenous cultural values are sometimes seen to be antithetical, in that the focus on profit and the emphasis on self-interest are at odds with collectivist notions that underpin Indigenous culture (Verbos, Gladstone and Kennedy 2011). The substantial recent growth in Indigenous self-employment is clear evidence against this proposition. Indeed, the story of the 19th-century Indigenous entrepreneurs from Coranderrk, referred to earlier, indicates this hypothesis may have always been a bit dubious in that structural impediments were a more important issue than Indigenous culture in the demise of that enterprise.

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ARGUMENT
Is Academic Economics Withering in Australia?

John Lodewijks and Tony Stokes

Abstract

Departments of economics in Australia have not fared well recently. Many have been closed, merged or relocated, their staff made redundant while economics degrees and majors have been eliminated. This article tries to understand why academic economics appears to be withering in this country, or at least increasingly concentrated in Group of Eight (Go8) universities, and what if anything can still be done to preserve what is left.

Introduction

The recent news reports that the La Trobe School of Economics is being forced to reduce its established positions from 28 to just 10 is the latest in a series of cutbacks being imposed on academic economists in Australia. At La Trobe the proposed cuts include three professorial positions and three Associate Professors. Its stand-alone economics degree will no longer be offered from 2015. The developments at La Trobe are a carbon copy of what happened at the University of Western Sydney starting in late 2012. Four Economics professors were made redundant, along with seven other staff, and their B.Ec. no longer admitted students from 2013. These have been high-profile media events. Less well-known is the disappearance of Victoria University’s Department of Applied Economics, with staff scattered across Finance and International Business. A similar story of economics being subsumed within Business unfolded at the University of Newcastle, the University of New England, the University

1 University of New South Wales, j.lodewijks@unsw.edu.au; Australian Catholic University, Tony.Stokes@acu.edu.au. Very helpful comments were received from Max Corden, Tony Endres, Noel Gaston, Margaret Giles, Raja Junankar, Michael McLure, Gregory Moore, Paul Oslington, Sriram Shankar, Tim Thornton, the Editor and two anonymous referees.

2 A referee notes that while the B Ec has been abolished at UWS, there is still a Bachelor of Business and Commerce (Economics). This major was not in the original restructuring proposal and came as a concession afterwards and has a minimal number of economics units. Moreover, even the first-year core economics unit was set for abolition until someone made the Dean aware that it was required for accounting accreditation purposes.
of Tasmania and James Cook University. Griffith University has reduced the number of offerings in Economics and there are reported upper-level enrolment concerns at ANU.

At Edith Cowan University the economics major in the Bachelor of Business degree has been discontinued; there are no new enrolments in the major from 2014 and existing economics major students are taking second and third-year economics units in teach-out mode. There is even a move to dispense with the first-year economics unit in the business degree. In 2013 ECU had eight economics teaching staff. Four of these now remain. Of these, three are teaching finance and quantitative methods. Only one staff member remains to teach economics. Curtin has also faced serious staff redundancies. Some of the staff made redundant by Curtin University have been picked up as casuals to fill the ECU gaps in teaching economics at the undergraduate and postgraduate levels in 2014. The B.Ec. is also no longer offered at UWA.

Economics at the University of Sydney has been ejected from the Business faculty and transferred to Arts. At the Australian Catholic University the same occurred. The Faculty of Business declined to have the economics major in the Faculty and subsequently retrenched the only professor of economics in the university. Even boutique economic programs that deliberately seek to remain small for pedagogical reasons, such as on the Fremantle campus of Notre Dame Australia, struggle to recruit a sufficient number of students. Their required targets are only just achieved by enrolling visiting Notre Dame Indiana students and finance students doing economics units as electives.

Across the Tasman Sea the situation is similar. Agnew (2014) reports a 31 per cent decline in economics enrolment in New Zealand secondary schools between 2003 and 2012, and a 20 per cent decline in the number of students enrolled in an economics bachelor degree in a New Zealand university from 2008 to 2012. In 2014 three economists were made redundant at the University of Canterbury. Other universities, such as the University of Auckland, are scrambling to attract more students to ward off impending attacks.

We badly need a comprehensive stock take of what is happening to academic economics in this country and New Zealand. Questions for each university might include: How many academic economists are in your department/school/faculty? Have these numbers fallen in the last five years? Do you have a B.Ec.? What has been happening to your economics enrolments over the last five years?

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3 The often-cited paper by Lewis and Norris (1997) on economics enrolments was commissioned by the ESA. After 17 years, it is now time for the ESA to commission a follow-up report. We also need to have a survey of the large consulting firms (e.g. KPMG, Deloitte) and government departments (e.g. DSS, Health, Treasury) about the crucial role that economists play in these organisations and what they would like the new recruits to know/understand about economics.
years? Do you have an Honours program? How many economics subjects/units/courses (whatever you call them) do you offer? Have these numbers fallen in the last five years? Do you have any comments on the overall health of (or likely threats to) your economics programs? Such a survey should be undertaken with a sense of urgency by the central office of the Economic Society of Australia (ESA). To thoroughly investigate the matter, the ESA needs to differentiate what is happening in Go8 and non-Go8 universities and it needs to weight the overall results by each university’s FTE enrolments and staff size. Using simple averages would give the same weight to a large department, such as Melbourne, as it does to a far smaller economics program with a handful of staff. The examples already presented indicate that all is certainly not well and we may need to act before the full survey results are available. One economist has told us that ‘economics is about to die in this country’. Another wrote: ‘I just returned from the ESAM/ACE in Hobart. I and just about everybody else there (including visitors from overseas at the conference dinner Table I was sitting at) signed a letter being circulated on behalf of the La Trobe people. It’s a disgrace.’4 We cannot afford to wait.

While the dramatic closures reported above have happened only very recently, the declining status of academic economics has been more long term. We need to understand why academic economics appears to be withering in this country and the likely consequences unless this decline is reversed.

**Decline and fall**

Historically, the 1960s and 1970s are described as the ‘glory days’ for the study of economics at tertiary institutions. For more than two decades the popularity of the economics degree in Australian universities has been in decline. Just over a decade ago Maxwell (2003) wrote on ‘The Rise and Fall (?) of Economics in Australian Universities’. He suggested that the early to mid-1980s may have been the highpoint of economics in universities. Between 1995 and 2000 six separate economics departments disappeared and in net terms between 60 and 70 economists left the university system. The decline mainly occurred in middle-size and small departments of economics. Over the period 1991–2000 university economics enrolment as a proportion of total EFTSUs fell from 5 per cent to 3.6 per cent and as a ratio of total business enrolment from 0.251 to 0.139. However, Maxwell was optimistic that this might be turned around and hence the question mark in his title. He is to be commended for his positive suggestions on how to improve the fortunes of economics via better marketing efforts, restoring our public image, changing the nature and structure of our

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4 The letter was signed by over 100 academics and members of the profession from around Australia.
teaching programs to make the discipline more relevant to students, improving our teaching quality and applying new information technology. Yet recent events suggest that his hopes have been dashed.

Another excellent source of data on declining economics enrolments is Alauddin and Valadkhani (2003). The first sentence of their article reads: ‘There is a general consensus among economists that the number of enrolments in economics is in a state of steady decline globally over a period of nearly two decades.’ Their data clearly indicate the steady marginalisation of economics as a discipline and the ascendency of business and related disciplines. The reasons for this decline in Australia have been widely debated. A survey of 35 heads of economics disciplines in Australian universities, undertaken in April 1996, described the causes of falling enrolments as a perception of business studies being more career-focused than economics; that economics was seen as too rigorous or abstract; and that students were less well-prepared in mathematics (Lewis and Norris 1997). Educators suggest we need to respond to changing market conditions by adapting the ‘product’, the method of delivery, or the appeal of the economics degree to ensure economics is seen as intrinsically interesting and relevant to careers (Round and Shanahan 2010).

The decline appears clearly related to the decline in the study of economics in the high schools. In 1989, 21,211 candidates undertook the Economics examination in NSW across the three courses in the subject (39 per cent of the total candidature). Economics was the third-largest individual subject, after English and Mathematics. By 2013, out of the 75,168 students enrolled in the NSW Higher School Certificate, only 5,335 studied Economics (63 per cent male, 37 per cent female). Business Studies (a course not available in 1989) had 16,020 candidates (51 per cent male, 49 per cent female) and was ranked the fourth-most popular subject by course enrolment. John Conroy, writing in the Business Spectator of the 1 June 2012, noted that:

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In the period 1990–2006 there was a general decline in the numbers of students majoring in economics at universities, not only in Australia (Lewis and Norris 1997; Millmow 2006) but throughout the world (Becker 2004; Siegfried 2000, 2006). In some nations this decline has been reversed since the time of the global financial crisis (GFC), as it is known in Australia, or The Great Recession, as referred to in the US. Siegfried (2012) reports that undergraduate degrees in economics awarded by US colleges and universities rose between 2008 and 2011. In that period, economics degrees awarded by public colleges and universities increased by 11 per cent (compared to a 4 per cent increase among private institutions). Siegfried (2012) considers that one factor that could have led to this turnaround was the ‘Freakonomics effect’ (Levitt and Dubner 2005). Siegfried considers that the increased interest in economics as a result of Levitt and Dubner’s best-selling book led to an increase in the numbers pursuing undergraduate economics degrees.

In the UK there was a similar turnaround in economics undergraduate enrolments in 2008 and 2009, increasing 26.7 per cent in the period. This spurt could be attributed to the GFC and the interest that created in understanding economics. This hypothesis is supported by the fact that economics enrolments fell in the UK in 2010, as the novelty of the GFC wore off. One could question then why this growth did not occur in Australia. Australia was not as severely affected by the GFC as the UK and the ‘Freakonomics effect’ was not as widely read as in the US. Perhaps a solution to the problem of declining economics numbers in Australia goes back to the issue of relevance and promotion in a contemporary environment.
While Australians constantly put ‘the economy’ at the top of government’s priorities, the trend in education is that fewer and fewer students are taking economics in favour of more narrowly focused business studies. Twenty years ago business studies and variations on it, such as business management, were introduced into Australian Year 11 and 12 syllabuses. In the two decades leading up to business being introduced in New South Wales in 1991, 35 to 40 per cent of students studied economics in their final year of high school. Today that number has been eroded to about 8 per cent. Students slowly migrated across to business courses, overtaking economics enrolments in the mid-1990s and completing the transition in the mid-2000s – the figures have stayed roughly the same since, with about 25 per cent of students taking business studies and 8 per cent economics.

![Figure 1: Commencing domestic student numbers across various degrees in Australia, 2006–2013](image)

Source: Australian Government Department of Education (various years), Selected Higher Education Statistics.

Figure 1 indicates the decline of economics (including econometrics) enrolments in Australian undergraduate university courses, despite the increase in the overall numbers of commencing domestic bachelor degree students in recent years with the uncapping of university places. In the period 2006–13, there was an overall growth of 39 per cent in commencing domestic student numbers across all bachelor courses. Business and management numbers rose 52 per cent, marketing and sales 44 per cent and law 25 per cent. At the same time the numbers of commencing economics students declined 7 per cent from 5,781 students to
5,384 students. The fall in the number of students commencing accountancy by 4 per cent during the period could also suggest that commencing students are turning away from the more rigorous mathematically orientated courses to more descriptive and perceived easier options.

In recent years the uncapping of university places has led to a decline in entry standards in a number of universities across Australia. Table 1 and Table 2 indicate widespread declining university admission standards in the lower Australian Tertiary Admission Rank (ATAR) level universities. This has been even more noticeable in the more competitive markets in Sydney and Melbourne, compared to the areas of fewer university choices. It should be noted that while it appears that the higher ATAR (usually Go8) universities may have increased their entry requirements in some cases, it is important to remember that most universities now offer up to 10 bonus points that they will allocate to students. This would suggest an additional eroding of standards that is not reflected in the published ATAR scores.

It is no coincidence that as universities have aggressively expanded enrolments, with the extra students less-prepared than earlier cohorts, these students have found that the intellectual demands and quantitative requirements that economics poses are a major deterrent and they are far more comfortable enrolling in other business programs. Maxwell (2003: 79) describes this nicely as a ‘hardening of the discipline’ coming up against the ‘softening in preparation of students’ combined with the rise of more fashionable fields of study which students perceive as being ‘more suited to their vocational needs’.

Table 1: Australian Tertiary Admission Rank (ATAR) 2007 and 2014

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<tr>
<td>Average for Go8</td>
<td>82.43</td>
<td>88.39</td>
<td>80.01</td>
<td>89.09</td>
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<tr>
<td>Average for non-Go8</td>
<td>70.78</td>
<td>72.87</td>
<td>64.04</td>
<td>65.09</td>
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</table>

a For 2007 the entry scores have been adjusted to an equivalent ATAR, using the Universities Admission Centre conversion table.


6 What is also important for the quality of intake is the distribution of students above the cut-off point. If the last student to enter has a low ATAR score while everyone else has a high one, there may be no change in the average quality at entry. This of course assumes that ATAR adequately measures the quality of students. However, universities do not divulge mean or median entry scores as there appears to be a lot of the gaming of the system going on as well as direct admissions outside of the formal entry process. Some low ATAR universities have median entry scores only 3-5 marks above the official cut-off as there are students admitted below the cut-offs, including those allocated bonus points for a wide variety of reasons often relating to socioeconomic disadvantage or coming from regional areas or from a close locality and so on.

7 Evidence that a degree in Economics is ‘vocational’ is provided by the estimated rate of return to an economics degree reported in Daly & Lewis (2010). An economics degree is well-regarded in the labour market and this may become increasingly so as employers turn away from more general business degrees.
Table 2: Australian Tertiary Admissions Rank (ATAR) 2007 and 2014

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<tr>
<td>University of Sydney</td>
<td>84.4</td>
<td>95.35</td>
<td>81.1</td>
<td>95</td>
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<tr>
<td>University of New South Wales</td>
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<td>78</td>
<td>96.3</td>
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<tr>
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<td>University of Technology, Sydney</td>
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<td>90</td>
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<td>Macquarie University</td>
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<td>72.6</td>
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<td>81.65</td>
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<td>Curtin University</td>
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<td>50.1</td>
<td>55</td>
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<td>Edith Cowan University</td>
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<td>62.5</td>
<td>55</td>
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<tr>
<td>Victoria University</td>
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<td>64</td>
<td>50.2</td>
<td>45.3</td>
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a. For 2007 the entry scores have been adjusted to an equivalent ATAR, using the Universities Admission Centre conversion table.


Some self-inflicted wounds

It can be conjectured that the reported failure of economists to predict the global financial crisis might be one reason for the declining enrolment. Conversely, it may be the case that we should have expected a pick-up in student numbers, as apparently occurred in some other countries, as a result of the GFC. Millmow and Tuck (2011) indicate that the latter did not happen. Perhaps of greater importance is the negative way that economics is often portrayed in the media.
Many commentators have heaped scorn on economists and economics. This is extensively discussed in Coleman and Hagger (2001) and Coleman (2004). Very rarely do we see stories of the positive contribution that economics has made to public policy debate and overall economic prosperity in this country. In most of the major policy debates, economists have made fundamental contributions ranging from the Industries Assistance Commission on tariff reform through to Ross Garnaut on climate change. It is the positive stories that are not being communicated to the public. The profession needs a whole new image as a vital contributor to business and policy debate. Perhaps there is a case for leaving internal dissent ‘in-house’ to be articulated in academic conferences, seminars and journals without airing our dirty laundry in public. Or if this is seen as too restrictive, presenting alternative approaches in the media in a positive light that illustrates alternative solutions or policy proposals without denigrating those of opposed views. It is the credibility of the profession that is at stake here.

Another aspect of this internal bickering relates to the two rounds of the Excellence in Research for Australia (ERA) audit organised by the Australian Research Council. Serious concerns have been raised about the adequacy of the ERA audits to accurately and fairly judge the full breadth of economic research (Bloch 2012). The ERA1 audit showed that two-thirds of universities that were assessed in applied economics, as well as the overall economics discipline, were rated as ‘below world standard’. The implication of ERA1 was that Australia generally is very poor in economics research by world standards. At the two-digit level (14 Economics) 40 per cent of assessable economics units were given the lowest possible rating of 1 representing ‘well below world standard’. By comparison, in the humanities and creative arts, less than 10 per cent of institutions received a 1 ranking across all fields, including law. The overall average for economics was 2.4. We only achieved world standard (just) in economic theory 3.1 and econometrics 3.3; we scored 2.1 in applied economics. Note that applied economists account for 66 per cent of all Australian economists, 80 per cent of the research grants and 76 per cent of publications. Are we really that bad?

Much of these research ratings depended on journal rankings. Only 28 per cent of applied economics journals ranked A or A*, whereas in economic theory it is 42 per cent and econometrics 57 per cent. In applied economics only four out of 35 universities got a 4 or a 5. The results for ERA2 for economics show modest improvement. The overall economics average was 3.2 (now just above world average), with 62 per cent of institutions scoring 3 or above. In applied economics 53 per cent of institutions scored 3 or above, there were no 1s, and 47 per cent scored a 2, with an overall average of 2.87. But the mode was 2 (‘below world standard’) – with 14 institutions achieving this score.
An increasing proportion of a university’s research funding is based on ERA outcomes and hence there is reduced funding within universities for low-ranked research codes. As such, the perceived ‘value’ of academic economists in many universities is very low and if they perform ‘below world standard’ or even just at that standard, why persist with them when a better return on research resources can be obtained in disciplines with far higher ERA rankings? But who generates these rankings? It is the economists on the various committees and the assessors. Why are we shooting ourselves in the foot? Other disciplines seem to be coordinating their efforts to advance the interests of their profession. We seem intent on dragging ourselves down. The end result is that these ERA exercises rank the quality of economics research far lower than an objective assessment of the data (see Davidson 2013).

A similar story played out most recently in the latest Australian Business Deans Council (ABDC) journal ratings. While other business disciplines were busy getting more of the journals they publish in ranked, and raising the rankings of as many journals as they could, particularly at the A* and A level, in economics we were doing the opposite. In particular, a submission from UTS recommended taking large numbers of journals that we might occasionally publish in out of the economics classification altogether and downgrading a whole lot of other established journals, some from an A ranking to a C. The latest ABDC journal ranking list for all the FOR codes has 27.7 per cent of all journals ranked A or A*. In Applied Economics it is only 23 per cent. In Marketing and Tourism it is 25 per cent, Business and Management (with 821 journals compared to the 500 in Applied Economics) it is 30.2 per cent, Management Other scores 39.4 per cent, while Commercial and Contract Law achieves an overwhelming 44.2 per cent. Consistent with Bloch’s (2012) argument of a clear bias in our rankings towards economic theory and econometrics, the proportion of ABDC A and A* journals in Economic Theory is 43.3 per cent and in Econometrics 42.4 per cent but the vast bulk of our research output is in Applied Economics, which languishes twenty percentage points lower in the ratings.

At least in the latest ABDC ranking process the Economic Society argued that the Economic Record should be an A* rather than an A-rated journal but that support had apparently no effect on the final outcome. We are reminded of a heads of department meeting at ACE a few years ago when one head totally rubbished the Economic Record and said he would not even consider sending an article there. What sort of support is that for our leading journal? Economists have not played the game of self-promotion for the profession as a whole, rather than for their personal advantage. For a profession that prides itself on understanding the role of incentives and strategy, the outcomes for economics journal rankings is extraordinary. Given that promotion and research funding is increasingly fixated on top-ranked journal publication, why are we again
causing self-inflicted harm by undermining our colleagues. Are we a selfish lot? Why is there no collective action to advance our interests rather than having mavericks that undermine it?

A further aspect of self-inflicted agonies is a point that Tony Endres made to us that economics has been ‘fractured, sliced and diced-up by other disciplines and shared- around in business schools’. The often narrow content of economics instruction blocks students from wider backgrounds doing double-majors with economics in areas such as psychology, political science, sociology, anthropology and geography. Conversely, economics has been ‘colonised’ by cognate disciplines in business schools. For example, new institutional approaches to the firm (Coase, Williamson), business and economic history, including institutional aspects of economic organisation, and theoretical aspects of entrepreneurship are now being researched and taught in management studies. Institutional and behavioural aspects of international finance are being taught in courses in departments of finance, while development economics is widely taught as ‘Development Studies’ in arts faculties. The term ‘colonisation’ is perhaps not the right one in all cases since it implies an unwilling relinquishment. It may instead be ‘self-inflicted’ as these areas are often regarded as ‘peripheral’ to our disciplinary focus. Such a view adds to our current problems.

If current trends persist, will there be anyone left to teach economics in the schools? In 2012 there was a meeting between the executive of Business Educators Australasia (BEA)\(^8\) and Ed Wilson and Tony Stokes of the Economic Society of Australia (NSW branch). The topic of discussion was what could be done to increase the numbers studying economics in Australian schools and universities. The BEA raised serious concerns regarding the low numbers of economics graduates going into teaching. While some states, such as NSW, were coping reasonably well, in other states, such as Queensland, the situation was dire. Schools had little choice but employ teachers with one unit of economics (business economics) or no economics to teach economics to years 11 and 12 students. The key plea from the BEA was for universities to create positive learning environments in economics, with high-quality teaching to motivate students to consider teaching careers. Alas, it was explained to the BEA, most university staff did not see quality teaching and learning outcomes as the source of reward or promotion but that universities were obsessed with high-quality research performance and the funds that could be gained from that.

Another key issue associated with having school teachers with limited or no qualifications in economics is that they tend to favour the subjects in which they are qualified and may turn students away from studying economics. In

\(^8\) Business Educators Australasia is the national association for school teachers of economics and business education.
addition, schools may not offer economics as a subject if they cannot get an economics teacher. All of this worsens the situation in schools and, subsequently, universities.

Perverse incentives

There seems little dispute that there has been considerable Americanisation of Australian economics. The incentive structures are such that in order to achieve high-level research outcomes, academics need to publish in the top journals and these are predominantly American and require advanced modelling skills and econometric techniques. Applied Australian research is usually not the sort of content that is readily acceptable in these journals. This has several consequences. First, academics have to be highly skilled in theory and/or econometrics and certainly at the undergraduate level they find that most students do not share their passion for this sort of work. This being the case, many of the top academics avoid lower-level teaching and focus on honours and Ph.D.-level courses. Given the incentive structure, the clear signal is to minimise one’s teaching load in general to concentrate on research. Secondly, there is less interest in specifically local policy concerns incorporating the institutional characteristics of the Australian economy. Yet it was that sort of ‘small economy’ modelling that generated the international renown of Kemp, Swan, Harcourt, Corden, Gregory and others in international trade and labour economics. Similar examples can be drawn from agricultural economics. Our international prominence, with notable exceptions, has undoubtedly fallen.

The point, however, is that we have slanted our teaching to mimic our research focus and not to cater to the composition of the student body we now face. At least at the lower levels of undergraduate teaching we need to impart, and to let students apply, the basic skills and techniques that make economics so valuable as a policy science. At a macroeconomic level, we need policy simulations so that students can select different parameter values and themselves see what it does to macroeconomic targets and how shocks affect aggregate performance. They need to be able to replicate the behaviour of the Reserve Bank of Australia (RBA) and appreciate the complexities of setting a cash rate in a global environment. Combined with this they need to be able to use basic quantitative techniques

9 Coleman (2013: 24–6) sees the situation this way: ‘What Australia has absorbed in full measure is an “International style”; a kind of economics that has no nationality, and looks the same wherever it is found across the world. … the only rational choice for any talent is to participate in some global research project addressing “big”, universal and enduring questions … In Australia today there is economics aplenty. But there is no Australia in economics any longer. Australian economics is at an end.’

10 Paul Oslington notes that while the focus here is on undergraduate teaching programs, other aspects include the disappearance of quality Ph.D. students to the US, and the declining influence of economists on public policy which flows from the ‘perverse’ incentives mentioned.
without always having to derive the theory behind them from first principles. At a microeconomic level it is the repeated application of a small set of basic principles relating to opportunity cost, decisions at the margin, price–quantity interactions, externalities, competitive dynamics and, particularly, cost–benefit analysis that is needed. Students should work through repeated examples of investment proposals that need to be evaluated, present values and rates of return calculated. It is these skills that set us apart and raise the employability of our average graduates. The other bells and whistles can be covered at higher levels and particularly during the Honours year. We should not be self-replicating Ph.D. trained academics when we teach the bulk of students we encounter. I think we need to face the fact that a vast majority of our students are not going to do a Ph.D. but only complete an undergraduate degree with often just minimal exposure to economics. Stephen King (2012) put it as follows:

Economics is a public policy discipline. It is useful in many areas but its main role is to provide a set of tools to think about markets. Students need to understand what tools to use where and when. So they need the assumptions. But they also need context. Students need examples of where models work (and where they don’t and why). They need economics linked to current policy debates and to economic history. The discipline has largely abandoned its own history in teaching – which is completely mad. If we teach economics in a vacuum, then that is all we will leave with students – an economics vacuum.

In sum, we should focus more on the practical application of economic models, develop more fully basic data-analysis skills and communicate our ideas better to non-economists and to those students not pursuing economics majors. We also need to be open to different ways to hold the attention of the modern student. For example, at UNSW in first-year microeconomics they use ‘Playconomics’, an online game that sets up economic environments and allows students to interact with other agents, make economic decisions and analyse the outcomes. Students can play the game in their own time, on their own devices and can progress at their own speed.\(^\text{11}\)

This is not to say that we should not hire staff trained at the best US universities. To do otherwise we put us at risk us of becoming an academic backwater. It does mean that we have to more consciously differentiate what and how we research with what and how we teach. While there are undoubted economies of scale and scope to closely mesh the two this should be left for higher-level units. There may even be a case, as the University of Canterbury has demonstrated,

\(^{11}\) Another positive sign is the development of the excellent student economics site – http://economicstudents.com/ – created by the Economics Student Society of Australia. This Society was founded in February 2012 at the University of Melbourne ‘by a group of friends who love economics’. It is now the largest student economics society of its kind in Australia, spanning both Melbourne and Monash universities.
that there are benefits to bringing in enthusiastic teaching-focused staff to teach the first years, and perhaps some of the second-year units, in ways that students find appealing and that induces them to go on with an economics major. Moreover, in our research effort we need a balance between hitting the top journals\textsuperscript{12} and preparing graduates for public policy and contributing to Australian policy discussion. Staff incentive structures need to encourage such research endeavours.

### Why we should bother

The sceptics and naysayers will no doubt object. We have heard it said on numerous occasions that we shouldn’t teach economics in the high schools but wait until they get to university; that what is taught at the high-school level is inappropriate and too current-affairs focused. It has also been said that economics is taught badly at the weaker universities and it is best concentrated in the Group of Eight, where it can be taught rigorously to high-achieving students.\textsuperscript{13} These perspectives see nothing wrong with the dramatic decline in economics enrolments at both the school and university level. After all, it is a market phenomenon and we are selling the wrong type of product or at best it is a product that cannot be appreciated by misinformed consumers.

Others respond that the suggestion that the economics discipline in Australia is in a perilous situation is an overstatement of the extent of any deterioration. While Curtin has faced serious staff redundancies, the Curtin Business School has also recently received in the vicinity of $10 million to establish the Bankwest Curtin Economics Centre, which is employing high-profile economists. Similarly, while economics at both the University of Sydney and the Australian Catholic University has been ejected from the Business faculty and transferred to Arts, is the latter may well prove to be a more hospitable environment. As economics is a social science, is not placing economics in arts quite a sensible thing to do?

Additionally, some of the change in the numbers taking economics degrees might just reflect changes in the naming of degrees. For example, instead of majoring

\textsuperscript{12} A recent study (Card and DellaVigna 2013) found that hitting these journals was increasingly difficult. They found that annual submissions to the top five journals nearly doubled from 1990 to 2012 while the total number of articles published in these journals actually declined from 400 per year in the late 1970s to 300 per year most recently. As a result, the acceptance rate has fallen from 15 per cent to 6 per cent, with potential adverse implications for the career progression of young scholars.

\textsuperscript{13} One reader of our paper commented: ‘I am also afraid to say that [this] is true. The fact of the matter is that many economists in the marginal universities just do not know the different economic models or the mathematics. (None of my sessionals, for example, can teach intermediate mathematics and none use mathematical formalism in their classes). … It also does not mean that economics is necessarily taught well at the senior universities. It is just taught badly in a different way (mainly because they are so specialised that they cannot really teach outside their area of expertise and in an intuitive fashion).’
in marketing as part of an economics degree, students now have the option to
do a marketing degree. Or it may reflect broader university policy changes that
may not impact on economics enrolment. To take an example, while the B.Ec.
is no longer offered at UWA this has everything to do with UWA reducing
the number of degrees offered and nothing to do with a reduced demand or
supply of economics at UWA. Economics is still offered in the B.Com, as either a
‘double major in economics’ (which basically offers the same range of economics
subjects as the old B.Ec) or a ‘single major’. The number of economists at UWA
has held pretty firm. Overall, more students are studying economics under the
B.Com than the old B.Ec, but fewer are studying the full range of subjects. They
have far more ‘single major’ economics students (who study eight economics
units, including two micro and two macro) in the B.Com than ‘double major’
economics students (who study 15 units), but the spread of students across the
various classes is holding up.

While the situation at UWA is reassuring, some of the other WA universities are
alleging that the predatory practices that UWA employs to maintain enrolments
has come at a cost to them. The UWA economics entry mark is 80, far lower than
average Go8 business/commerce cut-offs reported in Table 1. Indeed, with the
various discounts available for disadvantaged high schools the cut-off may well
be lower. This squeezes out the intake of reasonable economics students at the
other universities and they are forced to lower their entry scores even more and
attract far less well-prepared students.

Such actions, if demonstrated, are dangerous in that they lead to a zero-sum game
for the profession as a whole, although they may benefit particular institutions.
Economics training should be supported wherever it is delivered. John Quiggin
(2012) said it best:

Economics is the foundation discipline for studies in business,
finance, accounting and related fields. A tertiary institution that
offers a business degree without economics is not a real university,
any more than one that fails to offer Arts or Science degrees. One
of the most distressing results of Australian higher education policy
over the past twenty years is the re-emergence of a sharp division in
which ‘sandstone’ universities, catering largely to the private-school
educated children of the upper-middle classes offer degrees comparable
to those of high-quality private and public universities in the US and
elsewhere, while regional and working-class students are streamed into
institutions offering ‘vocational’ degrees. In many cases, including that
of business degrees without a disciplinary foundation, these are not even
particularly valuable credentials in the employment market ... Offering
them supposedly vocational degrees with no real disciplinary foundation
is a cruel fraud and a dereliction of educational duty.
A cornerstone of a democratic society is economic literacy. Some of the toughest issues confronting society are rapid structural, technological and demographic change, macroeconomic turbulence, global warming, and growing income inequality; therefore some of our biggest challenges will be to design tax, health, welfare and education systems, along with competition and industrial laws that balance equity and efficiency, and robust macroeconomic policies for an integrated world economy. The performance of our economy impacts on the availability of jobs, mortgage interest rates, the value of the Australian dollar, the prices we pay in the supermarket and our overall standard of living. In short, economic performance affects everyone. We desperately need economically literate citizens who understand these public policy challenges. The more students who are exposed to economics the better. Unfortunately, fewer students are taking economics in high school and in response to the fall in economics enrolments at universities there are fewer economics units being offered and the formerly mandatory two units of economics in first year for all business students is being replaced with a single unit combining both micro and macro but neither in the depth required.

**Are we self-obsessed?**

While our main concern here is the economics discipline and its perilous situation, we need to acknowledge that what is currently happening is in a context of extensive changes in the higher education sector. The loss of 18 economics positions at La Trobe is part of a planned redundancy of 69 academic positions at its business, economics and law faculty and an overall widespread cost-cutting restructure of the university in which 350 jobs are expected to be shed. At UWS the 11 economics redundancies were in the context of 30 redundancies in the School of Business overall and more in other parts of the university. The same general cuts happened at Bond, Curtin and many others. Economics was a casualty but there were many more. These are turbulent times and the notion of tenure has largely disappeared as the Federal government’s financial contribution has declined in relative terms and the struggle for survival in competitive student markets intensifies.

The current reality is that corporate managerialism has replaced collegial systems of administration. Universities are in a state of flux and they are strategically reweighting their priorities. This has an adverse impact on economics but on many other disciplines as well. There is less tolerance for self-directed research that is unrelated to external funding and not supported by citation and impact ratings. We appear to be seeing a substantial increase in the concentration of economics education in the Go8 universities. But even within the Go8 there is increased concentration. Four universities – Melbourne, the University of
Queensland, UNSW and ANU – appear to be setting themselves apart. For the non-Go8, the future may involve a return to the pre-Dawkins era. The current vast disparities in teaching loads among Go8 and non-Go8 departments – with the latter sometimes teaching four or more times the contact hours per semester than the former – is a clear case in point.

Economists have not been quiet in the face of the new corporate managerial culture. Harry Clarke (1998: 55), in a strident polemic entitled ‘Dumbing-down in Australian universities’, writes that:

Courses are established to be attractive to students (now described as ‘clients’ or ‘customers’ of the university) by having apparent vocational appeal with unchallenging subject matter and assessment … Academically weak students, facing the option of choosing between challenging, analytical courses or descriptive, narrow courses with little intellectual challenge, tend to go for the latter if that is where they see apparent vocational opportunity.

Murray and Dollery (2006) comment that administrators have sometimes acted despotsically, without regard to logic and fairness, and the costs incurred in organisational restructures were often far in excess of any derived benefit. The personal costs of such outspoken dissent can often be high, as Tom Valentine found out at both Macquarie University and UWS. While these individual expressions of dissent (or whistle-blowers in the case of soft-marking) are admirable, it may be far more effective if it was done as a collective effort behind a representative organisation such as the ESA. We need to be better organised and effective in communicating our message of the essential role of economics instruction to all university managers.

The obstacles are likely to be substantial. Maxwell’s (2003: 91) final words are worth repeating:

Moving in this direction, however, will not be an easy process. It requires change and adaptation in a difficult educational environment. … Those [departments] that have reemerged from a period of decline have changed and evolved in unexpected and often painful ways … economics departments in Australian universities seem destined to face a similar experience.

Unless the tide can be reversed the future may involve a significant consolidation and concentration of economics training in a far smaller number of institutions, with all of the consequences outlined in Quiggin’s statement previously quoted. A worst-case scenario would even see these institutions struggling for enrolments.
Concluding remarks

Economics enrolments have been declining for some time but this has been accompanied recently by dramatic cuts to academic positions, courses and degrees, and even departments and schools. We do appear to be in a crisis with respect to training the next generation of economists. Yet there is no indication that their input will not be needed as society grapples with complex and challenging public policy issues. In order to hold the fort, we need to be far more strategic and political. The Economic Society has an obvious role but has not always been effective in the past. It needs to act as an advocate for the entire economics profession. What could be done to make it more effective? Ed Wilson, from the University of Wollongong, in an email dated the 7 July 2014 to one of the authors, writes:

I understand the termination of the ERA journal rankings was brought about by judicious remarks by a few respected economic academics to a government minister’s office. I think a group of senior economists (academic, public and private sector) should be asked to strategically approach individual VCs, Universities Australia and the like. … collective action would be more forceful. Members of the Economic Society could initiate this. The Society could play a role by calling an urgent national one day high level symposium of related organisations including the Econometric Society, the Australian Business Economists, CEDA, etc (plus even AES and EES reps) to consider the future of teaching economics in secondary and tertiary institutions in Australia. It could be organised around the nation’s future economics human capital needs. This is an excellent suggestion. It would also be of benefit if senior economists in the public sector and academia re-engaged with the Economic Society. The Society celebrates its 90th birthday in 2014 but unless action is taken it may not reach its centenary. Even if it does, there will be little left to celebrate. Academic economists need to be far better organised and solidly behind the objective of protecting and advancing the interests of the discipline. There needs to be less in-fighting and squabbling and a greater sense of cooperation and solidarity. Economists have a legitimate purpose in being proactive to maintain

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14 Is the discipline as a whole following in the footsteps of Economic History? McLean and Shanahan (2007: 301, 312) note that ‘Economic historians in Australia and New Zealand have for a number of years faced declining student demand (relative or absolute) for their subject. Together with conditions of financial stringency more generally in the universities, this has led to a reduction in the number of academic posts in the field by about 50 per cent. Separate departments of economic history, which had existed in eight Australian universities, have all been abolished in this downsizing, and academic staff absorbed into departments of economics or business management. The number of full professorships in the field has declined from ten to just one … [while] the domestic supply of PhD graduates in the field has fallen almost to zero’.

15 Bruce Chapman, then president of the Economic Society, played an important role in articulating the problems with a formal system of journal ranking.
our disciple because there are substantial ‘public’ (as well as private) benefits in doing so. There is certainly the impression that other disciplines have been far more effective in advancing their interests than we have. We fail to take action at our peril. A decline in academic economics in Australia may impoverish us all.

References


Quiggin, J. 2012, Letter to the UWS Chancellor, 9 November.


Capital in the Twenty-First Century: A Critique of Thomas Piketty’s Political Economy

Michael Potter

Capital in the Twenty-First Century, by French economist Thomas Piketty, is a book that has come out at the right time for public intellectuals, who are taken with its story of high and growing inequality, the damage done, and the need for punitive taxes to remedy this damage. Paul Krugman (2014) declares: ‘Piketty has written a truly superb book … This is a book that will change both the way we think about society and the way we do economics.’ While there have been many other books and articles written recently about inequality (for example, Stiglitz 2013 and Wilkinson and Pickett 2009) Piketty’s book stands out in terms of the focus it has received and the sales made (See VanderMey 2014 for a detailed discussion of the success of the book).

The title Capital in the Twenty-First Century (henceforth Capital) derives from the book’s focus on tracking movements in capital (or what non-economists would call wealth) and the impact of capital on worsening inequality. The title of Piketty’s book obviously echoes Das Kapital. Both books make bold, sweeping predictions about the future. And Piketty’s book has obvious Marxist leanings by assuming that the existence of rich and poor in the long run is mostly due to the existence of profits (for the rich) and wages (for the poor). Perhaps Piketty thinks his book will be as influential as Marx’s. But he is surely hoping it will stand the test of time better than Marx’s theories.

This paper examines the now extensive literature on Capital to scrutinise 1. Piketty’s data; 2. his explanation of the data; 3. the significance he attributes to this data; and 4. his remedy for the supposed problems.

Overview of the data and arguments

The main measure that Capital uses for inequality is the share of income (or wealth) that goes to the top portion (10, 1 or 0.1 per cent). Capital argues that this measure of inequality has significantly increased in recent decades, as illustrated in the figure below based on Figure 9.2 in Capital.
While *Capital* measures inequality through the shares of incomes going to the rich, there are many other measures, including the Gini coefficient. Piketty discards these indexes as misleading because they try to ‘summarise a multidimensional reality with a unidimensional index’ (p. 266). However, Piketty is not consistent – *Capital* also sometimes summarises inequality with a single figure. In addition, *Capital*’s use of income shares means that some of Piketty’s arguments are difficult to reconcile with other studies (discussed below) that produce very different results.

Income in the economy can come from wages, the returns on wealth (‘capital’) or from government transfers (e.g. pensions). Piketty focuses on income from wages and wealth and entirely leaves out the government – an omission explored further below.

*Capital* presents data showing that wealth inequality in several countries fell between about 1900 and 1970, and has increased slightly since then (Chapter 10), based on measuring capital as a share of the income earned in the economy. *Capital* uses the terms capital and wealth interchangeably to mean the value of

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1 The page numbers are from the Kindle edition of *Capital* and so may not correspond exactly to the hard copy.
all assets, including land, housing, shares, art, bank accounts, plant, equipment and intellectual property. This terminology is somewhat misleading: most people would use ‘wealth’ to cover assets such as land and art, but not ‘capital’.

Piketty argues that the decline in income and wealth inequality from 1910 to about 1970/80 were caused by factors including the Great Depression, the two world wars, increased taxes and various social policies. Piketty forecasts significant increases in the value of wealth, and the inequality of wealth and income in this century, on the basis of his forecasts for low economic growth and high returns to wealth during the 21st century. He argues this is a major problem and in response argues for increased taxes on wealth, the income to wealth, and inheritances of wealth. He is, however, less supportive of other solutions to inequality, including inflation, capital controls, immigration, and protectionism; and he is only lukewarm about education as a solution.

**A critical examination of the inequality data**

Piketty’s inequality analysis is largely based on data from tax returns. He argues that this enables better analysis of top incomes over time, because surveys (the other option for collecting data on inequality) can’t measure the highest incomes correctly (p. 257, p. 329) and cover much shorter periods than the tax data. However, using tax return data has large problems. It a) leaves out income support and government transfers; b) incorrectly measures capital gains; c) omits non-taxable income entirely; and d) is sensitive to changes in the definitions of taxable income.

These are major problems, calling into question the basis of his whole book. I deal with these issues in turn.

**Omission of income support and government transfers**

The data from tax returns used in *Capital* is based on market incomes and leaves out the effect of income support and welfare programs such as health and education. *Capital* does spend some time analysing the growth in the welfare state (in Part 4), but it completely leaves out the impact of this in the data on inequality in the first three parts of the book and therefore omits the main force that has offset inequality in market incomes.

As an illustration of the impact of this omission, when welfare income is included, the (disposable) income of the bottom 90 per cent in the US rose nearly $12,000 between 1979 and 2012, whereas Piketty’s data has this income dropping by $3,000 (Winship 2014). Similar arguments are in Burkhauser and
Larrimore (2014) and Milanovic (2013). Interestingly, Burkhauser and Larrimore suggest that the growth of the welfare state may have increased the inequality of incomes excluding welfare, presumably because welfare reduces the incentives to work for those on low incomes. If this is true, then this further emphasises the problems caused by leaving out welfare payments from analysis of inequality.

Similarly, Piketty also leaves out most of the total wealth of poor and middle-class households; namely, their claims to current and future income support and health benefits (Kotlikoff 2014, and Mount 2014). Suppose I have a private pension that pays me $20,000 and you have a public pension that pays the same amount – the first asset that generates the private pension (more likely to be held by the wealthy) is counted in Piketty’s wealth data but the second (more likely to be held by the less wealthy) isn’t (Worstall 2014). For Australia, the age pension has been growing in real terms for many years. Along with increases in life expectancy, partly offset by increases in the pension age, this means that the value of the ‘age pension asset’ has also grown, and this would predominantly be an asset for the least well off in society.

This means that Piketty’s conclusions on both income and wealth inequality are misleading and inaccurate.

Incorrect measurement of capital gains

Piketty’s tax return data include capital gains as income in the year in which assets are sold. But a better measure of income includes capital gains when they accrue rather than when they are realised. Armour, Burkhauser and Larrimore (2013: 25) use accrued capital gains rather than realised taxable gains and find: ‘The top quintile of the income distribution had the slowest income growth from 1989 through 2007, while the bottom quintile had the fastest.’

Omission of non-taxable income

The data used in Capital also do not include non-taxable income. Piketty argues the exemptions from capital gains taxes benefit the wealthy, so that this omission means inequality is understated (p. 282). However, he neglects to analyse the exemption fully – there are exclusions that benefit a much wider range of the population, including exemptions for the gains on sale of the home.

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2 The figures on net wealth also fail to subtract a substantial liability for the rich – their future tax payments. Inclusion of this debt would further reduce wealth inequality.

3 In Australia in 1970 the age pension for a single person stood at $7,283 per annum in 2012 consumer prices. In 2012 the actual age pension for a single person was $19,278, a real increase of 171 per cent.
and the value of health insurance (Winship 2014) and the imputed rent on owner-occupied houses (Cross 2014). In Australia, the inclusion of imputed rent reduces measured income inequality.4

**Definition of taxable income**

Some of the apparent changes in the distribution of income could be an artefact of amendments to the definitions of taxable income. One-third of the measured increase in US income for the top 1 per cent from 1985 to 2012 could be due to a reclassification of income for tax purposes, rather than a true change in inequality (Burkhauser and Larrimore 2014). For Australia, an apparent spike in top incomes between 1986 and 1989 appears to be due to a change in tax rules and the measured growth in inequality since 1989 seems to be due to the introduction of the capital gains tax (Burkhauser and Larrimore 2014).

**Other concerns**

There are other concerns with the data in *Capital*, including:

- Giles and Giugliano (2014) argue that when they correct for ‘errors’ in Piketty’s data they find that ‘the European results do not show any tendency towards rising wealth inequality after 1970’. Piketty has replied, addressing these criticisms in some detail (Piketty 2014b).

- Historically, tax returns (the source of Piketty’s data) were only filed by a small percentage of the population (Milanovic 2013).

**Different conclusions reached by others**

Other commentators have examined inequality data and found quite different conclusions.

Globally, income inequality (measured by the Gini coefficient) fell slightly from 1988 to 2008, including when Piketty’s concerns about correct measurement of top incomes are addressed (Lakner and Milanovic 2014). So the apparent increase in inequality is occurring within countries rather than across the globe and could be seen as an artefact of where country boundaries are drawn.

Specifically for the United States:

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• The share of disposable income after taxes and welfare payments going to the top 1 per cent was around the same level in 1987/88, 1996, 2001 and 2009 (Kaplan and Rauh 2013).

• Data from the Congressional Budget Office show that from 1980 to 2010, incomes for the poorest fifth of Americans rose by 44 per cent in real terms before tax, or 53 per cent after tax (Samuelson 2014) – this is significantly greater than the change in Piketty’s data.

• Household income inequality after tax (measured by the Gini coefficient) did not increase from 1986 to 2010; this result is in a report otherwise raising concerns with inequality (Lorenzetti 2014).

• The data from estate taxes show no increase in wealth inequality over the past 30 years, similar to results from surveys by the US Federal Reserve (Kopczuk and Schrager 2014).

• The latest data show there has been no increase in the share of wealth owned by the rich, outside the top 0.1 per cent, since 1960 (Saez and Zucman 2014: 3). Piketty himself indicates this data set is more up to date and reliable than the data in Capital (Piketty 2014b). Even the increase for the top 0.1 per cent has been called into question (Reynolds 2014).

For Australia:

• Incomes at the lowest end grew at a strong rate from 1988/89 to 2009/10 (Greenville, Pobke and Rogers 2013: 62).

• Between 2008 and 2013, the share of wealth held by the richest 1 per cent of Australian households fell (Main 2014), and median wealth grew faster than average wealth (Creighton 2014) from 2002 to 2010.

Data for other countries:

• The share of UK income going to labour is largely the same now as it was 40 years ago, so there has been no substantial increase in the share of income going to returns on wealth (Heath 2014).

• The concentration of wealth among the elite in France, Britain and Sweden remains far below what it was in the 19th century; while in the US the income shares of the top groups have been much more stable, although the data are probably less reliable (King 2014). See also Galbraith (2014) and Jones (2014).

It should be noted that there are other studies showing that there has been an increase in inequality (as argued by Summers 2014, McArdle 2014, and Rogoff 2014). To the extent that these other studies are based on tax data, the criticisms raised earlier can also be made. Results from surveys have fewer methodological issues; but, as Piketty has noted, these surveys have only existed for a short time and may not correctly identify top incomes.
Ignoring general improvements in wellbeing

*Capital* also diminishes the clear achievement of recent decades in cutting poverty. The book emphasises the growth in inequality in developing countries (see, for example, Figure 9.9) and plays down the successes in lifting hundreds of millions of people out of extreme poverty, particularly in China (see Cassidy 2014). But it should be hard to see China’s economic transformation as anything other than a success. The World Bank (2014) indicates that ‘Since 1990, the percentage of the world’s population living in extreme poverty, defined as living on less than $1.25 per day, has dropped from 36% in 1990 to 18% in 2010.’ And as noted above, there has been strong growth in the income of the poor in the US (Samuelson 2014) and in Australia (Greenville, Pobke and Rogers 2013).

**Piketty’s supposed causes of changes in inequality**

After detailing (on questionable foundations) an increase in inequality, *Capital* then goes on to explore potential reasons for this increase. Many of these arguments are flawed.

**Rate of return on wealth**

*Capital* argues that the rate of return on wealth is on average greater than the economic growth rate. Piketty argues that this is a ‘contradiction’ (p. 423 and p. 571). This is misleading for those who are not acquainted with Marxist rhetoric – or perhaps he doesn’t understand what contradiction means (something that is illogical or inconsistent), or maybe there was an error made in translation. Here he is probably trying to mimic Marx’s argument that there are contradictions at the core of capitalism (p. 228).

While it is true that the rate of return on wealth is greater than the economic growth rate over the long run, there are significant periods of time where it hasn’t held.

As Piketty himself notes, the value of total wealth fell dramatically during the global financial crisis (GFC), the Great Depression, and the Second World War in Europe; obviously the rate of return would have been strongly negative in those periods. If industrial capitalism has lasted for 180 years, then this relationship has failed to work for a full third of its lifespan, a significant defect in Piketty’s theory (Kunkel 2014).
There is an obvious reason for the (average) return to wealth to be greater than the rate of economic growth – this is to compensate for the risk that returns could be lower. Savers require a risk premium to compensate for uncertainty (King 2014). It is also necessary for there to be a risk premium for saving and investment to occur (McArdle 2014) and for this investment to be efficient over time, even in a communist country (King 2014, Homburg 2014). Note, however, a clear implication of Piketty’s argument is that he dislikes investment (discussed below). Piketty himself admits that the returns on capital in practice are extremely volatile (p. 466, 488) and acknowledges the need for a risk premium in passing (p. 54) but ignores this elsewhere, and erroneously attributes the risk premium entirely to a ‘time preference’ in favour of the present (p. 359).

**Growth and persistence in wealth over time**

This sub-section examines the arguments put forward in *Capital* for the causes of changes in wealth and their persistence over time.

**Causes of growth in wealth**

*Capital* argues that that a high return to wealth drives future increases in wealth.

However, Piketty’s own data show that high returns on wealth in the past haven’t led to growth in wealth accumulation. The return on wealth greatly exceeded economic growth in Britain, France, the US and Canada in the 18th and 19th centuries, but the ratio of wealth to output stayed relatively stable (Homburg 2014 and Crook 2014).

In addition, Piketty’s data show that most of the recent increase in wealth in developed countries comes from land and housing (p. 116–7). Rognlie (2014) argues that housing accounts for about 80 per cent of the increase in wealth, and about 100 per cent of the increase in income from wealth, in eight developed countries (including Australia, the US and the UK) over the period 1970 to 2010. See also Bonnet et al. (2014).

The problem that housing causes for Piketty is that it completely disrupts his argument that high returns to wealth drive savings which in turn drive future wealth. Most of the increase in land and housing is due to capital gains of existing land, not due to saving/investment in new houses and renovation. Piketty argues the opposite (p. 198), but this argument is easily rebutted by evidence. The definitive source for Australia, the national capital accounts, show that between 1989 and 2013, the value of all land in Australia (excluding improvements such as housing) grew by 482 per cent, and contributed 44.7 percentage points to

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5 Technically, capital gains on land should be counted as income in the year the gain occurs, and counted as saving to the extent the land is not sold. But as noted earlier, this is not how Piketty’s data work.
the increase in the net worth of Australia as a whole, while the increased value of houses themselves contributed only 19 percentage points.\textsuperscript{6} Homburg (2014) provides similar results for France.

This error in Piketty’s analysis means that little of the recent increase in wealth is caused by high rates of return on wealth (as Piketty measures it),\textsuperscript{7} or from executive salaries. Instead, the growth is due to planning laws (Rognlie 2014; Glaeser, Gyourko and Saks 2005; and Quigley and Raphael 2005) and any resultant ‘problems’ caused by increasing wealth are best addressed by fixing those regulations.

Inheritances and the persistence of wealth

*Capital* argues that inheritances play a major role in enabling the persistence of wealth across generations (pp. 400ff) and inheritances have more influence on the evolution of wealth than saving (p. 377). The role of inheritance declined as mortality rates fell over the past century, but Piketty argues that transfers of wealth may play a larger role in the future, as gifts before death become more prevalent and the wealth of the elderly increases (pp. 392–4).

However, there are important reasons to question the importance of inheritances. In particular, technological change has seen many fortunes appear and disappear.

Piketty argues that the data from the *Forbes* list of the richest 400 Americans shows large growth in the wealth of the richest Americans (pp. 432–6). However, Piketty measures the total value of the wealth, rather than the persistence of the names on the list. The total value can grow when there are many new entrants to the list, with those already on the list losing funds. In fact, less than one-tenth of the 1982 list was still on the list in 2012, even though most of the members of the 1982 list would have qualified for the 2012 list if they had accumulated wealth at a rate of only 4 per cent (Summers 2014). From 1992 to 2009, 73 per cent of the individuals who appeared on the list of the top 400 tax returns in the US did so for only one year (Epstein and Boudreaux 2014).

Furthermore, the proportion of the *Forbes* 400 list who are the first generation in their family to run their businesses was 40 per cent in 1982 and rose considerably to 69 per cent in 2011, while the share of those belonging to fourth-, fifth-, and sixth-generation inherited wealth has virtually disappeared (Kaplan and Rauh 2013). The share of the Forbes 400 that grew up wealthy has fallen from 60 per cent in 1982 to 32 per cent today, and the biggest winners on this list are

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\textsuperscript{7} Increasing house values will show up in Piketty’s data as returns on wealth when the property is sold, but the sale of homes often occurs significantly after the house price has gone up. Piketty also does not include the imputed rents on owner-occupied housing in his measure of income, further distorting his measures of returns on housing wealth.
typically entrepreneurs, while the biggest losers are often heirs (McBride 2014). Instead, one study finds that ‘the typical millionaire is not someone who was born into wealth but rather is someone who has worked hard and lived frugally’ (Mankiw 2014).

Rather than wealth persisting, it is often diluted over time when left to multiple heirs and by divorce, consumption, taxes, giving, poor investment decisions or due to market downturns (noting the riskiness of wealth discussed earlier) – see Kopczuk and Schrager (2014) and Posner and Weyl (2014).

Executive salaries

Capital also blames increased income inequality, mainly in the US, on executive salaries.

Piketty argues that many top managers are able to have significant influence over their own pay (p. 510) regardless of company profitability or managers’ productivity (p. 24, p. 334). Piketty argues recent cuts in top marginal tax rates have increased the incentive for executives to push for increases in their pay (p. 509) and there has been a breakdown in social norms that had previously kept a lid on executive salaries (p. 332).

The most fundamental problem with Piketty’s argument is that he is effectively arguing that shareholders and boards of directors are making systematic mistakes with their own money. Every dollar that goes to a CEO is a dollar less in profits to shareholders. While corporate governance at many firms is imperfect, it is hard to see how thousands of different companies could independently make the same mistake over and over again, particularly where there are large competitive pressures and intense markets for corporate control. Furthermore, the degree of this ‘mistake’ is increasing over time as executive salaries increase. As Baker (2014) argues: ‘Is it a law of capitalism that shareholders will forever throw money in the toilet by giving unearned bonanzas to CEOs?’

Piketty argues the pay of executives is ‘largely arbitrary’ (p. 332), but the fact that he can’t explain their levels or growth doesn’t mean that they are wrong.

Executive salaries – the evidence

Perhaps unsurprising given Piketty’s record so far, his argument that poor decisions by companies are leading to excessive salaries doesn’t fit with the evidence.

Corporate governance: there is no evidence that there has been a substantial worsening in corporate governance in the economies experiencing a large increase in executive salaries (Lindsey 2014). Executive pay was lower in the early part
of the 20th century, when corporate governance was weaker (Frydman and Saks 2010). Recent US legislative changes require shareholder votes on executive compensation; Conyon (2014) finds these votes are overwhelmingly positive. He also finds that the committees that set executive pay have become increasingly independent over time; there is little correlation between the independence of these committees and executive pay and little evidence that performance pay is weaker where committees are less independent.

Private companies: the corporate governance issues of concern to Piketty would be smaller at closely held corporations because they have a reduced principal–agent problem between shareholders and boards. However, the pay of CEOs of closely held firms has grown faster than the pay in public companies over recent decades (Kaplan 2013; Cronqvist and Fahlenbrach 2013; Summers 2014; and Bakija, Cole, and Heim 2012). Piketty’s research is based on public companies (Manzi 2014) and so misses this distinction.

Social norms: the evidence doesn’t support the argument that executive pay has increased because of the decline in social norms that previously discouraged high pay – the pay amongst those who are subject to less disclosure (and arguably less subject to social norms) has increased as well (Kaplan and Rauh 2013; and Bakija, Cole and Heim 2012).

Salaries of other groups: there has been a significant increase in top non-executive salaries, including top lawyers and surgeons, hedge fund managers, venture capitalists, and media and sports stars (Lindsey 2014; Kaplan and Rauh 2013). These other increases can’t be due to corporate governance; it is much more likely that a common factor has driven all these changes. Manzi (2014) also disputes Piketty’s argument (p. 302) that most of the highest incomes are from company executives.

Other potential causes: Piketty too easily dismisses other possible causes of growth in executive salaries. One potential cause is increased size of businesses: one study fully attributes the increase in US executive pay from 1980 to 2003 to the increase in the value of large companies during that period (Gabaix and Landier 2008), and a similar reason could apply to the other highly paid groups. Piketty dismisses this study because this explanation doesn’t apply outside the US (footnote 47 to Chapter 14), but Piketty had earlier described the US as the land of ‘meritocratic extremism’ (Manzi 2014). More substantial CEO wage growth in the US could be because the most productive technologies have been implemented more in the US than elsewhere and the highest paid professionals may have relocated to the US (Kaplan and Rauh 2013). In addition, Gabaix, Landier and Sauvagnat (2014) update the 2008 study and show that CEO pay fairly closely followed firm size downwards during the GFC and upwards since then.
1. Link with performance: there actually is a close connection between firm performance and salaries, contrary to Piketty’s argument. The results in Gabaix, Landier and Sauvagnat (2014) support this. In addition, Kaplan (2013) argues that poor-performing CEOs are much more likely to lose their jobs, with the increased pay likely to reflect the increased risk faced by CEOs.

2. Tax reductions: Piketty cites research arguing that reductions in tax have led to increased executive pay (p. 511), but Manzi (2014) raises substantial concerns with the methodology of this work, as well as many other problems with Piketty’s arguments.

Growth in wages and non-executive salaries

Piketty notes that a reasonable explanation for changes in wages is that technological change has increased the demand for skilled workers, driving up their wages, while the wages of the less skilled fall behind if their skills do not advance sufficiently fast (p. 305). He also argues that wage-setting institutions have a significant impact on wages at the lower end (pp. 307–10). These explanations would be supported by many economists.

However, Capital doesn’t put significant weight on the impact of globalisation, which has meant a huge increase in the global labour supply from Asia, weakening competing wages (generally lower paying jobs) – see Elsby et al. (2013), Cassidy (2014) and Ezrati (2014). Wages have also been depressed by substantial (illegal) immigration of low-skilled workers to some countries, particularly the US – a factor that has not affected Australia (Taylor 2014). Piketty accepts that immigration can help poorer workers become more wealthy (p. 538) but does not acknowledge that low-skilled immigration can depress wages at the bottom end in the destination country.

Does inequality matter?

Capital argues that the forecast increases in inequality are disturbing (p. 421), potentially terrifying (p. 571) and threatening to democracy (pp. 421–2, p. 571). The book also says that wealth, beyond an unspecified level, is indecent and economically useless (p. 473) or even harmful (p. 513), having no use in promoting growth (p. 572) and income on this wealth is an affront to common sense (p. 423). Piketty even praises what he considers to be deliberate policy choices to cut the value of capital in the 1950s and ‘60s in Europe (p. 149).

Before examining the problems allegedly caused by inequality, it is important to make some general comments on Piketty’s dislike of wealth.
Piketty implies that investment is bad

Piketty states that the driver of wealth is savings and investment rather than an increase in the value of existing wealth (p. 198). Given his dislike for accumulation of capital (wealth) noted above, Piketty is actually criticising saving and investment. While Piketty doesn’t say this explicitly, it is a natural implication of what he is saying.

Saving and investment are bad??? This is an absurd implication for an economist to make. It goes against voluminous evidence showing the benefits of investment. This evidence almost doesn’t need re-stating. But to give one example from the Australian Treasury: Gali and Taplin (2012) found a reduction of capital inflow and investment to Australia of 1 per cent of GDP ‘will reduce gross national income by about half a per cent each year in the first decade relative to baseline. Other things being equal, restrictions on capital inflow (including foreign investment) would reduce Australian investment, production and incomes. In turn, this would reduce the wellbeing of Australians.’

Piketty is effectively arguing that ‘The capitalist who squanders his fortune is a better friend to labor than the one who lives modestly and reinvests his surplus. In Piketty’s view of the world, where inequality is all that counts, capital accumulation is almost a sin in its own right’ (Crook 2014). Similar arguments are in McArdle (2014) and Jones (2014).

Importantly, Piketty’s implied argument can’t be explained away as Piketty criticising the saving and investment of the super-rich alone – he actually is specifically critical of the accumulation of capital by the moderately well off (p. 421) and is pretty lukewarm on the concept of pension plans investing in shares (pp. 488ff).

Piketty has a special disdain for foreign investment (pp. 69–72, p. 121, pp. 458–460). He seems to think that foreign investment has no useful function whatsoever and causes significant irritation in the country that receives the investment. He completely fails to explain why on earth many countries go out of their way to attract foreign investment if this investment is without merit. Piketty thinks countries with significant foreign investment are less successful, have an ‘almost irrepressible demand for expropriation’ and significant investment is ‘almost impossible’ to sustain without a colonial type of domination (p. 70). He is clearly unaware of Australia’s successes with a substantial level of foreign investment. Gali and Taplin (2012), discussed above, show the benefits of foreign investment to Australia.
Specific problems with wealth

Piketty’s reasons for disliking inequality are discussed below.

*Expropriation by the rich*: it appears that Piketty thinks the most important problem with inequality is that it means that income that would otherwise go to the poor is being captured, distributed to or claimed by the rich (see, for example, pp. 263–4, p. 269), as though the rich had seized the income from the poor. On page 297, he extraordinarily talks about the ‘transfer’ of income from the poor to the rich (similar arguments are on p. 378, pp. 416–7, and p. 439).

The main problem with this rhetoric is that it is implying that there aren’t any benefits (gains) from domestic or international trade – Piketty is effectively suggesting that any trade involves the distribution of value rather than the creation of value. When one party to a transaction gains, this implies that the other party must be losing. This is an implication that all economists should strongly reject as being completely contrary to the way a market economy works, most obviously because if there aren’t gains from trade, then it should be asked why any trade occurs at all.

This ‘zero-sum’ rhetoric also completely ignores the large improvements in wellbeing the poor have had over recent decades (as discussed earlier), particularly when tax and income support is included. Everyone, including the poor, has had increases in disposable income, so nobody has ‘lost’ as Piketty implies.

*Undemocratic*: Piketty’s argument that inequality is threatening to democracy could be based on the rich using their considerable resources to influence politics. But there are rich who support leftwing causes – think Warren Buffett, George Soros, some internet entrepreneurs and much of Hollywood; a specific example is in Hanauer (2014). Furthermore, the supposed growth in incomes of the super-rich in the US hasn’t prevented the election of Barack Obama who has proposed many left-friendly policies (Mankiw 2014). And to the extent that the government is being ‘bought’, the best solution is to reduce the scope of government – a solution Piketty and his fellow travellers are unlikely to support.

*Government preferment*: Piketty is on firmer ground to the extent he is criticising wealth that has been obtained by government preferment and rent seeking. However, Piketty basically argues that much of what is paid to the rich is unfair in some way or another even if there is no obvious rent seeking (pp. 422–3). In any case, rent seeking is not an exclusive purview of the very rich. ‘In New South Wales the ICAC has shown that wealth is neither a necessary nor sufficient condition to wield corrupt influence. It wasn’t inherited riches that gave us Eddie Obeid.’ (Berg 2014). And if rent seeking is driving inequality, then the best response is to address this problem directly (Mankiw 2013).
Piketty’s solution – taxes on capital income and wealth

Piketty proposes that the ‘problems’ caused by inequality should be addressed by large increases in taxes on capital income and wealth.

Impact on the economy

Piketty seems completely oblivious to the adverse effects of taxes on capital, arguing that punitive taxes would not reduce growth rates (p. 513). As Rogoff (2014) states: ‘I don’t understand why he [Piketty] assumes that an 80 per cent [tax] rate would not cause significant distortions, especially as this assumption contradicts a large body of work by the Nobel laureates Thomas Sargent and Edward Prescott.’ Heath (2014) argues that ‘eating capital is the best way to impoverish a nation, reduce productivity growth and keep wages down’.

Notably, the Henry Tax Review in Australia in 2009 and the Mirrlees Tax Review in the UK in 2011, involving those with much more tax expertise and knowledge than Piketty, both recommended that taxes on saving and investment should be lowered, not raised (Henry et al. 2009; Institute for Fiscal Studies and Mirrlees 2011). The Mirrlees Review found that a tax on wealth is ‘not appealing … [it has] very serious practical difficulties … [and] practical experience has not been encouraging’ and indicated there were persuasive arguments against such a tax (p. 347).

Other problems with tax on wealth

Implementation: there are obvious implementation problems with higher taxes on wealth – if they are not internationally coordinated, then the rich will simply move their wealth into low-tax countries. However, the possibility of implementing a globally agreed wealth tax is minimal, as Piketty himself acknowledges (p. 515, 529) but he then appears to assume this issue away. Commentators drawing attention to the difficulties of implementation include Joel Slemrod, a prominent tax economist at the University of Michigan (cited in Coy 2014); Larry Summers (2014), who was Bill Clinton’s Secretary of the Treasury; James Galbraith (2014), who is otherwise very sympathetic to Piketty’s views; and Kenneth Rogoff (cited in McArdle 2014). Summers (2014) also notes various implementation problems such as valuing closely held businesses and dealing with jurisdictions that deliberately undervalue assets to attract investment.
Fairness: Piketty’s wealth tax will apply to wealth obtained both ‘fairly’ and ‘unfairly’. However, it is quite debatable whether there are significant incomes and wealth that have been ‘unfairly’ acquired. In particular, Piketty’s evidence that executives are being overpaid by compliant shareholders is pretty flimsy. And any unfairness would be best addressed directly.

Common tax rate: Piketty argues that all wealth should be taxed at the same rate (p. 531). He completely ignores a core principle in the design of optimal taxes – that tax rates should be lower on more mobile assets (e.g. financial wealth) and higher on less mobile assets (e.g. land). His ignorance is particularly on display when he argues that it is hard to think of an economic principle that would tax land at a much higher rate than financial assets (p. 528).

Confiscation: Piketty’s proposed tax rates are punitive. His option for a 10 per cent tax rate on wealth (p. 530) is equivalent to a 250 per cent tax on capital income (Homburg 2014), assuming as Piketty does a 4 per cent return on capital. This is obviously expropriation of wealth/income, an outcome that he elsewhere argues against (p. 505).

Other solutions

Piketty discusses some other solutions to the alleged problems caused by inequality.

Broader capital ownership: if there are higher returns to capital and this is driving inequality, then this could obviously be addressed by wider ownership of capital. Pension plans could invest more in shares, which enables a wider distribution of the benefits of a higher return to capital (Heath 2014; Williamson 2014; Edsall 2014; and Summers 2014). This concept is already followed by the Australian superannuation system. There could also be greater use of profit participation and employee share schemes (Kruse, Freemen and Blasi 2010).

Perhaps unsurprisingly, Piketty is unenthusiastic about these ideas, even though these would partly address his concerns. He argues that the owners of a moderate amount of wealth (‘petits rentiers’) are a very large demographic group which will get larger, grow wealthier and pass on assets to the next generation and this presents ‘a fairly disturbing form of inequality’ (p. 421). In addition, his support for pension plans investing in shares is pretty lukewarm (pp. 488ff). The left more broadly is fairly hostile to profit participation and (for the US) private pension accounts.
Piketty does not raise nationalisation of capital as a solution – probably because he recognises the manifold problems when this was implemented *en masse* in communist countries (p. 138).

*Education:* Piketty himself considers that knowledge and skill diffusion are the key to reducing inequality (p. 21, 306–7) but is also fairly lukewarm about education as a solution (pp. 483–7). Improving educational productivity would increase economic growth and address low pay (poverty), which should be more of a focus for policymakers.

*Minimum wages:* *Capital* argues that minimum wages and ‘rigid wage schedules’ can reduce wage inequality and are part of the reason for the comparative evolution of wage inequality in the US and France (p. 308). Piketty makes some misguided claims in this area. He argues that it can be in everyone’s interest for workers to have their monthly income guaranteed, and workers may invest less in firm-specific knowledge if they don’t know their wage in advance (pp. 311–2). But both of these issues can be addressed directly through negotiation between workers and employers; and imposing this through ‘rigid wage schedules’ restricts the use of performance pay and profit participation which can increase wages, increase productivity and reduce layoffs in recessions (Kruse 1993; Estrin et al. 1997; and Kruse, Freemen and Blasi 2010). Piketty also argues that allowing employers to set wages can be arbitrary (p. 311), but he presents no evidence that wage setting by an industrial tribunal is less arbitrary. Notably Piketty argues that significant minimum wage increases shouldn’t occur when the minima are already at high levels, such as in France, because unemployment will result (p. 313) – and the minimum wage in Australia is higher than that in France.

**Conclusion**

The argument by Piketty and others that there is growing inequality and this is causing damage is not new. But regardless of who is running this argument, it is significantly flawed. The poor have definitely improved their situation, especially if taxes and income support are included, in many countries in the developing world and the US. A focus on inequality to the exclusion of poverty glosses over the large successes over recent decades. It paints a false picture of decline when large improvements have occurred.

To the extent there have been increases in executive wages, this has probably been driven by technology and globalisation, not by poor corporate governance. And the returns to wealth being (relatively) high should be expected given the riskiness of owning wealth, and is actually necessary to ensure that investment occurs.
Piketty’s (implied) argument that investment is bad should be dismissed out of hand, as should his argument that high taxes are required on wealth. Instead, the problems generated by ‘unfairly’ acquired wealth should be addressed by removing rents. Policymakers should consider broadening the ownership of capital and assisting those who are in genuine need, and reject proposals that pander to envy.

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REVIEW
In Australia in the 1920s and 1930s economics became a subject for serious study and was applied explicitly in the determination of public policy. This was largely due to a distinguished group of men who had been trained in economics at universities in Australia and overseas. The group included L.F. Giblin, E.O.G. Shann, R.C. Mills, E.R. Walker, L.G. Melville, J.B. Brigden, Roland Wilson and D.B. Copland. They occupied chairs of economics in Australian universities and held prominent positions in government agencies. Often they worked together as members of government committees, signed joint letters to newspapers advocating particular policies, advised the leading banks, attended international conferences as government representatives, delivered prestigious public lectures in Australia and overseas, published articles in leading local and international journals and communicated with the world’s most eminent economists. Recent work has illuminated some aspects of their work, but more needs to be known about their contributions to economics and to economic policy. Marjorie Harper’s biography of Douglas Berry Copland – the first Vice-Chancellor of ANU – will add to our understanding of the work of one of this group, and his association with some of the others. It might be thought invidious to single out one of the group for such special attention, but Copland perhaps did more than any other individual to promote economics in universities, among the business community and within government. The discipline had no better champion than Copland, a person of extraordinary ambition, energy and determination.

Copland was born in New Zealand in 1894, the thirteenth of 16 children born into a family who raised sheep and bred horses near Timaru on the South Island. Following the completion of undergraduate and postgraduate studies at Canterbury University College under the redoubtable James Hight, and after working for a short time as a secondary school teacher, he moved to Hobart in 1917 to take up a lectureship in economics at the University of Tasmania. His subsequent career was divided roughly into four parts: academia, government service, diplomacy and chief executive of new institutions. He stayed at the University of Tasmania until 1924, quickly becoming its inaugural Professor of

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Economics and Dean of the new Faculty of Commerce. He was then appointed to the foundation Sidney Myer chair and Dean of the newly established Faculty of Commerce at the University of Melbourne; in due course he became President of the Professorial Board and Acting Vice-Chancellor.

In Melbourne he helped to found the Economic Society of Australia and New Zealand and was both its first President (1925–28) and Editor-in-Chief (1925–45) of its journal, *The Economic Record*. In 1931 he chaired the committee of economists and state and federal Treasury heads that formulated what became known as the Premiers’ Plan (initially it was known as the ‘Copland Plan’), which Keynes adjudged to have ‘saved the economic structure of Australia’. In 1938 he failed by a single vote to be elected Vice-Chancellor of the University of Melbourne, the major disappointment of his life. He then became Economic Consultant to three wartime Prime Ministers – Menzies, Curtin and Chifley – and was Commonwealth Prices Commissioner throughout the war. At the end of the war he was appointed Australian Minister to Nationalist China, and attended the first session of the UN General Assembly as part of the Australian Delegation. In 1948 he was appointed foundation Vice-Chancellor at ANU, a position he held until 1953 when he became High Commissioner to Canada and represented Australia at the United Nations in New York, becoming President of the UN’s Economic and Social Council in 1955. Then began the final part of his career, which included appointments as foundation Principal of the Australian Administrative Staff College at Mt Eliza, Director of the Institute of Labour Studies of the International Labour Organization, and inaugural chairman of the Board of Trustees of the Committee for the Economic Development of Australia (CEDA).

Harper tells the story of a man who found it impossible to stay still for more than five minutes; a person always on the move, seeking new appointments while still settling into the current one. As a consequence of this perpetual motion, the book is crammed with information about Copland’s various careers, the structure of the book being based largely around his career changes. The author has done remarkably well to maintain control of the wealth of information about her subject to be found in the Copland archives at the National Library of Australia and the University of Melbourne. What is not explained so well is what motivated Copland to move from job to job with such hurry. It may suggest a person who was bored easily, who tired quickly of colleagues or who perhaps fell out with superiors and felt he should move on. Whatever the reason for all this chopping and changing, Harper makes the point that Copland rarely accepted an already-established post. Rather, he created new institutions and moved into entirely different careers. He was bold, fearless and usually successful in whatever task he took on, though he did not always succeed in obtaining the position he had set his sights on. He failed, for example, to be nominated by
Prime Minister Bruce to the Directorship of the ill-fated Bureau of Economic Research in the late 1920s; nor was he appointed to the Ritchie research chair in economics and the Vice-Chancellorship at Melbourne; he was not endorsed as a Liberal Party candidate for a seat in the House of Representatives; and he failed to secure the position of Director-General of the International Labour Organisation.

Though Copland pursued many careers he was, above all, an economist. While he never aspired to be an original thinker of the first rank and was never interested in economics for its own sake, he became skilled – and sometimes inventive – in adapting theory to policy analysis and advocacy. At the universities of Tasmania and Melbourne he was a prodigious writer and lecturer in his chosen field of monetary economics and policy, influenced as he was by the upsurge in writing on these topics after the First World War. In 1920, with Keynes’s encouragement, he published an important article in the *Economic Journal* on the impact of monetary expansion on inflation, which Keynes, the editor of the *Economic Journal*, described as ‘masterly’. Copland also wrote extensively on exchange rate instability in the 1920s and the commitment by governments and central banks to the gold standard. Like Keynes, he was inclined to support a fixed exchange rate, but also like Keynes he agreed that, given a choice between price stability and exchange stability, he preferred price stability. By the early 1930s, when price levels were falling, he was a powerful advocate of devaluation. He was one of the small group of economists who advised Alfred Davidson, the General Manager of the Bank of New South Wales, in January 1931 to peg the Australian pound at the devalued rate of A£125=£stg100. As well, he supported the funding of budget deficits by the issuance of Treasury bills.

He favoured also the development of a strong central bank in Australia with a mandate to preserve price stability but he predicted that the Commonwealth Bank Act of 1924, which aimed to create an Australian central bank, would fail to achieve its objective. This was because the Bank lacked control of the nation’s foreign reserves – which were largely in the hands of the commercial banks – and it did not have the legislative authority, or the requisite powers of persuasion, to induce the banks to hold their domestic reserves with the Commonwealth Bank. Nor did the Bank possess the means to control monetary expansion: the 1924 Act had given the Bank authority to publish a discount rate, but the market for short-term paper in Australia was too thin to support the rediscounting of securities without substantial swings in prices and yields.

Given Copland’s specialisation in monetary economics and policy, it comes as something of a surprise to discover that he did not make a submission to, or provide testimony to, the 1936–37 Royal Commission on the Monetary and Banking Systems in Australia. Harper does not provide a convincing explanation as to why Australia’s leading monetary policy expert did not contribute to the
most important inquiry undertaken into the Australian financial system before the Campbell Committee in the late 1970s–early 1980s. The book variously mentions that Copland was ill, or was too busy with university administration or was visiting New Zealand. Yet he did have the time and energy to contribute articles to the *Economic Journal* and to the *Economic Record* on the Royal Commission’s Report.

Though Copland had keenly followed Keynes’s writing in the 1920s and 1930s and was favourably regarded by Keynes, who appointed him Australasian Correspondent for the *Economic Journal* and encouraged him to give the first Alfred Marshall Memorial Lectures at Cambridge in 1933, Copland was critical of aspects of *The General Theory*, and more especially of the so-called Keynesian Revolution in economic policy after the Second World War. In particular, he was opposed to fine-tuning the economy aimed at avoiding short-term swings in activity and employment, preferring the adoption of policies that would promote economic growth. In the simmering dispute between the central bank (led by H.C. Coombs) and the Treasury (led by Copland’s star pupil, Roland Wilson) over the nature of postwar economic policy, Copland supported the Treasury’s emphasis on growth and opposed attempts to use economic policy for stabilisation purposes. Harper mentions Copland’s falling out with the ‘Keynesian’ stabilisers, but she does not explain the essence of the dispute. Here, however, she is not alone in failing to understand that the ‘Treasury Line’ in the immediate postwar decades was at odds with what Keynes himself had proposed in *The General Theory* and in subsequent publications such as *How to Pay for the War* (see Coleman, Cornish and Hagger 2006).

Yet these gaps are minor ones in what is undoubtedly a work of outstanding scholarship. Those with an interest in the development of economics in Australia owe Marjorie Harper an immense debt of gratitude for the time she has spent writing this impressive book. Largely conceived as a post-retirement project, her biography of D.B. Copland has set a standard against which all subsequent biographies of Australian economists will be measured. Melbourne University Press, too, deserves praise for its decision to publish the book under its high-quality Miegunyah imprint.

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