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The Role of the Consumer Price Index in Contemporary Wage- Setting

Discussion paper
Chris Briggs, November 2004

Preface

Acirrt is a multi-disciplinary research centre based at the University of Sydney founded in 1989. In that time, acirrt has undertaken work for a diverse range of clients including private sector firms, federal and state governments, representative bodies and legal firms across a range of labour market and workplace issues.

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1.0 Introduction

The Public Service Association (South Australia) commissioned ACIRRT to undertake an analysis of the Consumer Price Index (CPI) and its role in contemporary wage-setting in October 2004. Wage adjustments using the CPI have a long and venerable history in Australia. The CPI was traditionally designed as a cost-of-living index because its 'principal purpose' was to be an 'input to the highly centralised wage and salary determination process' (ABS 1997: 5). Most recently, under the centralised wage systems of the 1980s, the CPI was the focal point of national wage adjustments.

However, both the CPI and wage-setting in Australia have changed considerably in the past decade. The CPI was restructured following a review in 1997, reconfigured from a cost-of-living index into a general index of price inflation. The CPI now carries an explicit statement from the ABS that it is not and should not be used as a cost-of-living index. Wage setting in Australia has also moved away from centralised wage adjustments based on cost-of-living to a decentralised bargaining system to enable wage movements to reflect the particular circumstances and factors relevant to the parties at enterprise level. Indeed, the shift from a centralised wage system which compensated employees for recent changes to purchasing power to a decentralised system 'which focuses more on the commercial circumstances of individual firms' was one of the key factors which led the ABS to restructure the CPI (ABS 1997a: 4).

Although the centralised safety net adjustments remain closely entwined with the CPI, wages in the agreement sector have become increasingly disconnected from the CPI since the decentralisation of bargaining. A gap has opened up between average annualised wage increases (AAWI) in agreements and the CPI whilst agreement-content analysis illustrates that it is extremely rare to link wages to the CPI. The CPI is no longer an accurate measure of changes to cost-of-living and forging a tight nexus between wages and the CPI would be highly unusual within the current wage-setting environment.

2.0 What is the CPI?

The Consumer Price Index (CPI) is ‘specifically designed **as a general measure of price inflation for the household sector as a whole**’ (ABS 2000: 3 – original emphasis). The CPI measures changes to the prices of a ‘basket of goods and services’ typically purchased by metropolitan households in the 8 state and territory capital cities.¹ The basket is divided into 11 major groups:

- . Food
- . Alcohol and Tobacco
- . Clothing and footwear
- . Housing
- . Household furnishings, supplies and services
- . Health
- . Transportation
- . Communication
- . Recreation
- . Education
- . Miscellaneous

These 11 major groups are in turn divided into 34 subgroups and further sub-divided into 89 expenditure classes. Approximately 100,000 price observations are collected each quarter in determining prices for each of the goods and services which comprise the CPI ‘basket’.

As some price items are more important than others, that is they constitute a higher proportion of consumer spending, the ABS assigns

¹ The ABS (2000: 3) estimates this covers approximately 64% of Australian households. However, it further notes that ‘in general, price movements (as opposed to price levels) are similar across regions.’

'weights' to the 101 expenditure classes. For the current series, data from the Household Expenditure Survey of 1998-99 was used to attribute weights to each of the 101 expenditure classes. The weights are fixed for the life of the series until periodic reviews which amongst other things reset the weights. The reviews occur approximately every five years and the next review is scheduled for next year (2005).

There are two primary objections to establishing a tight nexus between the CPI and wage increases in the current context:

1. The Technical Inadequacy of the CPI as a Measure of Cost of Living
2. The Use of the CPI as the Determinant of Wages in a Decentralised Bargaining System

Each are now discussed in turn.

3.0 The CPI and the Cost-of-Living

The CPI is no longer a cost-of-living index. The 1997 review by the ABS instituted changes designed to reconfigure the CPI from an index measuring changes to the 'living costs of employee households' to a 'general measure of price inflation for the household sector.' The difference between the two approaches is usefully explained by Woodland (2000) in relation to the treatment of insurance. Whereas

the CPI would measure changes to the premiums paid by insurance policy-holders if it were a cost-of-living index, as a measure of general inflation the CPI now measures the value of the service provided by the insurance company (calculated as the difference between the premiums paid and claims received):

In constructing a measure of price inflation for the household sector as a whole, the item of interest is the value (or price) of the service provided by the insurance company rather than the total premiums paid. In contrast, changes in gross premiums alone would be relevant in the construction of an index designed to measure changes in household living costs ... Another way of looking at this is to say that in constructing an inflation index it is important that each item in the index is accorded a weight which reflects its real economic significance, while in constructing a living cost index it is important that each item be accorded a weight which reflects its share of gross household expenditure (Woodland 2000: 12).

The 1997 review considered and debated three different conceptual approaches to the CPI, subsequently deciding to use an 'acquisitions approach' such that the index would be a measure of general inflation (see ABS 1997a & 1997b).²

² The three different conceptual approaches which could be taken to the CPI are as follows:

1. An 'acquisitions' approach (measuring 'all those consumer goods and services actually acquired by a households');
2. A 'cost of use' approach (measuring 'all those consumer goods and services actually consumed (or used up) in the base period irrespective of when they were acquired or paid for');
3. An 'outlay' approach (measuring 'the actual amounts paid (or outlayed) by households during the base period to gain access to consumer goods and services') (ABS 1997b: 40).

Consequently, the ABS makes it quite clear that the CPI is no longer ‘a purchasing power or cost-of-living measure.’

Although the CPI is also commonly referred to as a measure of changes in purchasing power or a cost-of-living index, in an economic context, these items are not strictly interchangeable with a measure of price inflation. *Their measurement would require separate, purpose built indexes.* A single index cannot be expected to adequately fulfil all these roles (ABS 2000: 3 – emphasis added).³

Specifically, this is so for a number of reasons.

3.1 The CPI Does Not Measure All Changes in the Cost of Household Expenditure

³ It is worth noting also that economists, forecasters and public institutions such as the Reserve Bank of Australia use other indices of ‘underlying inflation’ as their primary guide. The Reserve Bank has stated that although it uses the ‘headline’ CPI figure for its inflation targeting, it is also subject to short-term volatility due to tax/administrative decisions of governments or price fluctuations in some component items such as fruit and vegetables which do not reflect longer-term inflation. Consequently, analysts also derive measures of underlying inflation either by deriving other indexes using ‘exclusion measures’ (e.g. ‘All groups excluding volatile items’) or subsequently removing all extreme individual price movements (e.g. the ‘Weighted median’, ‘Trimmed mean’). The Reserve Bank’s current preferred measure is the Weighted Median (see Dixon & Lim 2003: 2-8).

If it were to measure changes in the cost-of-living, the CPI would include all the different types of household expenditure. However, there are some notable exclusions from the CPI:

3.1.1 Income tax.

The CPI does not include changes to income-based taxes. A relevant example of income-based tax excluded is the Medicare Levy (though the index does include other types of charges imposed by state and local governments).

3.1.2 The Cost of Servicing Debt

The CPI does not incorporate the cost of servicing debt used to finance the purchase of goods and services. The ABS (2000: 5) notes:

Financial service costs are of two broad types; direct and indirect. Direct costs include fees and charges on credit cards, bank accounts, and service fees such as commissions charged by stockbrokers. Indirect costs are essentially the interest margins applying to the deposits and borrowings of households with financial institutions. The datasets required to construct these measures are very complex. The ABS does not yet have the data to compile a time series of sufficient length to ensure these measures meet the reliability criteria required for inclusion in the CPI.

Conceptually, the ABS has determined financial service costs should be included in the CPI but it has not yet developed a specific index for its measurement.

When considering the CPI in relation to cost-of-living, these are significant exclusions in view of the increased volume of investment, financial services and especially the surge in levels of household debt. The ratio of household debt to household income has risen from 56 per cent to 125 per cent in the past decade, taking Australian household debt from one of the lowest to the highest ratios by international standings, primarily as a consequence of borrowing to finance property acquisitions (Macfarlane 2003). Whilst interest rates are low, households are borrowing more heavily (and are more likely to top up loans or re-borrow further on top of existing debt) with the consequence that payments to service debt constitute a much higher proportion of household expenditure. Interest rates are also widely expected to rise in the short- to-medium future – which will significantly increase the cost-of-living for many Australian households but will not be reflected in the CPI.

3.1.3 Some Types of Insurance

Some types of insurance are not included in the CPI - notably life insurance, personal accident insurance and forms of insurance typically undertaken by corporate bodies (e.g. professional indemnity) (Woolford 2000).

3.1.4 Gambling

Gambling is recognised to constitute a significant and rising portion of household expenditure over the past decade. It is, however, excluded from the CPI due to technical difficulties in accurate measurement (ABS 1997: 32).⁴

3.2 *The CPI Does Not Reflect Current Consumption Patterns*

Accurate weights are crucial for the CPI to be a faithful measure of average household price inflation. The weights for the current series were determined using data from the 1998-99 household expenditure survey. The impact of rapid technological, policy and market changes on consumption patterns is such that data from 5-6 years ago is already somewhat out of date. To use one simple example, expenditure on telecommunications products and services (mobile phones, internet connection and on-line services etc.) has been growing exponentially in recent years. The CPI assumes the quantities of goods and services purchased remain in the same proportion throughout the life of a series. There are consequently some inaccuracies as the CPI does not reflect the rapid changes in consumption patterns which have occurred over the past 5-6 years.⁵

⁴ There are also a handful of other goods and services consumed by parts of the community but excluded from the CPI such as prostitution and illicit drugs.

⁵ The weights are scheduled to be updated by September 2005 using Household Expenditure Survey data from 2003/04.

3.3 The CPI Does Not Reflect Changes to Household Consumption Patterns

Household consumption patterns are not static. Instead, they shift and adapt in response to a variety of factors such as changing prices for substitutable goods and services (families will change between food groups as prices change), changes in income levels and so on. As the ABS (2000: 4) notes:

A true cost-of-living index, among other things, would need to be concerned with changes in standards of living and with the substitutions that consumers make in order to maintain their standard of living when faced with changing market conditions (for instance, buying chicken rather than beef when beef prices are high).

Another example of changes to household consumption patterns not accommodated by the CPI would be changes in consumption patterns which occur as households move through the life-cycle.

3.4 The CPI Does Not Reflect Variations in Consumption Patterns across Different Types of Households

The population sample of the CPI was traditionally limited to employee households. Changes in wage-setting, the decline in the number of employee households and the use of the CPI to adjust incomes for

non-employee households (e.g. changes to social security benefits) led the ABS to widen the population sample to include other types of households (ABS 1997b: 21-22). Changing the population was intimately linked to the changing purpose of the CPI:

The choice of reference population group for the CPI is tied most closely to the principal purpose served by the index. In the Australian case, the restriction to employee households reflects the traditional use of the CPI as an input to wage determination processes ... If the principal purpose of the CPI is ... to provide a measure of inflationary pressures on households, then, conceptually, the reference population group should be expanded (ABS 1997b: 21-22).

Consequently, the CPI now bundles together a diverse range of households. The CPI averages out the variations in purchasing profile across a variety of sub-groups. The ABS draws distinctions between four main types of households: wage and salary earners, the self-employed, aged pensioners and social welfare beneficiaries. In the CPI they are treated in undifferentiated fashion whereas in practice they have different purchasing profiles.⁶

⁶ Exactly how significant these variations in purchasing profiles between different types of households are is at this stage uncertain. A recent ABS study (2004) found little variation across a 6-year period when it altered the weightings across the four different household types though there could be substantial differences year-to-year (e.g. between June 2003- June 2004, the index varied from 3.3% for employee households though to 2.2% for self-funded retiree households whilst the official CPI was 2.5%). However, it should be noted that although varying the weightings addresses variations in purchasing profile, these indexes still reproduce the other weaknesses which limit the CPI as a measure of cost-of-living; that is, it still excludes the same components of household expenditure, it still uses fixed weightings from the 1998-99 household expenditure survey (and therefore does not reflect current purchasing profiles) and doesn't accommodate changes to household consumption patterns as discussed. It does not therefore represent a viable cost-of-living index.

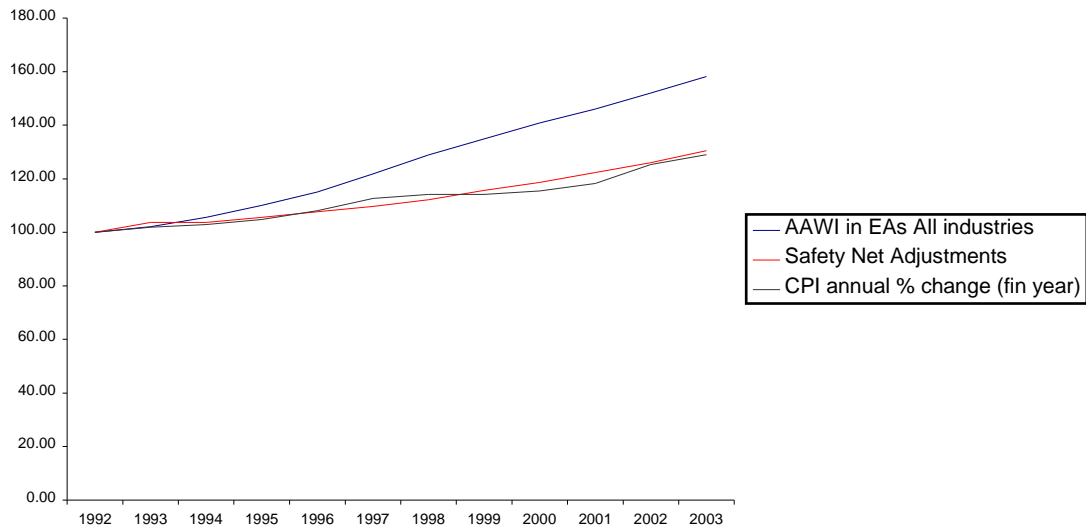
4.0 Should Wages be Linked to the CPI in a Decentralised Bargaining System?

The CPI is no longer a cost-of-living index precisely because the ABS concluded this was not a role it would perform under a decentralised bargaining system. Along with other contextual changes such as the adoption of inflation targeting by the RBA, the ABS (1997b: 21) concluded it was time to change the index because ‘the tight nexus between movements in the CPI and wage and salary adjustments no longer exists’:

.. the move away from a centralised wage determination system (under which employees tended to be compensated for previous changes in purchasing power) to a decentralised system which focuses more on the commercial circumstances of individual firms, has resulted in a decline in the importance of the CPI for income adjustment purposes (ABS 1997b: 4).

Data on wage trends and agreement-content analysis validate the conclusions of the ABS review. Wage movements in the agreement sector have become increasingly dis-connected from price movements and the CPI. Figure 1 charts the movements in agreement wages and minimum award wages against the CPI:

Figure 1: Wages and Prices - Agreements, Awards and the CPI



Source: ABS, Cat. No. 6401.0; ACIRRT, Agreements Database and Monitor (ADAM).
 Note: the Safety Net Adjustment index is calculated using the C10 metal fitters rate.

Whilst there are a variety of factors considered by the Australian Industrial Relations Commission in safety net adjustment hearings Figure 1 demonstrates that the quantum has approximated changes in the CPI – but the agreement sector has clearly moved beyond the CPI. The AAWI for enterprise agreements was still close to the CPI in the early years of decentralised bargaining, no doubt reflecting the residual influence of the CPI under the centralised wage system, but a significant and persistent gap subsequently opened up as the bargaining system matured. In other words, linking wages to the CPI would deliver a wage increase commensurate with the safety-net adjustment determinations but well beneath the AAWI in enterprise agreements.

Agreement- content analysis further illustrates the dis- connect which has occurred between the CPI and wage increases in the agreement sector. Table 1 (overleaf) illustrates the different estimates of the portion of agreements which link wages to the CPI:

Table 1: Agreements Which Link Wages to the CPI

Institution (Year)	%
Department of Employment and Workplace Relations (1997)	4.5
Australian Council of Trade Unions (1997)	9.0 (approx.)
ACIRRT (2004)	4.2

Source: ABS 1997a: 16; ACIRRT, Agreements Database and Monitor (ADAM).

Each of these estimates illustrate that whilst the CPI is still used by some bargainers, only a handful of enterprise agreements link wages to the CPI.

Other criteria more commonly used in determining wage increases in enterprise agreements include:

- . Productivity;
- . Profitability;
- . Benchmarking: ‘pricing’ jobs against external comparators;

- . Labour market demand/supply;
- . Performance appraisals.

5.0 Conclusion

The CPI is now an index of general inflation – not a cost-of-living index. Contextual changes such as inflation targeting and the decentralisation of wage-setting led the ABS to reconfigure the CPI from a cost-of-living index to a measure of general inflation. The CPI, as a measure of general inflation, is still a relevant consideration in determining wages but the wage-system has moved on from the era of indexation. The safety net adjustments have increased at roughly the same rate as the CPI but the wage movements in the agreement sector have been disconnected from the CPI. The CPI, and cost-of-living, remain relevant factors in determining wage movements but both the CPI and wage-setting have changed so substantially that it is difficult to sustain a case that wages should be tightly linked to the CPI.

References

ABS. (1997a) *Information Paper: Outcome of 13th Series Australian Consumer Price Index Review*, Cat. No. 6453.0, November.

ABS. (1997) *Information Paper: Issues to be Considered During the 13th Series Australian Consumer Price Index Review*, Cat. No. 6451.0, May.

ABS. (2000) *A Guide to the Consumer Price Index – 14th Series*, Cat. No. 6401.0.

ABS. (2004) *Australian Economic Indicators. Feature Article – Analytical Living Cost Indexes for Selected Australian Household Types*, <http://www.abs.gov.au/Ausstats/abs@.nsf/Lookup/63B1DF9CA38AA76ACA256F010>. Accessed November 4.

Dixon, R., & Lim, G. (2003) ‘Underlying Inflation in Australia: Are the Existing Measures Satisfactory?’, *University of Melbourne: Department of Economics Working Paper Series*, No. 7.

McFarlane, I. (2003) ‘Do Australian Households Borrow Too Much?’, *Talk to the Sydney Institute*, April 3. http://www.rba.gov.au/Speeches/2003/sp_gov_030403.html.

Woolford, K. (2000) ‘Treatment of Insurance Services in the Australian Consumer Price Index’, *Australian Economic Indicators*, ABS, Cat. No. 1350, October.