Submission to the 16th Series Review of the Consumer Price Index

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It is an injustice to public sector retirees whose pensions are indexed to movements in the CPI:

1. that CPI indexation no longer maintains the purchasing power of their pensions as intended by Professor Pollard when he recommended CPI indexation in 1973; and

2. that the ABS makes almost no attempt to correct long held beliefs in the community that CPI indexation does maintain the real world purchasing power of a pension.

CPI indexation cannot maintain purchasing power as ordinarily understood in modern markets.

Prices that go into measuring the CPI are "pure" prices. That is they have been discounted for any perceived improvement in the quality of a product. Pure prices are not shelf prices. Shelf prices are what must be paid to purchase a product.

The admittance of only pure price changes to the estimation of the CPI by the ABS is in keeping with international best practice. Any increase in a shelf price that can be attributed to an improvement in quality is subtracted from the shelf price before estimating the CPI.

Discounting prices for changes in quality has wrecked the CPI as an index of what is needed to maintain the real world purchasing power of a pension or a benefit. This is because the CPI no longer even approximates the movement in the shelf prices of a basket of goods.

This is best illustrated by example. The CPI contains an element for the movement in the price of an ordinary domestic clothes washing machine. If that element is used to index the price of a basic washing machine from one period to a later period the result in any real life circumstance will not be sufficient to buy a basic washing machine in the later period. This will be because the quality of a basic washing machine in the later period will have been assessed to be superior to the quality of the basic washing machine in the base period and the shelf price in the later period will have been discounted by the ABS to determine the movement in that element of the CPI.

For a pensioner the difficulty is that the old model of washing machine will almost certainly be no longer available. All that is available in the later period is the "improved" model with a shelf price not matched by the price of the old model updated by the appropriate CPI element. This is the main mechanism whereby someone who is dependent on a pension indexed to CPI finds their purchasing power as experienced by them gradually eroded.

An example of the extent of this effect is the movement in the USA price index (adopted and followed by the ABS with only minor adjustment for timing) for personal computers between 1994 and 1998. Between these years the index fell by 33.3% pa, of which 7.7% pa was due to a fall in the shelf price and 25.6 % pa was due to improving quality[1]. Attachment A descibes a fictional scenario to illustrate more clearly what these figures mean.

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[1] J. Steven Landefeld and Bruce T. Grimm, *A Note on the Impact of Hedonics and Computers on Real GDP*, Bureau of Economic Analysis, Survey of Current Business, December 2000. p. 20.

Other examples are contained in the recent Harmer Pension Review Report. At page 62 the report says:

> *Over the past 20 years, the CPI index for the purchase of motor vehicles has increased by just 7.3 per cent. This in part reflects the extent to which cars today are better equipped. From a consumer perspective, where such quality upgrades are often taken as granted or involve changes that consumers may not necessarily have chosen to purchase, the estimate is seemingly at odds with the prices of any particular model of new car, which may have risen by some 25 to 50 per cent over the same period.*
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> *A third area in which the pricing to constant quality approach to the CPI may differ from consumer experience concerns the cost of renting. While the CPI rental component increased by 22.9 per cent between December 1994 and December 2005, the average rent paid by private tenants, as surveyed in the ABS Survey of Income and Housing over the same period, increased by 41.2 per cent (ABS 2005–06). Again, much of this difference can be related to improvements in the quality of the rental stock.*

These few examples are sufficient to demonstrate how discounting shelf prices for perceived quality changes to arrive at a pure price movement means that a pension indexed by CPI cannot maintain purchasing power as experienced by pensioners and as understood by most Australians. It might be argued that it maintains purchasing power in terms of the abstract concept of "economic utility" but rapid obsolescence and model changes which are a feature of modern markets makes that an impossible proposition to sell to a pensioner living in the real world.

Also, to a significant extent rapid obsolescence of products is being driven by of a steady stream of legislation setting minimum standards for many products. For example mandatory safety features for motor vehicles are improvements which attract quality adjustments.

It is a sad lapse by the ABS that it does not maintain any data about the extent of the adjustments it makes to shelf prices for changes in the quality of products. This frustrates any academic analysis of the issue.

In the absence of such data it would be interesting to know how many staff are today employed by the ABS in assessing quality improvements in consumer products and how many were so employed in say, the early 1970s.

Quality adjustments are thought to account for a reduction in the annual increase in the CPI of between 1% and 2%; an estimate consistent with the only detailed analysis that appears to have been done of this issue.

In 1996, the Boskin Commission in the USA investigated inadequacies in the estimation of the CPI by the Bureau of Labour Statistics. It was critical of the Bureau's work and concluded the Bureau was overlooking some quality adjustments that would have further reduced the USA CPI by 0.6%. It did not publish any estimate of the adjustments that the Bureau was already making but it can be assumed these covered the majority of quality improvements. Technology improvements have increased in pace substantially since 1996 and, today, a believable scenario is that the reduction of the USA CPI for all quality improvements would be between 1% and 2% per annum.

An erosion of a pension by just 1% pa will after eighteen years depress that pension by 20% in the eighteenth year. If the erosion is 1.5% pa it will take only twelve years for the reduction in the pension to equal 20%.

Professor Pollard

Significant erosion of CPI indexation as a means of maintaining purchasing power must have come after 1973 when Pollard prepared his report, Enquiry into Superannuation Pension Updating, March 1973. Any fair and conscientious reading of Pollard's report in its entirety shows that he had not the slightest inkling that the real world purchasing power of a pension indexed to CPI could be eroded as it is today by quality corrections. As a prominent actuary he would have had easy access to the ABS and to the Department of the Treasury. It is hard not to believe that a draft of his report would have been seen by both agencies.

Pollard devoted a whole chapter to discussing the desirable criteria for the adjustment of a pension. He wrote about the need for pension updating:

> *to enable officers of long service to maintain a reasonable standard of comfort after retirement;*
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> *to give peace of mind; and*
>
> *to free the retiree from the ever present fear that a long retirement might bring severe financial problems in its latter years. (p. 15)*

His conclusion was:

> *The requirements of paragraph 2.1 are only satisfactorily met if an employee can be certain that adjustments will take place to what is considered to be an adequate pension on retirement, that those adjustments will take place frequently and that as a result of the adjustments he will continue to be able to buy the same range of goods and services despite increased costs. Costs increase almost continuously and maintenance of the purchasing power of a pension is therefore not achieved if pension adjustments are infrequent.*
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> *I therefore consider the appropriate criteria for pension adjustment in changing economic circumstances to be that*
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> > *first,*
> >
> > > ***there should be certainty of adjustment i.e. adjustments should take place automatically;***
> >
> > *second,*
> >
> > > ***the purchasing power of the pension should be maintained;***
> >
> > *and third, (which follows from the second)*
> >
> > > ***pensions should be adjusted frequently.***

How could have Pollard written “to be able to buy the same range of goods and services despite increased costs” if he and his advisers had been aware of the impact of quality adjustments as implemented today?

Understanding in the Community of what CPI Indexation will deliver

The belief that CPI indexation compensates for increases in the cost of living and maintains purchasing power <u>in terms of shelf prices</u> has been prevalent throughout the community for many years. This goes back to when the world was a much simpler place. The Australian Government (which must include the ABS) has done little to disabuse the public or its servants of this increasingly flawed belief. It has allowed many tens of thousands of its servants to plan their retirement in the expectation that CPI indexation would maintain purchasing power of their pensions as expounded by Professor Pollard.

Possibly worse, the Government is able to exploit unjustly persistent public misconceptions about what CPI indexation delivers in its various statements opposing any improvement in the indexation of public sector pensions.

In December 2002 a Senate Select Committee published a report titled “Superannuation and standards of living in retirement - Report on the adequacy of the tax arrangements for superannuation and related policy.” The Committee recommended improvements to the indexation of public sector pensions.

On 10 February 2005 the then Treasurer, Mr Costello made public the Government’s response to the recommendations of the Select Committee. In response to recommendation above the Treasurer said:

> *This recommendation is not supported.*
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> *The Government at this time has no plans to change the indexation method for Australian Government civilian superannuation pensions. The Government believes that indexation using the Consumer Price Index (CPI) represents an equitable and satisfactory method over a period of years for increasing pensions, and protects the living standards of retired Australian Government employees.*
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> *In a recent article published by the Australian Bureau of Statistics (ABS) entitled Analytical living cost indexes for selected Australian household types: update to June 2004, the ABS measured and compared changes in the CPI against changes in prices of out-of-pocket living expenses experienced by different categories of households, including self-funded retiree households. The results have revealed that the CPI compares favourably with the cost of living index for self-funded retiree households over the six-year period to June 2004.*
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> *The Bureau’s research indicates that for the period from June 1998 to June 2004 the CPI increased by 19.7 per cent. This compared favourably with the living cost index for self-funded retiree households, which increased by 18.6 per cent over the same period. Based on these results, the ABS article concluded that ‘the CPI provides a reasonable estimate of changes in living costs for each of the selected household types over this period.’*

The ABS findings reinforce the Government's belief that the CPI does provide a reasonable measure of the cost of living.

Mr Costello's response is misleading. The references to ABS living cost indexes provides no indication that those indexes are measured at constant value, that is after quality adjustments have stripped out a large part of what has happened to shelf prices. The most misleading part is at the end of the first paragraph. Mr Costello says that CPI indexation protects the living standards of retired Australian Government employees. In any practical sense and by Professor Pollard's criteria it does no such thing and panders to the popular misconception of what CPI indexation delivers. A significant part of the responsibility for the Treasurer's statement being able to exploit the public's lack of understanding must rest with the ABS.

The public education programmes that the ABS generously provides to retiree and other groups covers "the basket", "the eight cities", the HES and methods of updating and so on. Typically no mention will be made about quality corrections, unless pressed and even then it will be very cursory.

The ABS had a golden opportunity to open up the issue in 2001 in the context of the Inquiry by a Senate Select Committee into the public sector superannuation titled "A 'Reasonable and Secure' Retirement?". Members of the Committee were questioning the adequacy of the CPI as a basis for the indexation of public sector pensions and searching for reasons why the CPI did not seem to reflect community experience. In response the ABS representative said:

The first observation is that the CPI is not a measure of the cost of living. It is a measure of inflation and there are differences between those two things. However, for large parts of the population, cost of living and inflation are fairly similar things, and movements in the CPI could be considered to be consistent with movements in cost of living.

We do not have a perfect measure of cost of living because to do so involves calculations that are not possible. In practice the biggest difference occurs with our treatment of mortgage interest charges and consumer credit charges. We include those in a cost of living index. As I said earlier, we included those up until September 1998 in the CPI. We exclude those from an inflation index. The extent to which interest rates move differently to inflation generally within the economy will drive a wedge between a cost of living index and a consumer price index. The interest rates tend to move in cycles though, so over a long period of time, even allowing for that difference, the two types of indexes would move fairly close together.

By 2001 the ABS must have been aware that the extent of quality corrections being made to shelf prices combined with the rapid obsolescence of products in modern markets was playing havoc with the CPI as a measure of the cost of living in the real world. Yet the issue was not suggested to the Committee by the ABS.

The Name is Important

The index which we know as the CPI no longer reflects consumer prices as understood by an ordinary person. It is a derivative of consumer prices but not more. As explained above there is lot of obsolete and misleading baggage that comes with the name "Consumer Price Index". It is high time that the index was renamed to reflect its primary purpose. The title needs to contain the word “inflation.” It certainly should not contain the word “price” for reasons that hopefully by now are clear. The most appropriate new name would seem to be “Retail Inflation Index”

Recommendations

The ABS should:

1. Maintain good records of the quality corrections that are being applied to shelf prices and facilitate public and academic study of those records.

2. Run an extensive public education programme about quality corrections and the impact they have on the ability of CPI indexation to maintain the purchasing power of a pension in terms of shelf prices.

3. Despite the obstacles change the name of the CPI to “Retail Inflation Index” to reflect the primary purpose of the index and to help put an end to out of date understandings/expectations of the CPI.

Should it be judged that recommendation (3.) is too difficult, the ABS needs to give priority to recommendation (2.) if it wants to maintain a reputation for independence and integrity.

Submitted on 9 March 2010
by:
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Attachment A

Illustration of the erosion of purchasing power caused by quality adjustments

On page one of this paper it is reported that between 1994 and 1998 the price index for personal computers fell by 33.3% pa, of which 7.7% pa was due to a fall in the shelf price and 25.6 % pa was due to improving quality. The following is a fictional scenario to illustrate more clearly what the figures mean.

George was an isolated nerdy type of retiree, totally dependent on a pension indexed to CPI. Each year he purchased a new but very basic personal computer. To keep things simple his only other expenditure was sliced ham. He purchased two Kgms of ham each week.

In 1994 a new personal computer cost George $1500. Sliced ham cost $20 per Kgm or $2080 for the year. His pension in 1994 was just sufficient, ie $3580, to meet these two expenditures.

In 1995 George sets out to maintain his particular standard of living. The shelf price of a very basic personal computer had fallen by 7.7% to $1384.50. On the other hand let us assume that the shelf price of ham had increased by a surprising 30%. George's total expenditure now becomes $1384.50 plus $2080 increased by 30%; $1384.50 plus $2704; all up $4088.50.

But what about George's pension? The quality adjusted price of the computer for inclusion in the CPI becomes $1500 less 33.3% or $1000. For the ham there is no quality adjustment, sliced ham is sliced ham. So the whole of the 30% increase goes into the CPI.

The resulting increase in George's personal CPI works out to be 4%. His pension increases to $3704.00, (which can be calculated directly, $1000 plus $2704) which is dramatically short of the $4088.50 he needs to maintain his particular standard of living.

Worse for George is that this outcome will be repeated for at least 1996, 1997 and 1998. After that we do not have any information on the level of quality adjustments that have continued to be applied to personal computers.

We could imagine the following exchange between George and a statistician.

George: *Why is the increase in my personal CPI so inadequate?*

Statistician: *It is because the quality of personal computers has been increasing. CPU speeds are going up. Hard drives are increasing in size. Random Access Memory is increasing. We put a value on those improvements and deduct them from the shelf price to ensure those elements are not included in the CPI, the primary purpose of which is to measure inflation at the retail level.*

George: *I thought that a basic personal computer is a basic personal computer is a basic personal computer.*

Statistician: *Yes, it is but its quality has been going up in leaps and bounds.*

George: *Do you realise that with Windows 95 a 1995 computer won't perform much better than the 1994 model with Windows 3.1?*

Statistician: *That may be so but it does not concern us what you do with your purchases.*

George: *Do you realise that I can't buy last year's model even if I wanted to and if it were available I am sure its price wouldn't be $1000.*

Statistician: *That is a complaint about the behaviour of the market.*

George: *So what can I do?*

Statistician: *If you purchase a new computer you will have to reduce your consumption of ham. Economists have a concept of economic utility. Your new computer provides significantly more utility than last year's model and that will have to be offset by reductions in your consumption of ham.*

George: *You are locking me into a 1994 standard of living which the market no longer provides for.*

Statistician: *Yes, that is one way of looking at it.*

George: *Do you realise that in 1973 when Professor Pollard recommended CPI indexation he envisaged that it would enable a retiree to buy the same range of goods and services despite increased costs.*

Statistician: *That was before my time.*

George: *Why don't you do more to ensure that retirees like me understand what you do to shelf prices?*

Statistician: *To be frank about it, our policy minders would not be pleased. I suspect they are quite comfortable with the present state of confusion.*

George: *Kindly tell them in very plain terms from me that the indexation of my pension should maintain its purchasing power as envisaged by Professor Pollard and that I should not have to go hungry as you are proposing.*