WHAT ARE WE COMPLAINING ABOUT?

AN ANALYSIS OF COST OF LIVING PRESSURES

By Ian McAuley

December 2011

CPD Occasional Paper 15

ISSN 1835-0135

CENTRE FOR POLICY DEVELOPMENT

http://cpd.org.au | PO Box K3 Haymarket, Sydney 1240
Phone 02 9043 6815 | Email contact@cpd.org.au

ABOUT THE AUTHOR

Ian McAuley is a fellow of the Centre for Policy Development. He is an adjunct lecturer in Public Sector Finance at the University of Canberra. His research interests are in public policy, with a specialisation in health policy. His academic qualifications are in engineering and business management from Adelaide University and in public administration from Harvard University. Besides his academic work, he has assisted consumer and welfare organizations in financial and economic policy matters. Ian is co-author of a number of papers for the Centre for Policy Development, including 'Reclaiming our Common Wealth: policies for a fair and sustainable future', 'A Health Policy for Australia: reclaiming universal care' and 'You Can See a Lot By Just Looking: Understanding human judgment in financial decision-making'.

ABOUT THE CENTRE FOR POLICY DEVELOPMENT

The Centre for Policy Development (CPD) is a progressive think tank dedicated to seeking out creative, viable ideas and innovative research to inject into Australia's policy debates. Our work combines big picture thinking about the future of government with practical research on options for policy reform. We give a diverse, cross-disciplinary community of thinkers space to imagine solutions to Australia's most urgent challenges and we connect their ideas with policy makers, media and concerned citizens. The CPD is a non-profit organisation, and donations to our research fund are tax deductible. If you'd like to join the CPD supporters or hear about future CPD publications go to http://cpd.org.au

CREATIVE COMMONS LICENSE

The contents of this publication are released under a Creative Commons licence. Extracts, summaries or the whole paper may be reproduced provided both the author and CPD are attributed, with a link to the CPD website at http://cpd.org.au. For more details on the Creative Commons Attribution 3.0 Australia license that applies to this document see http://creativecommons.org.au/learn-more/licences

Cover image thanks to ldrose.

CONTENTS

Introduction

Over recent times it has become conventional wisdom, at least in sections of the media and among some politicians, that Australian households are 'doing it tough' because of cost-of-living pressures.

Possible explanations for this perception are:

1. It may be correct. Perhaps incomes have not risen in line with the cost of living, either as a whole or for some groups. There is an argument that the consumer price index (the CPI) is being kept in check by low prices and price falls for many discretionary items such as electronic goods, appliances and travel, which are masking strong rises in non-discretionary items such as food and electricity;
2. Maybe expectations of what constitutes a reasonable standard of living have risen faster than real incomes;
3. Possibly some prominent items of expenditure, such as electricity, have captured attention disproportionate to their actual effect on the overall cost of living.

Examination of CPI and household expenditure data does not indicate a general problem. Over the six years to June 2011 (the period of the just-concluded CPI series) average incomes have been running more than one percent ahead of household inflation. For some groups the official CPI figure, averaging 3.0 percent over that period, almost certainly understates the rise in their cost of living, but for most people so affected that would make only a modest difference. Most of those with patterns of consumption more heavily weighted towards non-discretionary items would still find that their incomes are running ahead of inflation.

The only identifiable groups who may be experiencing a squeeze are renters and those reliant on government benefits other than the age pension. While age pensions are linked to average earnings, some other benefits are linked to the CPI, and if, as is likely, their recipients have consumption patterns heavily weighted to non-discretionary items, their living costs could well be running ahead of incomes.

Their problems are real, but they do not constitute a majority, and they are not necessarily representative of those on talkback radio and other media complaining about the cost of living.

That renders the second and third possibilities as the most plausible explanations for a perception that living costs are rising quickly. There is reasonably strong evidence that mortgage re-payments have risen strongly. The CPI includes house prices, but not mortgage interest payments (which are considered as a means of financing rather than a cost of housing). But, apart from a short-term rise before the global financial crisis (the GFC) and a short-term fall immediately after, mortgage interest rates have been reasonably steady ever since the Reserve Bank gained a large degree of independence. That leaves the likelihood that the real value of mortgages has risen, but, unless people are using more mortgage re-draw facilities, that would not be causing stress on existing mortgagees.

Another possibility related to housing is that, because house values are no longer rising, people have lost the (illusory) notion of 'income' resulting from rising house prices. The same income illusion may apply to financial assets that have fallen in market value since the GFC.

The other factor contributing to the perception are the shocks of sudden rises in certain items, particularly electricity and other utilities, and possibly certain food items. Energy prices have risen strongly, and most households have been adjusting to these price rises with changes in their energy use, but a large energy bill can still come as a surprise.

Perhaps the main sources are intemperate claims made by politicians bent on discrediting the government's economic competence and talkback radio show hosts who find more mileage in amplifying false impressions than in correcting them. Those same voices have been giving the term 'aspiration' a new, materialist meaning. Financial stress arises not so much from absolute changes in our means, as from the gap between our rising material 'aspirations' and our means.

This phenomenon is not new. Just under ten years ago the Australia Institute found that almost half the people in Australia's highest income households – the twenty percent of households with incomes above $70 000 then, equating to around $110 000 now – agreed with the statement 'You cannot afford to buy everything you really need'.[1] (We should remember that these are among the most prosperous people on the planet.) Just this year the think tank Per Capita found similarly that most reported stress arises from shifted norms about what constitutes a decent standard of living, with those norms elevated by media beat-ups.[2]

The reader should bear in mind that this analysis does not set out to dispute the notion that many people are having difficulty making ends meet. Nor does it consider cohort effects; younger people for example may indeed be experiencing more financial stress than people of the same age did in earlier times. Rather, based primarily on analysis of CPI data over the last six years and other ABS data, it examines evidence that may

confirm or refute the notion that all or a significant category of Australians have experienced a squeeze in cost-of-living pressures in recent years, and, if so, whether this is because rises in incomes have not kept pace with rises in prices, or because there are other factors to do with perceptions or changing expectations.

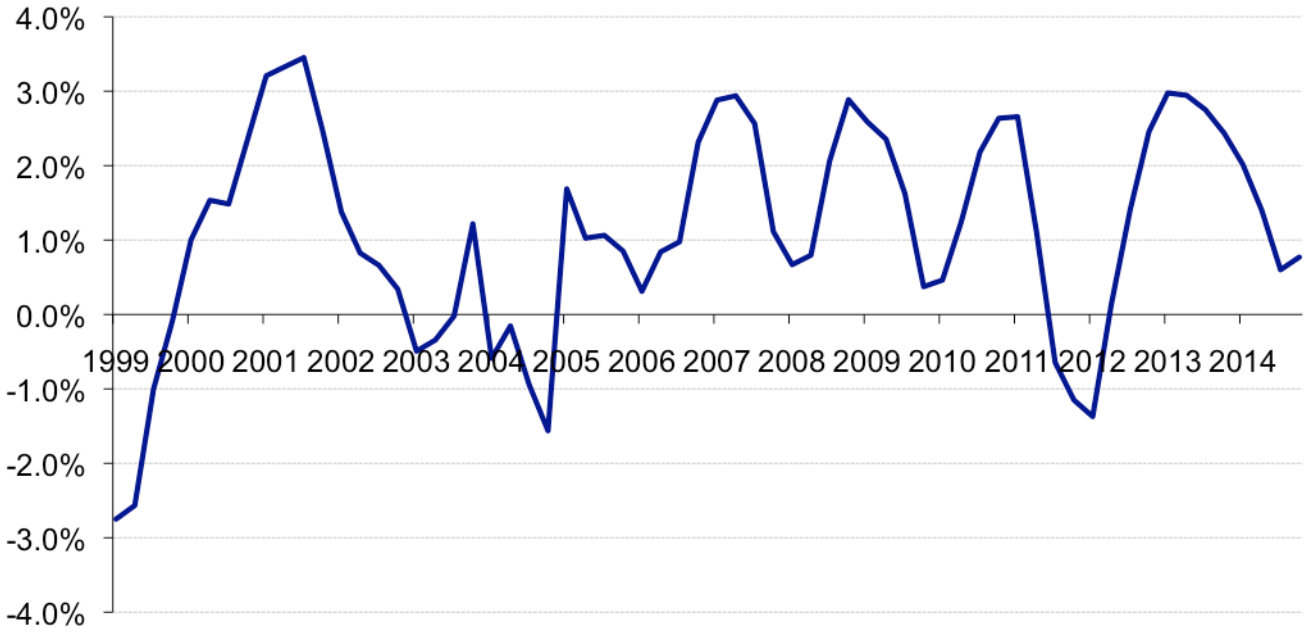
Section 1. Incomes and inflation

Gross indicators

From a macro perspective, there is no evidence of any squeeze between earnings and incomes.

One commonly-used indicator is average earnings, adjusted for inflation ('real' earnings). These have been on an upward trajectory for many years, with reversals only during the economic downturns around the turn of the century ('the recession we had to have') and the more recent downturn associated with the GFC. See Figure 1 on movements in average earnings, which have been in negative territory only for short periods

Figure 1: Average earnings, real (CPI adjusted) percentage change over 12 months



Earnings over the last six years are shown below in Table 1. Over that period, which includes the GFC, nominal earnings have risen at an average rate of 4.3 percent a year, while inflation as measured by the CPI has risen at an average of 3.0 percent a year, meaning real earnings have risen, on average, at a rate of 1.3 percent a year. In 2008 there was a slight fall in real earnings, but they recovered quickly in 2009.

This series may err on the conservative side, because it is for *all* employees, full-time and part-time, over a period when part-time employment has been generally rising. Over that same period the average annual real growth in full-time earnings has been 1.8 percent.

Of course this series is based on employed persons; if unemployment were rising it would provide a misleadingly positive indicator of material well-being. Also, it does not take income tax into account; cost-of-living pressure could result from changes in after-tax ('disposable') incomes as a result of higher taxes. But over the last twenty years unemployment has been falling, interrupted only by the two downturns. Our unemployment rate is now 5.3 percent, down from the recent spike of 5.8 percent in mid 2009 at the peak of the GFC. Also, over the last ten years (contrary to some perceptions), income taxes as a proportion of income have been falling.[3]

Table 1: Weekly earnings, $, all persons

	Current prices	CPI	Constant (2011 prices) - real
May-2005	788	148.4	947
Aug-2005	797	149.8	948
Nov-2005	804	150.6	952
Feb-2006	813	151.9	955
May-2006	823	154.3	951
Aug-2006	832	155.7	952
Nov-2006	841	155.5	964
Feb-2007	851	155.6	976
May-2007	862	157.5	976
Aug-2007	870	158.6	978
Nov-2007	876	160.1	975
Feb-2008	882	162.2	969
May-2008	890	164.6	965
Aug-2008	901	166.5	964
Nov-2008	909	166.0	976
Feb-2009	916	166.2	983
May-2009	926	167.0	988
Aug-2009	939	168.6	993
Nov-2009	956	169.5	1005
Feb-2010	969	171.0	1010
May-2010	977	172.1	1012
Aug-2010	985	173.3	1013
Nov-2010	995	174.0	1019
Feb-2011	1007	176.7	1016
May-2011	1020	178.3	1020
Growth May 05 - May 11	29%	20%	8%
Annual growth	4.3%	3.0%	1.3%

These figures, however, cover only incomes derived from wages and salaries. They omit other sources of income such as pensions, business income, and dividends.

More comprehensive data is given in the ABS Household Income surveys.[4] Unfortunately the surveys are irregular, and in recent years there have been breaks in their coverage. A compilation of available data is shown in Table 2, which shows gross and disposable income, the difference being accounted for by income tax.

A word of interpretation is in order. From this table there is no apparent trend in gross income, which, if anything, has fallen a little in the latest period (bearing in mind the limitations of data discontinuities). But over this period households have been getting smaller; therefore any apparent trends in individual means are

understated. To compensate for this effect the ABS has developed a measure called 'equivalized income', which takes into account household size and composition. It is not simply a division by household size,

because it adjusts for scale economies in larger households (and therefore scale diseconomies in smaller households). A full explanation of the ABS methodology is given by the ABS.[5]

Table 2: Weekly household income

	Current prices			Constant (2009-10) prices	
	Gross household income	Equivalized disposable income	CPI base 1989-90	Gross household income	Equivalized disposable income
1994–95	1165	540	113.9	1,742	807
1995–96	1149	534	118.7	1,648	766
1996–97	1180	551	120.3	1,670	780
1997–98	1216	566	120.3	1,721	801
1999–00	1283	590	124.7	1,752	806
2000–01	1251	605	132.2	1,612	779
2002–03	1289	620	140.2	1,566	753
2003–04	1378	674	143.5	1,635	800
2005–06	1498	738	151.7	1,682	828
2007–08	1739	859	161.4	1,835	906
2009–10	1688	848	170.3	1,688	848

It is not possible to come to any categorical conclusion from this data. It is notable that weekly income in 2007-08 was $80 higher than in 2005-06 before falling back to a steadier trend. The $900 stimulus payments do not explain this jump, because they did not commence until 2009. Detailed examination of the data shows that the rise in income in 2007-08 year was greatest (14 percent in real terms) in higher income households, and those same households also suffered the greatest falls over the following period (8 percent in real terms). This would be consistent with changes in business-related income, including capital gains, dividends and incomes from unincorporated businesses, which would have been at their peak in the 2007-08 boom before the GFC.

If we consider the 2007-08 as an outlier, reflecting the peak of the financial boom, the broad indication from this table is of an upward trend in real household incomes over the last ten years. In other words, it does not point to inflation eroding incomes. But in so far as it reflects the pre-GFC boom, it does give a hint of other trends, including the illusory wealth effect resulting from changes in asset values, which will be covered in Part 2.

So far, in this gross analysis, we have been using the CPI as a means of adjusting nominal incomes to real incomes. It is useful to consider just what the CPI does and does not measure, and to see whether, as an average measure, it fails to reflect price movements for certain groups.

What is the CPI?

The CPI is commonly referred to as a measure of inflation, but, more strictly, it is a an indication of movements in household living costs. It is based on measuring the cost of a fixed basket of household goods and services in one period and comparing the cost of that same basket of goods and services in the following period. It can be influenced by changes in sales taxes and subsidies: for example if the government were to

require people to pay a higher share of the price of prescription pharmaceuticals the CPI would rise, even if the wholesale price of those pharmaceuticals had not risen. It is therefore not a measure of economy-wide inflation, but because it is concerned with household expenditure it is appropriate for examining household-level inflation. Also, it is confined to capital cities. This confinement probably does not matter, because while most country prices are higher than urban prices, there is no suggestion that country prices change at a different rate than urban prices.

In Australia, as in most other countries, the CPI is based on what is known as an 'acquisitions' measurement of prices, rather than an 'outlays' approach. This basically means that it measures the price paid for goods and services, excluding any charges involved with financing those purchases. Thus, if a washing machine were bought on time payment, the purchase price of the appliance would be used (net of any discount), but the interest payments would not be included.

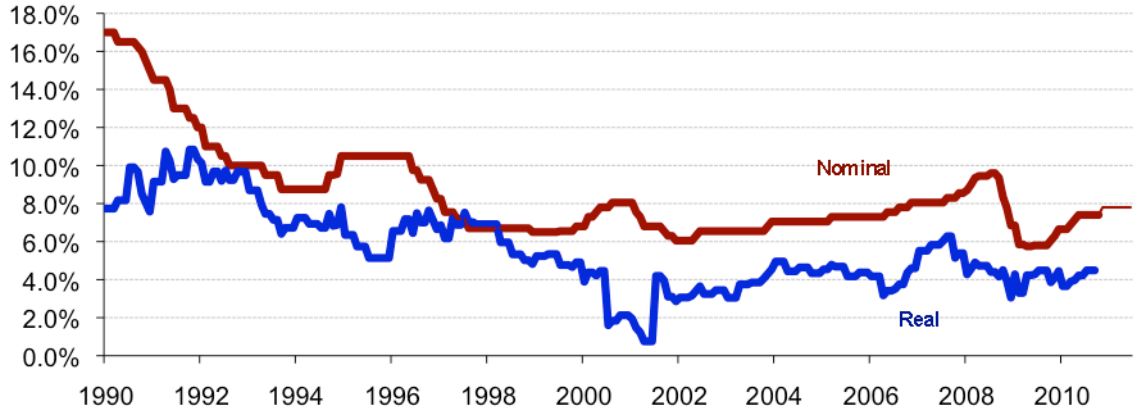
Also, the CPI is based on items of consumption. This has particular implications for housing, which has been included in the CPI basket since 1998. Because, like other assets, a house depreciates over time, it is counted as an item of consumption, but the land on which it sits is not; it is considered to be a durable asset. Therefore the house purchase component of the CPI, which comprises about 8 percent of the basket, excludes land. It is based on the cost of project houses, excluding land. And, because of the acquisitions approach, the CPI does not include mortgage interest.

At first sight, the exclusion of mortgage interest may appear to result in a significant bias – indeed there are arguments for inclusion of interest payments in the CPI – but it should be remembered that the CPI is designed to measure percentage *movements* in the cost of living. Even if interest rates were volatile they would tend to come back to a mean: movements in one period are offset by movements in other periods. In any case, the real housing interest rate (the interest rate after inflation) tends to be reasonably steady: it has hovered at around 4 percent since the Reserve Bank achieved independence. Figure 2, over the page, shows real and nominal bank housing rates; the dip in 2001 relates to once-off household inflation associated with the introduction of the GST.

The CPI, while excluding interest, does include non-interest finance charges, such as bank fees and insurance, in the category 'Financial and insurance services', which comprise about 8 percent of the basket. Although these charges are high for the average household, they have been rising a little more slowly than general inflation.

While this analysis is mainly concerned with possible understatement biases, it should be borne in mind that there are two biases in the CPI which tend to result in systemic overstatement of movements in the cost of living. The first is known as the 'substitution effect', and is most easily illustrated by example. Within the food group, over the year to June 2011, the price of 'lamb and mutton' rose by 11.6 percent, while the price of 'pork' rose by only 0.5 percent. (Sheep meat prices were affected by local weather events, while imported pig meat benefited from the exchange rate.) In response to such price movements many consumers will have adjusted their consumption to buy more pig meat and less sheep meat, substituting one meat type for another, but some, on religious grounds or perceived health effects, would not adjust their consumption. Some others may eat less meat and obtain their protein from other sources. If the CPI is to retain objectivity, official statisticians have to operate on the assumption that the basket remains unchanged. Hence, there is a tendency for a fixed basket CPI to overstate movements in living costs.

Figure 2: Real and nominal housing interest rates



The other bias relates to the quality of goods that have been improving over time. Household appliances and cars have been becoming more reliable and long-lasting, and have incorporated extra features. As time goes by it becomes more and more difficult to find 'like' goods – consider trying to find a new car without airbags or ABS braking, or a computer identical to one on the market six years ago, when the basket for the just-completed CPI series was set. The ABS can make some adjustments reflecting greater value-for-money, known as 'hedonic pricing'. They do this for many items, most notably home computers, but many quality improvements are not taken into account because of measurement difficulties.

For a full account of these and other issues in constructing the CPI, see the ABS paper 'Consumer Price Index: Concepts, Sources and Methods 2009' [6]and for the way the ABS has resolved these issues see their papers 'A guide to the consumer price index: 15th series 2005' and 'Outcome of the 16th Series Australian Consumer Price Index Review 2010'.[7]

While there are lively academic arguments on the technical details of measuring movements in consumer prices, there is little evidence that different methods of measurement would lead to significantly different outcomes over the medium term. There remains, however, the possibility that because prices of different items move in different directions, the CPI does not properly indicate cost-of-living movements for some groups.

Luxuries and necessities

The CPI, earlier known as the 'C' series ('cost of living') index, has its history in Australia's centralized wage-setting system. When it was introduced in 1912 it covered only the necessities needed to sustain a family in 'frugal comfort' to use the language of Justice Higgins' Harvester Judgment. These 'necessities' were food, groceries and house rents (four and five roomed houses). The basket was later expanded to cover other 'necessities' including clothing, household drapery, household utensils, fuel, lighting, urban transport fares – and smoking! It was only in 1961 that it became based on average household consumption rather than a restricted range of 'necessities'.

There is now acceptance among policymakers that the CPI should be as comprehensive as possible, free of paternalistic judgments about luxuries and necessities. But many people point out that the CPI is kept in check by slow price rises or even price falls in discretionary items, such as entertainment, which mask strong price rises in non-discretionary items such as electricity and other utilities.

The drivers of these price falls have been tariff reductions (affecting particularly cars and clothing), exchange rate movements (all imports, particularly appliances and electronic goods from China), technological developments (electronics and communications) and, domestically, the extension of competition in the economy. Over the last few years the prices of 'tradable' items (imports and import-competing) have been rising much more slowly than the prices of 'non-tradable' items.

A quick glance and a little analysis of the most recent June 2011 CPI reveals the differential movements over the last 6 years (since that basket was established) for the 11 major categories used by the ABS.

Table 3: Movement in CPI by Category

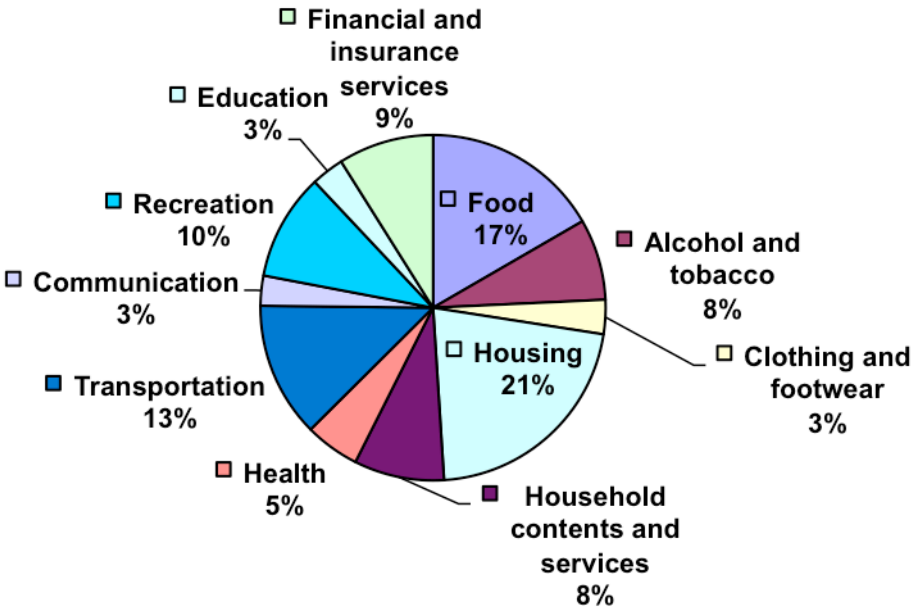
	Rise June 2005-June 2011	Average annual rise (logarithmic)
Food	30%	3.9%
Alcohol and tobacco	35%	5.1%
Clothing and footwear	-2%	-0.1%
Housing	32%	5.1%
Household contents and services	6%	0.9%
Health	31%	4.7%
Transportation	16%	1.7%
Communication	2%	0.5%
Recreation	4%	0.8%
Education	35%	5.0%
Financial and insurance services	15%	2.1%
All groups	**20%**	**3.0%**

The story from this table is mixed. Food, housing, health and education costs have, indeed, been rising ahead of general movements, and these would cover what many people regard as the 'necessities' of life.

We can develop a stripped down index if we remove from the basket items that have seen low price rises or falls. These four categories are clothing & footwear, household contents & services, communication and recreation.

When we construct such a pared-down index it reveals a 27 percent rise over the last 6 years, compared to the 20 percent rise in the more inclusive CPI. (One reason the effect is not greater is that these items comprise only a fifth of the basket on which the CPI is based.) The present weights are shown in the chart below.

Figure 3: CPI weights June 2011



Such an index is close to meaningless, however, because by any reasonable attempt to isolate non-discretionary items, clothing should be included and alcohol & tobacco should arguably be excluded (even though tobacco was included in the old series and for many is hardly discretionary). When these changes are made, the 6 year rise becomes 24 percent and the annual rise becomes 3.5 percent.

In other words, someone who managed to avoid any expenditure on these excluded items, but who had otherwise normal expenditure, would have found the CPI has been understating their costs by an average of half a percent a year. Had this person been employed, however, he or she would still be ahead in terms of material living standards, because, as shown in Part 1, nominal wage and salary income has risen by an average of 4.3 percent a year over this same period. They would still have been enjoying a 0.8 percent (4.3 – 3.5) annual growth in real income.

In summary, although the CPI may be understating some groups' costs because of the influence of certain discretionary items, the effect is not likely to be great – generally less than the rise in wage and salary income.

But there is some further data that could shed light on the experiences of different groups. The ABS produces a series known as the 'Analytical Living Cost Indexes for Selected Australian Household Types'.[8] The four types are:

- Employee
- Age pensioner
- Other government transfer recipient
- Self-funded retiree

There are two important distinctions between these special series and the normal CPI. First, the ABS, using household expenditure data, has developed special representative baskets for each group. For example, age pensioners have very low education expenses but high health care expenses. Second, the series uses an 'outlays' approach, which means items such as mortgage interest and consumer credit charges are included.

The gross findings are presented in Table 4 below, using June 2005 as a base to maintain comparability with the tables in Part 1.

Table 4: Movement in ABS special series CPIs

	Rise June 2005-2011	Average annual rise (logarithmic)
Official CPI (acquisitions basis)	20%	3.0%
Special CPI (outlays basis)		
Employee	23%	3.3%
Age pensioner	24%	3.5%
Other govt. transfer recipient	25%	3.7%
Self-funded retiree	21%	3.1%

These figures go some way to identifying one group whose incomes may not have kept up with inflation – 'other government transfer recipients', because their payments would have been linked to the official CPI (rather than average earnings for age pensioners), and they are unlikely to include many people paying mortgages. They may be experiencing a squeeze in the order of 0.7 percent a year, and that would not be explicable by mortgage charges. Otherwise, the rise in CPI, even when mortgage interest is included, is less than the nominal 4.3 percent average rise in nominal wages over this period.

The ABS provides further confirmation that stress may be focused among low income households in a survey it undertook as part of its work in wealth distribution.[9] In that survey they asked people for 'household perception of finances over time'. The results are below in Table 5:

Table 5: Household perception of finances over time

	Lowest income 20%	Other 80%	All households
Better than 2 years ago	19%	31%	29%
The same as 2 years ago	42%	43%	43%
Worse than 2 years ago	39%	24%	27%

Household finances do not equate precisely to the balance between income and outlays. For example, one's financial position may improve because of frugality in the face of cost-of-living pressures, or one's economic situation may change over two years. But if there were strong cost-of-living pressure across the board, we would expect less symmetry between 'better off' and 'worse off'. The net worsening situation is concentrated among the 20 percent of lowest income households – and even 60 percent of those households report that their financial situation is the same as it was two years ago or better.

In all, there is no hard evidence from ABS data – and there is a good deal of data presented – that points to widespread cost-of-living pressure. Rather, it is consistent with the probability that such stress is confined to certain groups, particularly those on CPI-linked benefits. But these are not the same people as are complaining so strongly on talkback shows and in other media. Perhaps there is a psychological explanation: we hear only from those who are worse off, not from those who are better off. Or perhaps what is happening is that new norms of expenditure have developed or that people are feeling the pinch because of other commitments.

Section 2. Housing stress and changed norms of consumption

Is it possible that mortgage re-payments have increased in real terms over this period? If they have, given that mortgage re-payments are definitely non-discretionary, that would represent a crowding out of other expenditure. And, if they have risen, to what extent is such a rise attributable to changes in interest rates and to what extent is it attributable to bigger real mortgages? (Neither of these are picked up in the CPI.)

We cannot match the CPI period precisely, but we do have comparable data on mortgage outlays between the two most recent ABS Household Expenditure Surveys for 2003-04 and 2009-10.[10]

Over that period consumer prices, as indicated by the CPI, rose by 18.7 percent, which means 2003-04 outlays on mortgages should be indexed up by that amount to bring them to comparable 2009-10 terms.

Also, interest rates have changed: between those two periods there was a slight fall in bank variable housing rates. They averaged 6.86 percent in 2003-04 and 6.56 percent in 2009-10. Therefore the 2003-04 interest component needs to be reduced by 4 percent for comparability.

The results are shown below in Table 6, which shows that mortgage payments have indeed risen – by 37 percent in real terms over that period.

Table 6: Mortgage payments, $ per week, 2003-04 and 2009-10

	2003-04 outlays			2009-10 outlays	
	Current prices 2003-04	2003-04 outlays brought to 2010-11 prices	Interest rates indexed to 2009-10 rates		Rise
Mortgage interest	46.26	54.92	52.52	80.96	54%
Mortgage capital	35.98	42.71	42.71	49.31	15%
Total payments	82.24	97.63	95.23	130.27	37%

It is not possible to pin down the source of this rise. It could be a number of factors:

- More expensive houses – prices have generally risen over this period. Because the CPI excludes land, this could be showing the land effect. Over the same period, June 2004 to June 2010, the price of established homes rose by 50 percent and the price of new homes rose by 26 percent.[11] It should be noted, however, that this does not in itself represent a price rise for existing mortgage holders; rather it is an indication of the cost faced by new entrants into housing or by those who upgraded. Either a person had a mortgage in 2003 or did not: those who already owned a house with a mortgage and did not shift did not suddenly find their payments increasing;
- Higher interest rates if more recent mortgages have been financed from more expensive sources – the assumption in the table is that the sources are banks and their interest rates have changed little over that period. This is an unlikely explanation because if anything there has been a movement back to banks as a source of finance;
- Mortgage re-draws for house extensions or for other purposes. While, by 2009-10 lenders were becoming more cautious, there would still have been the overhang of earlier decisions to make re-draws. This is consistent with the revelation in Table 6 that interest payments have risen faster than capital re-payments and points to the possibility that for some mortgage stress is a result of expanded expectations.

The people who are undoubtedly left in difficulty are renters. Over this period, according to household expenditure survey data similarly adjusted for CPI inflation, rents have risen by 41 percent in real terms. Some of this may be a quality effect as the stock of properties improves, but most is almost certainly a price effect. Over this period the rent component of the CPI rose by 33 percent, and the ABS endeavours to factor our quality improvements.

Even if individuals have found their mortgage repayments were not rising, there is a possible explanation in behavioral economics for mortgage stress to accumulate.

Our general approach to mortgages, reflected in both borrowers' and lenders' practices, is to base the size of a mortgage on immediate affordability, using a guide such as x percent of disposable income – where that 'x' often refers to the income of two earners.

In taking out a mortgage, we are generally over-optimistic about our capacity to re-pay the mortgage (the 'optimism' bias). We underestimate the possibility of events that would reduce our (or our partner's) capacity to repay – loss of job, illness, an unplanned pregnancy, an accident. Worse, we fail to realize that *any one* such event could leave us stressed (the 'disjunctive' bias). If, for example, there are eight such risks each with only a ten percent probability, the probability of none of them occurring is only 40 percent.

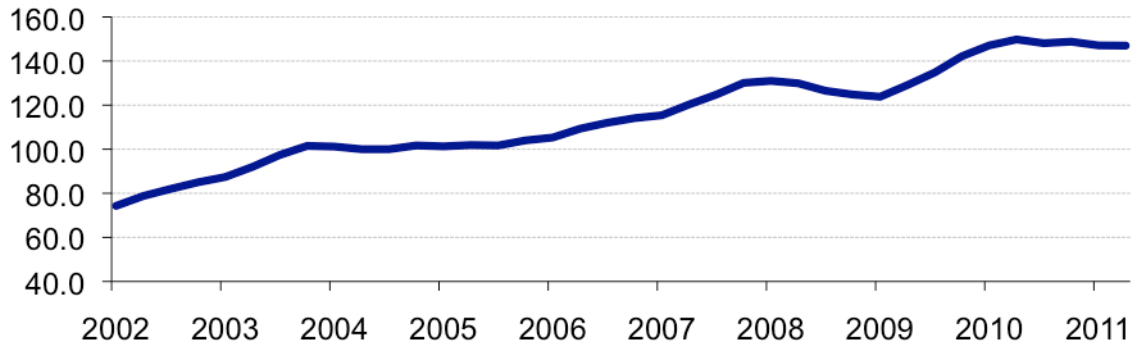
We may be rescued from our optimism bias, however, by inflation, which, over time, erodes the real value of mortgage re-payments that are fixed in nominal terms. That is, assuming we do not delay re-payments or re-draw, and provided our incomes rise in nominal terms.

In times of low inflation, as we have experienced over the last ten years, such an effect is muted. The mortgage lingers. When inflation is running at 3 percent, after five years the mortgage repayments are still at 86 percent of their starting value, but in days past when inflation was higher the burden diminished more rapidly: at 6 percent inflation the repayments have fallen to 73 percent of their starting value after five years. The current generation of mortgagees does not enjoy the inflation-induced early release from mortgage stress that was enjoyed by earlier generations.

A related issue is the wealth illusion of house prices. Although it makes no rational sense, many people feel a rise in wealth when the market value of their house rises, and a decline when that value falls. In fact, such price movements are no more than asset price inflation – the physical wealth in a house remains unchanged. Yet, that illusion operates. A change in wealth is a change in income, and if one believes one's wealth has changed, even if that is only an inflationary effect, it leads to a belief that one's income has changed.

Over the last two years nominal prices of established houses have tended to flatten out and they have fallen in some cities. This could be having a perceived wealth effect (but is unlikely to lead to the sort of mortgage stress being experienced in the USA). In other words, people may be feeling their income is being squeezed because they are no longer enjoying the 'income' of rising house prices. One may believe the illusory income effect to be so irrational that it is fanciful, but it was a stimulus measure used by US Reserve Chairman Greenspan when he lowered interest rates in a deliberate attempt to increase house prices; we are now seeing that effect work with equal strength in the opposite direction, and the Reserve Bank analysts believe the same illusory effect is in operation in Australia as an explanation for the recent rise in the savings rate.[12]

Figure 4: Established house price index, average of capital cities



Similarly, those who hold equities, either in their own right or through superannuation, may be experiencing a negative wealth effect since share prices have fallen from their peaks before the GFC. For those who are accumulating assets, this effect would be similar to the effect of changing house prices; its effects would be purely psychological.

But for those living off those assets, either through dividends or through drawing down capital, the effect would be real. The question remains open about the extent to which self-funded retirees should manage the volatility of their investment returns; if one is living off a volatile income stream it would be prudent to manage that stream to overcome stress associated with short-term volatility.

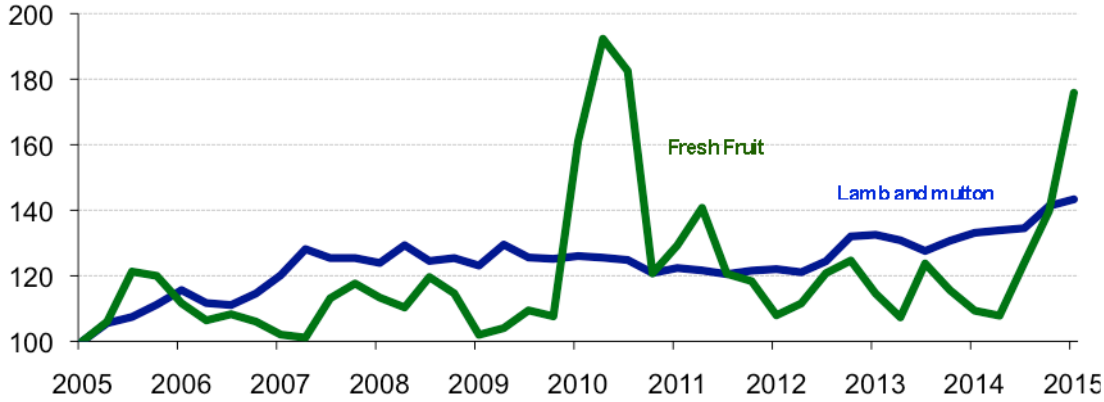
Section 3. Other candidates - loss aversion and salience of price rises

Some price rises achieve prominence, particularly if they follow a period of stability, and price rises tend to register more strongly with our emotions than price falls. Psychologically, we do not necessarily rationally balance gains and losses against one another. Rather, we find the pain from losses is greater than the enjoyment we gain form an equivalent gain.

We are also more likely to react negatively to a sudden rise in a price than to a steady rise – what psychologists refer to as the 'boiling frog syndrome'. Also, we are likely to react more negatively to a price rise we consider to be illegitimate than to one we consider to be unavoidable: we are less forgiving of price rises arising from companies exploiting market power or from government policy decisions than from rises attributable to natural causes.

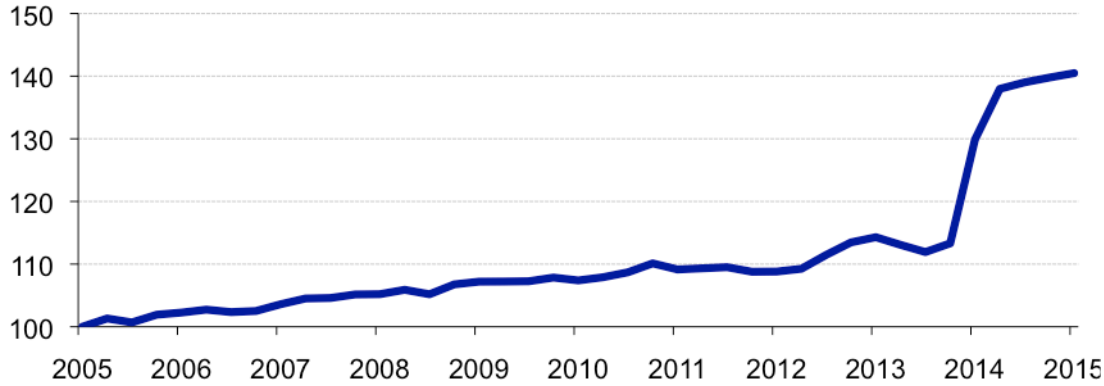
Below are graphs of price index numbers of selected items which have shown either high volatility or sudden price rises over the last ten years. The graphs are normalized back to 2001 set at a base of 100, and show comparisons with the 'all groups' aggregate CPI. Taking the first graph as an illustration, the high point of 190 reached by fresh fruit in 2006 indicates that between 2001 and 2006 fresh fruit had risen by 90 percent more than the general CPI, or 90 percent in real terms.

Figure 5: 'Real' price movements - selected food items - base 2001 = 100



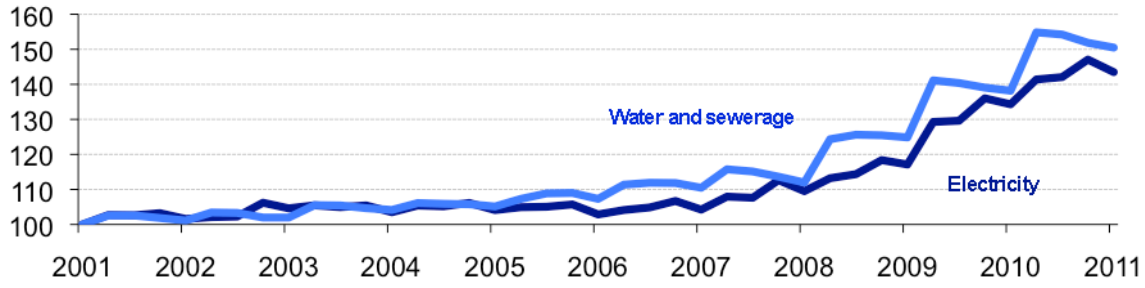
The extreme volatility of selected food items reflects weather events. These tend to be headline-grabbing, but their subsequent slow recovery attracts little attention.

Figure 6: 'Real' price movements - tobacco - base 2001 = 100



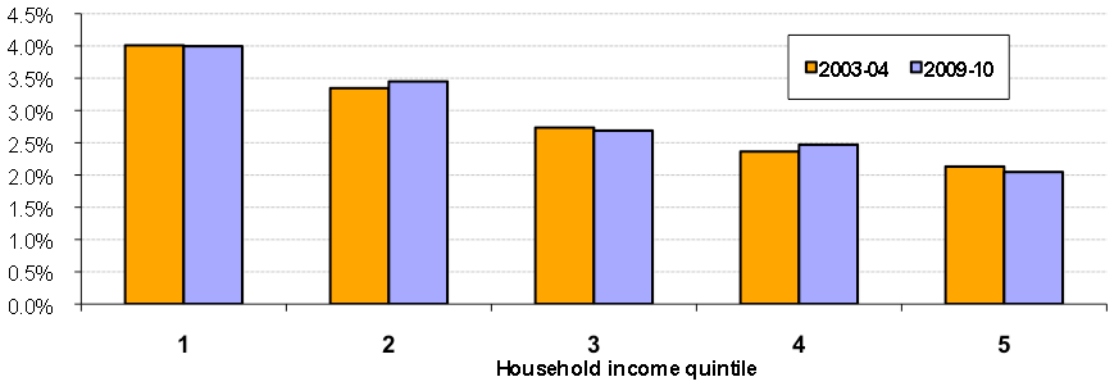
Tobacco prices reflect recent government decisions on excise. Tobacco represents only 3 percent of the CPI base. At first sight that appears to be minor, but tobacco use is confined to about 20 percent of people. For those users tobacco would therefore constitute about 15 percent of their CPI basket. The rise in excise could therefore be significant for many smokers, and, given the addictive properties of smoking, it is questionable whether it can be called 'discretionary'.

Figure 7: 'Real' price movements - selected utilities - base 2001 = 100



Utility price rises capture significant media attention. Over the last six years they have risen at an average annual rate of 5.2 percent above general inflation, and within this group electricity prices have risen at a rate of 5.5 percent. Electricity prices accelerated strongly around 2008, following a long period of modest rises. The reasons have to do mainly with the need to allow for expansion of capacity in networks. (It should be noted that Australian prices are still around 50 percent lower than those prevailing in most European countries.[13])

Figure 8: Expenditure on fuel and power as a proportion of all expenditure



In spite of these strong price rises, there has been hardly any change in the proportion of the household budget consumed by household energy: in fact, as shown in Figure 8, household expenditure survey data shows a slight fall from 2.64 percent to 2.63 percent from 2003-04 to 2009-10 – well within the statistical margin of error. All households, from the lowest to highest income, seem to have maintained about the same proportion of expenditure on domestic energy in spite of price rises.

These figures do not align with the perception of stress arising from household energy prices. Nor do they align with the popular notion that in our households we are leading increasingly energy-intensive lives: per-capita residential energy consumption has fallen over the last twenty years. See Table 7 derived from energy and population statistics.[14]In other words, we seem to be adjusting to price rises rationally by reducing consumption. There has indeed been a large growth in use of household electrical appliances – air conditioners, refrigerators, televisions and other home entertainment equipment – but these have been offset in large part by more efficient heating equipment.[15]

Table 7: Residential Energy Consumption

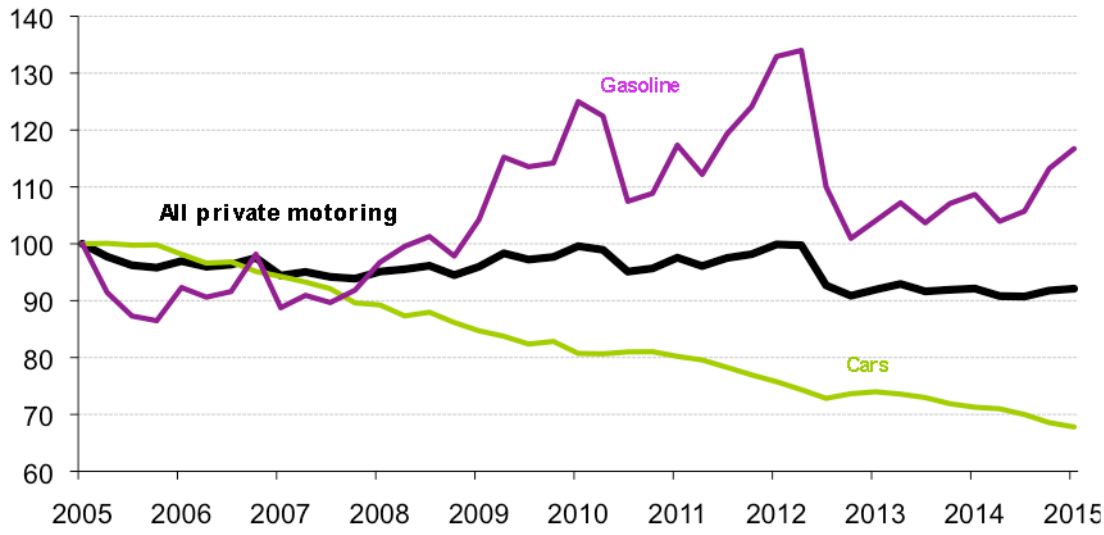
	Consumption TJ	Population '000	Consumption per head GJ
1974-75	246	13893	56.5
1979-80	262	14695	56.1
1989-90	322	17065	53.0
1999-00	392	19154	48.9
2008-09	434	21952	50.6
2009-10	440	22329	50.7

There may, however, be reasons for energy price rises to result in distress. Australia-wide improvements in consumption are influenced by those who move into new, energy-efficient housing, and by those who undertake major renovations; most people do not make such changes in a short period; many people will not have made significant energy-saving adjustments to their consumption patterns. Again, renters come to mind, because renters are least likely to have the capacity to change their mode of space heating or insulation, particularly as these generally require building modification, and landlords have no incentive to improve energy efficiency.

Another reason is the trend for heating fuels such as wood, oil and bottled gas to give way to mains gas and electricity. As households switch over to one source, multiple small bills give way to one big bill, which possibly becomes more prominent in people's minds.

Then there is the nature of billing. Most utilities are billed quarterly, and price rises often occur only once a year – a phenomenon clearly illustrated in the step function for water and sewerage. The shock of sudden price jumps is likely to be annoying, and can put a short-term strain on household budgets.

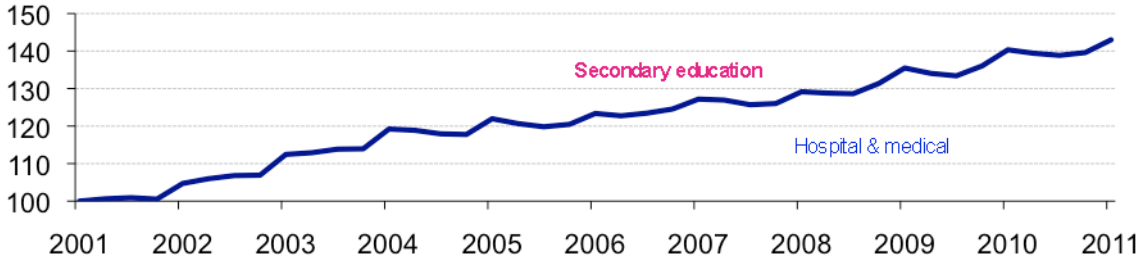
Figure 9: 'Real' price movements - private motoring and selected components - base 2001 = 100



The point in displaying the 'private motoring' group is to illustrate that in spite of fuel price increases, the cost of private motoring in real terms is now lower than it was ten years ago. The main reason has to do with the purchase price of cars, which has fallen because of tariff reductions, exchange rate movements and intense

international competition. Yet, gasoline prices attract attention, because we are regularly reminded of pump prices. Because car prices tend not to move much in nominal terms, we tend not to notice that they are falling in real terms.

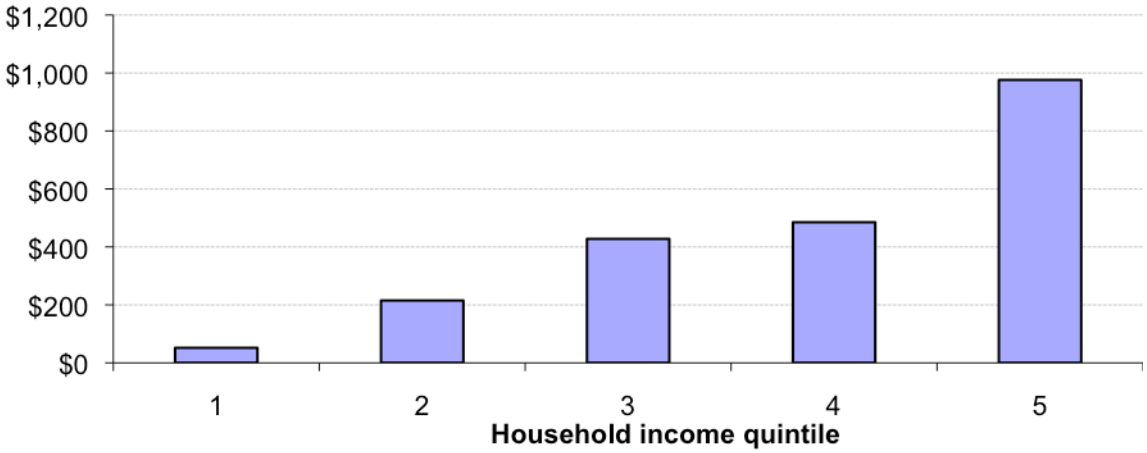
Figure 10: 'Real' price movements - hospital & medical services and secondary education - base 2001 = 100



Finally, two services which have seen substantial shifts from public to private funding over recent times – health care and education. Some of this inflation is almost certainly a result of arms-race style competition for 'positional goods' in constrained supply – the 'best' private school, the 'top' health cover giving priority access (queue jumping) to elective health care. While the ABS does not re-base its index (i.e. change the mixture of goods in the basket) between major revisions, it does make changes within expenditure classes to reflect changed purchasing patterns. This means that for groceries, for example, if people were to change their consumption from Coles to Aldi, their sampling would affect that change. In education and health care, this would mean shifting from free (or nearly free) public sources to private sources – private health insurance and private schools.

Although this effect on the overall index is slight, the effect on those who make the changes in their purchasing patterns may be significant. While the level of private health insurance has remained steady in recent years, there has been an increase in the proportion of children attending private schools: that minority who has made such a switch could be experiencing a squeeze. Household expenditure data, shown in Figure 11, shows real rises in education outlays across all income groups.

Figure 11: Increase in education outlays, 2003-04 to 2009-10, $ per year, constant (2009-10) prices



It is notable that the increase in education outlays has been greatest for highest income households – almost $1000 a year. This increase has been less than one percent for all but the highest income quintile, but it should be remembered that not every household has school-age children. The Household Expenditure data

does show a large rise in outlays on private secondary school fees, but most expenditure is classified to a general category which does not reveal whether schools are public or private – a data limitation.

When it comes to what economists know as 'positional goods' – the best private school, the best surgeon, the houses on the waterfront – most people who seek these goods will never be satisfied, because, by definition, these goods are in limited supply. The more competition there is for such goods the higher will be their prices, and those higher prices will flow through to the 'second-best' goods. In the race to keep up with the Jones's there will always be more frustrated losers than satisfied winners.

If, as is likely, the rise in outlays on education results from a choice to switch to private education – a positional good – it would have to be considered a new norm of consumption rather than a rise in living costs.

Section 4. Future movements and policy conclusions

Future movements

It is possible to make some reasonably safe predictions on the future of consumer prices. Some of the drivers of strong falls in relative and absolute prices will, at some stage, be exhausted. Tariff reductions have gone almost as far as they can go. The Australian dollar will not go on appreciating forever (at the time of writing it has been on a wild ride, including a recent fall of ten percent in less than a week, followed by a slow recovery), and in time the Chinese currency, which has been deliberately been held down, will rise.

Even if, as is likely, production of clothing and electronics shifts from China to countries with even lower labor costs, the time will come when freight and distribution costs are so high in relation to manufacturing costs that any further fall in manufacturing costs are unlikely to have much effect on consumer prices.

Competition policy still has some way to go, particularly in health care, but most of the easy reforms, such as abolition of retail price maintenance, have been achieved. There may be some further economies in retailing: research by the Australia Institute reveals Australian retail prices are much higher than in other countries.[16](One reason may be the nature of retail tenancy, where shopping centre owners exercise strong market power.) Research by the Reserve Bank shows that retailers have been slow to pass on the benefits of exchange rate appreciation; the lag may be up to three years.[17]

Energy prices will almost certainly rise in the long term, but the effect on living costs will depend in part on whether households reduce their consumption. The present uncertainty surrounding carbon pricing relating to the Opposition's policy of repealing the carbon tax may cause electricity suppliers to be hesitant about investing in new capacity. At present, in peak times there is heavy reliance on expensive energy-inefficient generators. That's why certainty over carbon pricing would most likely see a moderation in energy price rises. (Treasury modeling indicates an initial electricity price rise of 10 percent, which would represent an average cost-of-living rise of about 0.3 percent, in the absence of any consumption adjustment.[18]) The ultimate effect on living costs will depend, in large part, on households' adaptation to higher energy prices. Perhaps, because of the fear campaign around carbon pricing, people are experiencing an apprehended fear of price rises.

Food prices, particularly unprocessed food such as meat and fresh fruit, are likely to go on experiencing volatility. But there may be upward trends as well: Australia is unlikely to be exempt from a long-term trend for food prices to rise, as global population pressure mounts, as the productivity gains in farming revert to more modest levels, and as climate change disrupts food production.

Then there are costs of health care and education. In both areas expectations play a major role, and in both areas government policy decisions relating to free or paid provision will have influences on the CPI. Of course, if governments increase free provision of education, for example, the CPI may fall, but because of necessary tax rises, cost-of-living pressures – the gap between disposable income and outlays – do not necessarily diminish, but the way those costs are distributed across different groups does change.

There are two government policy decisions which could have future effects. One is the recent decision by the NSW Government to hold the pay rises of government employees – including teachers, nurses and police – to 2.5 percent, which is below any reasonable inflationary expectation. In view of labour shortages and the possible political backlash, however, this may not be sustainable. The other is the Commonwealth decision to increase the superannuation guarantee levy by 3 percent. If that were to occur in one hit, it would almost certainly cause stress, for there is no way employers could absorb such a large hit. The plan is to introduce it incrementally, initially in two annual steps of 0.25 percent, and then in steps of 0.50 percent. The questions raised are whether productivity can rise at a rate sufficient to absorb these rises, and, if so who will benefit? Will these rises in the levy come out of wages or profits?

Ultimately the economy's capacity to maintain a meaningful gap between disposable incomes and the cost of living is to sustain productivity gains. Notably, in recent years, some of that gap has been kept open by temporary developments, such as currency appreciation and tariff reductions, and we are now realizing that our productivity performance has been slipping.

Government policies

The present Commonwealth Government has had difficulty in countering negative perceptions about its economic competence. The perception that prices are causing cost-of-living pressures may be false, but the psychological (and political) consequences are more real. Some commentators attribute Australians' decline in consumer confidence, and increased saving rate to real or perceived cost-of-living pressures, but it would be hard to establish a causal link. In fact, conventional economic theory suggests that if people find their income is not keeping up with their consumption expectations, they reduce their savings or go further into debt. In Australia the opposite is happening.

Governments can do little about falsehoods perpetrated by Opposition parties and partisan journalists, and they can do little about changing perceptions of what constitutes a decent standard of living (called 'aspirations' by some with a materialistic bent), but they can pay attention to some of the developments that cause price shocks and misperceptions. Some work needs to be done on utility billing, for example; there must be better ways than the annual billing shock, and there must be ways, such as better metering, to give consumers more control over their use of utilities. Similarly, governments need to take care with policies that change household living costs, such as changes in co-payments for health expenses; often these can appear to be capricious and arbitrary. And the government could arguably do better in explaining the effects of carbon pricing.

Governments should beware of the political temptation to hold down prices which will have to rise over the long term: in so doing they may avoid a small amount of immediate pain, but in the long term they run the political risk of a backlash from a price shock. (The decision by the Howard Government in 2001 to abolish indexation of fuel excise is a case in point.)

There is a whole set of policies relating to housing requiring attention. Australia has already been through the worst of house price inflation, to which poor policies (such as cash grants to first home owners and tax subsidies for investment housing) have contributed. As this analysis suggests, mortgage pressure may be squeezing some household budgets, but there is no indication that this has worsened in recent years. There is the possibility that there has been an income illusion with rising house prices, however, which could well operate in reverse if house prices fall significantly in nominal terms, and any significant reduction in inflation is likely to exacerbate existing mortgage stress. (Fortunately, such a reduction in inflation is unlikely, unless there is a major change in fiscal policy.)

In particular the situation facing renters is serious, and, while there is little that governments can do immediately, there are policies that can increase the supply of affordable housing.

Also, the Commonwealth needs to review the indexation rules applying to those on long-term social security payments. Age pensions are covered reasonably well, but CPI indexing may not be appropriate for other pensions.

Because of the influence on the CPI of low prices of what could be considered as 'discretionary' items, there will be calls for modification of the CPI. But, as shown in this analysis, such effects are not large. More basically, by most normative standards, governments are best kept out of paternalistic judgments about discretionary and non-discretionary items, or about 'luxuries' and 'necessities'. We can recall past times when items such as overseas travel and television sets were considered as 'luxuries'; conversely most of us know of well-off urban dwellers who can afford a lifestyle without owning a car; similarly we may know of struggling families who cannot afford to travel or eat out but whose only entertainment is a large flat screen TV. Our governments wisely abandoned the old cost-of-living series index many years ago, and, more recently, abolished the old sales tax régime with its highest rates applied to what may have been 'luxuries' in previous generations.

In the long term, the only way in which nominal incomes can keep ahead of household inflation is to ensure that there is productivity growth. This is not the place to enter into the productivity debate, save to say that few would disagree with the need for policies to turn around Australia's declining productivity performance. (The causes of our productivity decline and the policy means to improve it are issues of contention.) As Paul Krugman has said:

> "Productivity isn't everything, but in the long run it is almost everything. A country's ability to improve its standard of living over time depends almost entirely on its ability to raise its output per worker."[19]

By 'almost everything' Krugman is undoubtedly referring to the need for the gains from productivity to be fairly and efficiently distributed, and not confined to some privileged oligarchy. That is best done through ensuring that income policies give people decent pay packets, through the provision of public goods, through resisting political pressures to exempt groups from structural change, and through sustaining a progressive and efficient taxation system.

Endnotes

[1] Denniss 2002

[2] Soutphommasane 2011

[3] ABS 5506.0 and 5204.0

[4] ABS 6523.0.

[5] ABS 6461.0.

[6] ABS 6461.0.

[7] ABS 6440.0 and 6469.0.

[8] ABS 6463.0.

[9] ABS 6554.0

[10] ABS 6530.0.

[11] ABS 6416.0.

[12] Madrick 2011 and Stevens 2011.

[13] Petchey 2011.

[14] Department of Energy, Resources and Tourism 2011 and ABS 3101.0.

[15] Petchey 2010 and Schultz & Petchey 2011.

[16] Irvine et al 2011.

[17] Chung et al 2011

[18] Treasury 2011.

[19] Krugman 1994.

References

ABS statistics (http://abs.gov.au)

Catalogue number	Title	Release date
3101.0	Australian Demographic Statistics, Dec 2010 - time series	23-Jun-11
4102.0	Australian Social Trends 2007 'Trends in household	7-Aug-07
	consumption'	

5204.0	Australian System of National Accounts, 2009-10 - time series	29-Oct-10
5506.0	Taxation Revenue, Australia, 2009-10	12-Apr-11
6302.0	Average Weekly Earnings, Australia, May 2001 - time series	18-Aug-11
6401.0	Consumer Price Index, Jun 2001 and time series	27-Jul-11
6416.0	House Price Indexes: Eight Capital Cities, Jun 2011 - time series	02-Aug-11
6440.0	A Guide to the Consumer Price Index: 15th Series, 2005	26-Oct-05
6461.0	Consumer Price Index: Concepts, Sources and Methods, 2009	10-Dec-09
6463.0	Analytical Living Cost Indexes for Selected Australian	15-Aug-11
	Household Types, Jun 2011	
6469.0	Outcome of the 16th Series Australian Consumer Price Index	06-Dec-10
	Review, Dec 2010	
6523.0	Household Income and Distribution, 2009-10	30-Aug-11
6530.0	Household Expenditure Survey, Australia: Summary of Results,	06-Sep-11
	2009-10	
6535.0	Household Expenditure Survey, Australia: Detailed Expenditure	16-Feb-06
	Items, 2003-04	
6554.0	Household wealth and wealth distribution 2009-10	14-Oct-11

Reserve Bank statistics (http://rba.gov.au)

Indicator Lending Rates, Table F5, Bank Standard Variable Housing Loans

Other Publications

Elaine Chung, Marion Kohler and Christine Lewis (2011) 'The Exchange Rate and Consumer Prices' *Reserve Bank Bulletin* September Quarter (http://rba.gov.au)

Department of Resources, Energy and Tourism (2011) *Energy in Australia 2011*. (http://ret.gov.au)

Clive Hamilton (2002) *Overconsumption in Australia: The rise of the middle-class battler,* The Australia Institute November (http://tai.org.au)

Ben Irvine, David Richardson, Josh Fear and Richard Denniss (2011) *The rise and rise of online retail*, The Australia Institute May (http://tai.org.au)

Paul Krugman (1994) *The Age of Diminished Expectations* (MIT Press)

Jeff Madrick (2011) *Age of Greed: The Triumph of Finance and the Decline of America, 1970 to the Present* (Random House)

Rebecca Petchey (2010) *End use energy intensity in the Australian Economy*, ABARE-BRS research report, (http://abares.gov.au)

Andrew Schultz and Rebecca Petchey (2011) *Energy Update 2011*, ABARES (http://abares.gov.au)

Tim Soutphommasane (2011) *Just get over it: the cost of living in Australia*, Per Capita (http://percapita.org.au)

Glenn Stevens (2011) 'The Cautious Consumer' Address to the Anika Foundation, *Reserve Bank Bulletin* September Quarter 2011 (http://rba.gov.au)

Australian Treasury (2011) *Strong growth, low pollution – Modelling a carbon price – Update*, September 2011 (http://treasury.gov.au)