Treasury Submission to the Thirteenth Series CPI Review

The ABS has raised a number of issues for consideration in this review of the Consumer Price Index (CPI), but identifies the key issue as relating to the primary use of the CPI and the most appropriate method of construction of the CPI to meet that requirement. This submission focuses on that key issue, and provides less detailed comments on the less important issues.

The CPI is used for a variety of purposes. It will continue to be so used, even though a single method of construction cannot be devised which will ideally suit all those purposes. However, there have been significant changes since the 12th Series CPI Review in the way in which the CPI is used, relating in particular to its role in income adjustment. At the same time, there has been increased attention paid to maintaining low inflation. This has increased the importance of developing a sound, widely recognised measure of inflation. The current CPI, while it has always been viewed as a general measure of inflation, is nevertheless a poor inflation measure due to the inclusion of mortgage interest charges.

Treasury recommends the adoption of a change in methodology to make the CPI a better measure of general inflation. Such a change in methodology would also enable the CPI to continue to be used for income adjustment purposes. This judgement reflects the growing tendency for the CPI to be incorporated in wage adjustment in a more forward-looking manner than was previously the case. Also, the relevant time period for consideration of CPI movements appears to have lengthened, an important consideration given that outcomes for the alternative methods tend to move in similar fashion over the longer term.

ALTERNATIVE USES, AND CONSTRUCTION, OF THE CPI

The CPI has traditionally been used for a wide range of purposes. It has played an important role in income adjustment, both as a consideration in wage determination and as a basis for indexation of social security entitlements. It has been used more broadly for indexation of government taxes and charges, of government bonds, and of business contracts. As an indicator of inflation, it has been a major focus of macro-economic policy considerations. The CPI continues to be of importance in all these roles.

It is impossible to construct a single index capable of perfectly satisfying all these needs. Not surprisingly, therefore, a range of methods for CPI construction have been adopted by different countries, emphasising the fact that decisions on the appropriate methodology to be used should be tailored to each country's individual circumstances. Three broad methodologies — referred to as acquisitions, outlays and economic cost of use approaches — are currently adopted internationally, although some variation is evident in the way in which some countries have applied particular approaches.

All three approaches measure price changes for a constant basket of goods and services. They differ in the way the basket is defined, and hence in the relative weights attached to items in the basket.

- The acquisitions approach defines the basket as consisting of all the goods and services purchased during the base period.
- The outlays approach defines the basket as consisting of the actual amount paid in the base period to gain access to goods and services.
- The economic cost of use approach defines the basket as consisting of all the goods and services actually consumed during the base period, regardless of when they were acquired or paid for.

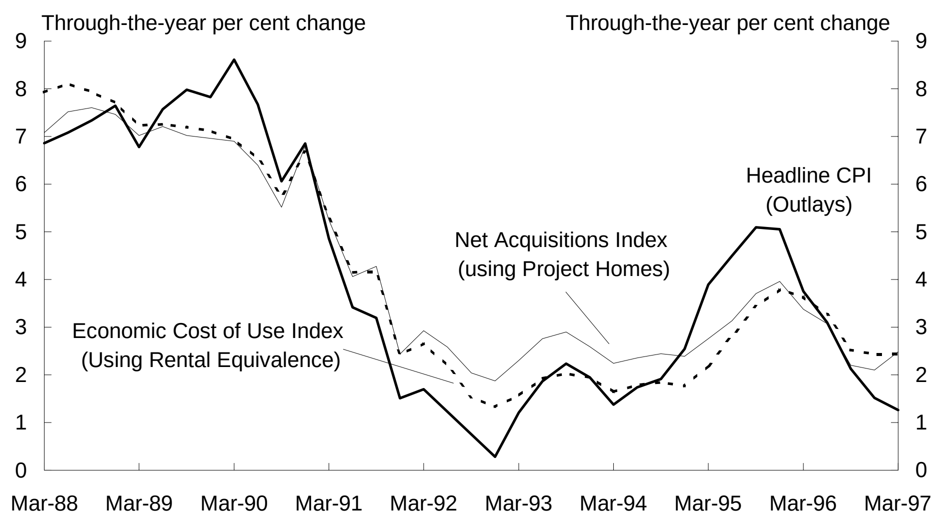
For most goods and services in the CPI basket, price measurement will be the same regardless of the methodology adopted. Non-durable goods and services, where consumption occurs at or near the time of purchase, are a good example of this; for all three approaches, price measurement reflects the actual purchase price. However, there can be significant differences between the approaches for some other goods and services. For example, this is the case for durable goods (where consumption will be spread over an extended period), and for goods purchased on credit (where outlays are spread over a period of time).

Owner-occupied housing is a good example with which to highlight differences between the alternative approaches. Moreover, it has been primarily in relation to the treatment of this item that each of the different approaches have been adopted, or have been considered for adoption, in Australia.

- The acquisitions approach was used prior to the 11th Series of the CPI and treated home ownership costs as the price of acquiring a new house (excluding land). The expenditure weight reflected the value of net acquisitions of owner-occupied dwellings.
- The outlays methodology (currently used) incorporates the cost of mortgage interest charges on housing debt. The expenditure weight used is the total expenditure in the base period on interest charges on all mortgages that existed during that period.
- The economic cost of use approach — the adoption of which has been recommended by Treasury in previous Reviews — includes the notional cost of the rental services flowing from dwellings. In practice, this information would be derived from actual rents paid in the private rental market for dwellings.

Indexes derived using the alternative methodologies are likely to diverge significantly from one another, at least in respect of short-term movements. For example, the ABS states that 'Although these alternative approaches are characterised by marked conceptual differences, these are more likely to result in short-term rather than long-term differences in outcomes (particularly so in the case of the acquisitions and outlays approaches). The expected long-term similarity of outcomes can be attributed to two factors. First, the conceptual distinctions are important for only a relatively small proportion of overall household consumption. Second, each approach covers a broad range of consumer goods and services which tend to exhibit similar long-term price behaviour in the absence of external shocks or institutional change.'[1]

Chart 1: Alternative Measures of the CPI



Movements in the current outlays measure of the CPI are contrasted, in Chart 1, with movements in proxies for the alternative acquisitions and economic cost of use measures, derived using appropriate assumptions.[2] As indicated by the ABS, there are some significant short-term divergences between the alternative estimates. However, it is the acquisitions and economic cost of use approaches which display the strongest similarity in short-term movements. As expected, all three measures show similar movements over the longer term.

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1 ABS 1997, *Issues to be considered during the 13th Series Australia Consumer Price Index Review* (henceforth '*Issues Paper*'), Catalogue No. 6451.0, May, p. 42.

2 The outlays index is the 'All Groups CPI', as currently published. An estimate of the acquisitions index is constructed by excluding the mortgage interest charges and consumer credit charges sub-components from the All Groups CPI and adding a new component called 'net acquisition of housing'. The latter is constructed using the project homes price index (from ABS Catalogue No. 6416.0) . The weighting adopted for the latter is that applicable for house purchases and alterations in the 10th Series CPI, (ie 5.4 per cent) which was the last series in which net acquisition of housing appeared as a sub-component. In practice, the weight is likely to be lower since alterations would now be included separately elsewhere in the index as part of the house repairs and maintenance sub-component. This acquisitions index excludes any financial charges component. If such a category was adopted (as recommended later in this Submission) the resultant acquisitions index would vary from the

At present, the ABS also publishes — in addition to the aggregate CPI index — a number of supplementary indexes derived from the CPI. An important one — which will be referred to later in this submission — is the Treasury underlying inflation index. This is constructed by excluding items which display marked seasonality, are highly volatile, or are substantially affected by policy instruments (eg interest rates and rates of indirect taxation). In terms of the above approaches, the underlying inflation index excludes all items where the outlays approach diverges from the acquisitions approach, in addition to many other items. The items in the underlying inflation index are thus exclusively constructed in a manner consistent with an acquisitions index.

An alternative method of constructing an underlying inflation index would be by specific adjustment.[3] Rather than excluding items for the reasons mentioned above, this approach would introduce specific adjustments of the estimated effects of these factors. Where there was a change in the rate of tax applied to a particular item, for example, it would be only the estimated impact on its price resulting from that change — rather than, because of exclusion of the item from the index, all movements in its price — which would be eliminated. Although this approach has conceptual advantages, it has practical limitations related to the transparency and accuracy of methodologies to be applied in estimating the required adjustments.

The previous CPI Review concluded that the primary use of the CPI was to adjust income, with its use as a general measure of inflation being of secondary importance. It also concluded that an outlays approach was the most appropriate form of construction to satisfy this principal purpose. In its information paper for this review, the ABS argues that 'the key issue to be decided by this review is which of these requirements can be regarded as the principal purpose of the CPI.'[4] In particular, the ABS states that the crucial issue 'is to decide whether the CPI should continue to be designed to assess changes in the purchasing power of household incomes or whether it should be redesigned to provide a better measure of general inflation'.[5]

Over time there are changes in the way in which the CPI is used. Indeed, changes since the last Review have been substantial — and are ongoing — and

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one in the chart. This variation is, however, likely to be small given that such a category would have a relatively small weight in the total basket. The estimated economic cost of use index is constructed using a rental equivalence approach, with the implicit price deflator for dwelling rent from the National Accounts used to proxy price movements in imputed dwelling rent. The weight applied is the share of imputed rents in private final consumption expenditure in 1995-96 derived from the National Accounts (ie 30 per cent); the weights of other CPI components are normalised so that total weights add to one.

3 ABS 1997, *An Analytical Framework for Price Indexes in Australia,* Catalogue No. 6421.0, February, pp. 35-40.

4 ABS 1997, *Issues Paper*, *op cit*, p. 1.

5 *ibid*, p. 8.

have significant implications for considerations of the most appropriate method of construction. In particular these changes have both reduced, and changed the emphasis of, the role of the CPI in income adjustment, while emphasising the need for the CPI to be an adequate measure of inflation.

DEVELOPMENTS SINCE THE LAST REVIEW IN THE USE OF THE CPI

Income Adjustment

Changes in Wage Determination

In relation to income adjustment, the most important use of the CPI has historically been as an input into centralised wage determination. This emphasis is reflected in the expenditure coverage of the CPI being restricted to that of wage and salary earner households (excluding the top ten per cent of households by income). A common element of many of the centralised wage decisions to the end of the 1980s was compensation for previous changes in purchasing power, as measured by changes in the CPI. Varied approaches — for example, relating to details surrounding the indexation of wages to past CPI movements (namely automacity, frequency, coverage and trade-offs) and the relative importance of other factors (such as capacity to pay) — were adopted during the centralised era. Nevertheless, the role of the CPI to adjust for changes in the cost of living was relatively explicit.[6]

Although the 12th Series Review continued to emphasise the primary role of the CPI in income adjustment, substantial changes in wage determination processes were under way by that time. These involved a transition to a more decentralised wage system and associated changes in the role of the CPI in wage determination. While this transition commenced in the late 1980s, it gathered momentum in the 1990s. For example, it was given considerable impetus by the September 1991 review of wage fixing principles, which introduced a more direct link between wages and productivity improvements through enterprise bargaining.

Nevertheless, these developments had relatively little impact on overall wage setting by the time the 12th Series CPI Review had been completed; for example, only a small proportion of wage and salary earners covered by Federal and State awards (around 4 per cent) had workplace bargaining agreements certified by the Australian Industrial Relations Commission (AIRC) in August 1992.

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6 The CPI is a proxy for a cost of living index. Unlike the CPI, a pure cost of living index would comprise changing weights over time for the basket of goods and services whose prices were being measured, thus encompassing substitution between items in response to changes in relative prices.

However, since then, significant progress has occurred, strengthened by the *Workplace Relations Act 1996 (WRA)*, which came into operation at the beginning of this year. This is designed to make enterprise bargaining the focus of wage negotiation with awards becoming a safety net.

Currently, around 30 per cent of all employees (under State and Federal awards) are covered by enterprise agreements, well in excess of the coverage at the time of the last Review. In addition, around 46 per cent of all employees have informal agreements and, while inadequate information is available about the range of practices adopted, it is likely that factors bearing on negotiations in this sector will have a degree of commonality with those influencing outcomes in the formal sector. Finally, around 24 per cent of employees rely on safety net adjustments, reflecting award determinations by the AIRC and State tribunals. In providing for fair minimum wages and working conditions, these determinations take into account a range of factors, including economic conditions and inflation.

These developments have significant practical implications for the role of the CPI in wage determination relative to previous practice.

- While the CPI remains an important factor in wage negotiations, it is now a less dominant consideration than it was under past wage fixing arrangements, and the consideration of other factors is commensurately more important. For example, under the WRA, enterprise bargains will increasingly reflect the commercial circumstances of the individual firm and its employees; among other considerations, this places increased emphasis on enterprise productivity and profitability. The recent Living Wage Case decision by the AIRC also emphasises that the CPI is but one of a range of considerations which enter into adjustments to safety net wage rates. The decision emphasised the need to provide a safety net of fair minimum wages and conditions of employment that take account of broader economic considerations, such as the level of unemployment, while at the same time encouraging the spread of enterprise bargaining.
- Use of the CPI is also now much less mechanistic than was the case for centralised determination, particularly relative to those circumstances where wages were automatically indexed — in part or in full — to previous CPI outcomes. Moreover, the CPI is increasingly entering into enterprise bargaining negotiations in a forward-looking sense, representing the impact of inflation expectations more so than adjustments to past changes in the cost of living. In addition, such agreements tend to be reasonably lengthy, currently averaging around two years in duration.

These changes have major implications for deliberations about the appropriate methodology for construction of the CPI. One is that the reduced role of the CPI in wage determination, and hence income adjustment — relative to the previous Review — means that the requirements of income adjustment should not be an over-riding determinant of CPI construction. The other is that — from the perspective of the wage bargaining participants — variations in construction methodology are becoming of less practical significance. This is because the CPI is factored into outcomes in a less mechanical and backward-looking way, with the precise timing of CPI changes becoming less important. As outlined above, differences in CPI estimates related to the use of the alternative methodologies are primarily related to timing rather than quantum.

Changing Procedures for Social Security Indexation

In the income adjustment area, another important use of the CPI has been for indexation of personal benefit payments. This is despite the fact, as noted above, that population coverage is restricted to wage and salary earner households, and thus its coverage is not necessarily representative of social security recipients; for example, the relative importance of mortgage interest charges is likely to be significantly different for pensioner households and wage and salary earner households.

The CPI — however measured — will be of less direct relevance for future social security indexation than it has been in the past. The *Social Security and Veterans' Affairs Legislation Amendment Bill 1997*, currently in the Senate, is designed to amend the *Social Security Act 1991* and the *Veterans' Entitlements Act 1986*, so that the maximum basic rate of the single adult social security pension (after indexation) will not fall below a rate equal to 25 per cent of the annualised, original, male total average weekly earnings figure (MTAWE). Pensions have been indexed twice a year according to movements in the CPI to ensure that the real purchasing power of the pension was maintained. The proposed change to pension indexation also flows on to service pensions and income support supplements paid under the *Veterans' Entitlements Act 1986*. In 1996-97, around 65 per cent of total personal benefit recipients will be covered by this measure. The current relativity of these entitlements to MTAWE and the likelihood of continued real wage growth together suggest that MTAWE will become the main influence on benefit rates.[7]

General Measure of Inflation

The control of inflation has always been an important objective of the Reserve Bank; the *RBA Act (1959)* specifies that the RBA should pursue, among other things, the 'stability of the currency'. Nevertheless, there has been an increased focus in recent years in maintaining a low inflation environment, in part in reaction to Australia's poor inflation performance for much of the 1970s and 1980s. This has also been consistent with the priority given world-wide to maintaining low inflation. In this context, a significant development since the

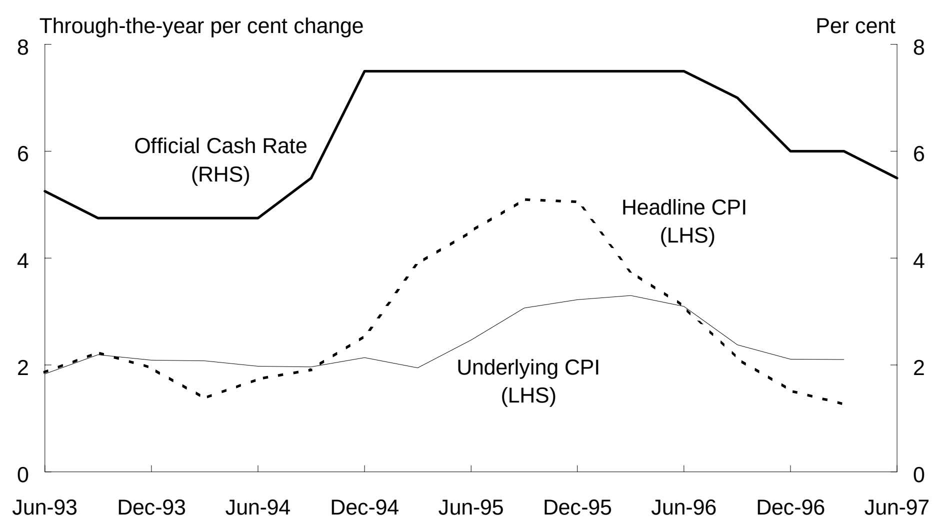
7 Commonwealth of Australia 1997, *Budget Paper No 1: Budget Strategy and Outlook 1997-98*, pp. 2-22.

last CPI Review has been the specification of an explicit inflation target for monetary policy; the RBA has made a clear and public commitment to maintain underlying inflation at an average of 2-3 per cent over the cycle. This commitment was first outlined by the RBA in 1993 and was formally endorsed by the current Government in a joint statement between the Treasurer and the Governor of the Reserve Bank in August 1996.

The greater operational focus on inflation highlights the need to have a reliable and accurate measure of inflation. However, although it is widely used as such, the outlays measure of the CPI is not a good general measure of inflation. For example, the ABS states that 'The main deficiencies in the CPI as a measure of inflation are the inclusion of interest rates, potential problems associated with the use of fixed weights in index construction and its restricted scope (metropolitan employee households)'.[8] The last two of these deficiencies are common to all three methods of constructing the CPI. However, the inclusion of mortgage interest charges in the outlays approach makes the current approach a particularly poor indicator of inflation. Reflecting this, the RBA's inflation target has been specified in terms of an underlying inflation measure which — as outlined above — removes, among other things, the effect of interest rate changes.

Chart 2 shows the profiles of the CPI (outlays based) and the underlying inflation index over the period during the 1990s when official cash rates were first increased and then decreased.

Chart 2: The Official Cash Rate, CPI and Underlying CPI



The profile of underlying inflation reflects general inflation caused by such influences as wages adjusted for productivity, import prices and excess demand.

8 ABS 1997, *Analytical Framework*, *op cit*, p. 32.

The tightening of monetary policy directed towards reducing inflation pressures flowed into higher mortgage interest rates which directly increased inflation as measured by the outlays CPI. The subsequent decline in interest rates had the opposite effect.

In some areas, particularly the financial markets, there is a reasonable level of acceptance and understanding of the role of underlying inflation in policy formulation. However, many wage bargaining participants do not focus on the underlying inflation rate or, alternatively, attempt to use whatever measure suits their case at the time — generally the underlying measure is higher (lower) than the headline CPI when mortgage interest rates are falling (increasing).

This lack of uniformity of approach amongst all agents inevitably leads to some confusion and misunderstanding — with the potential, therefore, for less than optimal policy outcomes. Thus, for example, to the extent that the aggregate outlays CPI remains a factor in informal indexation of wages and other contracts in the economy, a tightening in monetary policy to pre-empt inflation pressures may itself — in the first instance — lead to some higher wage claims. This, in turn, may increase the cost in terms of activity and employment of achieving a given inflation objective. A priority for this review, therefore, is the development of an accurate measure of inflation that is accepted and understood by employees and employers and the community more generally — a measure that does not respond directly to changes in the instrument of monetary policy.

IS THERE A NEED FOR A PURPOSE BUILT MEASURE OF INFLATION?

In recognition of the inadequacy of the current CPI in measuring inflation, the ABS has proposed that it develop a suite of indexes specifically designed for the measurement of inflation.[9] Furthermore, the ABS believes that such a framework 'offers a better possibility for measuring inflation than any tinkering or alteration to the CPI might achieve'.[10] If such indexes were developed for the analysis of inflation, an assessment of the most appropriate method of construction of the CPI might be conducted in relation to the relative merits of the alternative approaches in satisfying other requirements. Practical considerations relating to the proposed inflation indexes therefore need to be considered before turning to the implications of the above discussion for CPI construction.

The framework proposed by the ABS envisages a system of indexes encompassing price movements in the economy as a whole. It would focus on domestic final purchases by Australian residents (ie to include prices of imported items but exclude prices of exported items) and be based only on final

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9 ABS 1997, *Analytical Framework*, *op cit*.

10 ABS 1997, *Issues Paper*, *op cit*, p. 13.

market purchases (ie excluding intermediate purchases and notional or imputed transactions). Purchases of financial assets, existing capital goods such as established dwellings, labour and intermediate inputs would not be included in the domestic final purchases index.

Various sub-components of the domestic final purchases index would be possible. For a start, the aggregate index could be split into indexes representing current consumption on the one hand and capital purchases on the other. Each of these can then be further split by type of purchaser, namely households, non-profit institutions serving households, private and public sector corporations, and the general government sector.

While the ABS considers there would be benefits in being able to analyse inflation movements in the context of this economy-wide framework, it proposes to concentrate any initial development on the construction of a household consumption purchases (HCP) index, since 'This component is of particular interest to those policy makers who view inflation from the household perspective and regard household consumption purchase prices as representing the "end of the chain", capturing the final impact of price change within the economy'.[11] It would be based predominantly on existing CPI collections.

The ABS has also identified a number of desirable conceptual properties of a general measure of inflation. Those relating to the proposed HCP index can be summarised as follows.[12]

- It would encompass only market transactions. That is, government services which are not marketed, and notional transactions such as those where home owners are deemed to rent dwellings from themselves as landlords, would not be included.
- Implicit in the *Analytical Framework* approach is that the HCP index would include only consumption goods; capital purchases would represent a companion index in the full suite of indexes encompassing economy-wide analysis. Also implicit is that the HCP index would cover all households.
- It would capture the inflationary trend in prices associated with transactions in goods and services; accordingly, it would not include interest rates.
- It would relate to pure price change, with adjustments for quality change, and incorporate very recent weighting information.
- From an analytic viewpoint, the effects of changes in government charges and taxes would be capable of separate analysis, and the effects of erratic price fluctuations would be identifiable.

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11 ABS 1997, *Analytical Framework*, *op cit*, p. 31.

12 *ibid*, p. 20.

- The price indexes would be non-revisable, and provide certainty to users.

The ideal properties outlined for the HCP index form a good starting point for developing a general measure of inflation. It would, for example, exclude interest rates. Nevertheless, were policy makers to focus on such a measure, while others in the economy maintain some focus on the CPI as currently constructed, the situation would be similar to that which currently exists in respect of the relationship between the CPI and the underlying inflation index. Thus, regardless of its conceptual advantages, it is difficult to conclude that the proposed framework would be of practical significance in further improving the efficiency of monetary policy. Rather, a more significant contribution to the efficient achievement of inflation goals would result if the headline CPI itself were explicitly designed to be a better measure of inflation.

IMPLICATIONS FOR THE METHOD OF CONSTRUCTION OF THE CPI

None of the three available approaches to CPI construction completely satisfies the properties of an ideal inflation measure outlined above. There are shortcomings common to all measures, relating to coverage, timeliness of weighting information, and ability to separately analyse tax effects and erratic price movements. These common shortcomings are either regarded as being of more minor significance, or could be overcome by adopting approaches proposed in relation to the HCP index.

Setting these common shortcomings aside and evaluating the three alternative approaches to CPI construction in respect of the remaining properties, a distinct preference emerges for an acquisitions approach, and in particular one which excludes housing purchases.

- The current outlays approach is deficient in that it includes some non-market transactions and interest rates.
- Both the acquisitions and economic cost of use approaches would also include non-market transactions, but would have the important characteristic of excluding interest rates. Of these, the economic cost of use approach would suffer most in relation to the inclusion of non-market transactions, with a broad introduction of rental equivalence implying a substantial reliance on imputation.[13]

A consumption acquisitions index — that is, one which excluded items of a capital nature — would be consistent with the separate derivation of

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13 Rather than adopting the economic cost of use approach in full, by applying rental equivalence to all relevant items, in practice a hybrid approach — which introduced rental equivalence for owner-occupied housing together with an acquisitions or outlays approach for other items — is an alternative currently employed in a number of countries.

consumption and capital price indexes outlined in the proposed ABS prices framework. In practice, derivation of a consumption acquisitions index would be achieved by simply excluding house purchases from the index. A private residence is a particularly long-lived durable good, it is readily tradeable, and there is a substantial investment activity incorporated in its price. Similar comments are applicable to other durable goods, but the relative importance of investment and consumption activities in these instances is more difficult to discern.

A comparison of a full acquisitions CPI and an acquisitions index excluding housing purchases is presented in Chart 3.[14] Over the past decade, divergences between the two series have been relatively minor, other than for the period of substantial increases in house purchases during the late 1980s.

Chart 3: Acquisitions Indexes with and without Housing Purchases