

Inflation explained

Ian McAuley June 2023

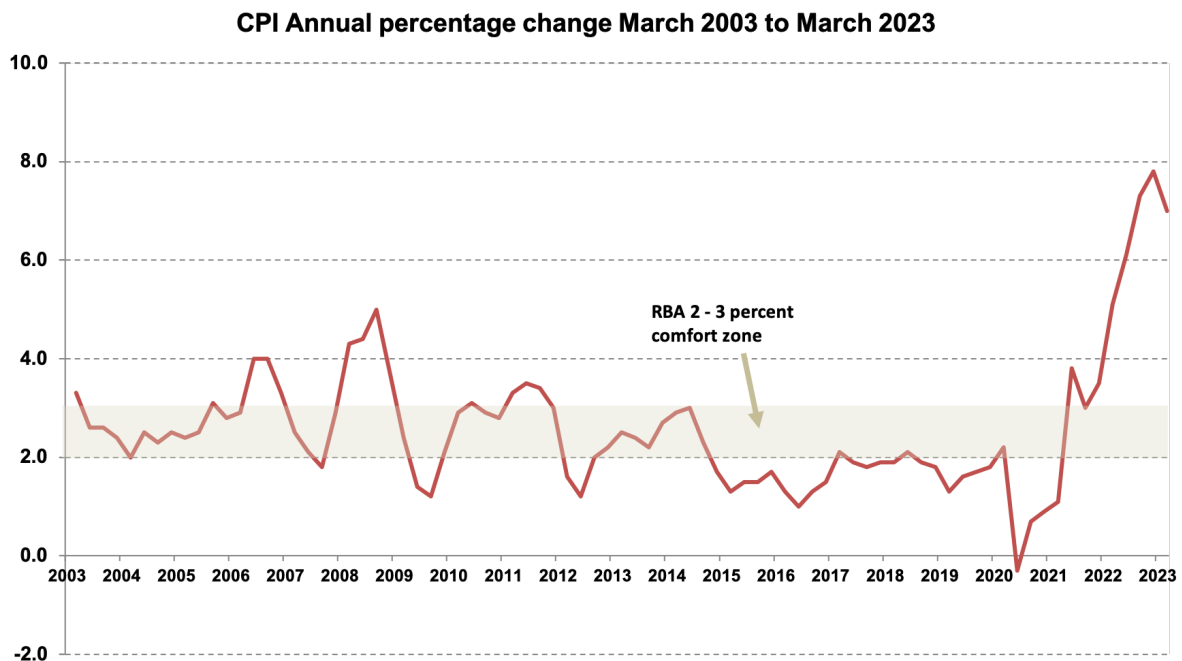
Statements in the media, and even statements by the Reserve Bank, convey the impression that economists have a firm and precise understanding of inflation, of its undesirable consequences, and of what must be done to contain it.

In fact, as with other economic metrics, inflation indicators such as the widely-used CPI, are subject to ambiguities and qualifications. They should be interpreted with caution.

The first part of this paper is about inflation, the CPI and indicators of changes in the cost-of- living. The following parts are about the cost of inflation and how monetary policy attempts to deal with inflation.

Context

After 25 years of low CPI increases – the usual indicator of inflation -- which were within the Reserve Bank’s 2 to 3 percent comfort band, inflation has come back after the pandemic.



Policymakers’ dominant (but not universal) view is that this post-pandemic jump in inflation must be addressed through tight monetary policy or tight fiscal policy. Either way, the mechanism to combat inflation is to reduce the amount of money in the economy.

The mathematics are simple. In the short term the economy is able to produce a limited volume of goods and services. If there is too much money sloshing around, the consequence is that the price of goods and services rises. That’s inflation – often described as “too much money chasing too few goods”. Reduce the amount of money, so that it matches the productive capacity of the economy, and inflation is licked.

But in reality it’s all rather complicated, and reducing the amount of money through manipulating interest rates has distributional and allocative consequences.

What is inflation? It's not a simple concept

Many textbooks don't even see a need to define inflation. One that does is Samuelson's, whose definition is:

By inflation we mean a time of generally rising prices for goods and factors of production.

The IMF simply defines inflation as "The rate of increase in prices over a given period of time".

Our Reserve Bank defines inflation as "an increase in the level of prices of the goods and services that households buy". That definition has a household focus, and the word "buy" means it is based on monetized transactions rather than barter, unpaid work, or unrealized changes in asset values.

The CPI, because it is based on household consumption, pretty well matches the RBA's definition. There are other measures, such as the GDP deflator, which covers all goods and services, not just items of household consumption (which covers about 50 percent of GDP), but over the long term the GDP deflator and the CPI tend to converge.

Most countries use the CPI as their indicator of inflation, but there are differences in what they include.

The CPI – what's in and what's out, and how it relates to the cost-of-living

From 1921 the government was keeping track of the cost-of-living. Early measures were based on the needs of a household earning the basic wage. The government traced the cost of a "basket" of goods and services needed to keep a household in "frugal comfort" to use the terminology of Justice Higgins' 1907 Harvester Judgement.

The CPI, introduced in 1960, expanded the basket to include the purchases by all wage and salary earners (with linked calculations back to 1948). It remained an important input into wage determination in an era when wage setting was more centralized than it is now. Then in 1998 it became an index of expenditure by *all* households. The prices of macadamia nuts, Grange Hermitage, and M8 BMWs now all have some influence on the CPI.

Importantly interest payments are not included in the CPI. They are a means of *financing* consumption. With a little mathematics it can be demonstrated that the inclusion of interest payments and the items purchased through that borrowing (usually houses and cars) involves a degree of double-counting.

Even more importantly, while the CPI includes the cost of building a house, it does not include the cost of land on which a house stands, on the basis that land is a fixed asset that is not "consumed".

These exclusions from the CPI align with a pure economic classification of "consumption", and the accounting concept of *money measurement*. As with other accounting metrics, they are based on imperfect conventions rather than on fully logical categorizations. For example, the value of land is not something fixed in perpetuity: it is highly influenced by government planning policy – by the provision of roads, public transport, and schools – and

by private sector decisions such as location of shopping centres. The CPI also tracks rents, which themselves are heavily influenced by land and interest costs.

Also, because it is based only on monetized transactions, the CPI excludes non-monetized costs. For example if people have to spend many hours searching for an affordable property to rent, their opportunity cost of time is not recorded. If people have to spend more time commuting to and from work (as happened when people returned to the office after the pandemic), this cost is not recorded.

Even if people return to driving to work after working from home, and have to spend more on gasoline, tires and so on, this extra monetized cost is not picked up in the CPI because it is based on a fixed basket of goods and services. Only if the price of gasoline or tires were to change would the CPI be affected: it does not (and should not) reflect changes in consumption. Similarly, if suddenly people are faced with a new need, such as a requirement to buy rapid antigen tests, that is not picked up in the CPI. By definition it is about a fixed basket of goods and services.

The CPI is an indicator of the changing cost of a basket of goods and services in household consumption. It clearly relates to movements in the cost-of-living but it is not, itself, a measure of movements in the cost-of-living.

Biases and other oddities in the CPI

There are two biases that cause the CPI to overstate rises in the cost-of-living.

One is known as the *substitution effect*. Rarely do all prices rise in lock-step. If, for example, the price of beef rises by 10 percent, and the price of pork rises by only 5 percent, those rises will be captured in the CPI, based on the necessary assumption that people's consumption does not change from period to period.

But with such differential price movements many people will substitute the more expensive item with a satisfactory alternative, but not everyone: Muslims and Jews, for example, will not substitute pork for beef.

Substitution cannot be assumed, and if it were, the CPI would change from an estimate of inflation as experienced by households, to a track of moving consumption patterns (which are picked up separately in the *ABS Household Expenditure Surveys*). The basket of goods is periodically re-based: there are minor updates every year and more significant updates every five or six years.

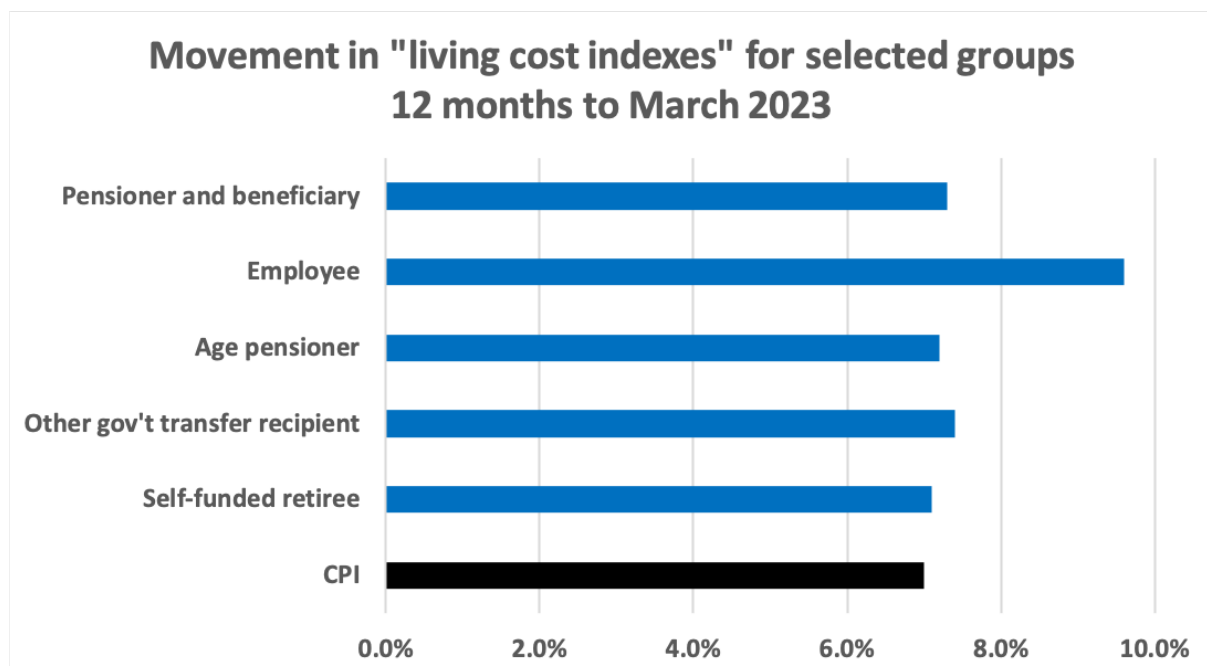
In all, the substitution effect results in a small overstatement bias in the CPI as an indicator of movements in households' cost-of-living.

The other overstatement bias is known as the *hedonistic effect*. A car bought in 2023 is not the same as a car bought in 2003: it lasts longer, is safer, and is easier to drive with its navigation systems. A cellphone now incorporates a camera sufficient for most people's wants. You probably cannot buy a car or cellphone without these new features. Statistical agencies grapple with these issues, and accept that it is difficult to separate out these effects. If cars and cellphones become more expensive that tends to be accepted a price increase, even though there may be cost savings in other ways. The result is a slight overstating in the CPI as a cost-of-living indicator.

Then there are interactions with the tax system. If, as has recently been the case, the patient contribution for PBS pharmaceuticals is reduced, the CPI will be lower than it would have been without this change, but presuming that this increased government expenditure is at some time covered in higher taxes, its overall impact on the after-tax cost-of-living will probably be neutral, although the distribution of those higher taxes will depend on the progressivity of the tax system as a whole. These considerations were prominent at the turn of the century when the GST was introduced, replacing a set of other taxes and accompanying some compensating transfer payments.

Another minor limitation in the CPI is that in Australia it is measured only in our eight capital cities. Prices of goods and services are generally higher in non-metropolitan Australia than in capital cities, but there is no hard data to suggest that prices in the country are changing faster or more slowly than in capital cities. We do know, however, know that high diesoline prices have had a disproportionate effect on prices in very remote communities.

More generally, from an equity point of view, it is important to realize that not everyone lives in an “average” household. The ABS has developed some sub-classification of “living cost indexes”, They don’t call these movements “inflation”, mainly because unlike the CPI, they include interest payments. These movements, for the 12 months to March 2023, are shown in the diagram below. That shows both the different “living cost” movements for different demographic groups, and the effect of including interest payments, which is why they are all higher than the CPI.



In the present economic environment mortgage interest charges contribute to all of these groups’ “living costs” rising faster than the CPI. As the ABS explains, employee households show a very high rise in the index because mortgage re-payments comprise such a high proportion of their expenditures.

It is understandable in the current economic environment that some people advocate for the inclusion of interest payments in the CPI, but that results from the popular but

erroneous belief that the CPI tracks movements in the cost-of-living. In time, when interest rates fall, the effect will be in the opposite direction.

It is notable that the ABS assiduously avoids claiming that the CPI is about the “cost of living”. It could have done so up to 1960, when it was specifically about the cost-of-living for a household on the basic wage, but not since then.

For these reasons caution should be exercised when considering the CPI as a cost-of-living indicator. Most importantly, particularly depending on the state of the housing market and prevailing interest rates, movements in the CPI may significantly understate or overstate movements in the cost-of-living.

To summarize

So to sum up reasons why the CPI does not align with the cost-of living:

- it excludes interest payments;
- it excludes the price of land;
- it is subject to the substitution effect (an overstatement bias);
- because it uses a fixed basket it does not deal well with rapidly-changing consumption patterns;
- it is subject to the hedonistic bias as goods improve in quality (also an overstatement);
- it is influenced by changes in consumption taxes and the prices charged by government-provided services, which may be offset by tax changes;
- it excludes non-monetized costs;
- in Australia it tracks prices only in capital cities;

Movements in the CPI might not align with cost-of-living changes, but in the long term they rhyme.

Why inflation matters

If we lived in a society where inflation were a constant X percent a year, with all prices and incomes rising at X percent, tax brackets indexed, and the interest rate a steady X percent plus a real component, then inflation wouldn't be a problem. The only costs would be updating posted prices, tax rates, awards and so on – known by economists as *menu costs*.

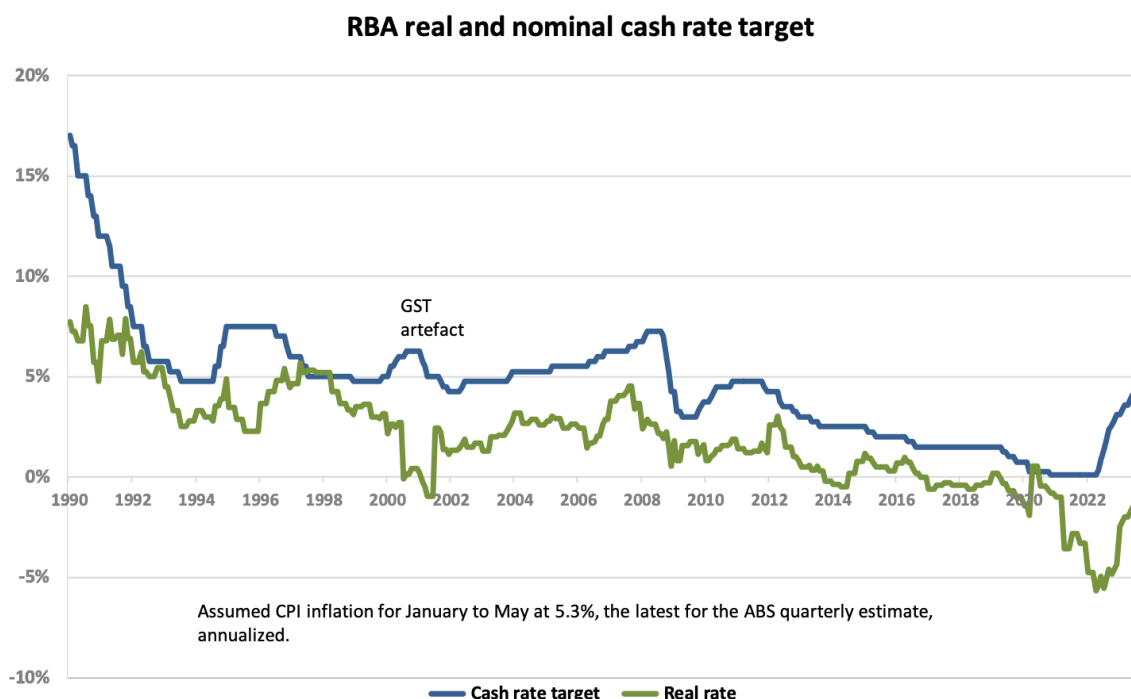
In fact central banks and governments seek a two-to-three percent inflation range rather than a zero rate. That is designed to unstick real prices and wages. If productivity is rising at one or two percent a year, a two percent inflation rate ensures that if merchants do nothing in terms of changing their posted prices, real prices fall by two percent a year. Because nominal prices tend to be “sticky”, a little inflation is a convenient way to bring down real prices, distributing the benefits of improved productivity.

Workers, faced with the prospect of their real wages falling by two percent, will demand a wage rise, which will theoretically be two percent plus a one or two percent productivity component.

Theoretically it shouldn't matter whether inflation is 2, 5 or 10 percent, but in fact price movements are never uniform. Past attempts at full indexation have failed. Governments have never persisted with tax indexation, bracket creep having been one of governments' most valued ways of managing fiscal outcomes without explicitly raising taxes, and saving tax cuts to be used in the pre-election period.

It seems that unless inflation is down to about two to three percent, the RBA is unable to sustain a constant real interest rate (i.e. the interest rate after inflation). The real and nominal rates are shown in the graph below, where the blue line is the cash rate target (the rate announced by the RBA) and the green line is the real inflation-adjusted rate, i.e. the nominal rate minus inflation (with a minor adjustment for cross-product effects).

Strictly the real interest rate is based on *expected* inflation – a matter to be mentioned in the final section. But all we have to go on is actual recorded inflation as indicated in the CPI.



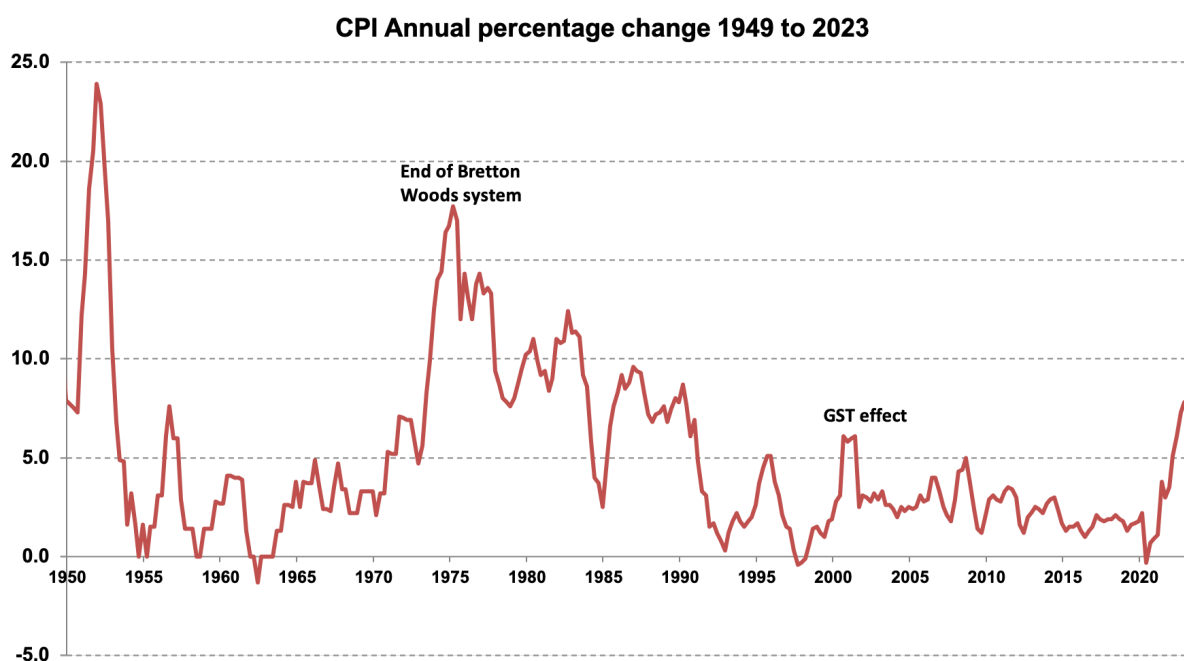
It is notable that the real official interest rate has been on a downward trend for the last 40 years, and that it was zero or negative from around 2014 – well before there was a pandemic. Australia and similar countries have been subject to a period of easy money for many years, contributing to rising asset prices (particularly housing), high consumer debt, and a pool of liquidity ready to bid up the price of goods and services in response to any supply shortage, such as that prompted by the pandemic.

The reality is that inflation, once it gets past a certain level, hurts many people. That's partly because it redistributes income, and partly because it causes uncertainty.

There will always be argument about what that "certain level" is – some would say it is reached once the inflation rate is greater than the growth in productivity – but the search for a definite figure is intrinsically problematic.

It is worth noting that in comparison with some other countries, particularly the USA, Australia has better mechanisms to deal with inflation, because some important payments such as pensions and regulated prices have indexation clauses built into legislation and contracts. Outstanding student debt is held in real terms. In the USA their widespread use of fixed-rate mortgages caused liquidity problems for banks as interest rates rose. We avoid that risk because most of Australia's mortgage lending is on variable or only short-term fixed rates.

There is evidence that once inflation reaches a certain level it tends to be more volatile. In Australia's case this is shown in the following graph – an expansion of this graph on the first page – going back to 1948. Rapidly-changing inflation, as we experienced up to the turn of the century, contributes to uncertainty by potential investors and to firms trading on international markets.



Also it is important to distinguish between two deleterious effects of inflation – its often arbitrary redistribution of wealth and income and the risk of runaway inflation --- and to consider the broad sources of CPI inflation. These are covered in the next two sub-sections;

Who bears the cost of inflation and who doesn't

Quite apart from limitations of the CPI outlined in the previous section, which raise doubt about the value of the CPI as a gross indicator of movements in the cost-of-living, there are significant distributional effects of inflation. That's because some parties have more opportunity than others to be compensated for inflation.

It's risky to generalize, apart from noting that some are more constrained than others in their capacity to be compensated for inflation.

In the present situation, where governments are pursuing moderately tough fiscal policies in response to the debt accumulated during the pandemic, workers on the public payroll, including those indirectly funded by governments, are most heavily affected. These include teachers, nurses, police, and aged care workers. So too many workers on awards are

affected negatively, although a recent decision by the Fair Work Commission has mainly compensated for inflation.

Conversely some other workers, and businesses with market power, have been able to maintain or even improve their real income.

There are specific problems to do with fixed-priced contracts, particularly in the building industry.

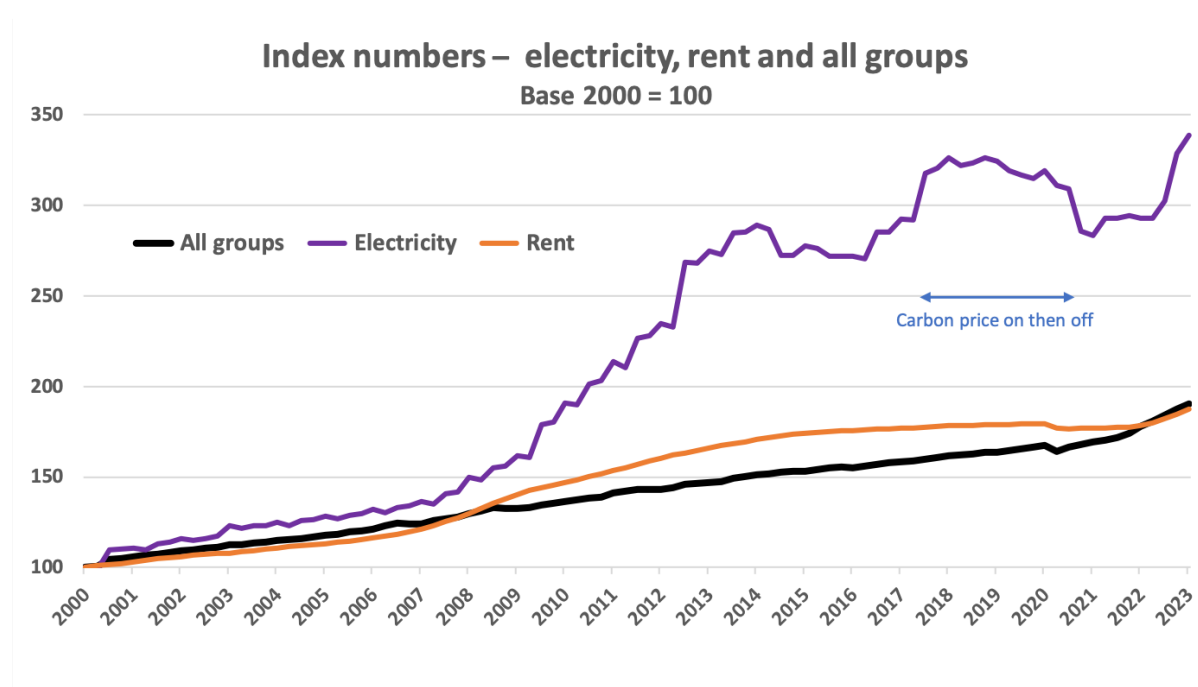
There are people comfortably covered, such as retired public servants with indexed pensions, who hardly notice any change in living costs.

Then there is the government itself. Because the government debt-to-GDP ratio – currently 36 percent—carries so much political salience, governments have a stake in inflation, because it reduces the real value of public debt, although no treasurer would dare admit as much. Australia has been there before: in 1945, at the end of the Pacific War, Australia’s government debt was 120 percent of GDP: inflation and fast growth wiped it out by 1970.

Indeed, all borrowers find that inflation reduces the burden of their debt, although those with variable rate loans, such as mortgagees, find that as the real value of their debt falls their interest payments rise. In finance markets the losers from inflation tend to be long-term fixed-rate lenders, such as holders of long-term bonds.

As a general rule every recovery from a recession is associated with inflationary pressures, but recovery from the pandemic recession has had unique problems to do with supply chains, pent-up demand, big swings in immigration, the effect of a war, and the accumulated cost of successive governments having neglected the need to reduce the dependence of our energy system on fossil fuel.

Because electricity and rent have had such salience in the politics of inflation, I have plotted them in comparison with the CPI over this century so far.



After two years of falling or stable electricity prices, there have been sharp rises in the last year, and a further significant jump is expected in the September quarter. This price rise will have greatest effect on those least able to control their use of electricity, including renters.

The general picture for rent is less clear, however. In fact, after several years with little movement, they are only now rising in line with the CPI. But unlike electricity there is very wide price dispersion in rents. Some property owners hardly ever raise rents, some raise rents only when there is a change in tenancy, and some raise rents at the first opportunity. There is plenty of evidence that many renters are having trouble making ends meet, but even a detailed breakdown of the CPI does not necessarily reveal who is suffering hardship.

This illustrates the fact that even though the ABS breaks down the CPI into many components (87 at present), there can be groups subject to very high inflationary cost-of-living pressures whose situation is not evident even from a detailed dive into the CPI data.

Runaway inflation

The most destructive outbreaks of inflation, some earning the label “hyperinflation”, have been in the US Confederate states during the Civil War, in the Weimar Republic in the 1920s, in Zimbabwe more recently, and in Turkey at present. Hyperinflation generally results from governments metaphorically printing money, but it can also be boosted or even come about through people’s expectations.

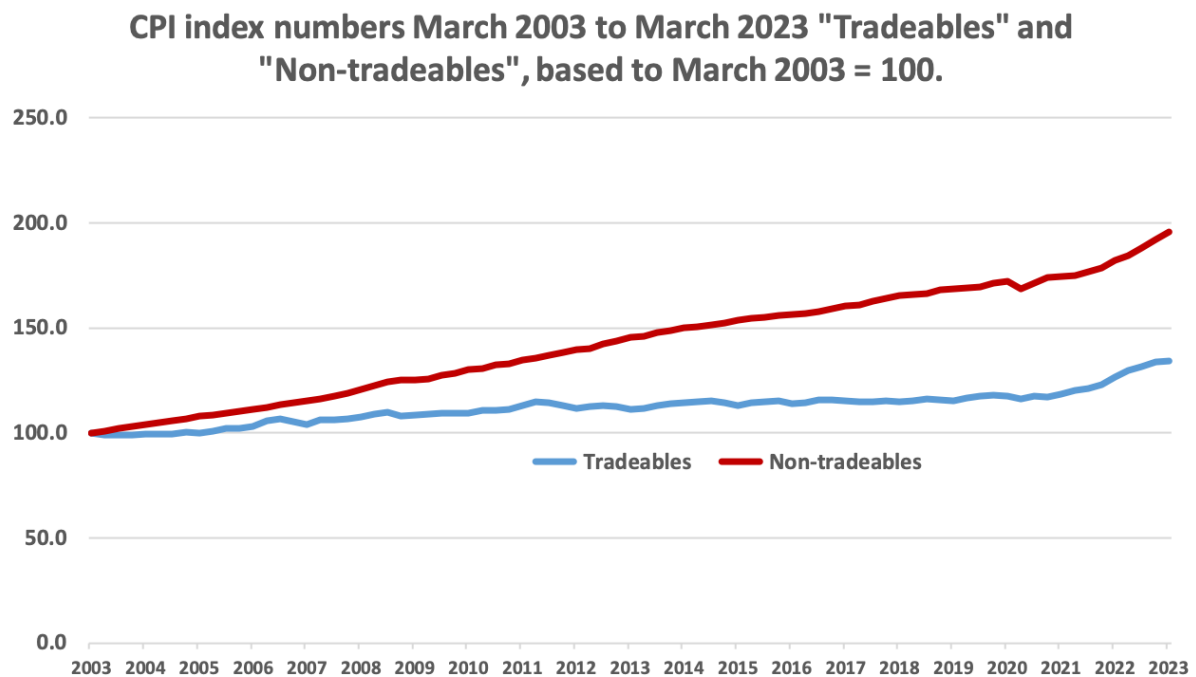
Monetary authorities are mindful of history. There was great fear that the inflationary bout in the early 1970s, associated with the collapse of the Bretton Woods order, would lead to self-sustaining hyperinflation. That has left an impression on policymakers. They fear that a positive feedback cycle can develop: firms raise their prices, and workers in strong bargaining positions raise wage demands in the expectation that inflation will remain high. In each round the bids are higher. (The Hawke government, fearful of such a breakout, introduced the Prices and Incomes Accord as a means to break the loop.)

Sources of inflation

One distinction of concern to the Reserve Bank and the government generally is the difference between price rises in “tradeable” and in “non-tradeable” goods and services. The prices of “tradeables” are generally not determined in Australia. Some prices, such as those of cars, overseas holidays and electronic equipment, are of fully imported goods. Also the prices of some other goods made in Australia, particularly agricultural and forest products, are determined in, or heavily influenced by, world markets.

The prices of “non-tradeables”, however, are determined in the Australian market. These include many services such as health care and bulky manufactures such as bread. Noting that many “non-tradeables” are labour-intensive services, some attribute inflation in these categories as being due to wage increases, but it can also come about because of market concentration and a lack of competition.

The graph over the page shows the CPI index number for the last 20 years, separated into “tradeables” and “non-tradeables”. Although the categorization has some rough edges, it suggests that most CPI-inflation has been home-grown, although there was an uptick in imported inflation during the pandemic.



Several economists raise the issue of market concentration and competition as a source of inflation. Voices on the “left” suggest that profits, not wages, are the main source of inflation, but they are only half right. Profits, in themselves, do not cause inflation, but sustained high profits are an indicator of a lack of competition and of firms’ market power as a driver of inflation.

Some firms with strong market power, when confronted by high interest payments on their debt, or a lower customer base on which to spread their fixed costs, simply raise their prices, thus directly countering the deflationary effects of monetary policy. This behaviour is manifest not only by large firms in monopolistic or oligopolistic markets: it can also be exercised by landlords in tight rental markets. Because of these effects some inflation results from the very mechanism – monetary policy – that is meant to control it. Monetary policy is covered in the next section.

How monetary and fiscal policy tackle inflation

As stated in the introduction, the basic economic theory is that if the amount of money moving around the economy can be reduced, inflation will be reined in. The amount of money should be appropriate for the productive capacity of the economy. (Some teachers use the amount of water in a steam-engine’s boiler as a metaphor, but that metaphor is somewhat dated, because the teacher then has to explain what a steam engine is.)

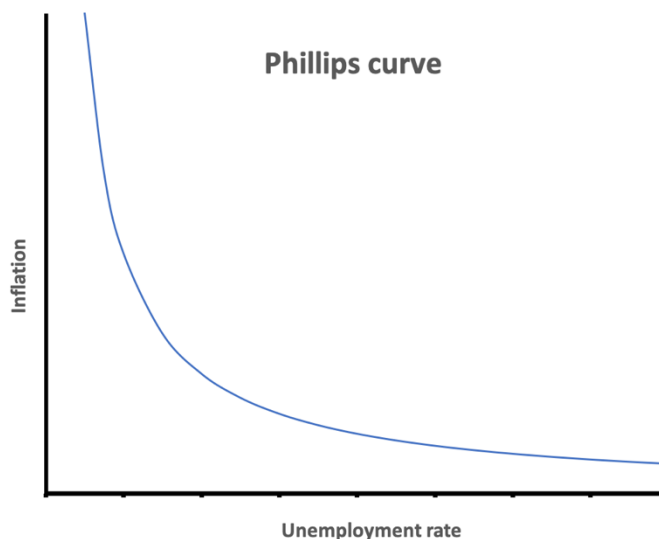
The theory is a little more complicated, in that people’s inclination to save and hold cash, and the speed at which money moves around – factors that are partially independent of the interest rate – can change the relationship between the money supply and inflation, but these refinements do not really contradict the basic model. The basic public policy implication of that model is that if inflation is to be reduced, the supply of money has to be curtailed, either directly (fiscal policy), or by making it more expensive (monetary policy).

Of course there is not a fixed production capacity in the economy. As the money supply is grown or contracted, employment of resources expands or contracts.

With some empirical backing, economists posit that the relationship between the extent to which resources are employed and inflation is a positive one, represented by a hyperbolic function relating unemployment to inflation – a construction formally known as the “Phillips curve”, illustrated alongside.

Strictly the X axis should be the extent to which all factors of production (labour and capital) are utilized, but generally the measure used is the labour force unemployment rate.

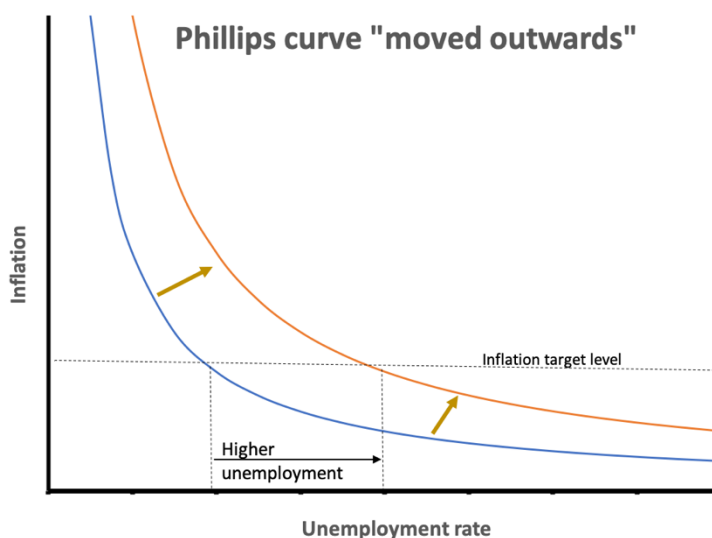
A concern with runaway inflation has led economists to develop the idea that there is some rate of unemployment above which there won't be such an outbreak. That rate is called “the non-accelerating inflation rate of unemployment”, or NAIRU, defined by the RBA as “the lowest unemployment rate that can be sustained without causing wages growth and inflation to rise”.



The hint from the RBA is that the NAIRU is about 4.5 percent. That would be achieved if our unemployment rate rose by another 1.0 percent from its present 3.5 percent, with another 100 000 presently-full-time workers losing their jobs.

The current thinking of the RBA is that if, through raising interest rates, the unemployment rate can be brought up to 4.5 percent, inflation will come down to its two to three percent comfort zone.

But a 4.5 percent unemployment rate, although low in comparison to its level in recent years, is still high by historical standards. In the 1950s and 1960s, Australia had an unemployment rate in the order of one to two percent, while inflation was kept in check (although inflation was volatile because of the economy's dependence on agricultural prices and political manipulation of interest rates). The consensus among economists is that the NAIRU has shifted over the years



because, in mathematical terms, the Phillips curve has shifted: it's moved outwards.

The reason why the Phillips curve has shifted is subject to intense economic argument, including questioning whether the curve is any longer relevant. That's an issue beyond this short explanation.

But that leads to four questions about the basic Phillips curve model and the way the Reserve Bank seems to put so much faith in it.

First, why 4.5 percent? Is there really likely to be an outbreak of runaway inflation if unemployment stays below 4.5 percent?

Second, what account do monetary authorities take of the cost of unemployment? Unemployment carries an economic opportunity cost in terms of idle resources (the "output gap"), and there are costs of unemployment itself in terms of stress, mental illness and other detriments to wellbeing. Many who become unemployed never really get back to productive employment.

Third, Is not the idea of "unemployment" as a single metric too simple? A cleaner, an economist in the RBA or Treasury, a taxi-driver, a surgeon: they're all the same according to the model. But we know that "labour" is not some fungible commodity, and that unemployment resulting from fiscal or monetary moves against inflation has impacts on particular industries and groups of workers. Some people cannot find work, while others find their skills to be in high demand: there is a degree of structural mismatch in the labour force.

Fourth, even though there is some empirical confirmation of the Phillips curve relationship between unemployment and inflation, is it right for monetary authorities to assume causality – that a low rate of unemployment is a *cause* of inflation? Maybe it's only an indicator. After all, the prime causal factor is the money supply, and if inflation is to be contained it may be useful for policymakers to direct measures at sectors of the economy where there is excess liquidity. The blunt instrument of interest-rate manipulation cannot achieve such fine tuning: that would be a task for fiscal policy.

An enduring consequence specific to monetary policy is that higher interest rates work not only through reducing consumer spending, but also through discouraging investment. That's serious in an economy needing large investments in clean energy and housing.

And it's particularly serious in an economy that has experienced a run-down in productivity. If Australia is to have real wage growth over a sustained period – that is, wage growth without inflation – it is essential that productivity improves. That generally requires a boost in investment, public and private. But when a country relies on monetary policy as a response to inflation, high interest rates discourage productivity-improving investments that will contain inflation in the long term. Monetary policy is a crude and often counterproductive instrument.

Can monetary authorities keep track of inflation?

Anyone who has ever tried to steer a riverboat knows how difficult it is until the driver gets the hang of it. The boat starts heading to the bank, the driver turns the wheel, the boat keeps heading to the bank, the driver turns the wheel harder, the boat seems to straighten for a moment, but is soon heading for the opposite bank, the driver furiously turns the tiller the other way, and so on.

Usually by the time the driver has learned to make small adjustments and wait for the boat to stabilize, someone else takes over and has to learn all over again.

So it can be with monetary policy. As engineers would say, steering a riverboat or regulating the economy with monetary policy are cases of controlling systems with strong but delayed responses. Overshoot is a common problem, leading to instability.

How does the RBA know what inflation is right now? Is the boat already set up to head to the other bank? Engineers use Fourier analysis, involving many levels of derivatives to calculate points of instability in high-gain-slow-response systems, but at best all that monetary policy has in hand are inflation itself (a first derivative of prices) and perhaps some indication of the direction of inflation (a second derivative).

To illustrate the problem in determining the direction of inflation, one can consider the RBA's latest (June 2023) statement on monetary policy:

Inflation in Australia has passed its peak, but at 7 per cent is still too high and it will be some time yet before it is back in the target range.

That sentence, in the present tense, stating that inflation *is* 7 percent, seems to be too definite, too categorical.

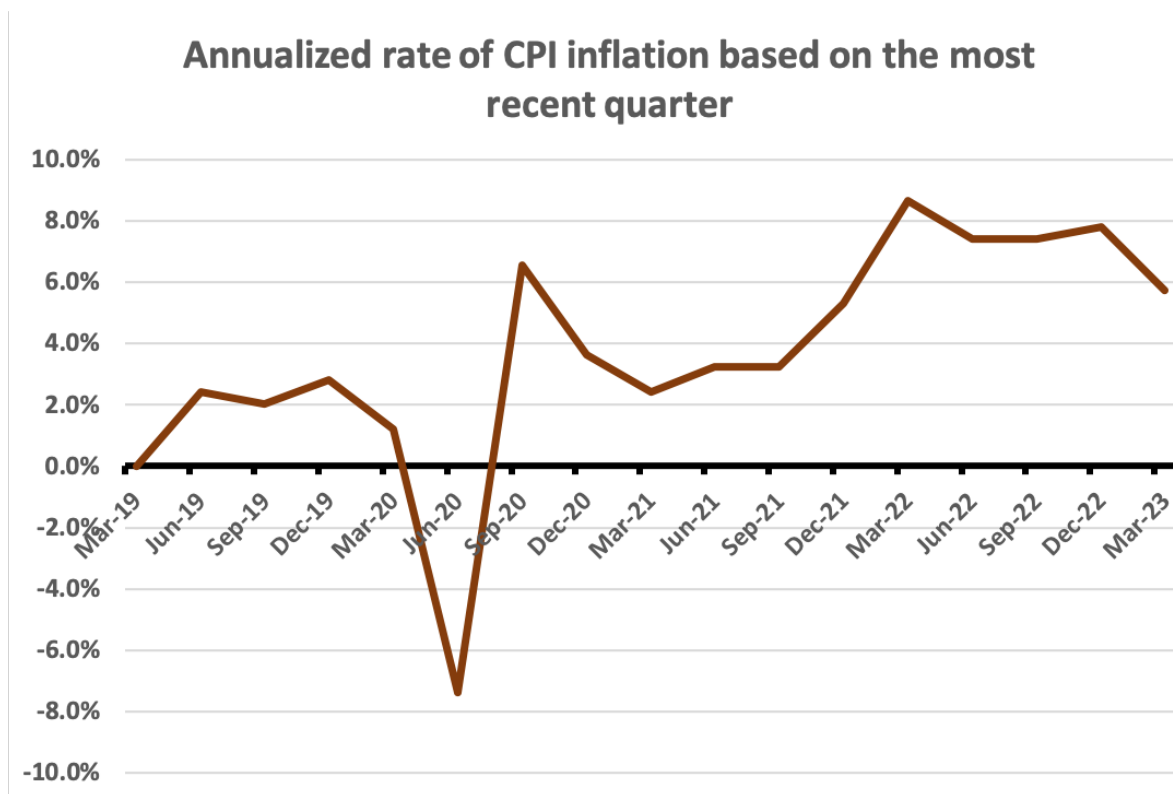
Leaving aside the limitations of the CPI as an indicator of inflation and as an indicator of cost-of-living pressures, it is informative to stop and think what is meant by the message that inflation *is* 7 percent.

That figure – actually 7.0 percent to provide its precision – is the rise in the CPI between the March quarter 2022 and the March quarter 2023. When the RBA made the above announcement in early June, that figure was already at least two months out of date. The ABS does not measure every price in its basket on March 31: for all but the most volatile items prices relate to around the middle of the relevant period. The data on which that “7 percent” statement was made was probably about three and a half months out of date.

More seriously, that 7 percent refers to inflation *over the whole year*. It's a statement of history, that may or may not indicate what's happening now.

The ABS measures the CPI quarterly (and does some measures monthly). Over the quarter to March 2023 the CPI rose by 1.4 percent. That equates to an annual rate of 5.7 percent. ($1.014^4=1.057$), not 7.0 percent. Annual CPI inflation, derived from recent quarterly figures, is shown in the graph over the page.

As an analogy of the problem of using inflation over the last twelve months as an indicator of present inflation, imagine that you have driven from Canberra to Sydney, and are now in a Sydney street driving at the speed limit of 50 kph. The screen on your car's navigation system may accurately state that your average speed over the journey so far has been 100 kph, because most of the road has a 110 kph limit. Imagine if a cop pulls you over, asks to look at your navigator, and books you for travelling at 100 kph in a 50 zone. You may be a little peeved. Most of that 100 kph is history, and is of no guidance about your speed now or about how long it will take you to reach your destination in Sydney.



That doesn't mean the 7.0 percent annual estimate is wrong or useless: it is quite relevant for a union arguing for a catch-up in real wages, for example. But it's not particularly useful as an indication of the likely trajectory of inflation.

A more accurate statement by the Reserve Bank would have been in the past tense, with some acknowledgement of the latest figures.

Annual inflation, as indicated by the CPI, seems to have peaked at 8.7 percent back in the March quarter 2022. The most recent estimate, for the March quarter this year, is around 5.7 percent.

In fact even the 5.7 percent may be an understatement. The ABS is experimenting with seasonal adjustment of the CPI. Its seasonally-adjusted measure for the March quarter is 1.3 percent – an annual rate of 5.3 percent. The ABS is also conducting monthly estimates of inflation. These are very noisy, but they too indicate that inflation, as indicated by the CPI, is falling.

This may all come across as grammatical nitpicking, but such clarification is important. The RBA's statements get wide publicity, and are often picked up verbatim in the media. If they come across as categorical statements, particularly when they are on the high side, they are more likely to prompt higher anticipatory price and wage bids than statements, even if qualified, suggesting that inflation is lower and is on the way down.

It's not clear why the RBA reports in such a way. It's certainly not ignorance: on its staff are some of Australia's brightest economists. Their publications in the *RBA Bulletin* are among the world's best. It would surely be useful for public policy if those with a pulpit did not exhibit a bias towards overstatement of inflation.

Conclusion: the case for new definitions

As with many economic metrics, there is the possibility that public policy is drawn to achieving a satisfactory outcome in the indicator (in this case a CPI in the two to three percent range), rather than to dealing with the fundamental economics generating that indicator.

In an economy undergoing structural adjustment or economic reform, some prices will rise for good economic reasons. In terms of allocative efficiency there is a sound reason for electricity prices, for example, to be high so long as we are heavily reliant on fossil fuels – that’s about accounting for negative externalities previously not included in the price.

Sometimes removal of a distorting subsidy will result in higher prices. For example in the 2023 budget the government raised the road user contribution tax on trucks, to ensure that they better contribute to the cost of road damage. That will drive up prices across the board, and will be picked up in the CPI, but it is hard by any standard to call it a problem, because it is contributing to a more efficient allocation of resources.

Similarly if there are effective steps to eliminate wage theft, prices of food and accommodation may rise, showing up in the CPI, but most people would accept this as a desirable outcome.

These are examples of price rises contributing to more efficient allocation of resources. They should not be seen as “problems” to be solved.

The term “inflation” may be too broad to be a useful concept in public policy.