Inflation: A Primer

By Greg Jericho Policy Director The Centre for Future Work

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Introduction

Over the past year, inflation has accelerated both in Australia and in most advanced economies, to rates much faster than have been observed for many years. Not unsurprisingly, this has caused much concern among people whose cost of living has risen abruptly. It has also created great challenges for policy makers: the risks of tackling higher inflation are high, given that the conventional response is to reduce aggregate demand, economic activity, and employment in order to "cool off" spending and thus reduce price pressures. This can mean that the "cure" can be worse than the "disease" – especially if, as occurred in the 1980s and 1990s, a recession follows efforts to constrain inflation.

Rising inflation also presents challenges for workers and unionists in their bargaining over wages. In periods of relatively stable inflation, negotiations over wages are often more straightforward. In periods of accelerating inflation (such as we are experiencing now), employers and the Reserve Bank pressure workers to accept below-inflation wage increases "for the good of the country." They want workers to accept reductions in their real wages, as a way of trying to reduce inflation in the future. This approach is not fair – nor is it likely to be an effective solution to inflation that arises from factors *other* than wages (which is clearly the case today). Policy choices about how to respond to high inflation (or conversely, to low inflation or even deflation) are not academic or technocratic decisions. Rather, these policy decisions reflect political and social choices about who will pay for inflation, and who will profit from it – and they will inevitably have great impacts on workers and their families.

Debates over inflation will be intense in Australia in coming years: at wage bargaining tables, in Parliament, at the Reserve Bank, and in broader society. This primer has been prepared to support workers and their unions in their efforts to defend real wages and win a more fair and balanced policy response to the problem. The primer will explain inflation: how it is measured, its causes and consequences. It also examines the drivers of the most recent increases, debunking the common assumption that it was caused by "tight" labour markets and rising wages. By understanding the true causes of recent inflation, policy-makers can devise responses and remedies that are appropriate for current conditions, and protect working and low-income people against its effects.

The primer is organised as follows. Firstly it examines the nature of inflation and how it is measured, followed by considering the different causes of rising prices. It then addresses the history of inflation and inflation policy in Australia followed by discussion of the impacts of the COVID-19 pandemic and the current inflation context with a focus on the impacts of inflation and current policy on wages and the distribution of income.

Our review of the causes of current inflation points to some clear policy conclusions, that should be kept in mind by government, the Reserve Bank, and other stakeholders as Australia continues to adjust to these new inflationary challenges:

- 1. Inflation targeting in Australia since 1993 has not been "neutral". Inflation missed the target from below, far more often than from above. Moreover, that period of inflation targeting (especially the sustained periods when inflation fell below the target) was associated with a massive transfer of income and economic power from workers to businesses. As the Commonwealth government undertakes its review of the RBA's mandate and operations, these broad political-economic dimensions of monetary policy must be considered carefully. Monetary policy has not been a technocratic exercise, intended to maximise public welfare in a general sense. It clearly reflects, and continues to reflect, value judgments and priorities placed on how the costs and benefits of inflation management are distributed across society.
- 2. There is no evidence at all that a tight labour market, rising wages, or labour costs more generally have anything to do with the surge in inflation since the COVID pandemic. To the contrary, the evidence is clear that wages have had a dampening impact on inflation in this period. Recent inflation is clearly associated with a further expansion of business profits in Australia, to their highest share ever. Attacking inflation by aiming deliberately to increase unemployment and restrain wage growth even further, is a "blame-the-victim" policy that will only make workers pay even more for a problem they clearly did not create.
- 3. The current surge of inflation reflects a "perfect storm" of unique factors (mostly global in nature) sparked by the COVID pandemic: which has been, after all, the most dramatic and painful event in the world economy since WWII. It should hardly be surprising that after-shocks from those events will be felt for some time, and the surge in global inflation is clearly one of them. Responding to this unique and unprecedented challenge by simply reciting a monetary playbook formulated in a fundamentally different era (the inflation of the 1970s) is not just inappropriate. It will, if pursued, lead to a painful and unnecessary global recession that will almost certainly engulf Australia, too.

For all these reasons, the Reserve Bank and the Commonwealth government need to take a more careful, balanced look at the nature, causes, and consequences of the upsurge in inflation since the pandemic, before leaping to conclusions that are unjustified – and imposing policy responses that do more harm than good.

What is Inflation?

Inflation refers to an increase in the overall level of prices for goods and services over a certain period – such as monthly, quarterly or annually. While inflation applies to increases in the overall price level for all manner of goods and services, the most common measure refers to prices for commodities purchased by consumers – represented by the Consumer Price Index. Importantly, inflation does not refer to changes in prices of products that are due to improved quality or changes in size. For example, if the price of milk went from \$2 per litre to \$2.20, that would constitute a 10% increase in price, hence contributing to inflation. However, if a package of milk went from being available only in a 1-litre container (at \$2 each) and instead became available only in 2-litre containers at \$4 each, that would not constitute inflation – since the price per litre would not have changed.

Some inflation is a normal and healthy state of affairs in an economy. It can reflect healthy demand in an economy, or robust employment, or rising incomes. The ideal rate of inflation is heavily debated among economists and policy makers. In Australia since 1993, the Reserve Bank has targeted an annual rate of inflation of 2.5% (within a band between 2% and 3%). In the United States and the United Kingdom, the US Federal Reserve and the Bank of England target 2% annual inflation "over the long run." Some economists believe the Reserve Bank's current target is too low, and serves to restrict economic growth.¹

While there is debate over the best target for inflation, and indeed whether a target is even advisable, there is no argument that some level of inflation is good for an economy. Similarly, there is universal agreement that a situation where the overall price level is falling – known as *deflation* – is a disastrous state of affairs, associated with the worst type of recessions. When deflation occurs, consumers are better off to defer spending, and wait for prices to fall in the future. This means that products are left unsold, and there is little demand for new goods or services, leading to massive unemployment and falling production. Moreover, deflation causes the real value of debts to increase, further constraining spending and economic activity.

Inflation measures changes in the overall level of prices for a broad set of goods and services. However, in reality the prices of specific goods and services rise or fall at differing rates. Prices for some products will rise quickly; others slowly, or even decline (think of the falling prices for many technological products, for example, which

¹ For example, John Quiggin argues for a 4% target (Quiggin 2022).

declined even though the overall level of prices was rising). Because prices of different goods and services rise at different rates, their *relative* prices (that is, their specific price relative to the overall price level, or to the price of some relevant benchmark) will change. If a product's price increases more slowly than the overall price level, its relative price will decline – even though its absolute, or nominal, price increased.

Changes in relative prices are important. In some cases, relative prices change to reflect changes in production methods and efficiency, or due to shocks in supply. Differential rates of inflation for different groups of products (and consequent changes in relative prices) can also differentially affect the purchasing power of different groups of people – depending on which types of products are purchased most intensively. For example, working class and low-income households tend to spend more of their income on food, shelter, and other necessities than higher-income households. The fact that prices for these necessities have increased faster than for "discretionary" products in recent years, means that workers have been hurt by inflation more than higher-income Australians.

The rate of inflation is measured in percentage terms between two periods. Most commonly in Australia these periods are either "quarterly" (the percentage growth from one quarter to the next), or "annually" (the growth from one period to the corresponding period the following year). However, the Bureau of Statistics has recently begun measuring inflation on a monthly basis, as well. Because prices should be rising at a moderate pace in a healthy economy, the crucial issue is not that prices are rising – but how quickly, and whether the rate of inflation is stable, accelerating or decelerating. For example, suppose the rate of inflation (measured year-over-year – that is, comparing the price level in one month to the price level in the same month a year earlier) in March was 2.5%. Then, in June, the year-over-year measure rose to 3.5%. That is a sign that inflation is accelerating. When the media reports that the Reserve Bank is seeking to reduce inflation, this actually means the Bank is trying to reduce the *rate* of inflation. The Bank is not trying to reduce the overall level of prices: that would constitute deflation, a disastrous result. Rather, the Bank is trying to reduce the rate of inflation (that is, the rate of growth of average prices) to a lower and more stable pace.

IS INFLATION GOOD OR BAD?

As noted above, some level of inflation is considered a healthy and normal state of affairs. In the early 1970s, American economist James Tobin argued that zero-inflation was neither a natural nor desirable state of the economy (Tobin 1972). He argued that

if the economy is growing, and if both inflation and more employment are the result, then:

"...There need be no mystery why unemployed workers accept the new jobs, or why employed workers do not vacate theirs.... They genuinely want more work at feasible real wages, and they also want to maintain the relative status they regard as proper and just. (Tobin 1972)"

This is an example of how inflation (as Tobin is often paraphrased as saying) "greases the wheels" of the labour market. When prices are rising, people are more likely to seek new employment or higher wages to ensure their standard of living does not fall. Workers will inherently seek to increase output and productivity to achieve that outcome.

Moreover, relative price adjustments are a necessary and healthy feature of a dynamic, flexible economy. Because of changes in technology, supply conditions, or consumer tastes, some products should naturally become more or less expensive relative to others over time. In a zero-inflation economy, the only way for a product's relative price to fall, is for its *absolute* price to decline in nominal terms. However, the seller of that product is likely to resist an absolute cut in offering price, because of the resulting negative impacts on revenue and profits; this phenomenon is called "sticky prices." This is especially true for the price of labour: that is, the wages paid to certain industries or occupations. Workers naturally strongly resist any absolute cut in their nominal wage.² A modest rate of inflation allows the price of a product to fall in relative terms, simply by being frozen (or growing at a relatively slow pace) while the overall price level increases. This also "lubricates" the relative price changes that are essential and desirable in a well-functioning economy.

Tobin also argued that the fear and costs of inflation are often overstated. He noted "acceleration [of inflation] is a scare word, conveying the image of a rush into hyper-inflation as relentlessly deterministic and monotonic as the motion of falling bodies." In contrast, he argued that:

"The social costs of involuntary unemployment are mostly obvious and immediate. The social costs of inflation come later. What are they? Economists' answers... have been remarkably vague, even though the

² Of course, workers are not "fooled" by inflation, and will also resist reductions in their real wage resulting from wage increases that may be positive but still lag behind inflation; this problem is discussed further below.

prestige of the profession has reinforced the popular view that inflation leads ultimately to catastrophe." (Tobin 1972)

This common exaggeration of the supposed evils of inflation, Tobin argued, serves to justify restrictive macroeconomic policies (such as the "natural rate of unemployment" or the so-called "Non-Accelerating Inflation Rate of Unemployment" or NAIRU) that keep unemployment artificially high in the interests of suppressing wages.

BORROWERS AND LENDERS

Another benefit of inflation is that it reduces the real cost of repaying debts, and hence shifts wealth from lenders to borrowers. This is because interest on debts (like home mortgages or credit cards) is usually specified in terms of a nominal rate of interest.³ If inflation increases, then the real interest rate paid by the borrower declines – reducing the cost of debt repayment relative to the overall level of incomes and prices in the economy.

Imagine, for example, someone who borrowed \$100,000 at an annual interest rate of 5%. If inflation is 3%, then the real rate of interest is 2%: assuming all incomes and prices are growing at 3% per year, then the real resources paid back to the lender in interest are equal to only 2% of the initial loan. If inflation then increases to 4%, the real rate of interest declines to just 1%. Even on loans with variable interest rates (such as many household mortgages), increases in inflation can often outstrip resulting increases in interest rates. For example, in December 2021 the average standard variable mortgage rate in Australia was 3.45%. At that point year-over-year inflation was 3.5% – implying a real interest rate almost equal to zero (actually slightly negative, at -0.05%). By June 2022, the average variable interest rate had increased to 4.2% (in response to the Reserve Bank's sharp interest rate hikes). But inflation had increased even faster, to 6.1% – meaning the real mortgage rate was significantly negative, at -1.9%.

Financial investors do not like rapid inflation, because it often produces negative real rates of return on their loans and other investments. This vested interest in very low inflation by the powerful financial sector, was a key factor explaining the shift toward strict anti-inflation policies in Australia and other industrial countries beginning in the late 1970s.

³ In rare cases, interest may be specified in real (after-inflation) terms, such as real-return government bonds issued in some countries.

By contrast, accelerating inflation hurts savers and lenders because the rate of return they earn on their wealth declines in real terms. For example, imagine a lender in December 2020 who invested \$10,000 in a term deposit for 1 year at a rate of 1%. During that year, prices grew at 3%. By December 2021 the lender owns \$10,100 (their original investment plus a 1% nominal return). In the meantime, prices have grown 3% – meaning the real purchasing power of the investment (relative to consumer prices at the time it was made, in December 2020) is just \$9,806. The investor can buy less goods and services with the value of their investment a year later, than they could have at the time the term deposit was purchased. As inflation accelerated over the last year, interest rates on financial investments (ranging from simple term deposits to all kinds of other, more sophisticated financial assets) have turned negative in real terms. Nominal interest rates are rising sharply, and this makes borrowing more expensive for mortgage holders (in terms of nominal debt service charges). But real interest rates have fallen and most are negative. So lenders are also unhappy with the situation.

For government budgets, inflation can be beneficial. Higher prices automatically lead to increased sales tax revenue: since the GST is collected as a 10% tax on prices, if those prices increase, the amount of tax paid increases as well (in nominal terms, not as a proportion of the price). Similarly, if inflation also leads to faster growth in nominal incomes, that will lead to increased income tax revenue: not just because the aggregate amount of income has increased, but also due to the progressive income tax system (in which a higher nominal income will lead to a higher tax rate paid by a given taxpayer⁴). The same effect holds for government revenues from many other sources (such as resource royalties, when resource prices are rising). Meanwhile, because outstanding government debts are usually serviced at fixed interest rates, faster inflation reduces the real burden of those debts (including measured as a proportion of nominal GDP). Some government expenses also increase during times of inflation: such as income security programs (such as the Age Pension or JobKeeper) which are indexed to the price level, or government procurement (which becomes more expensive if general prices are rising). But those higher costs are usually more than offset by faster revenue growth, and hence the net effect of inflation on the government budget balance is generally positive. This is a key reason why the budget balances of the Commonwealth government (and most states, as well) have been much stronger this year than originally forecast: with smaller deficits, and in some cases outright surpluses.

* * * * *

⁴ Unless the parameters of the tax system are automatically indexed to inflation, as is the case in many countries.

We can see that inflation has both positive and negative effects, and produces both winners and losers. In general, low-income households are more likely to be hurt by accelerating inflation. They are less likely to be able to avoid price increases by choosing to put off purchases until another time. Moreover, a greater share of their income goes towards purchasing necessary or non-discretionary items, which have experienced faster price increases in recent years than discretionary products.

HYPERINFLATION

While there are some "swings and roundabouts" with increasing inflation, there is little question that unrestrained acceleration of inflation is calamitous for both an economy and society. Hyperinflation refers to extremely fast inflation, measured in hundreds or even thousands of percent per year. It is almost always associated with episodes of war, massive political instability, and economic breakdown. Wages become worthless and lifetime savings are wiped out. In Germany in the post-WWI era, by the end of 1922 prices had increased 1,570% in 6 months; by October 1923, prices were rising at a rate of 29,500% per month (or doubling every 3.7 days) (Toascano 2011). Modern episodes of hyperinflation occurred in Yugoslavia as that country was breaking up in the early 1990s, or Zimbabwe in the latter period of Robert Mugabe's rule.

Hyperinflation is an extreme and disastrous outcome. But it is rare, and limited to particular times and places in history. The spectre of hyperinflation is commonly invoked by those interests arguing for more restrictive anti-inflation policies – especially aimed at suppressing wage growth. This doomsday scenario is not relevant to modern Australia. There is no robust economic evidence that moderate inflation (even in the high single digits) has dramatic negative consequences for stability or prosperity. And the notion that if inflation is not quickly reduced from 6 or 7% at present, back to the Reserve Bank's 2.5% target, then Australia will be heading for hyperinflation and breakdown, is manipulative fear-mongering.

How is Inflation Measured?

The most common measure of inflation is the Consumer Price Index (CPI). This index reports changes in the prices of goods and services purchased for final use by households. (Other inflation measures focus on prices paid by producers for their inputs, or prices received for exports and imports; these are discussed below.) The CPI in Australia has been measured every three months (or each quarter) by the Australian Bureau of Statistics (ABS). In other nations (such as the US) it is reported monthly. In August 2022 the ABS announced it would begin publishing an experimental monthly CPI series.

The CPI measures the average prices of a basket of goods and services, designed to represent the typical items bought by households in each capital city. The basket is weighted according to consumption habits, based on census data and other regular household expenditure surveys. This weighting is important, because while the prices of goods and services rise and fall and differing rates, they do not all have the same ultimate impact on households' expenditure. The weighting takes account of both the relative size of different purchases (major appliances, cars, or rent are much larger compared to fruit juice or movie tickets), and the frequency and volume of those purchases. The weighting for each item thus corresponds to its overall importance in the total aggregate consumer spending of all households in a particular area.

As of 2022, the CPI basket for Australia includes 87 different expenditure items, placed into 11 groups (weighting in brackets):

- Food and non-alcoholic drinks (16.76%)
- Alcohol and tobacco (9.01%)
- Clothing and footwear (3.33%)
- Housing (23.24%)
- Furnishings, household equipment and services (9.16%)
- Health (6.47%)
- Transport (10.58%)
- Communications (2.41%)
- Recreation and culture (8.64%)
- Education (4.63%)
- Insurance and financial services (5.8%)

The ABS gathers information on prices via telephone surveys, visiting businesses, and even scraping data from business websites and supermarket scanners. In this way it

attempts to get a wide sample of prices: for example, not just including one particular brand of "bread," but rather reflecting prices for the range of all bread products in the market. The ABS also attempts to adjust price measures for changes in the size and quality of products (although this can be difficult). Because the prices of some items, such as petrol, clothing and travel, change quite often, the ABS gathers their prices more often throughout each three-month period. For other items, which do not have frequent price changes – such as education or electricity – the ABS may only do one survey each quarter. It will, however, perform that survey for each item in the same month of each quarter (ie the first, second or third month).

In total the ABS gathers around 900,000 separate price quotes each quarter. (ABS 2022). It is an enormous – and important – statistical effort.

HOW IS THE RATE OF INFLATION CALCULATED?

Each expenditure item is weighted and indexed relative to a base period (at present that base period is 2011-12, with the index set to 100 for that financial year). The ABS then calculates the change in the index for each item. For example, if after surveying the prices of all different types of cheese, it found that the average price was 10% higher than it was in 2011-12, then it would assign an index of 110 to "cheese." The index numbers for each item do not reflect ratios of their absolute prices (measured in dollars). For example, the current index number for bread is 109.7, while for rents it is 112.8. This does not mean that rent only costs 2.8% more than bread; nor that households only spend 2.8% more on rent each week than they do bread. Of course, rent is much more expensive than bread, and the typical household spends much more on rent than on bread.⁵ The index numbers are purely a reference for each item relative to the base year of the index. Because each item is indexed to the same base period, we can say that since 2011-12, the average prices of rents have increased by more than they have for bread (by a cumulative total of 12.8% in that time, compared to 9.7% for bread).

Due to weighting, not all price changes have the same impact on overall inflation. Price increases for items on which households spend more of their income, will have a greater impact on the total CPI than small items (and vice versa). For example, bread has a weighting of 0.53, while rent has a weighting of 6.23. This means that if both bread and rent rose 5% in a year, the contribution of both to total inflation would be different. In this instance bread would have contributed 0.03 percentage points (equal

⁵ Of course, some households do not spend anything on rent (if they own their own home); the weighting on "rent" in the CPI basket is a weighted average of the share of total consumer spending devoted to rent, considering both those who rent and those who do not.

to the weighting times the price increase) to the change in the total CPI, but rising rents would have contributed 0.31 percentage points.⁶ In this way the Bureau attempts to calculate a measure of change in the overall price level, for a basket of consumption items typical of the average Australian household. Each individual household will experience their "own" rate of inflation, however – since no household spends its income on exactly the same basket of consumer goods and services as is embedded in the CPI.

CHANGES IN WEIGHTING

The ABS presently reweights the CPI basket every 12 months, to reflect changes in the composition of overall consumer spending. The weighting changes do not just reflect the way in which consumers have reallocated their consumption habits. They also reflect changes in relative prices of different products. For example, in the mid-1980s tobacco was weighted as constituting 2.22% of average weekly spending. Since then, the proportion of Australians who smoke has been cut dramatically (from 31% to 13%). Yet tobacco now accounts for a greater share of the CPI basket than it did in the 1980s: 3.56% (TIA 2021). This counter-intuitive result is due to huge increases in government taxes on tobacco products. These higher taxes have more than offset the decline in the amount of tobacco consumed. So changes in tobacco prices, surprisingly, are more important in overall inflation calculations. (Of course, for consumers who do not smoke, tobacco prices do not affect their purchasing power at all.)

Conversely, while Australians buy more motor vehicles now than in the past, because the price of cars has on average risen more slowly in recent years than the rest of the CPI basket, the weighting for cars in the CPI basket has fallen from 5.6% in 1983 to 3.06% in 2022.

OTHER MEASURES OF INFLATION

The CPI is the most common and oft-reported measure of inflation. But there are many other statistical tools for measuring changes in the overall level of prices in the economy, or in particular parts of the economy. This section briefly introduces some of those alternative measures.

⁶ It is a great irony that higher interest rates tend to cause an increase in average rents (which are rising, since fewer people can afford to buy a home, and hence demand in the rental market is growing), which is one of the largest single components in the whole CPI. Through this channel, high interest rates *increase* inflation, rather than reducing it. This is a counterproductive and damaging outcome of the Reserve Bank's current strategy.

Underlying or core inflation

Included in the ABS's quarterly release of CPI figures are two measures which attempt to measure "core" or underlying inflation. These two measures exclude some of the more volatile prices that tend to change more rapidly and dramatically – thus exerting a big influence on the overall CPI. These measures of underlying inflation aim to capture the broad trend in overall prices, not just important and high-profile items (like petrol or some groceries). These two measures are the "trimmed mean" and "weighted median" CPI measures.

The trimmed mean CPI reports changes in the weighted average of price changes for products in the middle 70 per cent of the distribution of all goods and services. In effect it excludes the 15% of products with the biggest price increases, and the 15% of products with the smallest price increases (or biggest price declines). Similarly, the weighted median CPI calculates the percentage change of the product at the exact middle of (the 50th percentile) of the distribution: in other words, it reports the median price change from the bundle of all products.

Both measures tend to change more slowly over time than the standard CPI, and are thus believed to reflect the overall pace of price changes (without being unduly influenced by specific volatile prices). The Reserve Bank uses both these measures to guide its decisions about raising or lowering interest rates. The overall CPI can sometimes be quite volatile from quarter to quarter, and the Bank does not want to overreact to sudden price changes that might not be sustained, or reflect the general level of inflationary pressure. In the current inflation episode, these core inflation measures have increased more slowly than the overall CPI (which was pulled quickly upward by just a few important prices, such as energy products and some foodstuffs). But underlying inflation did eventually increase (as noted in Figure 1), indicating the spread of inflationary pressures from those initial price leaders into the broader economy.



"Cost of Living"

Shortly after every quarterly CPI release, the ABS releases a related publication, called its "Selected Cost of Living Indexes". These attempt to measure the inflation experienced by different types of households, rather than computing an average inflation rate for all households in Australia (as does the CPI). Measures are calculated for four specific classes of household (listed below), reflecting consumer bundles that reflect their typical consumption patterns and weightings. Aside from considering the differing consumption patterns of those different household types, another major difference between the basic CPI and these cost of living indexes is how they treat housing costs. The CPI includes a measure of the cost of buying a new home, through an expenditure category called "new dwelling purchases by owner occupiers." For most households, however, the purchase of a new property is not the appropriate indicator of how much they will pay for their housing. Rather, that will depend on the cost of repaying a home loan. Thus, the cost of living indexes do not measure house prices directly; instead, they measure mortgage interest and consumer credit costs (items that are not in the CPI basket). This distinction is important in the current situation: rising interest rates are causing a decline in the cost of properties (which are already falling at the fastest rate in decades). That will pull down the conventional CPI. But since mortgage service costs are rising for most households (since higher interest costs more than offset the impact of lower property prices), the cost of living by these indicators will increase. This is another counter-productive outcome of the Reserve Bank's current interest rate hikes.

ABS cost of living indexes are calculated for four specific types of households: corresponding to whether the main income earner is a waged employee, an aged pensioner, a recipient of other government transfers (for example unemployment benefits or the Disability Support Pension), or a self-funded retiree. The ABS also combines the aged-pension and "other government transfers" groups into a Pensioner and Beneficiary Households category, which is used for the indexation of various government benefits (such as the veterans' pension and Jobseeker).

In each case, the index reflects the cost of a consumption bundle typical of households in each category (see Table 1). These weightings indicate that age-pensioners and those on other government benefits spend a greater proportion of their weekly spending on non-discretionary items (such as food and housing) than do employee households – and much less than do high-income households (who are not covered in these cost of living indexes).

Table 1

Consumption Group	CPI	Employees	Age pensioners	Other govt transfer recipients	Self- funded retirees
Food & non-alcoholic beverages	16.8%	18.1%	20.4%	18.7%	17.4%
Alcohol & tobacco	9.0%	9.9%	7.3%	12.7%	9.1%
Clothing & footwear	3.3%	3.6%	3.0%	3.4%	2.9%
Housing	23.2%	15.1%	20.3%	25.3%	13.3%
Furnishings, household equipment & services	9.2%	9.8%	9.6%	7.9%	10.8%
Health	6.5%	6.6%	12.2%	4.4%	12.7%
Transport	10.6%	10.8%	9.6%	9.1%	11.5%
Communication	2.4%	2.5%	2.8%	3.3%	2.9%
Recreation & culture	8.6%	9.1%	7.9%	6.5%	12.1%
Education	4.6%	4.8%	0.2%	3.5%	1.4%
Insurance & financial services	5.8%	9.5%	6.8%	5.3%	6.1%

Weightings of CPI and cost of living baskets by household type

Table: Centre for Future Work $\boldsymbol{\cdot}$ Source: ABS $\boldsymbol{\cdot}$ Created with Datawrapper

This does not mean that pensioners and other benefit recipients spend more in total on food and housing, than employee households. Rather, it indicates that the *share* of spending on those items is greater. Because the cost-of-living measures include the cost of paying home loans, as a general rule (as shown in Figure 2), when interest rates are steady or falling, employee households (which are more likely to have outstanding mortgage debt) will likely experience a lower increase in the cost of living than other households (and potentially lower than is reflected in the CPI).



Figure 2

Producer Price Indexes

Producer Price Indexes (PPI) are inflation measures that capture changes in the cost of inputs required to produce goods and services within Australia. They measure price changes in products that are used in the production of other goods and services (rather than goods that are consumed by households). Thus, the PPI measures inflation from the point of view of producers rather than consumers (as does the CPI). Like the CPI, the PPI is also measured quarterly; different PPIs are produced to reflect the input prices paid by different categories of industries. Then, an economy-wide measure of input prices is constructed, weighted according to each sector's share of final demand (including consumption demand, capital spending, and exports).

Changes in the overall PPI tend to track changes in the CPI (in part because the prices of final consumption goods make up the largest component of the aggregated "final demand" measure reported in the PPI data). Differences in their growth can occur, however, when production costs rise faster or slower than prices. During the mining boom period (as displayed in Figure 3), for example, growth of the PPI exceeded growth in the CPI. In the recent inflationary surge, the PPI final demand index and the CPI have moved upward together.



Price Deflators

A very different methodology for measuring inflation is used in Australia's national accounts system. Here inflation is measured using "price deflators", so called because they compare the nominal or "current dollar" level of income or expenditure, against the real or inflation-adjusted values of those series. The ratio between the two is the deflator, which measures the change in the overall price of output (or some component of output). Rather than being gathered directly by a survey, therefore, price deflators are determined by the ratio between two separately-measured indicators of production in the national accounts: real and nominal. Within the national accounts, every component of production and demand in Australia has an associated price deflator.

Household Final Consumption Deflator

The household final consumption deflator replicates to a large extent the CPI, although it is calculated differently. It compares the nominal value of total consumer spending to the separately calculated estimate of real (inflation-adjusted) consumption. It includes all the components of household consumption that are included in the consumption component of GDP, and hence largely overlaps with the same components whose prices are measured directly in the CPI basket. As a result, the consumer deflator and the CPI produce very similar results, although the CPI has been generally more volatile (see Figure 4):



GDP Deflator

The GDP deflator uses the same method to estimate changes in the average price of all output in the economy. It, too, is calculated by the ratio between nominal output and real (inflation-adjusted) output. It also captures changes in the overall price level of exports (which are a component of GDP), while adjusting for changes in the overall prices of imports (which are deducted from GDP). Large swings in the prices of international trade commodities (especially Australia's exports, which are concentrated in resource commodities whose prices are very volatile) mean that the GDP deflator tends to be more volatile than CPI (see Figure 5) – although major cycles in the two measures tend to track each other. The volatility of the GDP deflator has become even more apparent over the past 15 years, as Australia's exports have become more reliant than ever on mining exports.



Deflators are also calculated for other components of GDP: including business investment, residential construction, and government investment and consumption. Each provides an insight into the general pace of price changes in each of those broad sectors of the economy.

Terms of Trade

The national accounts include separate deflators for exports and imports. The ratio of those two deflators, measuring the difference between export prices and import prices, is called the "terms of trade." When the terms of trade rise, this signifies that the price of exports has increased relative to the price of imports: what Australia sells to other countries has become more valuable relative to what Australia buys from them. This is often interpreted as a measure of national "prosperity," but that is not necessarily the case. For Australia, where foreign companies own most mining activity and hence are the main beneficiaries of an improvement in the terms of trade, higher terms of trade do not necessarily imply better living standards for average Australians.

Because it is a ratio, an increase in the terms of trade could reflect an increase in the price of exports, or a reduction in the price of imports, or both. So it is not possible to conclude the source of the change just from observing the terms of trade rising or falling. The terms of trade is a rare example of a price measure index which is usually reported as the index value itself, rather than as a rate of growth (as shown in Figure 6). Since it is a ratio of two other price deflators, quarterly or annual changes in the terms of trade can be very volatile; hence examining the index itself provides a clearer picture of long-run relative changes in its two components.

The decade-long boom in global commodities prices from 2003 through 2013 caused an enormous rise in Australia's terms of trade. That was reversed after the commodities price crash of 2014. More recently the surge in many commodity prices (especially for energy commodities) has sparked another run-up in Australia's terms of trade (and contributed substantially to overall inflation here). That will likely be reversed in coming years as commodity prices are pushed back down by a looming global recession.

Figure 6



Commodity Price Indices

Another way to measure changes in commodity prices is through a direct weighted index of world prices for key commodities. The Reserve Bank calculates a measure of price trends for key Australian commodity exports with its monthly "Index of Commodity Prices". As with the CPI, this index uses a weighted average of major primary goods exported from Australia. It groups those exports into four main categories: rural goods, base metals (aluminium, lead, copper, zinc and nickel), bulk commodities (iron ore and coal), and other resources (LNG, crude oil, alumina and gold). Since these indexes are of special interest because of their importance in international trade, the RBA computes the index in terms of three different currencies: Australian dollars, US dollars, and "special drawing rights" (an international reserve asset held by the IMF, which is based on the value of a basket of currencies). These provide different measures of price changes for Australian exports according to the particular market of interest.

What Causes Inflation?

In a largely private market economy like Australia's, prices are mostly determined by the decisions of the private businesses which sell various goods and services. Prices thus respond theoretically in response to market forces: including both supply- and demand-side factors. Prices can also reflect various forms of government intervention: including taxes, subsidies, and regulations. However, understanding prices as a simple function of "supply and demand" often ignores the impact of imperfections and failures in market structure. For example, oligopoly or monopolistic pricing behaviour (resulting from concentrated market power in the hands of large businesses) can cause prices to rise faster than under more competitive conditions.

In the conventional understanding, inflation can be categorised according to whether it is caused by factors arising from demand or supply. Inflation is commonly described as problem of "too much money chasing too few goods," with an imbalance between demand and supply causing prices to rise. It then depends on whether that imbalance is caused by excessive demand (very strong purchasing power), or problems which reduce the supply of goods for sale below their normal healthy level.

DEMAND-DRIVEN INFLATION

Demand-driven inflation, or "demand-pull" inflation, is perhaps the most common explanation invoked for inflation in recent decades. If household disposable incomes rise too much (giving consumers more money to spend), or if purchasing power from other sectors of the economy (such as business investment or government spending) is unduly strong, this may cause demand for goods and services to increase beyond the capacity of the economy to supply enough goods and services to meet that demand. Governments and central banks generally desire strong and increasing levels of aggregate demand, because that spending power is a fundamental source of economic growth. However, it becomes a concern if the level of demand begins increasing so fast that supply of goods and services is unable to keep up. This could occur simply because spending is rising too fast (perhaps due to a boom in employment, government fiscal policies, or a burst of consumer optimism). It could be exacerbated if sellers – especially in industries where a small number of firms hold market power – increase prices unduly to take advantage of strong demand.

Suppose, for example, that there is a surge in the construction of homes due to government subsidies and low interest rates. That will increase the demand for timber,

steel, concrete and other products needed to build houses. It also increases the demand for workers to build those homes. This may lead to increases in input costs and (possibly, depending on industrial relations conditions) wages in construction. A boom experienced more broadly across many sectors of the economy could lead to even wider inflationary pressures.

If strong demand causes inflation to accelerate beyond than the upper bound targeted by the Reserve Bank,⁷ it will likely increase interest rates. This dampens demand by forcing borrowers to pay higher interest rates to service their loans (such as homeowners, businesses, and credit card users). This in turn reduces the income they have left to spend on goods and services; it also reduces the demand for new loans, and hence reduces debt-financed spending.

Demand-driven inflation can also occur even if overall demand in the economy remains steady, but the composition of demand changes suddenly due to changes in consumer behaviour or other factors. A major shift in the composition of demand, across different types of goods and services, can cause demand-driven price pressures in those sectors experiencing rising demand. In theory, prices should be falling in those sectors experiencing weaker demand – but that may not happen proportionately, due to downward price rigidity or the market pricing power of large firms.

This phenomenon was evident during the initial COVID-19 lockdowns in 2020 and 2021. The inability to travel and attend events spurred a sharp rise in demand for audio-visual and communication products – such as webcams, game consoles, and home entertainment equipment. In recent years, the prices of these products have tended to fall due to constant technology improvements and relatively cheap imports. However, in the June quarter of 2020 the prices of audio, visual and computing equipment began to increase rapidly (rising 1.8% in that quarter alone, followed by another 1.6% rise in the September quarter). Similarly, the demand for home appliances also rose during this time. In the June 2020 quarter alone, there was a 14.7% increase in the volume of such products purchased – easily the largest increase ever recorded. Hence the prices of major household appliances rose 3% in the June quarter and a further 5.8% in the September quarter. The COVID-19 lockdowns also sparked a major surge in home renovation activity, as many households used disposable income (accumulated due to restrictions on other types of consumer activity) to undertake home improvement projects. This led to sharp increases in prices for building products. These product-specific increases in prices for particular goods in

⁷ As noted, it aims to keep CPI inflation around 2.5% per year, plus or minus 0.5%.

hot demand during the pandemic were an important initial factor in unleashing subsequent inflation.

SUPPLY-SIDE OR COST-PUSH INFLATION

On the other hand, an imbalance between demand and supply can also occur because supply is too low – not because demand is too high. Supply-side inflation occurs when supply of critical products decreases, or at least fails to rise in line with demand. It can also result from sudden changes (in technology, global trade patterns, or natural disasters) that result in big increases in the cost of supplying certain products. The most famous example of cost-push inflation were the two OPEC oil crises in the 1970s. In 1973 the OPEC nations placed an embargo on oil exports to certain nations (sparked in part by conflict in the Middle East). This reduced the supply of oil, and caused the price of oil to rise by US\$2.90 a barrel before the embargo to US\$11.65 (Federal Reserve 2013). In Australia the flow-on impact saw the price of motor vehicle fuel rise 50% from the end of 1972 to the end of 1975. After some moderation, another OPEC oil price shock occurred in 1979. The two energy shocks were the dominant causes of the outbreak of widespread inflation across the industrial world that decade. The parallel to the current role of big energy price increases (after the Russian invasion of Ukraine) in spurring recent inflation is obvious.

Supply-side inflation effects also often occur due to weather or climate events. Droughts or floods impact agricultural production, causing the prices of those commodities (and processed food products made with them) to rise. Conversely, good weather or growing conditions can cause an over-supply or "glut" of those products, and cause a lowering of prices. In 2006 and 2011, cyclones in northern Queensland wiped out many banana crops and caused a massive and abrupt supply shortage. This caused the prices of bananas to rise so high that it had a large impact on the overall measure of average fruit prices in Australia. Similar disruptions caused sharp increases in prices for some foodstuffs (most infamously lettuce) in the current inflation in Australia.

Because supply shocks can constrain output, as well as prompt price increases, it can be associated with the problem of "stagflation": the simultaneous occurrence of high inflation with high unemployment, or even recession. Output may be reduced by direct quantitative shortages of key inputs, or by the fact that rising supply prices make some things too expensive to produce and sell. This is opposite from the experience of demand-pull inflation, which is typically associated with rising output as suppliers try to meet surging consumer demand. Moreover, because of its origins in the supply side of the economy, supply-side inflation is less amenable to solution from traditional monetary policy measures: namely, higher interest rates to slow down demand. With supply-side price pressures, the problem is not excess demand, it's inadequate supply. Higher interest rates can actually worsen that problem (by discouraging business investment in new supply capacity or infrastructure). In the end, by forcibly suppressing aggregate demand to make it "consistent" with an artificially-reduced level of supply, high interest rates might manage to "solve" the inflation problem even though it wasn't caused by excess demand; but it would be far better to reduce inflation in this instance by acting to resolve the supply problems and restore normal capacity, rather than ratcheting down demand to match reduced supply.



Figure 7

Generally, supply-side inflation is more sharp and specific to certain products (as displayed in Figure 7) than is the case with demand-pull inflation, except in cases such as oil supply which is used in the production of many different products and services. Generalised supply-side inflation could also result if supply disruptions were experienced across many different sectors. This was the case in the COVID pandemic, in which supply of many goods and services – from semiconductors to motor vehicles to international migrants – was restricted due to production shutdowns, transportation disruptions, and border closures.

CORPORATE POWER

Traditional market-based theories of inflation, seen to arise from imbalances between demand and supply, rest on the assumption of free and competitive markets. However, when powerful corporations can exercise power over prices – such as the Big 4 Australian banks over mortgage rates, or the duopoly of supermarkets chains over grocery items – prices may rise due to factors unrelated to the state of the broader economy, or demand for certain items. Alternatively, an initial stimulus to inflation arising from a sector-specific event (such as supply disruptions during the pandemic) might be greatly amplified by the pricing power of large companies, who take advantage of that circumstance to force through even bigger price hikes than would be justified by changes in supply prices. Similarly, if a company has monopoly power, or a small number of companies have oligopolistic power over the supply of certain products (such as petrol, groceries, electrical products, hardware supplies), a symptom known as "asymmetric pass-through" can occur. Powerful firms increase prices quickly and dramatically when an event (such as a supply disruption) seems to justify it. But they are very slow in reducing prices when that disruption is resolved. This is apparent in pricing of petrol in Australia: prices leap by many cents per litre immediately on news of some disruption in global supply (even though it would take months for that event to affect the actual flow of refined petroleum products to consumers). But prices then sink back down only partially and very slowly (Krugman 2022). The concentration of pricing power in certain industries has clearly contributed to the speed of recent price hikes – and to the record profits which Australian companies have pocketed during the current inflation (discussed further below).

GOVERNMENT INTERVENTION AND POLICIES

Taxation and Excises

The Commonwealth government does not generally have direct power over the prices of most consumer items. However, government taxation and levies on certain items can certainly affect how much consumers pay. And in some cases government is in effect the price setter: such as with user fees on government services, or for goods and services which are highly subsided (such as pharmaceuticals on the Pharmaceutical Benefits Scheme). For general excises, the most prominent examples of government policies affecting prices are for tobacco and alcohol.

The impact governments can have on prices is shown dramatically by the big changes to tobacco excise that began under the Rudd government. In 2010 the government

increased the excise on tobacco by 25% (Rudd 2010), followed by increases in excise of 12.5% each year from December 2013 (see Figure 8). This has seen the price of tobacco soar well ahead of the overall CPI.



Figure 8

So great has been the impact of these price rises on tobacco (and similar increases in alcohol prices) that were tobacco and alcohol excluded from the CPI, inflation since June 2010 would have averaged an annual rate of just 1.8% – compared to the actual recorded average of 2.2%. This specific set of policies thus increased the annual rate of CPI inflation experienced over the past decade by about 0.4 percentage points.

Subsidies

Conversely, government subsidies can greatly reduce certain prices. A good example of this channel is the early child education and care (ECEC) sector. In 2008, the Rudd government increased the amount of ECEC costs people could claim as a rebate. This had the impact of drastically reducing effective prices.⁸ Similarly, during the early months of the COVID pandemic, the Morrison government effectively made ECEC free on a temporary basis (from 6 April until 28 June 2020), in order to support parents to continue working (see Figure 9). As a result, there was a dramatic decline in the price

⁸ The ABS notes that "child care in the CPI is measured as child care fees minus any subsidies/rebates that are available to families purchasing child care services." (ABS 2008), thus when the Child Care Tax Rebate was increased from 30% to 50% in September 2008 it caused a sharp decrease in the net cost of the "child care: item measured in the CPI basket of goods.

of ECEC services. Unfortunately, that was completely reversed when the Morrison government suddenly cancelled the policy just months later.



Figure 9

Both these measures had an impact on overall inflation. In fact, the ABS estimated that in June 2020 the fall in ECEC costs alone contributed 1.3 percentage points to the overall 1.9% fall in CPI that quarter. This experience highlights that when governments argue they can do little to counter inflation, they ignore their ability to directly and dramatically affect the prices of some services and goods that are sensitive to government policy settings.

The History of Inflation

From 1993 until this year, Australia had gone without any sustained periods of annual inflation above 5%. Such had been the length of time without major inflation, that it began to seem like this was the "natural order" of things. In reality, this period has been an exception to the general experience of Australians since the end of the Great Depression. Indeed, the 1993-2021 period of low inflation was longer than the period of modest inflation in the late 1950s and 1960s – that preceded the inflationary periods of the 1970s and 1980s.

Figure 10



The history of higher inflation in Australia is mostly linked to dramatic international events. The Korean War saw a massive increase in the demand for wool, at the same time import restrictions were relaxed – which together created a surge in demand for imported products (Treasury 2001). Similarly, the first OPEC oil crisis in 1973 saw the price of automotive fuel increase 25% in one year, and the second oil shock in 1979 (in response to the Iranian Revolution) saw fuel prices climb 48%.

The era of low inflation from 1993-2020 was no accident, but rather was due to specific policies designed to target low inflation. These policies came out of the experience of the 1970s period of stagflation (with accelerating cost-push inflation coinciding with repeated recessions and high unemployment) and the subsequent asset booms of the 1980s. These problems contributed to the ascendency of neoliberal economic views among policy makers, first becoming dominant in the United States

and the United Kingdom. The U.S. Federal Reserve dramatically increased interest rates in 1978, in what came to be known as the "Volcker Shock" (named after the bank's chair at the time, Paul Volcker), and explicitly abandoned full employment as its top macroeconomic priority. Other central banks around the world followed suit. At first they followed a strict version of "monetarism": thinking that restricting the money supply would automatically cure inflation. That proved a disastrous failure: largely because the money supply itself is determined mostly by the lending decisions of private banks, and cannot be directly controlled by the central bank. They revised the policy to use interest rate adjustments to indirectly influence the level of aggregate demand in the economy, and this evolved into the policy of central bank inflation targeting that was adopted in most industrial countries.

In Australia, this major policy shift involved two specific institutional changes. The first was for the Reserve Bank to become operationally independent from government, so that its day-to-day decisions could be insulated from the normal pressures that are experienced in a democracy. The idea was not just that the Bank would be free from immediate interference by elected officials. The more important goal was to ensure that the Bank would not be swayed by outrage or suffering among the public at large – and thus could pursue strict anti-inflation measures no matter what damage that caused to employment, income, and well-being. The second institutional change was for the RBA to adopt (empowered by the Commonwealth government) a target for inflation. The Reserve Bank's target of 2.5% inflation (within a range of 2-3%) was first established in 1993, and has been renewed every few years since by agreement with the federal government. Then-Governor Bernie Fraser articulated the logic for this policy in a speech in 1993:

"Ideally, we would like (to pick up Alan Greenspan's definition of practical price stability) to see inflation kept low enough so as not to bias behaviour in these costly ways. Putting numbers on that definition is a matter of judgment... My own view is that if the average rate of underlying inflation could be held to 2 to 3 per cent over time, we would meet our test." (Fraser 1993)

In the nearly 30 years since then, the underlying inflation rate has been within this 2 to 3 percent band around 60% of the time:



MONETARY POLICY IS NOT NEUTRAL

While inflation since 1993 for the most part remained between 2% and 3%, most of the time it was outside the target band was when inflation was below the lower bound (below 2%). Prior to the recent post-COVID acceleration of inflation, there were 22 straight quarters (5 and half years) of underlying inflation falling consistently below the target band. During this period the Reserve Bank kept its cash rate (the main interest rate it adjusts to affect lending and hence overall economic activity) unchanged for a record 33 months straight. This suggests that the band is interpreted by the Bank as less of a band, than a ceiling. The Reserve Bank, as we have seen recently, is quick to respond when inflation growth goes above 3% – but it was very slow to act (or did not act at all) when inflation fell below 2% for sustained periods of time. That extended period of below-target inflation. Ultra-low inflation in that time was closely associated with historically weak nominal and real wage growth (discussed further below).⁹

This highlights that the inflation target and the independence of the Reserve Bank is not a neutral policy position, somehow imposed for the benefit of Australians with no negative economic repercussions. Yes, the policy provided a greater level of price stability than had been observed in the two decades prior, but it is not clear that this was good for workers. During the 30 years since the 2%-3% target was introduced there has been a significant shift in the distribution of national income from employees

⁹ For a full analysis of this unprecedented period of weak wages, see Stewart et al. (2022).

to employers. During the period of inflation targeting, real labour unit costs have consistently fallen, while real unit profit costs have risen:



Figure 12

Over the past 30 years, as shown in Figure 12, the labour share of income has fallen from 55% percent of total factor income to 50%, while the profits share of income has gone from 23% in 1992-93 to a record high 30% in 2020-21.

Similarly, while an independent Reserve Bank does "solve" the concern that elected politicians might be hesitant to raise interest rates to limit accelerating inflation (for fear of causing economic dislocation and hence anger among their constituents), the experience of the years before the pandemic demonstrates an opposing concern. For 5 years the Reserve Bank was hesitant to cut rates despite sustained below-target inflation. Such decisions are not without costs – yet the Bank was unaccountable for this failure. For example, during the period of below 2% inflation growth, labour underutilisation was consistently higher than it had been in the previous 5 years.



The same period of below-target inflation also saw real household disposable incomes stagnate to an extent that had never occurred in the previous 60 years outside of a recession.



Figure 14

Over the 22 quarters from December 2014 to the final quarter before the pandemic in March 2020, inflation growth was below the RBA's target band, and yet real household disposable income per capita grew just 1% over that entire period. This compares to the average growth over such a 22 quarter period since 1973 of 7.1%. Even worse from the December quarter of 2016 through the March quarter of 2019 the Reserve Bank

sat on its hands and left the cash rate unchanged at 1.5%. And yet during this period real household disposable income grew just 0.2% - well below the average 10 quarter growth of 2.9%. During this period there was no sense that the economy was in "equilibrium". Unemployment and underutilisation were not only above pre-GFC levels, but they were also above the rates that had occurred in the 5 years after the GFC. Both real wages and real household incomes were at best flat, and often falling. The idea that low and stable inflation would automatically usher in economic wellbeing was clearly disproven. And yet the Reserve Bank failed to provide any extra monetary policy stimulus. During that period, however, one variable did grow robustly: corporate profits. From June 2016 to June 2019 corporate profits rose 23% in real terms – well above the 3-year average growth of the past 60 years (of 13%).

Low inflation is not an unalloyed good, and neither is an inflation target that is treated more as a ceiling than a goal. Monetary policy is not a neutral, technocratic process of "fine-tuning" the economy for the benefit of all. It is an inherently political policy lever, that reflects the competing interests and distributional struggles that are inherent to our economy. The particular exercise of monetary policy by the RBA over the last 30 years, and especially during the years immediately before and during the COVID pandemic, is proof positive that this crucial lever of economic policy has been used in a one-sided manner: suppressing wages and living standards, and fattening corporate profits, purportedly in the name of "stability".

The COVID-19 Pandemic and Inflation

The world's economy over the past 2 years has undergone the most dramatic disruptions since the end of WWII. The initial onset of COVID-19 saw the fastest and deepest decline in economic activity ever experienced. Across the entire OECD, economic activity fell 10% in second quarter of 2020 – by an astonishing 19.4% in the UK. By contrast Australia was relatively less affected, but the 6.8% fall in real GDP in the June quarter of 2020 was still the largest one-quarter drop ever recorded. However, as is often the case, just focussing on GDP misses a lot of what really happened. During 2020, in response to the pandemic, the Australian government embarked on a major stimulus and support program, while at the same time the Reserve Bank cut the cash rate dramatically to just 0.1%, and undertook other emergency measures (including quantitative easing to support credit creation and purchasing power) to prevent an all-out depression.

Figure 15



Surprisingly, this powerful stimulus actually saw household disposable income in Australia rise during the pandemic (see Figure 15). The aggregate value of new income supports more than offset the loss in private income resulting from job losses and reduced economic activity. This doesn't mean the government "overdid" the stimulus, as some orthodox analysts allege. The fact that output and employment did not fall much deeper was due to the provision of that stimulus; the interdependence of fiscal supports and the trajectory of output and employment are such that without that stimulus, incomes would almost certainly have painfully declined. Nevertheless, this increased disposable income came at a time when there were also severe restrictions on travel and the provision of services – from hairdressers to attendance at sporting and artistic events and performances. The combination of increased income but reduced ability to spend it (and reduced supply due to COVID restrictions) led to an unusually strong increase in household savings – reflecting both the increase in income, and the inability to spend it. Obviously, this mismatch between potential demand (in disposable income) and restricted supply could create conditions for price disruptions once the economy was reopened. That's a small price to pay, however, for the misery and suffering (including families losing their homes) that was prevented by the government's fast and powerful response.



Figure 16

This build-up of excess savings, as displayed in Figure 16, created a source of "extra income" which has been available for spending since the relaxation of lockdown restrictions and the reopening of borders. The Treasury department estimated this increased level of saving was worth an additional \$220 billion to all households (Frydenberg 2021). For context, that is nearly double the total amount spent in 2021-22 by Australian households on food. However, it should be noted that this extra spending power is very inequitably distributed. The Reserve Bank estimates that while "all household income groups saved more than usual over 2020... the bulk of the additional savings were accumulated by the top 40 per cent of the income distribution" (RBA 2021). Nevertheless, this increased saving has provided a significant source of purchasing power that is now being gradually unwound since the end of the lockdowns.

STIMULUS MEASURES

The response to the sharp recession resulting from the pandemic saw extreme fiscal stimulus measures implemented around the world, by governments of all political stripe and economic ideology. In Australia, the level of direct fiscal stimulus (including massive JobKeeper wage subsidies, and a doubling of income protection through the Coronavirus Supplement) was estimated by the IMF to be among the largest across advanced economies. However, the level of *indirect* stimulus (provided through loans and equity injections by the government and the Reserve Bank) was among the smallest (see Figure 17).



Figure 17

Another impact of the stimulus can be observed in the strong increase in public sector demand (including government spending on current services, like health care, and public investment on infrastructure and other capital assets) during the pandemic and the increase in government expenditure (see Figure 18). In the first two years after the initial outbreak of the virus, public sector demand grew faster than any year since World War II. However, with most COVID programs now cancelled, and governments clawing back spending in the interests of deficit reduction, will see the sharpest ever drop in government expenditure.



Figure 18

At the same time the Reserve Bank embarked on an unprecedented level of monetary policy stimulus. In March 2020, the Reserve Bank cut the cash rate twice taking it from 0.75% to 0.25%, and then later cutting it further to 0.1%. It also announced it would target the Australian 3-year bond yield at 0.25%, and would provide \$90bn worth of funding to authorised deposit-taking institutions at a fixed rate of 0.25 per cent. The RBA also undertook \$300bn in bond purchases, and other forms of asset purchases through its first-ever quantitative easing program.¹⁰ These measures bolstered demand at a time when private sector demand was falling. However, while Australia's GDP has recovered quickly (in a V-shaped rebound), COVID restrictions on public and commercial activities, and interstate and international movement, created a massive and unprecedented change in household consumption patterns.

¹⁰ Quantitative easing (QE) refers to the central bank's use of balance sheet resources to purchase financial assets (including government bonds, and private financial assets) with the aim of increasing liquidity in the private banking system and thus indirectly encouraging more lending by banks even in times of weak demand. It has been widely practiced for many years in other industrial countries, but this marked the RBA's first use of the policy. The RBA's QE program ended in 2021.

CONSUMPTION CHANGES

Unusually for a recession, the massive stimulus supported an increase in the volume of retail trade and household consumption (see Figure 19). By the December quarter of 2020, the total volume of retail turnover (consisting largely of goods purchases) was some 2.6% above the level expected given the pre-pandemic trend. Aside from the September quarter of 2021 (affected by lockdowns in NSW, Victoria and the ACT, and severe state border restrictions), retail spending in all quarters since June 2020 has been above trend. However, the real boom in spending occurred once the lockdowns eased at the end of 2021 and beginning of 2022, at which point consumers were able to spend without any real restrictions. This was the time for them to make up for foregone purchases postponed during past restrictions, and spend some of the excess savings accumulated during the pandemic.

Figure 19



However, this increase in consumer spending has not been uniform. Throughout the pandemic there was a significant decline in the volume of spending on services compared to goods. This reallocation was so great that when we look at all household consumption and not just retail spending (which reflects primarily goods purchases), we find that the volume of overall household consumption still remains *below* the pre-COVID trend, even though spending on goods (which makes up most retail spending) has surged above pre-COVID trends (see Figure 20).



The cumulative difference across the two categories is stark. Relative to the prepandemic trend, even including the initial fall in the June 2020 quarter, total cumulative spending on goods over the two years since the beginning of the pandemic is modestly above trend expectations. The volume of spending on goods by the March 2022 quarter was 3% above the pre-COVID trend. For services, however, the story could not be more different. Over the two years, Australian spent \$159 billion less in real terms on services than would be expected under the pre-COVID trend. Even by the March quarter of 2022, after most restrictions had been lifted, the volume of spending on services was still some 6.5% below the trend levels.

One sector of spending on services seeing a very strong recovery is dining out. Prior to the pandemic, spending on dining out was very similar to spending on "other retailing" (a category including things as electronic entertainment products, toys and games, and pharmaceutical, cosmetic and toiletry goods retailing – three areas that saw increased demand during the pandemic). The lockdown saw spending on dining out collapse, while spending on those other retail items surged. Since the end of restrictions, however, the volume of dining out has not just increased but is now above the pre-pandemic trend (see Figure 21). This reflects that there remain barriers to other forms of "recreational spending" (such as reduced holiday travel due to airline disruptions, and overall increased costs of travel and accommodation). As a result, there appears to have a been a strong shift towards allocating entertainment budgets to dining out in place of other activities. That would be expected to spark a surge in prices in the hospitality sector, that may not be proportionately offset by price reductions in industries experiencing lower demand.



EMPLOYMENT CHANGES

The labour market has also undergone massive changes since the pandemic. Prior to the pandemic, Australia's labour force (the supply of workers who are employed or actively seeking work) had been growing at an average of 2.2% each year. Then, due to the restrictions on travel and border closures during the pandemic, the number of people in the labour force fell. Even with the recent re-openings of borders, in the more than two years since May 2020 Australia's labour force has only grown by 2.2% (an amount that was previously experienced every year). Had the trend growth in labour supply continued throughout 2020 and 2021, Australia's labour force would have included some 324,000 more people than it did in July 2022.

The impact of the international border closures was most acute for the supply of young workers (under 35), as shown in Figure 22. The cut in international students and young migrant workers meant that by the start of 2022, there were 175,000 fewer people aged 15-34 in the labour force than when the pandemic struck – and some 370,000 fewer than would have been expected had the labour force continued to grow at the medium-term average rate.





This decline in the labour force would normally only occur in conditions of severe unemployment – in which case many discouraged workers give up looking for jobs, and drop out of the labour force altogether. For example, in the 1990s recession the labour force merely stagnated in 1991 and 1992 (it did not shrink in absolute terms as it did during the COVID pandemic), even as unemployment rose from below 7% to 11%. In the same period the proportion of adults employed fell from 59.8% to 55.3%; it took 13 years for the employment rate to recover. By contrast, there is now a record proportion of Australian adults in employment (see Figure 23). The 64.2% of adults employed in July 2022 is higher even than the 62.9% employed at the height of the 2000s mining boom.



Such a situation would normally suggest a booming economy and strong overall employment growth. In the current situation, however, it is due more to the decline in the labour force (below pre-COVID trends); employment has not been strong relative to the overall population. For example, the aggregate number of hours worked in the economy has remained vulnerable to lockdowns and outbreaks. Even in the months when lockdowns were largely absent, hours worked per capita (unlike the employment rate) were nowhere near their previous highs (set during the mining boom), and not especially high in longer historical perspective (see Figure 24). As 2022 has progressed, hours worked per capita have increased, but still remain significantly below previous peaks. This highlights the shift from full-time to part-time work that has occurred over the past decade. It also indicates that tightness in the labour market (evident in a historically low unemployment rate) reflects labour supply constraints (arising from COVID border closures), rather than an "overheated" labour market. The absence of acceleration in wages during this period is further reason to doubt the standard "excess demand" explanation of the inflation currently being experienced in Australia.



INTERNATIONAL IMPACTS

The imbalances observed in Australia after the pandemic were if anything even more extreme in other economies, particularly in the U.S. There, the shift of consumption from services to goods was massive. Prior to the pandemic, Americans spent around \$5 on services for every \$1 they spent on durable goods. By the middle of 2022 this ratio had fallen to 3.9-to-1.

Figure 25



The massive increase in consumption of durable goods in the U.S. sparked a huge demand for those goods – most of which are manufactured outside of the United States (most notably China). The U.S. market is big enough to single-handedly disrupt world markets for these products. The surge in U.S. demand combined with border closures and supply chain disruptions led to massive spikes in the cost of deep-sea freight, that continued even as restrictions eased. However, freight costs are now back to near pre-pandemic levels (see Figure 26), suggesting that one of the main contributors for recent international inflation has abated.

Figure 26



The Russian invasion of Ukraine has also sparked a large spike in commodity prices – including oil, LNG, wheat, fertiliser inputs (including urea and potassium), and sunflower oil – for all of which both the Ukraine and Russia are major producers. Because these commodities are major inputs in the production and manufacture of many items (including food), the invasion has had a significant impact on inflation around the world. In the 12 months to June 2022, automotive oil, oils and fats, and breakfast cereals were among the items in Australia with the fastest rising prices.

The Outlook for Inflation?

As of mid-2022, inflation was continuing at historically high rates across most advanced economies. Every single OECD nation in the second quarter of 2022 recorded annual inflation higher than in the last quarter before the pandemic in December 2019. The speed of the increase was largely unexpected. In October 2021, the IMF's World Economic Outlook (IMF 2021) predicted relatively small changes in annual inflation across the OECD throughout 2022. But within 6 months those estimates were wildly out of date.

Figure 27



While the increase in Australian inflation is at the lower end of the OECD range, inflation remains historically high. The 6.1% year-over-year growth in consumer prices in the 12 months to the June 2022 quarter is the fastest annual inflation since 1990. And the one-year acceleration of inflation over the past 12 months (from 3.8% to

6.1%) is the fastest one-year acceleration, excluding the introduction of the GST, since March 1986 – when annual inflation went from 4.4% to 9.2% in 12 months.

INTERNATIONAL EXPERIENCE

As a small and open economy, Australia's inflation is highly correlated with the growth of prices across the world (as shown in Figure 28). Over the past three decades since the introduction of the GST, Australia's annual inflation has mostly tracked the median of OECD nations. The main exception to this occurred from 2013-2016, when Australia's falling terms of trade (in the wake of falling commodity prices) caused the value of its currency to plunge from US\$1.08 per Australian dollar to just US\$0.70. Because of this, while inflation was in general slowing across the OECD, prices in Australia kept increasing at a slightly faster rate, mostly off the back of increased prices for imports (due to the weaker exchange rate).

Figure 28



The current situation unusually finds Australia with slower inflation than most other economies in the OECD. In the USA, for example, the increase has been extremely pronounced: in the first quarter of 2022, year-over-year inflation was 8%, the fastest in 41 years, and remained high with 8.2% growth in the 12 months to September 2022.

The acceleration in inflation in industrial countries has not been uniform. This highlights that while inflation is highly influenced by international factors, the situation, and need to respond, varies between countries. The acceleration of Australia's inflation from 3.8% to 6.1% is one of the smaller increases. This means that Australia's inflation relative to the rest of the OECD is lower now than prior to the

pandemic. In the last quarter of 2019, Australia's inflation was the 16th fastest of all 38 OECD economies; in the second quarter of 2022 it is just the 32ndth fastest. On one hand, it seems like a "victory" to experience slower inflation than other countries. But in an integrated global economy this can actually have unintended and potentially negative consequences: including for interest and exchange rates, capital flows, and the trajectory of government debt burdens (measured relative to nominal GDP).

WHAT PRICES ARE RISING FASTEST?

During the first 6 months of 2022, rising inflation truly took hold in Australia. For the first time since 1990, prices rose by more than 1.5% within two consecutive quarters. The biggest increases in prices were experienced in automotive fuel (due to international events), vegetables (due to floods in NSW and Queensland), and new dwelling purchases (due to the unprecedented surge in property prices sparked by ultra-low interest rates and speculative pressures).

Figure 29



However, dwelling purchases account for a much larger weighting in the CPI basket than automotive fuel or vegetables. Thus, in the first half of 2022, the increase in house prices accounted for 1.27 percentage points of the 3.9% increase in the overall CPI over those six months(see Figure 30). The rise in house prices thus accounted for nearly a third of the increase in total prices in the first 6 months of 2022.



But the large contribution of other items such as automotive fuel, medical services, vegetables and fruit, and rents highlights that the greatest increases in inflation since mid-2020 have been for items that are essential or "non-discretionary". Non-discretionary items are goods and services that consumers cannot readily avoid purchasing. These include goods such as food and non-alcoholic drinks, rents, automotive fuels, education, and utility costs. Since the middle of June 2020, the price of such non-discretionary items has risen 12% – compared to just 7.3% for discretionary items (which are items that most consumers can put off purchasing if needed).



The comparative price increases in these two categories provide insight into which households are being most affected by inflation. Because low-income households spend a greater share of their income on non-discretionary items, they are more affected when prices of those items increase faster.

CHANGES IN COMPOSITION OF SPENDING

The massive shift from spending on services to goods that has occurred across major economies, including Australia, not unsurprisingly has had a significant impact on prices as well. Not only did the initial lockdowns have a smaller impact on purchases of goods compared to services, so too was their impact on goods prices. In the June quarter of 2020, the price of services fell 3.5%, while that of goods fell just 0.7%.





Since then, the prices of goods have increased significantly more than for services. Indeed, the current prices of services average just 0.8% above what would have been expected given the 5-year pre-pandemic trend (Figure 32). In the services side of the economy, there is hardly any indication of an acceleration of inflation. By contrast, the prices of goods are 7.1% above the pre-pandemic trend.

EXPECTATIONS OF INFLATION

While the current rate of inflation is above that seen over the past 3 decades, there is little sense that prices will continue for long at this pace. This reflects the unique and temporary nature of many of the disruptions and shocks that caused the initial acceleration of inflation: including temporary excess savings and pent-up spending, the impact of international supply disruptions, the shift in the composition of consumer spending, and the global oil price shock. One problem experienced during the 1970s was that Australians came to expect continuing high inflation; in some cases this expectation can become a self-fulfilling prophecy. If businesses and unions and consumers all expect inflation to continue at a rapid pace, they may be more likely to accept rising prices and wages in order to match those expectations. Expectations alone do not explain inflation, however: in order to "fulfil" an expectation of higher inflation, economic stakeholders need to have the power to lift prices for whatever they are selling. In the case of workers, that is clearly not the case today: even though workers may expect some sustained acceleration of inflation, their ability to protect

themselves through higher wages is curtailed by an industrial relations system that is heavily biased in favour of employers.

The RBA conducts surveys of different constituencies regarding their expectations of future inflation: including market economists, union officials, and financial traders (the latter represented by the level of inflation consistent with a "break-even" price for real return government bonds compared to their nominal interest rate counterparts). Currently, union officials have the highest expectations of future inflation: higher than that of market economists and the breakeven inflation rate based on bond yields. Even for union officials, expectations are for just over 4% inflation over the next two years (Figure 33). That is well below the current inflation rate, and does not suggest anything like the inflationary expectations implied by the feared return to the "wage-price spiral" of the 1970s. And even that begs the question of whether union officials have power to translate those expectations into actual wage growth. The failure of wage growth in Australia to pick up, despite both historically low unemployment rates and accelerating inflation, confirms that workers do not have institutional power at present to win faster wage growth solely on the basis of their expectations.

Figure 33



Inflation and the Distribution of Income

While Australia's inflation has been slower than that of the U.S. and most other OECD nations, the recent increase has been strong enough for commentators to wonder if this is the start of a new period of ongoing above-average-inflation. The conventional understanding of inflation, and what to do about it, depends on whether it is being pushed by rising costs, or pulled by increased demand. A common but trite stereotype says that inflation is caused by too much money chasing too few goods. But that begs the question of whether aggregate spending power is genuinely excessive (ie. the economy is running hot), or whether the supply of goods and services has decreased or become fundamentally more costly to produce (ie. there are supply constraints). Alternatively, it must also be asked whether firms are taking advantage of the situation, and pushing up prices more than necessary in order to increase their profits. Some insights into the nature of present inflation, and the best response to it, can be gleaned by examining how recent inflation patterns have affected the distribution of national income between workers and businesses. If inflation was truly caused by empowered workers in a too-hot labour market driving up wages, then real wages and unit labour costs should be increasing, and workers' share of overall output and income should grow. That was indeed the case in Australia during the inflation of the 1970s. If that is not happening, then the blame for current inflation should be sought elsewhere – and policy responses amended accordingly.

INFLATION AND WAGES

Ever since the 1970s when inflation rose sharply off the back of the OPEC oil crisis, and real wages for a time grew much faster than productivity, a common assumption in media and policy circles in Australia has been that wages cause inflation.¹¹ This argument, embodied in long-standing complaints about a "wages overhang," has become so axiomatic in public discourse that it is almost stated without reproach – even when evidence for it is clearly lacking.

An example of the power of this traditional stereotype was provided in May of this year during the federal election campaign. The then-Leader of the Opposition, Anthony Albanese, expressed support for a minimum wage increase of 5.1%, so that

¹¹ For example, Murdoch (2008), Caldwell (2010), and Metherell (2011).

the minimum wage would keep up with inflation at that time (thus preserving real incomes for the lowest-paid workers). Media coverage quickly defaulted to the standard frightening conclusion: "Employers warn Labor's 5pc pay rise will crush business," (Tillett et.al 2022) read the headlines. Even this this increase (which in the end was set at 5.2% by the Fair Work Commission) turned out to be lower than the previous year's rate of inflation (since inflation picked up to 6.1% by June), and much lower than expected inflation to the end of the 2022-23 financial year. It would still leave the real minimum wage about 2% below where it was in September 2021. The outrage from conventional wisdom about Mr. Albanese's modest proposal – that wages should at least keep up with inflation – demonstrates a lack of understanding that wages in fact have had nothing to do with recent inflation.¹² Real unit labour costs (measuring the ratio between real wage growth and productivity growth) in 2022 are actually 6% below where they were prior to the pandemic, further confirming that workers are the victims of this inflation – not its cause.

Figure 34



Indeed, given that the consumer price index grew faster than the wages price index for 8 consecutive quarters to June 2022, it would be rather perverse to argue the wages have driven inflation. But the argument that wage growth needs to be below inflation in order not to be inflationary is faulty on other grounds, as well. In fact, wages should rise *faster* than inflation, so that real wages keep pace with productivity growth and the labour share of total GDP is preserved. Failure to keep up with inflation, absent any

¹² As it turned out, the exaggerated attacks on Mr. Albanese backfired: exit polling shows that 83% of voters (including 79% of Coalition supporters) agreed with the proposition that wages should keep up with inflation; see Raynes (2022).

government subsidies or tax cuts, means that workers' standard of living will fall. Real wages – the value of wages after adjusting for inflation – measures the ability of workers to purchase goods and services with their incomes.

In the current situation, with prices rising faster than wages for an extended period of time, the real purchasing power of wages is falling. So quickly has it fallen in just the 12 months to June 2022, that average real wages were 3.3% below their June 2021 level (Figure 35). In effect workers' average purchasing power was back to where it was in June 2012. It has fallen even further since.

Figure 35



The reason wages are able to grow faster than inflation without causing inflation is because of productivity growth. Labour productivity measures the amount of real output produced per unit of labour time (an hour, a week, or a year). If workers can produce more real output in an hour for their employers, that means they can earn more per hour (in real, inflation-adjusted terms) with no change in the amount of labour cost built into each unit of output. There would be no pressure on the business to raise the price of their goods to maintain profit margins, and the total amount of profits would also rise thanks to the improvement in labour productivity. So not only should wages be keeping up with inflation: they should actually grow a little bit faster than inflation, so that real wages reflect the ongoing improvements in labour productivity.

Of course, productivity is tricky to measure, and can fluctuate from one quarter to the next. Australian productivity growth has been relatively strong since the reopening

after COVID lockdowns.¹³ Difficulties of measurement aside,¹⁴ ongoing productivity growth notionally means that wages can (and should) rise faster than inflation without themselves being inflationary. While the hourly cost of labour may thus rise, so too does hourly output. The labour cost built into each unit of production (the relevant indicator for firms' pricing decisions) does not rise, and thus neither should prices. Only if nominal wage growth was greater than the sum of inflation and productivity growth could it be claimed that wages were causing an acceleration of unit labour costs – and hence, presumably, inflation (on assumption that company mark-ups are stable).This connection was clearly presented by the Governor of the Reserve Bank, Philip Lowe, in explaining to the House Economic Committee that nominal wages should grow faster than his Bank's inflation target. He noted in 2019:

"In the medium term, I think wages in Australia should be increasing at three point something. The reason I say that is that we are trying to deliver an average rate of inflation of 2½ per cent. I'm hoping labour productivity growth is at least one per cent—and I'm hoping we can do better than that—but 2½ plus one equals 3½."(SCE 2019)

The problem is that while the relationship between real wages and labour productivity is commonly assumed in economic theory, it is not a given in real-world practice (see Figure 36). Wage rises depend on the ability of workers to negotiate better pay; the relationship is more honours in the breech than the observance. Since the turn of the century, there has been no time when sustained wages growth was faster than the sum of inflation and productivity, and hence that wages could be seen as driving inflation. And over the past three COVID-disrupted years, not only have wages not grown faster than inflation and productivity combined – they have actually grown by less than inflation alone. Unit labour costs have thus been growing slower than both actual and target inflation, suggesting that wages are actually *reducing* inflationary pressures in the economy.

¹³ See Stanford (2022) for evidence.

¹⁴ A good explainer on these problems can be found in Richardson (2022).



The strongest evidence that labour costs are not driving inflation comes from national accounts data, which reports measures of real labour costs across the economy. In the past year alone, real unit labour costs have fallen 2.6% – and are now 6% below prepandemic levels. This corresponds to a further decline in the labour share of GDP, which fell to all-time record lows in 2022. It is thus irrefutable that current inflation is not being driven by wage rises or increased labour costs.

Recent analysis from the Australia Institute has also confirmed that labour costs have played an insignificant role in explaining recent inflation. Higher nominal wage payouts explain roughly 15% of the increase in the GDP deflator in the current inflationary period, while profits account for around 60% (Richardson et al 2022).

INFLATION AND PROFITS

Indeed, while the impact of wages on inflation is often discussed, the impact of profits on prices is rarely even mentioned. One exception was the Bureau of Statistics' acknowledgment, noted on the release of its March 2022 national accounts report, that "Australian businesses benefitted from rising prices" (ABS 2022). The data indicated that mining company profits rose 14.7%, and that "the share of national income going to profits was a record high of 31.1%."

Another aspect of this issue also often overlooked in the discussion of wages, inflation and productivity is an unstated, inherent belief that profits should never decline. If the cost of wages or inputs rise, it is not axiomatic that prices must rise by an equal proportion, as well. It is not written in stone that profit margins – already at all-time record highs – must be fully protected by pass-through of all higher costs to consumers. A reduced profit is not a loss, and yet the typical response to wages growth or an increase of input costs is an automatic assumption that end prices must rise to accommodate all those rising costs of production while fully preserving the profit margin. This assumption, however, ignores that the share of profits has widened dramatically over time.

As of the June 2022 national accounts, for example, profits had grown over the previous 12 months by 28.5%, compared to a 6.8% increase in total wages. In the 12 months to June 2022, real unit labour costs have fallen 6.4%, while real unit profits (ie the level of profits per unit of output) had increased 13.1% (Figure 39). Even if we were to exclude the mining sector from profit growth, as some business groups suggest (presumably because recent profits in that sector are somehow "abnormal"), the rise in non-mining profits is still 9.4% – not only well above wages growth, but also inflation. However, given the importance of the mining industry within Australia's economy, arbitrarily excluding its profits from a discussion of national income distribution is rather absurd. Mining industry profits been greatly outpacing wages in that sector for 5 years now, indicating that current super-profits are hardly a one-off abnormality. Moreover, excluding this most profitable sector from a discussion of profits and wages fairness would be like looking at a sporting league and suggesting the evidence shows all teams have an equal chance of winning – so long as we exclude the team that has won the title every year for the past 20 years.

The evidence is clear that profits are increasing much faster than both labour costs and overall inflation. This suggests that the greatest driver of inflation is firms being willing and able to increase their prices, far above what is "explained" by simply the growth of labour or other input costs.



INPUT AND IMPORT PRICES

As noted above, Australia is not alone in facing rising inflation. Supply constraints brought on by restrictions during the pandemic and changes in consumer demand (from goods to services), as well as the impact of the Russian invasion of Ukraine, have seen the prices of many basic commodities sharply increase. The world average crude oil price rose 63% in the 12 months to June 2022, while coffee prices rose 42%, sunflower oil rose 45%, the type of wheat typically used in bread rose 61%, cotton prices rose 63%, and fertilizer input prices rose 85%.¹⁵ Many of these commodities are vital inputs for the production of many other goods and services, and their prices have increased notably faster than the prices for imported consumption or capital goods (Figure 38).

¹⁵ All prices calculated from the World Bank "Pink Sheet"



The impact of rising world prices is also visible in the CPI figures. Tradable goods, which are those "whose prices are largely determined on the world market" (ABS 2021), make up 36% of the total weight of all items in the CPI basket, but they accounted for 47% of the increase in the overall price level in the first 6 months of 2022. In recent decades, the prices of tradable goods and services have generally increased more slowly than the prices of items that are not subject to world market price pressures (Figure 39).¹⁶ But in the 12 months to June 2022, the price of tradable items rose 8.0%, compared to 5.3% for non-tradable items.

¹⁶ Slower inflation for tradable products results from the impact of global competition on business pricing, more rapid productivity improvements for many tradable products than for services, and the expansion of imports from low-cost manufacturing countries (such as China).



One consequence of the surge in prices for tradable (largely imported) products is that interest rate rises have negligible impact on the world price of items – except to the extent they affect the exchange rate. Efforts to use monetary policy to reduce inflation may thus have little impact on the main drivers of recent inflation. Higher interest rates will certainly reduce economic activity and restrain wages growth, and hence may cause offsetting price weakness in other parts of the economy (offsetting some of the impact of tradables inflation). But high interest rates certainly do not directly address the main causes of recent inflation.

During the pandemic, the Reserve Bank governor famously stated that the Bank would only increase interest rates once wages were growing at a level that would sustain inflation growth of between 2% to 3% (Lowe, 2021). This would normally require wages to be growing by at least 3.5% to 4% annually (given the impact of productivity growth in reducing unit labour costs, discussed above). However, the Bank began to hike the cash rate when wages growth was still well below 3%. Wage growth in the 12 months to June 2022 was still just 2.6%: barely matching the RBA target, even *before* adjusting for productivity growth. Higher interest rates will inevitably reduce domestic economic activity, and in turn further undermine the conditions that allow for stronger wages growth.

Conclusion

The combination of stimulus measures during the pandemic, lockdowns and border restrictions, and global supply chain disruptions have created a perfect storm for rising prices. Disposable household income increased: due to income support payments, initially reduced mortgage repayments (when interest rates were cut to near zero), and an inability to spend money during the lockdowns. This meant savings built up quickly. Similarly, low interest rates combined with fiscal policy designed to bolster the housing market (such as the previous government's targeted subsidies for home construction) drove up property prices, inducing a wealth effect that further stimulated consumer spending by some households. The shift in consumption from services to goods meant that in the goods sector of the economy, it seemed like a massive boom in demand was occurring (even though overall consumer spending was not yet back to pre-COVID trends). Combined with the supply problems caused by the pandemic, and the energy price shock from the war in Ukraine, this caused a breakout of price pressures across the board.

Thus, the current level of inflation reflects a combination of demand and supply issues, most of which are directly linked to the pandemic, and hence largely temporary in nature. However, despite low levels of unemployment and reasonably strong employment growth, the demand-driven component of inflation is clearly not coming from increased wages. Wages growth remains below inflation, and the CPI has now outpaced the wage price index for 8 straight quarters (the longest such stretch ever; see Figure 40). This period has thus seen real wages decline by 5.3% in that time.





The rising rate of inflation has been accompanied by record levels of profits, contrasting with a large decrease in living standards – especially for lower income households which allocate more of their spending on essential items.

The current inflation thus does not appear to represent a structural shift; it is, rather, a reaction to a highly unusual confluence of events. But this does not mean that it has been without pain, or should be discounted in wage negotiations. Even if the rate of inflation declines as expected in the next two years, the need to repair the damage done to real wages will remain. That will require a significant period of wages rising faster than inflation – and even faster than the sum of inflation and productivity growth (in order to rebuild labour's share of GDP, and reduce historically fat profit margins).

Over the past thirty years, Australia's inflation targeting system has contributed to a certain degree of price stability (although it is now clear that some of that "success" reflects factors, such as falling unit labour costs and growing low-cost imports from China, that had no direct relationship to monetary policy). That period has also seen a reduction of workers' share of national income, as real wages lagged far behind productivity growth. The fear of inflation has motivated monetary policy, and much of fiscal policy, for several decades now in Australia, but this fear has been mostly expressed as a fear of rising wages rather than rising profits. This recent spike in inflation has revealed that wages have been long suppressed; when prices do quickly increase, the cost to workers is felt much more directly than it is to employers.

This review of the history, dimensions, causes and consequences of inflation in Australia has revealed several empirical realities, that should be kept in mind by policymakers as they devise responses to the current inflationary episode. These include the following:

- 4. Inflation targeting in Australia since 1993 has not been "neutral". Inflation missed the target from below, far more often than from above. This includes an unprecedented period of almost six straight years (from 2014 through 2020) when below-target inflation elicited virtually no response at all from the RBA in contrast to its fast, powerful interventions now that inflation is exceeding its target. Moreover, that period of inflation targeting (especially below-target inflation) was associated with a massive transfer of income and economic power from workers to businesses. As the Commonwealth government undertakes its review of the RBA's mandate and operations, these broad political-economic dimensions of monetary policy must be considered carefully. Monetary policy has not been a technocratic exercise, intended to maximise public welfare in a general sense. It clearly reflects, and continues to reflect, value judgments and priorities placed on how the costs and benefits of inflation management are distributed across society.
- 5. There is no evidence at all that a tight labour market, rising wages, or labour costs more generally have anything to do with the surge in inflation since the COVID pandemic. To the contrary, the evidence is clear that wages have had a dampening impact on inflation in this period: with nominal unit labour costs rising much more slowly than actual or target inflation, and real unit labour costs (and the labour share of GDP) falling to their lowest point ever. Recent inflation is clearly associated with a further expansion of business profits in Australia, to their highest share ever. Attacking inflation by aiming deliberately to increase unemployment and restrain wage growth even further, is a "blame-the-victim" policy that will only make workers pay even more for a problem they clearly did not create.
- 6. The current surge of inflation reflects a "perfect storm" of unique factors (mostly global in nature) sparked by the COVID pandemic: which has been, after all, the most dramatic and painful event in the world economy since WWII. Initially, the global policy response to this unprecedented shock was powerful and successful. The fact that deeper and longer-lasting declines in output, employment, and income were not experienced is testament to the success of fiscal, monetary, and social policy actions including those in Australia. It should hardly be surprising that after-shocks from those events will be felt for some time, and the surge in global inflation is clearly one of them. Responding to this unique and unprecedented challenge by simply reciting a monetary playbook formulated in a fundamentally different era (the inflation of the 1970s, when real wages and the

labour share of GDP were *growing*, not falling) is not just inappropriate. It will, if pursued, lead to a painful and unnecessary global recession that will almost certainly engulf Australia, too. Indeed, in many parts of the world that recession has already started, and it will exacerbate the tensions and fragilities (including threats to democracy itself) that were also worsened by the pandemic.

In sum, Australian policy-makers need to study more thoroughly the history of inflation, its true causes, and the consequences (intended and unintended) of one-sided policy responses to it. Learning from that history will be essential to not repeating it – or even worse.

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