



RESERVE BANK OF AUSTRALIA

Speech

Inflation, Productivity and the Future of Money

Philip Lowe [[*](#)]

Governor

Address to the Australian Strategic Business Forum 2022

Melbourne – 20 July 2022



Thank you for the invitation to take part in this year's Australian Strategic Business Forum. It is very good to be finally back in Melbourne.

This Forum is being held at a critical time. As a country, we face some significant challenges, but we have plenty of opportunities as well.

I would like to focus my remarks today on the challenge of bringing inflation back to target. This is an important priority for the RBA. And in the spirit of this Forum being about strategic issues, I would also like to briefly highlight two other strategic issues that are important to the Bank. The first of these is the need to lift productivity growth in Australia. And the second is the changing nature of money in our society.

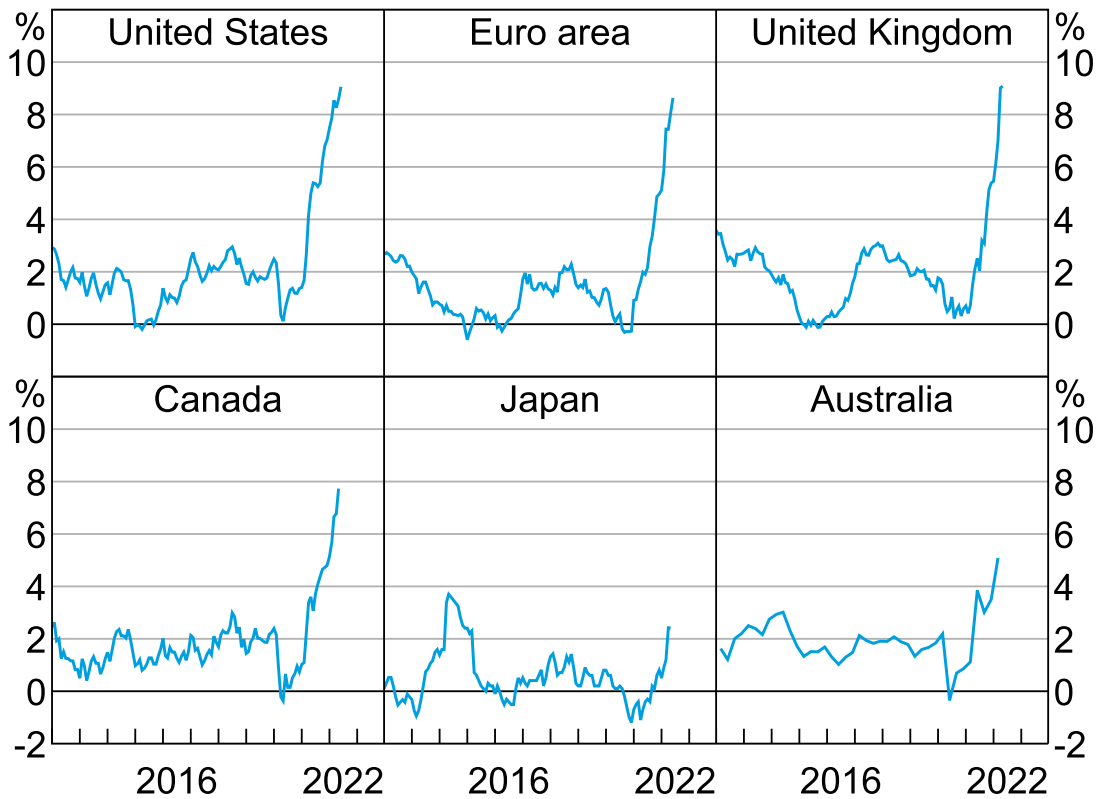
Inflation

After many years in which inflation was something that most people didn't think too much about, it is now a topic of everyday conversation. This is understandable as higher prices are putting pressure on people's budgets. In many countries, inflation is now running at its highest rate in decades. In the United States and most of Europe, inflation is close to 10 per cent (Graph 1); the last time that this was the case was in the early 1980s.

Graph 1

Headline Consumer Price Inflation

Year-ended



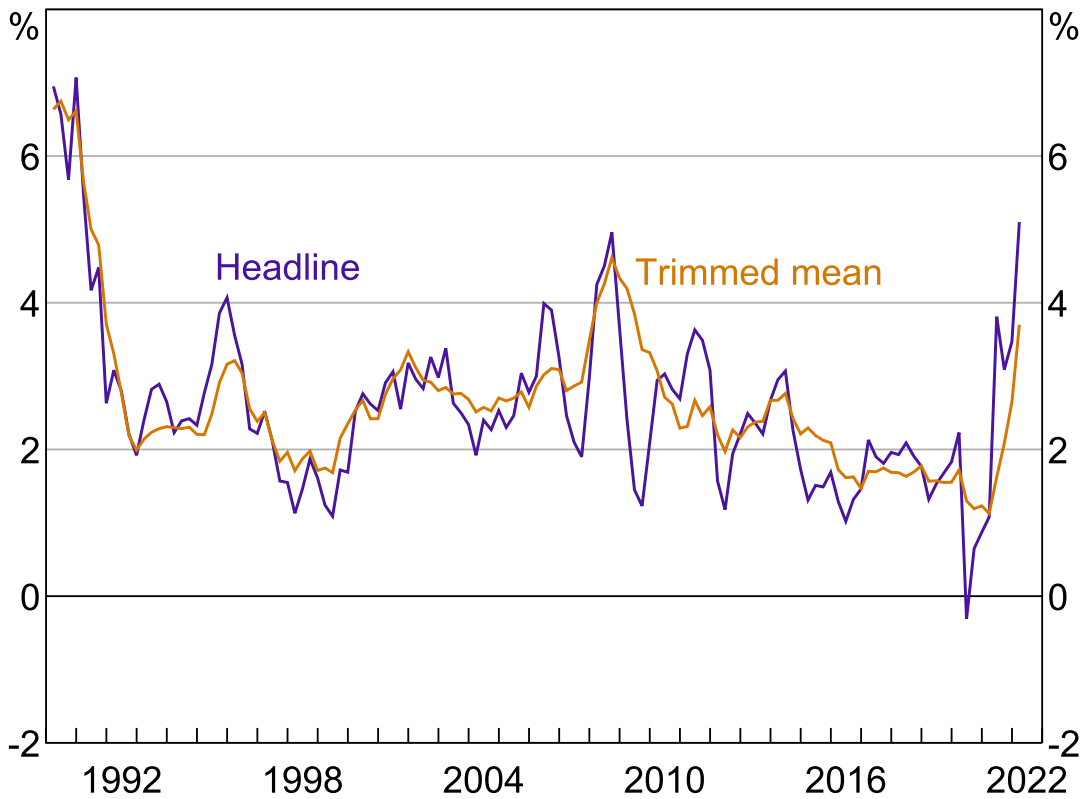
Sources: ABS; RBA; Refinitiv

In Australia, the latest available reading on CPI inflation is for the March quarter. It showed an inflation rate of 5.1 per cent. This was lower than in most other countries, but higher than it has been at any time since 1991 and higher than we were expecting (Graph 2). The CPI for the June quarter will be released next week and will show a further step-up in Australia's inflation rate. Another step-up is expected later this year. We will be publishing a full set of updated forecasts in the *Statement on Monetary Policy* in early August.

Graph 2

Consumer Price Inflation*

Year-ended



* Excludes interest charges prior to the September quarter of 1998; adjusted for the tax changes of 1999–2000.

Sources: ABS; RBA

The policy challenge for the RBA is to return inflation to the 2–3 per cent target range while, at the same time, keeping the economy on an even keel. We don't need to return inflation to target immediately, as we have long had, for good reasons, a flexible medium-term inflation target. But we do need to chart a credible path back to 2–3 per cent. We are seeking to do this in a way in which the economy continues to grow and unemployment remains low.

It is certainly possible to do this, but the path ahead is a narrow one and it is clouded in uncertainty. Global factors, including Russia's invasion of Ukraine, are one source of this uncertainty. And domestically, the path back to 2–3 per cent inflation will be shaped by how the general inflation psychology in Australia evolves and how Australians respond to higher interest rates. So these are some of the issues we will be watching carefully over the months ahead.

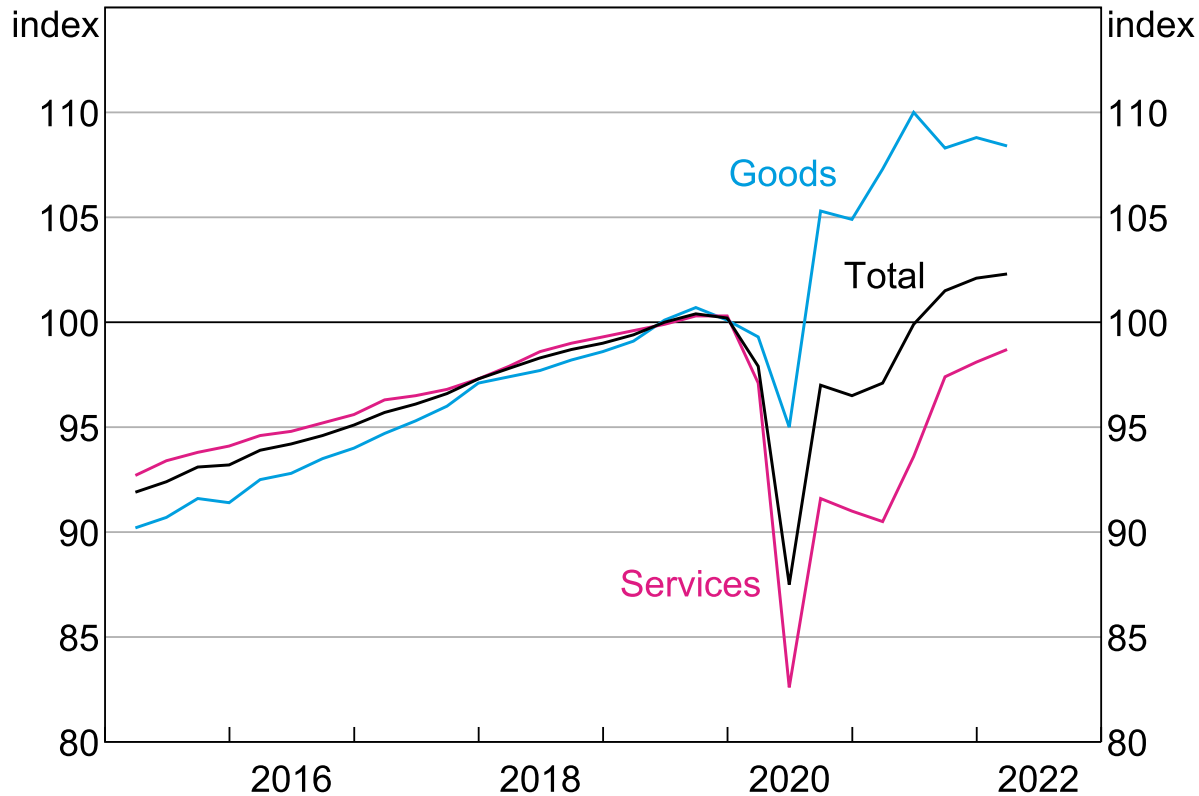
In charting the path back to 2–3 per cent inflation, it is useful to understand the origins of the current higher inflation. There are three factors that I would like to point to.

The first is the major interruptions to global supply chains that occurred alongside a surge in the demand for goods as people switched their spending from services to goods during the pandemic (Graph 3). Global supply chains are very long and any interruption anywhere in the chain causes ripples along the whole chain. The resulting disruptions have increased firms' costs and constrained

their ability to respond to the change in expenditure patterns. The result has been higher prices for goods in global markets.

Graph 3 Household Consumption

G7 economies, 2019 = 100



Sources: RBA; Refinitiv

The second factor is Russia's invasion of Ukraine, which has caused major disruptions to the global markets for energy and food. This has directly affected CPI inflation in all countries and there are now also second-round effects as higher energy costs feed into higher costs of transport and production.

The third factor is the surprising strength of demand in many economies. Household spending, in particular, recovered more quickly from the pandemic than was expected. This reflected the success of the vaccination campaigns in advanced economies and the unprecedented support to household finances from fiscal and monetary policies. This policy support meant that, as the health situation improved, households had the confidence and the ability to spend. The result has been strong growth in aggregate demand and the emergence of tight labour markets in many countries. This has contributed to the higher inflation we are now seeing.

Looking at this experience with hindsight, I can understand why some people might conclude that too much support was provided by governments and central banks. But it is important to remember the context in which this support was provided. At the time the decisions were made, the outlook was dire. In Australia, tens of thousands of people were expected to die, our hospitals were expected

to be overflowing, many people were expected to lose their jobs and deep social and economic scarring was anticipated. It was a very scary time.

In this environment, the RBA had a strong insurance mindset. Many other central banks and governments had a similar mindset.

In our case, we wanted to do what we could to provide insurance for Australians against the potentially catastrophic economic consequences of the pandemic. With the benefit of hindsight, it could be argued that we took out too much insurance. But that is the nature of insurance. If the event you were insuring against occurs, you are very glad you were fully insured. But if that event doesn't occur, you are left questioning your decision and wondering whether you could have saved some money.

Understandably, judgements will differ as to whether we over-insured or not. But in the highly uncertain environment of the time, the right policy choice was to err on the side of too much insurance, rather than too little insurance. I recognise though that while this approach meant we avoided some damaging long-term scarring, it has contributed to the inflationary pressures we are now experiencing.

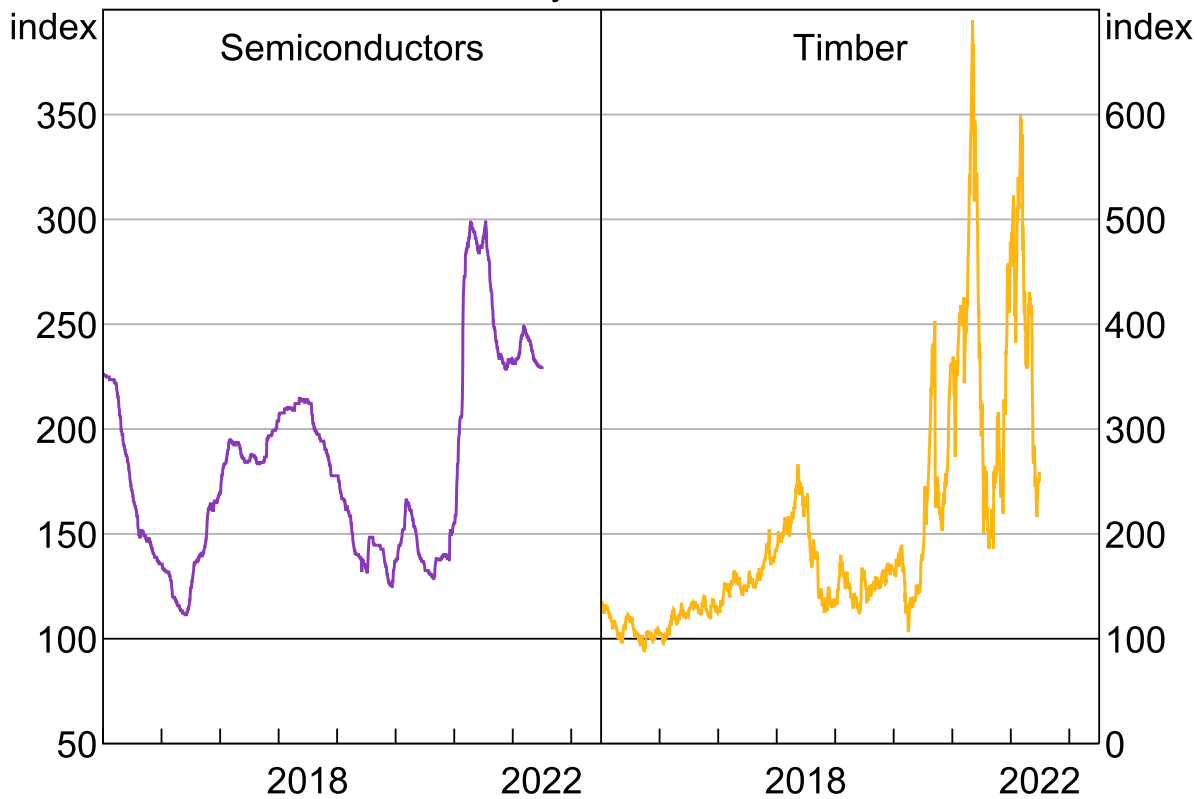
Looking forward, the path back to 2–3 per cent inflation requires an increase in supply and some moderation of demand.

In terms of the supply side, there is a reasonable basis to expect that COVID-related disruptions to global supply chains will ease further over the months ahead. Delivery times are improving and some supply bottlenecks are easing as firms adjust to the new operating environment. The effects of this and some rebalancing in consumer demand are now evident in some global markets, with declines in the global prices of products as diverse as computer chips and timber (Graph 4).

Graph 4

Global Input Prices

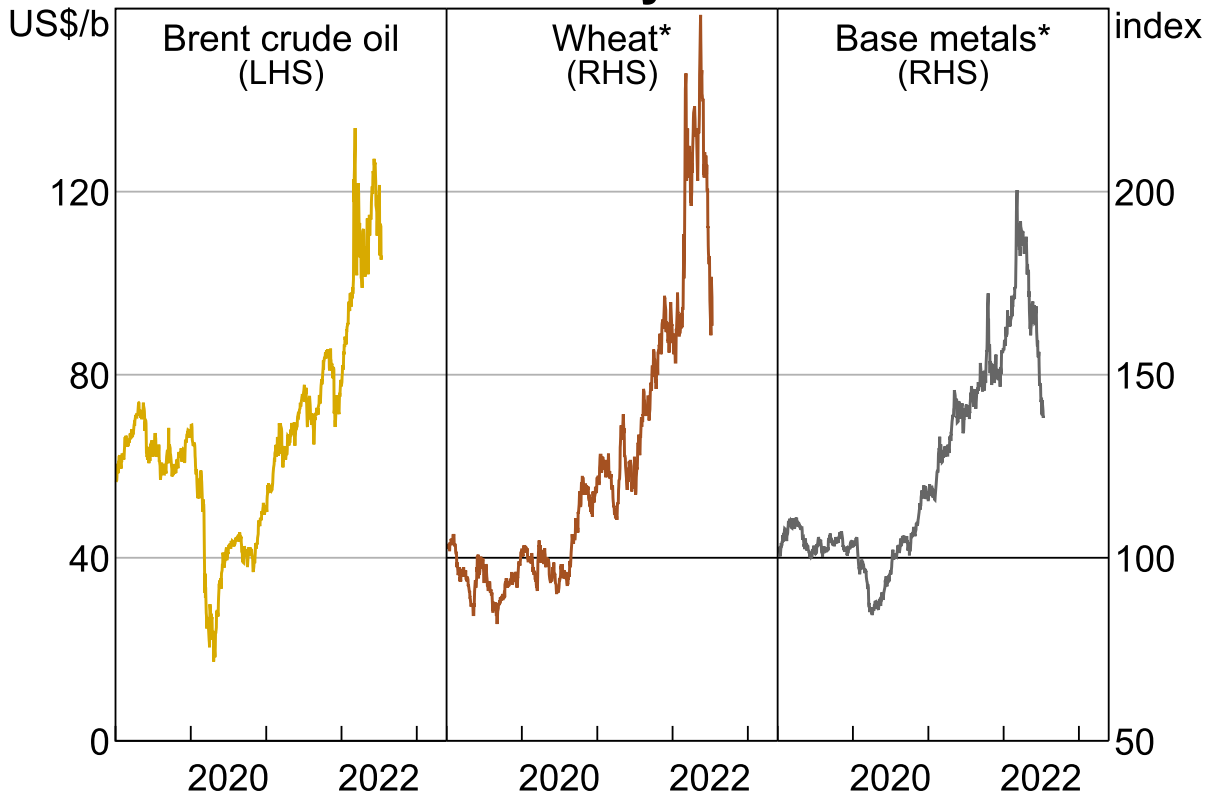
January 2012 = 100



Sources: Bloomberg; RBA; Refinitiv

More broadly, the prices of many commodities have also declined over the past few weeks, after the sharp increases following Russia's invasion of Ukraine. Oil and wheat prices have fallen recently as have the prices of a number of base metals (Graph 5). These declines reflect increased concerns about the strength of the global economy and some easing of supply problems. If the lower prices are sustained, this will ease some of the current global inflation pressures. Even so, it remains possible that there will be further interruptions to global supply, once again pushing up prices; the European gas market is a particular area of concern here.

Graph 5

Commodity Prices

* January 2019 = 100.

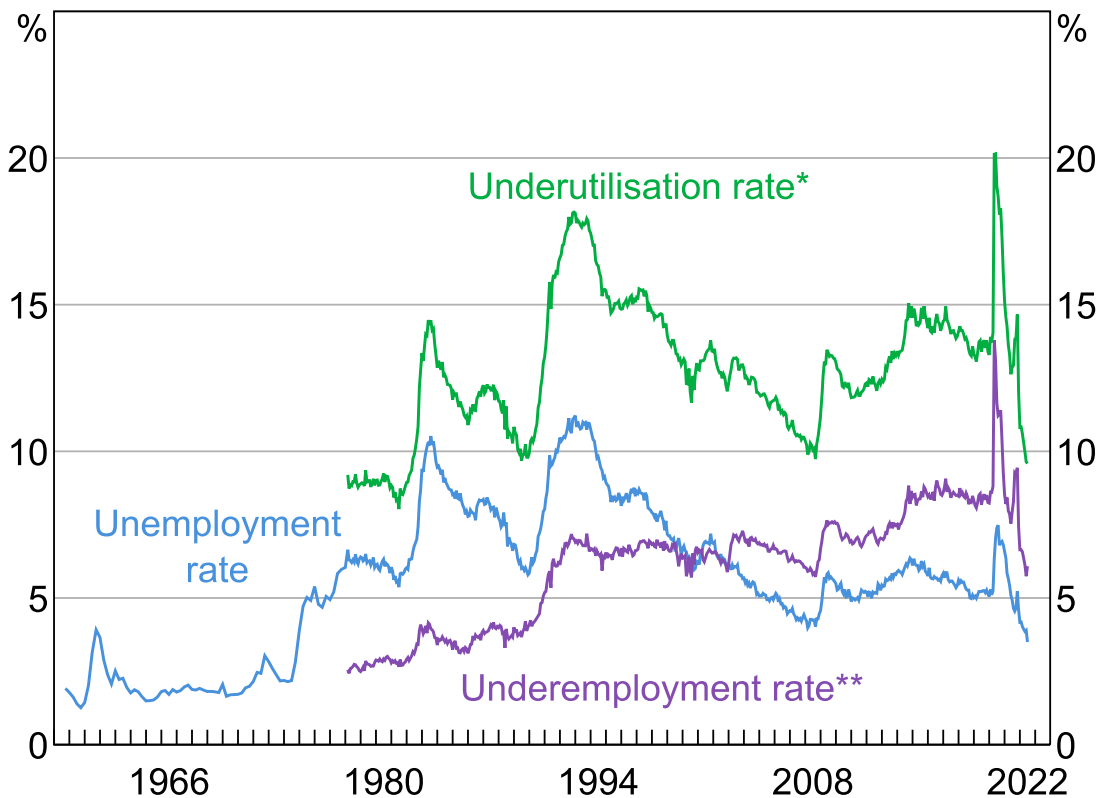
Sources: Bloomberg; RBA

On the domestic demand side, the economy has bounced back strongly from the Omicron setback in January. This is particularly evident in the labour market. Full-time employment is now around 7 per cent higher than its pre-pandemic level, and the unemployment rate has declined to 3.5 per cent – its lowest level in nearly 50 years (Graph 6). Underemployment has also declined in recent months and job vacancies are at historically high levels across most industries. This all suggests that the growth in demand in the Australian economy is pushing up against the capacity of the economy to meet that demand.

Graph 6

Labour Underutilisation

Per cent of labour force



* Sum of the unemployment and underemployment rates.

** Employed persons who would like and are available to work additional hours.

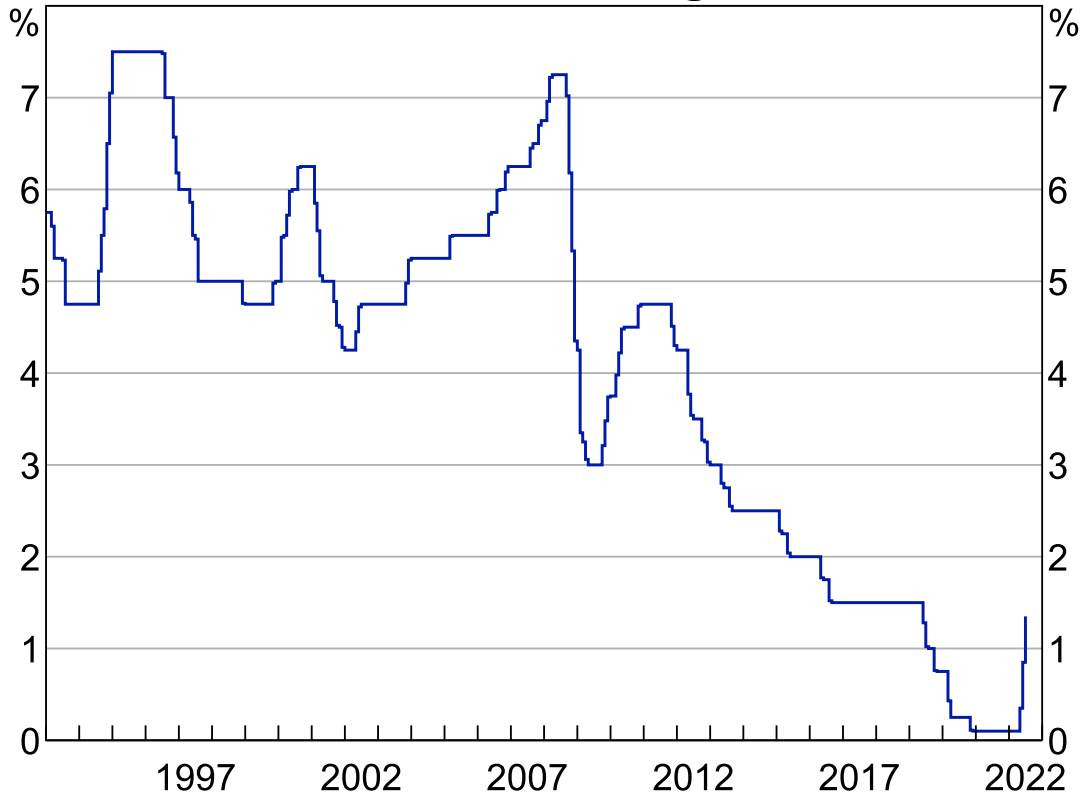
Source: ABS

For inflation to return to the 2–3 per cent target range, a more sustainable balance between demand and supply is needed. Higher interest rates will help achieve this through moderating growth in aggregate demand. With the COVID emergency now over, so too is the time for emergency settings of monetary policy. The RBA was patient in withdrawing the insurance that was put in place during the pandemic. We wanted to ensure a robust recovery and we were very aware that our main policy instrument – the cash rate – was at the effective lower bound. That robust recovery has taken place and the time for ultra-low interest rates is now behind us given that inflation is high and the labour market is very tight.

In light of this assessment, the Reserve Bank Board has increased the cash rate by 125 basis points over the past three meetings to 1.35 per cent and expects that further increases will be required over the months ahead (Graph 7). These increases will help establish a more sustainable balance between demand and supply in the Australian economy.

Graph 7

Cash Rate Target



Source: RBA

In considering the outlook for interest rates at its most recent meeting, the Board had an extended discussion of the neutral real interest rate.

The concept of the neutral real interest rate is a useful one – it is the real interest rate that is neither stimulatory nor contractionary. From a practical perspective, though, one of the challenges that we face is that the neutral real interest rate cannot be observed or measured directly. It must be estimated or inferred from other information. The staff at the RBA use a wide range of models and techniques to do this.

These models produce a range of estimates and the estimates change through time as more information becomes available. This means that there is considerable uncertainty around any particular estimate of the neutral real rate. Having said that, most approaches suggest that the neutral real rate for Australia is at least positive.

A related challenge is that the Board needs to translate any estimate of the neutral *real* rate into an estimate of the neutral *nominal* rate, as the Board sets the nominal cash rate, not the real cash rate. This translation requires an estimate of expected inflation. If we take the 2½ per cent midpoint of the inflation target as a reasonable estimate of medium-term inflation expectations, this suggests that the neutral nominal rate is at least 2½ per cent. It would be higher than this if medium-term inflation expectations were to shift higher.

I want to emphasise that the concept of the neutral rate is no more than one reference point for the Board. It is not the basis of a mechanical rule and we are not on a pre-set path to achieve any

specific level of the cash rate. Rather, the Board will continue to be guided by the incoming evidence and by its assessment of the outlook for inflation and the labour market. It is determined to do what is necessary to return inflation to 2–3 per cent.

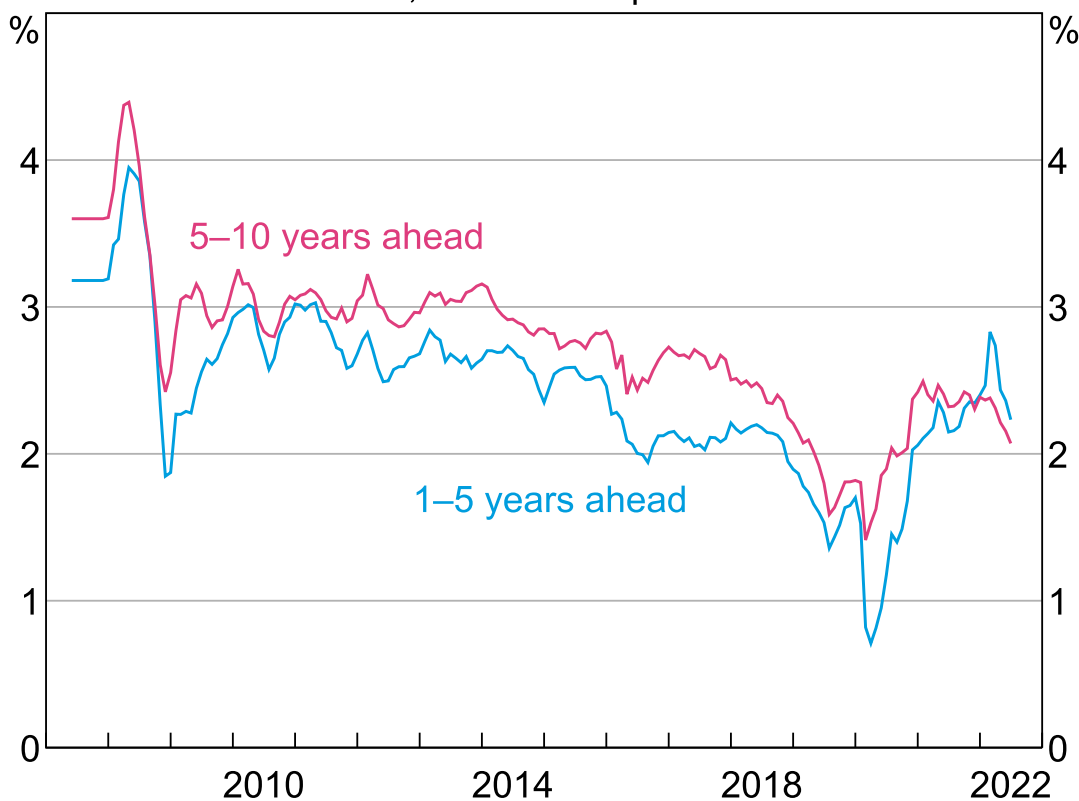
As I indicated earlier, an important consideration is how inflation expectations and the general inflation psychology in the community evolve. If inflation expectations shift up and businesses and workers come to expect higher rates of inflation on an ongoing basis, it will be harder to return inflation to target – doing so would require higher interest rates and a sharper slowing in spending. It is in our collective interest that this does not happen.

At the RBA, we track a wide range of measures of inflation expectations, including those derived from surveys and financial prices. These various measures paint the same general picture: higher inflation is expected for a short while, before declining back to target. As an example, the measure of inflation expectations derived from indexed swaps suggests a high degree of confidence in financial markets that the average inflation rate in Australia over the next 10 years will be 2 point something per cent (Graph 8). These swaps also suggest the same for the average inflation rate over the period between one and five years ahead, though inflation is expected to be higher over the coming year.

Graph 8

Inflation Expectations

Australia, inflation swaps measure



Sources: Bloomberg; RBA

This assessment by financial markets that inflation is expected to return to the target range is reassuring. But we are also paying close attention to the general inflation psychology of households and firms. If people setting prices and wages were to believe that higher inflation will persist, they

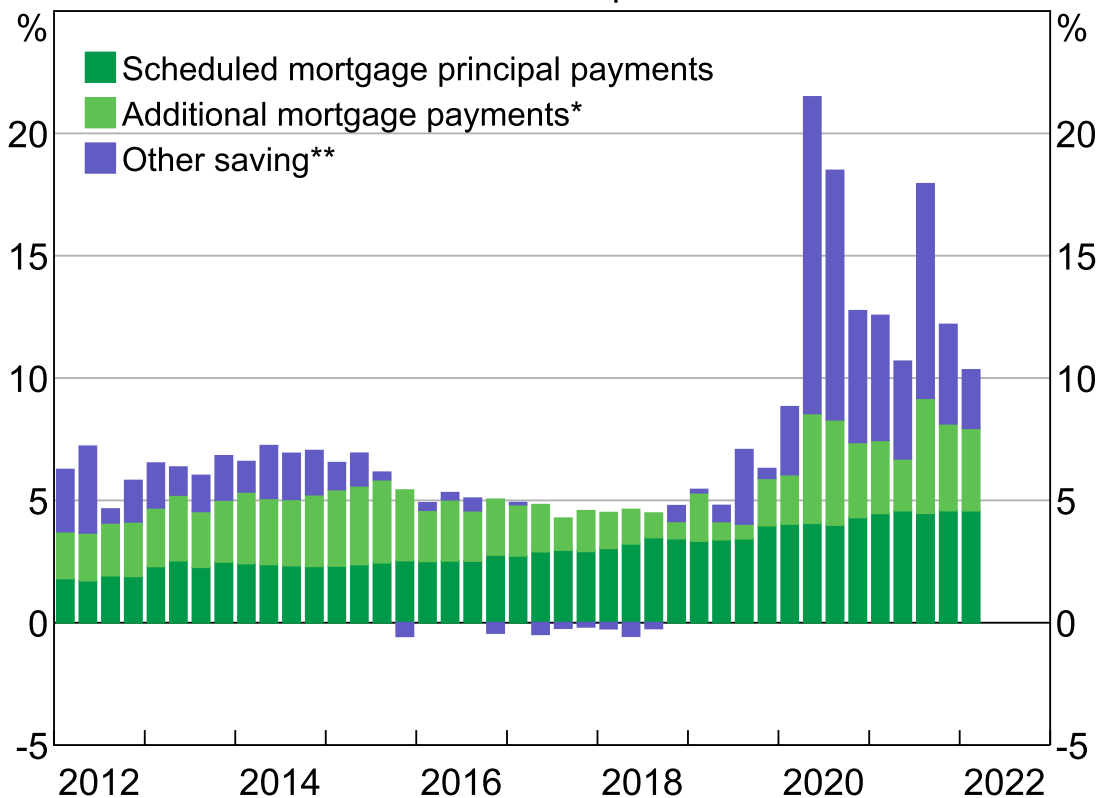
are more likely to push prices and wages up. This could result in a self-reinforcing cycle: one in which higher inflation leads to firms being more willing to put their prices up and agree to larger wage claims, which then perpetuates the higher rate of inflation, and the cycle repeats itself. This is what happened in the 1970s and it ended badly. There is little evidence of such a cycle at present and it is important that this remains the case. The RBA is committed to ensuring that the current period of higher inflation is only temporary and it will do what is necessary to bring inflation back to target. It will be harder to do this if the inflation psychology shifts.

The other general factor that will shape the path back to 2–3 per cent is how households respond to higher interest rates and prices. Household spending has so far been resilient, supported by household balance sheets that are generally in good shape and stronger income growth. The household saving rate is still higher than it was before the pandemic and many households have built up large financial buffers, including through payments into mortgage offset accounts (Graph 9). But as my colleague, Michele Bullock, discussed yesterday, not all households are alike. Recent borrowers and borrowers with lower incomes tend to have smaller buffers. It is also worth remembering that around two-thirds of households do not have a home loan. Another significant influence on household spending is housing prices, which are now declining in many markets after a large run up. So the situation is complex, with many moving parts, and the Board is monitoring it closely.

Graph 9

Household Saving Ratio

Share of household disposable income



* Sum of net flows into redraw and offset accounts.

** Net of depreciation.

Sources: ABS; APRA; RBA

I would now like to turn briefly to the two other strategic issues I mentioned at the outset.

Lifting productivity growth

The first of these is the need to lift productivity growth.

I raise this issue because many of the challenges we face together as a nation would be made easier by stronger growth in productivity. There is a limit to what can be achieved through management of aggregate demand. The supply side matters too, and increasingly so.

Stronger productivity growth means a bigger economic pie and higher living standards. It can also put downward pressure on prices and inflation. Further, strong productivity growth provides governments with a greater capability to fund the many services that the public values. And it is the only way to sustain stronger growth in real wages.

On the financial side, stronger productivity growth is likely to mean a higher neutral real interest rate and higher real asset values. So savers would receive higher returns and our aggregate wealth would increase.

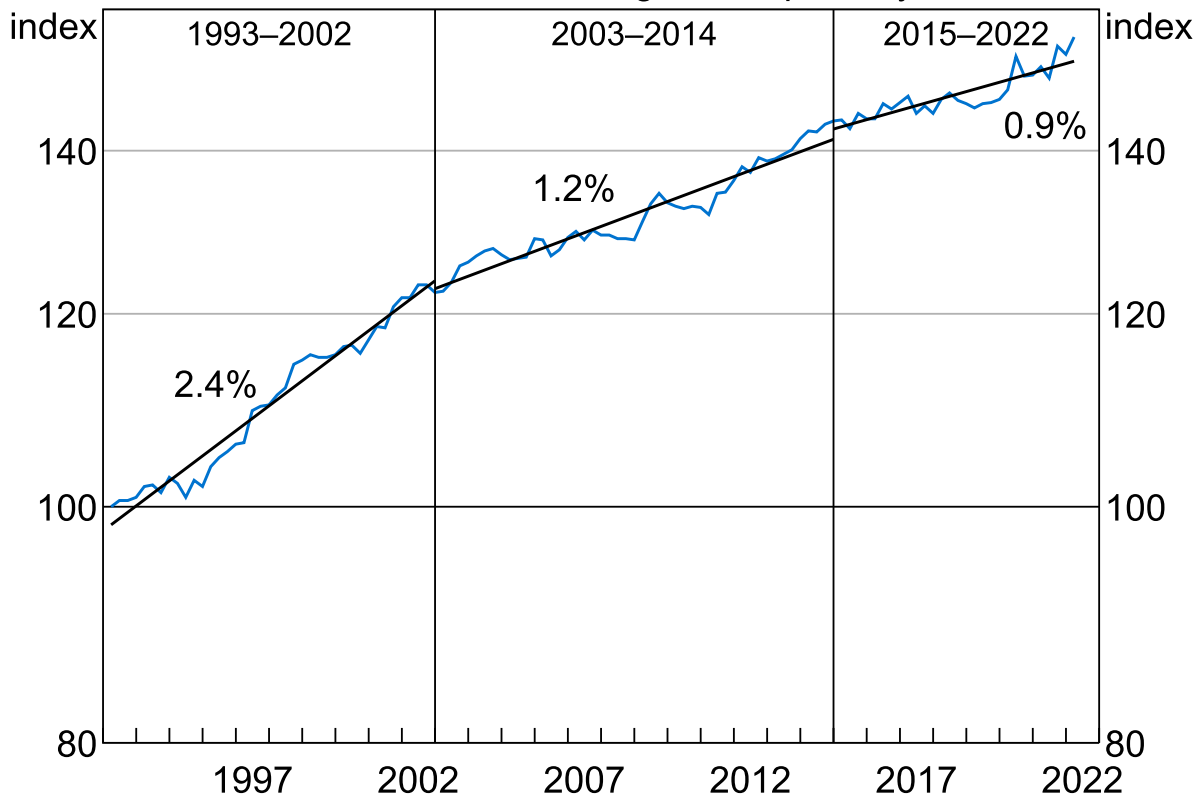
Recent trends in productivity growth have not been particularly encouraging, with average productivity growth slowing (Graph 10). Over the decade to 2014, labour productivity growth averaged 1.2 per cent per year; over recent years, it has been slower than this. In contrast, labour productivity growth was in excess of 2 per cent during much of the 1990s. A similar pattern is evident in many other advanced economies, and the underlying reasons are complex and not particularly well understood.

The strategic challenge for us as a nation is to do what we reasonably can to lift our productivity growth. The good news here is that there is no shortage of ideas on how to do this.

Graph 10

Labour Productivity*

March 1993 = 100, log scale, quarterly



* GDP per hour worked; black lines denote linear trend; labels show average annual growth.

Sources: ABS; RBA

The future of money

The other strategic issue that I want to highlight is the future of money and the nature of the monetary system.

A lesson from history is that what a society uses as money changes with technology. And once again, recent advances in technology are changing the nature of money. Most money these days is digital and is able to be moved around very quickly. In Australia, most people can now move money between bank accounts in less than 10 seconds any time of the day or the week – not the days that it used to take. And on the horizon is the possibility of programmable money, which contains self-executing code that triggers a payment when a specified condition is satisfied. Also on the horizon is the potential tokenisation of bank deposits, which could facilitate the tokenisation of other physical and financial assets. This, in turn, could unlock a wave of innovation and productivity growth across financial services.

A second lesson from history is that money works best when it is backed by the central bank or by the state. The backing by a central bank engenders trust, encourages widespread acceptance and provides stability in times of stress. In the past, privately backed money has all too often ended in losses for investors and financial instability. While I don't think of most of the crypto universe as money, the recent collapse of the 'TerraUSD stablecoin' serves as a reminder of this point.

The strategic issue here for central banks and governments is how to capitalise on the benefits of the new technologies and new forms of money, while at the same time preserving the stability and other benefits that come from a system underpinned by central banks. This is likely to require a strong regulatory regime to deal with payment stable coins and perhaps central banks issuing a form of digital currency. These are issues that we are working on with other regulators in Australia and other central banks, given their potential to reshape our financial systems.

Before I finish, I would like to welcome the announcement today by the Government of the details of the review of Australia's monetary policy arrangements and the Reserve Bank. The terms of reference are appropriate and the Government has appointed a first-class panel. The review is also welcomed by the Reserve Bank Board and the Bank's staff. It is an opportunity to take stock of our monetary policy arrangements and make sure that they are fit for purpose for the challenges ahead. We look forward to participating in this process and listening to and learning from others.

Thank you for listening today and I look forward to answering your questions.

Endnote

[*] I would like to thank Penny Smith and Ivan Roberts for assistance with this talk.

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