# 4. In Depth – Full Employment

## Summary

- **Full employment is a longstanding objective of monetary policy.** There are large financial and social costs when the economy operates away from full employment.
- **The Reserve Bank Board sets monetary policy to achieve its objectives of both price stability and full employment.** As agreed in the *Statement on the Conduct of Monetary Policy*, the RBA will regularly communicate its assessment of labour market conditions relative to full employment.
- **The Board aims to achieve the maximum level of employment consistent with low and stable inflation.** This complements the Government's broader objective to lift the level of employment that can be sustained over the longer term.
- **The RBA does not have a numerical target for full employment**, like it does for inflation. Full employment cannot be summarised by a single measure that can be observed directly. Full employment also changes over time as the structure of the economy evolves.
- **The RBA looks at a broad set of information to assess how close the labour market is to full employment**, including a range of labour market indicators and model-based estimates.

## 4.1 Full employment is an objective of monetary policy in Australia

### The RBA has objectives of price stability and full employment.

**The RBA has always had a mandate for full employment,** and the Board has historically set monetary policy to achieve both low and stable inflation and full employment. However, the 2023 Review of the RBA recommended that the 'dual mandate' be made more explicit. This has been adopted in the newly updated *Statement on the Conduct of Monetary Policy* agreed between the Reserve Bank Board and the Treasurer.[1]

### There are large financial and social costs when the economy operates away from full employment.

When someone cannot find work, or the hours of work they want, they suffer financially. Work can also provide people with a sense of purpose and help to foster mental and physical wellbeing. The costs of the economy operating away from full employment tend to be borne disproportionately by particular groups in the community, such as the young and people on lower incomes and with less wealth. The effects can be long-lasting – a spell of unemployment can reduce workers' earnings for several years afterwards and people who are unemployed for an extended period are more likely to leave the labour force altogether, so called 'hysteresis' or 'scarring effects'.[2] There are also broader economic and societal benefits from higher workforce involvement, such as an increased prospect of new, and more diverse, ideas being generated and greater social inclusion.

### The RBA will regularly communicate its assessment of spare capacity in the labour market and the economy.

The Board agreed in the *Statement on the Conduct of Monetary Policy* to regularly communicate its assessment of how conditions in the labour market stand relative to sustained full employment; this is set out in Chapter 2: Economic Conditions. Alongside this assessment, the RBA will publish additional information on current economic conditions and forecasts to enhance the transparency of monetary policy, in line with the RBA Review recommendations and as agreed in the *Statement on the Conduct of Monetary Policy* (see Box B: Greater Transparency about Our Forecasts and Assumptions).

## 4.2 The role of monetary policy in achieving full employment

### The RBA aims to achieve the maximum level of employment consistent with low and stable inflation.

The RBA uses monetary policy to achieve a balance between demand and supply in the labour market and in the markets for goods and services. Monetary policy influences aggregate demand – that is, total spending on goods and services in the economy. A shortfall in aggregate demand relative to supply leads to a relative lack of demand for labour, more limited work opportunities and low wages growth, putting downward pressure on inflation. Conversely, if total spending is high relative to supply, inflation will typically rise above target, wage pressures will increase in the face of high vacancies and staff turnover, and firms may struggle to meet demand for their products. Additional spending beyond what is consistent with full employment increases inflationary pressure without a sustainable improvement in living standards, so at any given point in time there is a limit to the level of economic activity that can be sustained.

**The RBA and the Government's full employment objectives are complementary.** The RBA aims to achieve the maximum level of employment consistent with low and stable inflation by minimising economic cycles, which is consistent with the Government's short-term objective for the labour market. Over the longer term, the Government can also aim to influence the level of employment that can be sustained without creating inflationary pressure. The Government recently set out its inclusive full employment objective – that is, to broaden labour market opportunities and lift the level of employment that can be sustained over time. Monetary policy has little direct effect on labour supply or structural features of the job market, and so generally takes the current level of full employment as given.

### The RBA does not have a numerical target for full employment.

**Full employment cannot be observed directly or summarised by a single statistic. It also changes over time as the structure of the economy evolves.** Any individual indicator, such as the unemployment rate, provides only partial information on the state of the labour market, while model-based estimates provide a broad guide of how the labour market stands relative to full employment. Given these limitations, the RBA does not target a fixed level of full employment. The broad set of information that the RBA uses to assess how close the economy is to full employment is discussed below. This information, along with judgement, form important inputs into monetary policy decisions.

Price stability and full employment are closely intertwined objectives.

**In the long run, low and stable inflation is required for strong and sustainable employment growth** because it creates favourable conditions for households and businesses to make sound decisions about how to spend, save and invest. Over the short-to-medium term, the two monetary policy objectives are also often complementary; the policy response that returns inflation to target often also moves the labour market towards full employment. This tends to be the case when economic cycles are being driven by fluctuations in demand (employment and inflation rise and fall together). By acting to reduce the severity and duration of economic downturns, monetary policy may be able to limit the extent of more permanent effects on workers who may otherwise lose their jobs during these episodes. So despite having little direct effect on the level of full employment, monetary policy can contribute to stabilising employment around that level, thereby preventing costly scarring or hysteresis. And by slowing demand when it exceeds supply, monetary policy ensures that a strong labour market can be sustained without causing undue inflationary pressure in the economy.

**However, there can be a trade-off between the two objectives in the short-to-medium term when supply shocks are the dominant economic influence.** For example, an adverse supply shock such as disruptions to energy supply or natural disasters can cause inflation to rise above target at the same time as it reduces the demand for labour. When there is a trade-off, policy must strike a balance between maintaining employment against the costs of high inflation and the risk of it becoming entrenched. The RBA's mandate acknowledges this trade-off by requiring both inflation and employment to be considered. If inflation expectations are well anchored, a central bank is more able to look through an adverse supply shock – even those that take some time to resolve. But the longer inflation is above the target, the more likely it is that inflation expectations will drift higher. And if they do, it will require higher interest rates and unemployment to bring inflation back to target than otherwise. So, even when there are short-term trade-offs, over a longer horizon the two monetary policy objectives tend to align.

The complementarities and trade-offs of monetary policy objectives have been particularly evident over the past year or two. In mid-2022, demand was strong at a time when adverse supply shocks had reduced the capacity of domestic and international production and distribution networks. With inflation well above target and the labour market the tightest it had been in several decades, monetary policy was tightened to slow demand while the supply-side disruptions were being resolved. But the Board has sought to slow demand gradually, opting for a measured pace of returning inflation to the target range to preserve the employment gains of recent years in a sustainable manner.[3]

## 4.3 Assessing how close we are to full employment

Full employment is a moving target.

We cannot directly observe the level of full employment. But we know it grows with the population – as population growth adds to both supply of and demand for labour – and also varies over time due to structural changes in the labour market. For example, the ongoing increase in labour market participation, which has been driven by a structural increase in female participation, has been accommodated in a way that can be sustained over time; that is, demand has risen alongside supply. There are also a range of search and matching frictions, such as skills mismatches between vacant positions and jobseekers, that can change over time. Such frictions are a key reason why some

people are still unemployed, or lacking the hours of work they desire, when the labour market is at full employment. Determining the level of full employment is complicated by these underlying trends across a range of features of the labour market. Our primary focus is on assessing spare capacity in the labour market; that is, the short- to medium-term deviations of labour market conditions from full employment.

### We draw on a broad information set to assess labour market conditions.

**Full employment is best understood with reference to a suite of information rather than a single indicator.** The RBA draws on a wide range of information to form a comprehensive assessment of how close the labour market is to full employment. This information set is regularly included in the *Statement on Monetary Policy* and includes labour market data, survey measures, model-based estimates, and liaison with businesses. Research and views of academics, market economists, government agencies, international organisations and other central banks, alongside engagement with key stakeholders that represent the interests of workers and groups that typically find it harder to find employment, are also important inputs into this assessment.

Our overall assessment of labour market conditions relative to full employment is introduced in Chapter 2: Economic Conditions of this *Statement* and will be covered in the chapter regularly. Drawing on the broad set of information, the labour market is assessed as easing towards a more sustainable balance of demand and supply. An important aspect of this assessment is how we bring together various indicators and models into a useful format, which is detailed below. Each indicator and model provides only a partial view of labour market conditions – and additionally requires careful judgement to interpret – so it is important to consider the full range of information when making an assessment.

### A suite of indicators is used to assess the state of the labour market.

There are a wide range of economic indicators that capture different features of the labour market. These indicators can be broadly summarised into a few high-level (though often overlapping) categories:

- **Labour demand:** Indicators such as the number of job advertisements, job vacancies and liaison information on firms' employment intentions provide relatively timely information on changes in firms' labour demand and employment growth.
- **Labour supply:** Changes in labour force participation affect labour supply and can add to or reduce spare capacity. We try to distinguish the participation response to the economic cycle (such as people joining the labour force or being willing to work more hours when labour demand is strong) from longer run trends (such as the structural increase in female participation over recent decades).
- **Labour market spare capacity:** These are key indicators that help us assess the balance of demand and supply. We look at a range of measures to gauge labour market spare capacity (or conversely, labour market tightness):
  - *The unemployment rate has traditionally been a key measure of spare labour capacity.* However, structural trends in the labour market mean that the unemployment rate that is consistent with full employment changes over time. More detailed components of unemployment add to the picture of spare capacity. For example, medium-term unemployment tends to better reflect cyclical labour market conditions, while long-term unemployment is more related to structural factors. Youth employment also tends to respond more to cyclical conditions.

- *Broader measures, such as the underutilisation rate, are important for a full picture of labour market spare capacity.* In addition to unemployed workers, there are also workers who currently have jobs but would like to work more hours – the underemployed. To account for these workers, we look at the hours-based underutilisation rate, which captures the shortfall of hours worked due to both unemployment and underemployment. Like unemployment, underutilisation measures also have structural trends that need to be considered when interpreting the data.
- *Job opportunities and ability to change jobs also provide an indication of labour market tightness.* The number of vacancies relative to the number of unemployed people effectively captures the number of job opportunities for each person looking for work. An increase in this ratio generally indicates a tighter labour market. That could be due to higher labour demand leading to higher vacancies, or because of an increase in labour shortages or skill mismatches in the labour market. Rates of hiring, and voluntary and involuntary job separation can also help us understand changes in the overall amount of spare capacity, and the extent to which it is being driven by labour demand. Survey data that report the extent to which labour is a constraint on output for firms also provides an indication of tightness.

- **Price indicators of the overall balance of demand and supply in the labour market:** Related to labour market tightness, wages growth – in combination with productivity – provides insight into the balance of supply and demand in the labour market. Detailed wages data can also be useful to gauge the breadth of imbalance and whether particular sectors or occupations are tighter than others. Inflation outcomes are also informative in gauging the balance of demand and supply in the labour market and economy more broadly.

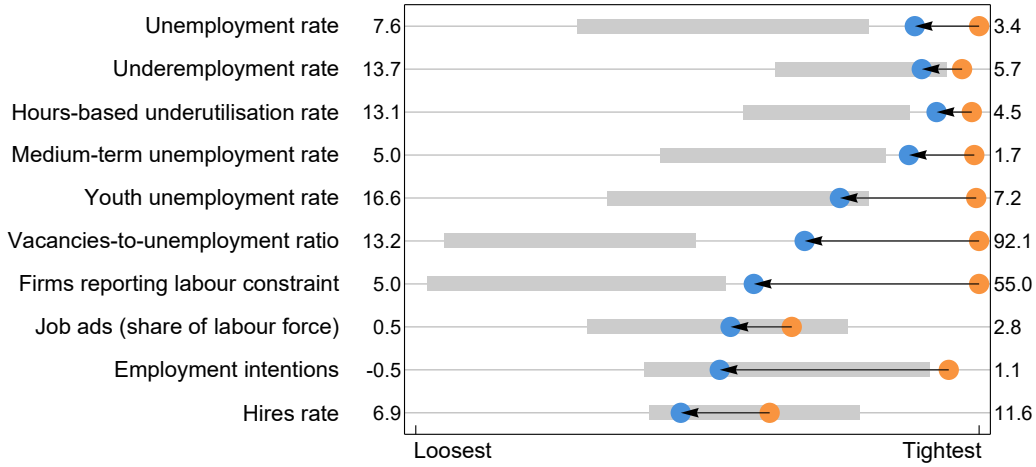
### Drawing together a range of labour market indicators provides a broad overview of spare capacity.

**Any single labour market indicator provides only a partial view of spare capacity in the labour market.** Looking at the pattern across a range of indicators can provide a more comprehensive picture. The history of each indicator provides some context for its current level. Graph 4.1 provides a visual summary of some of the key indicators.[4] It compares the latest observation of each indicator (blue dots) with the middle 80 per cent of observations since 2000 (grey bars). It suggests that the labour market remains tight but has eased relative to when the labour market was very tight in late 2022 (shown as orange dots). This easing is most evident in measures that tend to be leading indicators, such as firms' employment intentions and the number of vacancies per unemployed person. In practice, careful judgement is required when interpreting the graph because each indicator may have trended up or down over time, so the historical range may not be an accurate guide to the current full employment level.

**Graph 4.1**

**Full Employment Indicators***

Current conditions relative to 2000–2024 range




* Blue dots represent current outcomes, orange dots show outcomes at October 2022 and light grey shaded regions cover the middle 80 per cent of observations since 2000.

Sources: ABS; JSA; NAB; RBA.

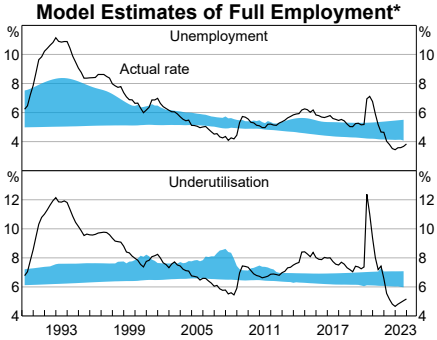
## We also use economic models to infer spare capacity.

**As part of the broad set of information, we maintain a suite of models that provide a range of estimates of spare capacity in the labour market.** Each model has its own strengths and weaknesses, and no model sufficiently captures all dimensions of labour market spare capacity. Using a suite captures a range of perspectives. The suite includes models developed within the RBA, as well as models developed externally and estimates from third parties, such as the OECD.

The models estimate what labour market outcomes would be consistent with full employment based on historical relationships and economic theory. These models primarily estimate the rate of unemployment or underutilisation that puts neither upward nor downward pressure on inflation or labour cost growth (incorporating a role for productivity growth).[5] The models impose structure on the data to infer estimates of spare capacity that are consistent with sustained full employment, which can vary over time to account for structural change. By comparing the range of central estimates of full employment from these models to actual unemployment or underutilisation, we get an indication of how conditions in the labour market stand relative to full employment (Graph 4.2).

**Graph 4.2**

**Model Estimates of Full Employment***




* Blue-shaded region shows illustrative range of central estimates from a selection of models; estimates are subject to substantial uncertainty, as well as revision due to data and model refinements.

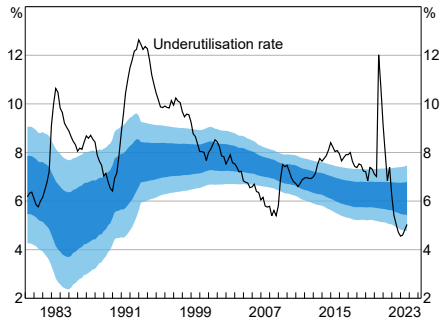
Sources: ABS; OECD; RBA; Ruberl et al (2021).

Each model estimate, however, is subject to considerable uncertainty that is not captured in Graph 4.2. For example, Graph 4.3 shows the range of uncertainty around one model of underutilisation that feeds into our suite. The wide range from this one model is typical of the range of uncertainty around the central estimate of other models. Model estimates also change over time as new data are incorporated. Over the past 20 years, for example, the estimated levels of unemployment and underutilisation consistent with full employment have drifted down in response to structural changes in the economy. However, this was less obvious at the time.

**Graph 4.3**

**Uncertainty around Model Estimates of Full Employment***

Per cent of labour force




* Shaded areas represent one and two standard error bands for smoothed estimates of a single model, accounting for filtering and parameter uncertainty.

Sources: ABS; RBA.

## Endnotes

[1] The Treasurer and the Reserve Bank Board (2023), Statement on the Conduct of Monetary Policy, 8 December.

[2] There has been increased interest in this aspect of the labour market in recent years. For a review, see Borland J (2020), 'Scarring Effects: A Review of Australian and International Literature', Australian Journal of Labour Economics, Volume 23, Number 2.

[3] Bullock M (2023), 'Monetary Policy in Australia: Complementarities and Trade-offs', 2023 Commonwealth Bank Global Markets Conference, Sydney, 24 October.

[4] This graph is also included in Chapter 2: Economic Conditions to complement the discussion on current employment conditions.

[5] Some models are based on the Phillips curve, which describes an inverse relationship between the unemployment rate and wage growth or inflation. However, other structures are also used, such as the Beveridge curve, which describes an inverse relationship between the unemployment rate and the vacancy rate.