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SEEK Economist Insight

Labour market efficiency – it's improved since COVID-19

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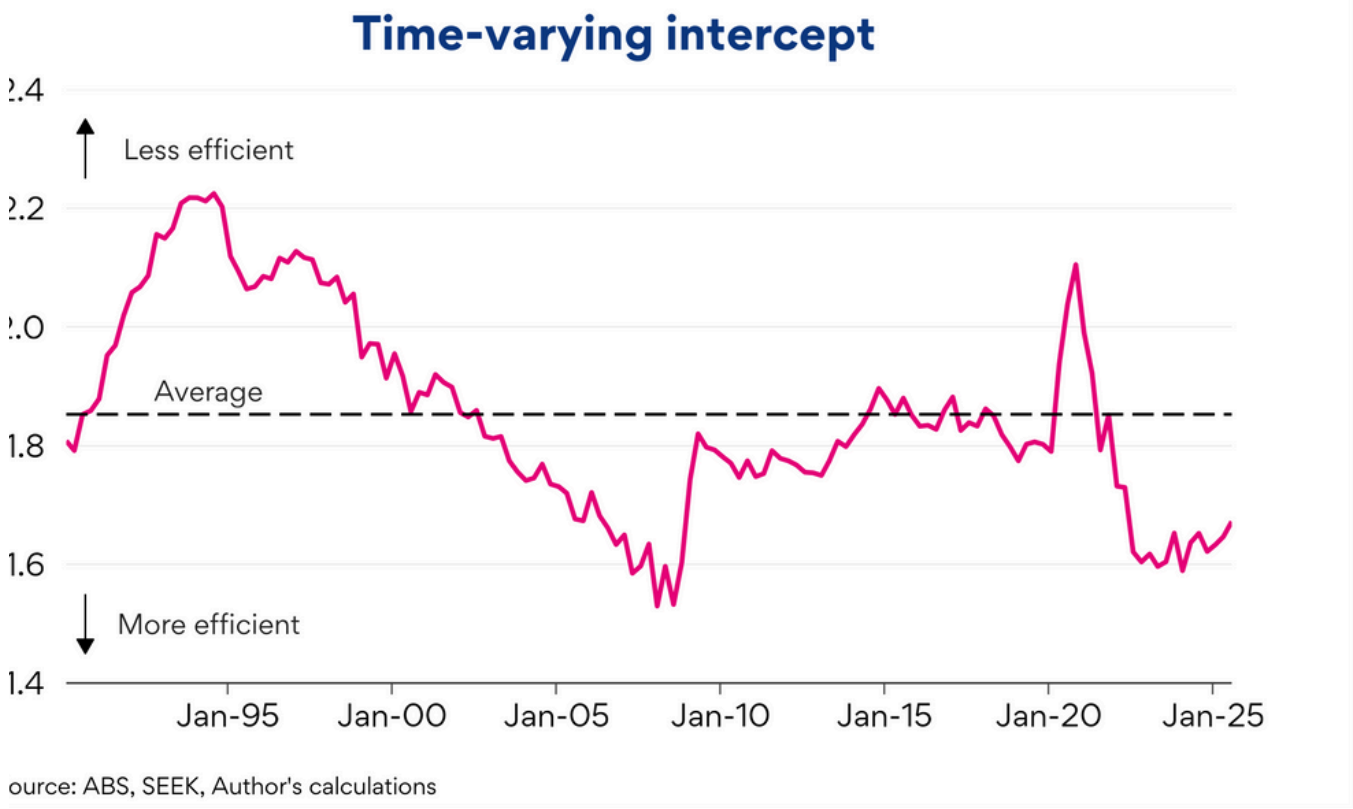
In Short

COVID-19 caused major disruption to the labour market but changes in the relationship between job vacancies and unemployment (the Beveridge curve) since 2021 suggest that the labour market has become more efficient.

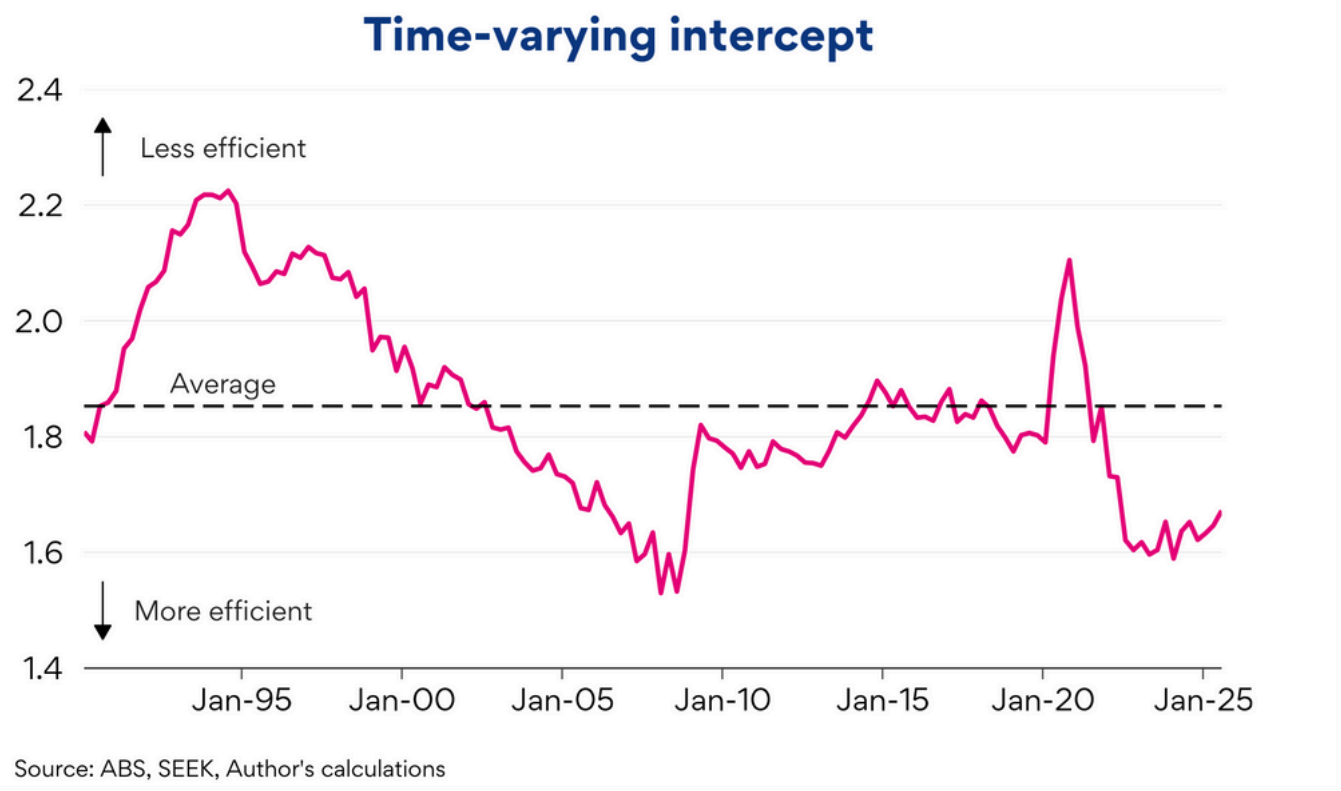


ource: ABS, SEEK, Author's calculations

Overview

An efficient labour market is important for an economy to function well. The ability for job seekers to find work relatively quickly and easily is important for their financial and personal wellbeing. Likewise, the ability for organisations to find the right staff quickly is important for their ability to invest in, sustain and grow their business. An efficient labour market is also likely to be more dynamic, with people moving to roles where they are the most productive and being compensated for this increased productivity.

Measuring the efficiency of the labour market can be difficult. In this Insight, I explore one way to examine the efficiency of the Australian labour market using the relationship between job vacancies and unemployment, known as the Beveridge curve. Changes in this relationship over time can tell us about how the efficiency of the labour market has changed.



Source: ABS, SEEK, Author's calculations

Over recent years, changes in the relationship suggest that COVID-19 and the related policy responses saw large swings in the efficiency of the labour market. Many people left jobs, or the labour market completely, and then had to find new jobs, while some of the typical pathways that employers use to increase their workforce were not available which contributed to a sharp decrease in the efficiency of the labour market. However, the subsequent tight labour market saw sharp movements in the labour market and an increase in efficiency.

"Currently the Beveridge curve suggests the labour market is more efficient than it has been on average over the past 35 years."

Currently the Beveridge curve suggests the labour market is more efficient than it has been on average over the past 35 years, although efficiency has declined slightly over the last year. This is in stark contrast to the early to mid 1990s, following "the recession we had to have", when the labour market was at its least efficient.

There are several possible reasons for the labour market being more efficient now, these include:

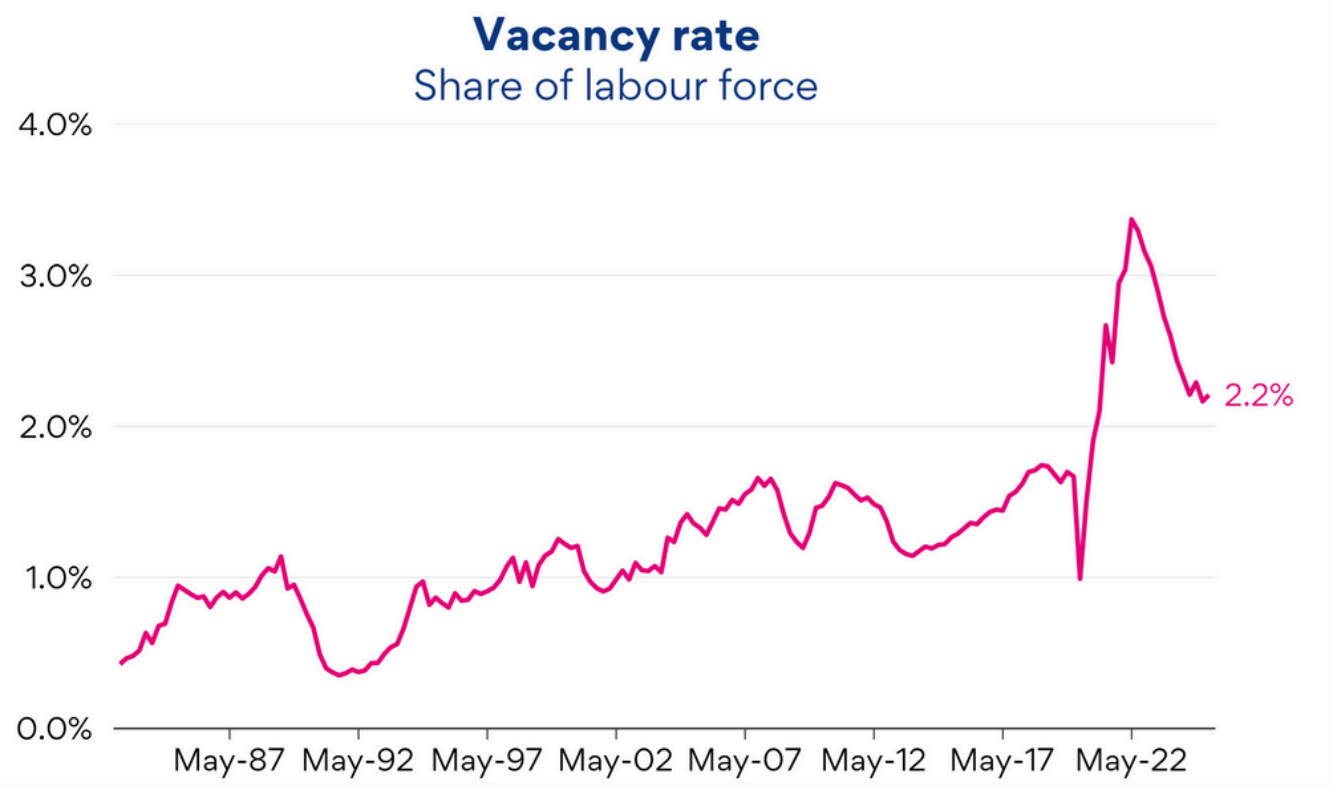
- an increase in the search effort of job seekers – potentially in response to cost-of-living pressures.
- an increase in the intensity with which hirers recruit – more detail on this here.
- a decline in the degree of mismatch between the skills of potential workers and the demand for those skills within the economy – there is currently less structural change in the economy, compared to the decline in car manufacturing in the early 1990s for example.
- an improvement in the technology bringing job seekers and hirers together – like an increase in the use of online job marketplaces and better use of technology behind those marketplaces.

The remainder of the insight explores job vacancies and unemployment in Australia, the relationship between them and how it has changed over time in more detail. It also touches on long-term unemployment and its relationship with labour market efficiency over time.

Job vacancies and unemployment

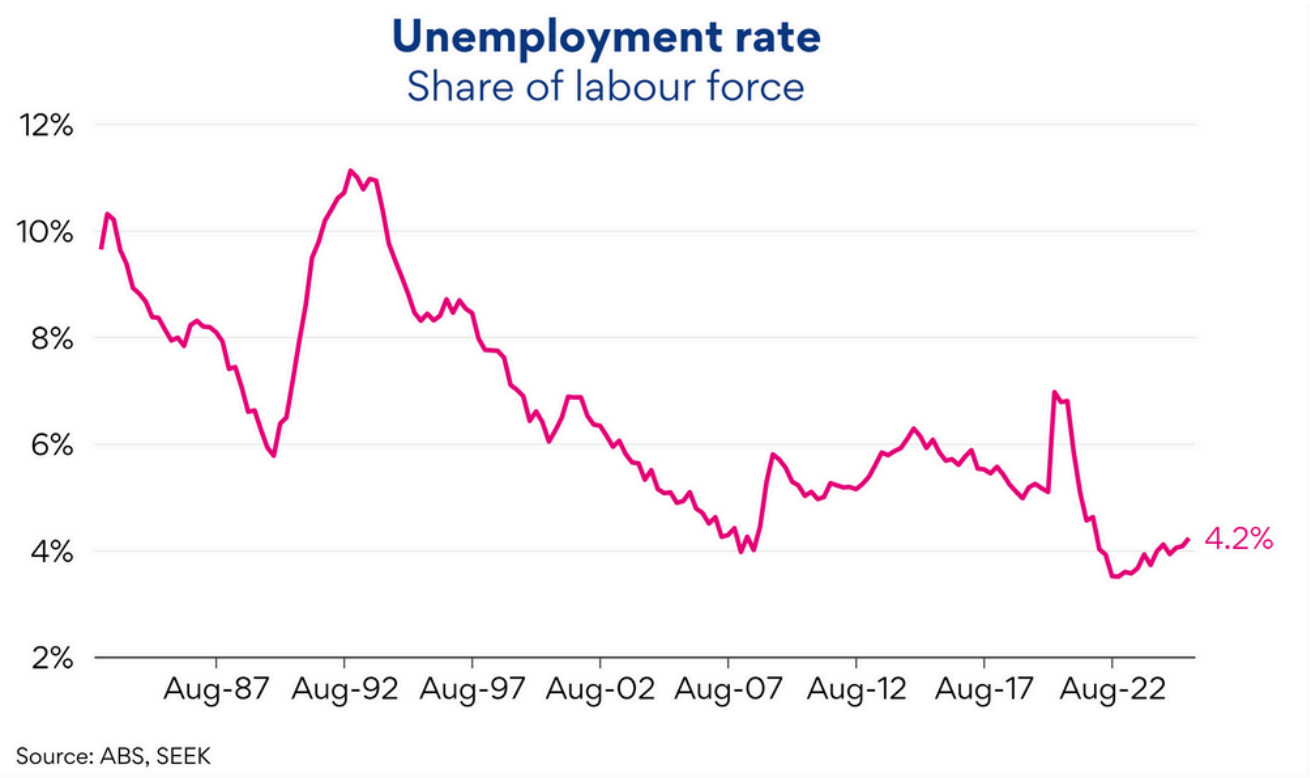
Job vacancies represent the number of open jobs in the economy; it is the number of open roles that an organisation reports having available to be filled immediately when asked by the Australian Bureau of Statistics (ABS) for their Job Vacancies Survey. The hirer must have taken some recruitment action, and the job must be available for external applicants. These open jobs may be full-time, part-time, casual or temporary.

The number of vacancies in an economy generally grows with the size of the economy as more businesses form and more people enter the labour market. Therefore, it is common to look at the vacancy rate, or the number of job vacancies as a share of the labour force, rather than the absolute number of vacancies.



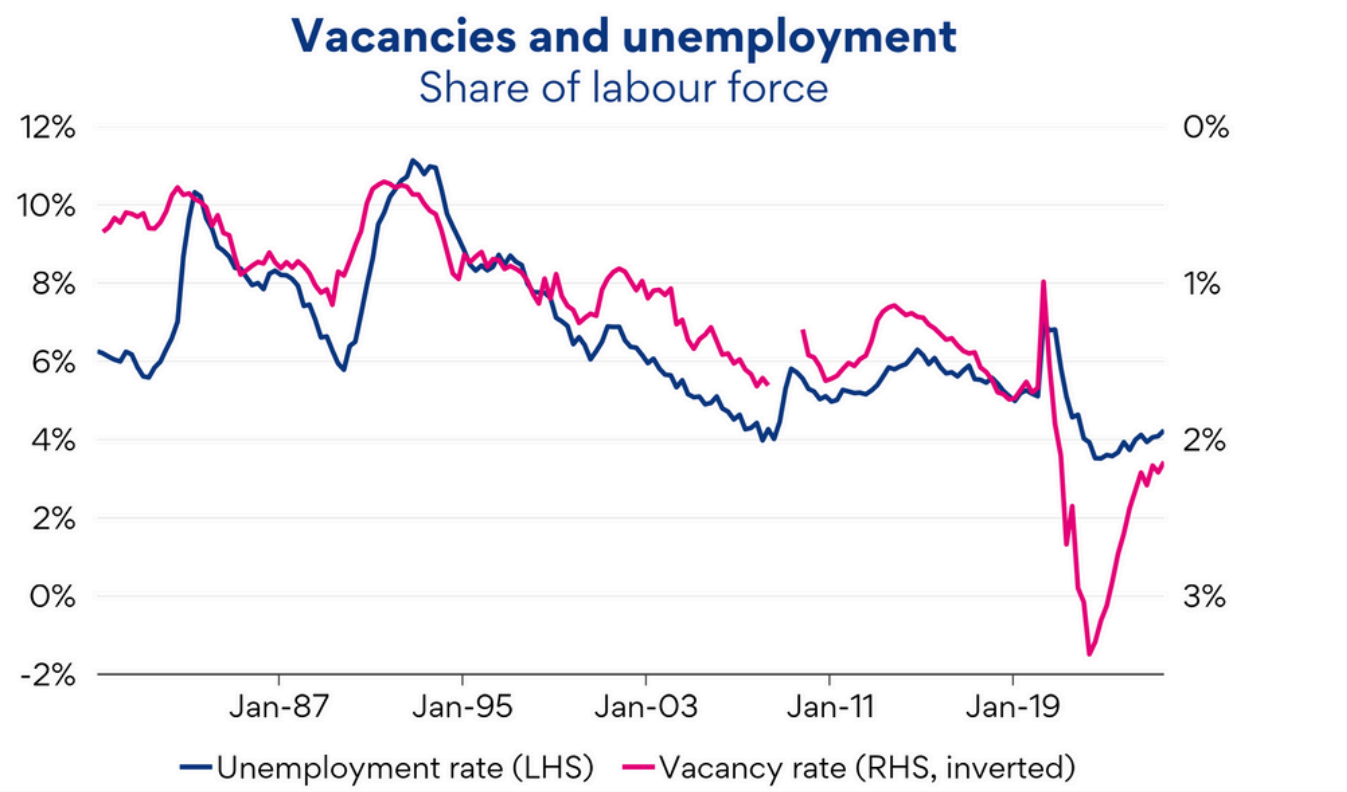
Note: The ABS Job Vacancies Survey was suspended between August 2008 to August 2009 (inclusive) but the data have been filled using data from TRYM.
Source: ABS, SEEK

Like the number of job vacancies, the number of unemployed tends to grow with the size of the labour market so economists also tend to look at the unemployment rate. May's unemployment rate of 4.1% represented 626,000 people searching for work in the month. In 1983 the same number of people searching for work would have resulted in an unemployment rate of around 8.9% because more than 8 million people have joined the labour market since 1983.



Introducing the Beveridge curve

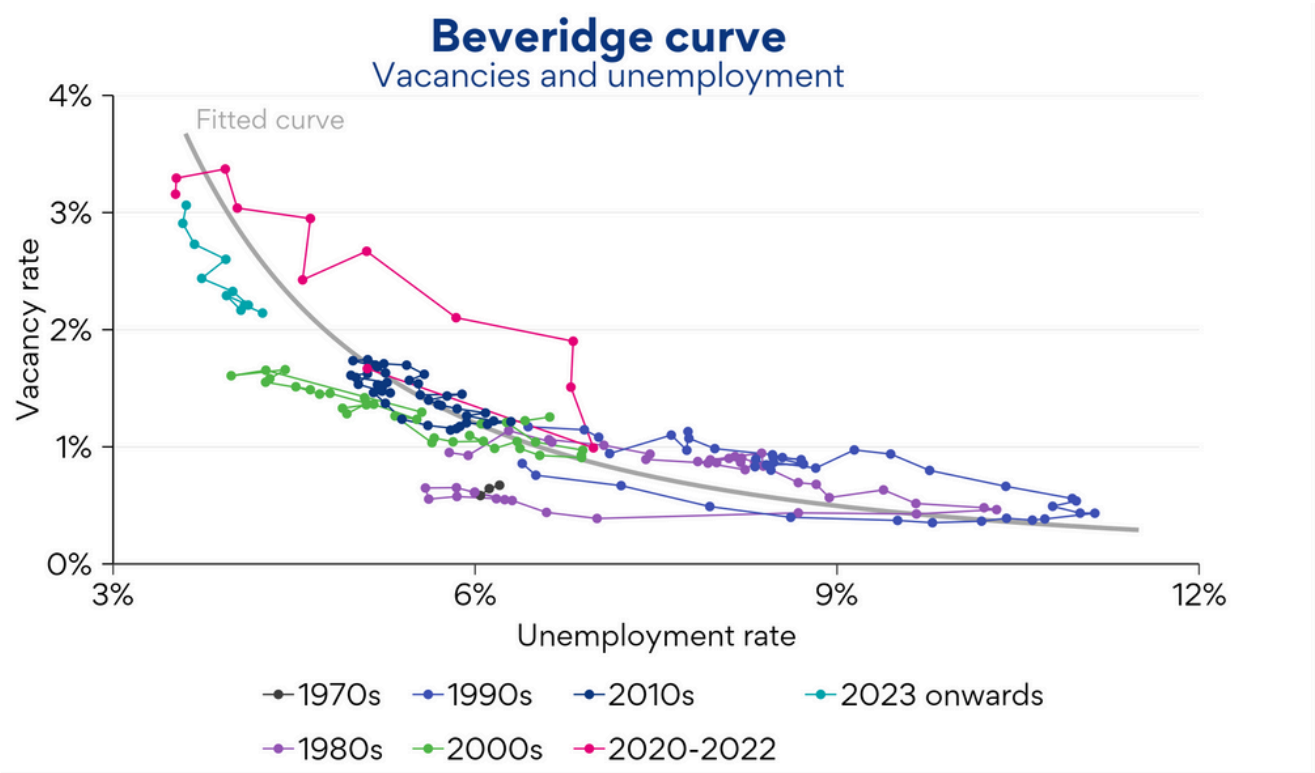
A relatively robust relationship between the vacancy rate and the unemployment rate has been found over time across several countries.[1] Over a business cycle the vacancy rate typically increases as the unemployment rate declines.



An increase in vacancies represents more available jobs to be filled which should lead to a decline in the unemployment rate as unemployed people fill these roles and exit unemployment. When the unemployment rate is low, vacant roles will be harder to fill with less potential employees to take the roles, and the number of vacancies is likely to increase as they remain open for longer. So, a low unemployment rate is associated with a high vacancy rate, while a high unemployment rate is associated with a low vacancy rate. This relationship has broadly played out over time in Australia.

[1] For example, Hobijn & Sahin (2013) estimate and document shifts in the Beveridge curves of 14 OECD countries, including Australia following the Global Financial Crisis. Similarly, Bova, Jalles, & Kolerus (2016) estimate and document shifts in Beveridge curves across 12 OECD countries from 2000Q1 and 2013Q4. Elsby, Michaels, & Ratner (2015) provide a discussion of much of the economic theory that underpins the Beveridge curve.

Economists call the relationship between the unemployment rate and the vacancy rate the Beveridge curve, and it is typically drawn on a plot of the vacancy rate against the unemployment rate. The Beveridge curve has been used to think about the labour market and inform economic theories for well over 80 years and it is embedded in the benchmark search and matching model of the labour market, as well as the many extensions of the benchmark model.[2]



Note: A single curve has been fitted between Feb 1991 and February 2025 using the ln-ln functional form.
Source: ABS, SEEK

[2] The benchmark search and matching model is also known as the Diamond, Mortensen and Pissarides model or DMP model for short. In the DMP model, the Beverage curve is a steady-state outcome where the unemployment rate is stable because the inflows from employment to unemployment are equal to the outflows from unemployment to employment.

Over shorter periods, movements are generally around a single curve with the vacancy rate increasing as the unemployment rate decreases. However, the Beveridge curve can shift periodically when the relationship between the unemployment rate and the vacancy rate changes.

Factors that change the rate at which people join or leave unemployment for employment can generate shifts in the Beveridge curve. These factors can generally be thought of as labour market features that affect the efficiency of matching between job openings and potential workers. For example, changes in the demographics of the population, industry composition of employment, the characteristics of the unemployed and the way individuals and firms find each other, or the matching technology, can all lead to shifts in the Beveridge curve.[3]

Has the Beveridge curve moved recently?

The vacancy rate increased sharply between May 2020 and May 2022, from 1% to 3.4%, while the unemployment rate declined, from 7% to 3.9%. However, since then the vacancy rate has declined to 2.3% without a corresponding increase in the unemployment rate, which was virtually unchanged at 3.9% between May 2022 and November 2024 (and has only ticked up slightly to 4.2%). The large change in the vacancy rate without a corresponding change in the unemployment rate suggests that the Beveridge curve may have shifted between the onset of COVID-19 and now.

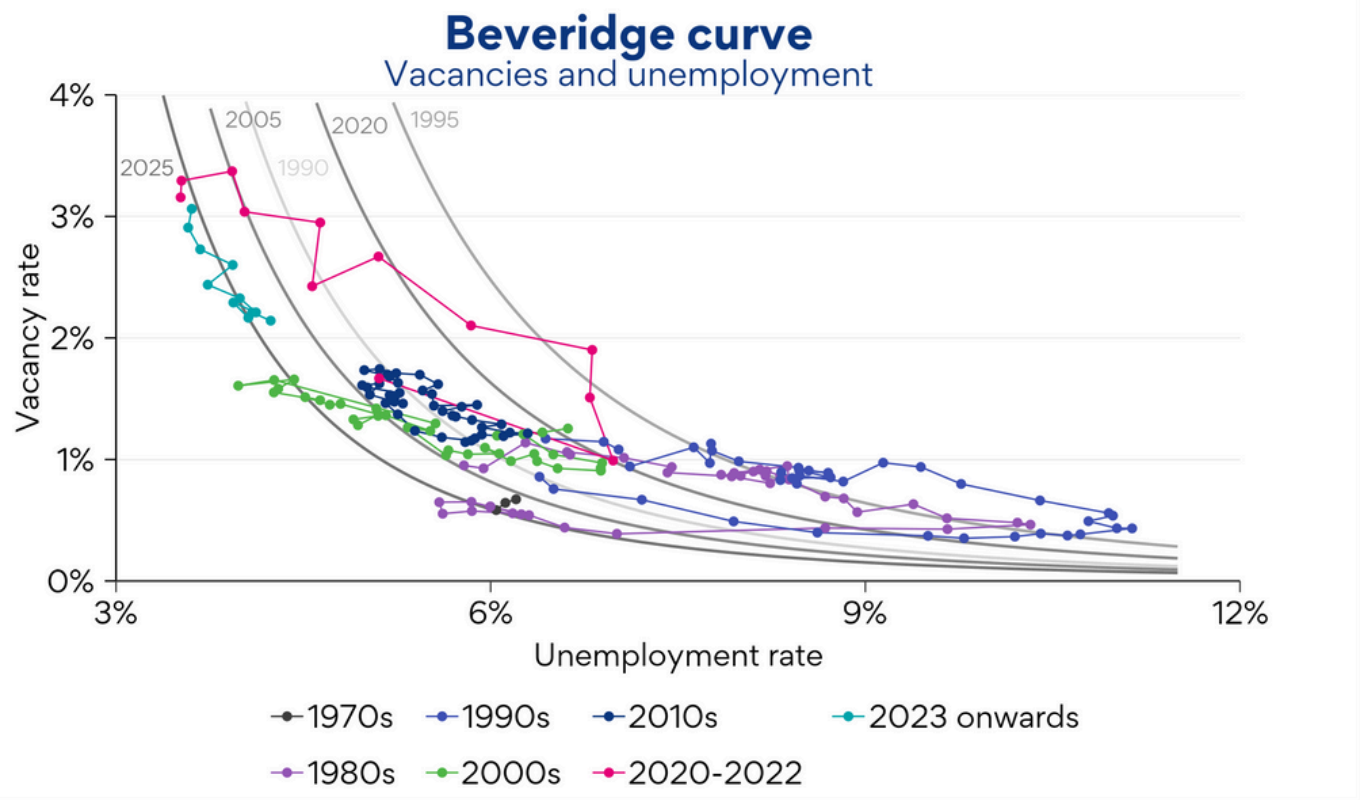
[3] Elsby, Michaels, & Ratner (2015) discuss in more detail the labour market features that affect the relationship between unemployment and vacancies.

Source: ABS, SEEK

One way to assess this possible shift is by undertaking analysis that allows the constant or intercept in the Beveridge curve relationship to vary over time (it is typically assumed to be fixed over time).[4] The results from this estimation indicate that the Beveridge curve was broadly sitting around its average position in 2019, with the estimated intercept only slightly below average. The estimated intercept jumps with the onset of COVID-19 before subsequently declining as the economy reopened.

The analysis implies that the Beveridge curve has shifted left or inwards towards the origin since 2020, when drawn on a plot of the vacancy rate against the unemployment rate. The estimated Beveridge curve is almost as far left as it has been between 1990 and now. Only in the late 2000s immediately before the Global Financial Crisis (GFC) was it estimated to be closer to the origin, which was unwound quickly with the onset of the GFC.

[4] One version of the Beveridge curve is: ,where is the intercept or constant term. Typically, it is assumed that the intercept is fixed over time The intercept broadly determines where the Beveridge curve is located, so allowing it to vary is equivalent to allowing the Beveridge curve to shift over time.



Note: Fitted curves estimated using a log-log specification of the Beveridge curve with the constant allowed to vary over time, with the sample beginning in 1990 and TRYM vacancy rates included. Source: ABS, Author's calculations.

Interpreting the Beveridge curve shift and its potential drivers

Inward shifts of the Beveridge curve are typically associated with improvements in the matching efficiency of the labour market, so the net inward movement since 2019 suggests that the labour market has become more efficient. Of course, the stay-at-home orders and border closures in 2020 disrupted the labour market immensely and caused it to be less efficient initially before it became more efficient.

Matching efficiency in an economy broadly depends on the search effort of job seekers, the intensity with which hirers recruit, the degree of mismatch between the skills of potential workers and the demand for those skills within the economy, and the underlying technology bringing job seekers and hirers together.

In a recent insight on recruitment intensity, I highlighted that several indicators suggested that hirers had increased their efforts to find workers following the reopening of the economy post-COVID. This should have increased the amount of matching occurring between firms and workers, contributing to the inward shift of the Beveridge curve.

Read the insight: The SEEK recruitment intensity signal

Over the long run, the ability of firms and workers to find each other has also been enhanced by the move to online job posting, which has greater reach and immediacy than newspaper ads of the past. More recently, employment marketplaces, like SEEK, have been working on increasing the relevance of recommendations sent to job seekers, encouraging them to apply to roles where they would be a strong candidate by explaining why they are a strong candidate and helping hirers understand which candidates best meet their role requirements.[5]

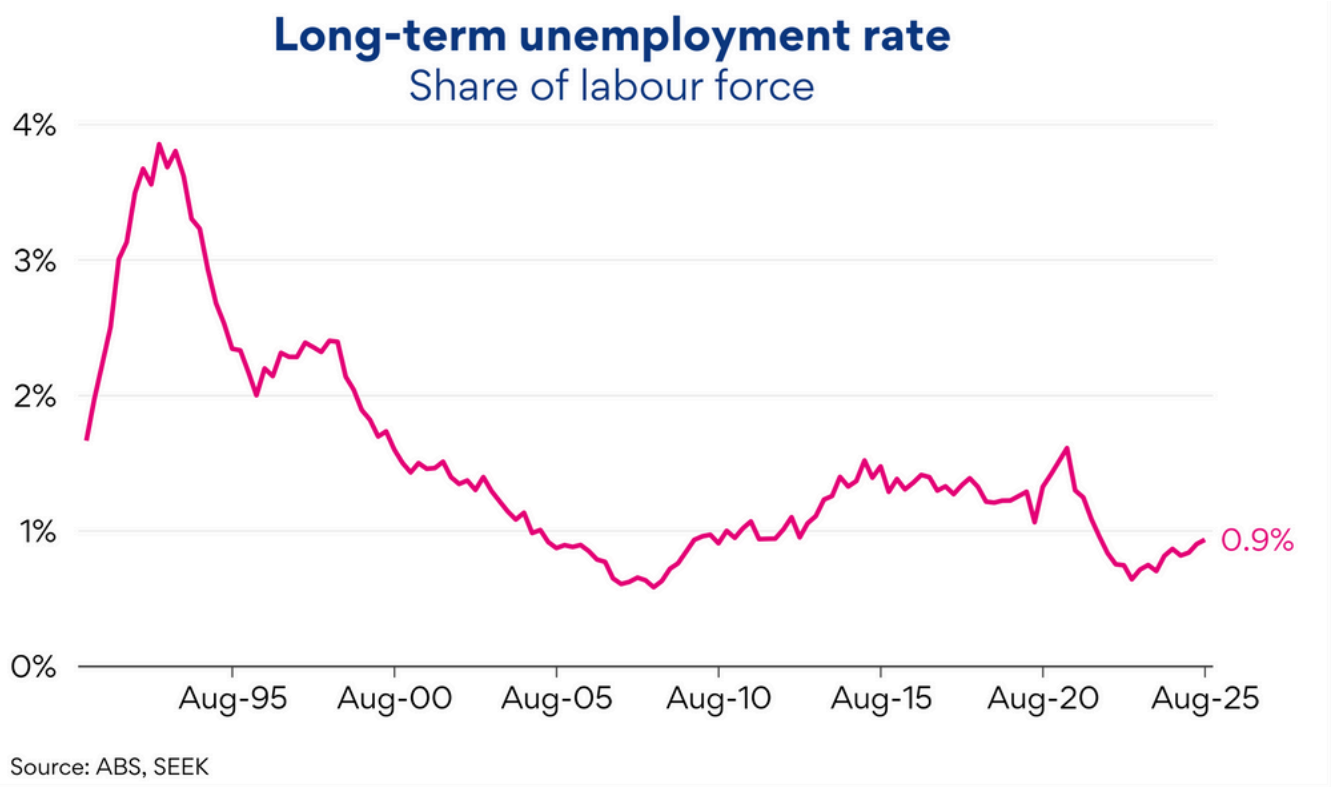
These efforts have helped to reduce frictions in the labour market, decreased time to hire and increased the overall efficiency of the labour market and are another likely driver of the inward shift of the Beveridge curve.

The tight labour market post-COVID, alongside a notable increase in the cost of living saw the rate of job switching in Australia reach its highest levels in over a decade. This suggests that job seekers were also more actively looking for new roles over this period and had increased their search intensity, again likely contributing to the inward shift of the Beveridge curve.

[5] For a discussion of some of the features that SEEK has been adding see: https://talent.seek.com.au/products

Long-term unemployment rate as a proxy for labour market efficiency

The degree of mismatch between the skills of job seekers and available jobs is an important factor in determining the efficiency of the labour market over time. Those who are in unemployment for longer are more likely to have skills that are less in demand. Comparing the long-term unemployment rate over the last three decades with the estimated time-varying intercept discussed above, they broadly move together, suggesting the long-term unemployment rate is potentially an important contemporaneous and timely indicator of efficiency in the labour market.



Long-term unemployment can reduce the efficiency of the labour market as it can reduce the probability of an individual finding employment for several reasons. But it is worth noting that long-term unemployment is likely both a symptom and cause of a less efficient labour market. For example, the high long-term unemployment rate in the early 1990s occurred alongside a very high unemployment rate in the goods production sector, as Australia transitioned away from car and heavy goods manufacturing amid a recession. This ongoing structural change meant that the skills of those becoming unemployed were less suited to posted vacancies, which were more likely to be in the business services sector, resulting in an increase in long-term unemployment.

The COVID-19 pandemic and border closures in response changed the dynamics in the labour market abruptly, when the stay-at-home orders ended borders where still closed and many people had been made temporarily unemployed.

The tight labour conditions combined with the increased number of unemployed led to an increased willingness by hirers to take on those with less experience and those who were long-term unemployed. As the labour market continues its slow adjustment post-COVID, it is possible we will see the long-term unemployment rate increase which may drag on labour market efficiency in the future.

This Insight draws on the discussion of the Beveridge curve movements in recent years in SEEK Economics Working Paper: The Australian Beveridge curve in the wake of COVID-19.

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About Blair Chapman, PhD

Dr Blair Chapman is SEEK's Senior Economist. Blair undertakes economic analysis and forecasting of the Australian and New Zealand economies and labour markets. He leverages SEEK's data to develop unique insights about the economies SEEK operates in.

Blair's economic analysis and forecasting skills have been honed across both private and public organisations including ANZ, Deloitte Access Economics, the Reserve Bank of Australia (RBA) and the Australian Bureau of Statistics (ABS). While at the RBA, he was their representative on the ABS's Labour Statistics Advisory Group for several years.

Blair holds a PhD in Economics from Johns Hopkins University where his studies concentrated on macroeconomics and labour. He completed his undergraduate studies at Monash University, where he majored in Economics, Econometrics and Accounting.

About SEEK Economist Insights

These insights aim to inform hirers, candidates and the broader public about the economy, and particularly the labour market. The insights draw on SEEK's unique data, at times combined with other data from trusted sources, to provide a unique perspective on the labour market.

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