I'd like to thank the organisers of this conference for inviting me to participate in this session. It is truly an honour to be included in this roster of speakers.

The topic for this session is a broad one: how do we support growth? As the extended form of the topic indicates, there are many considerations that need to be taken into account. In the time available I can only do justice to a few of those considerations. In these opening remarks, I'd like to focus on the issue of the time horizon. The question of how public policy can support growth depends in part on whether we are talking about the short run or the long run.

**In the Short Run**

In the short run, supporting growth implies a role for macroeconomic policy, both fiscal and monetary. Australia has achieved its record of economic expansion in part because macroeconomic policy has, by design, supported growth when needed. This has helped us avoid the serious downturns that can do so much damage, even long after they have ended.

In Australia, the role played by macro policy is informed by longstanding frameworks that govern its conduct. In the case of monetary policy, that framework is the medium-term inflation target that was adopted a quarter-century ago. This framework inherently points policy in the direction of supporting growth when that is needed, because demand would otherwise be insufficient. Of course, there are other considerations, including debt and asset prices as highlighted in the session title. But the Bank's *Financial Stability Review* will be released tomorrow, and it will cover those issues in far more detail than is possible the time available today. The basic message for policy is still to support demand when it would otherwise be insufficient to absorb spare capacity.
Spare capacity in the economy, as there has been in recent years, tends to put downward pressure on inflation. To avoid inflation getting too low, monetary policy therefore needs to be set at an expansionary level, supporting growth so that inflation either does not depart too far from target, or returns to target in cases where it has already moved. That is how an inflation target works, and it would do so even if the Reserve Bank's legislated mandate was expressed solely in terms of price stability. But the mandate in our Act also encompasses full employment and the welfare of the Australian people. These things are not in conflict with an inflation target. Rather, they inform how that inflation-targeting regime operates day-to-day. They are relevant to the choices made about how quickly to return to target.

The role of an inflation-targeting regime for monetary policy in supporting growth can be well illustrated by events in the Australian economy over the past decade or so. During the build phase of the mining investment boom, there was a great call on Australia's production capacity to get all the new mines built. This meant that, unlike many other countries, Australia reached a point of having little spare capacity quite soon after the Global Financial Crisis peaked. So there was a period where it was appropriate to set the cash rate a bit higher than the levels reached in the immediate aftermath of the crisis.

Since the peak of the mining boom, though, it has been appropriate to cushion the drag on growth as the terms of trade and mining investment declined. That is one of the reasons why monetary policy has been set to support growth in recent years. We expect mining investment to bottom out in coming quarters, as the last of the large LNG expansion projects completes. After that, it will probably increase a little, as resource firms invest to maintain their production capacity at current levels. The scale of that ‘sustaining investment’ is nothing like that of the boom of the past decade or so. But the important point is that mining investment will no longer be dragging on growth.

While there is spare capacity remaining, it is important for policy to support above-trend growth and work that spare capacity down. This raises the question of what trend might be and how we would know. Just waiting until you see wages growth or inflation pick up would leave policymakers in the dark about how quickly they are moving towards their goals, or even if they are doing so at all. Instead people use a range of different rules of thumb to assess how growth is tracking relative to trend, or ‘potential growth’. Some of these are trickier to use in practice than others. For example, some estimates hinge on an estimate of feasible productivity growth. But these will be subject to the risks that historical relationships no longer apply, or that productivity (which is not directly observable) is just plain mismeasured for a period. A measure of trend constructed in this way is okay to use as cross-check, but I wouldn't want to rely on that as my only guide.

The labour market is, by contrast, a source of pragmatic and accessible signals of where growth is relative to trend. If employment is growing faster than the working-age population, and the unemployment rate is coming down, those are pretty good signs that the economy is running faster than ‘trend’.

It can take a while for spare capacity to be absorbed. Therefore policy settings might need to be expansionary for a number of years. So it is natural to want to ask whether extended periods of expansionary monetary policy might lead to unintended consequences. The consequences for asset...
prices and financial stability have been dealt with at length elsewhere, including in the Financial Stability Review as I have already mentioned.

Another aspect of expansionary policy that has raised concerns in some quarters is the distributional effect. Other central banks have looked into this (for example see, Ampudia et al (2018), Bunn, Pugh and Yeates (2018) and Colciago, Samarina and de Haan (2018)). That is understandable, because they had set interest rates at much lower levels than seen in Australia, and in some cases also expanded their balance sheets with asset purchases.

The findings of that research is that the first-order effect of expansionary monetary policy is to put more people in jobs who wouldn't have had one otherwise. This tends to benefit households at the lower end of the income distribution more than those whose incomes are already high. For wealth, there are a number of effects that offset one another, so the net effect on summary measures of the wealth distribution tend to be small. While lower interest rates and asset purchases do tend to support asset prices, and higher equity prices tend to benefit higher-wealth households, higher housing prices tend to have the largest effect on households in the middle of the wealth distribution. The effect of asset price increases are also greatest for people with a bit of leverage against their asset holdings; they tend not to be those with the highest wealth.

In the Long Run

In the short run, then, the answer is clear. It is the job of macro policy to support growth by encouraging sufficient demand to employ our nation's productive resources. But this leaves open the bigger question of how we ensure our living standards continue to increase in the longer run. That is not so much an issue of helping the economy grow faster than trend when there is spare capacity. Rather it is a separate question of how fast trend can be.

Having low and stable inflation is helpful because it can create a more predictable investment climate. But beyond that effect, monetary policy doesn't have much effect on the feasible trend rate of growth. There are many drivers of long-run productivity growth, but monetary policy would be way down that long list. Its role is more in the short run than the long run.

Of course, there could also be synergies and linkages between the short run and the long run if there is path dependence. If short-run prosperity helps create the conditions for even more long-run prosperity, that is even more reason to ensure that policy supports growth. We are seeing an example of this in Japan at the moment. There, unemployment is so low and the labour market is so tight, that firms are investing rapidly in labour-saving technology. That will boost productivity in the longer run.

Contrast that with the productivity malaise that can set in following a period of contraction or stagnation. People's skills atrophy – or are assumed to – through lack of use. Firms don't invest to expand production when sales aren't growing. And a kind of ‘scarcity mentality’ can take hold, where risks are not taken and opportunities are missed.

Scarcity mentality is all about hunkering down and defending what you have. So it's easy to see how that could get in the way of the processes needed to support growth in the long run. Firms might
become less willing to innovate and invest, in case the new venture doesn't pan out. People might become less willing to switch jobs, in case the new role isn't really better than the old one.

If living standards are to rise, it needs to be possible to produce more with the same resources. The good news is that this means better jobs at better firms. But getting there requires making changes and taking risks. It also requires firms to become better, more productive firms, so they can offer those better, higher-paying jobs. And it requires workers to have the confidence to take those jobs, rather than always stick with what they have. For this reason, it is significant that job turnover is not particularly high in Australia at present, and that average tenure in a job has been rising.

It's worth considering what a productive firm looks like, because not all firms are the same. Some of the latest research on growth highlights the role of differences between firms in creating prosperity (Andrews, Criscuolo and Gal 2015). The evidence both in Australia and abroad is that productivity varies widely across firms, even within the same narrowly-defined industry. Firms that are highly productive – so-called ‘superstar firms’ – tend to grow faster, grow employment faster, and pay better than firms that are a long way from the frontier of productivity (Autor et al 2017). So the data do show that better firms do offer better jobs.

But there is a concern here. Because these ‘superstar’ firms are more productive than average, they gain market share at the expense of less-productive competitors. The leading firms could start moving further and further ahead of the pack. The firms that lag behind would then find it harder and harder to catch up. The result could be that markets become more concentrated. The market leader begins to reap monopoly profits, which isn't good for consumers and might not be good for long-run innovation and welfare.

Must laggard firms always lag? Could they instead catch up to today's superstars? It depends what determines which firms are leaders and which firms lag. Perhaps this dispersion has something to do with the distribution of management ability. If so, it's not set in concrete, either at the firm level or more generally. (That said, raising the bar on management skills in an organisation can be difficult and isn't always successful.)

Another reason for the dispersion in productivity between firms might be that the lagging firms are not adopting latest technologies in the way that the 'superstars' are. Whether this is a universal pattern, or something specific to current conditions is not yet known. It is also not yet settled whether this pattern applies in Australia; the existing research focused on other countries. But if this ‘superstar’ pattern has instead only arisen recently, it could be something to do with the nature of current technological developments and their ease of adoption. While some observers have dubbed the current technological wave a ‘fourth industrial revolution’, innovations like machine learning and artificial intelligence seem to have a very different character to previous general-purpose technologies.

Prior waves of innovation in general-purpose technologies, such as the Industrial Revolution, electricity and the previous computing revolution, all had a ‘democratising’ character, in the sense that the new technology could be operated by less-skilled workers than the technology it replaced.
This wasn't always benign, as the child factory workers who replaced artisan weavers during the Industrial Revolution could attest. But it did set these technologies up for widespread adoption.

The most recent technological wave seems to have a different character, so it might not be so pervasive in the end. Using machine learning and other emerging techniques to automate routine business processes seems to involve specialist skills and, often, PhD-level training in statistics or computer science. These skills are much rarer and take longer to develop than those required for the jobs that are thereby replaced. That doesn't mean it's impossible, but it could take a long time. [1]

If leading-edge technologies are currently unusually costly or difficult to adopt, they become a kind of barrier to entry protecting the firms that are already using those technologies. In that sense, they are a particular case of the more general barriers to entry, that advantage incumbent firms and industries over challengers. [2] That is a concern, because contestability of markets is another essential element for long-run growth and prosperity. Laggard firms will never catch up, and will never become those better firms offering better jobs, if they have no chance of contesting the market or fully competing within it. And if incumbents never face rivals, they are more likely to become complacent. Innovation could slow down, and growth in living standards with it.

All of this comes back to the question of where growth comes from, and the answer is it comes from all of us. Growth is not something that is bestowed upon a nation by external forces. And though domestic institutions matter, neither is growth in the long run something that governments can bestow upon society. Instead it's about the myriad of individual decisions within firms and other organisations to find better ways of doing things. An important question is how we as a society support and enable those decisions. But more important is whether we actually make them.

Thank you for your time.

---

**Bibliography**


---

**Endnotes**

[*] My thanks to Iris Day for her assistance in preparing this talk.
A better analogy for the current technological wave, in the sense that it emphasised higher-skilled roles, might be containerisation in the transport industry. This raised productivity by replacing raw physical labour and drawing on machine operation and load optimisation skills, but was not the kind of general-purpose technology represented by steam power, electricity or general computation. My thanks to Merylin Coombs for pointing out this similarity.

This type of barrier to entry is also separate from the network externalities that can be important in technology industries.