I would like to thank the Kansas City Fed for the invitation to participate in this panel. It is a great honour to be able to contribute to the discussion.

Given the theme of the symposium, I would like to focus on three broad challenges facing monetary policy globally.

It is quite possible that you will find my perspective idiosyncratic, but it is shaped by coming from a country that has:

- had a long period of uninterrupted growth
- not needed to engage in quantitative easing
- prospered as a small open economy with a floating exchange rate and an open capital account
- bipartisan political support for the monetary policy framework
- a central bank with a triple mandate (not a dual mandate), namely price stability, full employment and the economic prosperity of the people of Australia.

My perspective is also shaped by coming from a central bank that is feeling the full weight of some powerful global forces that are shaping monetary policy everywhere.

So, with those qualifiers, the three global challenges that I would like to talk about are:

1. the difficulty of navigating when the ‘stars’ are shifting
2. dealing with elevated expectations that monetary policy can deliver economic prosperity
3. the challenge of communicating effectively with the broader public, not just financial markets.
Navigating When the ‘Stars’ are Shifting

Over recent times there have been very large shifts in estimates of full employment (U star) and the equilibrium real interest rate (r star).

These shifts have occurred not just in one or two countries, but they have occurred almost everywhere. The fact that the experience is so common across countries strongly suggests there are some global factors at work.

It is worth noting that these shifts in the stars were not predicted – they have come as a surprise. However, once it became clear that the stars were shifting, the economics profession has become very good at developing explanations for why this has happened. Even so, the reality is that our understanding is still far from complete about what constitutes full employment in our economies and how the equilibrium interest rate is going to move in the future.

I would, though, like to highlight two of the likely explanations for why the stars have moved.

The first is major changes around the world in the appetite to save and to invest (at any given interest rate).

These changes are linked to: demographics; the rise of Asia; the legacy of too much borrowing in the past; slower productivity growth; and, importantly, increased uncertainty and a lack of confidence about the future. Together, these factors have fundamentally altered savings and investment decisions.

The second major change is an increased perception of competition as a result of globalisation and advances in technology.

The earlier waves of globalisation mainly affected firms and workers in the manufacturing industries in the advanced economies. But today’s wave is affecting a much broader range of industries, including the service industries. Many more people now understand that somebody, somewhere else in the world, can do their job, perhaps at a lower rate of pay. This is a result of both advances in technology and the globalisation of business. I see this shift very clearly in Australia, with jobs once done in Sydney and Melbourne now able to be done in Bangalore, Chengdu and Manila. As a result, the number of truly non-traded jobs is shrinking. One example of this that illustrates the point is that the executive assistants to some senior executives in Sydney are now located in the Philippines, with the Sydney-based executive clicking on an app on their computer to communicate via video link. This has been made possible by technology and globalisation.

The implication of this is that the same competitive forces that were earlier felt in the manufacturing sector are now being felt in many service industries. More competition means less pricing power, for both firms and workers. There are exceptions to the general idea that globalisation and technology have increased competition – the global technology platforms being the most obvious – but most businesses and workers feel that the world has become more competitive.
Together, the shifts in saving and investment decisions and increased perceptions of competition are having major effects. They are leading to:

- lower interest rates
- an economic system that is less prone to inflation, at least for an extended period
- lower estimates of the unemployment rate associated with full employment
- the old signposts being less reliable than they once were.

If you accept this diagnosis, the obvious question is how do we respond? I would like to make two points here.

The first is that the paper by Alan Taylor and Oscar Jorda at this symposium points us in the right direction. Any individual country’s interest rates are partly determined by global factors that are difficult to resist and often difficult to predict. This means that we need to pay close attention to these global factors in our decision-making.

At the Reserve Bank of Australia we are very conscious of these global forces. We still feel that, thanks to our floating exchange rate, we have a high degree of monetary autonomy from a cyclical perspective. So from that viewpoint, the textbook still applies. At the same time, though, we feel that we have no autonomy when it comes to shifts in the global equilibrium real interest rate. If we were to maintain our interest rate in the face of a decline in the global rate, our exchange rate would appreciate, likely moving us away from our goals for inflation and unemployment. So we have to move too and this has been a consideration in our recent thinking on interest rates.

The second response to the uncertainty about the shifting stars is to accept a degree of flexibility in inflation outcomes.

Given the global forces at work, short-term inflation control looks harder than it once was and there is more uncertainty about what is required to deliver this control. When inflation targeting was first introduced, a great deal of emphasis was placed on central banks achieving their targets as precisely as they could. They wanted to do this to demonstrate their commitment to inflation control and to build their credibility as inflation fighters. But times have now moved on and this opens up the possibility of a refined approach.

In my view, the uncertainty about the stars increases the already strong case for a flexible inflation target. And in some cases, there is nothing wrong in using that flexibility.

From a welfare perspective, what is important is that we deliver low and stable inflation. While people in financial markets pay very close attention to whether inflation is 1.6 per cent or 2.0 per cent or 2.2 per cent, most people in the communities that we serve don't see much difference in these numbers. And most of the time, nor should they; they all constitute low inflation. In fact, many people in our communities are incredulous that we would be too worried
over whether inflation was 1.6 per cent, 2.0 per cent or 2.2 per cent. They ask, 'haven’t you got something more important to worry about?'

In Australia, we have long had a flexible inflation target. Our target is to achieve an average rate of inflation, over time, of between 2 and 3 per cent. We also see the inflation objective as nested within the broader objective of welfare maximisation. So the question the Reserve Bank Board often asks itself in making its interest rate decision is how our decision can best contribute to the welfare of the Australian people. Keeping inflation close to target is part of the answer, but it is not the full answer. Given the uncertainties we face, it is appropriate that we have a degree of flexibility, but when we use this flexibility we need to explain why we are doing so and how our decisions are consistent with our mandate.

I recognise that there are limits to how much flexibility in inflation outcomes central banks can tolerate. One risk is that if inflation outcomes are away from the target for too long, inflation expectations could also drift away from the target too. We need to guard against this, but keeping an eye on the ultimate goal of low and stable inflation mitigates that risk.

### Elevated Expectations That Monetary Policy Can Deliver Economic Prosperity

The second challenge I want to discuss is dealing with the elevated expectations that monetary policy can deliver economic prosperity.

As we have discussed at the symposium, growth in aggregate output and incomes in many countries is weaker than we would like and there are clear downside risks. Reflecting this, in some political systems and in some parts of the community there is a strongly held view that the central banks should fix this. At the same time, they should address income and wealth inequality and deliver economic prosperity for the whole community.

As most people at the symposium would appreciate, the reality is more complicated than this, not least because weak growth in output and incomes is largely reflecting structural factors.

Another element of the reality we face is that monetary policy is just one of the levers that are potentially available for managing the economy. And, arguably, given the challenges we face at the moment, it is not the best lever.

Another part of the reality we face is that a number of the other possible levers are hard to move, or are stuck. This means that more is being asked of monetary policy and, arguably, this is sub-optimal from a welfare perspective.

One way of looking at the world economy at the moment is that we are experiencing a series of significant political shocks – the serious issues between the United States and China, Brexit, the problems in Hong Kong, the tensions between Japan and South Korea, and the stresses in Italy.
As we heard yesterday, these shocks are generating considerable uncertainty. Faced with this uncertainty, businesses are reconsidering their investment plans. Many are preferring to wait and see how things evolve before committing to difficult-to-reverse decisions about technology and capital spending. Not surprisingly, the result is weaker global growth.

Central banks are seeking to offset the effects of these shocks with lower interest rates and/or more monetary stimulus. This is entirely understandable, although it remains to be seen how effective it will be.

When easing monetary policy, all central banks know that part of the transmission mechanism is a depreciation of the exchange rate. But if all central banks ease similarly at around the same time, there is no exchange rate channel: we trade with one another, not with Mars. There are, of course other transmission mechanisms, but once we cancel out the exchange rate channel, the overall effect for any one economy is reduced. If firms don't want to invest because of elevated uncertainty, we can't be confident that changes in monetary conditions will have the normal effect. What we can have more confidence in, though, is that the easier monetary conditions will push up asset prices, which brings its own set of risks.

So what are the other policy levers? Broadly speaking, there are three.

The first is to reduce the political shocks. I will leave it to others to speculate as to how likely this is to occur. If it did occur, the global economy could look forward to better times, as firms make up for delayed investment in an environment where monetary conditions remain highly accommodative.

A second lever is fiscal policy, including through extra spending on quality infrastructure. If this lever could be used, it could boost aggregate demand and support future productivity. It is worth recalling that very low interest rates increase the value of projects with very long-lived payoffs. Some well-chosen infrastructure projects would fall into this category.

In many countries, the fiscal/infrastructure lever is hard to move or is stuck because of either a high level of existing public debt or difficulties in generating the political consensus about what should be done.

A third potential lever is structural reforms that encourage firms to expand, invest, innovate and hire people. Given the productivity challenges that we face, this is probably the best lever. But it, too, is hard to move or is stuck in many countries. Structural reforms are often highly politically contested and our political systems are having trouble building the necessary consensus about what to do, and how to do it.

To the extent that other policy levers are hard to move, or are stuck, monetary policy is carrying a lot of the weight.

A reasonable question to ask is: is this a problem? Is it just that central banks don't like the weight and would rather shift responsibility? Or are there more serious issues at stake?
I would suggest it is the latter. First, monetary policy can't drive long-term growth, but the other policy levers can. Second, relying on monetary policy risks further increases in asset prices in a slowing economy, which is an uncomfortable combination. And third, a failure to meet community expectations could lead to a political response that undercuts the credibility of central banks and undermines their effectiveness. It is hard to predict exactly how this might work out, but the answer is not well.

This all means that there is a lot riding on these other levers becoming easier to move.

**Communicating Effectively in This Challenging and Changing World**

The third broad challenge that I would like to discuss is how best to communicate with the broader public.

I agree very much with Athanasios Orphanides about the importance of: transparency; of having a clearly understood framework; and the use of simple language by the central bank.

Despite my agreement with these high-level principles, I did not find his specific prescriptions that helpful in dealing with the communications challenges that I face. His prescriptions include:

1. being explicit about the exact weights applying to each of the elements in the central bank's objective function
2. establishing a presumption that policy will be adjusted according to a rule, with an annual review of the rule
3. communicating uncertainty by publishing, for each member of the monetary policy committee, the full probability distribution of their expectations for key variables.

These prescriptions strike me as overly technical. I don't see it as particularly helpful to base communications on coefficients in objective functions, full probability distributions and rules.

I understand that some people in financial markets and some academic economists find this approach appealing and, in some situations, there is a case for it. But the vast bulk of people in our societies do not think in these terms. There is therefore a risk that following this approach could cost the central bank the support and confidence of the broader community. This risk is increased by the other two challenges that I have discussed – navigating when the stars are shifting and the potential for over-reliance on monetary policy.

I am much more attracted to the notion of constrained discretion and giving a committee the responsibility for exercising that discretion and dealing with all the complexities, trade-offs, data problems and uncertainties that we face in the real world.

In communicating to a broader audience it is important to talk in stories that people can connect with, rather than to talk in just numbers, coefficients and rules. It is useful to tell stories about the
forces shaping the economy and its future and how those forces are changing. It is also useful to
tell stories about the trade-offs we face and how we are managing those trade-offs. And it is also
useful to tell stories about how our policies are contributing to economic welfare and to things
that people really care about – jobs, income security, a decent return on their savings and the
stability of the economy.

A challenge facing almost all central banks is to find the balance between the need to provide a
strong narrative to the broader community and at the same time talk to the financial markets.
This is an area that warrants further thought.

Finally, I would like to endorse a central conclusion of the paper by Silvana Tenreyro: that is, a
commodity-exporting country that faces large commodity price shocks can fare quite well with a
flexible exchange rate and an inflation target. Australia provides a very good example supporting
this conclusion. Indeed, in our case, the exchange rate has become the great stabiliser of the
Australian economy, arguably playing a more important role than monetary policy in dealing with
the major shocks that we have experienced over recent times.

There are a number of features of our economy and financial markets that have led to this
position. These include:

- The Australian dollar tends to move in line with commodity prices (or our terms of trade),
cushioning the economy from the effects of these prices changes.

- Our manufacturing industry is not closely integrated into global supply chains.

- Our financial markets, including those for managing risk, are reasonably well developed.

- Australian entities are able to issue debt in our own currency and when they choose to issue in
foreign currency, they are able to remove the exchange rate risk by using the foreign currency
swap markets.

- Exchange rate pass-through is fairly muted and inflation expectations are well anchored.

- To pick up a point in Sebnem Kalemli-Ozcan's paper, the institutional structure in Australia is
strong.

So, to end on a positive note, Australia's experience is a useful reminder that even when there are
large shifts occurring in the global economy, it is possible to prosper as a small open economy
with a floating exchange rate and flexible inflation target.

Thank you.