Submission to the Review of the Reserve Bank of Australia

Dr Isaac Gross, Monash University

Executive Summary

This submission outlines potential reforms of the Reserve Bank of Australia (RBA) which would enable it to better serve the Australian public. Thirty-eight recommendations are included, covering different aspects of the RBA.

The two most substantive reforms proposed are:

1. Delegating monetary policymaking to a Monetary Policy Committee composed of internal staff and external experts in monetary policy
2. Remove financial stability as part of the RBA's mandate for monetary policy, focusing the mandate on the dual goals of stable inflation and full employment only.

The status quo in which monetary policy is set by a Board mostly composed of corporate leaders with no experience in macroeconomics has served Australia poorly. It has led to persistent policy errors, poor communication, low transparency and does not reflect best practice amongst peer central banks.

The RBA could greatly improve its policymaking by devolving monetary policy decisions to a dedicated committee of internal staff and external macroeconomic experts. This would align the RBA with its peer central banks and with other independent Australian policymakers such as the High Court of Australia.

A significant driver of recent monetary policy errors has been the RBA's approach of using high interest rates to constrain asset prices and household debt, known as 'leaning against the wind'. Using higher interest rates to maintain financial stability, as opposed to macroprudential regulation, has significantly higher costs than benefits and cost the Australian economy more than 270,000 jobs over the period 2016-2019.

Financial stability would be better achieved through the use of macroprudential policy, not monetary policy. The welfare of the Australian people would be improved by removing financial stability from the RBA's mandate for monetary policy, leaving it to focus on the dual goals of a low and stable rate of inflation, and the maintenance of full employment.

Summary of Recommendations

Recommendation 1.1: The objectives of monetary policy set out in the *Reserve Bank Act (1959)* be changed to:

i) the maintenance of a low and stable rate of inflation; and

ii) the maintenance of full employment.

Recommendation 1.2: Do not change the midpoint of the inflation target for now, but acknowledge that the case for increasing the target to mitigate the effective lower bound is strong and commit to revisiting the issue in the future.

Recommendation 1.3: The one percentage point target band be maintained. However, the midpoint should be recognised as the desired optimal point within the target range on a medium-term basis.

Recommendation 1.4: The Reserve Bank of Australia should commit to a two year timeline for returning inflation to the midpoint of the target band. Forecasts in which inflation does not return to the midpoint of the target band at the end of two years should come with a detailed explanation of why and a justification for why the projected path of the cash rate is appropriate.

Recommendation 1.5: When the Reserve Bank of Australia is next constrained by the effective lower bound it should commit to adopting a temporary price level target or promising "catch up" inflation to help stimulate the economy.

Recommendation 1.6: The Reserve Bank of Australia should seek to make up for small but persistent deviations from the inflation target, while keeping inflation within the target band.

Recommendation 1.7: The RBA maintains the status quo of targeting inflation and the unemployment gap.

Recommendation 1.8: The RBA should commit further resources to developing theoretically-grounded measures of the optimal price index to target.

Recommendation 1.9: The RBA should be re-affirmed as the primary manager of the Australian business cycle, with fiscal policy only required when interest rates are constrained by the effective lower bound or in response to a large or sudden shock to the economy.

Recommendation 1.10: That the mandate for maintaining financial stability be removed from the Statement on the Conduct of Monetary Policy - or at minimum be placed subordinate to the inflation target and full employment objectives.

Recommendation 1.11: Returning macroprudential policy from APRA to the RBA should be considered to minimise policy disagreements.

Recommendation 2.1: The RBA should set up and subsidise prediction markets for core macroeconomic variables to use as an input into the monetary policy process.

Recommendation 2.2: The RBA should tie the size and scope of future unconventional monetary policies directly to the state of the economy.

Recommendation 2.3: The RBA should consider setting negative interest rates on future iterations of the Term Funding Facility.

Recommendation 2.4: The RBA should publish a plan in 2023 for how they will stimulate the economy when it is next constrained by the effective lower bound.

Recommendation 3.1: The RBA should devolve monetary policy decisions to a dedicated committee (ie a Monetary Policy Committee) consisting of five internal economists and four externally appointed experts.

Recommendation 3.2: The Treasury Secretary should not be an ex-officio member of the Monetary Policy Committee. They should remain on the Board as a non-voting member.

Recommendation 3.3: That the *Reserve Bank Act (1959)* be amended to allow for the appointment of multiple Deputy Governors.

Recommendation 3.4: External appointments to the RBA's Monetary Policy Committee should have professional expertise and training in a relevant field i.e. monetary policy, macroeconomics or financial markets.

Recommendation 3.5: External appointments to the RBA's Monetary Policy Committee should not come directly from within the Bank's staff.

Recommendation 3.6: External appointments to the RBA's Monetary Policy Committee should be term limited to two or three consecutive appointments of five years.

Recommendation 3.7: External expert appointments to the RBA's Monetary Policy Committee should be supported by one or two full time economists from Economic Group and Financial Markets Group to support their work analysing the Australian economy and setting monetary policy.

Recommendation 3.8: Decisions by the Monetary Policy Committee should be more transparent, with votes and detailed reasoning disclosed at the time of the meeting. Transcripts should also be published with a suitable lag, at least seven years.

Recommendation 3.9: All members of the Monetary Policy Committee should be permitted to talk publicly on how they view the state of the economy and the appropriate stance of monetary policy.

Recommendation 3.10: The Monetary Policy Committee minutes should disclose the staff recommendation, whether it was followed and explain why if not.

Recommendation 3.11: To increase their transparency, the RBA should explicitly publish how it weighs the inflation rate and the unemployment gap and commit to regularly publishing their best estimate of the NAIRU (and thus the current unemployment gap).

Recommendation 3.12: The RBA should publish the documents provided to the Board prior to each policy meeting with a suitable lag, at least seven years.

Recommendation 3.13: The RBA should publish regular retrospective policy analyses, discussing whether monetary policy was set optimally in the past and why.

Recommendation 3.14: The RBA should regularly publish updates to its main macroeconomic model (ie MARTIN) and its current estimates of critical variables such as the NAIRU and the natural rate of interest.

Recommendation 3.15: The RBA should regularly hold press conferences, at minimum after each Statement on Monetary Policy.

Recommendation 3.16: The RBA should explicitly publish its assumed path for the cash rate it uses for its quarterly forecasts based on market expectations of the cash rate. If it disagrees with the market forecasts used as an input into the forecasts, the RBA should publish two sets of forecasts using both market forecasts and their own cash rate projections.

Recommendation 3.17: The RBA should explicitly publish a forecast for the cash rate, including confidence intervals.

Recommendation 3.18: The RBA's senior staff, including MPC members, should be prohibited from holding individual stocks and bonds.

Recommendation 3.19: The RBA should consider requiring all senior staff, including MPC members, to declare large financial transactions ahead of time.

Recommendation 4.1: The RBA should give research orientated staff time to conduct research even if they are not currently in the research department.

Recommendation 4.2: The RBA should be formally reviewed by external experts every 5 years to

Recommendation 4.3: The RBA should consider moving to 8 policy meetings per year, with the option to hold emergency meetings if required.

Recommendation 4.4: The RBA should engage more with academics who conduct policy-relevant research on the Australian economy and monetary policy.

Theme 1: Monetary Policy Arrangements

What changes, if any, should be made to the objectives set out in the Reserve Bank Act (1959): stability of the currency, maintenance of full employment, and economic prosperity and welfare of the Australian people – or do these remain the right objectives?

I would recommend the following changes to the *Reserve Bank Act (1959).*

First, the stability of the currency objective should be changed to an objective of "the maintenance of a low and stable rate of inflation". The current wording literally and historically refers to a currency peg. A pegged Australian dollar is not only a historical relic, but would be economically harmful if it were to be reimplemented in today's modern economy. The legislative wording should be updated to how the objective is now universally reinterpreted: a low and stable rate of inflation.

The third term "the economic prosperity and welfare of the Australian people" is far too broad. It can be used to justify any form of policy or economic intervention. It is also not needed to fulfill the RBA's core mandate of stabilising the economy. It should be removed.

Recommendation 1.1: The objectives of monetary policy set out in the *Reserve Bank Act (1959)* be changed to:

i) the maintenance of a low and stable rate of inflation; and
ii) the maintenance of full employment.

What adjustments, if any, are warranted to the RBA's flexible inflation targeting arrangement as described in the Statement on the Conduct of Monetary Policy*, or what alternative arrangement is most appropriate, in light of current and future challenges? How should the RBA balance its objectives in its approach to monetary policy?*

The optimal design of the RBA's flexible inflation target is a deep question which can be broken down into a number of sub-questions:

1. What should be the midpoint of the inflation target?
2. Should the target have bands around that midpoint?
3. How long and on what basis should deviations from this target be deemed acceptable?
4. Should the Reserve Bank of Australia adopt a price level target or stick with an inflation target?
5. Which nominal and real variables should the Reserve Bank of Australia target?

What should the midpoint be of the inflation target?

Currently the midpoint of the RBA's inflation target is 2.5 per cent. Any change to the midpoint of the inflation target in either direction would come with transition costs. These transition costs could be quite large if the change undermines the credibility of the RBA's commitment to stabilising inflation. This concern is most relevant if the change in the inflation target is perceived to be made in response to the RBA missing the target and responding by "shifting the goalposts" instead. Given the current high rate of inflation, this means that increasing the midpoint of the target band in the near term could risk reputational harm.

Abstracting from the transition costs, if the RBA were to change the midpoint of the target band, the case for increasing the target is much stronger than for decreasing it. Since the 2.5 per cent midpoint was established in the early 1990s, the frequency and severity of episodes in which the effective lower bound on nominal interest rates constrains monetary policy has become much higher. This is partly due to historically large negative shocks such as the GFC and the Covid-19 crisis. However, it has also been driven by the secular decline of real risk-free interest rates, which is a long-term trend that is expected to persist for years to come (Rachel and Smith 2018).

If the RBA was designing an inflation target today from scratch, the case for a higher midpoint would be strong. However, given the high level of inflation today, and the fact that it is forecast to remain above the target band for the rest of the forecast horizon, it would be unwise to increase the inflation target in 2023. Instead the RBA should commit to periodically reviewing the optimal midpoint of its inflation target such that if this calculus changes in the future, the inflation mandate could be easily adapted to better suit the future Australian economy.

There is an argument that lifting the inflation target is clearly a response to the ongoing problems created by the effective lower bound, and wouldn't be seen as "shifting the goalposts" by the RBA in a time of high inflation. Indeed by increasing the inflation target in 2023, it would reduce the costly deflation that would otherwise be required. On balance I think the risks of this approach outweigh the benefits, but acknowledge it is difficult to quantify.

Recommendation 1.2: Do not change the midpoint of the inflation target for now, but acknowledge that the case for increasing the target to mitigate the effective lower bound is strong and commit to revisiting the issue in the future.

Should the RBA have a band around the midpoint of the inflation target?

The Reserve Bank of Australia's inflation target has a "thick" target band around the 2.5 per cent midpoint. Not only does the current mandate allow for a 0.5 percentage point deviation above or below the 2.5 per cent midpoint, but *any* point within that band is considered to be equally acceptable. An inflation rate of 2.1 per cent is considered just as acceptable as 2.5 or 2.9 per cent.

Given that no central bank will ever perfectly hit a point inflation target every quarter, it makes sense to quantify the tolerance around the midpoint so that they can properly be held accountable. Adding bands around the midpoint allows the mandate to quantify exactly how far inflation can acceptably deviate from the midpoint. The current one percentage point range provides a good compromise between flexibility and accountability.

However, the "thick" nature of the band has two drawbacks.

The first is that it adds uncertainty to the long term price level. If the Australian inflation rate was 2.1 per cent for a decade, that would result in a price level that is 7.5 per cent lower than a counterfactual in which the inflation rate was 2.9 per cent. Both outcomes would be consistent with the RBA's mandate, however they would lead to substantially different paths for the price level. Forecasts of the price level are critical to the pricing of long-term investments with nominal pay-offs. Uncertainty surrounding the path of the price level thus results in a higher risk premium for long dated Treasuries.

Secondly, a one percentage point difference in inflation can be consistent with very different levels in the output gap. Gross and Leigh (2022) found that during the 2016-2019 period the underlying rate of inflation averaged 1.6 per cent, less than one percentage point below the midpoint of the target band. Yet during this period there was a significant unemployment gap, the equivalent of 270,000 full-time jobs destroyed.

Another example is the recovery in the United States after the GFC. In the years after the Federal Reserve formally adopted an inflation target of 2 per cent in 2012, the US averaged a core PCE inflation rate of ~1.5 per cent which is only 0.5 ppt below the target. However, this apparently mild undershooting was consistent with a substantial output gap, averaging around 2 per cent in this period.

The difference between an economy running consistently at an inflation rate of 2.1% as opposed to 2.9% is thus potentially very large. Accordingly, while deviations from the midpoint should be considered acceptable on a short run basis, Australian economic welfare would be maximised by having the RBA commit to returning the rate of inflation to the midpoint of the target band over the medium term.

Recommendation 1.3: The one percentage point target band be maintained. However, the midpoint should be recognised as the desired optimal point within the target range on a medium-term basis.

How long and on what basis should deviations from that target be deemed acceptable?

Currently the Reserve Bank of Australia only needs to keep inflation within the "thick" target band "on average over the business cycle". Neither the terms "on average" nor "over the business cycle" are clearly defined in the Statement on the Conduct of Monetary Policy. The current monetary policy framework thus combines a fairly wide target with a very permissive approach to hitting it.

As a general principle there should be an inverse relationship between how broad a policy target is and the degree of strictness required in hitting the target. A very broad target (i.e. with wide bands around the midpoint) which is easier to meet should be applied more strictly than a narrow target for which more flexibility should be granted.

In comparison to other central banks, the current framework applies a broad target with a very permissive approach to meeting it. As Governor Phil Lowe has noted in a recent speech (Lowe 2022) there is a trade-off between a central bank's flexibility in hitting its target and its ability to be held accountable by the public. For example, an inflation target band of between 0 and 5 per cent would give the RBA even more flexibility when achieving its mandate. However, it would also undermine the public's ability to hold the RBA accountable as it would also mean that regardless of whether the Australian economy was in a deep recession or an over-stimulated boom, monetary policy would be deemed to be meeting its key performance indicators and the RBA would be fulfilling its mandate. The current combination of a wide target band and a very permissive approach to hitting it tips the balance too far in favour of flexibility over accountability.

The pre-pandemic undershooting of inflation is a good case study why. Inflation first slipped below the target band in 2016, but it wasn't until two years later that external criticism of monetary policy started to circulate in the press. The relatively loose mandate meant that the first two years of undershooting were written off as a one-off idiosyncratic shock or forecasting errors. Even though inflation had fallen well below the target band, this was not widely perceived as a policy error because the mandate only requires the target band be met "on average, over the business cycle". The deviation was defended on the basis that inflation would be back in the target band at some undefined point later in the business cycle. It was only several years after the policy error started that external criticism of the RBA started to metastasize.

There are two ways in which the RBA's mandate should be tightened. The first is to narrow the target band by making it a "thin" point target which prioritises the midpoint of 2.5 per cent over the edges of the band.

The second would be to narrow the conditions in which deviations from the target band are deemed acceptable. Specifically, the wording in the mandate should specify that monetary policy should be set such that inflation is forecast to return to 2.5 per cent within the next two years. This places a clear expectation on the RBA, for which they can be held accountable, while allowing for a degree of flexibility and for the inevitable lags involved with how monetary policy affects the economy.

Any Statement on Monetary Policy forecast which does not find that inflation is back within the target band after two years should require an explanation for why the projected path for the cash rate is appropriate over an alternative path for monetary policy which does fulfill the inflation target.

Recommendation 1.4: The Reserve Bank of Australia should commit to a two year timeline for returning inflation to the midpoint of the target band. Forecasts in which inflation does not return to the midpoint of the target band at the end of two years should come with a detailed explanation of why and a justification for why the projected path of the cash rate is appropriate.

How should the RBA adjust to previous errors in hitting the target band?

Currently the RBA does not adjust monetary policy to make up for previous errors in hitting the target band. Even if inflation spent the past 5 years below 2 per cent it does not seek to make up for this with a higher rate of inflation going forward. The same is true if it overshoots the inflation target band for a period of time.

Recently the Federal Reserve has adopted an "average inflation targeting" framework, in which periods of inflation undershooting are made up for by tolerating an above-target rate of inflation in subsequent years. This framework does not apply in the opposite direction – overshooting the inflation target does not require the Federal Reserve to lower the inflation rate below 2 per cent in subsequent years.

A monetary policy framework in which a central bank tries to correct for past errors in order to keep the price level on a steady trajectory, can be highly beneficial when the economy is constrained by the effective lower bound. Bernanke (2017) proposed that central banks adopt a temporary price level target when interest rates are unable to be lower any further in order to better stimulate the economy. A temporary price level target when interest rates are constrained by the effective lower bound provides a credible, time-consistent plan for increasing inflation expectations. Increasing inflation expectations when nominal interests cannot be lowered decreases the real interest rate, providing additional stimulus to the economy exactly when it is most needed.

This approach achieves many of the benefits of a price level target while minimising the cost of permanently transitioning to a price level target.

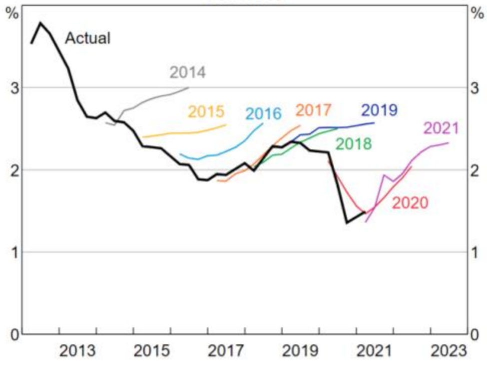
Recommendation 1.5: When the Reserve Bank of Australia is next constrained by the effective lower bound it should commit to adopting a temporary price level target or promising "catch up" inflation to help stimulate the economy.

However, there are also benefits from adopting a price level target even when the economy is not constrained by the effective lower bound. As the pre-pandemic period demonstrated, forecasting errors can often be persistent which in turn lead to persistent policy errors. This is perhaps an inherent part of the forecasting process which is complicated by the difficulty in picking turning points and structural breaks in the economy.

Graph 3

Wage Price Index Forecasts*

Year-ended



* May SMP forecasts

Sources: ABS; RBA

During the pre-pandemic period a series of small, but persistent forecasting errors occurred that were repeatedly attributed to one-off shocks or misses. In hindsight, it seems clear that the economy was structurally changing in a manner that was difficult to detect in real time. Each of these misses was small in isolation, but in aggregate they constituted a significant policy error.

One solution to persistent errors is to adopt average inflation targeting even away from the effective lower bound on nominal interest rates. This would make monetary policy more robust to persistent forecasting errors. For example, if forecasting misses mean that inflation has been weaker than expected over the past year, the RBA could aim for inflation to be in the upper half of the target band over the forecast horizon. If the errors prove to be transitory then inflation will be slightly higher, and the price level roughly stable. If, however, the error is due to a structural error change in the economy and is thus more persistent than originally assumed, this attempt at overshooting the midpoint of the target band will help avoid the policy error from reoccurring.

This would not require inflation going outside of the target band. It is merely a reorientation of policy such that if inflation is persistently below (above) the midpoint of the target band the RBA should explicitly try to get inflation back to the upper (lower) half of the target band in order to correct for past mistakes.

Recommendation 1.6: The Reserve Bank of Australia should seek to make up for small but persistent deviations from the inflation target, while keeping inflation within the target band.

What specific variable(s) should the RBA target?

This is the subject of some ongoing research that will be published as a working paper soon. However, consistent with work conducted by central banks in other countries, preliminary results suggest that the current approach of targeting a combination of inflation and the unemployment gap performs strongly compared to many of the alternative policy targets.

These preliminary results also suggest that targeting nominal GDP is not optimal. This is because nominal GDP has a very high elasticity with respect to commodity price shocks. A nominal GDP target for Australia necessitates sharply increasing interest rates every time the iron ore price spikes. However since commodity prices have a relatively small impact on the domestic labour market and consumer prices, this response causes an economic downturn and sustained deflation with little benefit.

Recommendation 1.7: The RBA maintains the status quo of targeting inflation and the unemployment gap.

Economic theory suggests that the best inflation index to stabilise is neither the headline consumer price index nor the trimmed-mean measure, but a price index that weighs different goods according to the relative frequency at which they change the price. A CONDI (Cost Of Nominal Distortions) index which estimates this optimal targeting has been estimated in the US (Eusepi 2011), however to my knowledge this work has not been replicated for Australia. This is an area that the RBA should devote research resources to, perhaps in conjunction with the Australian Bureau of Statistics, such that the option can be considered by future policy makers.

Recommendation 1.8: The RBA should commit further resources to developing theoretically-grounded measures of the optimal price index to target.

How should monetary, fiscal and macroprudential policies complement each other, including during economic downturns and when interest rates are close to their effective lower bound? What implications does that have for the design of Australia's monetary policy framework, and its interaction with fiscal and macroprudential policy arrangements?

There is a strong case for coordination between monetary and fiscal policy when interest rates are at the effective lower bound or are likely to be in the near future. However recent history shows that this coordination already occurs relatively well under the status quo. During both the GFC and the Covid-19 Crisis fiscal policy responded promptly and effectively to help stabilise the economy.

The case for coordination between fiscal policy and monetary policy is much weaker when interest rates are not constrained by the effective lower bound. Even when inflation is above the target band, economic evidence suggests that monetary policy has the ability to moderate aggregate demand as long as fiscal authorities keep the level of debt stable. When interest rates are not constrained by the effective lower bound fiscal policy should be guided by its other policy goals such as debt management, public good provision, public investment and tax optimisation.

Given the successful record of monetary and fiscal coordination during the past two downturns, there is little need to change the status quo. Indeed, blurring the lines of responsibility for which policy tool is in charge of managing aggregate demand increases the risk of buck-passing during a future recession.

Recommendation 1.9: The RBA should be re-affirmed as the primary manager of the Australian business cycle, with fiscal policy only required when interest rates are constrained by the effective lower bound or in response to a large or sudden shock to the economy.

However, evidence from the pre-pandemic period suggests that more coordination is needed between macroprudential policy and monetary policy. During this period there is considerable evidence (as outlined by Gross and Leigh (2022)) that concerns about financial stability affected the implementation of monetary policy. APRA's unwillingness to deploy macroprudential policy to mitigate what the RBA perceived as a rise in financial instability prompted them to substitute tighter monetary policy as a remedy instead. This proved to be a costly policy error.

There are two reforms that could stop this problem from recurring.

1. remove the RBA's mandate to use monetary policy to maintain financial stability, and instead rely on macroprudential policy to achieve that policy goal; or
2. return macroprudential policy making to the RBA such that it has a sufficient set of policy tools to maintain financial stability and stabilise aggregate demand independently.

Neither solution is perfect. The RBA will always play the role of "lender as last resort" to the financial sector and so will always have some role to play in maintaining financial stability. Returning macroprudential policy from APRA to the RBA would match the institutional framework in other countries (eg the Bank of England), however it would be a costly process.

Given that APRA's statutory role is excluded from the terms of reference of this Review (which presumably precludes the latter solution), the Statement on the Conduct of Monetary Policy should be changed to remove financial stability from its mandate for monetary policy.

Recommendation 1.10: That the mandate for maintaining financial stability be removed from the Statement on the Conduct of Monetary Policy - or at minimum be placed subordinate to the inflation target and full employment objectives.

Recommendation 1.11: Returning macroprudential policy from APRA to the RBA should be considered to minimise policy disagreements.

Theme 2: Performance Against Objectives

The RBA's performance against its legislative mandate has varied over time. Gross and Leigh (2022) outline how the RBA has performed over the past two decades. Monetary policy played a crucial role in avoiding a potential recession in 2001 and mitigating the downturn in 2008-2009. By contrast, we found that the cash rate was too high during 2016-2019, keeping inflation below the Reserve Bank's target band and the unemployment far too high.

While there are several possible explanations for the policy error that occurred from 2016-2019, the most likely explanation is that the RBA was overly concerned about financial stability and kept interest rates too high for too long to avoid higher house prices.

This was directly referenced by the RBA Board at the time. As Kirchner (2021a) notes, the September 2017 RBA Board minutes stated 'Taking into account all of the available information, and the need to balance the risks associated with high household debt in a low-inflation environment, the Board judged that holding the stance of monetary policy unchanged would be consistent with sustainable growth in the economy and achieving the inflation target over time.'

Similarly, Governor Philip Lowe stated in a 2017 speech, 'We would like the economy to grow a bit more. If we were to try to achieve that through monetary policy that would encourage people to borrow more and it would probably put upward pressure on housing prices. At the moment I don't think those two things are in the national interest' (quoted in Martin 2017).

This problem could have been avoided if the RBA had not attempted to "lean against the wind" and use monetary policy to try and control house prices and household debt. A better alternative would have been for macroprudential policy to be deployed to maintain financial system stability.

There is an inherent risk in dividing the single policy objective for maintaining financial stability across two different institutions (APRA and the RBA). A lack of coordination between the two may (and has) resulted in sub-optimal implementation of both macroprudential and monetary policy.

Serious thought should be given to reintegrating the two institutions under umbrella organisation as occurs in the UK at the Bank of England.

What improvements could be made to the set of inputs the RBA draws on to support monetary policy decision making?

Prediction markets are an increasingly important tool used by organisations to forecast the future. The RBA currently relies on market predictions of both future inflation (as measured by the TIPS market) and interest rates (as measured by OIS spreads) when setting monetary policy. The RBA should actively expand the range of macroeconomic variables for which prediction markets exist to provide additional inputs into the monetary policy process. Accurate, timely forecasts of variables such as the unemployment rate, GDP and wage growth would have been immensely valuable during the GFC and the Covid-19 Crisis - they will be highly useful for the next crisis too.

Research on the use of prediction markets to forecast macroeconomic variables finds that they quickly incorporate new information, are largely efficient, and impervious to manipulation. Moreover, markets generally exhibit lower statistical errors than professional forecasters and polls (Snowberg et al 2013). Prediction markets can also be used to test existing economic models.

Current market predictions often suffer from low liquidity which may impair their accuracy. The RBA should work with other policymakers (ie ASIC) to create and subsidise prediction markets for core macroeconomic variables such that there is an incentive for forecasters to participate and actively help in the process of price discovery. While subsidies may be costly, there is *considerable* social value in having timely, accurate forecasts of macroeconomic variables not just for policymakers but for private actors too.

Recommendation 2.1: The RBA should set up and subsidise prediction markets for core macroeconomic variables to use as an input into the monetary policy process.

What monetary policy tools should the RBA use in pursuit of its monetary policy objectives, and how can it use them most effectively in the future?

Since March 2020 the Reserve Bank of Australia has used several types of unconventional monetary policy, namely forward guidance, yield curve control, quantitative easing and credit subsidies for business lending.

While the Reserve Bank of Australia has already commenced substantively reviewing these policies, I believe there are three lessons that should be heeded when implementing such policies in the future.

The first is that there is a high degree of uncertainty surrounding the impact these unconventional policies have on the macroeconomy. This uncertainty should be better incorporated into the design of such policies when they are used in the future. For example, instead of announcing a fixed dollar amount of bond purchases in a future quantitative easing program, the number of bonds purchased should be a) explicitly tied to the future evolution of macroeconomic outcomes such as the inflation rate and the unemployment rate and b) designed to automatically ramp up until such goals are achieved. By tying the size of these unconventional policies to the state of the economy they can be implemented in a manner that is robust to the uncertainty surrounding their marginal impact on the economy.

Recommendation 2.2: The RBA should tie the size and scope of future unconventional monetary policies directly to the state of the economy.

The second lesson is the RBA should think more deeply about the different limitations of the different unconventional policies. For example, the RBA decided not to lower the cash rate below 0 per cent in part due to concerns that negative interest rates would impair banks' balance sheets and thus worsen financial stability. However, setting the interest rate on the Term Funding Facility below zero would have improved banks' balance sheets - instead of endangering them - and provided additional stimulus to the economy. Credit subsidies allow the use of dual interest rates (Lonergan & Greene 2020) and this should be considered as a future policy option by the RBA.

Recommendation 2.3: The RBA should consider setting negative interest rates on future iterations of the Term Funding Facility.

Finally, despite witnessing other central banks' experience with unconventional monetary policies during the GFC, the RBA never published a plan or research paper on how they would stimulate the Australian economy during a downturn when nominal interest rates are constrained by the effective lower bound. Instead, policies such as yield curve control and forward guidance were deployed in March 2020 with little prior research or external debate – there is little evidence that they were discussed internally prior to the crisis either.

Preparing for an emergency and practicing how policymakers should respond is an important aspect to disaster management. Publishing an explicit plan for how the RBA will respond the next time interest rates are constrained by the effective lower bound would improve policy outcomes by exposing the plan to external criticism and feedback, reducing policy uncertainty for households, firms and financial market participants, and help improve coordination with other policymakers.

Not every detail will be possible to plan for in advance, and some aspects of the plan will change in response to the nature of the next crisis. However, the RBA should have a public strategic plan for how they will next deal with the effective lower bound, the unconventional tools they will use and the metrics by which they will be operated.

Recommendation 2.4: The RBA should publish a plan in 2023 for how they will stimulate the economy when it is next constrained by the effective lower bound.

Theme 3: Governance

What governance arrangements are best suited to discharging the RBA's monetary policy and corporate governance responsibilities?

The current approach of appointing a Board that consists predominantly of business leaders alongside the Governors of the RBA and the Secretary of the Treasury has served Australia poorly when implementing monetary policy.

There have been several instances in recent years when the Board has made decisions based on a flawed understanding of monetary policy, which either ignores or contradicts the science of macroeconomics. The most recent example occurred at the October 2022 Board meeting when in justifying the decision to increase the cash rate by only 25 basis points instead of 50 basis points, the minutes state that:

"Drawing out policy adjustments would also help to keep public attention focused for a longer period on the Board's resolve to return inflation to target."

This reasoning, that a smaller increase in interest rates would fortify the perception that the RBA will return inflation to target, conflicts with the basic tenets of monetary policy. Indeed, is contradicted earlier in the same minutes when it is stated that:

"This [decision to increase by 25bp] might in turn prompt an unhelpful reaction in inflation expectations and financial markets, if the community came to question the Board's resolve to reduce inflation."

At the same meeting, the Board considered that a dovish 25 basis point hike would simultaneously increase inflation expectations while *also* signalling a stronger resolve to return inflation to target. This internal tension reflects a misunderstanding of monetary policy or more generously a belief in behavioural economics that is not justified by economics.

For details on other episodes of poor decision making by the Board see Kirchner (2021a, 2022b), Gross and Leigh (2022), Preston (2020), Saunders and Tulip (2019), Tulip (2021).

Furthermore, while testifying before the House of Representatives Standing Committee on Economics, the RBA have conceded that the majority of the Board members do not understand core macroeconomic concepts such as the Okun's Law, the Tinbergen Rule, the Taylor rule or DSGE modelling. This lack of knowledge can only impede their ability to properly assess and decide on the optimal stance of monetary policy.

The current norm of appointing businesspeople to the Board is the equivalent of selecting a High Court consisting of a olice sergeant, a paroled criminal and a tax lawyer – on the basis that they all have considerable experience with the legal system. Rightly we instead appoint our foremost experts in the law and legal reasoning to the High Court, the same should also be true of our central bank. There is thus considerable scope to improve the RBA's policy process by reforming the way it formulates monetary policy.

The current governance structure concentrates both monthly monetary policy decisions and traditional board roles such as strategic oversight and risk management in a single committee. The skills and expertise required for these two tasks are quite different and consequently the two tasks would be best divided across two separate committees – much like payments policy is decided separately from monetary policy under the status quo.

This separation would follow best practice among other central banks. While the details vary, most peer central banks separate their governing body from their policy committee in recognition of the separate skills that each task requires.

	Governing Body	**Monetary Policy Body**
Reserve Bank of Australia	Board	
Bank of England	Court of Directors	Monetary Policy Committee
Bank of Canada	Board of Directors	Governing Council
Reserve Bank of New Zealand	Board	Monetary Policy Committee
Federal Reserve	Board of Governors	Federal Open Market Committee

The RBA should emulate the Bank of England's monetary policy framework. Monetary policy decisions should be delegated by the Board to a dedicated Monetary Policy Committee which comprises both internal staff economists and external experts in the field of monetary policy.

The internal economists should be composed of five members: The Governor, Deputy Governor(s) and the Assistant Governors of Economic Group and Financial Markets. The Assistant Governor for Financial Stability should be included in the event that the number of Deputy Governors is not increased – see Recommendation 3.3. These internal experts should be combined with four external experts chosen for their expertise in monetary policy, macroeconomics or financial markets.

The Board, having delegated monetary policy decisions, should be composed of individuals that are skilled at organisational oversight and management, risk management and public representation. The Board should commit to not intervening in policy decisions made by the Monetary Policy Committee, the Payments System Board or any other policy making body within the RBA.[1]

[1] All further recommendations in this section assume the existence of both a Board and a devolved Monetary Policy Committee.

Recommendation 3.1: The RBA should devolve monetary policy decisions to a dedicated committee (ie a Monetary Policy Committee) consisting of five internal economists and four externally appointed experts.

The position of the Treasury Secretary on the RBA's Board is also an international outlier that should be removed.

It represents a potential avenue for politicisation of the RBA, as exemplified by Greens Senator Nick McKim who has recommended that "the federal treasurer should provide written instructions to the treasury secretary ahead of every RBA board meeting, setting out the positions the government wants the treasury secretary to take on decisions of the board with the aim of better integrating fiscal and monetary policy, and the RBA board should respond to the positions of the treasury secretary in the minutes of its meetings." (quoted in Hutchens 2022). This would place immense pressure on the RBA to follow the Government's lead, effectively ending the RBA's independence and potentially imperilling confidence in the RBA's inflation target.

Recommendation 3.2: The Treasury Secretary should not be an ex-officio member of the Monetary Policy Committee. They should remain on the Board as a non-voting member.

The Act currently only allows for a Governor and a single Deputy Governor to be appointed to the Board. It should be amended to allow for the possibility of multiple Deputy Governors to be appointed.

Both the Bank of England and the Bank of Canada have multiple Deputy Governors covering different portfolios within their respective organisations. This gives their Governments more flexibility when appointing external candidates to senior leadership roles at their central banks. Appointing an external candidate under the status quo necessitates creating a leadership team in which one half has limited, possibly zero, experience with the RBA as a working institution. This creates a high degree of risk for even the most highly qualified of candidates as central banking has a steep learning curve.

However, the risk of appointing an external candidate to a central bank's leadership team is mitigated if they are part of a larger executive team, in which the potential loss of instructional knowledge is more limited. This is one possible explanation for why other comparable central banks have a stronger history of appointing external candidates to their executive teams. A larger executive group would also provide more opportunities to appoint candidates from a diverse array of backgrounds.

Recommendation 3.3: That the *Reserve Bank Act (1959)* be amended to allow for the appointment of multiple Deputy Governors.

Given this, what appointments process, composition, professional experience, qualifications and tenure of the Reserve Bank Board is most appropriate for fostering internal deliberation and effective decision making?

Both the Board and Monetary Policy Committee members should continue to be appointed by the Treasurer of Australia. However, the selection process should be modelled on the process outlined by the Grattan Institute in Wood, Griffiths and Stobart (2022) which suggests that:

- all positions should be advertised, along with the selection criteria for each position,
- an independent panel, including the Public Appointments Commissioner, should assess applicants against the selection criteria and provide a shortlist of candidates to the minister, and
- the Treasurer should be required to choose the successful candidate only from the shortlist.

External economists have previously been appointed to the RBA's board. However, there has generally only been one of them at any time and occasionally their expertise has been in fields other than the RBA's core policy area (i.e. monetary policy, macroeconomics or financial markets). This should be changed such that there is a clear selection criterion with expertise in monetary policy, macroeconomics or financial markets a core requirement. External experts and Board members should also be subject to the same conflict of interest rules as senior RBA staff.

Monetary policy should be set by a combination of internal and external subject matter experts. External experts bring two important qualities to the policy process which should drive the selection criteria:

- their expertise in monetary policy, and
- their independence from the internal RBA staff.

Recommendation 3.4: External appointments to the RBA's Monetary Policy Committee should have professional expertise and training in a relevant field i.e. monetary policy, macroeconomics or financial markets.

Independence from the RBA is an important quality in external experts to prevent group-think from occurring within the Monetary Policy Committee.

While there should be no barrier on former members of the RBA staff serving as external members, there should be a recognised norm against appointing external members directly from within the staff of the RBA. Similarly, while external experts should be able to be reappointed at least once, there should be an upper limit on the number of years they serve to ensure their independence and prevent group-think.

Recommendation 3.5: External appointments to the RBA's Monetary Policy Committee should not come directly from within the Bank's staff.

Recommendation 3.6: External appointments to the RBA's Monetary Policy Committee should be term limited to two or three consecutive appointments of five years.

Finally, to ensure external experts are able to robustly hold internal analysis and policy recommendations to account, they should be supported by one or two full-time economists from Economic Group and Financial Markets Group. These economists would help external experts conduct policy and data analysis, write speeches and conduct research so they can make informed policy analysis.

Recommendation 3.7: External expert appointments to the RBA's Monetary Policy Committee should be supported by one or two full time economists from Economic Group and Financial Markets Group to support their work analysing the Australian economy and setting monetary policy.

What communication practices would best promote accountability, transparency and support public understanding of the RBA's policy strategy and decisions?

While the RBA has made numerous improvements to its transparency and accountability, it still lags behind its peer central banks. Below are a number of reforms that would promote accountability, transparency and public understanding of the RBA's strategy.

Under the status quo the current policy process remains fairly opaque which limits both the RBA's accountability and their ability to manage expectations. Outside observers have little insight into how close any given policy decision was, on what information a decision turned or how the Board expects the cash rate to move over the coming months.

Peer central banks have adopted a range of measures to be more transparent and to improve the public's understanding of the monetary policy strategy:

1. Votes and individual members' reasoning behind policy decisions are published at the time of the meeting.
2. External members of the policy committee give public talks outlining their thinking on the state of the economy and the optimal stance of monetary policy.
3. Regularly publishing the central bank's main macroeconomic model, along with key estimated variables such as the NAIRU and the natural rate of interest.
4. Transcripts and board documents, including forecasts, are published with a suitable lag.
5. Press conferences are held after every policy decision or major publication.

Recommendation 3.8: Decisions by the Monetary Policy Committee should be more transparent, with votes and detailed reasoning disclosed at the time of the meeting. Transcripts should also be published with a suitable lag, at least seven years.

Recommendation 3.9: All members of the Monetary Policy Committee should be permitted to talk publicly on how they view the state of the economy and the appropriate stance of monetary policy.

Recommendation 3.10: The Monetary Policy Committee minutes should disclose the staff recommendation, whether it was followed and explain why if not.

Recommendation 3.11: To increase their transparency, the RBA should explicitly publish how it weighs the inflation rate and the unemployment gap and commit to regularly publishing their best estimate of the NAIRU (and thus the current unemployment gap).

Recommendation 3.12: The RBA should publish the documents provided to the Board prior to each policy meeting with a suitable lag, at least seven years.

Recommendation 3.13: The RBA should publish regular retrospective policy analyses, discussing whether monetary policy was set optimally in the past and why.

Recommendation 3.14: The RBA should regularly publish updates to its main macroeconomic model (ie MARTIN) and its current estimates of critical variables such as the NAIRU and the natural rate of interest.

Recommendation 3.15: The RBA should regularly hold press conferences, at minimum after each Statement on Monetary Policy.

Recommendation 3.16: The RBA should explicitly publish its assumed path for the cash rate it uses for its quarterly forecasts based on market expectations of the cash rate. If it disagrees with the market forecasts used as an input into the forecasts, the RBA should publish two sets of forecasts using both market forecasts and their own cash rate projections.

Finally, despite the RBA's recent experience with forward guidance, they should consider publishing a forecast for the cash rate even when nominal rates are not constrained by the effective lower bound. Publishing a forecast for the cash rate - including confidence intervals - would provide the RBA with an additional tool to communicate the stance of monetary policy, allow the RBA to better influence household and firms' expectations, provide greater certainty to borrowers with adjustable rate debt, create a useful input into banks and governments pricing of bonds, and increase the level of transparency.

By publishing a range for the probabilistic forecast of the cash rate the RBA should avoid the perception that the forecast is a commitment or promise. One upside of the recent mixed experience with forward guidance is that any future forward guidance will be unlikely to be considered a binding promise by Australian households. This reform would formalise the ad-hoc forward guidance that occurs under the status quo (i.e. statements to the effect that "the next move in the cash rate will be an increase").

Recommendation 3.17: The RBA should explicitly publish a forecast for the cash rate, including confidence intervals.

Are there any other aspects of the RBA's governance and accountability arrangements that the Review should consider?

The US Federal Reserve has updated its ethic rules for senior staff after the recent discovery that several FOMC members had engaged in some ethically questionable financial transactions during the 2020 Covid-19 pandemic response.

The Code of Conduct for Reserve Bank of Australia Board members states that they are not allowed to transact in any "blackout financial instruments" in the days leading up to Board meeting. As soon as the Board members receive their confidential briefing on the upcoming meeting (usually at 10am the Friday beforehand), they are not permitted to trade any financial instruments that could be affected by a move in the cash rate.

This restriction would make sense if we assumed that the Board members' only source of sensitive economic information was the papers that they received. However, this is clearly not true. In previous testimony to the Australian parliament, the RBA has stated that the process of setting policy is an ongoing dialogue between meetings as members discuss the wide range of economic indicators and how much weight they play on each when setting policy over the months to come. Given their access to the RBA's deliberations, the RBA should consider requiring all senior staff, including the Monetary Policy Committee and Board members, to declare transactions in mutual funds ahead of time so as to prevent the appearance of a conflict of interest.

Recommendation 3.18: The RBA's senior staff, including MPC members, should be prohibited from holding individual stocks and bonds.

Recommendation 3.19: The RBA should consider requiring all senior staff, including MPC members, to declare large financial transactions ahead of time.

Theme 4: Institution

The RBA frequently rotates PhD economists with strong research skills into areas of the Bank with limited scope for conducting research. This is a questionable use of human resources and makes it difficult to attract and retain research orientated staff.

Recommendation 4.1: The RBA should give research orientated staff time to conduct research even if they are not currently in the research department.

This Review process has been long in the making and has already provided numerous benefits. Given the immense responsibility the RBA is burdened with and its high degree of independence, it should be reviewed regularly to ensure it is best able to serve the Australian public.

Recommendation 4.2: The RBA should be formally reviewed by external experts every 5 years to evaluate it and consider additional reforms.

These reforms will likely lead to an ongoing increase in the workload among RBA economists - especially if additional transparency measures are enacted. The RBA should consider reducing the frequency of meetings, down to 8 meetings per year as is the international norm, in order to limit the additional workload on its staff.

Recommendation 4.3: The RBA should consider moving to 8 policy meetings per year, with the option to hold emergency meetings if required.

Recommendation 4.4: The RBA should engage more with academics who conduct policy-relevant research on the Australian economy and monetary policy.

Appendix

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