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Money too tight to mention: The Reserve Bank of Australia's financial stability mandate and low inflation

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ABSTRACT

When Philip Lowe became Governor of the Reserve Bank of Australia in 2016, the Australian government agreed to a change in the Statement on the Conduct of Monetary Policy that inverted the relationship between the Reserve Bank's price and financial stability mandates. Whereas a previous agreement had made financial stability explicitly subordinate to the price stability objective, the 2016 agreement specifically allowed for temporary deviations from the inflation target in pursuit of financial stability. I argue this change led the Reserve Bank to overly condition monetary policy on apprehended financial stability risks at the expense of achieving the inflation target, explaining a prolonged undershoot of the central tendency of the RBA's 2%–3% inflation target range. The RBA otherwise characterises financial stability risks as low, implying little benefit from conditioning monetary policy on those risks compared to the costs of undershooting the inflation target. Below target inflation may itself undermine the financial stability objective. I recommend the next federal government revert to the wording of the 2010 Statement on the Conduct of Monetary Policy in describing the relationship between price and financial stability, as well as other measures to re-prioritise the inflation target.

Low inflation is not that bad. Most people don't really care.

Reserve Bank Governor Philip Lowe, speaking at ECB Forum on Central Banking, Sintra, Portugal, 20 June 2018 (quoted in Fleming and Jones, 2018)

1. Introduction

When Philip Lowe became Governor of the Reserve Bank of Australia in 2016, the Australian government agreed to a change in the wording of the Statement on the Conduct of Monetary Policy that inverted the relationship between the Reserve Bank's price and financial stability mandates. Whereas a previous agreement between the Governor and the Treasurer had made financial stability explicitly subordinate to the price stability objective, the 2016 agreement specifically allowed for temporary deviations from the inflation target in pursuit of financial stability.

I argue that this change led the Reserve Bank to overly condition monetary policy on apprehended financial stability risks at the expense of achieving the inflation target, explaining a prolonged undershoot of the central tendency of the RBA's 2%–3% inflation target range. I show that this explicit trade-off between the inflation target and financial stability risks is inconsistent with what the RBA otherwise says about financial stability risks. In particular, the RBA characterises financial stability risks as low, reflecting underlying fundamentals, implying little benefit from conditioning monetary policy on those

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risks compared to the costs of undershooting the inflation target. Below target inflation may itself undermine the financial stability objective.

At the same time, the Reserve Bank has increasingly sought to explain inflation in terms of non-monetary factors to rationalise the undershooting of the inflation target. Indeed, much of its commentary on inflation reads as though inflation outcomes were independent of monetary policy. Non-monetary explanations for inflation divert attention from the RBA's responsibility for undershooting its inflation target.

Four policy recommendations follow from the discussion: (1) The Reserve Bank should publicly quantify the costs and benefits of trading off the inflation target against its financial stability mandate; (2) The government should reinstate the wording of the 2010 agreement between the Reserve Bank Governor and Treasurer to make financial stability explicitly subordinate to the price stability objective; (3) As part of that agreement, the government should require the Reserve Bank Governor to hold a quarterly press conference after each release of the consumer price index to explain the latest inflation outcome and its relationship to the inflation target to encourage stronger RBA ownership of inflation outcomes; and (4) The Council of Financial Regulators should continue to highlight rigidities on the supply-side of the residential housing market as a structural impediment to reconciling the inflation and financial stability mandates so as to encourage greater government ownership of the issue of inadequate housing supply.

2. Monetary policy and financial stability

A low inflation and interest rate environment coupled with strong growth in some asset prices and credit aggregates has raised new concerns about the relationship between price and financial stability in the conduct of monetary policy for a number of economies, including Australia. The RBA defines a stable financial system as 'one in which financial institutions, markets and market infrastructures facilitate the smooth flow of funds between savers and investors'.[1]

Financial stability has long been a core function of central banks through their lender of last resort function and their role in regulating the payments system and financial institutions. These functions have typically focused on microprudential issues rather than macroprudential or systemic concerns. Monetary policy also has a role in responding to financial instability, particularly where that instability spills over into the macroeconomy. The lender of last resort function has rarely been exercised in Australia since 1900 and Australian depositors have not lost funds due to the failure of financial institutions (Fitz-Gibbon and Gyzicki, 2001). This is in sharp contrast to the US experience and the difference can be attributed to the very different political and institutional context for financial regulation in the two economies.[2]

Since the early 1990s, central banks around the world have adopted more explicit price stability mandates to guide the conduct of monetary policy, typically operationalised through inflation targets. While the Reserve Bank of Australia and the US Federal Reserve have adopted explicit inflation targets, they are also unusual in retaining broader statutory mandates for monetary policy that are largely unchanged on the pre-inflation targeting era.[3]

The number of central banks with financial stability mandates has increased from around two-thirds before the financial crisis of 2008 to around four-fifths post-crisis (Archer, 2016). The role of selected central banks in financial stability is set out in Table 1. This has coincided with new debates about how to frame the relationship between price stability and financial stability in the conduct of monetary policy. Price stability has often been viewed as a necessary, though not sufficient condition, for financial stability. This argues for subordinating the financial stability to the price stability objective. Few would dispute that monetary policy should respond to the macroeconomic consequences of a financial shock. The issue is whether monetary policy should take a more pre-emptive approach to financial stability risks by 'leaning against' growth in asset prices and credit aggregates, potentially at the expense of the inflation target, rather than responding to financial instability after the fact. The debate is sometimes characterised as one between 'leaners' versus 'cleaners' or 'poppers' versus 'moppers'.[4]

3. The evolution of the Reserve Bank's financial stability mandate

The *Reserve Bank Act* 1959 does not mention financial stability, although the statutory objective to 'best contribute to the economic prosperity and welfare of the people of Australia'[5] is sometimes invoked as a catch-all that encompasses financial stability, insofar as financial instability can have negative welfare implications. Almost any policy approach thought to be welfare-enhancing could be rationalised based on this objective.

There is a quasi-statutory basis for the Reserve Bank's financial stability mandate in the second reading speech to the APRA Act 1998, which set out the post-Wallis Financial System Inquiry allocation of regulatory responsibilities among financial system regulators. In that speech, Treasurer Costello said:

> *There are three fundamental regulatory objectives for government intervention in the financial system. The first is the maintenance of financial stability, including through ensuring a safe and reliable payments system. This goal, which has close links with the price stability objective of monetary policy, is to be the regulatory focus of the Reserve Bank of Australia.*[6]

1 Reserve Bank of Australia, Financial Stability, https://www.rba.gov.au/fin-stability/.

2 On the political and institutional context for financial instability in the US, see Calomiris and Haber (2014).

3 For a review of the RBA's governance framework, see Kirchner (2008).

4 For a review of this debate, see Kirchner (2009).

5 Reserve Bank Act 1959, Federal Register of Legislation, https://www.legislation.gov.au/Details/C2015C00201.

6 Second Reading Speech by The Hon Peter Costello, MP, Treasurer on the Australian Prudential Regulation Authority Bill 1998, 3.

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Table 1
Central Banks' roles in financial stability.
Source: Halton and Weinberg (2017).

Central Bank	LOLR?[a]	Primary prudential regulator?	Role in macroprudential regulation	Publication of FS reports
Federal Reserve (United States)	Yes	Yes. One of several prudential regulators.	Chair is voting member of Financial Stability Oversight Council, and Fed regulates "systemically important" institutions.	Not independently, but through FSOC since 2011
Bank of Canada	Yes	No. Office of the Superintendent of Financial Institutions is primary prudential regulator.	Member of Senior Advisory Council, a nonstatutory body that discusses macroprudential policy. The BOC also oversees financial market infrastructures and prominent payment systems.	Since 2002
Bank of England	Yes	Yes. BOE's Prudential Regulation Authority shares primary prudential responsibility with the Financial Conduct Authority, including use of prudential tools.	BOE leads and hosts Financial Policy Committee that gives direction on use of macroprudential tools to prudential regulators.	With other agencies since 1996, own report since 2006
Bank of Japan	Yes	No. Financial Services Agency is primary prudential regulator.	In 2014, BOJ and FSA established task force to exchange views on financial stability. BOJ is responsible for operation and oversight of payment and settlement systems.	Since 2005
European Central Bank	No[b]	No. Separate regulatory authorities in each nation are responsible for prudential regulation.	ECB and national central banks make up majority of voting members in European Systemic Risk Board, which provides macroprudential oversight within the European Union.	Since 2004
Norges Bank (Norway)	Yes	No. Financial Supervisory Authority of Norway is primary prudential regulator.	Shares macroprudential responsibilities with other institutions. Publicly issues advice to the Ministry of Finance.	Since 1997
Reserve Bank of Australia	Yes	No. Australian Prudential Regulation Authority is primary prudential regulator.	Chairs Council of Financial Regulators, a forum for identifying financial system issues and trends. RBA has specific regulatory authority for payments system stability.	Since 2004
Reserve Bank of New Zealand	Yes	Yes. One of several prudential regulators.	A memorandum of understanding with the government gives RBNZ authority over macroprudential measures.	Since 2004
Riksbank (Sweden)	Yes	No. Financial Supervisory Authority is primary prudential regulator.	Participates in Financial Stability Council, a forum to discuss financial stability and financial imbalances. Riksbank also is responsible for promoting safe and efficient payment system.	Since 1997
Swiss National Bank	Yes	No. Swiss Financial Market Supervisory Authority is primary prudential regulator.	Responsible for proposing activation, modification, or deactivation of the countercyclical capital buffer without ultimate authority over it.	Since 2003

[a] Lender of last resort to banks.

[b] Central banks of European Monetary Union members serve as LOLRs in their respective nations.

These 'close links' were not specified, but one plausible interpretation of this statement is that price stability is a necessary condition for financial stability.

We can trace the evolution of the financial stability mandate in practice through the Statements on the Conduct of Monetary Policy agreed between successive Reserve Bank Governors and Treasurers since 1996. These agreements are put in place following changes in government or in the Governor of the Reserve Bank and are designed to affirm their common understanding of how monetary policy will be conducted to reach agreed policy objectives consistent with the Bank's statutory objectives.

In the first four Statements (August 1996, July 2003, September 2006 and December 2007) the financial stability mandate is, from today's perspective, conspicuously absent. The fifth agreement in September 2010, the first to follow the financial crisis of 2008, was notable for including a new section on financial stability invoking the post-Wallis framework for financial system regulation, while also making financial stability explicitly subordinate to the price stability objective:

> *The stability of the financial system is critical to a stable macroeconomic environment. Financial stability is a longstanding responsibility of the Reserve Bank and its Board, and was reconfirmed at the time of significant changes made to Australia's financial regulatory structure in July 1998…*

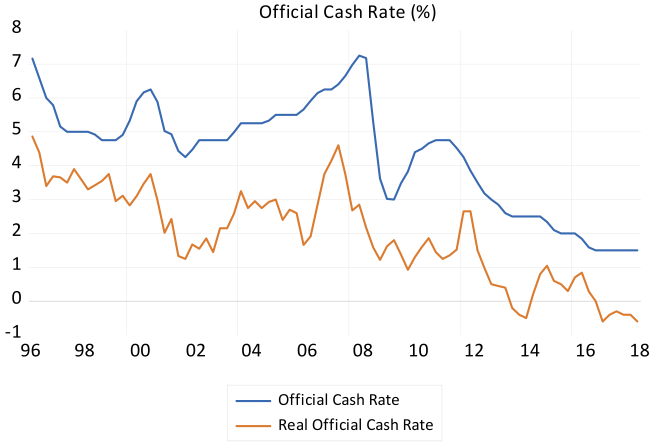

Fig. 1. Official Cash Rate (%).
Source: Reserve Bank of Australia.

> ***Without compromising the price stability objective****, the Reserve Bank seeks to use its powers where appropriate to promote the stability of the Australian financial system.*[7]

The October 2013 Statement reiterated the 2010 Statement in affirming the RBA's responsibility for financial stability, although on this occasion there was no statement about the relationship to the price stability mandate.

The latest agreement adopted when Philip Lowe became Governor of the Bank in September 2016, introduced a new formulation for both the inflation target ('over time' rather than 'over the cycle') and the financial stability mandate:

> *Both the Reserve Bank and the Government agree that a flexible medium-term inflation target is the appropriate framework for achieving medium-term price stability. They agree that an appropriate goal is to keep consumer price inflation between 2 and 3 per cent, on average, over time. This formulation allows for the natural short-run variation in inflation over the economic cycle and the medium-term focus provides the flexibility for the Reserve Bank to set its policy so as best to achieve its broad objectives,* ***including financial stability****. The 2–3 per cent medium-term goal provides a clearly identifiable performance benchmark over time.*[8]

Whereas the 2010 agreement makes financial stability explicitly subordinate to the price stability objective, the 2016 agreement is notable for specifically allowing flexibility in meeting the inflation target to pursue other objectives, including financial stability. This is a significant reinterpretation of the RBA's mandate compared to previous agreements and potentially has major implications for how monetary policy is conducted.

It is questionable whether the government, parliament and the public have adequately debated or understood its significance. Newspaper reports at the time of the new agreement referred to 'minor tweaks' and Treasurer Morrison said 'it is similar to previous statements' (Greber, 2016). Debelle (2018) notes that 'the articulation of the financial stability objective' is 'the most substantive change' to the Statement, but does not elaborate on what made this change substantive. As he notes elsewhere in the same speech, the appropriate relationship between price and financial stability mandates is still an open question in policymaking circles. If this relationship is poorly understood, as Debelle maintains, it would seem risky to then condition monetary policy on a trade-off with unknown (and possibly unknowable) parameters.

4. Financial stability risks in Australia's low inflation environment

The Reserve Bank has been lowering its official cash rate (Fig. 1) since November 2011 in response to an inflation rate (Fig. 2) that has been drifting below the mid-point and more recently, below the bottom end, of the RBA's 2%–3% inflation target.

Inflation has been below the target mid-point or below the bottom of the target range since the end of 2014. Since Philip Lowe became Governor in 2016, headline inflation has averaged 1.9%, although given the long and variable lags in monetary policy, this outcome should not be entirely attributed to monetary policy since 2016. The RBA's recent Statements on Monetary Policy expect that headline and core inflation will be below the mid-point of the target range out to the middle

[7] Statement on the Conduct of Monetary Policy, The Treasurer and the Governor of the Reserve Bank, 30 September 2010. Emphasis added, https://www.rba.gov.au/monetary-policy/framework/stmt-conduct-mp-5-30092010.html.

[8] Statement on the Conduct of Monetary Policy, The Treasurer and the Governor of the Reserve Bank, 19 September 2016. Emphasis added, https://www.rba.gov.au/monetary-policy/framework/stmt-conduct-mp-7-2016-09-19.html.

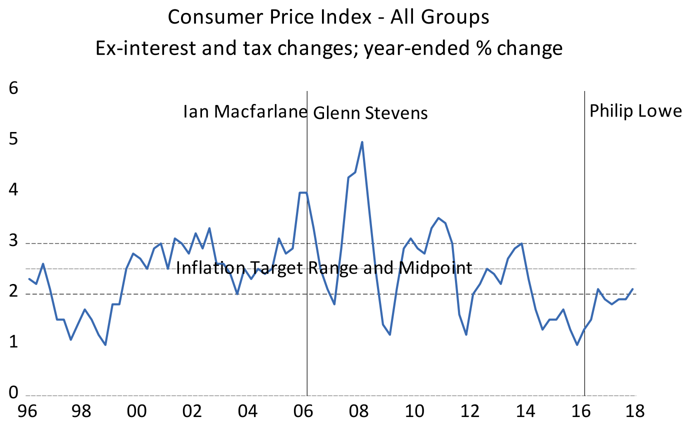

Fig. 2. Consumer Price Index - All Groups, Ex-interest and tax changes; year-ended % change.
Source: Reserve Bank of Australia.

of 2020.[9] These subdued inflation outcomes have been blamed on a variety of one-off and non-monetary factors (discussed below), but such a sustained undershooting of the inflation target can only be explained with reference to the conduct of monetary policy.

The current monetary policy easing cycle in Australia has been associated with significant increases in dwelling prices in some capital cities and the household debt to disposable income ratio rising to a historically high level in absolute terms and relative to other comparable economies. Both house prices and household debt have come to be seen as a constraint on monetary policy due to concerns about the resilience of household and financial sector balance sheets to possible future shocks, although the RBA has also been careful to note that house prices, the ratio of house prices to income and debt to income are not in themselves risk indicators or targets for financial stability policy (Ellis and Littrell, 2017, p. 147).

Australia's financial system regulators have jointly addressed these risks through a number of prudential and supervisory measures aimed at maintaining prudent lending standards and reducing growth in some categories of lending, including for investment properties and interest-only loans. As Ellis and Littrell note, 'by the second half of 2014…all four members of the Council of Financial Regulators (APRA, RBA, ASIC and Treasury) were comfortable that a period of constrained growth for home lending would be the most sensible strategy' (Ellis and Littrell, 2017). These prudential and supervisory measures are set out in APRA (2017).

Increases in house prices and household debt have been attributed to reductions in interest rates and the Reserve Bank has often highlighted the role of the long-term decline in interest rates in increasing the debt servicing capacity of households, leading to a rise in debt to income ratios. To the extent that the reduction in interest rates is a permanent or secular phenomenon, then policymakers should be willing to accommodate the rise in debt to income ratios. Governor Lowe has characterised the increase in the debt to income ratio as 'largely structural' rather than cyclical and argued that 'borrowing is not the underlying cause of higher house prices,' (Lowe, 2017a) although RBA officials have also argued that it is too risky to interpret the rise in household debt to income ratio as an equilibrium outcome (Ellis and Littrell, 2017, p. 144).

The growth in residential property prices and associated lending has been largely specific to Sydney and Melbourne. In real terms, dwelling values have fallen in five of eight capital cities over the last decade.[10] Conditioning a blunt policy instrument such as the official cash rate on developments in two capital city housing markets is likely to leave monetary policy miscalibrated for the rest of the economy.

The RBA has often highlighted that house prices are not at odds with fundamentals. Former RBA Governor Stevens pointed to supply-side rigidities as the main driver of higher house prices,[11] while Governor Lowe has pointed to the role of supply restrictions on residential land and residential land prices as an important factor.[12] The supply of new residential land

9 Reserve Bank of Australia, Statement on Monetary Policy, February 2018 https://www.rba.gov.au/publications/smp/2018/feb/pdf/06-economic-outlook.pdf.

10 Cameron Kuscher, 'Only Sydney, Melbourne & Hobart Have Recorded Growth In Real Dwelling Values Over The Past Decade,' Corelogic Research, 2 February 2018, https://www.corelogic.com.au/news/only-sydney-melbourne-hobart-have-recorded-growth-real-dwelling-values-over-past-decade.

11 (Stevens, 2009). Stevens said: 'A very real challenge in the near term is the following: how to ensure that the ready availability and low cost of housing finance is translated into more dwellings, not just higher prices. Given the circumstances – the economy moving to a position of less than full employment, with labour shortages lessening and reduced pressure on prices for raw material inputs – this ought to be the time when we can add to the dwelling stock without a major run-up in prices. If we fail to do that – if all we end up with is higher prices and not many more dwellings – then it will be very disappointing, indeed quite disturbing. Not only would it confirm that there are serious supply-side impediments to producing one of the things that previous generations of Australians have taken for granted, namely affordable shelter, it would also pose elevated risks of problems of over-leverage and asset price deflation down the track'.

12 (Lowe, 2017b). Lowe said: 'Put simply, the supply side simply did not keep pace with the stronger demand side. The result has been higher prices.' As Deputy Governor, Lowe noted that: 'From a longer-term perspective, the challenge of providing an adequate supply of reasonably priced housing for an

and dwellings in Australia is largely determined by regulation. Sydney, which has seen some of the strongest growth in house prices up until recently, is also widely regarded as having the most dysfunctional planning system. These supply-side rigidities amplify the dwelling price response to changes in housing demand, increasing the amplitude of housing and credit cycles.

Based on their own analyses and public statements, Australia's financial system regulators are leaning against fundamentals in their conduct of prudential and monetary policies aimed at maintaining resilience against future shocks and mitigating financial stability risks. With the exception of Australian Securities and Investments Commission Chair Greg Medcraft, Australia's regulators have mostly rejected the 'bubble' characterisation in relation to Australia's housing and credit markets (Danckert, 2017). With growth in house prices and household debt driven by fundamentals, financial stability risks are judged by the Reserve Bank to be low.

Australia's financial system regulators have sought to address financial stability risks emanating from the supply-side of the residential housing market, but without policy instruments that can directly address these fundamentals. Prudential and monetary policy can be used to suppress or reallocate credit growth and housing demand, but cannot do much for supply and may even damage supply to the extent that residential dwelling construction needs to be financed and requires borrowers willing to bear the financial and other risks associated with making additions to the housing stock.

The RBA has noted that while it is confident supervisory and regulatory measures 'will work in the short to medium term. It is unclear if tighter and prudential regulation can permanently offset lower rates in the long-term' (Ellis and Littrell, 2017, p. 150). Governor Lowe has said that:

> *The international evidence is that these types of measures cannot sustainably address pressures on housing prices originating from the underlying supply–demand balance. But they can provide some breathing space while the underlying issues are addressed. In doing so, they can help lessen the financial amplification of the cycle that I spoke about before. Reducing this amplification while a better balance is established between supply and demand in the housing market can help with the resilience of our economy* (Lowe, 2017a).

There is a widely held view that the enhanced prudential and supervisory measures adopted since the end of 2014 have given the Reserve Bank increased monetary policy flexibility to hold interest rates lower than might otherwise have been the case. At the same time, these measures have the effect of tightening credit conditions, both quantitatively and in terms of some categories of interest rates, at the same time that monetary policy is otherwise trying to remain accommodative. Monetary and macroprudential policy are said to be complementary, but they are also at cross-purposes to the extent that credit conditions are an important transmission mechanism for monetary policy. Macroprudential policy is effectively seeking to blunt some of the channels of the monetary policy transmission mechanism.

Given that inflation has been below target for an extended period and the economy continues to experience excess capacity, monetary policy would seem to be bearing at least some of the burden of containing financial stability risks, at least at the margin of policy choice. The RBA has explicitly conditioned its policy decisions on developments in the housing market and household debt. Governor Lowe made the trade-off between the Reserve Bank's objectives explicit in testimony before the House of Representatives Economics Committee:

> *the Board has sought to strike a balance between these benefits of monetary stimulus and the medium-term risks associated with the increase in the already high level of household debt. We have sought to steer a middle course, promoting sustainable growth in the economy.*[13]

The minutes of the September 2017 RBA Board meeting also invoke this trade-off:

> *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.*[14]

These statements would seem to imply that monetary policy is tighter at the margin than the outlook for inflation would otherwise warrant. This is certainly the perception of financial market participants. According to one prominent private bank economist:

> *It's also worth noting that with underlying inflation expected to hold at or below the bottom of the RBA's 2–3 per cent target band for 2018 and 2019, that would make five consecutive years below the desired range, which arguably represents a structural fall in inflation that has not been addressed more aggressively with even lower rates due to concerns around housing markets* (Evans, 2018).

increasing population rests largely on the flexibility of land supply and, in particular, the supply of well-located land. This is because high housing costs largely reflect high land prices, not high construction costs.' http://www.rba.gov.au/speeches/2016/sp-dg-2016-03-08.html.

13 Philip Lowe, Opening Statement to the House of Representatives Standing Committee on Economics, 16 February 2018, https://www.rba.gov.au/speeches/2018/sp-gov-2018-02-16.html.

14 Minutes of the Monetary Policy Meeting of the Reserve Bank Board, 5 September 2017. Emphasis added, http://www.rba.gov.au/monetary-policy/rba-board-minutes/2017/2017-09-05.html. Governor Lowe has also pointed to a trade-off between economic growth and financial stability: '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' (cited in Hewett, 2017).

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The RBA has made this trade-off even though, in its judgement, 'the overall level of stress among mortgaged households remains relatively low. Furthermore, the banking system is strong and well capitalised, and is supported by prudent lending standards. The risks to financial stability from this source therefore remain low' (Bullock, 2018). This suggests only limited benefits in terms of increased resilience to shocks compared to the costs of undershooting the inflation target.

If nominal stability is a necessary, if not sufficient, condition for financial stability, then failing to meet the inflation target could itself reduce resilience to shocks. For example, the Reserve Bank highlights the growth in income relative to household debt as a concern, yet undershooting the inflation target will tend to depress income growth and increase real debt burdens, potentially reducing the resilience of households and the financial system. As Svensson (2017) has argued, a policy of 'leaning against the wind' also has an often overlooked cost, which is to give the economy a weaker starting point if a financial or other shock does occur. Svensson has produced modelling showing why a policy of maintaining tighter monetary policy in response to financial stability risks is likely to incur larger costs than benefits.

5. Sweden's experience

Svensson's model reflects his experience as a former Deputy Governor of the central bank of Sweden between 2007 and 2013 as it sought to trade-off inflation and financial stability. This episode was the subject of an independent, external review conducted by Marvin Goodfriend (now a nominee to the US Federal Reserve Board) and former Bank of England Governor Mervyn King at the request of the Committee on Finance of the Swedish parliament. The review summarised the issues involved as follows:

> *by 2012 the majority on the Riksbank Board were sufficiently concerned about developments in house prices and the growth of household credit to set the repo rate at a level higher than was justified by a strict application of targeting inflation two years ahead…*
> *The Riksbank…took it upon itself to allow concerns about financial stability to affect decisions on monetary policy. The dissenters on the Board took a much narrower view of the commitment to price stability which reflected a particular view of how the economy worked.*
> *One of the difficulties that beset policy at the time was the failure of the Government to decide which body should have the responsibility for financial stability* (Goodfriend and King, 2015, p. 8).

The review highlighted the importance of a clear framework to govern the relationship between price and financial stability. Svensson (2016), who was one of the dissenters on the board noted above, described the problem with the majority's approach as follows:

> *The big problem is that the Riksbank's majority, in an attempt to constrain household debt, deliberately pursued a tight monetary policy that neglected both the price-stability objective and the primary objective of Swedish economic policy, full employment. This despite the preparatory works of the Riksbank Act stating that the Riksbank, without prejudice to the price-stability objective, shall support the goals of the general economic policy with the purpose of achieving sustainable growth and high employment. The majority's policy was pursued despite extensive theoretical and empirical research having shown already in 2010 that, as far as could be judged, the costs of such a policy by a margin exceeded the possible benefits. Empirically, the effect of the policy rate on household debt and risks of a crisis is too small for the benefits to exceed the costs in terms of high unemployment and low inflation. Later research has shown that the costs outweigh the possible benefits with an even greater margin and, given the current state of knowledge, are in most cases several times larger than any benefits.*

6. Resort to non-monetary explanations for inflation

As central banks around the world have undershot their inflation targets, central bankers have increasingly turned to non-monetary explanations of inflation to rationalise their failure to meet their price stability mandates. There are always one-off and non-monetary factors influencing prices, but these are more appropriately viewed as changes in relative prices rather than the absolute price level. However, a prolonged undershooting of the inflation target must ultimately be viewed as being driven by monetary policy. The global nature of low inflation suggests a common cause, but that cause is likely to be a common approach to monetary policy. Central banks following similar approaches have systematically erred in delivering monetary policy that was tighter than intended as measured by inflation outcomes relative to target. The low long-term inflation expectations priced into inflation-linked bond yields suggest that this is not attributable to one-off or temporary factors.

Central banks have also been puzzled by the apparent lack of inflationary pressure arising from tighter labour markets (Fleming, 2017). Yet under a credible inflation targeting regime, the only variable that should reliably forecast inflation is inflation expectations and these expectations are in turn based on the credibility of monetary policy. The flattening of Phillips curve relationships between labour market variables such as the unemployment rate and inflation is often portrayed as a puzzle to be explained, but is to be expected under an inflation targeting regime.

In Australia, the Reserve Bank has come to view inflation outcomes almost exclusively in terms of their relationship to wages growth. For example, in its May 2018 Statement on Monetary Policy, the Bank said that 'labour costs are a key driver of inflationary pressure' and that 'the outlook for a pick-up in inflation depends on a gradual pick-up in wages growth'.[15] Philip Lowe has said that:

> *low growth in wages is contributing to low rates of inflation in Australia. Indeed, if wages growth were to continue at around its current rate for an extended period, it is unlikely that the rate of inflation would average around the midpoint of the inflation target in the period ahead* (Lowe, 2018).

This statement is remarkable in suggesting that the Reserve Bank will continue to miss its inflation target if wages growth does not perform as expected. Yet recent research shows that it is low inflation expectations that are largely driving low wages growth in Australia (Chua and Robinson, 2018). The Reserve Bank has the relationship between inflation and wages growth backwards. The statement is also remarkable in implying that future inflation outcomes relative to target are independent of the conduct of monetary policy, effectively disowning those outcomes.

7. Conclusion

The RBA's explicit trade-off between apprehended financial stability risks and actual inflation outcomes, together with its adherence to non-monetary rationalisations for low inflation, explains recent below target inflation outcomes. While low inflation is a global phenomenon, it is likely the Reserve Bank is participating in a common error on the part of monetary authorities around the world who no longer have confidence in the efficacy of monetary policy to deliver desired inflation outcomes. Rather than being evidence for monetary policy ineffectiveness or non-monetary causes, low inflation likely reflects a systemic failure by monetary authorities to make more effective use of monetary policy instruments because of perceived constraints on policy. In Australia, financial stability risks are now viewed explicitly as one such constraint.

The RBA has acknowledged that the supply-side of the housing market is severely impaired by regulation and that this is the source of the financial stability risks it has sought to trade-off against the inflation target. The RBA has also pointed to demand-side factors driving the housing market. Ellis and Littrell suggest that exclusive focus on supply 'was, in the Bank's view, probably erroneous' (Ellis and Littrell, 2017, p. 146). While it is important to understand these demand-side dynamics, it is hardly surprising that households will take on considerable leverage to gain exposure to the economic rents created by restrictions on housing supply, restrictions that have massive welfare costs far in excess of plausible externalities that might arise from less regulated urban development (Glaeser and Gyourko, 2018).

According to the RBA, financial stability risks are low, rising housing prices and debt to income ratios reflect structural fundamentals and borrowing is not the underlying cause of higher house prices. This suggests that conditioning monetary policy on financial stability risks is likely to yield few benefits while incurring costs in terms of undershooting the inflation target and may even weaken resilience to future shocks. The RBA should publish research using Svensson's framework showing under what assumptions this trade-off yields net benefits.

The Council of Financial Regulators (CFR), including the Reserve Bank, should recognise the inherent difficulty of managing multiple mandates, including price and financial stability, while lacking policy instruments that can address the underlying economic fundamentals driving financial stability risks. It was conflicts of this type that originally drove the adoption of inflation targeting. The CFR should encourage government to own the source of the problem, rather than trying to implement second-best solutions that are themselves fraught with risk, including risks to the credibility of monetary policy and the inflation target. The 2014 Financial System Inquiry (Australian Government, 2014) arguably should have addressed these issues, but the Reserve Bank's monetary policy mandate was put out of scope by the terms of reference for that inquiry.

After the next federal election, the incoming government should reinstate the wording from the 2010 Statement on the Conduct of Monetary Policy explicitly subordinating financial stability to the price stability objective. The government should also require the Reserve Bank Governor to hold a press conference each quarter following the release of the consumer price index to explain the latest inflation outturn and how it relates to the Reserve Bank's inflation target to underscore its responsibility for inflation outcomes.

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