Discussion

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If the task is to see what alternatives there are to the current flexible inflation-targeting (FIT) regime, the starting point is to examine what's gone wrong. In Australia and elsewhere, FIT has served us well in delivering fairly consistent, low inflation in the 1990s and in the first half of the 2000s – Mervyn King's non-inflationary continuous expansion (NICE), aka 'the Great Moderation'. FIT shouldn't take too much of the blame for the global financial crisis (GFC) as this was mainly a failure of prudential supervision. The only charge that could be made against FIT is that it might have made central banks too complacent and a bit blinkered so that they overlooked finance. But FIT did its job as advertised: it delivered price stability.

The period after 2008, however, revealed some deeper concerns. If we are now asking what alternatives there are to FIT, then the focus should be on how such alternatives might better address these newly recognised inadequacies while, at the same time, retaining the well-proven advantages of FIT.

Two problems can be identified – the first more easily addressed than the second.

The first is that the simple and unambiguous policy guidance that FIT provided doesn't seem simple any longer. We used to think that if we focused just on inflation (or, more precisely, the forecast of inflation), that would be enough to tell us when to raise or lower interest rates. The 2007–08 experience in the United States and Europe has shown that inflation didn't fall as much as might be expected, given the rise in unemployment. Since 2008, the US experience has demonstrated that some version of 'full employment' could be attained (or perhaps even exceeded) without this showing up clearly in wages or inflation. FIT policy guidance depended on the 'divine coincidence' of full capacity and inflation and on a fairly clearly defined Phillips curve, and neither seems reliable.[1]

The second (more serious) problem is that interest rates didn't work as well as we had hoped in addressing the macro problems of the past decade. There are two aspects of this 'not working well' problem. Even with the policy interest rates at historically low levels for a substantial period, the universal experience has been that this didn't seem to have much effect in stimulating output. Economies usually experience fast recoveries after deep recessions, but the post-2008 recovery was pathetically slow just about everywhere. Pushing harder on the instrument (lower interest rates) ran into the effective lower bound (ELB). The textbook problem of the ELB became a problem in practice.

The second aspect of this 'not working well' problem was that the low policy rates *did* seem to have quite an impact on financial markets – this is not a central part of the FIT mindset

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1 The lower trend trajectory also suggests hysteresis and a disconnect between output and inflation (Blanchard, Cerutti and Summers 2015).

(Borio *et al* 2018). Lower interest rates stimulated asset prices, which must have helped output to some degree, but at a cost. This cost is just one manifestation of a broader concern. Monetary policy works by distorting short-term interest rates – one of the key prices in financial markets.[2] Specifically, stimulatory policy works by putting the policy interest rate below the neutral (Wicksellian) interest rate, which distorts financial decisions, expectations, budgets, balance sheets and incentives to invest and to save. Asset prices can be the most obvious manifestation, but not the only one. Borrowing is cheaper, so there is a lending boom which entices households into borrowings which may well prove excessive when normality returns. A bubble in asset prices combined with excessive lending may even put financial stability at risk. Zombie companies stay alive with below-normal interest rates. Exchange rates are distorted, leading to accusations of 'beggar thy neighbour'. Balance sheets of pension and insurance funds are at risk, with their assets no longer matching their long-term liabilities. Self-funded pensioners find their retirement plans in disarray.

In normal circumstances, these distortions are acceptable, even desirable: they are, after all, the channels through which monetary policy operates. But if the policy interest rate is set below the neutral rate *by a large margin and for an extended period of time*, these distortions provide a less acceptable trade-off. Policymakers are in an uncomfortable bind. Their instrument hasn't delivered the expected (and desired) effect on the main objective of encouraging activity (and getting inflation back to target), but has had these ongoing detrimental effects on the financial sector and elsewhere. The result is a policy tension. Central banks just about everywhere feel the urge to get their policy rates back to 'normality' as quickly as possible. But their FIT target constrains them (and even delivers the opposite policy guidance), and the combination of asset booms and overleveraged borrowers threatens an uncomfortable period when interest rates return to normality.

Having identified these problems, we can now turn to the various suggestions for either alternatives to FIT or additions. Let's not spend any time on money targets or exchange rate targets. No country is going there, although some developing countries will want to keep one eye on exchange rates because of the volatility of foreign capital flows.

What about the favoured alternative in the paper by Warwick McKibbin and Augustus Panton – targeting nominal income growth instead of inflation? If anyone was using a pure version of inflation targeting rigorously focused just on inflation, the case for this alternative is easy to understand. Gross domestic product (GDP) targeting shows itself to be superior in some contexts, especially in responding to supply shocks. But for a FIT regime that has some ability to take account of output, the question is whether combining both inflation and output together in a single target is superior to being able to look at them separately. (It's worth noting that the Taylor rule doesn't usually have the same coefficients on output and inflation.) It is also worth noting that nominal income growth is much more variable than inflation, especially in Australia where export price volatility is important. The variance may well be unbiased, as the paper shows, but when the central bank has to explain its policy changes, big variations in the recent figures will be inconvenient, to say the least. And there

2 For two different views on 'distortions', see Bernanke (2017) and Blanchard (2018).

are the old problems of delays and revisions to data. In short, it seems doubtful that the alternative of GDP targeting would have done any better than FIT, either during the GFC or in the recovery period. At the same time, it would have taken the focus off inflation, thus weakening the expectations-anchoring function.

The post-GFC decade has seen innovations (some proposed, some implemented) to modify and supplement FIT overseas (but not in Australia): quantitative easing; forward guidance; price level targeting; helicopter money; and measures to address the ELB (a higher target or negative interest rates).[3] In addition, there are options that address financial sector stability issues more directly: the 'lean-or-clean' debate; and the new panacea of macroprudential policy.

This isn't the place to evaluate quantitative easing (QE) at length. It might be enough just to note that there is a growing consensus that its effect is specific to the time and circumstance. It was clearly very effective in getting frozen mortgage markets working again, but it looks like the third round of QE in the United States didn't have much effect. Its use as a signalling device can be done better by other signalling methods. And as for its portfolio effects, analysis seems to neglect the portfolio effect of the banking sector being forced to hold substantial excess reserves. I'm a sceptic on its reliability as a policy instrument. It's also worth noting that long-term interest rates play a smaller role in countries like Australia, where floating rates are the norm for much borrowing.

I find the usual discussion of forward guidance unhelpful. The FIT system already embodies a very clear and explicit description of how the policymakers will react to unfolding circumstances. If financial markets have a very different view of how output and inflation will develop over time, there might be some point in the central bank striving to make its own forecasts of these two variables more convincing.[4] But if the central bank goes further ('Odyssean'), and essentially overrides the policy response built into the FIT process (by, for example, setting a specific unemployment target or a commitment not to change the policy rate for a specific period), then this is undermining the beautiful simplicity of the FIT framework.[5]

I put Bernanke's (2017) idea of setting a temporary price level target when the central bank wants to signal a long period of low policy rates in much the same category – as a substantial override on the well-understood FIT framework. Desperate times might justify desperate responses, but are we that desperate?

We can dismiss helicopter money quickly. It is fiscal policy (funded from the central bank balance sheet), not monetary policy, and should have the same governance procedures which surround fiscal policy. It is not something that the central bank should decide to do on its own initiative. More fiscal expansion (or at least less contractions) certainly would have been a good idea during the feeble recovery in 2011–13, but this was not (and is not) part of the central bank's remit.

3 For good discussions on these possibilities, see Bernanke (2017), Blanchard and Summers (2017), and Cecchetti and Schoenholtz (2017).

4 This might be what 'Delphic' means, where there is no commitment, for example, the US 'dot-plot' forecasts or the Reserve Bank of New Zealand policy forecast. See Tarullo (2017) for insights into how Fed Board members view the US forecasts.

5 Both the Bank of England and the Sveriges Riksbank got themselves into trouble with Odyssean promises that they overrode later.

Trying to get more impact out of interest rate movements suggests two policy possibilities: raising the inflation target or breaking through the ELB. Both possibilities are driven by the realisation that countries might begin the next downturn with the policy interest rate still quite low, with limited room to lower it further. It is common to measure this challenge in terms of past peak-to-trough falls in the policy rate (e.g. Cecchetti and Schoenholtz 2017). This seems to me to be the wrong measure – the better measure is how far the policy rate can be shifted below the nominal neutral rate. This is the best measure of the stimulatory power of the policy setting, not how far the policy rate fell over the course of a cycle.

Setting a higher target seems to be giving away a lot, abandoning not only the Greenspan criterion of 'a rate of inflation which does not affect decisions much', but also abandoning the painful process that has gone into establishing something around 2 per cent as a sensible number for inflation.[6] Exploring below-zero settings when required may be slightly more acceptable: certainly there is no magic about the 'zero' number, as we have all experienced below-zero real rates without the sky falling in. My guess is that it's quite hard to get far below zero nominal rates: even if you got rid of cash, the financial markets would develop alternative deposits which would be beyond the ability of policy to influence.[7] Negative interest rates don't seem like a longer-run solution. Paul Samuelson reminded us long ago that there is something abnormal about zero interest long-run borrowing costs: it would be profitable to flatten to Rockies. If the nominal policy rate needs to be at zero (and negative in real terms) for an extended period of time, it would be better to ask what has gone wrong with the economy to require this setting.

But the powerful argument against either of these policies is that the effort to get more room to manoeuver for the policy instrument is a false objective. The argument made above is that stimulatory policy settings below the neutral rate have a trade-off between benefit and harm, and a substantial and sustained margin can do more harm than good.

Judgements on this depend heavily on what the Wicksellian neutral rate is. A common view (especially in the United States) is that the neutral rate has fallen substantially and permanently (Laubach and Williams 2015).[8] The counterargument is that profits have been quite high since 2008, so if we think of the neutral rate as the marginal product of capital (rather than the rate at which current monetary policy would be neutral), then there would be some hope that we will find the neutral rate hasn't fallen much. Maybe the risk premium on investment is high for specific and temporary reasons and in time this will revert. If so, the case for this kind of disruptive regime change (especially raising the FIT target) is weak: at the very least we shouldn't be rushing to change.

One lesson from the experience of the GFC is that the financial sector should have a larger role in policy thinking. This is not an entirely new view. It's not that financial stability was

6 This level was chosen as it was close to effective price stability while allowing for unrecorded quality improvements.

7 The tentative experience so far suggests that negative interest rates mainly work through the exchange rate, which some would see as 'beggar thy neighbour' policy.

8 The econometric work which comes up with very low (even negative) neutral rates seems to be influenced by the long period of post-2007 abnormally low rates (especially when compared with the high real rates after the Volcker shock).

ignored (as the universality of financial stability reports demonstrates), it's just that it was intentionally separated from monetary policy and handed over to the prudential supervisors. Even well before 2007, some were trying to link what was happening in the financial sector with monetary policy: running in the background during the FIT regime was a concern about finance, expressed most cogently at the Bank for International Settlements (Borio and Lowe 2002). This was not so much an alternative to FIT, but an additional objective. 'Lean-or-clean' was part of the pre-2007 debate, but has had more attention since. It reflects the not very satisfactory role of asset prices and credit in monetary policy.[9] Clearly asset prices are much more volatile than inflation and, if they became a specific target for monetary policy, there would be seriously conflicting policy guidance.

Even if the lean-or-clean debate is unresolved, one policy instrument has emerged from the post-GFC debates, which is both a response to the previous neglect of financial sector stability and a panacea: macroprudential policy. Why is this relevant to the question of alternative monetary targets? Macroprudential policy has the capacity to address not only financial stability issues, but also to reinforce and correct the apparent weakness of the monetary policy instrument. If higher interest rates aren't reining in excessive demand, then direct limits on borrowing will do the job. If, as I argued above, the GFC was largely caused by prudential failures, this is reason enough to give macroprudential policy a bigger role. Of course, every policy has its caveats and constraints. This is not the place to give chapter and verse on macroprudential policy. I have just two observations. The first is that macroprudential policy is 'back to the future': this is what we did before financial deregulation and we abandoned it (or it abandoned us) because of the great ability of the financial sector to evolve in order to evade direct controls. Second is that whatever macroprudential policy might be able to do to support monetary policy and make it more powerful, this benefit won't exactly correspond with the objective of using macroprudential policy to ensure financial sector stability. During the cyclical upswing when monetary policy might be calling for restraint, bank profits are high and the prudential supervisor has few worries about bank health, so little reason to act. In the downturn, the prudential supervisor is looking for banks to conserve capital by reining in lending, at the very moment when monetary policy would prefer stimulation of the weakening economy. We can only hope for well-coordinated efforts.

How can we draw this wide-ranging discussion together? Monetary policy regimes, like sovereign regimes, don't change when they are working acceptably well: they change when they fail. So has FIT failed?

For me, the answer is a clear 'no'. The two great advantages of FIT framework are:

1. it insulates the central bank from political pressure; and
2. it directly anchors inflation expectations.

Success in maintaining these two advantages depends on FIT's simplicity and clarity: one prime objective and one instrument. To have anything other than inflation as the prime target (e.g. GDP growth) threatens the directness of the anchoring function. Changing the

9 Hence the persistent effort by Claudio Borio to get these two variables added into the policy guidance regime.

inflation number raises the same issue, now that the 2 per cent-ish target is well established. To add other objectives (a full employment target number; temporary price level) increases the complexity of the policy debate and makes decisions harder to explain simply and thus threatens political support. To use other instruments (e.g. QE) has the same problem of putting the beautiful simplicity of FIT at risk.

Instead of abandoning FIT when it doesn't seem to be working perfectly, the better answer is to acknowledge that monetary policy is an imperfect and often weak instrument, overwhelmed by 'headwinds' such as fiscal austerity or balance sheet constraints.[10] When central banks hit the ELB, they should explain that their policy is still working strongly (the policy rate is below the natural rate), it's 'pedal to the metal' and other policy instruments (notably fiscal policy) should be brought to bear. This is the primary lesson of the feeble post-2008 recovery experience, with the recovery undermined by fiscal austerity.

What about the first problem: the absence of a clearly defined Phillips curve?[11] I said that I regard this as a lesser problem, because I think that what has happened can be well explained in terms of the expectations-augmented Phillips curve combined with flat short-run curves, thanks to the success of FIT. Why should we fret if this is allowing the US economy to operate with low unemployment, perhaps slowly reversing some of the post-2008 labour market hysteresis? The right response is to cautiously explore just how far this can be pushed (keeping a weather eye particularly on output and labour market indices) without triggering an adverse response in price expectations. This might give a larger role to output than in the early versions of inflation targeting, but this greater flexibility is now more feasible, with inflation expectations more firmly anchored than when FIT was new.

Meanwhile, the main challenge for central banks is elsewhere. Before 2007, monetary policy seemed to be largely separable from the finance sector. Financial markets, balance sheets and asset prices, which were in the distant background in the FIT framework, have been brought centre stage by the GFC. Where the prudential supervisor is not the central bank, this raises sensitive territorial issues. Where there is overlap (e.g. in the lean-or-clean debate), this has to be finessed, hopefully with a well-coordinated and collegiate relationship between the central bank and the prudential supervisor.

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11 See Blanchard (2017) for a discussion of this.

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2. General Discussion

Participants initially reflected on why previous monetary policy regimes had changed. In the 1980s, financial evolution meant that there were fundamental shifts in the way that money worked. This meant that central banks couldn't control their monetary instruments or targets and so the regime had to be abandoned. In Australia, this money-targeting regime was followed by the 'checklist' approach, which involved looking at a wide range of variables including the current account. This regime broke down because of a vicious cycle between an increasing current account deficit, rising interest rates and an appreciating exchange rate – which suggested that the regime itself was not completely stable.

Reflecting on this, and others' experiences, a participant recommended that central banks should avoid switching policy regimes during crises. This is because it is the hardest time to change regime and mistakes are more likely to be made. They stated that the best approach is to try to improve a working regime – to make it more resilient to future shocks – before it comes under stress. In that light, it was noted by a number of participants that, although the existing inflation-targeting regime was reasonably flexible and had improved transparency, it did have some issues. As such, it was appropriate to consider improvements now.

One issue raised was that, in the most recent crisis, central banks couldn't move real interest rates enough because inflation expectations were so firmly anchored by inflation targets. This limited the amount of support that monetary policy could provide to the recovery. Another issue mentioned was that the inflation-targeting central bank community had got into trouble because of false precision. Central banks had fine-tuned interest rates so that their forecasts always hit the numerical target, but this misled the public about the degree of control central banks really had over inflation.

Participants then discussed what other current influences might drive changes to the monetary policy regime. One participant raised potential changes to the payments system as an influence, through the growth of peer-to-peer lending and digital cash. These changes would affect the transmission mechanism of monetary policy and require a change in the operating system of central banks more broadly. Another challenge identified was the low level of interest rates, which might not leave enough breathing room for central banks to respond to serious negative shocks.

Another reason for change that was noted was the rising levels of government debt globally. In order to pay these debts down, either governments will have to raise taxes or inflation will have to be higher to deflate the debt. Because of this, it was suggested that an inflation target is harder to maintain when the debt-to-GDP ratio keeps rising. A participant stated that monetary policy and fiscal policy ultimately have to be consistent. The participant suggested that a nominal income target could be a suitable alternative in those circumstances.

A major part of the discussion centred on nominal income targeting and the challenges central banks would face in implementing it. One participant referred to transcripts in which Janet Yellen had identified significant practical challenges to targeting nominal GDP. One of those challenges was that the measures of actual GDP and potential GDP are subject to revision, while the consumer price index (CPI) is not. The participant noted that there are two possible approaches to dealing with revisions, both with issues. The first is to stick to the nominal GDP target, even if the data is revised. But this may mean that inflation is higher than otherwise, which will be unpopular. The second approach is to make changes to the target when potential GDP changes. But changing the target will erode credibility and hinder the formation and anchoring of expectations. Another participant stated that revisions to nominal GDP are not only large, they are biased – the revisions always seem to be upward as the statisticians find more GDP. The participant questioned whether the central bank would target nominal GDP as first reported, or target whatever nominal GDP would be after it had been revised. One participant noted that the revision issue is deceptive – CPI is not revised because of legal issues on contract indexation rather than because our measurement of it is exact.

Another challenge for nominal income targeting discussed by participants was that nominal GDP is very volatile. A participant relayed their experience that forecasting the level and growth of nominal GDP was much harder than for real GDP. Multiple participants stated that this was because nominal GDP includes terms of trade shocks, which have been quite large for Australia over the phases of the mining boom. One participant suggested that

nominal GDP may be appropriate for other countries, but not for Australia. However, another participant stated that Warwick McKibbin and Augustus Panton's paper showed that the OECD forecast errors were similar for nominal GDP and CPI. They also suggested that nominal income targeting should have a longer horizon than CPI, perhaps something closer to five years. If this longer horizon were adopted, a set of indicators would need to be developed to see how well the central bank was achieving its target in the short term. This would also address a concern raised about the timeliness of GDP data.

Alternative monetary policy frameworks were also discussed. One participant brought up the idea of targeting nominal wage growth, which was described as comparable to nominal trimmed mean GDP, and robust to supply shocks. Another participant argued that nominal GDP or price level targets were oversold as a means of dealing with the issue of the zero lower bound, and that implementing digital cash would be a better policy for removing the constraint currently posed by the zero lower bound.

The discussion was summarised by one participant: no regime works perfectly and the question of which framework is the best depends on the relative strengths of each regime. Participants called for further research to assess empirically which framework will be more robust to future shocks.