Glenn Stevens: The changing landscape of central banking

Address by Mr Glenn Stevens, Governor of the Reserve Bank of Australia, to the Official Monetary and Financial Institutions Forum (OMFIF) City Lecture, London, 30 June 2015.

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The landscape of central banking has changed a great deal in the three decades I have been involved in it, and especially since the financial crisis beginning in 2007. Some of the changes were made as a result of careful system design, in the light of long experience. Others, and arguably the more prominent ones, have come as a response to exceptional circumstances. These have been necessary, yet unsettling. And we don't really know where they will ultimately lead.

In this talk I will reflect on some of these changes. Let me preface these reflections by saying that I am not casting criticisms towards other central banks or their policies. Indeed, my main point, to repeat, is that some central banks have found themselves doing extraordinary things because of the extraordinary circumstances to which they were required, by their mandates, to respond as best they could. Even among central banks that haven't quite had to do the extraordinary, many are operating outside their previous comfort zones and for the same reason.

Where were we?

Ten years ago, it seemed that monetary policy debates had largely been settled. Had one asked about the goals of the central bank, the answer "price stability" very quickly would have been given. In some countries, including my own, objectives about real economic activity and/or employment remained in legislation, and still do. In others, especially in the continental European tradition, price stability was the sole objective in law. But even in those countries where a "dual mandate" was, and is, in operation, policymakers overwhelmingly would have acknowledged that real activity goals are about managing, to the extent possible, cyclical fluctuations around a potential output path. Monetary policy was not thought able, itself, directly to affect that potential path.

This represented nothing more than the absorption of the fundamental insight of two centuries of monetary theory and experience: that monetary policy is, in the long run, about nominal magnitudes. To the extent that a monetary regime can reduce uncertainty about the general level of prices, and that that assists in resource allocation and in encouraging saving and investment, that will be monetary policy's contribution to average growth rates. By the mid to late 1980s, just about everyone accepted that, while the Phillips Curve might have a negative short-run slope, in the long run it was vertical.

That consensus accepted that expectations about inflation matter for actual inflation over relevant time horizons. That meant that nominating some sort of numerical objective for inflation came to make sense. This was especially so after targeting measures of the stock of money, as an intermediate goal on the way to price stability, delivered less success than had been hoped.

Explicit inflation targets also helped in another way. It had become widely accepted that the day-to-day conduct of monetary policy needed to be independent of the influence of governments. This was to avoid the temptation to seek a short-term stimulus to growth for political reasons, at the cost of a persistent rise in inflation. But in democracies, where central banks are creations of legislatures, there have to be limits to central banks' autonomy and devices for accountability. Correctly specified, an explicit inflation target with operational independence seemed to solve this problem. It would allow the central bank to give appropriate weight to output and employment, but would still anchor the price level in the long run and provide a metric to evaluate how well the central bank had used its independence.

By the mid 1990s, then, the consensus seemed to be that the right regime was some sort of inflation target agreed between a government and the central bank (if not set out in legislation), operational independence for the central bank in pursuing the target, and a system of communication and accountability.[1] Through the 1990s and the early 2000s, an increasing number of countries adopted some version of this approach.[2] Even the Federal Reserve, for which the dual mandate is most strongly set down and defended, articulates a numerical description of price stability and describes it as a goal.

There were still, of course, the financial stability goals that were the original *raison d'être* of most central banks. It was generally accepted that the appropriate response in a liquidity panic would be to provide funds to solvent financial institutions, against collateral, at a rate related to but above the prevailing market rate. System-wide increases in demand for liquidity would be handled almost automatically via operations designed to keep the overnight rate at the target. Only in extraordinary cases would something more be required, and such events were expected to be very rare.

For some years, then, the modus operandi of a developed country central bank involved setting a short-term interest rate and adjusting it incrementally in response to forecast deviations of inflation and/or output from the desired path. Occasionally, the central bank would move the policy rate more quickly in response to shocks thought likely to affect the outlook in a major way. Observed changes in asset values would be assessed in terms of their implications for the growth forecast. Rapid declines in asset values might evoke a monetary policy response if they were thought likely to have a significant economic effect.

The results of this framework seemed to be good – we were living through the "great moderation" after all. The actions were (relatively) uncontroversial and there was generally reasonable political support for the system.

What happened?

But then, unfortunately, things got more complicated. As we know, the materialisation of some of the risks that had built up in the financial system, followed by a financial crisis, deep recessions and slow recoveries, has meant that much more has been demanded of central banks in recent years, especially those in the major jurisdictions.

This started when unusually large interventions were required to keep money markets functioning in Europe during the second half of 2007. Then, truly extraordinary actions were required in a number of jurisdictions following the failure of Lehman Brothers in September 2008. The complete breakdown of funding between intermediaries, the closure of important segments of the capital markets and the loss of public confidence in major financial institutions were more severe than any previous event over a number of decades. This required very forceful interventions by central banks, and by governments. A potential debt-default spiral had to be averted. Assets had to be liquefied. Private funding that had disappeared had to be replaced, in key instances, by central bank funding. And, not least, public confidence in deposit-taking institutions had to be restored, using guarantees and in some cases public injections of capital. This was not an idiosyncratic event; it was systemic. While the most acute problems were in the North Atlantic countries, the ramifications were global.

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1 Flexible exchange rates are usually also a prerequisite for a successful prosecution of an inflation target.

2 See Bernanke BS, T Laubach, FS Mishkin and AS Posen (1999), *Inflation Targeting: Lessons from the International Experience*, Princeton University Press, Princeton and Truman EM (2003), *Inflation Targeting in the World Economy*, Institute for International Economics, Washington DC.

Such actions, controversial as they were (and still are), were really the only course available to the decision-makers at the time. Lengthy retrospective critical evaluations, carried out in the (relatively) calm years afterwards, are the prerogative of historians, academics, journalists and legislatures. There is of course a lot of hindsight judgement in there, and in some cases not a little unfairness. The fact that they occur, though, marks the unusual territory that central banks and governments were forced to traverse.

For this was more than just the injection of liquidity as a response to a brief panic. The threat to real economic activity was so dire that the stance of monetary policy had to be changed aggressively. Economic activity turned down very sharply, all around the world, in the closing months of 2008. Interest rates were slashed and in the major jurisdictions they quickly reached very low levels or, effectively, zero. This wasn't enough either to prevent many countries entering deep recessions or, subsequently, to generate reasonable recoveries. Hence, "unconventional" measures were rolled out to try to provide additional stimulus. Central bank balance sheets, pre-crisis, were typically about 5–10 per cent of national GDP in size. (The Bank of Japan's was already larger than that, as a result of the use of balance sheet measures over the preceding decade.) They have since increased to around 25–30 per cent of GDP, with the Bank of Japan on a path that will take it to around 90 per cent.

Balance sheet measures may have begun as direct interventions to stabilise the financial system, but are now long-running measures aimed at monetary policy goals. Monetary policy is being asked to return output to potential by boosting demand, after a severe demand downturn resulting in part from over-leverage. The problem here is that if leverage is too high, and needs to be reduced, monetary policy (by itself) may not be as effective at generating demand as people might wish. Twenty years ago, with a latent demand for more leverage-led spending, it wasn't hard to stimulate growth in demand with lower interest rates, at least not in the Anglosphere or the Nordic countries. It seems harder now.

It is worth remembering that monetary policy doesn't directly create spending. What it does is alter a relative price. That has two significant effects. The first is that it redistributes income between savers and borrowers. In the wake of a financial crisis associated with over-leverage, monetary policy can, by lowering interest rates, lessen the burden on the indebted sectors by shifting the burden in part to the net holders of interest-earning assets. This will lessen the negative feedback from debt to spending, which, in turn, stops aggregate spending falling as much as it otherwise might do (even though the net asset holders will at some point start to reduce their spending if interest income continues to fall).

The second effect is to alter the incentives faced by the private (and public) sectors in deciding whether to spend today or on some future day. But if people are less responsive to that because they are still highly leveraged, monetary policy is less powerful in the short term. Of course, this might just be temporary. Once the "balance sheet repair" channel has been working for long enough for the repair to be largely complete, maybe people will respond with additional spending in the same way as they used to. In that case policy would still be effective, just with longer lags. On the other hand, if there has been a persistent shift in attitudes to debt, spending and saving, then monetary policy's weaker ability to generate short-term growth might just be part of the "new normal".

So while it is beyond argument that central bank actions in the crisis headed off what could have been a catastrophe, it's another thing to think that monetary policy can easily restore enough demand to fully employ the economy's labour and capital doing what they were doing before the crisis. The evidence for effectiveness of such policies is strongest in the United States, but even there it has taken a long time for the recovery to gain momentum. If ultra-low interest rates and quantitative measures were powerful, they should have produced a lot more demand and presumably more inflation by now.

Some critics of these policies thought, of course, that high inflation would, in fact, occur. They were wrong about that. If anything, inflation looks a bit too low globally despite the extent of monetary easing. Other critics would say that if the desired effects have been slow to emerge, that is only because the dosage was too small. Perhaps that's right. Or perhaps the evidence is telling us that, at whatever dosage, monetary policy can do only so much and that other tools have to be used as well. That is not to say that monetary authorities were wrong to implement such policies, only that they were perhaps bound to find their efforts of only relatively limited power.

At any rate, it is still proving hard to generate demand. Financial risk-taking has increased, driven by the "search for yield", but "real economy" risk-taking is more difficult to find. Corporations sit on stockpiles of cash, in many cases apparently reluctant to accept lower returns on investment projects in spite of the lowest cost of debt funding ever seen. Capital is returned to shareholders, who are frequently faced with alternative options earning even less than the money would have earned in the corporation. At the same time, it is increasingly apparent that the ultra-low returns on offer on financial instruments are making it exceedingly difficult for the provision of retirement incomes.

Although it now seems that the "zero lower bound" for nominal interest rates wasn't actually zero, it is not clear that the recent negative rates implemented by a handful of central banks in Europe offer some new vista of policy effectiveness. The incidence of negative rates that society will accept may be somewhat narrow. Moreover, a recent speech by Jamie McAndrews outlines a number of respects in which negative interest rates, if attempted on a widespread basis over a long period, could in fact be very disruptive, and in ways not likely to be expansionary for growth.[3]

It hasn't helped matters that many governments feel they have insufficient scope for stimulus from the budgetary side. In the contemporary jargon, they lack "fiscal space". In some cases this is a result of poor fiscal discipline over a long period. In others it is more the result of the size of the debt build-up caused by the depth of the crisis itself. Whatever the backdrop, if the perceived limits to debt sustainability are close, then governments will tend to feel that fiscal stimulus today must be accompanied by a credible promise to reverse it tomorrow. This promise, if kept, would keep the debt trajectory largely as it was. But it also may negate the power of the policy to generate growth beyond a very short horizon. One has to have a lot of faith in the notion of temporary "pump priming" to think otherwise.[4] On the other hand, many would argue that since the track record in so many cases suggests that, once pubic borrowing starts, governments find it very hard to stop, perhaps that conservatism is for the best.

Financial stability and monetary policy

Meanwhile, central banks' longstanding general concern for safeguarding financial stability has taken on more of an edge and is now less easily dissociated from monetary policy. There is still a tendency, as there was prior to the crisis, for financial stability and monetary policy work in central banks to be organised in separate silos. The monetary policy people think about output gaps and inflation, and the financial stability people think about asset prices and leverage and how to strengthen resilience. The current thinking is that regulatory tools should be deployed in response to concerns here.

It certainly seems logical enough to ensure stronger capital standards and even to lean into the credit cycle with counter-cyclical tools where regulators have them.

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3 McAndrews J (2015), "Negative Nominal Central Bank Policy Rates: Where is the Lower Bound?", Remarks at the University of Wisconsin, Madison, 8 May. Available at <http://www.ny.frb.org/newsevents/speeches/2015/mca150508.html>.

4 There was temporary fiscal stimulus at the height of the crisis in 2009, called for by the IMF among others. In the circumstances of the time, that was probably a reasonable response. The "payback" for that has been fiscal contraction and slower growth in a number of countries in subsequent years.

Yet this neat separation between financial stability and the central bank's other macroeconomic goals might just be a little too neat. I wonder whether it shouldn't leave us a little uneasy.

For a start, experience of an earlier era of regulation counsels against putting a lot of faith in such measures. Not only that, but it is surely a lesson of the crisis that monetary policy and financial stability interact. Monetary policy works, after all, by altering financial prices and asset values. Lowering interest rates doesn't just conjure up demand through some process of immaculate conception. It works, when it works, at least partly by affecting risk-taking: by affecting borrowing and saving decisions.[5] The central bank, by setting the rate of interest, is effectively setting the price of leverage. It's abundantly clear that leverage matters for financial stability. Few things matter more, actually.

People have stopped short of saying that the goal of y monetary policy should be changed from price stability to financial stability alone (though it is not impossible that a decade from now that will have changed). But they have more misgivings than they once might have had about attempts to meet inflation and/or unemployment mandates that ignore the financial implications of the interest rate settings thought necessary to reach those goals.

Suppose a country faces an insufficiency of aggregate demand and below-target inflation, but can generate the demand needed to close the gap and push inflation up to target only by fostering a rise in private sector leverage. How aggressively should the central bank seek to increase demand and return inflation to target?

The answer presumably depends on several considerations. Among them might be how well anchored inflation expectations are. The better anchored they are, the less risk of a damaging decline into very low or deflationary expectations. Surely another key consideration would be whether leverage has previously been low or high. If it is low, then some increase need not be particularly risky. On the other hand, if leverage is already high, perhaps as a result of an earlier run-up, and if the weakness of demand is in part a result of the private sector being cautious about further extensions of leverage, or even attempting to reduce its leverage, the central bank may face an unenviable set of choices.

There is an intersection between the Phillips Curve world of output gaps and inflation targets, and the Irving Fisher/Hyman Minsky world of low frequency cycles in risk appetite and leverage. The financial sector isn't just an appendage to the "real economy", passively responding to the course of output and prices. It is through the financial sector that monetary policy works to affect the economy. Sometimes, problems that have built up in the financial sector can have powerful effects on real economic outcomes that monetary policy might find impossible to offset. A sense of when and how that can happen is very important for monetary policy.

Where are we now?

So where does that leave us?

The role of central banks has become much more prominent, and at the same time considerably more complex and potentially more controversial, than it was in the calmer days of the great moderation. More has been asked of central banks, under circumstances in which monetary policy might reach the limits of effectiveness, and yet at a time when it seems the ability of other macroeconomic policies to contribute to growth has lessened. A previous generation of central bankers, who fought lengthy battles to rid their respective countries of high inflation, are surely looking on in disbelief.

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[5] Of course, there is the exchange rate channel for an open economy with a flexible exchange rate. But in a world of insufficient global demand, all countries can't rely on depreciating their exchange rates for growth. The bulk of the effect is going to have to come through domestic channels.

Central banks' balance sheet actions have become dominant forces in a wider range of financial markets. Some would argue that the market's normal functions of pricing for risk have been distorted or overwhelmed by central bank actions. To those critics, the "search for yield" is an artificial and dangerous phenomenon caused by central bank interventions. Central banks would counter that they had little choice but to pursue these actions and that, in any event, there are likely to have been some real factors at work in holding down real interest rates. Either way, some central banks seem likely to be large players in markets for quite some years. The manner and pace of eventual normalisation of balance sheets will surely, at some point, become a major challenge for private participants.

Nor is it just in their transactions that central banks have become very conspicuous. In their efforts to add power to their easy monetary policy stances, central banks have sought to offer "guidance" on their future behaviour. They have taken pains to spell out the sorts of conditions under which they would adjust policy and even given some sense of the likely pace. The forthcoming "lift-off" by the Federal Reserve, when it happens, will surely be the most telegraphed monetary policy adjustment in history.

That is all very sensible. Words matter as much as actions. The problem is that a central bank cannot realistically state how it will respond to all possible future states of the world. And in any event, many market participants, commentators, journalists and so on are not that interested in the nuance and conditionality that usually surround central bankers' careful utterances. They simply want to know what will happen and when. They will distil things down into a simple story, fitting the central bank into one pigeonhole or another.

Allow me an analogy. In a remote part of Western Australia, construction of the Australian and New Zealand part of the Square Kilometre Array project is to take place. It is part of an international project, headquartered in Manchester. As the name suggests, the idea is to have multiple radio telescopes over a large area, increasing the effective size of the receiver antennae. This array will, it is said, be able to detect the faintest energy emanating from distant stars – billions of light years from the earth.[6]

Reading about that, one can't help but think of the financial markets. Countless market and media antennae are trained on the sound of the central bank voice, trying to discern and amplify signals out of all the static around, even when the central bank has no new signal to send, and static is all there is.[7]

Where to from here?

The lesson that recovery from a downturn associated with a period of financial excesses almost always proves to be a slow one has been learned once again. Central banks have to do what they can to speed up that process. Together with governments, they can and did avert a catastrophic contraction. They can and have run an extended period of easy money, including by being innovative with their own balance sheets. In all likelihood, very accommodative policies will continue for quite a while. During that period, central banks will have little choice but to rely in part on regulatory tools to try to contain potential financial excesses, without convincing evidence of the power of such tools. But they will also have to learn to live, I suspect, without the earlier neat distinction between monetary policy and financial stability policy.

6 See <http://australia.skatelescope.org/welcome/> for more on the Square Kilometre Array project.

7 See Stein JC (2014), "Challenges for Monetary Policy Communication", Remarks to the Money Marketeers of New York University, New York, 6 May. Available at <http://www.federalreserve.gov/newsevents/speech/stein20140506a.htm>.

In the end, of course, central bank policies can't restore the situation *ex ante*. Whatever adjustments economies needed to make, and may still need to make, in respect of financial and/or economic structure from their pre-crisis situation, cannot be avoided.

Those adjustments are ongoing. I am optimistic enough to think that, in due course, they will have advanced sufficiently such that stronger growth, accompanied by less extreme central bank policy settings, could be anticipated. Needless to say, the more other policies, outside of the central bank's ambit, can contribute to that, the better. That was the point of the pro-growth commitments the G20 Leaders made in Brisbane in November 2014.

It may be quite some time, though, before the central banking modus operandi that we had prior to the crisis is seen again.