

Barbro Wickman-Parak: Independence, inflation targeting and the importance of not being dead certain

Speech by Ms Barbro Wickman-Parak, Deputy Governor of the Sveriges Riksbank, at a breakfast meeting at Skandinaviska Enskilda Banken AB (SEB), Stockholm, 14 May 2013.

* * *

I would like to thank Mikael Apel, Advisor in the Monetary Policy Department for his help with this speech.

An important lesson

When one is, as I am, at the end of one's professional career, it is natural to reflect on what is the most important lesson one has learnt. If one were to try to pass on one important insight to someone who is just beginning their career, what would it be? Of course, it is difficult to give a simple answer to this question, but one insight that would probably come pretty high up on my list is that it is so easy to fasten in what one might scientifically term the "prevailing paradigm". By this I mean that it is so easy to believe that the means of regarding the world that is currently dominant is the best one and will apply, if not for ever, at least for the foreseeable future.

I have come across this phenomenon numerous times during my professional life – and have of course been part of it myself. What is perceived as true and correct has varied from one time to another and sometimes the pendulum has swung violently. During the course of, say, four decades, we have gone from regarding strictly-regulated financial markets as the norm, to regarding the financial markets as needing to have free rein to be able to benefit society, to then swing back towards the idea of more regulation. Another example is that we, at least here in Sweden, have moved from only twenty or so years ago finding it difficult to imagine anything other than a fixed exchange-rate regime to now regarding this as completely out of date and off the agenda.

A slightly less formal way of expressing this insight would perhaps be to say that one should never be too confident. What seems obvious now may not seem so tomorrow. Economics does not have any rigid conformity to particular principles; it involves trying to understand the effects of the actions and interactions of a large number of people in a constantly changing world. This presupposes a willingness to reconsider. There is otherwise a risk that the field of vision will narrow too much and that one will not observe phenomena that should lead to questions and analysis, as they are not considered to belong in the intellectual reasoning currently applied. Perhaps it was this type of "blinkers" that prevented us from noticing the build-up of risk prior to the crisis. In my speech today I intend to discuss this from a central bank perspective and to focus on two important areas that are central parts of central banks' monetary policy frameworks, namely independence and inflation targeting.

Major differences from when I last worked at the Riksbank

I have worked at the Riksbank twice, during two entirely different regimes – or paradigms, if you wish. The first time was during a period of around fifteen years from the early 1970s to the mid-1980s. At that time, the credit and foreign exchange markets were regulated. The Riksbank determined both the price and size of the credit on offer and had access to tools such as liquidity ratios and lending caps. The Riksbank also had regular meetings with the commercial banks, to closely monitor that they were observing the regulations. The banks were told in no uncertain terms if they had failed on some point. The Riksbank was able to conduct a policy that stabilised economic activity to some extent, but monetary policy – to the extent that one can call it such – was largely subordinate to other economic policy. One important task for the Riksbank during this period was to secure the funding needs of the government and the housing sector. This was of course only possible because the markets

were so strictly regulated and separate from the surrounding world. In other words, the situation was completely different then – although some of the regulation tools used then have begun to come back into fashion, albeit in another form and context.

But much has changed in just the past six years as well

The fact that the Riksbank and its activities looked quite different the second time I started work there, in 2007 as newly-appointed member of the Executive Board, is not particularly strange. After all, more than twenty years had passed. What is perhaps more surprising is that so much has changed during the past six years. The changes this time do not concern how the work at the Riksbank is conducted, but rather how monetary policy and the role of central banks are viewed in the international debate. Many of the questions to which we previously assumed we had fairly obvious answers have once again appeared on the agenda and are now being keenly discussed. This was not something I had expected and is a pretty good example of how easy it is to take the prevailing situation for granted. The main catalyst for the discussion has, of course, been the global financial crisis that broke out in autumn 2008 and its consequences, which we are in many ways still dealing with.

Put simply, one might describe the predominant view prior to the crisis as follows. International economic developments had been favourable over a fairly long period of time. Following the crisis that hit Sweden and some other countries at the beginning of the 1990s, inflation had on the whole been low and stable, while growth had been good and there had been only minor cyclical fluctuations. This was considered so remarkable that it was given its own name – The Great Moderation. The reasons for the Great Moderation have never been made entirely clear, but many people felt that one important explanation was that policy, and perhaps in particular monetary policy, had begun to be conducted in a better way.¹

Compared with the economically much more volatile 1970s and 1980s, there was much greater focus on keeping inflation in check. To make this easier, many countries had transferred responsibility for monetary policy to independent central banks. Moreover, an increasing number of countries had introduced something that was a monetary policy innovation in the early 1990s – inflation targeting. It appeared as though one had not only succeeded in checking inflation, but also managed the cyclical fluctuations reasonably well and laid the foundations for a good development in the economy in general. It was so successful that it may have led to a blind faith in the precision of monetary policy and what it can achieve.

It was assumed that the financial markets were, on the whole, efficient and functioning smoothly, at least in the industrial nations. Of course, financial crises were still considered possible, but as isolated events, often caused by individual economies being mismanaged. The contagion effects were assumed to be limited and the prevalent opinion was that wise crisis management could relatively quickly get the economies concerned back on track. The successful management of the so-called IT bubble at the beginning of the 2000s was regarded as an example of financial crises not needing to be particularly troublesome.

What is clear today, but was not clear as recently as six years ago, is that this picture was far too optimistic. But then the crisis came along and turned most things upside down.

Reassessment of the financial markets

One obvious lesson from the crisis was that the financial markets were not functioning as well and as efficiently as we had believed. Instead of contributing to growth and stability in the economy through efficient risk spreading and credit allocation, they became a cause of

¹ See for example Taylor (1998) and Bernanke (2004).

macroeconomic fluctuations. It became clear that the models on which policy decisions were based needed to be adjusted so that the financial markets no longer played the obscure role they had played prior to this. In recent years, there has been a dramatic increase in research on what are usually referred to as “financial frictions”, that is, mechanisms through which the financial system affects fluctuations in the economy (see Figure 1).²

One might wonder why this interest in the role of the financial markets did not arise earlier. The crisis that we in Sweden and some other countries suffered in the early 1990s also revolved to a great extent around credit booms and property market crashes. However, this crisis was apparently not significant enough in an international perspective to budge the paradigm that the financial markets were functioning smoothly and could manage themselves. This required a much larger shock, like the global financial crisis that came fifteen years later.

The crisis has also led to discussions of the role of central banks

An obvious conclusion from the crisis is that we need to learn more about the financial markets, how they are linked together and how they interact with and influence the economy as a whole. The crisis has also led to the discussion of other questions, where it is much less obvious what conclusions should be drawn – and perhaps even which questions should be asked. As I mentioned earlier, one such debate concerns monetary policy and the role of the central banks. There is a striking contrast with the previous occasion that monetary policy was debated on such a fundamental level. Then, one quickly reached the conclusion that monetary policy should focus on price stability and be delegated to independent central banks. Today, the debate on monetary policy could be said to have arisen from the opinion that “something should be done”, but that it is as yet unclear *what* should be done and *how*.

I would like to discuss two areas that were not really on the agenda at all prior to the crisis, but have cropped up again. The first is the central banks’ independence and the second is inflation targeting. Developments in both of these areas are of course very important for both the central banks and the economy as a whole. There are clear points of contact between these areas, but I nevertheless intend to discuss them separately.

The central banks’ independence

Let me begin with the central banks’ independence. The idea behind delegating monetary policy to an independent central bank is, as I have already mentioned, that it makes it easier to hold inflation in check. Experience has shown that it is easier for a central bank that is able to act independently with regard to price stability, than for a government, to provide monetary policy with the long-term perspective required to keep inflation low and stable and to maintain the general public’s confidence that it will remain so. The decision-making processes for monetary policy are also shorter and quicker than those for fiscal policy, which makes it better suited to deal with shocks to the economy.

A government, which needs to worry about re-election, may be tempted to conduct an overly expansionary policy to attain short-term gains. The knowledge that this temptation exists means that the economic agents will adjust their inflation expectations accordingly. The end result will be higher inflation without any gain in return. Thus, the fundamental idea is to build a system that will better guarantee price stability. The independence has no inherent value, it is not an end in itself.

² For a review of the current research situation with regard to financial frictions, see for instance Brunnermeier, Eisenbach and Sannikov (2012).

With regard to the Riksbank, one usually says that it became formally independent when the law was amended in 1999, but one can probably say that it was able to conduct monetary policy without any tangible political influence for some years prior to that.

Threat to independence from various sides

There has recently been much debate on whether the independence of the central banks is under threat. The debate has not focussed on any individual explanation as to why this is the case; slightly different arguments have been put forward.

Generally, it is reasonable to say that what might threaten the central banks' independence is if those who have delegated monetary policy – governments and parliaments – do not consider that the central banks are “delivering” as intended, or alternatively that there have been such major changes in the economy that the system of independent central banks is no longer perceived to function well enough. Something that has been delegated can always be taken back, although this cannot be done from one day to the next – which is the point of the independence.

It is no surprise that it is the financial crisis that has been the main catalyst for the debate on central bank independence. One type of argument concerns the fact that many central banks cut their rates as far as possible in connection with the crisis and were forced to go on to more unorthodox and untried means of conducting monetary policy. When monetary policy was delegated to independent central banks, this was during a period when there was in principle only one instrument – the policy rate – at the central bank's disposal. Unlike, for instance, taxes, the policy rate was regarded as something that could be delegated to “technocrats” who have not been popularly elected. But with the monetary policy conducted by a number of central banks after having cut their policy rates as far as possible, the situation has become much more complicated. Many of the measures implemented are considered to border on fiscal policy and then it is less evident that the central bank can act entirely independently of the political system. Some people say that the financial crisis led to a “creeping politicization” of monetary policy.³

Another type of argument focuses on the expanded role that many people assume central banks will gain in future, and in some areas have already gained, with regard to attempting to *prevent* future crises – in the new policy area known as macroprudential supervision. According to law, the Riksbank is to “promote an efficient payments system”, but this very general wording is not linked to any specific instrument that can be used for this purpose.

When monetary policy was delegated to independent central banks it was not just the instrument, the policy rate, that was well-defined. This applied in many ways to the objective, too, which was primarily to maintain price stability. When the role of the central banks is expanded to include areas beyond traditional monetary policy, independence also becomes more difficult to define. One can say that the transition from a situation with one instrument and one well-defined objective to a situation with several instruments and a more complicated objective means that the independence is viewed in a different light.⁴

In some areas, the discussion of independence is not primarily concerned with the crisis, but linked to a disappointment over developments and what the central bank has achieved in the slightly longer run. Recent events in Japan could perhaps be said to be an example of this. The newly-appointed government there has launched a powerful new monetary easing programme as an attempt to break the long-term deflationary trend. Part of the new policy entails bringing inflation up to 2 per cent, a doubling of the inflation target set earlier by the

³ Bullard (2013) takes as an example the ECB's OMT programme, where the bank undertakes to buy a country's government securities if the country in question meets the fiscal policy targets set.

⁴ See, for example, King (2013).

Bank of Japan, but which it has found difficulty attaining. It remains to be seen how well they will succeed and how confidence in the central bank as an independent institution will be affected, as well as what consequences this might have.

Independence not a given – the central bank may also need to adapt

I think that it is important that the central bank never takes its independence for granted. It should always ask the question of whether the policy it conducts can be expected to result in the economic development that was aimed at when the central bank was granted its independence. An important part of this is, of course, that the central bank does its best to attain the objectives it has been allocated. But another part, which has perhaps not received as much attention, is that the central bank must also take into account fundamental changes in the economy that may make it necessary to adapt its behaviour. There could be many examples of changes in the functioning of the economy that could trigger such a need to adapt. But let me illustrate what I mean with an example that has been highlighted, for instance, in the IMF's most recent World Economic Outlook.

A slightly surprising observation in recent years is that inflation has not fallen very much during the recession connected to the financial crisis, despite a dramatic fall in demand in many countries and a sharp rise in unemployment. The contrast in relation to earlier economic downturns, when inflation fell much more, is fairly surprising. This development has caused some analysts to talk about “the missing deflation”.⁵ The so-called Phillips curve, which shows the relationship between the rate of inflation and economic activity, appears to have flattened compared with before.⁶

One possible explanation for this development is that the monetary policy conducted in recent decades around the world – where independent central banks have primarily focussed on attaining low and stable inflation – has gradually succeeded in anchoring inflation and inflation expectations. This has meant that the Phillips curve has stabilised in a situation with low average inflation. It is not entirely clear why this would also have contributed to reducing the slope of the Phillips curve, but we cannot rule out the possibility that if expectations are anchored better, price-setting and wage formation will be less sensitive to changes in economic activity. So, even if a monetary policy aimed at keeping inflation low and stable was perhaps not the main explanation for the Great Moderation, it is possible that it made an enduring impression in the form of a flatter Phillips curve.

We cannot know whether this phenomenon is temporary or permanent. But if it is the case that we have had a fundamental change in the way the economy functions, it is also possible that this should lead to the central bank adapting, at least to some extent, the policy it conducts. A flatter Phillips curve implies that inflation has become less sensitive to the domestic demand situation – that it varies less with cyclical phases. Other shocks, such as changes in energy prices and other so-called supply shocks have thus reasonably been relatively more important for developments in inflation. The flatter Phillips curve also means that the central bank must influence demand more than previously to achieve a given change in inflation. This means that if the central bank reacts in the same way as before to supply shocks that cause inflation to deviate from the target, the fluctuations in economic activity will be greater. Say, for instance, that the central bank has been used to subduing a particular part of an upturn in energy prices. A flatter Phillips curve would mean that demand has to be dampened more than before to prevent inflation rising. Over time this would entail greater fluctuations in economic activity.

This could be perceived as an undesirable effect and gradually give rise to dissatisfaction with the central bank's policy. Ultimately, this could also mean that the independence is

⁵ See, for example, Krugman (2013).

⁶ See, for example, IMF (2013) or Wolf (2013).

brought into question. One possibility would thus be for the central bank to try to become slightly more “flexible” than before in this situation and to react somewhat less aggressively to supply shocks – and thereby try to find an economically more acceptable combination of fluctuations in inflation and fluctuations in economic activity. If inflation expectations are securely anchored, there should be scope for this.

But adaptation requires reflection and caution

However, this would not be an easy task. Firstly, the central bank is of course unable to change its behaviour so much that doubts arise as to whether it is actually trying to maintain low and stable inflation. What is known as the nominal anchor, that is the landmark for price-setting and wage formation, may then be loosened. This would mean losing all we have achieved over the past two or three decades.

But even if nothing this dramatic happened, sufficiently large changes in the central bank’s behaviour might nevertheless have undesired consequences. The flatter Phillips curve could reasonably be due to economic agents, such as the social partners, having adjusted their behaviour to how they believe the central bank will act. If the central bank changes its behaviour too much, this may have the consequence that economic agents begin to act differently, too. We will then once again have a new playing field, where the Phillips curve may once again have become steeper.⁷

Even with these reservations, I believe that it is generally valuable for the central bank to constantly ask itself how it can best ensure that it deserves its independence. What I mean by this, of course, is not that it should anxiously ask its principal what to do – that would mean its independence was lost. I mean that the central bank must be aware of general changes in the functioning of the economy that may justify adapting its behaviour to be able to carry out the task it has been given in the best possible way – even if this is a very delicate task.

It is as yet still fairly uncertain what will be decided regarding the question of the central banks’ independence. Perhaps the main complicating factor is the broadening of the central banks’ tasks and toolboxes, which many people are saying is on the cards. While a large degree of independence is relatively easy to justify with regard to maintaining price stability, the independence is somewhat less self-evident with regard to the central bank’s role in the fields of macroprudential policy and crisis management.

Some analysts say that one solution may be that the central bank is allocated different degrees of independence in different roles. The independence should be considerable when it comes to the task of maintaining price stability, but perhaps less when it comes to tasks connected with macroprudential supervision and crisis management. Opinions are divided as to how easy it is to attain this kind of division. There is scarcely any doubt that the problems in drawing up boundaries can be difficult at times. The Governor of the Israeli central bank, Stanley Fischer, is one of the optimists and has recently likened central bank independence to marriage; like in a marriage, there are things you do together and things you do separately.⁸ However, regardless of which solutions gradually crystallize, I believe it is essential not to withdraw the central banks’ independence with regard to the task of price stability. The central bank should be able to decide independently over the means allocated for this purpose, such as the policy rate and other potential means.

⁷ This is one example of the so-called Lucas critique, which says that empirical relationships can change if the economic policy changes as the economic policy affect agents’ expectations.

⁸ See Da Costa (2013).

Inflation targeting

Let me go on to the other area I intend to discuss today – inflation targeting. As I mentioned earlier, the central banks' independence and inflation targeting can be regarded as inseparable. They are both central parts of the monetary policy framework that was regarded as very successful, at least up until the crisis.

Independence and inflation targeting can reinforce one another in both good and bad ways. Increased independence can contribute to greater credibility, which in turn can make it easier to attain the inflation target. A period of low and stable inflation creates confidence and legitimacy for inflation targeting and increases the political support for independence, and so on. And vice versa, a reduction in confidence in the inflation target may make inflation expectations, and thereby actual inflation, more difficult to control. Inflation targeting is then perceived as unsuccessful, the political support for this policy and for central bank independence thus declines, credibility is further undermined, and so on.

Criticism: Inflation targeting could not prevent the crisis and has difficulty getting us out of it

Inflation targeting has also been questioned after the crisis and also from slightly different starting points.⁹ Two main types of criticism have been expressed.¹⁰ Firstly, some say that inflation targeting prior to the crisis focussed too heavily on its traditional targets, particularly price stability and therefore missed – or perhaps even contributed to – the credit-driven property bubbles that arose in a number of countries. Secondly, some say that inflation targeting does not appear particularly suited to helping countries out of a crisis and may even make it more difficult to conduct a sufficiently expansionary policy. It should therefore be replaced with something else.

I think that this criticism is rather unfair. As I see it, there was, perhaps, a hope that inflation targeting could prevent financial crises, but one can hardly say that it was part of the deal. The main purpose of inflation targeting has been to supply a credible nominal anchor for the economy.¹¹ It has succeeded in this purpose. Looking at Sweden, I think it is quite clear that the introduction of inflation targeting in connection with the crisis in the early 1990s was one of the most important reasons why the Swedish economy has developed so well since then. However, financial crises can also arise in environments with low and stable inflation.

Nominal GDP target scarcely better

Can one say that inflation targeting has been an obstacle to the recovery, and in that case are there other ways of conducting monetary policy that might succeed better? Here one can begin by noting that, in general, inflation-targeting countries appear to have managed the crisis better than countries without inflation targets.¹² The central banks with inflation targets acted more powerfully, inflation expectations in inflation-targeting countries were better anchored and the risk of deflation was lower.

Nevertheless, the slow recovery in countries such as the United Kingdom and the United States has started a discussion as to whether alternatives to inflation targeting would be better. One suggestion that has gained supporters is to replace the inflation target with a target for nominal GDP.¹³ The main discussion recently has concerned introducing a policy

⁹ See Reichlin and Baldwin (2013) for a compilation of a number of economists' views on inflation targeting and its future.

¹⁰ See, for example, Bini Smaghi (2013).

¹¹ See Bernanke, Laubach, Mishkin and Posen (1999).

¹² See De Carvalho Filho (2011).

¹³ See, for example, Frankel (2012).

that entails holding nominal GDP close to a given path over which nominal GDP increases by a certain percentage.

The idea is roughly as follows. If nominal GDP falls below this intended path – which it did during the crisis – the central bank must compensate by stimulating the economy so that nominal GDP grows faster for a few years to get back onto the target path. So, bygones are not bygones in this way of thinking. Some of the increase in nominal GDP comes from higher inflation. If economic agents expect this type of compensating policy from the central bank, their inflation expectations will rise. Thus, the expected real interest rate will fall, which is an advantage in countries where the nominal interest rate has fallen as far as possible and where unorthodox monetary policy measures may not really work as well as we would wish. The introduction of a target for nominal GDP could in this way be seen as attempt to “kick start” the economy.

As I have said today, it is not good to have a cocksure attitude. But I am nevertheless inclined to agree with those who are sceptical to the idea of replacing the inflation target with a target for nominal GDP.¹⁴ The fact that nominal GDP increases can be either due to real GDP increasing, to prices – measured using the GDP deflator – increasing, or to a combination of the two. Its advocates say that one of the advantages of a target for nominal GDP is that it forces the central banks to give consideration to developments in the real economy and not just to inflation. In general terms, a nominal GDP target would appear a fairly unnecessary complication in this context, particularly if one already conducts a policy that means there is scope, or even an obligation, to give consideration to the real economy – through a flexible inflation-targeting policy, such as the one conducted by the Riksbank and the Bank of England, or that conducted by the Federal Reserve, with a dual mandate to strive for both price stability and a good development in employment.¹⁵

A counterargument of a more practical nature is that inflation targeting can be based on better data. While the CPI and other relevant price measures are published every month, GDP and the GDP deflator are only published quarterly, and with a relatively long time lag. Moreover, the CPI is only revised in exceptional cases, while GDP data are revised almost routinely, and sometimes substantially.

One argument that I think also weighs heavily, from a practitioner’s point of view, is the difficulties I foresee with regard to communicating a nominal GDP target. The inflation target is now fairly well accepted and the general public appears to understand it. It would probably be a different matter with a nominal GDP target. As Adam Posen said: “People cannot observe nominal GDP when they go to the store”.¹⁶ Of course they cannot observe inflation either, but they nevertheless often have an idea of how prices are developing and can base their expectations on that. The product of real GDP and the GDP deflator will reasonably be somewhat more abstract to relate to. I think that this also sows doubt regarding the possibility to get a target for nominal GDP to really work as a nominal anchor in the way that the inflation target undoubtedly has.

It may also be worth bearing in mind that the global financial crisis entailed a shock of a size and dimension that has rarely been seen. Rather than interpreting the slow recovery as a failure for monetary policy, perhaps one should see it as a situation where the shock was so powerful that it would have been difficult for monetary policy to manage it in a different and better way, regardless of what forms the policy had been conducted under and what it had

¹⁴ See, for example, Goodhart, Baker and Ashworth (2013), Gerlach (2013) and Posen (2013) for a more detailed description of the arguments against introducing a target for nominal GDP.

¹⁵ See also, for example, Bean (2013) and Posen (2013).

¹⁶ Posen (2013), p. 62.

been called.¹⁷ This type of “disappointment” regarding the shortcomings of monetary policy may also be due to the optimism regarding the abilities of monetary policy that I earlier implied may have followed in the wake of the Great Moderation.

But inflation targeting may need to be modified

But even if inflation targeting has not become obsolete and does not need replacing with something new, there may be cause to consider whether it should perhaps be modified, and likewise the tasks of the central banks in general. Many people think that this is the case.¹⁸

One relationship that became obvious in connection with the crisis was, as I have already noted, that financial stability was not something that automatically followed on from a policy aimed at keeping inflation low and stable. It also became clear that the central banks could find themselves in situations where the traditional instrument, the policy rate, could no longer be used, but where they must use new and so far untried methods to provide further stimulation.

The conclusion that many people have drawn from this is that the central banks’ tasks should be modified and extended. In addition to the traditional monetary policy, they should more clearly have the task of trying to prevent financial imbalances from arising to avoid the sort of development we have seen in recent years. Personally, I think this is quite natural, as it is clearly difficult for a central bank to even attain its traditional objectives of price stability and macroeconomic stability under such circumstances. Trying to uphold financial stability then becomes a way of attaining the traditional monetary policy objectives. Many people believe that to achieve this it is necessary for the central banks to play an important role in the emerging macroprudential policy field. Another conclusion is that the central banks’ toolboxes should be expanded to include tools that can be used once a crisis has occurred and the policy rate has been cut as far as it can, that is, tools of the type used in the crisis should be made into a more permanent part of the monetary policy toolbox, although they hopefully will not need to be used too often.

If this is done, it will mean that the central banks’ operational frameworks after the crisis will become both slightly more flexible and slightly more complex than they were before. One might say that we are going from a situation with one instrument and a relatively straightforward and clear objective, to a situation with several instruments and a more multifaceted objective. This sounds quite logical and natural to my ears, given what has happened in recent years, and I believe that this is the direction in which we are headed.

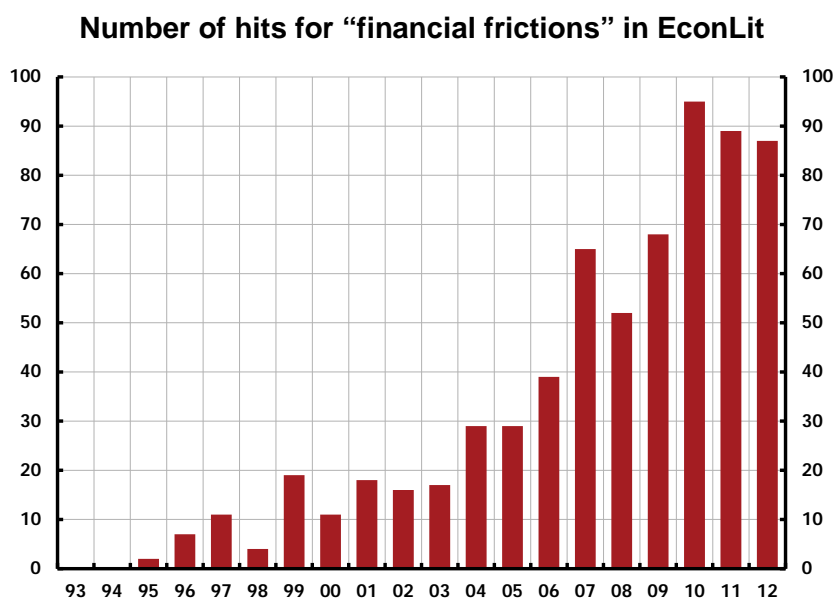
But as I mentioned in my discussion of independence, there are some problems that need to be resolved along the way. The central banks became independent during a period that one might be able to call the “golden age” of inflation targeting, when everything looked relatively straightforward – when the policy rate was in principle set to attain price stability and when one took financial stability more or less for granted. The world that now appears to be emerging is more complicated. It is necessary to reconsider where the boundary lines should be drawn between what should be delegated to independent central banks and what should be managed by the political system. Finding the best way of doing this is one of the major challenges ahead of us.

¹⁷ See Gerlach (2013). Results from a study by Bech, Gambacorta and Kharroubi (2012) indicate that monetary policy is less efficient when it comes to counteracting a recession and contributing to a recovery after a financial crisis. Posen (2013) says that more powerful quantitative easing would have facilitated the recovery in the United Kingdom, but that the fact that this was not implemented has nothing to do with inflation targeting and it would not have been easier with a different type of monetary policy.

¹⁸ See, for example, Banerjee, Cecchetti and Hofmann (2013). Whelan (2013) says that inflation targeting should actually be abandoned in favour of a solution where the central banks are given a broader mandate and more instruments at their disposal. For discussions of how the crisis has affected views on monetary policy and the work of the central banks, see for instance Blanchard, Dell’Ariccia and Mauro (2013).

I began by noting how easy it is to get caught in what I called the prevailing paradigm. But if we had fastened in a monetary policy paradigm prior to the crisis, where we believed that we had found the right solutions, I think that we are now in a situation where there is an unusually large sense of caution when looking ahead. We have all been thoroughly shaken up. The crisis had not been predicted, and inflation targeting alone could not prevent it. We now need to learn lessons from this and to analyse in-depth the relationship between monetary policy and financial stability and how it can best be taken into account in monetary policy. At the same time, it is of course important to ensure that we don't, as they say, throw the baby out with the bathwater, and that inflation targeting and all the good it has done are abandoned. It is without doubt a rather revolutionary period we are in and it will be very interesting to follow how central banks and their activities develop over the next ten years – even if I myself will be watching from the side-lines.

Figure 1.



References

- Banerjee, R., S. Cecchetti and B. Hofmann, (2013), "Flexible inflation targeting: Performance and challenges", in Reichlin, L. and R. Baldwin, (ed.), "Is Inflation Targeting Dead? Central Banking After the Crisis", Centre for Economic Policy Research.
- Bean, C., (2013), "Nominal income targets: an old wine in a new bottle", speech at the Institute for Economic Affairs Conference on the State of the Economy, London, 27 February.
- Bech, M.L., L. Gambacorta and E. Kharroubi, (2012), "Monetary policy in a downturn: Are financial crises special?", BIS Working Papers No. 388.
- Bernanke, B.S., T. Laubach, F.S. Mishkin and A.S. Posen (1999), *Inflation Targeting – Lessons from the International Experience*, Princeton University Press.
- Bernanke, B.S., (2004), "The Great Moderation", speech at the Eastern Economic Association, Washington, 20 February.
- Bini Smaghi, L., (2013) "Who killed the inflation target?", in Reichlin, L. and R. Baldwin, (ed.), "Is Inflation Targeting Dead? Central Banking After the Crisis", Centre for Economic Policy Research.
- Brunnermeier, M.K., T.M. Eisenbach and Y. Sannikov, (2012), "Macroeconomics with Financial Frictions: A Survey", NBER Working Paper 18102.
- Bullard, J., (2013), "The Global Battle Over Central Bank Independence", presentation at the NABE Panel Discussion: "Federal Reserve Independence in the Aftermath of the Financial Crisis: Should We Be Worried?", AEA/ASSA Annual Meeting, San Diego, California, 4 January.
- Da Costa, P., (2013), "Central bank independence is a bit like marriage: Israel's Fischer", blog post, MacroScope Reuters, 18 April, 2013, <http://blogs.reuters.com/macroscope/2013/04/18/central-bank-independence-is-a-bit-like-marriage-israels-fischer/>
- De Carvalho Filho, I.E., (2011), "28 Months Later: How Inflation Targeters Outperformed Their Peers in the Great Recession", *The B.E. Journal of Macroeconomics* 11(1).
- Frankel, J., (2012), "The death of inflation targeting", column in Vox, 19 June, <http://www.voxeu.org/article/inflation-targeting-dead-long-live-nominal-gdp-targeting>
- Gerlach, S., (2013) "Is inflation targeting passé?" in Reichlin, L. and R. Baldwin, (ed.), "Is Inflation Targeting Dead? Central Banking After the Crisis", Centre for Economic Policy Research.
- Goodhart, C.A.E., M. Baker and J. Ashworth, (2013), "Monetary targetry: Might Carney make a difference?", in Reichlin, L. and R. Baldwin, (ed.), "Is Inflation Targeting Dead? Central Banking After the Crisis", Centre for Economic Policy Research.
- IMF (2013), "The dog that didn't bark: Has inflation been muzzled or was it just sleeping?" Chapter 3, in the IMF World Economic Outlook, April 2013.
- King, M., (2013), "Monetary policy: Many targets, many instruments. Where do we stand?" speech at the IMF conference "Rethinking Macro Policy II: First Steps and Early Lessons", Washington DC, 16 April.
- Krugman, P., (2013), "Missing Deflation", blog post in the New York Times, 13 April, <http://krugman.blogs.nytimes.com/2013/04/13/missing-deflation/>
- Posen, A.S., (2013), "Cheap talk is no alternative to inflation targeting" in Reichlin, L. and R. Baldwin, (ed.), "Is Inflation Targeting Dead? Central Banking After the Crisis", Centre for Economic Policy Research.
- Reichlin, L. and R. Baldwin, (ed.), (2013), "Is Inflation Targeting Dead? Central Banking After the Crisis", Centre for Economic Policy Research.

Taylor, J.B., (1998), "Monetary Policy and The Long Boom", Federal Reserve Bank of St Louis Review, November/December.

Whelan, K., (2013), "A broader mandate: Why inflation targeting is inadequate", in L. and R. Baldwin, (ed.), "Is Inflation Targeting Dead? Central Banking After the Crisis", Centre for Economic Policy Research.

Wolf, M., (2013), "How central banks beat deflation", Financial Times, 16 April.