# Stefan Ingves: Central bank policies – the way forward after the crisis

Speech by Mr Stefan Ingves, Governor of the Sveriges Riksbank and Chairman of the Basel Committee on Banking Supervision, at the Royal Bank of Scotland, Stockholm, 4 October 2013.

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How should the Riksbank and other central banks act to contribute to the best possible development of the economy? This is a question that one might need to contemplate from time to time. Because at the end of the day, there is probably some truth in the old joke that it is not a problem if the questions in the Economics exam are the same year after year – the answers will change anyway.

The international financial and debt crisis that started around five years ago, and which still afflicts many countries, makes it particularly important to consider whether the answer to the question has changed – whether the central banks should conduct their operations differently from before the crisis, and if so, how. This issue is currently being discussed internationally, both in research and in policy. We do not now know exactly where this discussion will lead, although it is possible to distinguish some main conclusions.

## Prior to the crisis – most of the pieces of the puzzle appeared to be in place

Before the crisis, everything seemed quite simple. The global economy had experienced an unusually long period of good growth, relatively minor cyclical fluctuations, and low and stable inflation. This coincided with monetary policy being increasingly aimed at holding inflation in check. A growing number of countries had introduced explicit or implicit inflation targets and monetary policy had increasingly been delegated to independent central banks. Once inflation expectations had been anchored, it became easier to stabilise the real economy as well. Many felt that an important reason for the favourable developments in the world economy was that these changed enabled monetary policy to be conducted in a better manner than before.[1]

Moreover, during the period prior to the crisis financial stability was increasingly being taken for granted. It was assumed that the financial markets were on the whole efficient and functioning smoothly. Financial crises did occur, but most of the countries affected were able to get back on their feet relatively quickly. The successful management of the IT bubble at the turn of the millennium supported the impression that if crises occurred, they could be dealt with relatively simply and efficiently. Japan, where the problems following the crisis at the beginning of the 1990s nevertheless *had* been long-lasting, was regarded as a special case. Although developments in Japan were regarded as interesting, the lessons perceived were not thought to indicate that anything similar could happen in, for instance, the United States or Europe.

In this apparently stable macroeconomic environment, interest in research into the interaction between the financial sector and the real economy gradually declined. As Jordà, Schularick and Taylor (2011, p. 1) observe, it was “an historical mishap that just when the largest credit boom in history engulfed Western economies, consideration of the influence of financial factors on the real economy had dwindled to the point where it no longer played a central role in macroeconomic thinking.”

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

## Few traces of the debate on leaning against the wind

A few years before the crisis a debate had arisen on whether central banks should raise their policy rates to counteract the rapid increases in asset prices that had been observed in several regions. Should central banks, as it was often expressed, "lean against the wind" to "burst bubbles" on the asset markets? But this debate made little mark on practical policy. The dominant opinion at this time, among both researchers and representatives of central banks, was that the central banks should not try to take preventive action, but make do with "cleaning up afterwards" if a crisis did occur.[2] It was considered too difficult and too costly to use the policy rate for preventive purposes. Moreover, it was considered – possibly with Japan as the exception that proves the rule – that it need not be so difficult to clean up after a crisis.

In other words, the situation around six or seven years ago was such that we were more or less prepared to believe we had found the final solution as to how monetary policy should be conducted, and that financial crises no longer offered a severe threat.

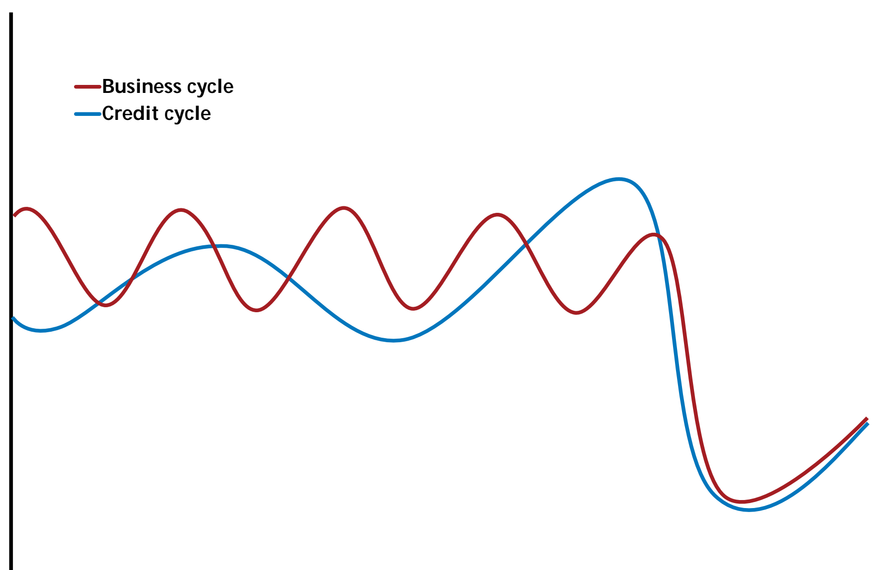
## An illustration

The international financial and debt crisis made it painfully clear that things were not that simple. There are several lessons that can be learned from the crisis. But if one were to choose the most important, for me there is no doubt that it is that a substantial increase in indebtedness in society can entail major problems, particularly if it is linked to price increases on an important asset market, in particular the housing market. This danger was definitely underestimated prior to the crisis.

The underlying problems can be illustrated using a stylised figure (see Figure 1). The red line represents the usual cyclical fluctuations in the economy – the business cycle.

Figure 1

**Business and credit cycles**




[2] This so-called Jackson Hole Consensus is described by, for instance, Issing (2009).

Let us, for the sake of simplicity, assume that inflation follows the business cycle, so that the curve can also represent developments in inflation. Of course, the business cycle and inflation do not normally coincide so well in reality, but this has no significance for the points I will make here.

The second curve in the figure represents variations in the amount of credit or degree of indebtedness in the economy. There are slightly different terms for these cycles in academic literature – credit cycles, leverage cycles or financial cycles.[3] They can have slightly different meanings in different contents, but essentially refer to the same thing. For the sake of simplicity, I shall use the term credit cycles here.

The credit cycle and the business cycle may occasionally coincide quite well, but can at times develop differently. In the figure, the two cycles are for illustrative purposes assumed to evolve rather differently. One occasion when the two cycles coincide, however, is when the credit cycle shows a rapid downturn, as at the end of the figure. Such a downturn is more likely when the preceding upturn has been unusually strong and characterised by exaggerated optimism and risk has been underestimated and under-priced.

### Credit boom that "goes wrong" – credit and business cycles coincide

At some stage it becomes clear that the large amount of credit and the high level of indebtedness are based on overly optimistic calculations. Interest in selling the asset, usually housing, at the base of the credit expansion suddenly becomes greater than interest in buying it and a downward price spiral starts. The value of the collateral falls and the banks become cautious and reduce their lending. Households on the other hand see the value of their assets plummeting while the size of their loans remains unchanged. In other words, their balance sheets look much worse than they had anticipated. Households who have found themselves in this situation in many other countries have reduced their consumption and begun to save to achieve a better balance between assets and debts. Not only the supply, but also the demand for credit thus declines. The consolidation of households' balance sheets gives a fall in demand that tends to be fairly long-lived.[4] The fall in the economy can be reinforced if the weaker economic activity means that borrowers, households and companies, experience difficult in meeting their obligations and the banks suffer loan losses. This process often leads to a substantial weakening in public finances, too, partly because of the rapid decline in economic activity and partly because the banking system may in a worst case scenario require support.

In this way, one can say that the credit cycle and the economic cycle pull one another down. Sometimes one uses the expression "credit boom gone wrong" to describe this kind of development.[5]

Of course, not all credit cycles look like this, but history shows that it is difficult to avoid it happening now and again. There is fairly good empirical evidence to support this description. For example, Schularick and Taylor (2012) find in a study of more than 200 recession periods in 14 economies during the years 1870–2008, that the more households and companies borrow during an economic upturn, the greater the risk that the upturn will be followed by a deep recession and a slow recovery – regardless of whether or not a financial crisis occurs. They also find that recessions linked to a financial crisis are more costly than normal recessions as production then falls more. An obvious example of a credit cycle that

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[3] For a few examples, see Geanakoplos (2009), Aikman, Haldane and Nelson (2010) and Borio (2012).

[4] See, for example, Mian and Sufi (2010). There is a debate, so far mainly in the United States, on what has caused the main problems for the macro economy – the crisis in the banking system or households debt overhang (see, for instance, Krugman, 2013). An increasing number of people consider it has been the latter.

[5] See, for example, Schularick and Taylor (2012).

went wrong close to home is the boom that contributed to a bank and property crisis and deep recession in the early 1990s.

### After the crisis – pay greater attention to the credit cycle!

Figure 1 is a good basis when one wants to illustrate different questions regarding monetary policy and central bank operations that have arisen due to the crisis and are now being discussed both internationally and in the debate here in Sweden.

The perception prior to the crisis could be described, in a rather simplified, but not misleading, manner as central banks in principle being able to disregard the credit cycle and focus solely on the economic cycle. It was assumed that those cases in which the credit cycle pulls down the economic cycle, which were presumed to be fairly rare, would be relatively easy to manage.

Correspondingly, the current international discussion on how central banks should act from now on – the question I began with – can essentially be about how one *should* take the credit cycle into account in a good way and incorporate it into the economic analysis and into practical policymaking. As the origin of the economic recession is the earlier excessive credit boom, much of the focus is on the question of how one can best ensure that this increase in credit becomes more balanced and that the credit boom thus does not go wrong.

It is not merely a question of avoiding crises. A high level of indebtedness can cause what one might call debt dominance in the economy, which put constraints on economic policy and leads to general unease over how debt will be reduced – whether this can be achieved in an orderly manner or whether it will be a rapid, abrupt process with substantial negative effects on the economy.

### Riksbank quick to point out the risks with a credit boom

I mentioned earlier that prior to the crisis there was a discussion on whether central banks should try "leaning against the wind" to dampen the credit boom and the upturn in housing prices that could be observed in a number of countries. One could actually claim that the Riksbank was one of the first central banks to clearly highlight the risks linked to household indebtedness and housing prices in its monetary policy agenda, and it was also one of the few central banks that in practice conducted a policy prior to the crisis that to some extent entailed "leaning against the wind".[6] I myself discussed the Riksbank's policy at the annual conference in Jackson Hole in 2007.[7] This was before the crisis had really made itself felt and there was considerable scepticism of a "leaning against the wind" policy. When the crisis came, opinion changed and as I see it, there is today considerably more understanding and acceptance for the policy we conducted. During the recovery phase after the crisis, the Riksbank has also tried to reduce the risk of exaggerated indebtedness and overly-inflated housing prices by conducting slightly less expansionary monetary policy than would otherwise have been the case.

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[6] See, for example, Mishkin (2007) and Cagliarini, Kent and Stevens (2010). Heikensten (2008), writes: "With house prices increasing drastically, risks for the real economy have been perceived to be bigger. On a few occasions in 2004–05 the Riksbank did for that reason not follow a strict inflation-targeting rule. We "leaned against the wind", in the sense that we did not take rates down as quickly as we could have done considering the outlook for inflation alone." The development of house prices and household debt have long been on the agenda of the Riksbank's Executive Board, see for example Srejber (2002).

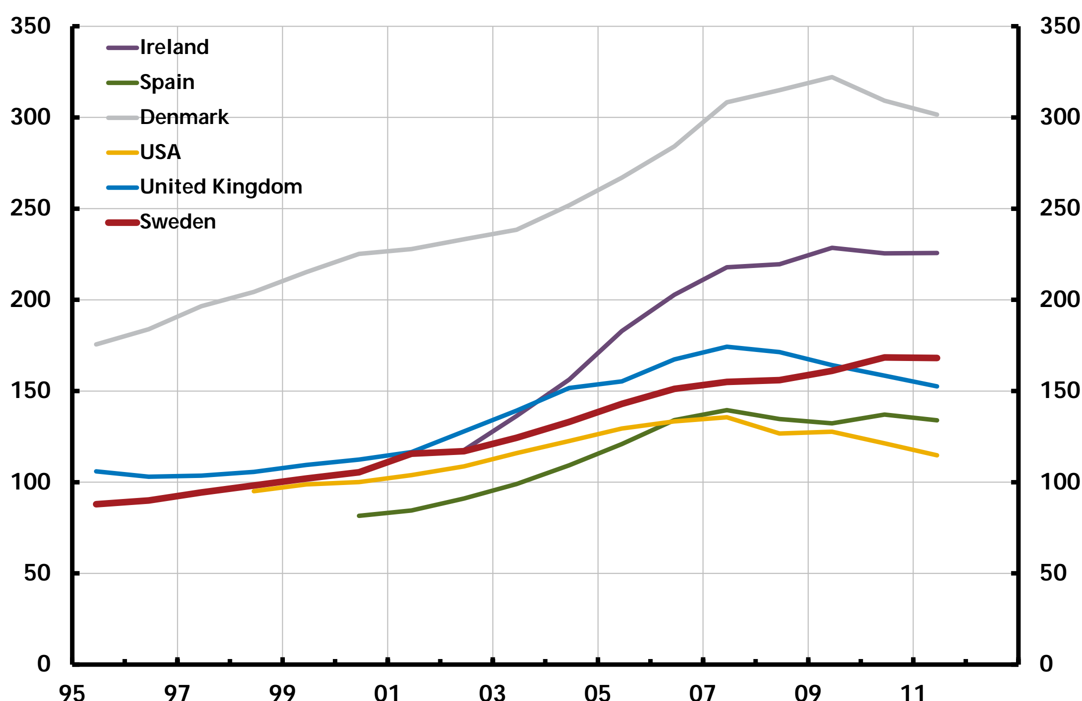
[7] Ingves (2007). I said, for instance: "[W]hen we observe long periods of high growth rates in asset prices and debt, growth rates that appear to be unsustainable in the long run, our view is that it is not reasonable to completely ignore that there may be risks associated with this[.]…What this view has meant in practice is fairly marginal changes in the timing of our interest rate changes, and substantial oral and written focus on the issue." This problem is also taken up in Ingves (2010).

The background to this policy is that debt in the Swedish household sector has shown a rising trend over the past 15–20 years and now appears high, both from an historical and an international perspective (see Figure 2). Unlike many other countries, housing prices in Sweden have not shown any significant fall. In terms of Figure 1, it can be said that in many other countries, heavy falls in housing prices have led to a downturn in the credit cycle, which has then pulled down the economic cycle. This has not been the case in Sweden, where the slowdown we have experienced in connection with the crisis has so far largely stemmed from the weak developments abroad. If we were also to experience a severe fall in housing prices and a rapid decline in the credit cycle, the consequences would be much greater and probably about as difficult to manage as they have proved to be in other countries.

Figure 2

**Household debt ratio**

Debt as a percentage of disposable income



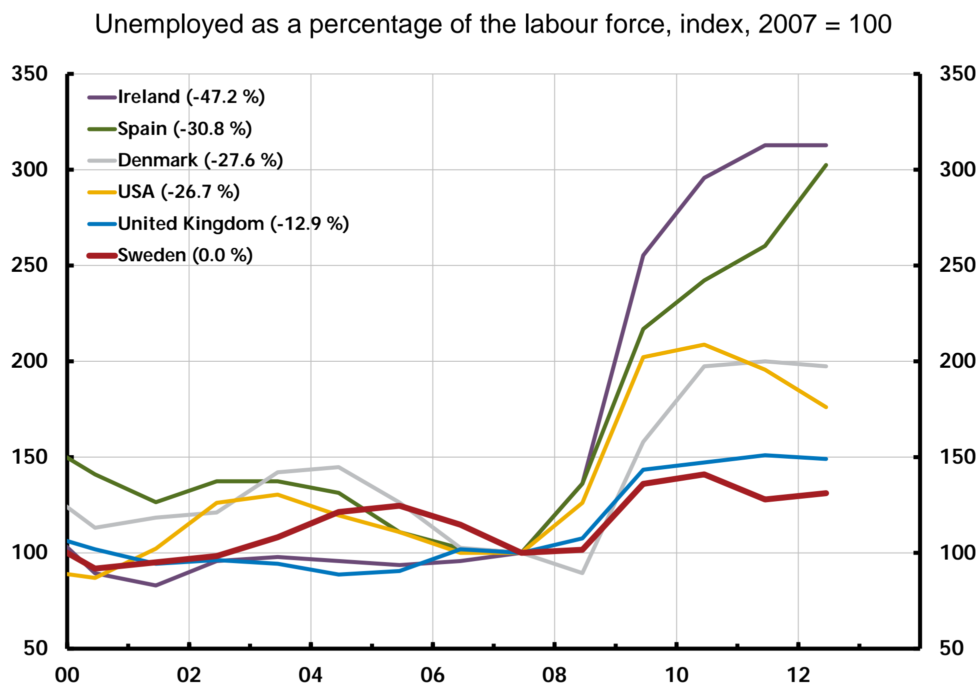

Source: OECD

Countries that have experienced a fall in housing prices in connection with the crisis have also had a fairly severe fall in unemployment (see Figure 3) and in many cases the recovery is still progressing very slowly.

Figure 3

**Unemployment**

Unemployed as a percentage of the labour force, index, 2007 = 100




Note. The figures in brackets refer to the fall in real housing prices from the peak to the trough.

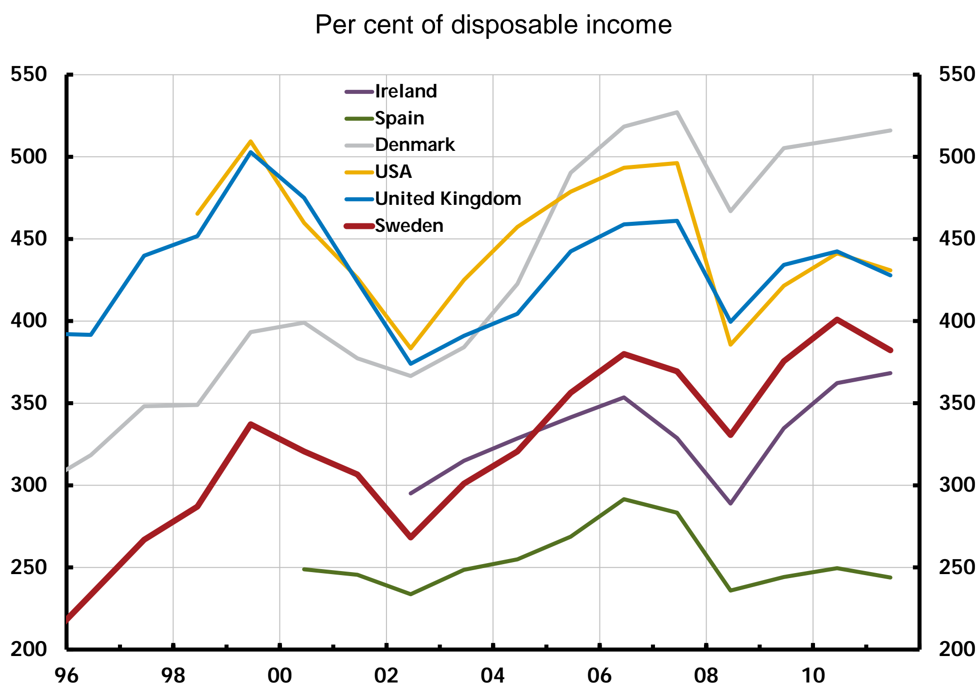
Source: OECD

It is also worth emphasizing that the countries that have been hit hardest include ones with both stronger and weaker wealth positions than Sweden (see Figure 4).

Figure 4

**Households' total financial assets**

Per cent of disposable income




Source: OECD

## Policy in line with international debate and our mandate

The policy conducted by the Riksbank has sometimes been characterised as "difficult to grasp" and "strange" in the debate in Sweden – that we are conducting housing policy" and that we "are not following our mandate".[8] I hope that this description has put forward two points in particular. The first is that the policy conducted by the Riksbank has been well in line with the international discussion that arose after the crisis and concerns how best to take into account risks linked to household indebtedness and developments in the housing market. If anything, as I noted earlier, the Riksbank was among the first to highlight these problems.

The second point that I hope has come across is that the policy the Riksbank has conducted is well in line with the mandate we have been given. The Riksbank has not acted on the basis of any hidden agenda to try to attain some other purpose, whatever that might be. The purpose of our policy has been to prevent Sweden falling into the deep recession suffered by many other countries in connection with the crisis.

It has thus been a question of wanting to manage our task of maintaining price stability and macroeconomic balance in the best way possible.[9] As I see it, there is no doubt that the Riksbank's mandate allows us and even requires us to take into account risks linked to a credit boom and rising house prices. So, neither in the light of the international debate conducted today nor the mandate given to the Riksbank, has the monetary policy conducted been particularly "unusual" or "strange".

The monetary policy strategy the Riksbank has applied in recent years is also worth mentioning. What we have tried to do is to find a suitable balance where we support the recovery, but at the same time do not accelerate as hard as we might have done if we did not need to take into account housing prices and indebtedness. This has not, as one might sometimes think, been a question of braking hard. When all is said and done, the repo rate is currently no higher than 1 per cent.

## Difficult balancing act if the repo rate is the only tool

But let me now return to Figure 1 and the discussion I started with. Stabilising two cycles – the business cycle and the credit cycle – with the aid of only one tool – the policy rate – is of course not easy. In reality, the problem is further complicated by the fact that inflation must be stabilised. Here I assumed for the sake of simplicity that inflation would entirely follow the business cycle.

As the credit cycle and the business cycle develop in different ways, a change in the repo rate intended to affect one cycle will sometimes have an undesired effect on the other. Although a stable credit cycle – one that does not "go wrong" – is ultimately necessary for a stable business cycle, in the short term it may be necessary to make a trade-off between them. This is not without its problems. An ambition to hold the credit cycle in balance may require a slightly higher policy rate. This would also dampen the economic cycle and inflation could undershoot the target. This can be regarded as normal and acceptable for a period of time. But if the period becomes prolonged, it may sooner or later become difficult to gain understanding and support for this policy – despite its purpose being to prevent a much worse development further ahead. This could be a dilemma.

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[8] One of many examples is Petterson and Hållö (2013).

[9] It is not entirely clear how inflation will develop in connection with a recession. One possibility is that the krona would weaken substantially and that imported products would thereby become so much more expensive that one had a higher inflation rate in the short term. It is reasonable, however, to assume that the weak demand would gradually predominate and put downward pressure on inflation. Preventing a recession must be regarded as one of the Riksbank's main tasks.

The equation would be simpler to solve if there were further tools that could be used to stabilise the credit cycle. This is where the new policy area that has arisen after the crisis – macroprudential policy – comes in. The international discussion of how the credit cycle should be taken into account and incorporated into the analysis and policy has to a large degree centred on how macroprudential policy should be conducted.[10]

### Decision on responsibility for macroprudential policy

Many countries have already made some progress here. In many cases, the central bank has been allocated a central role in macroprudential policy, either as an important participant in some form of macroprudential policy organisation, quite often as chair or it has sole responsibility for macroprudential policy. In the United Kingdom, for instance, macroprudential policy has been allocated to a special committee within the Bank of England, the Financial Policy Committee (FPC). The governor and two other committee members are on both the FPC and the Monetary Policy Committee.

In Sweden we are lagging behind somewhat with regard to the development of macroprudential policy. It has been unclear what framework politicians intended to establish. The question has been investigated by, for instance, the financial crisis committee, which presented an interim report at the beginning of this year.[11] But the proposal presented by the committee still entailed a fairly unclear allocation of responsibility and the Riksbank assessed in its consultation response that this could lead to uncertainty over who should take action and thus weaken decisiveness too far.[12] We advocated that responsibility should be given to *one* decision-making body with a clear responsibility for macroprudential policy.

A few weeks ago, the Government came to a decision.[13] Many details still remain to be decided, and it will take some time still before a complete framework is in place. But it is clear that Finansinspektionen (the Swedish Financial Supervisory Authority) will have the overall responsibility for macroprudential tools. The Riksbank will be part of a financial stability council that also includes the Government, Finansinspektionen and the National Debt Office. The council is to identify risks and discuss measures, but it should function as a discussion forum and not give explicit recommendations.

The most important thing is that the uncertainty surrounding the allocation of responsibility has now been resolved in that it has been made clear and that responsibility will rest with *one* authority. I do not believe that the institutional set-up is otherwise of absolutely critical importance – within reasonable boundaries. Various solutions may very well prove to function equally well in practice and provide equally good economic development. Ultimately, it remains to be seen how things work out – "the proof of the pudding is in the eating".

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[10] In addition to these cyclical risks, macroprudential policy is also assumed to need to manage what are referred to as structural risks, or cross-section risks, see the Riksbank (2012). The latter concern financial companies having become so closely interwoven and the degree of concentration in the financial system so high that if problems arise in one area they risk spreading rapidly. The effects on the real economy will be similar to those in Figure 1. Of course, these risks may also change over time.

[11] Financial Crisis Committee (2013). Parts of macroprudential policy are also discussed in Swedish Government Official Reports (2013), *Förstärkta kapitaltäckningsregler*[Stronger capital adequacy rules], which was presented on 16 September. The potential design of a Swedish macroprudential framework is also discussed by Goodhart and Rochet (2011), Bryant, Henderson and Becker (2012) and Vredin, Flodén, Larsson and Ravn (2012).

[12] The Riksbank (2013).

[13] Ministry of Finance (2013).

## Interplay between macroprudential and monetary policy important to consider

In principle, of course, if monetary policy were initially to try to stabilise *both* the business cycle and the credit cycle, and there arose a new policy area focusing on the latter – then this would almost by definition ease some of the earlier pressure on monetary policy.

But even if we have now made some progress in attaining a framework for macroprudential policy, there are some questions of principle that still need consideration. Something one should always bear in mind, but which I do not intend to discuss further here, is that decisions we make regarding conditions in Sweden must also be incorporated into a broader, European context. There are also a number of questions, particularly with regard to the interplay between macroprudential policy and monetary policy, that sooner or later may need to be dealt with in practice and it would be wise to have thought them through.

## Coordination...

Some of the research into macroprudential policy – which is in general still in its infancy – tries to analyse the importance of coordinating macroprudential policy and monetary policy. The idea is roughly as follows: Monetary policy and macroprudential policy act through largely the same channels. Both the policy rate and most macroprudential tools affect, for instance, credit growth in the economy and developments in various asset prices. This also means that the two policy areas affect one another's objectives. Monetary policy affects the credit cycle – which was the whole point of "leaning against the wind", and macroprudential policy has effects on the business cycle. It is therefore desirable to find the right policy mix – the combination of policy rate and macroprudential tools that give the best overall outcome for the economy. The conditions for finding the right mix are normally improved if the two types of policy are coordinated, rather than determined separately.[14]

The importance of coordination is also pointed out in more practical economic policy contexts. One example is the recently implemented review of the monetary policy framework in the United Kingdom. There, for instance, the fact that some members sit on both the Bank of England's monetary policy committee and its committee for financial stability, is regarded as a means of fostering coordination between monetary policy and macroprudential policy.[15]

In Sweden, it will not be possible to coordinate macroprudential policy and monetary policy as closely as in the United Kingdom, for instance, as we have chosen a different framework for responsibility. It is at present difficult to foresee what the consequences of this will be – and even if there will be any significant consequences. After all, neither research nor the so far limited practical experiences give any particularly clear answer regarding exactly *how* important coordination is. It is once again quite possible that the solution we have chosen in Sweden will turn out to work very well in practice – only time will tell.

## ...or at least concordance

But even if macroprudential policy and monetary policy may not necessarily need to be coordinated in a more formal sense, there may be reason to consider whether there should be a certain amount of concordance between them. My personal opinion is that there must

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[14] For an intuitive description of the problems concerning the coordination of macroprudential policy and monetary policy, see Bryant, Henderson and Becker (2012). Coordination was also one of the questions discussed in the report by a working group at the Bank for International Settlements, where I was chair, see the Bank for International Settlements (2011).

[15] See H M Treasury (2013), which points out, for instance, that "The Government intends that the frameworks for monetary policy and macro-prudential policy, operated by the MPC and FPC of the Bank of England respectively, should be coordinated" (p. 5), and "In order to foster coordination between monetary and macro-prudential policy, there is overlap between the membership of the Monetary Policy Committee and the Financial Policy Committee" (p. 10).

be what one can call a holistic, or comprehensive, view when formulating both types of policy. If both the credit cycle and the business cycle are to be stabilised in a good way, I do not believe that they can be too far from the policy mix implied by full coordination, at least not over a long period of time. The two types of policy could then counteract or reinforce one another in ways that would be harmful to the economy. It is probably also the case that this interplay is particularly important in sensitive situations, such as preventing a credit boom going too far and ensuring that the credit cycle has a slow, soft downturn instead of a rapid, dramatic one.

This relates to an international discussion on whether the policy rate can play a role in stabilising the credit cycle, even when macroprudential policy is in place.[16] One reason why it might play a role is that it can be difficult to design a system for macroprudential policy that functions efficiently enough and cannot be circumvented by innovative market participants. If, for instance, the policy rate is kept low for a long period of time at the same time as macroprudential policy is relatively restrictive, there is a risk that a grey credit market will arise. The interest rate is of course a blunt instrument to use in stabilising the credit cycle, as it has a broad impact on the economy and a substantial effect on the economic cycle. However, one advantage of the broad impact of the policy rate is that it is therefore difficult to "avoid", even for those who might be able to circumvent macroprudential policy.[17] Some countries are also fairly explicit about giving the policy rate a role to play in subduing the credit cycle, as a complement to macroprudential tools.[18] In the same way as macroprudential policy can help ease the pressure on monetary policy, monetary policy can give support to macroprudential policy by leaning against the wind. Thus, there are a number of questions regarding the interplay between macroprudential policy and monetary policy that require further consideration.

### Central banks after the crisis – increased differences and country-specific solutions

Let me conclude by returning to the question I asked at the beginning – whether the central banks will conduct their operations differently after the crisis than they did before. The answer to that question is that it all depends. It is quite clear that a general conclusion from the crisis is that greater effort must be made to stabilise the credit cycle by preventing overly rapid upturns. However, the role given to the central bank in this regard varies from country to country. In some countries, the task has been more or less entirely allocated to the central bank, while in other countries the central bank has a less prominent role.

One consequence of this is that, while there was a trend prior to the crisis for central banks' policy to look increasingly similar – with flexible inflation-targeting as a basic model – it appears as though the trend is towards greater differences after the crisis. Flexible inflation targeting is still the linchpin, but as management of the credit cycle differs between the

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[16] See, for example, Blanchard, Dell'Ariccia and Mauro (2013), Carney (2013) and Stein (2013).

[17] Jeremy Stein at the Federal Reserve's Board of Governors has expressed it as the advantage of monetary policy being that it "gets in all of the cracks" (Stein, 2013, p. 17). The Riksbank has also raised this argument in various contexts, see for instance, Ingves (2010) and Nyberg (2011). Donald Kohn, former deputy chairman of the Federal Reserve Board of Governors and now member of the Bank of England's Financial Policy Committee, recently put forward another aspect: "When one policy is leaning so hard in a particular direction, the other can't compensate, can't achieve its objectives. … So for example, the example that's often used, very easy monetary policy builds imbalances that may be so large, that may become so large they can't be countered by regulation." (see Talley, 2013).

[18] For example, Norges Bank writes in an article about the countercyclical capital buffer: "The countercyclical buffer will strengthen the resilience of the banking sector during an upturn. It may also, to some extent, counteract the build-up of financial imbalances, but the effect is uncertain. Thus, Norges Bank cannot disregard taking financial imbalances into consideration when setting the key policy rate." (Norges Bank, 2013, p. 23)

central banks, one could say that one consequence of the crisis has been an increased divergence in central bank policies.

As in other countries, we in Sweden must now try to find good solutions, on the basis of the conditions applying, for designing the interplay between macroprudential policy and monetary policy. I am convinced that we will succeed in this task, with join efforts and as we gain greater knowledge of how the new upcoming framework for macroprudential policy functions in practice.

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