

Karolina Ekholm: Some lessons from the financial crisis for monetary policy

Speech by Ms Karolina Ekholm, Deputy Governor of the Sveriges Riksbank, at a meeting, Stockholm, 4 December 2009.

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One question that has been much debated over the past year is to what extent monetary policy has contributed to the financial crisis, which we have not quite seen the end of yet. Another – partly related – question is to what extent the policy conducted by central banks in the future should try to counteract potential bubbles¹ building up so that we can ultimately avoid a new dramatic financial crisis with substantial consequences for the real economy. These are the questions I intend to focus on today.

One conclusion that can be drawn in the light of the deepest recession in the world economy since the Second World War is that it is important to try to counteract, in various ways, bubbles building up that will then risk causing substantial problems in the real economy when they burst. How this should be done, and who should bear the main responsibility for this task, are difficult questions to which there are at present no exact answers. The responsibility for a balanced development of the economy does not rest solely with the central banks; it also lies with the financial supervisory authorities and the legislators. On the other hand, a central bank like the Riksbank has considerable responsibility with regard to managing the consequences of a financial crisis and can therefore also be assumed to have a strong interest in preventing such crises from arising. At the same time, a central bank does not have so many instruments to try to influence developments such as credit growth and asset prices. The policy rate is a fairly blunt instrument in this context. This does not mean that financial indicators are not taken into account in interest rate decisions, which has been the case in Sweden on a number of occasions. But there is also reason to consider the possibility of using other tools than the policy rate.

In this speech I shall begin by describing the causes behind the crisis. In this context I will explicitly discuss the question of to what extent monetary policy in the early 2000s might have contributed to developments. I shall argue against the opinion that monetary policy was a crucial factor behind the financial crisis. This does not mean, however, that I do not consider there are arguments in favour of central banks being more active when there is a risk of bubbles building up. I shall attempt to develop these arguments here today.

A financial crisis with substantial consequences for the real economy

The financial crisis that escalated in autumn 2008 in connection with the Lehman Brothers bankruptcy is the largest since the Great Depression at the end of the 1920s and early 1930s. Confidence in the financial markets fell substantially last autumn and credit spreads – the difference between the interest rate on higher risk assets and that on safe assets – rose rapidly. It was initially unclear how large the consequences of the financial turbulence would be for developments in the real economy, but it soon became clear that the consequences were widespread. Credit terms were quickly tightened for companies and households in both the United States and the euro area. Lending growth also slowed down in Sweden. Households and companies went from being relatively optimistic regarding future

¹ By bubble, we mean here a development, which if it continues, will evidently not be sustainable in the long term.

developments to being very pessimistic. The global economy entered a recession where demand was falling more quickly than at any other time since the Second World War.

Now the financial turbulence has largely subsided as a result of the measures taken by central banks and governments, although the situation in the financial markets can still not be called normal. The global economy has begun to grow again. Although the IMF is assuming that only half of all banks' losses have been realised, market confidence has recovered and credit spreads have fallen markedly.

However, there is still uncertainty over the recovery in the world economy and the sustainability of the improvement that has occurred. Our assessment is that the recovery in Sweden will be slower than most of the previous recoveries have been. One reason for this assumption is that studies indicate that recessions in the world economy caused by problems in the financial sector are followed by a weaker recovery than in other recessions.

What caused the crisis?

There have been many discussions on what caused the crisis and different analysts emphasise different factors. Those factors that most often feature in these discussions are macro economic imbalances, US housing policy, inadequate regulatory frameworks and supervision, and an overly expansionary monetary policy, particularly in the United States. Here I shall briefly discuss these factors.

Macro economic imbalances

At the macro economic level the US economy prior to the crisis was characterised by very low savings and a high level of household indebtedness. The US economy as a whole used more goods and services than was produced, which was reflected in a large deficit in its international trading. The opposite situation applied to a number of Asian countries, where saving was high and the net export figure was positive. One can say that there was a saving deficit in the United States and a saving surplus in some Asian and oil-producing countries. Large parts of the saving surplus in countries like China were invested in US debt securities and contributed to low long-term interest rates in the United States. The imbalances and the low interest rates led to an increased demand for financial assets with a higher yield, which contributed to pushing down risk premiums to untenably low levels. Low risk premiums and low interest rates in turn contributed to overheating in the US housing market.

Expansionary housing policy in the United States

One important factor in triggering the crisis was the adjustment in the US housing market that began in autumn 2005. The housing market has been stimulated by an expansionary housing policy over a long period of time. The aim was that more households would own their own homes. To achieve this, targets were set for how much of the mortgage institutions' lending would be granted to wage-earners with medium and low incomes. These targets were then gradually raised. The demand for owning one's own home increased, and thus housing prices and household indebtedness also increased. Moreover, an increasing number of households had gained access to credit as a result of the deregulation of the financial markets.

New financial products were created that enabled mortgages to be put together, repackaged and then sold on the financial markets. The idea behind these financial innovations was to spread the risks over more counterparties. Unfortunately the new instruments also reduced the possibility to assess where the risks lay.

When the housing market bubble burst and house prices began to fall, the underlying problems rose to the surface. An increasing number of households experienced problems meeting their payment obligations, which led to problems in the US mortgage market. The

problems then spread quickly to other countries with banks that had invested in the new financial products. These banks were not able to estimate the contagion risks in full, as the risks in these products were difficult to assess and even the credit rating agencies underestimated them. Uncertainty over the size of the problems led the banks to tighten their lending, which in turn impaired consumption and investment.

Inadequate supervision and regulation

With regard to the supervision and regulation of the financial markets, there has clearly been a lot left to desire in several areas. Supervision in the United States in particular appears to have been inadequate. The trade in OTC derivatives² exploded and many new, complicated financial instruments were introduced onto the market. This made the banks' counterparty risks larger and less transparent. Nor were the financial supervisory authorities fully aware of the contagion risks in these new instruments. The complex financial instruments created in the search for yield when interest rates were very low did not comprise a problem as long as the situation on the financial markets was stable, but when the turbulence increased, it became very difficult to understand and evaluate these new instruments. It was the uncertainty over the value of the assets that led to many institutions facing problems when their assets declined in value at the same time as they suffered funding problems. Some institutions were then forced to sell some of their assets which further pushed down the value of the assets and led to new funding problems. There was a belief that the extensive trade in financial instruments meant that the risks were spread and that the system thus became more stable. In actual fact, the risks appear to have finally landed in the bank sector. The financial system was thus in practice more vulnerable than most people – including the financial supervisory authorities – believed.³

Expansionary monetary policy in the United States

The expansionary monetary policy in the United States during the period 2002–2004 has also been held up as a possible contributory factor to the overheating in the US housing market and the ensuing financial turbulence.⁴ Some analysts feel that very low, short-term interest rates contributed to the overheating. However, it should be emphasised that inflation in the United States was low during this period and there were fears that the US economy would experience what is known as a liquidity trap, which could have had very serious consequences for developments in the real economy. Here it was the experiences from Japan during the 1990s and 2000s that caused alarm. Following the financial crisis in Japan at the beginning of the 1990s, prices fell and households postponed their consumption as they were expecting prices to continue to fall. The Japanese central bank cut its policy rate to zero and let it remain there, but falling prices meant that monetary policy was nevertheless too tight, in real economic terms. The liquidity trap problem meant that growth was very low over a long period of time. For the three decades prior to the outbreak of the financial crisis in the early 1990s, the average GDP growth in Japan was just over 6 per cent a year. Following the financial crisis it has been just over 1 per cent a year.⁵

Because of the risk of a liquidity trap it was difficult for the US central bank, on the basis of the information available at the time, to do anything other than cut the policy rate – the Fed

² OTC instruments are bilateral financial instruments that are traded outside of the usual stock exchanges and market places, i.e. “over the counter”.

³ Bean (2009).

⁴ Bean (2009) and Taylor (2009). In BIS (2008) it is pointed out that low policy rates globally may have contributed to the crisis. Bubbles have also arisen on the housing markets in a number of other countries that burst in recent years.

⁵ See Figure 8 in the presentation material.

Funds Target rate – to 1 per cent. It might perhaps have been possible to avoid the house price bubble if tighter monetary policy had been conducted at the beginning of the 2000s, but the price in terms of deflation and low growth could have been unreasonably high. Given the situation at the time the decision was made, the chosen policy appears well-motivated.

Should central banks try to prevent financial bubbles from arising?

Despite the fact that central banks perhaps cannot be blamed for the crisis arising, I think there is reason – given what has happened recently and the research carried out in recent years – to further consider what role they can and should play with regard to these issues. One often tries to distinguish between pure monetary policy, which is conducted with the policy rate as the primary instrument, and measures that are first and foremost aimed at promoting financial stability. However, this crisis has shown that it can sometimes be difficult to make this distinction. Without the measures to reduce the turbulence on the financial markets, the low interest rate policy conducted to counteract the recession would hardly have had any great impact. At the same time, it may be important to make this distinction as monetary policy is something for which the central bank has sole responsibility, while promoting financial stability is a task shared with other public authorities.

There is currently important work being done on designing better methods for promoting financial stability, both nationally and internationally. One international example is the establishment of a European Systemic Risk Board (ESRB), where the governors of the central banks in the 27 EU countries will play an important role. The ESRB's work will focus on analysing financial stability and the risks that exist in an EU perspective.

With regard to straightforward monetary policy, the question is whether the interest rate decisions should take into account asset prices and credit growth with the aim of preventing bubbles from arising. An interest rate policy that takes such factors into account can be described as “leaning against the wind”. When there are signs that a bubble is building up, the interest rate is set slightly higher than would otherwise be justified by the inflation outlook and resource utilisation. What are the arguments for and against such a policy?

Arguments against

The prevalent opinion is probably that monetary policy should not be used to prevent bubbles arising in the financial markets. Three conditions should be met if one is to use monetary policy to prick financial bubbles: It must be possible to identify the bubbles, there must be tools to prick holes in them and pricking holes in them must provide potential gains.⁶ A common perception has been that none of these conditions is actually fulfilled. It is very difficult to ascertain whether there is a bubble or not. Policy rates would certainly seem to be far too blunt an instrument to fine tune asset prices.⁷ Moreover, raising the policy rate to prick a hole in a potential housing market bubble could damage the economy more than if one allowed the bubble to burst on its own.⁸

Leaning against the wind is thus a policy that is not without its problems. The welfare costs of making wrong decisions could be high. Moreover, many of the bubbles that have corrected themselves have not led to any major problems for the real economy.

Perhaps, on the whole, it is not the role of monetary policy to steer developments in, for instance, the housing market. There are other means of preventing excesses, such as tougher regulations and supervision as well as demands for increased transparency in the

⁶ Kohn (2008).

⁷ Mishkin (2007).

⁸ Greenspan (2002) and Kohn (2006).

financial system. A number of measures have recently been proposed to bring about a change in this direction, and this could mean there is less risk that bubbles will arise in the future. One can also argue that it is primarily the responsibility of other authorities – such as the financial supervisory authorities and the finance ministries to take measures to prevent bubbles arising in the housing market.

Arguments for

But it is nevertheless the case that burst bubbles can have serious consequences for developments in the real economy and thereby also for monetary policy. It is thus also in the interest of the central banks to do what they can in various ways to avoid a situation where the economy goes into recession because of a burst bubble. The costs of the most recent financial crisis have been so high that it is difficult to claim that there would not have been any potential gains in preventing the financial bubble from arising. I mentioned at the beginning of my speech that the most recent financial turbulence is the greatest since the Depression and that the downturn in the world economy is the largest since the Second World War. Unemployment in the United States, for instance, has risen from around 4 per cent to more than 10 per cent in just over two years. The percentage of US households experiencing payment problems is the largest ever noted and millions of households have been forced – and probably further millions of households will be forced – to hand over their home to the lender for compulsory sale. In Sweden unemployment has risen much less during the same period, but it is now at just over 8 per cent, the highest level noted for more than 10 years.

A further argument in favour of central banks preventing excesses in asset prices is the risk of what is known as moral hazard. That is, that risk-taking will increase if there is an expectation that the government will always bail out the financial sector when bubbles burst, but will remain passive while they are building up. A monetary policy that is characterised by leaning against the wind may reduce this tendency. If the central bank acts more symmetrically (that is, not merely sweeps up after the crisis but also tightens policy when a bubble arises), it may encourage more responsible behaviour by investors and thus reduce the risk of new crises arising.

Scope for a more active policy

My opinion is that in the light of the severe impact this crisis has had on the economy, there is justification for central banks being more active in reducing the risk of financial bubbles arising. However, I am dubious about a policy where the interest rate is used not merely to stabilise inflation and resource utilisation, but also asset prices. This would quite simply be too many aims for one single instrument. However, I do feel that it may be important to take into account indications that a bubble is building up when we make our monetary policy decisions. If these motives for a tighter monetary policy are communicated clearly, it should increase the general awareness of the risks with financial imbalances.

I also consider that one should examine the possibility to increase the instruments at the disposal of central banks so that other measures than raising the policy rate can be taken when the risk of financial bubbles is assessed as high. However, it is necessary to analyse very carefully what the consequences of such an increase would be for conducting monetary policy before one takes a stand on this issue. Measures that influence credit granting and interest rate spreads in different ways have an impact on the transmission mechanism for the actual interest rate policy, which ultimately means that the impact of monetary policy on the economy may be different, at least initially.

Do reliable “bubble indicators” exist, and what alternative means to the repo rate are available?

Let me spend the rest of the time discussing both the question of whether there are reliable indicators that can warn when financial bubbles are arising, and the question of what might be suitable tools, in addition to the interest rate, to use if the need arises. In connection with the first question it is relevant to also ask why indicators of financial bubbles, if these exist, are not used already and why the market would not be better at valuing the risks than central banks.

There are studies which point to the existence of indicators which can – more or less – capture bubbles that the market has not corrected, for one reason or another. A study by the ECB⁹ presented a model that can identify just over 80 per cent of the cases in OECD countries where excesses have later led to costly downward adjustments in the economy. In the IMF’s most recent “World Economic Outlook”¹⁰ the conclusion is more cautious. It is claimed in this study that it is possible at best to identify around half of the excesses (including the most recent crisis) that have later led to significant corrections in developed economies. Both of the studies conclude that (global) credit growth is the best individual indicator of overheating. A study by the Bank for International Settlements (BIS) in 2004¹¹ also concluded that although it is difficult to find relevant bubble indicators, it is not impossible. The study claims that there are signs of asymmetry as some central banks have a tendency to stimulate the economy when the stock market falls, but not to tighten their policy when stock market bubbles are building up.

The conclusions of these studies are that central banks should try in various ways to take into account, for instance, an overly rapid growth in credit that risks leading to a severe downward adjustment in the economy later on. However, it is emphasised in many studies that further research in this field is required to be able to draw more definite conclusions for future monetary policy. The development of this type of indicator is now high on the agenda both nationally and in the international economic policy cooperation.

If one can identify the excesses, why couldn’t the market correct them itself? This could be a question of what economists call market failure. Market participants act in a way that is rational from the point of view of each individual participant, but taken together the outcome is bad for all. As long as investors continue to earn money, the demand for credit can continue to grow, even if the signs of a bubble are strong. On such occasions, intervention by public authorities may lead to a better outcome not just for the economy as a whole, but also for the individual market participants.

If one looks at Swedish monetary policy over the past decade, one can actually claim that it has been characterised by some “leaning against the wind”. The published minutes of the monetary policy meetings in Sweden in 2003 and 2004 indicate that rising house prices, high growth in credit and an increased burden of debt among households were put forward by several Executive Board members as arguments in favour of conducting a less expansionary monetary policy. The message is even clearer during the period March 2005 until the end of September 2007, when the Riksbank gave consideration to house prices and growth in lending in its monetary policy decisions. However, the decisions to take into account house prices and credit growth were not made on the basis of the Riksbank including asset prices as a further target variable for monetary policy. The argument was rather that the economy could suffer a deep recession in the long term if developments led to a bubble arising which then burst.

⁹ ECB (2009).

¹⁰ IMF (2009).

¹¹ Borio and Lowe (2004).

The economists Francesco Giavazzi and Frederic Mishkin expressed concern in their assessment of Swedish monetary policy between 1995 and 2005 that the Riksbank had given too much consideration to house prices.¹² However, monetary policy that entails flexible inflation targeting – like that conducted in Sweden – has the aim of stabilising inflation around the inflation target and also resource utilisation. This means that temporary deviations from the inflation target may be motivated if the inflation target is attained in the longer term. This was also the assessment made by the Riksbank.

House prices in Sweden rose by 3 per cent between the second and third quarters of this year, after a slowdown in 2008 and the average price increase since 1996 has been around 8 per cent a year. The question is whether this is a sustainable long-term development. There may be risks with this, even if the upturn is not as large as in some other countries which have recently experienced downward adjustments. Developments in the housing market in Sweden also differ in that new construction has been considerably lower than in a number of other countries. Swedish house prices were discussed at the most recent monetary policy meeting, where several members emphasised the importance of more closely following developments.

Given this, I will now go on to the question of what alternative tools – in addition to the policy rate – might be available to the Riksbank. One problem that has become clear recently is that the impact of the Riksbank's analyses of financial stability, including warnings of how the risks have developed in the Baltic economies, has been limited. The problem could be a consequence of the distribution of responsibility between the public authorities. The Riksbank currently has a responsibility for the financial system at an overall level, where the focus is on macroeconomic aspects. Finansinspektionen (the Swedish financial supervisory authority) has responsibility for monitoring stability in the individual institutions. However, only Finansinspektionen has the tools to directly influence the financial institutions' behaviour, for example, the possibility to change capital adequacy requirements and impose sanctions if necessary. There is now a discussion both in Sweden and a number of other countries as to whether this division of roles is optimal from a financial stability perspective. It is easy for a gap to arise between the conclusions drawn by a central bank and the decisions taken by the supervisory authority. Developments over the past year underline the importance of seeing the system as a whole and the systemic risks that might exist in a macroeconomic perspective.

There should thus be a better system with regard to the link between the analysis from a macroeconomic perspective and the measures taken for the individual banks. One can therefore wonder whether there might not be better organisational solutions for maintaining financial stability in Sweden. It is difficult to say exactly how this would look. There may be several possible solutions. Finansinspektionen could be given greater resources to monitor systemic risks in a macroeconomic perspective. Another solution might be to extend the Riksbank's power of authority to be able to initiate cases at Finansinspektionen. A third solution could be to link the work of Finansinspektionen and the Riksbank more closely together and increase cooperation between the two authorities. Regardless of which solution is chosen, I believe that it will lead to positive effects for the Riksbank's possibilities to take measures if one sees a risk that a bubble is developing on the financial markets.

But there is also a tool that the Riksbank already has at its disposal, and which can be used to counteract excesses in the housing market, for instance, namely the repo rate path. The fact that the Riksbank publishes a forecast for the development of the policy rate makes it easier to clearly communicate the longer-term outlook for interest rates. This can reduce the risk of banks and households being led to believe that a low policy rate as a result of a downturn in the economy will continue to apply for several years to come.

¹² Giavazzi and Mishkin (2006).

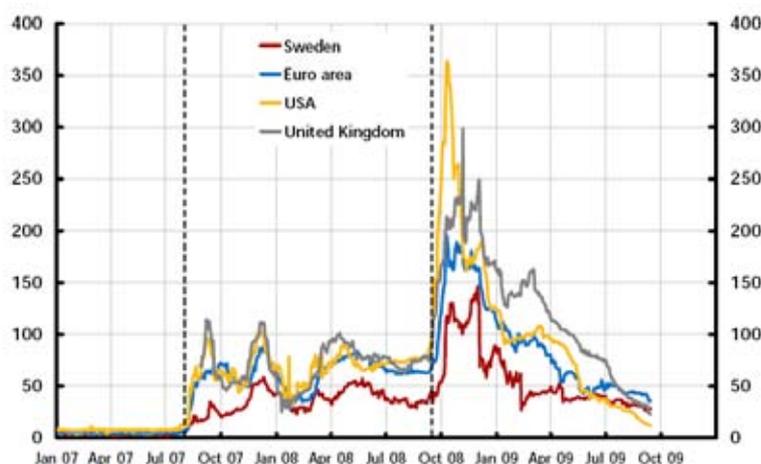
Conclusions

My conclusion is thus that there may be a possibility for central banks to conduct a policy that counteracts the emergence of bubbles in asset prices for the purpose of preventing them from arising and having substantially negative effects on the real economy. However, this should not be done mechanically, and asset prices should not be target variables for monetary policy. However, together with, for instance, credit growth and indebtedness they may be used as indicators that can be highlighted when interest rate decisions are taken, as a broken bubble means that resource utilisation in the longer term risks being too low and inflation will therefore undershoot the target. More research is needed though in this field to improve the analysis. It is desirable that better indicator models are developed to detect bubbles and that the financial market's functioning is better incorporated into the models that are regularly used in the forecasting work. The process has already started, both at the Riksbank and in the international cooperation. I consider this to be a positive development.

I also consider that one should examine the possibility to extend the instruments at the disposal of the Riksbank so that we can take other measures than raising the policy rate when the risk of financial bubbles is assessed as high. This could be a question of allocation of responsibility between public authorities and of extended power of authority for the Riksbank. However, there are limits to what the Riksbank alone can do to prevent bubbles arising in the financial markets. Swedish authorities can only influence the markets' risk premiums to a limited extent. The risk premiums on Swedish financial instruments are also largely determined by international factors. To avoid suffering deep crises in the future we therefore need more international cooperation, better supervision of the financial markets, better regulation and increased transparency in the financial system.

1. Financial markets functioning better

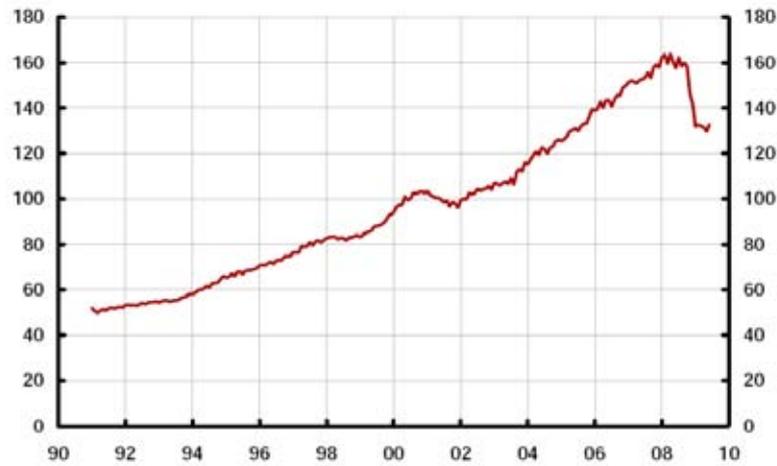
Basis spread, basis points



Note. The difference between 3 month interbank rate and expected policy rate (basis spread) Sources: Reuters EcoWin and the Riksbank

2. World trade stabilising

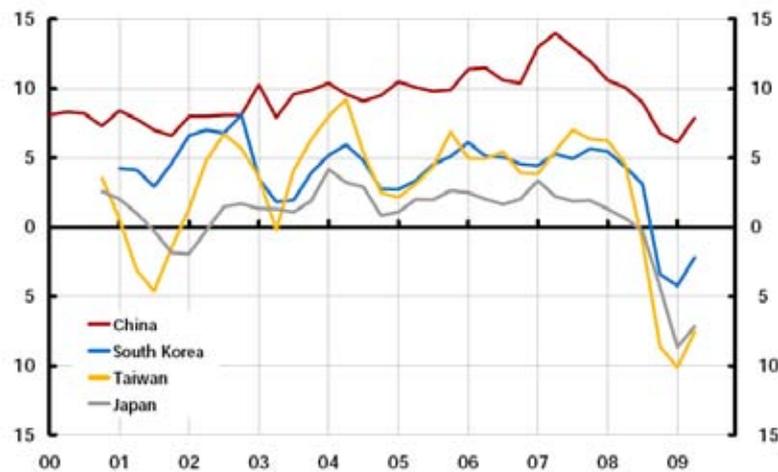
World trade monitor index, 2000 = 100, seasonally adjusted data



Source: Netherlands Bureau for Economic Policy Analysis

3. Growth in Asia

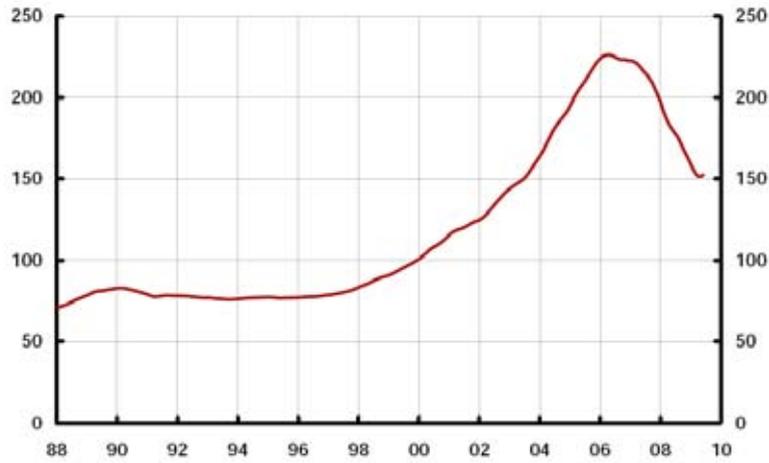
GDP, annual percentage change



Sources: National sources

4. House prices in the USA

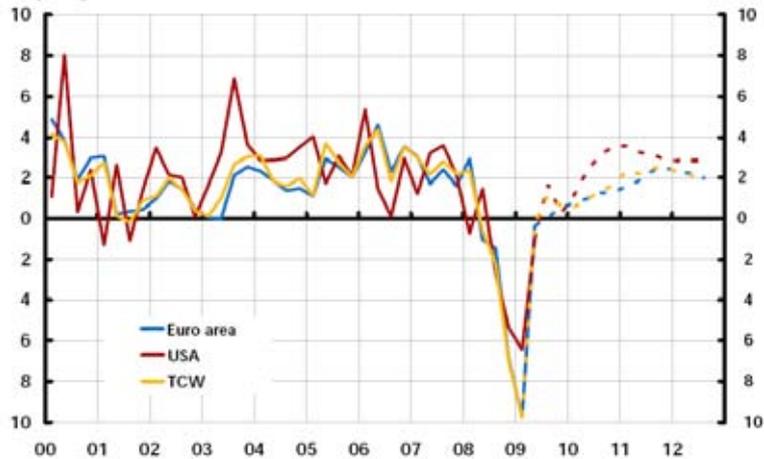
Index, January 2000 = 100, seasonally adjusted data



Source: Standard & Poor's

5. Growth increasing in the world

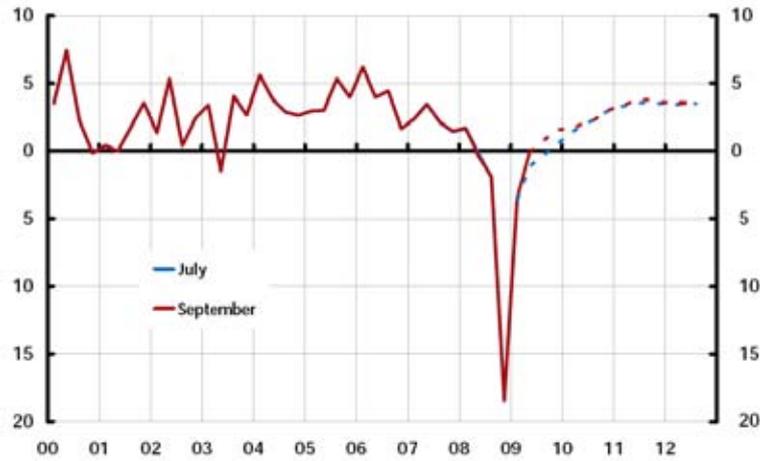
GDP, quarterly change in per cent calculated as an annual rate, seasonally adjusted data



Sources: National sources and the Riksbank

6. GDP

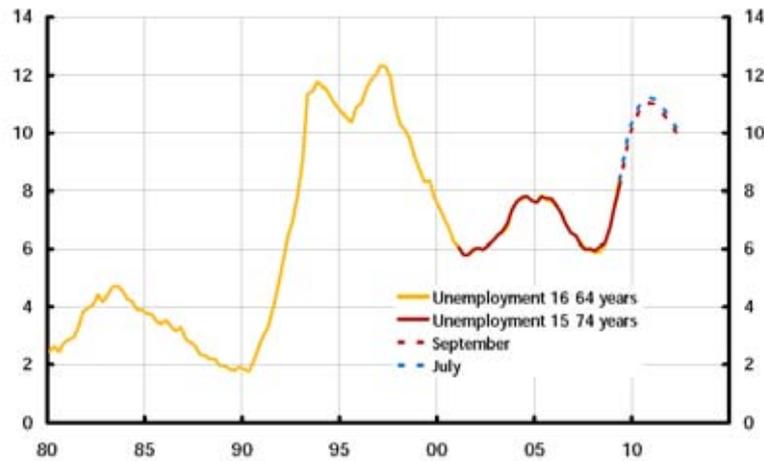
Quarterly changes in per cent calculated in annualised terms, seasonally adjusted data



Note. Broken lines refer to the Riksbank's forecasts. Sources: Statistics Sweden and the Riksbank

7. High unemployment throughout the forecast period

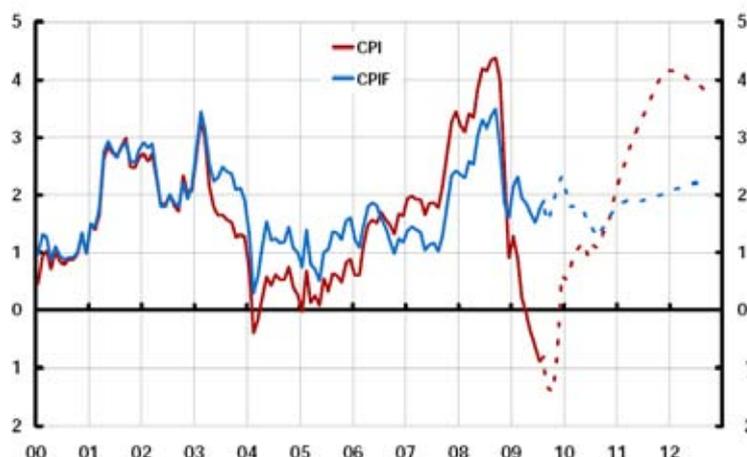
Unemployment, per cent of labour force, seasonally adjusted data



Note. Broken lines represent the Riksbank's forecast, 15-74 age group. Sources: Statistics Sweden and the Riksbank

8. CPI and CPIF

Annual percentage change



Note. Broken lines represent the Riksbank's forecast.

Sources: Statistics Sweden and the Riksbank

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