



# SPEECH

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## ■ In the wake of the financial crisis

I would like to start by expressing my gratitude for having been invited to discuss a few of my thoughts about what may follow in the wake of the financial crisis. Make no mistake, the crisis is not behind us yet. Many balance sheets in many countries must be adjusted before the world's banking system can be given a clean bill of health. But the acute phase is hopefully over, giving us reason to reflect not just over why developments took the turn that they did – many others have already written volumes about this – but also over what should be done to prevent these mistakes from being repeated. Much of this discussion deals with regulation and supervision and, just like after every crisis, many political initiatives are being proposed, some better than others. This is what I intend to talk about today. But there is also reason to reflect over the interplay between financial stability and monetary policy. The current crisis has indisputably demonstrated that monetary policy and financial stability overlap in many important ways that we in the central banks previously may not have entirely considered. I intend to devote the main part of my speech to this issue.

### **Bubbles and dangerous imbalances**

Rising asset prices are currently the subject of intense discussion - in Sweden, because house prices have started to rise again in the middle of a recession, internationally because prices of financial assets in many newly industrialised countries in Asia and South America are rising far more rapidly than expected. Is this a problem? Have bubbles already arisen on the asset markets? And, if so, what should we do about it?

Now, to start with, remember that asset prices can rise, and rise quite far, without necessarily becoming what is known as a bubble. Even if these assets become overvalued for a period of time, reality usually catches up eventually and prices are adjusted without there being any serious macroeconomic effects<sup>1</sup>.

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<sup>1</sup> In practice, it is not always so easy to distinguish between a bubble and an overvaluation caused by a generally over-optimistic view of the future. For a more in-depth discussion of the term bubble and the manner in which these arise, see H. Dillén and P. Sellin, "Financial bubbles and monetary policy", Sveriges Riksbank Economic Review, 2003:3.

■ A bubble is something else. A bubble always includes an element of speculation, based on a belief that this development will continue and provide continuously increasing prices. This belief leads to increasing investments and, consequently, further price increases. Of course, the term bubble also suggests the image of something that will eventually burst, be it with a loud bang or with a quieter one.

Financial bubbles are normally built up during good times when growth is high, investment opportunities are plentiful, household incomes are developing favourably and the banks' loan losses are minor. For example, the global economy saw record growth in the years immediately prior to the current crisis. Strong economic development can, to a certain extent, justify increasing asset prices and higher-than-normal credit growth. However, experience tells us that this development often spills over into an exaggerated optimism about future economic prospects, at the same time as awareness of various risks decreases. Investors become increasingly willing to take increased risks, without receiving the compensation for this that would be reasonable over the long term. The price of risk has never been as low as in the years prior to the start of the financial crisis in the summer of 2007.

There are both dangerous bubbles and less dangerous bubbles. One bubble that did not have such serious consequences when it burst was the IT bubble at the start of the year 2000. While it was building up, it is true that a number of investments were made that did not turn out to be viable, and many investors watched their wealth shrink as the bubble burst. However, the macroeconomic consequences were not so major. Growth in Sweden flattened out for a few years, but never declined. The IT bubble never formed a major problem from a monetary policy point of view.

Dangerous bubbles are those in which a market experiences not only rising prices, but also the use of the underlying assets as collateral. This leads to the unsustainable long-term development of the price of these assets, parallel to unsustainable long-term credit growth. As these prices increase, so too does the value of the underlying assets, enabling them to be used as collateral for further loans. At the same time, increased credits provide increased purchasing power, allowing prices to rise even more. This can turn into a feedback loop that is hard to break. The development of housing markets in the United States and a number of other countries in the period leading up to the present crisis are examples of such bubbles. The Swedish commercial property market at the start of our crisis in the 1990s is another illustrative example.

A current illustration was provided in last week's Financial Times by the well-known economist Frederic Mishkin, who, among other research, carried out an assessment of Swedish monetary policy a couple of years ago. Mishkin emphasised the importance of making a distinction between different types of bubble. Bubbles are dangerous when the underlying assets are used as collateral and fuel an excessive credit boom. However, this is not the situation in the world today. On the contrary, the banks are shrinking their balance sheets and tightening their credit conditions. Thus the asset price increases that we are currently seeing in a number of countries hardly constitute a serious problem.

Sooner or later, bubbles burst and, sooner or later, financial imbalances are corrected. The problem is that it is very difficult to predict exactly when this will happen. As we know, asset prices can increase relatively rapidly for many years, perhaps as long as a decade, before a bubble arises and bursts. Individuals expressing concern over the build-up of worrying financial imbalances are often

■ regarded as whining pessimists who have failed to realise that times have changed and that there is no danger this time. I'm sure we all remember the 'New Economy' that everybody was talking about during the build-up of the IT bubble. Technological developments had boosted long-term global growth to higher levels, which was reflected in asset prices. Has anybody forgotten what happened next? However, as has been said, no serious macroeconomic problem ever arose from the IT bubble, as it was not funded by loans.

When the correction of a bubble finally takes place, it generally has extensive real economic effects, particularly, of course, if it has been funded by loans. The stock exchange drops sharply, even if no great over-valuation has initially been present on the stock market itself. Economic uncertainty and the drop in asset prices mean that consumption and investments become heavily subdued. Risk aversion among financial investors increases and the price of risk, credit spreads, increases. The banks suffer increasing loan losses as the value of collateral falls and more and more borrowers find that they cannot make repayments. In the worst case, the negative interaction between the financial markets and the macroeconomy escalates into a financial crisis in which loan losses become so comprehensive that parts of the banking sector face problems surviving.

When a bubble bursts, prices can fall by up to 50 per cent or even more, depending on the asset involved and the degree to which this asset has been used as collateral. This fall in prices means that the value of collateral decreases and, consequently, the banks start trying to get their money back. This may compel the sale of assets, further forcing prices downwards. The same feedback loop that acted to increase prices during the build-up can thus act to push them down during the decline. During the present crisis, we have seen this happen to a number of different securities in the balance sheets of many international banks and investors.

### **Monetary policy consequences**

So what does a bubble imply for monetary policy? Increases in credit growth and asset prices stimulate consumption and investments and increase aggregated demand in the economy. The economic overheating arising as financial imbalances are built up thus often leads to real imbalances in the form of strains on resource utilisation, which, in turn, lead to increasing inflation. In such a situation, it is natural for monetary policy to be tightened. A tighter monetary policy in the form of higher interest rates naturally serves to counteract the build-up of bubbles, as lending becomes more expensive. However, experience tells us that increased interest rates are seldom enough to break the trend. Optimism can be such that investors are glad to pay the extra interest costs or to accept a correspondingly lower return on assets, as they are convinced that prices will continue to rise. For example, in Sweden in 1989, the direct yield requirement on the commercial property market lay at around 4 per cent, while a risk-free five-year government bond had a return of up to 12 per cent. So the market preferred an unsecured property asset to a covered bond with a return of 8 per cent more! No monetary policy can defeat that kind of optimism.

Furthermore, it could be the case that inflation is low despite the strong economic development. If this is the case, monetary policy may need to become more expansionary to attain the inflation target, which, in turn, may fuel financial imbalances. During the years preceding the current crisis, increasing globalisation resulted in a heavy dampening of import prices, which pushed inflation down and

■ contributed to an expansionary monetary policy in many countries. Monetary policy thus fuelled the bubble, rather than counteracting it.

If a crisis becomes really serious, as is the case with the present crisis, the conditions for conducting monetary policy become very difficult. The situation became exacerbated when rising risk premiums increased the interest rates affecting households and companies. Falling inflation and inflationary expectations led real interest rates to increase even more. Although many central banks have cut their policy rates to almost zero, the expansionary effect of this has consequently not been as strong as could have been desired.

In addition, the more serious the financial crisis becomes, the more poorly the financial markets function. This, in turn, means that monetary policy becomes less effective, that is to say that changes in the policy rate have less effect on the economy than is normally the case. Developments in the present crisis provide a good illustration of this phenomenon. Many central banks have experienced that changes in the policy rate have not at all had the same effect on demand that they have normally. In other words, the transmission mechanism between policy rate and the real economy has ceased to function normally.

During the crisis, parts of the world were affected by an acute credit crunch, entailing that fully creditworthy companies encountered difficulty in obtaining credit due to a lack of capital in the bank sector. This, if anything, has been characteristic for this crisis, having clear consequences for the real economy, including the heavy decline in world trade. The credit crunch came to be and to remain a monetary policy problem in many countries as the supply of credits frequently became more or less insensitive to interest rate changes.

In Sweden, we only saw the merest hint of such a credit crunch. For a period during the winter, major Swedish companies encountered difficulty in obtaining funding on the international credit markets and so turned to the Swedish banks, with the result that they squeezed out smaller companies, to a certain degree. The Swedish economy, which is strongly dependent on exports, was also hit hard by the collapse of world trade. Many foreign companies reduced their investment levels in order to deal with their liquidity problems, which subdued demand for Swedish export goods.

### **Some lessons from the crisis**

What lessons can be learned and what do these lessons mean in terms of economic policy and the actions of the central banks in the future? Here are a few thoughts, although the list is far from exhaustive.

*There are serious shortcomings in regulation and supervision.* This is entirely evident, forming the subject of intensive discussions among politicians and in the media. It is beyond the scope of this speech to provide a comprehensive account, so I will make do with pointing out a couple of the overall problems.

One main problem has been that banks and other financial institutions have had too little capital in relation to the risks they have taken in their balance sheets, whether these risks consisted of traditional lending, the holding of various hard-to-value securities or large short-term positions taken when trading. This meant that many financial companies, for many years, were able to provide high returns on equity, higher than in most other industries. But when the crisis came, capital

■ was insufficient, forcing a number of governments to contribute tax revenues to prevent a collapse of the financial system.

At present, intensive work is underway in various international forums, above all in the Basel Committee, to develop new regulations covering the amount of capital a bank must hold in relation to its commitments. Capital adequacy requirements will be placed on liquidity risks, which previously lay outside such regulations, but this is only one of many areas in which capital requirements will be strengthened. New forms for equity are also being discussed, for example bond loans that, in the event of a crisis – but without requiring the bank to cancel payments – can automatically be converted into contingent capital.

Another problem has been that the supervisory structure, which has generally been concentrated around the individual banks, missed the risks building up in the financial system as a whole. One example of this has been the tremendous growth of credit derivatives over the last decade, which, together with the emergence of complicated and hard-to-value structured products, have been given much of the blame for causing the crisis to develop in such a serious direction. An immediate example for us is the lending in euro in the Baltic countries, whose exchange rates are tied to the euro, but where the fiscal policy framework, at least in a couple of countries, has turned out to be weak.

This problem is also being discussed intensively in many places around the world. In terms of European cooperation, supervision will be given a new structure, based on proposals presented by the European Commission last summer. One element of this proposal is the creation of a European risk board, the European Systemic Risk Board (ESRB), in which central banks and supervisory authorities will meet to discuss exactly the kind of overall systemic risks that were overlooked in the run-up to the present crisis. Another element is the upgrading of the three supervisory committees in which all European supervisory authorities collaborate into European authorities with somewhat greater independence and more widespread authority than previously. All of this will hopefully be agreed upon by the finance ministers in December of this year, while Sweden still holds the Presidency of the EU.<sup>2</sup>

*The costs of financial crises are greater than was previously believed.* The present crisis has shown that the world's financial markets are more strongly interlinked than there has previously been reason to believe. Who would have thought that the collapse of a US investment bank would cause the entire world's credit systems to break down? A national financial crisis can rapidly spread across the entire world if, for example, the value of certain assets starts to be brought into question and it is not known in which balance sheet these assets have been hidden. The difficulties monetary policy is faced with when markets cease functioning normally has also been underestimated, despite previous experiences from, for instance, Japan.

*Monetary policy and financial stability overlap in several areas.* Following the past year's dramatic economic developments, it should be evident that insufficient financial stability leading to a major financial crisis seriously impairs the preconditions for monetary policy. Strategically important markets must be made to function in order to avoid a total collapse. Central banks have thus been compelled to undertake a series of unconventional measures, partly aimed at

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<sup>2</sup> This issue was discussed in more depth in my speech "Towards a new European supervisory structure", recently held at SIFMA's Annual Meeting in New York on 27 October.

■ maintaining a functioning payments system and partly aimed at improving the functioning of the financial markets, thereby contributing towards the desired effect of the expansionary monetary policy. At the same time, there exists greater awareness of the fact that a monetary policy that does not adequately consider financial factors can lead to the accumulation of serious financial imbalances. Financial stability has been demonstrated to form an important restriction to the manner in which monetary policy can be applied in crisis situations.<sup>3</sup>

*Monetary policy models must become better at capturing the functioning of financial markets.* In my opinion, the present monetary policy framework, in which monetary policy is aimed at stabilising both inflation and real development, still works well. However, monetary policy analysis needs to be developed, in certain respects, to enable us to make better forecasts within this framework. Above all, the monetary policy models used must better capture the roles in the economy of credit markets and asset prices, so that the consequences of financial imbalances can be analysed. Not only the price, but also the availability of credit has been discovered to be relevant. However, these assertions do not mean that the present models need to be scrapped. They serve us well in periods in which financial imbalances are not a major problem and intensive work is currently under way around the world to develop these models to better incorporate financial factors. Neither can it be required that the models capture serious financial crises. This would probably require the development of special analytical tools and models.

*The role of monetary policy must be developed and clarified.* Even if improved supervision and regulation enable us to reduce the risk of serious financial imbalances accumulating, monetary policy will still face difficult dilemmas. The financial markets have a remarkable capacity to develop continually and to find ways past regulation. Consequently, we cannot rely on supervision and regulation always succeeding in preventing financial imbalances from arising. In the future, we will certainly continue to see various forms of bubbles, in which asset prices increase in a manner that is not sustainable over the long term, together with a rapid growth in credit. In such cases, the central banks must take a position regarding whether and to which extent monetary policy should consider this phenomenon.

The debate regarding the extent to which monetary policy should attempt to counteract the unsustainable development of credit growth and asset prices – a policy often called 'leaning against the wind' – has been spurred by the current crisis. Those who have doubts about such a policy maintain that it may entail an unnecessarily tight monetary policy, with costs in the form of a low utilisation of resources and low inflation, at the same time as monetary policy is deemed to be a blunt instrument to use against financial imbalances. According to this assessment, it would require excessively large and costly interest rate increases to prevent these imbalances from arising. Such imbalances, of course, frequently build up in times of great optimism and excessive future confidence, and, in such a situation, increased interest rates may have a limited effect on lending and asset prices.

It is entirely possible – and, in my opinion, perhaps even likely – that this assessment is correct, but I would like to emphasise that there exists a significant degree of uncertainty at this point in time. So far, research has not had much to

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<sup>3</sup> Lars E.O. Svensson discusses this in more depth in his speech "Flexible inflation targeting: Lessons from the Financial Crisis", held on 21 September 2009 at De Nederlandsche Bank, Amsterdam.

say about the ability of monetary policy to counteract financial imbalances. Naturally, this observation also implies an argument against any policy that strongly advocates a monetary policy actively aimed at preventing financial imbalances.

However, my view is that, in certain situations, it can be appropriate to attempt to counteract financial imbalances with a limited tightening of monetary policy. A tightening of monetary policy would be likely to have a restraining effect on credit growth and asset prices. Even if monetary policy does not succeed in entirely preventing financial imbalances from arising, it can limit their extent. The expected macroeconomic consequences following the correction of imbalances should then be less serious, particularly if the risk of a serious financial crisis is reduced. The clear communication of the reasons for increased interest rates should raise public awareness of the risks of financial imbalances, which, in my opinion, may have a stabilising effect.

In this example, monetary policy contributes to more stable inflation and resource utilisation over the slightly longer term, which should be balanced against the short-term costs of conducting a somewhat tighter monetary policy. This form of monetary policy thus does not entail a deviation from flexible inflation targeting, that is to say a monetary policy aimed at stabilising both inflation and the real development. Neither is it an issue of turning house prices or any other asset price into a target variable for monetary policy. On the contrary, it is an illustration of flexible inflation targeting in which the destabilising effect of financial imbalances on inflation and resource utilisation are incorporated into the monetary policy assessment.

The above reasoning is of a highly principle nature and it would require further analysis and better models before anything more concrete can be said regarding the manner in which monetary policy should be formulated when financial imbalances are present. However, I am prepared to make a few observations on the subject.

To start with, there are probably many asset bubbles that monetary policy should not directly attempt to counteract, particularly those not associated with strong credit growth. Furthermore, Swedish monetary policy can hardly prevent stock market bubbles as these are primarily affected by international factors, in particular international stock market developments. If, on the other hand, credit growth were to develop in an unsustainable manner at the same time as housing prices were increasing rapidly, in my opinion, it would be reasonable for monetary policy to take this into consideration, even if short-term inflation may be low.

Such considerations characterised the formulation of monetary policy during the years 2005–2007, when the development of housing prices and loans to households restrained the Riksbank from cutting the repo rate as much as would have been the case if monetary policy had only been guided by inflationary assessments for the next two years. It is, of course, difficult to determine which role this played in counteracting the development of the housing market. At any rate, prices undeniably rose rapidly. However, the fact that the Riksbank clearly indicated that the development of household indebtedness and housing prices were not sustainable in the long term and that monetary policy considered this circumstance may have played an important role in curbing this development. In that case, this is exactly what is meant by leaning against the wind.

## ■ The housing market today

Housing prices have recently started to rise again, which has aroused some attention, not without reason. It is undeniably remarkable that housing prices are rising and that the rate of increase of the banks' lending to households has started to grow again, at the same time as GDP is very weak and unemployment is rising. However, it seems reasonable to believe that this is because it is inexpensive to borrow money due to the low interest rates prevailing. Rising stock market rates and steadily-growing consumer confidence are certainly also significant.

Household borrowing to invest in housing is also an effect we actually hoped to achieve by implementing a low interest rate. It is contributing to supporting demand and employment. Even so, household saving has risen rapidly since 2007, from approximately eight to around 13 per cent of disposable income.

Over the short term, I do not consider the development of the housing market to be a problem. Housing prices in Sweden have certainly risen rather rapidly in real terms too, but there are good explanations for this. One such explanation is the low rate of housing construction in recent years, while another is provided by migration to metropolitan areas. The greatest price rises, without comparison, are found precisely in Stockholm, Göteborg and, above all, Malmö. Due to the taxation system and other regulations, we have not experienced the type of market in which households purchase homes as financial investments to then rent them out. It is easier for such markets to develop imbalances and become subject to rapid and heavy price adjustments.

However, in the slightly longer term, there is reason to be vigilant. The increase in housing prices and in household debt in relation to income that we have seen over the most recent ten year period is not sustainable in the long term. There is thus a risk that an imbalance of the type I discussed previously will accumulate.

At present, we cannot do much about this with monetary policy. We need to have a low interest rate for a longer period of time in order to stimulate the growth needed to help Sweden out of the crisis. At present, it is not the time to counteract imbalances by leaning against the wind. However, should this development become cause for concern, there are other means for making mortgages more expensive for households and thus reducing demand for housing and subduing price development. One such method would be to require greater mortgage repayments. This would increase households' monthly expenses directly and would thus be an effective means of subduing demand. Another method would be to lower the loan-to-value ratio of each property. Both of these possibilities will be open to the banks themselves when they consider that there exists due cause. But they are also measures that Finansinspektionen can prescribe if it is deemed that developments are beginning to be cause for concern. In its recently-published risk report, Finansinspektionen discussed these possibilities. We at the Riksbank will make an announcement when we feel that a serious imbalance risks accumulating.

As regards the housing market, I do not believe that the greatest risk is a matter of either monetary policy or financial stability. The greatest risk is that more and more households forget that interest rates will be back at normal levels quite soon, which will entail mortgage interest expenditure of possibly three to four times current levels for those with variable interest rates. And most households in Sweden have variable interest rates. We occasionally hear from analysts or the



- press that the Riksbank is not making it sufficiently clear that interest rates will eventually rise. So let me repeat this once again in clear language, just to be on the safe side. When the economic upswing gathers speed – and the recovery has already started – interest rates and, accordingly, households' loan costs will rise very rapidly. This should be considered very carefully by those borrowing, just as it should be considered very carefully by bank staff handling lending to households.