

Lars Heikensten: Risks and financial stability

Speech by Mr Lars Heikensten, Governor of the Sveriges Riksbank, at the Department of Business Studies, Uppsala University, Uppsala, 7 October 2005.

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Let me begin by thanking you for the invitation to your homecoming party, although I have never studied at the Business Studies Department at Uppsala University. I intend to take this opportunity to speak about the rapid developments in the financial markets over the past 10-15 years and to discuss the question of whether this entails risks being built up that will later result in serious setbacks. The trends and tendencies I intend to highlight today with regard to market agents' behaviour may be primarily observed outside of Sweden's borders – it is important to emphasise this. I have nevertheless chosen to discuss these partly because they can give us an idea of what might happen in Sweden in the long term, and partly because these tendencies may lead to problems in the international markets and thereby indirectly affect the Swedish market, too.¹

What has happened on the financial markets?

The financial markets have developed rapidly in recent years, and there are many reasons for this.

Technological developments have radically altered the potential for making financial transactions. Developments in IT, for instance, have enabled large numbers of prices to be stored and extensive calculations can be made in various risk models. This has enabled us to take advantage of the developments in financial theory, with increasingly advanced models for calculating prices.

Technological advances contributed to some extent to the extensive deregulation of the financial markets. In a world where technology made it possible to circumvent many of the existing regulations, it became necessary to remove them. The game rules were thus changed. A company needing to borrow capital does not need to rely purely on the usual form of bank lending, but can choose other types of instrument and other financial agents. Freedom of choice has increased.

The stable macroeconomic trend – with low and stable inflation – in recent decades has probably also provided a good basis for developments. Financial innovations could perhaps not have occurred at the same rate in an uncertain economic environment.

What does this mean for participants in these markets?

Taken together, these factors have led to an increase in competition, and the emergence of new instruments and participants. This has affected the financial landscape in many areas and changed the role of traditional credit institutions such as banks and mortgage institutions. The markets have taken on an increasingly large role and both complement and compete with the traditional bank market.

One example of the markets' increased role is that many households no longer save their money in banks to the same extent; they save directly in the financial markets via mutual funds and also insurance and pension fund companies. In addition to buying securities in the market, these companies can invest households' savings in other funds with differing risk profiles. There is thus a larger number of agents involved.

The opportunities today to divide cashflow into different types of securities with the liquidity, duration and risk that suit a particular investor are another example. This means, for instance, that the banks which lend money to a customer do not need to retain the credit risk this causes, but can sell the risk on to, say, a pension fund company. They do this by selling the loan to a special company, which then

¹ The inspiration for this speech has largely come from a discussion at the Federal Reserve Bank of Kansas City's seminar "Monetary Policy in the Era of Alan Greenspan", based on an article by Raghuram G. Rajan "Has Financial Development Made the World Riskier?".

issues securities with the loan as collateral. The pension company can then in turn sell the risks to others looking for good investments, such as households or other investors.

Derivative products also enable risks to be divided up and priced separately. However, agents in the Swedish markets use both credit derivatives and securitisation relatively sparingly as yet. Internationally, these markets have shown rapid growth. In the year 2004 the value of outstanding contracts for credit derivatives was almost six times higher than it had been in 2001.

All in all, this development will lead to investors, borrowers and banks being able to create the combination of risks that they prefer. As I mentioned, this has changed the conditions for the banks, mostly on an international basis. The banks now need to find new sources of income to compensate for the decline in income on more traditional, mature markets. Their activities are increasingly being centred on more customised solutions, financial innovations and risk management. Thus, the banks are now less dominant in all areas of the financial system's functions than they once were.

Many analysts claim that the financial system – that is to say the agents, market-places and infrastructure – can function more efficiently after these changes, as risks are spread among more agents and can therefore be managed in a better way. At the same time, there are those who advise caution and believe that certain tendencies in the new development will probably lead to fewer, but more serious financial crises. Let me begin by discussing the potential advantages of the new developments.

Have the financial markets become more robust...

The question of whether the financial markets have become more robust is one asked by many people after the Asia crisis, the Russia crisis, LTCM and other crises came and went without leaving making any major disruptions in the markets, other than temporary and relatively small price fluctuations. The effects on the international financial system were thus slight, although the crises affecting both Asia and Russia led to extensive redistribution of wealth and political tumult in the countries concerned.

There are probably several reasons why the effects were so limited. One is probably that economic policy has become more predictable in many countries in recent decades, with sound public finances and stable, low inflation. The markets should therefore be less sensitive to shocks.

However, another reason is actually that the financial system has become more resilient. The fact that risks have a better spread makes the system more stable. The risks are also transferred to the agents who want them or should have them.

There is also the fact that the banks have gained more experience of operating in deregulated financial markets. The development towards more market-based transactions means that banks can now concentrate on the risks they are best at managing. They have also become better at managing them, with well-developed risk management methods and models.

So far, so good. A better spread for risks and improved risk management can contribute to better absorption of shocks to the financial system. On the other hand, there can be elements that increase the risk of more serious shocks that also spread throughout the whole system.

...or have they become more prone to risk?

One such tendency could be an increased propensity among market agents to take greater risks and to copy others' actions. The reason for this is that those investing our money today are to a greater extent assessed – and thereby also rewarded – in relation to other agents and on a shorter-term basis than was the case in the world of traditional banking. It is also simpler to follow in others' footsteps, as there is more information on what others are doing.

The crises we have experienced in recent years have recurrently shown that events assessed as almost improbable can nevertheless occur sometimes and will then have a severe impact.

To use Tage Danielsson's words, this type of risk could be described as follows: Before the event occurred, it was extremely improbable that what happened could actually happen. There are still those who believe that what happened was so incredibly unlikely that it probably did not really happen. And one can understand that they have their doubts, because according to their probability calculations, this sort of event happens so rarely. And if what happened was really true, the risk of it happening

again is ridiculously slight. Actually, it was lucky it did happen. Because now we know that it is almost definite that it will not happen again.

It is possible that there are some inherent mechanisms in the agents' ways of acting that may lead to these risks being undervalued. One such mechanism could be the fact that they are evaluated in the short term. If the asset managers are lucky, they will manage to predict the period with a positive yield and the rare loss will not become a reality during the period they are being evaluated. This appears more likely the shorter the evaluation period is.

Willingness to take risks can increase in a low interest rate environment. Agents may then wish to take more interest rate risk and perhaps come further out on the yield curve, thus becoming more sensitive to rapid interest rate fluctuations. They may also look for new types of investment.

The fact that they are evaluated in comparison with others in the market may also lead to asset managers adopting herd behaviour, even if they have a different opinion of the current developments in the financial markets. It is better to lose in good company than to stand alone with an investment that might provide a good return in the long-run, but which results in short-term losses. The word might is central here, as no one can predict market developments and it is therefore difficult to go against a trend. Herd mentality can thus lead to asset prices deviating from fundamental economic conditions during a relatively long period of time. The contagion effects can also increase when the view of the world changes.

Herd behaviour among market agents does not only involve investing in the same assets. There are signs that this also includes researching information. All of the agents stand back and assume that someone else will do the work, which means that many of them use the same sources of information for strategies and investments. The theory that market prices are based on all available information is thus overthrown. Prices are based more on recommendations from rating agencies and other external analysts who thereby assume great responsibility. To some extent, it must be the case that for each individual agent to research the information would be too costly and time-consuming. However, it is important to make use of the market that is there, with different analysts.

A large number of agents closely linked to one another can lead to the liquidity in the market becoming more important - in short, that there is someone there when you want to sell at a reasonable price. There are greater risks that liquidity problems will arise when there are more links in the chain and if all of the market agents risk running in the same direction. Then there may be several agents trying to sell the same asset at the same time.

Although many market agents have become much better at managing risk, many models are based on historical data which provides little information on risks in new, untried products. If one of these very improbable events were to occur, it could lead to increased uncertainty and willingness to rapidly change holdings, which would perhaps be difficult if everyone else had become more cautious.

During the Russia crisis in 1998, for example, the models could not predict that the Russian government would default on payments – this type of event is generally very difficult to build into a model – and the slump in prices this would lead to on many markets. Nor could they predict that liquidity would decline so severely that the banks were unable to sell their securities without this leading to a slump in prices. Asset prices that had earlier moved in the opposite direction and thereby reduced the total risk in the portfolio were now suddenly moving in the same direction. The risks were thus much greater than the models had indicated.

These rapid adjustments in market prices with reduced liquidity are one scenario we have repeatedly pointed to as a risk scenario in our assessments of financial stability. If the risk premiums are too low on asset prices in the financial markets, changes in expectations can lead to instability with large price fluctuations and reduced liquidity. If prices of various assets covary to a greater extent than before, the financial agents' risk exposure could increase rapidly. The fact that many investors have gone over to new types of asset could in this situation lead to declining interest in these assets and to liquidity partly or wholly disappearing from some markets. The events following the collapse of the US hedge fund LTCM in autumn 1998 are an example of this.

Do the risk models take these difficulties into account? Yes, or at least in theory. When making their risk assessments, the banks test their risk models with a number of different assumptions, including the risk that asset prices which had not previously covaried suddenly completely covary. But the question is then how much these tests can govern actions. It is not certain that they will ultimately be taken sufficiently into account if they appear less reasonable and if considering them entails large costs.

There are signs that risk exposure has increased in the international financial markets. Several large international banks have increased their risks. The way their risk models are designed, they have been able to increase their exposures to higher risk investments and other types of asset without increasing the total risk measured, partly as a result of low interest rates. Financial institutions have increased their investments in high-risk bonds, in various commodities and in various types of credit derivatives.

The question is whether the banks' opportunities to sell certain risks entail their risks actually being reduced, or whether they have increased as a result of their retaining the highest, most complicated risks. The banks probably have more volatile risks in their balance sheets. The balance sheets are shrinking, but the risks are larger, calculated as a percentage.

The question is what it entails when the banks sell their risks, primarily credit risks. Risks can be compared to energy, or heat. They do not disappear into thin air; they are always there somewhere. Thus, is there an increased concentration of risk among other agents, such as pension fund companies and hedge funds, where this could create a problem? In general, the risks come to those who can manage them and therefore bear the risks. The question is whether we who oversee the system and those who operate in the markets know when risks arise?

How do these developments affect our stability work?

The reason I have chosen to talk to you about these issues today is partly that developments in the financial markets affect one of the Riksbank's main objectives – to promote a safe and efficient payment system. The work on achieving this objective entails identifying potential risks in the financial system and assessing resilience to possible shocks. Our analysis is concentrated on the major banks, as they play a central role in the system.

We are now – even in Sweden – more dependent on the financial markets. Although many of the tendencies I have mentioned are not as tangible here, we can still be affected by events in other countries, as in the case of autumn 1998.

There is scarcely any doubt that the changes that have occurred have contributed to making the markets more efficient. This is good for the economy as a whole, very good even. The markets have probably also become more robust, with the risks better spread over the economy. Events in recent years would indicate this is so.

However, financial crises can never be entirely avoided. They will recur. Those who legislate, regulate and oversee the markets will not be able to prevent this. So what can we do?

To begin with, of course, we need to obtain the best possible overview and knowledge of events. We at the Riksbank consider the work in the Bank of International Settlements within the G10 to be invaluable in this context. There is also other work, for instance under the auspices of the International Monetary Fund, from which we can learn.

One consequence of this development is that we must take international conditions into account to a greater extent in our own work on stability analysis. We must also oversee developments in the financial markets more than we have done and not only concentrate on the major banks. We must try to be aware of when prices depart from reasonable levels and become a risk.

With regard to risk management in individual institutions, it is becoming increasingly difficult to gain insight into what is happening. It is therefore necessary to spend more time on evaluating the systems and person involved. This is the view that has coloured the new oversight system for the banks, what is known as Basel II, which is about to be implemented.

It is also our task to equip the systems and infrastructure so well that the effects of any future crises will be minimised. In addition, we must of course maintain preparedness for managing crises, something which has become more complicated as integration has increased and which now requires greater efforts by central banks and financial supervisory authorities.

Agents in the financial markets must also take responsibility. The risk management models in the financial institutions must be tested to a greater extent with regard to how they will function if market conditions change rapidly. VaR models need to be supplemented with stress tests that capture external events. Extensive price fluctuations and changes in pricing dynamics may mean that historical relationships no longer apply.

This is the financial system as we usually refer to it. However, perhaps the greatest difference that has occurred in the financial markets is that households have become a significant agent, even in Sweden. This applies first and foremost to households investing in mutual funds and pension companies. However, it applies to an increasing number of households, particularly through the new public pension system. Households as a group therefore bear more direct financial risk now. This also raises important questions. Are they prepared for this? What role do schools play in providing the necessary competence? Should other agents become involved?

There is also a larger question in the background. How far should this development be pursued? Or, expressed another way: what can be done to help households wishing to minimise their financial risks, for instance, as they approach retirement age?

These are large, but important, questions that are raised by current developments. It is important to deal with them in time.