



SPEECH

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■ Ongoing changes in securities markets

Counterparty risks and functional aspects

At present a lot is happening in the financial markets. Besides being in the midst of the current crisis, we are experiencing functional changes in the securities market. These changes can improve the workings of the market, which is particularly important in connection with financial turbulence. However, the changes also make greater demands on cross-border cooperation. One change, which began some time ago, is that the Swedish systems for handling securities are becoming increasingly integrated with systems abroad. Other changes are reducing the counterparty risks of financial players and making securities trading more transparent. In a discussion of changes in securities markets, it should be born in mind that an effective monetary policy also requires an efficient fixed-income market.

The vocabulary for my discussion of these changes and of the importance of a properly functioning fixed-income market is somewhat technical, particularly in the sections on integration and counterparty risks. That should not be a problem for my audience today. Many of you are occupied with precisely these matters.

Changes in the securities markets

I shall begin with a brief account of the financial infrastructure. It is made up of systems, instruments and routines that together constitute the conditions for making payments and securities transactions in ways that are safe and efficient. If the financial infrastructure does not function, payments and securities transactions cannot be made, which would bring the economy more or less to a halt. It would also prevent the Riksbank's interest rate from exerting an impact on the economy.

This means that the financial infrastructure and the ongoing changes in securities markets are relevant for the Riksbank's two primary functions, namely to safeguard both financial stability and price stability. It is therefore important that we closely follow developments in these respects.

■ *Increased integration*

As many of you are already aware, major changes are currently in progress in the securities markets and the financial infrastructure. In recent years we have seen a number of tendencies whereby *trading* in financial instruments is becoming more integrated. Such tendencies have also been evident recently in *clearing and settlement* – the processing of securities transactions that follows the trade as such.¹

In a world conditioned by further globalisation, increased competition and advances in technology, companies use mergers and acquisitions to adjust. In the field of financial instruments, the creation of NASDAQ OMX Group in February 2008 has strengthened the links between Nordic, Baltic and American exchanges. The driving force behind this merger is primarily economic in that it confers considerable economies of scale.

The changes in securities markets are also connected with regulations. The EU directive MiFID aims to strengthen competition, improve client protection and promote the integration of the European securities markets. The directive has paved the way for new types of trading facilities² in Europe. A reasonable assumption against this background is that the map for share trading in Europe will be re-drawn. Share trading will be channelled to the market places that offer the best rates and the lowest tariffs, which signifies good liquidity.

Distinct tendencies are also present in the clearing and settlement of securities transactions – the processing that follows a trade as such. An example of far-reaching integration in this field is Euroclear, which settles securities transactions in five markets in Europe and recently acquired Sweden's central securities depository (VPC AB). Euroclear's new system will be able to settle cross-border securities transactions just as smoothly as national transactions are settled today. Alongside market solutions, the European Central Bank is working on a completely new system for linking up the national systems for securities settlement.

In recent years, moreover, clearing services provided by central counterparties are being used to a growing extent. The role of central counterparties is a topical issue in the United States as well as in Europe, not least because the global financial crisis has highlighted the advantages. More about that later.

A number of central counterparties are already operating in Europe in clearing of derivatives as well as of shares and interest-bearing securities. In Sweden there is a central counterparty – NASDAQ OMX Derivatives Markets – for derivative instruments that are traded on OMX. There was until recently no central counterparty for spot transactions in Swedish shares and interest-bearing securities. With the creation of new trading facilities in Europe, however, clearance of Swedish shares through a central counterparty is now possible.³ In October it was announced that a central counterparty service will also be

¹ Clearing involves balancing mutual claims and liabilities. Settlement involves the transfer of money and securities between transacting parties.

² Multilateral Trading Facilities, which are not required to be a traditional exchange in order to organise trading.

³ One example is EMCF (European Multilateral Trading Facility N.V.), central counterparty for the clearance of Swedish shares that are traded on Chi-X and NASDAQ OMX Europe. Another is EuroCCP, central counterparty for the clearance of shares traded on Turquoise.

provided in future for spot share transactions on OMX Nordic Exchange Stockholm.

The tendencies I have just mentioned indicate an explosive development. What will be its consequences for the Swedish financial infrastructure? The Swedish systems will indeed be wholly or partly replaced by or linked up with systems elsewhere. This means that to a growing extent, securities trading, clearance and settlement will be arranged outside Sweden.

As integration increases, national securities markets and financial infrastructures will become more and more intertwined. For the Riksbank it is important that the systems in the Swedish infrastructure work safely and efficiently – even if they are in foreign ownership and located abroad.

Coping with the increased integration entails new and stronger demands for joint solutions and cross-border cooperation. There is much to be done in all these respects. In order to oversee the foreign systems that affect the Swedish infrastructure, the Riksbank will be cooperating with other central banks.

Counterparty risks and insufficient market transparency

In the light of what I have just described, it is clear that trading, clearance and settlement are changing rapidly. It is important that we as a central bank understand these changes. At the same time, the financial crisis has made us aware that there are matters to do with trading, clearance and settlement which need to be improved.

In the United States, two problems have stood out in connection with trading in American credit derivatives. They concern the credit derivatives that are traded on the over-the-counter market.⁴ One problem is the *counterparty risks*. The parties in a credit derivative trade have a credit risk towards each other – the risk of a party losing the whole of the underlying value in a transaction. The counterparty risks have been difficult to understand, which makes them difficult to value. The other problem is the *lack of market transparency*, which has caused pricing problems and poor liquidity in credit derivative markets.

The question of how to reduce counterparty risks in over-the-counter derivatives trading has been raised by the US Federal Reserve and the European Central Bank. One way would be to clear credit derivatives with a central counterparty.

How would a central counterparty improve matters? Well, the central counterparty, who is a known player, functions as the counterparty to each of the parties to the transaction. The seller and the buyer then have a claim and a liability, respectively, with the central counterparty instead of with each other.

The advantages of a central counterparty are that securities settlement can be both *safer* and *more efficient*. The transactions can be netted out⁵ and the counterparty is known. The counterparty risks can be managed by the central counterparty obtaining collateral. Moreover, the central counterparty has its own financial resources. The drawback with a central counterparty is that the market risks are concentrated to a single player – a high concentration of risk. Provided

⁴ Securities trading can be arranged on an established market or over-the-counter; in the latter case, the parties to the transaction settle it on their own.

⁵ Netting involves offsetting transactions against each other with a view to making the transactions cancel out as far as possible.

■ the operations are properly organised, however, this is not a problem. Still, the concentration of risk does mean that central counterparties are often systemically important. Supervision and oversight are therefore highly relevant.⁶

I shall leave counterparty risks for the moment and turn to the problem in the United States with insufficient market transparency. Many American credit derivatives are non-standardised products and have therefore been inherently difficult to understand and value. If attempts were made to cope with the lack of transparency, one way would be to use electronic trading because this enhances market transparency and reduces the risk that access to information is not uniform. Another important effect of electronic trading is that concentrating trading to one facility makes pricing more efficient. Each order can be matched with the best price. Moreover, new players can have better access to the market, which can improve market quality and strengthen competition.⁷

So what is the situation in Sweden? American credit derivatives have not had Swedish owners to any considerable extent. Neither is there a Swedish credit derivatives market of any size. This is mainly because the Swedish market for corporate bonds is small and without corporate bonds it is hard to trade in credit derivatives. So the problem with American credit derivatives that are traded over-the-counter does not exist in Sweden. That does not dissuade us from reviewing the Swedish securities market in the light of the problems that have been identified in the American market.

In Sweden, as in most other countries, the principle for all securities trading (shares, interest-bearing papers and derivatives) settled in VPC, is Delivery versus Payment (DvP). This eliminates credit risk. The remaining counterparty risk is known as replacement cost risk – the risk of having to pay more for a transaction that replaces a failed trade. This risk is normally just a fraction of the credit risk but can be sizeable when prices are volatile.

In Sweden, transactions in shares and interest-bearing securities are normally settled within three days after the trade. The replacement cost risk for such business largely depends on the state of the market. When market rates are notably volatile, failure to deliver can result in substantial replacement costs. The introduction of a central counterparty service next year will make it possible to manage the counterparty risks in share trading on the Swedish market. Moreover, it is now possible to trade Swedish shares on the new European trading facilities that are linked to central counterparty clearance. This points to a future reduction of the counterparty risks in Swedish share transactions.

The counterparty risks in the derivatives market are considerably larger and harder to manage than they are in the spot market. This is because the duration of risk exposures is longer in the derivatives market, often as much as several months. The Swedish derivatives market already provides the possibility of managing counterparty risks by means of a central counterparty.

Turning now to market transparency, what is the situation in Sweden? MiFID entails the introduction of rules for transparency before and after share trading. The requirement applies to all trading facilities and involves the publication of

⁶ The Riksbank and Finansinspektion (the Swedish Financial Supervisory Authority) evaluate NASDAQ OMX Derivatives Markets in accordance with the international standards in *Recommendations for Central Counterparties*, published by CPSS and IOSCO.

⁷ For more information about electronic trading, see *The implications of electronic trading in financial markets*, Report by a working group established by the Committee on the Global Financial System of the central banks of the Group of Ten countries, Bank for International Settlements, 2001.

prices and volumes. So for shares there are no deficiencies concerning transparency in these respects. There may, however, be shortcomings in over-the-counter trading in interest-bearing securities and derivatives. A large proportion of fixed-income trading in Sweden is done by telephone rather than on a market. Derivative instruments can also be traded off-market.⁸ If trading is arranged instead with an electronic facility, each order is matched against the best price and market access can be improved for new players. Still, there may be financial markets whose functioning is not improved by increased transparency. It should therefore be up to each market, including the Swedish fixed-income market, to decide which approach is most effective.

What are the lessons from this argument? Well, in times like these, coloured by financial market uncertainty, there is much less propensity to take risks. Financial market participants are more interested in low-risk assets, low-risk markets and counterparties that they know and are safe. In a severe situation, this can mean that in certain cases trading ceases altogether because even small risks are perceived as too large. This is because the problems associated with counterparty risks and a lack of transparency become more tangible when markets are turbulent.

Every measure by which the financial markets can be made to function even in turbulent times is welcome. Some of those who stop trading when markets are unsettled would probably not do so if they had a known and safe counterparty with whom to trade in a properly transparent market. Conditions are then in place for arranging securities transactions in ways that are safe and efficient, so that financial stability can be more satisfactory.

The fixed-income market

I shall now say something about the fixed-income market. The fixed-income market in Sweden differs from its larger counterparts in Europe. There are considerably fewer participants and the market is shallower – less liquid. This presumably entails higher costs for transactions of a given size, as well as closer relationships between the players. These circumstances are liable to affect how the market functions, particularly in times of unrest. The risk propensity falls and with relatively few participants, market liquidity is easily eroded.

Trading in the Swedish bond and money market is still done mainly by telephone, over-the-counter, though some electronic trading has existed since 2001. This electronic trading is in three benchmark bonds. To work properly, electronic trading needs products that are highly standardised, as well as relatively high liquidity. In Europe, electronic trading is used for roughly 75 per cent of all transactions but they account for only about 50 per cent of the volume. Large orders are still traded by telephone.

The functioning of the fixed-income market is important for us as a central bank. It makes it possible to implement monetary policy and thus to fulfil our task of controlling inflation. We aim to influence economic activity and thereby inflation via the price for credit – the interest rate. For this to be possible, the payment system and the credit markets must function so that the Riksbank's interest rate decisions show up in other interest rates. What does this require of the fixed-interest market?

⁸ This refers to the derivatives that are not traded on exchanges, for instance swaps, futures and options.

■ A discussion of which characteristics the fixed-income market should have so that monetary policy can be as effective as possible must start from the answers to two questions: What is the objective of monetary policy? And, what instruments are at its disposal?

The situation in both these respects – monetary policy's objective and the toolbox – can differ somewhat between countries. My focus is, of course, on the Riksbank's monetary policy objective and instruments.

Monetary policy's objective and steering system

We have specified the objective for the Riksbank's monetary policy as an annual rate of inflation of 2 per cent plus or minus one percentage point. Our aim in setting the interest rate is that inflation will develop in such a way that the goal is fulfilled. When the Executive Board has decided the level of the repo rate, it is up to the monetary policy steering system to ensure that the decision shows up in market interest rates.

The Riksbank's steering system is constructed to influence the shortest market rate, the overnight rate. This is the rate at which the banks manage their daily liquidity surpluses or deficits with each other. Interest rates for somewhat longer maturities are to a large extent determined, as you know, by expectations of future short-term interest rates. The idea is that by steering the overnight rate we also can affect interest rates further out on the yield curve.

How do we steer the overnight rate in practice? First of all we lay down an upper and a lower limit – an interest rate corridor – for movements in the overnight rate. This we do via our standing facilities, which enable the banks to borrow or deposit funds overnight at the repo rate plus/minus 75 basis points.

In addition, to ensure that the overnight rate is close to the repo rate, we perform a fine-tuning operation, if necessary, on a daily basis. For this operation, at the end of each bank day we are prepared to lend funds at the repo rate plus 10 basis points or to accept deposits at the repo rate minus 10 basis points. Our aim is that after the fine tuning, the banking system as a whole will be balanced. That means that we only lend the equivalent of the banking system's net borrowing requirement or accept deposits for the equivalent of the banking system's net investment requirement. The steering system has been successful in the sense that overnight loans between the banks are arranged as a rule at the repo rate.

A potential drawback of the fine-tuning operations is that the operational risks grow with the volume of these operations. We therefore make a weekly offer of one-week Riksbank certificates at the repo rate. As this withdraws liquidity, the fine-tuning operations do not have to be so large.

The way in which we implement monetary policy means that we are active at two time horizons or, as we usually say, at two points on the yield curve. One is for overnight loans or deposits, where our fine tuning helps to keep the overnight rate at the repo rate; the other is for one-week certificates, likewise at the repo rate. As we are active in the market only once a week, with one-week certificates, we cannot steer the one-week rate as effectively as the overnight rate, which we steer on a daily basis. Neither do we intend to do so. Our operational goal is precisely to steer the overnight rate.

■ Which measures should be said to be connected with the implementation of monetary policy and which should instead be seen as more directed at assisting the performance of markets and promoting financial stability? There is no simple answer. Something that a financial crisis makes clearer is how monetary policy and financial stability interact. Neither of them can evidently function without the other. If forceful measures are not taken to deal with the financial crisis and maintain financial stability, there is a risk of the crisis also having major effects on inflation and growth. The fall in output and employment can then be both deep and prolonged and that in turn can worsen the financial crisis.

An efficient fixed-income market is a prerequisite for an effective monetary policy

In other words, the monetary policy machinery I have described consists of two components. The first thing is to ensure that the repo rate does in fact affect the overnight market. Effects on this shortest rate must then spread to longer rates that are more important for economic activity. An effective monetary policy steering system is not enough by itself. We also need a fixed-income market that functions properly. So what are the fixed-income market's functions?

The fixed-income market caters both for those who need funds for their operations and for those with funds they need to invest for a certain period of time. As investment in the market is not risk-free, one of the market's primary tasks is to price risk correctly. That in turn leads to an optimal distribution of risks between the markets' participants. In this way the market contributes to an efficient distribution of economic resources. What a central bank requires of the fixed-income market is therefore not all that different from what society in general requires.

If the fixed-income market is to perform its important function, more is needed than participants who set prices for the various assets. There must also be participants who trade actively at those prices. Neither must the counterparty risks be perceived as unduly high because that may deter participants from trading. Moreover, the market must be capable of handling large volumes without this by itself having an appreciable effect on prices. In other words, the market should be adequately liquid.

Why is liquidity important for monetary policy? The answer is that in a liquid market, relevant news shows up quickly in interest rates. An adjustment of the Riksbank's repo rate, for example, has a rapid pass-through to the short market rates, as well as to somewhat longer rates. This applies, of course, in so far as the repo rate adjustment takes the market by surprise. If market participants instead understand how the Riksbank interprets new information in the form of macroeconomic outcomes, they can draw conclusions about the Riksbank's future actions. News is then reflected in the formation of interest rates at the time when the macroeconomic outcomes are known. The relevant interest rates also react quickly to various forms of information from the Riksbank. Somewhat longer interest rates may be affected, for instance, when we publish a repo rate forecast, a so-called interest-rate path that presents the Riksbank's assessment of the future development of the policy rate.

The conditions for good market liquidity include low transaction costs, management of counterparty risks and market transparency. In practice, access to

■ information in most markets – including the credit market – usually differs between buyers and sellers. This is commonly referred to as information asymmetry and implies that the seller of a product knows more about it than the buyer does. A good example is the used car market. In the credit market it is commonly the borrower who knows more about his own situation than the lender does. One approach to dealing with this problem is to have a company's creditworthiness assessed by an independent organisation. A credit rating can aid an investor because it would cost too much for the investor to analyse every company whose securities might be of interest. Moreover, market efficiency can be enhanced by businesses that are dependent on income from the market and therefore strive for a good reputation as providers of complete and correction information.

Still, it is hard to ensure that the markets are liquid under every conceivable circumstance. If the participants suddenly become uncertain about asset values and if the counterparties are unfamiliar, a market can quickly become less liquid, which leads to high risk premiums. The current financial crisis has provided examples of this. Investors are averse to putting money into assets whose value is highly uncertain; they prefer the securities that are safest. Rather than doing business with unfamiliar counterparties, investors prefer counterparty risks that can be managed. Markets that are illiquid also have consequences for monetary policy because repo rate adjustments do not then have the intended impact. That brings me to this autumn's financial market developments.

Events this autumn and measures by Swedish authorities

In mid September the Swedish financial markets became seriously disturbed and Swedish banks experienced growing problems with funding. An increasing share of bank funding was arranged at very short maturities. Moreover, any funding that could be achieved at longer maturities cost the banks considerably more than normal.

Prior to this, in 2007 and 2008, the Riksbank had no cause to take any extraordinary measures. Unlike the case in many other countries, the overnight rate in Sweden was stable and close to the policy rate, which meant that the intentions behind monetary policy were visible in the market. Moreover, Swedish banks still had good possibilities of obtaining funds, though this did cost more than before.⁹ When Lehman Brothers filed for bankruptcy, however, the international financial crisis worsened. In this situation the Riksbank and other Swedish authorities introduced a number of measures so that markets would function better.

The Riksbank's measures in this respect have aimed at making bank funding easier and thereby assisting the banks in the provision of credit to companies outside the financial sector. In order to make corporate funding easier, during the autumn the Riksbank has lent more than SEK 200 billion and USD 25 billion.

Besides these measures, aimed at getting the credit market to function more efficiently, the Riksbank has taken more conventional monetary policy measures. The repo rate has been lowered during the autumn by a total of one percentage point – starting with 0.5 percentage points on 8 October in a joint action with the

⁹ "Policy rate setting and the monetary policy steering system", speech by Riksbank Governor Stefan Ingves at Handelsbank, 28 April 2008.

■ Federal Reserve, the Bank of England, the ECB, the Swiss National Bank and the Bank of Canada, followed by another 0.5 percentage points on 22 October. The purpose of these interest rate cuts was to mitigate the ongoing financial crisis' effects on output and employment in Sweden while continuing to target 2 per cent inflation. With the autumn's serious disruptions to financial markets, however, we probably should not expect that policy rate adjustments will have the usual effects. The adjustments have not affected market interest rates in the same way as they do under normal circumstances.

Conclusion

Let me now conclude.

Major changes are in progress in the securities markets and in the financial infrastructure. The systems for securities transactions in the Swedish financial infrastructure are becoming increasingly integrated with systems abroad. This places new demands on cross-border cooperation.

Two problems to do with the infrastructure have, moreover, come to the fore this autumn: counterparty risks and insufficient market transparency. Given a reliable counterparty and a transparent market, conditions are in place for making security transactions safe and efficient. As a central bank we naturally welcome every measure whereby the financial markets continue to function even in turbulent times.

Finally, the financial crisis has made it clearer that monetary policy and financial stability interact – if one does not function, neither does the other. For our monetary policy to be effective, it is therefore necessary that securities trading functions properly, with low transaction costs, managed counterparty risks and transparent markets.

Thank you.