

Speech

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The role of the banking system in monetary policy

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Firstly, I would like to begin by thanking you for the invitation to come here. Today I intend to speak about the role of the banking system for the Riksbank and in particular their role for monetary policy.

The Riksbank has been assigned by law the task of safeguarding the value of money. We also have the task of promoting a safe and efficient payment system. The banks play a central role in both of these tasks. The objective for monetary policy has been specified by the Executive Board as a CPI inflation rate of 2 per cent, with a deviation interval of plus/minus 1 percentage point. The instrument at our disposal for achieving the inflation target is the interest rate. Of course we also have the possibility of using currency interventions as a means of achieving our objectives, but this is a monetary policy tool we would not normally use in the current monetary policy regime.

I have on previous occasions discussed in general terms the mechanisms that enable a central bank to influence price trends in its own economy. Here I would just like to start by very briefly running through the channels through which we assume that monetary policy takes effect. Although we believe we know which channels these are, we have very little knowledge of the strength and time-scale involved. There is clear empirical evidence monetary policy *does* affect inflation with some time lag and with a certain efficacy, *but why* monetary policy has an effect is more difficult to clarify.

Within the Riksbank's way of thinking, consumer prices are influenced primarily by the degree of resource utilisation, by import prices and by inflation

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expectations. Monetary policy is assumed to have an effect on these factors, and thereby on inflation, through many different channels. This is known in the academic world as transmission mechanism. One usually talks of monetary policy having an effect via the interest rate channel and via the exchange rate channel. This is the traditional description of the transmission mechanism.

In addition, inflation expectations probably play a prominent role in price setting. And here confidence in the ability of monetary policy to meet the price stability target is extremely important. Stable, low inflation expectations should have an effect on both company pricing behaviour and wage formation. If inflation expectations are stable, the consequence may be that the degree of resource utilisation in the economy can vary considerably without showing any impact on inflation. In this case, monetary policy can also influence, via the credibility of the price stability target, the exchange between growth and inflation.

One way of maintaining credibility and support for the price stability target is, in our opinion, to show a high level of openness and clarity with regard to conducting monetary policy. Openness involves, for instance, reporting which considerations we make with regard to prospects for the business climate, etc. when we make decisions regarding interest rates. However, it also means that we are transparent with regard to the sources of knowledge we use as a basis for our decisions. Clarity is also often aimed at creating the right conditions for analysts in the banking sector to forecast how monetary policy will react to various types of new information. Consistent and symmetrical actions with regard to monetary policy increases confidence in the price stability target, which in turn should have a stabilising effect on inflation expectations.

My speech today should be seen as part of our endeavour to achieve openness. In many cases, I will raise questions to which we do not have answers. Our ambition is to increase our knowledge both by studying existing research and by stimulating our own and others' research in this field.

The banks are important for the Riksbank's tasks

I will now move on to speak about the significance of the banks for our capacity to maintain price stability.

The banks play an important role in enabling monetary policy to maintain price stability, in a number of ways. *Firstly*, the banks are central to the capacity to make payments in the economy generally. All activity in the economy leads to payments and it would not be possible to maintain price stability without a functioning payment system. It would be too lengthy to go into further detail here on the role played by the banks in the payment system and the connections between the Riksbank's two tasks. But I would in any case like to point out here that financial stability is a necessary condition for price stability. *Secondly*, it is through the banks that participate in the Riksbank's system for large payments - the RIX system - that we can in practice affect the interest rates companies and households meet when choosing between savings, investment and consumption. *Thirdly*, the banks' own credit granting and their lending rates play an important role for activity in the economy.

Thus, the banks play an important role in the interest rate channel. Here I will first describe how the Riksbank's steering of interest rates works through the shortest interest rate in the interbank market. After this I will discuss what significance this has for the banks' credit granting.

The Riksbank steers the shortest market rate

The fact that the central bank has a monopoly on issuing money is usually stated as a necessary condition for being able to determine price trends in its own currency - e.g. calculated by how many goods can be purchased for a particular sum of money. It is intuitively easy to understand that the amount of money in the economy is a decisive factor for the price of the goods produced in the country. In modern economies, where payments are largely made electronically, the monopoly on issuing banknotes is no longer an equally evident condition for enabling monetary policy to determine price trends. Today, it is instead the right to determine the terms in the systems for large electronic payments between banks and the opportunity to influence how much the banks shall borrow or deposit in the Riksbank that enable us to steer interest rates. For electronic payments to be able to function as money, it is necessary for the central bank to be perceived as guarantor for these means of payment in the same ways as with banknotes. This role can only be fulfilled by a central bank and in this way one can say that the possibility to determine price trends in the economy still lies with the monopoly on issuing money.

The Riksbank governs the shortest interest rate in the interbank market, so that it normally remains close to the monetary policy-steered repo rate. The fact that the Riksbank can steer the interbank rate is primarily due to the fact that each individual bank participating in the system handling large interbank payments - known as the RIX system - always has an opportunity to borrow and deposit money in the Riksbank overnight at the lending and deposit rates set by the Riksbank. These lie at 75 points above and 75 points below the repo rate respectively. The difference between the lending and deposit rates is sufficiently large for the banks normally to view it as more profitable to balance deficits and surpluses in their payments at the end of the day on the interbank market, rather than utilising the Riksbank's lending and deposit facilities. Both a bank with a surplus and a bank with a deficit win by depositing or borrowing in other banks at rates between the Riksbank's deposit and lending rates. The fact that the interbank rate normally lies at the centre of the corridor, i.e. close to the repo rate is because the Riksbank usually offers the banks the opportunity to borrow or deposit sufficient funds at the repo rate so that no bank will need to utilise the more expensive alternatives offered by the deposit and lending facilities. The condition for this is that the possibilities in the interbank market have been exhausted.

Outstanding notes and coins and other items on the Riksbank's balance sheet mean that the banking system currently has to borrow from the Riksbank. To avoid the necessity of converting a large loan stock every day, the Riksbank every week offers the banks the possibility of borrowing via repurchase transactions with a duration of one week at the monetary policy-steered repo rate. In addition, through what are known as fine-tuning operations, the Riksbank normally offers the banking system financing or investment of the deficits or surpluses that can

arise in the daily payment flows between the banks and the Riksbank at a rate close to the repo rate. The Riksbank uses its advertisement of the repo rate to provide signals regarding monetary policy. The repo rate is now usually changed only after the monetary policy meetings held by the Executive Board of the Riksbank, which means that the rate remains the same for 6-8 weeks. To summarise, therefore, the interbank market rate is steered so that it closely follows the repo rate.

The Riksbank's steering of interest rates – in common with that of many other modern central banks - differs from the models described in most macroeconomic textbooks. There the starting point is often that the central bank affects the volume of money or liquidity in the economy by buying and selling bonds on the market. According to the simple textbook model, the banks maintain a liquidity buffer in the central bank in the form of a deposit with no interest compensation - known as reserves. When the central bank buys or sells bonds via the banks, the payments are made through the banks' deposit accounts in the central bank – the central bank can thus steer the size of the reserves the banks have invested in the central bank. However, for the banks to be prepared to buy or sell the amount of bonds the central bank desires - in exchange for money in their non-interest bearing deposit accounts in the central bank - the interest rate must be adapted. A lower interest rate will increase the general public's demand for means of payment and this leads to an increase in the banks' requirement for a liquidity buffer, while the opposite will occur if interest rates rise. The textbook therefore assumes that the central bank affects the interest rate by influencing the banks' balance on non-interest bearing deposit accounts in the central bank.

However, the design of our steering interest rates system and the terms in the payment system mean that Swedish banks do not need to invest money as a reserve, i.e. liquidity buffer, in deposit accounts at the Riksbank. The banks can finance the deficits in payment flows arising during the day via interest-free loans from the Riksbank against collateral in securities. Instead of holding a liquidity buffer with no interest compensation, the Swedish banks can hold a liquidity buffer in the form of securities that can be pledged to the Riksbank – at full yield. While the cost of the banks' liquidity buffer in the textbook model is comprised of the nominal interest rate – the alternative is to invest in assets which provide interest- the cost of the liquidity buffer in the Swedish system is limited to the interest rate difference between, for instance, treasury bonds and lending. The costs for the banks' payment services should thus, all else being equal, be lower in Sweden than in countries that apply systems similar to the textbook one. We can therefore say that our system is more cost-effective than the textbook's system.

Following the tragic events in the USA the other week, some central banks announced that they were prepared to supply liquidity to avoid a shortage of liquidity on the market. During periods of unease the demand for risk-free investments normally rises. This leads to investors demanding higher compensation for taking credit risks. It can also lead, as a consequence, to an increase in the interest rate on the interbank market. In extreme situations, access to liquidity can be valued so highly that banks and other market participants are not prepared to lend money at any price. As a result of the great uncertainty prevailing, the daily lending market in US dollars functioned very poorly during the days following the

terrorist attack, daily rates rose and there were indications that some banks were experiencing difficulty in obtaining dollars at all. Given these developments, the Federal Reserve offered the US banks increased opportunities to borrow dollars from the central bank. However, the European banks were also affected, and therefore with the aim of maintaining the dollar market function, a number of central banks, including the Swedish Riksbank, offered a dollar facility to the market.

In a corresponding manner, one can imagine a hypothetical situation where one or more Swedish banks chooses to invest a surplus in kronor in the Riksbank at the deposit rate rather than lending the money to other banks. Those banks that cannot find financing on the interbank market are then forced to use the Riksbank's lending facility. Firstly, loans in the Riksbank are more expensive and secondly, they require collateral. To avoid the interbank rate rising, the Riksbank has recourse to a number of different measures. In certain strained situations, we have previously chosen to increase the supply of loans at the monetary policy determined interest rate via our normal operations. If a bank should choose to invest its surplus in the Riksbank instead of providing loans on the interbank market, where loans are normally offered without collateral, the Riksbank might choose to offer the corresponding credit volume on the interbank market at the rate we are aiming for. The condition is that a bank borrowing from the Riksbank can offer eligible assets as collateral. At the start of the new millennium when, as some of you might remember, there was great unease over a possible liquidity shortage arising, the Riksbank extended its list of eligible collateral. In our system this can be said to mean that we increased the liquidity in the banking system, as this measure increased the possibilities for borrowing from the Riksbank. The extension of the list of eligible assets the Riksbank accepts as collateral has now been made permanent, which should mean that liquidity in the Swedish banking system is good.

For a Swedish bank to choose to bear the cost of placing large surpluses in its deposit account at the Riksbank would assume that lending money on the interbank market was assessed to be a poorer alternative. One reason for this could be a fear that the bank wanting to borrow would not be able to repay in time, or at all. Another reason could be that the bank with a surplus was unwilling, or unable for some reason, to provide loans requiring capital cover in accordance with capital adequacy rules and therefore chose to deposit the money at no risk in the Riksbank. Normally, however, there would be very little risk of this happening - firstly, Swedish banks have good solidity and secondly they are so few in number that they have a good knowledge of one another.

The Riksbank also has the opportunity - in situations where the financial system faces a risk of serious disruption - to provide loans at special terms to a bank that for some reason experiences such unexpectedly large deficits in its payments during the course of a day that the bank is unable to offer sufficient already approved collateral to borrow from the Riksbank at normal terms. However, the condition is that the bank is considered by the Riksbank to be sound. The Riksbank has a crisis organisation to enable it to make rapid decisions in this type of situation.

The banks' lending is important

Another reason why the banks are particularly interesting in monetary policy terms is that lending from the banks plays an important role for the impact of monetary policy interest rate changes. If the Swedish banks for some reason reduce the supply of credit, companies and households cannot fully replace this loss with financing for consumption and investment elsewhere. Smaller companies are particularly dependent on the Swedish banks and the customer relations they have built up. Larger corporations, on the other hand, have access to other sources of financing, such as borrowing in the bond market, from foreign banks or via new share issues.

The banks' supply of credit and their setting of interest rates can therefore influence how quickly and how much monetary policy affects activity in the economy and thus inflation. We can begin by stating that the repo rate is *one* important determining factor when the banks decide on their lending rates. When the lending rates are determined, the bank's own internal rate is crucial and it is normally determined by the repo rate. This is because the banks' financing of deficits and investment of surpluses arising at the end of the day can normally be done in the interbank market, where pricing depends on the repo rate. If a bank lends money to a company, the loan could be financed in the interbank market. Even loans with a longer duration could in principle be financed by short-term borrowing on the interbank market. The lending rate in the interbank market will thus comprise the bank's financing cost for this loan and is therefore an important factor when the bank decides the lending rate it will offer the company. For loans with a longer fixed term, expectations of the development of the repo rate during the duration of the loan will affect the financing cost and thus the lending rate the bank sets for a longer term loan. A bank that has a surplus to invest can in the same way choose between investing it in the interbank market and lending money. The interbank rate will thus influence the lending rate the bank offers households and companies as it comprises an alternative yield.

In addition to the interbank rate, however, the banks' lending rates are determined by many other factors. When setting interest rates, the banks must of course compensate themselves for the credit risks connected with the loan and at the same time reserve funds in their own capital to meet any future losses. The fact that banks from time to time make differing assessments of borrowers' credit rating should not in itself affect how much the banks' lending rate changes when the repo rate is raised. The impact from monetary policy should not, therefore, change merely as a result of the banks changing their assessments of the credit risk.

However, many theories indicate that monetary policy in itself can affect the banks' setting of interest rates over and above the channel that goes via the interbank rate. One theory is that when interest rates are at a high level, the percentage of unreliable borrowers increases – borrowers who are aware that they will not be able to repay their loans and are therefore insensitive to high interest rates. To compensate for this, the banks can raise the interest rates on all loans more than is motivated by the monetary policy steered rates, or they can reduce the amount of credit they supply.

Another theory suggests that borrowers' creditworthiness via their balance sheets is affected by changes in interest rates. The idea is that a company that has, for instance, a high level of debt, will be less creditworthy if the interest rate rises. Actually profitable investment projects may thus not get off the ground because the company applying for a loan for the project is already heavily in debt and therefore has to pay a high credit risk premium, or is refused a loan.

Yet another theory indicates that a hike in the interest rate increases the banks' financing costs when the general public's deposits decline. A larger percentage of the financing thus has to be obtained in the bond market. The banks are also assumed in this case to have a motive to raise the interest rates more than the central bank does.

Other mechanisms that in certain situations can reduce the impact of monetary policy from its normal level include the banks tightening their credit standards - known as a credit crunch - because they cannot increase their credit risk exposure, for example, as a result of the capital adequacy rules. Following a long period of a strong expansion in credit, based on lenders' expectations of continued growth and high wealth levels, a severe downturn in the economy and falling asset prices can, for instance, lead to the banks limiting their lending due to uncertainty over the quality of their existing loan stock. With hindsight, the banks can conclude that they have probably misjudged credit risks earlier and thus lent money at an interest rate that was too low, as well as failing to reserve sufficient funds to cover future losses. Monetary policy relief can in such situations have less impact than otherwise, as the banks are not prepared to make loans even to profitable investments.

To summarise, there is good reason to try to learn more about what affects *monetary policy's impact*, for instance, via the banks, in different situations. Developments on the financial markets over time and differences between various countries indicate that the impact on demand and inflation of a particular monetary policy measure should differ between periods and between countries. It is difficult to estimate how the impact of a change in interest rate on growth and inflation will differ at different points in time and in different countries, but the attempts to do so indicate major differences. Given the fact that the composition of households' financial portfolios, their method of financing their accommodation, the significance of bank lending for corporate investments and the formulation of regulations and taxes differ substantially between different periods in time and different countries, this is hardly surprising. As I pointed out earlier, inflation expectations probably also play an important role in price setting. It therefore seems reasonable to assume that the exchange between interest rates and inflation is less in countries where monetary policy has been aimed at stabilising inflation expectations than in countries, and points in time, with large fluctuations in the inflation rate.

There is also a monetary policy interest in being familiar with the banks' methods for credit assessment, to aid forward-looking assessments of growth under the assumption of unchanged monetary policy. When the Riksbank makes decisions on the formulation of monetary policy, these are based on, for instance, assessments of how households and companies will react to rising prices on shares and property. One important condition for enabling optimism regarding future growth and

increase in wealth to be converted into consumption and investment is that this can be financed. This is where the banks' assessment of credit risks comes in. The extent to which the banks are prepared to mortgage shares and property is of no minor significance. If the banks manage to capture the risks connected with fluctuations in asset prices in their credit risk management, this reduces the likelihood of such fluctuations also being reflected in variations in production and employment.

I have mainly devoted my speech today to the role the banks play in monetary policy. Nevertheless, from what I have said it becomes clear that there are many, close links between the Riksbank's two tasks – to promote price stability and to promote financial stability. This is an area of analysis that we are endeavouring to develop further at the Riksbank. However, I shall have to return to this another time.