

During the financial crisis, the liquidity risks in the financial system became very tangible. In the wake of the crisis, there have therefore been calls from several quarters that the banks should reduce their liquidity risk. The Basel Committee has therefore proposed the introduction of two quantitative requirements for the banks' liquidity management: the "Liquidity coverage ratio" and the "Net stable funding ratio" which entail higher demands for the quality of the banks' liquidity reserves and for the proportion of long-term funding. The Committee also wishes to increase transparency in the reporting of the banks' liquidity risks. The proposals have not been adopted yet and it is therefore difficult to assess what all their effects will be. For Swedish banks that have a large proportion of mortgages at long maturities on their balance sheets the new proposals, in their current form, would lead to the need to extend the maturity of their funding. This would lead to an increase in the banks' funding costs, which in turn would probably affect the mortgage rates. In addition, it is likely that extending the maturity of the banks' funding would affect the relationship between the shortest and the slightly longer mortgage rates and thus the borrowers' choices between variable and fixed rates. The purpose of this box is partly to describe the liquidity risk and the reasons for the increase in risk taking that led to the financial crisis and partly to show how the changed liquidity requirements that the banks are now facing may affect the short-term mortgage rates.

Liquidity risk in the banking system

Long-term mortgages account for a large part of the lending of many banks and thus constitute

a significant part of the banks' assets. The banks fund this lending partly from deposits from the general public and partly on the financial markets: on the money market by issuing certificates and on the long-term capital market by issuing (covered) bonds. Although deposits and bonds constitute the largest sources of funding, the average maturity of the banks' mortgage funding is much shorter than that of the mortgages themselves. This means that the banks can reduce their funding costs and offer their customers a lower interest rate than if the funding for the mortgages had the same maturity as the mortgages. However, it also means that the banks take a liquidity risk as they must acquire funding for the mortgages several times before they mature.

Still, one of the banking system's main tasks in the economy is to convert savings, for example liquid deposits, to illiquid lending and the liquidity risk is thus a natural part of the banks' operations. In recent years, however, the liquidity risk in the global banking system has increased significantly, which proved to have costly consequences during the financial crisis. The increase in risk taking is partly due to the fact that banks, both in Sweden and abroad, have increased their dependence on market funding because lending has grown more rapidly than deposits.⁶⁴ As deposits can be regarded as a relatively stable and long-term source of funding, despite the fact that they have a very short maturity in contractual terms, the greater dependence on market funding has led to an increase in the difference between maturities for lending and maturities for funding and, consequently, the liquidity risk has also increased.⁶⁵ Nevertheless, perhaps the most important reason for the increase in risk taking in the years preceding the financial crisis was that the banks increasingly used external investment

⁶⁴ In Sweden, as in many other countries, the public's savings are converted into loans not only via bank deposits but also through, for example, pension funds' and life insurance companies' purchases of the securities issued by the banks. The Swedish banking system has therefore for a long time, but to an increasing extent, been characterised by the fact that deposits are not sufficient to fund all the lending that the public demands. This has given rise to a deposit deficit in the banks that is funded on the interbank and securities markets.

⁶⁵ The contractual maturity of the banks' deposits is usually very short, the majority of the deposits are payable on request, that is in practice on the same day. The behavioural maturity of the deposits is much longer, however. Thanks, among other things, to the deposit guarantee scheme, deposits are a highly stable source of funding that experience shows is unlikely to disappear even when a bank is experiencing serious difficulties. All in all, this means that in terms of the interest rate risk deposits are to be regarded as very short, while in terms of liquidity they can be regarded as stable or very long.

units such as SIVs and conduits.⁶⁶ This led to a situation in which the funding for above all mortgages and other property-related lending was extremely short term, often with maturities of only a few months, and also off the banks' balance sheets. When investor confidence in the banks fell in connection with the turmoil on the financial markets there was thus a decline in liquidity on certain markets. Even banks that had not funded their lending off their balance sheets, for example the Swedish banks, and whose assets were still considered to be of good quality, were affected by this as they were dependent on international capital markets to fund their assets. Consequently, many banks experienced funding problems and this forced central banks in many parts of the world to act to relieve the pressure.

New bank requirements may lead to higher short-term mortgages

In the wake of the crisis, discussions are therefore now underway on how new regulations and frameworks can be designed in order to limit the liquidity risk in the banks. As part of a larger reform package, the Basel Committee has proposed the introduction of a global standard for liquidity management. The proposal has not yet been adopted and all the details have not been finalised, which means that it is not possible to definitely assess the effects that the liquidity-regulation proposal will have. It is already clear, however, that the new regulations will impose much stricter requirements on the banks regarding the reporting of liquidity risks and also entail quantitative demands regarding liquidity management. Today, the quantitative requirements are based on two main parts:

- *Liquidity coverage ratio* – Requires banks to maintain a larger liquidity buffer containing more liquid securities.
- *Net stable funding ratio* – Requires banks to hold a certain part of their funding in long-term or stable funding sources in order to reduce the maturity mismatch between assets and liabilities and the dependence on short-term funding.

For Swedish banks, the introduction of the net stable funding ratio is likely to entail the greatest challenge. As their balance sheets largely consist of mortgages, the proposal means that much of the funding that is now made up of mortgage certificates, which have a short maturity, must be replaced by bonds. This will increase the average cost of the banks' funding as they will have to pay a maturity premium to fund their operations in the long term instead of in the short term. To the extent that the banks are able to pass on this increased funding cost to their customers this will also mean higher interest costs for those with mortgages.

The question is whether all mortgage rates, irrespective of maturity, will increase as much. In recent years, variable-rate mortgages have often turned out to be less expensive than fixed-rate mortgages in Sweden. This can be explained by saying that monetary policy has been more expansionary than expected by the market but can also be the reason that the banks, for competitive or other reasons, have accepted a lower margin on variable-rate mortgages than on fixed-rate mortgages. Another possible explanation is that the banks have allocated a larger part of the less expensive funding in the form of deposits and certificates to variable-rate mortgages with the result that the funding cost for a variable-rate mortgage is lower than for a fixed-rate mortgage.

⁶⁶ See the glossary for explanations of the terms SIV and conduit.

Assuming that the latter is at least part of the explanation of why variable-rate mortgages have been cheaper, imposing requirements for more long-term funding will lead not only to higher mortgage rates in general but also, in all probability, to a decrease in the difference between the shortest (variable) and the slightly longer mortgage rates. As the banks will be forced to replace some of their short-term certificate funding with funding at longer maturities, the banks' funding costs for variable-rate mortgages will increase, which in turn will push up the short-term mortgage rate compared to rates at slightly longer maturities. The advantage of having a variable-rate rather than a fixed rate will simply no longer be as great. As mortgage certificates usually have a maturity of up to one year, it is likely that the greatest impact on mortgage rates will be at maturities of between three months and one year. As this happens, a larger proportion of the borrowers should, all else being equal, choose to fix their mortgage rates. This effect will be reinforced by the fact that the new proposals will make it relatively more advantageous for the banks to fund their operations using deposits, which should lead to an increase in deposit rates as competition for the savers' money will increase. This will also entail higher funding costs for the banks and, given that deposits are to a greater extent used for the pricing of variable-rate

mortgages than fixed-rate mortgages, contribute to a situation in which the level of the variable rate begins to approach that of the slightly longer-term rates.

On the one hand therefore, the proposals that the banks should reduce the difference in maturities between assets and liabilities will probably increase the interest rate costs of the banks and, ultimately, of those with mortgages. On the other hand, if the proposals lead to a reduction in the gap between variable and fixed interest rates they may lead to a situation in which a greater proportion of the mortgages are converted to fixed-rate mortgages. This in turn would dampen the volatility of mortgage rates and, consequently, lead to lower volatility in the disposable incomes of the households. At the same time the proposals will reduce the liquidity risk in the banks, which is what they aim to do and positive for the stability of the financial system. The requirement for greater transparency in the reporting of liquidity risks will also improve market discipline. In the longer term this will hopefully lead to more stable and more secure banks and make it possible to avoid financial crises like the one we have just experienced. In such a perspective it is therefore possible that the increasing interest costs that the proposals now entail will fall again as investors will require a lower risk premium to fund a more secure bank.