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Secretariat of the Basel Committee on Banking Supervision
Bank for International Settlements
CH-4002 Basel
Switzerland

Consultation on the proposal "Strengthening the resilience of the banking sector"

Svenska Handelsbanken has submitted comments to the proposal through the Swedish Bankers' Association and through the European Banking Federation. We have however a major concern about the proposal for introducing a leverage ratio for banks, which we think will have severe negative consequences not only for banks, but for the economy as a whole. We have made a broader analysis of these consequences in a particular study, which we think should be considered by the Basel Committee when making its regulatory reform. The study is written from the perspective of the Swedish economy, but many of the conclusions that are drawn are applicable for any developed economy. The study is enclosed to this letter.

Yours sincerely,



Ulf Riese
CFO and Executive Vice President of Handelsbanken

Rolf Marquardt/Martin Blåvarg

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Rolf Marquardt/Martin Blåvarg

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The socio-economic consequences of introducing a leverage ratio for banks

Summary

The conclusion of this analysis is that implementation of a leverage ratio would risk leading to a number of social and economic effects and would also have a negative impact on financial stability.

Access to financing would be reduced. The current relatively cheap lending to financially sound households, companies and municipalities with a healthy capital situation would become more expensive. Other risks are that home ownership would become more difficult, an increase in the number of borrowers who could run into problems in a crisis situation and worse treatment for borrowers in difficulties.

It is not probable that implementation of a leverage ratio would lead to an increase in equity in the banking sector. Instead it is likely that financing of low-risk assets, and therefore also those with low margins, would be securitised or moved to the bond and commercial paper market. Thus these assets would instead be financed outside the regulated banking sector, where it is more difficult for the supervisory authorities to take action. In a stress situation, powers of financial resistance and the supply of funding in the financial system would be lower than in the current situation. Many of the negative aspects of securitisation that contributed to the crisis in the American financial system would be imported.

Overall, this would have the inevitable effect of increasing the average remaining risk level in the banking system.

Background

The requirements for banks' capitalisation are currently regulated by the Basel II regulations which were introduced in 2007. The purpose of this far-reaching reform was to create an even more risk-sensitive capital requirement, where banks' capital situations are to a greater extent controlled by the risk level in their operations than is the case with the Basel I rules. This has led to an increased differentiation in the pricing of risk. The new regulations have resulted

in lower interest margins for low-risk operations such as mortgage loans and highly creditworthy companies. The spread between the price of low-risk credits and credits for high-risk projects has never been wider than at present. This means that credit institutions function much better in their role of converting savings into financing as efficiently as possible on behalf of their customers.

The proposal to implement a leverage ratio would mean regulating the amount of equity a bank must have in relation to its total assets, including off-balance sheet commitments, without taking into account the various risk levels in the assets. This means that the capital requirement will be the same for all borrowers, regardless of creditworthiness. Irrespective of whether the money is lent as a mortgage to a household with sound finances, to the government, or to a high-risk project, the leverage ratio will lead to the same capital requirement. The Basel Committee has put forward the proposal concerning a leverage ratio, but it has not been formulated in detail, nor has a minimum level been established. The levels discussed so far have varied between 2.5 percent and 5 percent.

The impact of a leverage ratio on banks' lending operations

If the leverage ratio requirement cannot be fulfilled due to a high volume of low-risk assets (such as mortgage loans), banks can deal with the situation either by reducing their assets or increasing their equity. If a bank needs to reduce its assets this will mainly be done by reducing the lending that requires a large amount of equity in relation to the margin generated. Since all lending has the same capital requirement when measured from a leverage ratio perspective, the assets with the lowest return on equity will be the ones that are most likely to be reduced in order to raise the leverage ratio. Assets with low return normally also have low risks. This is the result of a well-functioning market where investors are prepared to accept low return if the risk is low, but demand higher return if the risk is high. Thus to improve the leverage ratio, it will be the volume of assets with low return, and low risk, that a bank will mainly decide to reduce.

When lending volumes are reduced it will mainly be low-risk operations that will be subject to a credit squeeze due to the bank's reduced lending capacity. One alternative for the bank is to try to sell its assets to participants on an unregulated market that is not subject to the leverage ratio requirement.

As an alternative to reducing its lending volume, the bank can instead decide to issue more equity in order to improve its leverage ratio. However, this means that the banks' shareholders will have lower return unless the margin on the lending increases.

In order for an investment in shares to be attractive, the investor's required return needs to be fulfilled. Thus the requirement in order to inject more capital will be that the margin on the existing lending volume rises to a level that also satisfies the required return on the newly issued capital. A condition for the bank to opt to issue new equity is thus that the pricing of low-risk assets can also increase so that the bank's shareholders can continue to obtain a return that corresponds to their required return.

More than any other type of assets, mortgage loans to private individuals are assets that historically have had particularly low risk and low margins, and of which there are large volumes in the Swedish banks. It is principally this type of asset which will be reduced for the banks if a general leverage ratio is introduced. Below the effects discussed above are shown for mortgage loans.

Example for Swedish mortgage loans:

A first mortgage loan may be assumed to have a risk weight of 6 percent for a bank with an IRB model in Basel II. A well-capitalised bank can also be assumed to need equity corresponding to 10 percent of the risk-weighted assets according to Basel II. This bank will therefore need to have 0.6 percent of the mortgage lending volume as equity. If a leverage ratio of 4 percent is introduced, the bank will need equity at this level plus a certain margin in order to never fall below the limit. The margin would be of the order of 2.5 percentage points¹. The real capital requirement would then be 6.5 percent, in other words, ten times larger than the 0.6 percent required in Basel II.

The total volume of mortgage loans in Sweden is around SEK 1,500 billion². If the banks continue to have an unchanged amount of equity, the consequence will be a 90-percent reduction of the volume of mortgage loans financed in the banking system. When the banks have to balance supply against demand, knock-on effects occur: for example, a higher cash down-payment

¹ For example, Handelsbanken's target Tier 1 ratio in Basel 1 would be in the range of 6-7 percent, while the minimum requirement was 4 percent. It is reasonable to assume that the same proportions apply since the capital requirement is not cyclical in Basel 1 nor in the leverage ratio, although it is in Basel II.

² In December 2009, mortgage institutions' lending to Swedish households was SEK 1,476 billion. Although not all mortgage loans are in the mortgage institutions' balance sheets, this provides a good estimate of the amount of first mortgages to Swedish households, these being the loans with the lowest risk and thus the ones which would be first to be reduced if a leverage ratio were introduced.

would be demanded, borrowers without very high creditworthiness (such as first-time buyers in the housing market) would not be able to borrow at all and property prices would fall since the supply of capital would be less.

If the banks instead decide to raise more equity from their shareholders, the income from mortgage operations would need to increase significantly, since the shareholders can only be expected to inject capital if the return requirements on their investment can be met. In this calculation example, the banks' costs for granting and administering mortgage loans can be assumed to be 50 basis points. If the shareholders require a return of 15 percent, at present the loan needs an interest rate margin of 62 basis points to generate this rate of return. If a leverage ratio is introduced and the bank instead has to reserve equity corresponding to 6.5 percent of the lending, the net margin after administrative expenses must increase eleven times in order to retain the 15-percent return on equity. Ultimately this cost increase will have to be paid by the mortgage loan customers if the calculation is to work.

Neither of these two alternatives is particularly attractive and the banks will seek other options. The natural solution will be to try to finance mortgage loans outside the part of the financial market which is subject to a leverage ratio, that is outside the regulated credit institutions. Securitising mortgage loans may then be an attractive solution as long as the costs are lower than financing these loans in the banking system.

In the light of experiences from the global financial crisis and the current discussions about high LTVs and property prices, it might be discussed whether mortgage lending really is as low risk as the banks maintain and thus whether the capital requirement is not unreasonably low. This would be the type of model risk that a leverage ratio is intended to counteract. There are however a number of reasons why the risk really is low:

- In Sweden, banks' credit assessments focus on the repayment capacity of households, not on the value of the mortgage.
- For property lending, households put in a large amount of equity. The loan-to-value for the average customer is relatively low. Thus the banks' equity buffer for property financing is supplemented by an equity buffer from households.

- The crisis of the 1990s hit households hard with interest rates of 10-15 percent and unemployment at levels that had not been seen for decades. Nevertheless this crisis did not lead to major loan losses for the banks' mortgage lending.
- One contributory factor to the low risk is the strict legislation concerning households' opportunities to get rid of their debt by being declared bankrupt. This is not possible in Sweden unlike some other countries such as the US.
- The banks' internal models upon which the capital requirement is based rely on data from the very severe financial crisis of the 1990s.

If, due to the regulatory requirements, the required return on certain assets is increased without this being justified by a real increase in risk, it will be more attractive to finance these assets outside the regulated institutions. This can be done in various ways for the low-risk assets that are common in the Swedish banks:

- Mortgage loans can be financed outside the banking system through securitisation.
- Large companies with high creditworthiness and large municipalities can raise funding directly on the fixed income market. Small municipalities may have problems however.
- Government instruments can be traded on exchanges and the repo funding currently in the banking system may be cleared by clearing houses and thus disappear from banks' balance sheets.

The above alternatives are natural methods of funding assets outside the banking system, but other options will probably arise. Historically, the financial markets have been very creative in finding ways to avoid the impact of regulation.

One category of low-risk operations which cannot obtain funding outside the banking system is small and medium-sized companies with high creditworthiness, but which are too small to obtain funding on the bond market which requires relatively large volumes for an issue to be financially viable. Well-run companies have a low capital requirement when the banks measure the risk with their internal models, but with a leverage ratio they will be hit by a higher cost of capital in the banking system. Since small and medium-sized companies do not have the option of alternative funding, they will therefore be hit by higher interest costs.

Another type of low-risk asset is interbank lending and other exposures between banks, particularly if they have short maturities or are secured by collateral. Short-term interbank lending helps to lubricate the payments system since banks sometimes need to lend large volumes to each other in order to even out temporary imbalances in liquidity. This type of lending requirement arises naturally in banking systems, particularly in the Swedish system which is concentrated to a small number of banks. It is difficult to reduce interbank lending and this means that the banks would in fact need to raise the interbank interest rates in order to compensate for the higher return requirement implied by a leverage ratio. This risks reducing the efficiency of the payment system and interbank overnight lending which is a central component in monetary policy for which the Riksbank is responsible.

Since there are alternative ways to finance most low-risk assets, there will be financial incentives for banks to reduce the volume of assets with a high regulatory capital requirement compared with the capital requirement that is justified by the actual risk. The greater the difference between a capital requirement calculated on the basis of the actual risk and a regulatory capital requirement, the greater the financial incentives for the banks to reduce the volume of these assets.

There is a well established securitisation market for mortgage loans. Although to some extent securitisation as a method has come into disrepute during the financial crisis, it is not primarily securitisation of first mortgages to normal, creditworthy households that has caused this. What has really caused the major problems are loans to borrowers with poor creditworthiness (sub-prime) and various types of complex instruments where the securitisation is structured in several steps. In all probability, securitisation will continue to be used for

funding of assets that are very transparent, easy to value and with a long and well-documented history of low losses. Swedish mortgage loans definitely comply with these criteria. In a situation where the requirement for equity in securitised structures is considerably lower than the corresponding capital requirement in the banks, the conditions will be good to securitise Swedish mortgage loans, although at a higher price than for current mortgage lending.

The same would probably be the case for financing to large creditworthy companies. The capital requirement for these is currently low in bank financing since the banks' internal risk rating systems, which are the basis of the capital requirements under Basel II, show that the risk is low. This means that the capital requirement is also low. A leverage ratio will cause the capital requirement to be many times higher and, as in the mortgage loan example above, the banks will have to raise their interest rates significantly in order to meet shareholders' return requirements. In the case of bond market funding, the financiers – the purchasers of the bonds – are mainly investors who are not subject to capital requirements such as mutual funds, pension foundations, insurance companies³ etc. These investors will only require an interest margin above the risk-free rate that compensates them for the actual risk, while the high capital requirement will make it impossible for banks to offer competitive prices. Consequently, companies with the capacity to do so will primarily raise their funding on the bond market.

In the light of the above analysis, a socio-economic assessment of the impact of introducing a leverage ratio should be based on the following:

- Introducing a leverage ratio would hardly result in the banks increasing their capitalisation.
- The effect of a leverage ratio would tend to be that low-risk assets would be financed off the banks' balance sheets. If the leverage ratio requirement were to be introduced rapidly and the market is not given enough time to adapt, there would be major credit-squeezing effects.

³ In fact insurance companies are subject to capital requirements but as long as they are risk-based, such as in the Swedish Financial Supervisory Authority's traffic light system or the Solvency II regulations, they are not impacted in the same way as the banks.

Socio-economic issues

The socio-economic assessment should focus on evaluating the advantages and disadvantages this change would have on the banking market. The following questions arise:

1. Which credit-squeezing effects risk arising due to the introduction of a leverage ratio?
2. What are the socio-economic advantages and disadvantages of financing mortgages via securitisation instead of the banking system financing mortgages via covered bonds?
3. What are the socio-economic advantages and disadvantages of large, creditworthy companies being able to obtain finance by issuing bonds instead of obtaining funding via bank loans and small and medium-sized companies having a higher funding cost in the banking system?
4. What are the socio-economic advantages and disadvantages of government instruments being traded on an exchange instead of market maker-based interbank trading?
5. What are the socio-economic advantages and disadvantages of it being considerably more expensive for municipalities and county councils to obtain financing from banks?
6. Is there a risk that the capital cost of interbank lending will be detrimental to the efficiency of the payment system?
7. How will the stability of the financial system be affected?
 - Will a leverage ratio work as intended: to function as a back-stop for over-high debt and as protection against model risk and thus increase the stability in the financial system?
 - Will banks with a high proportion of high-risk assets in their balance sheet have lower risks? What is the impact on the stability of the financial system of banks focusing more on high-risk assets?

These questions will be discussed in order in the following:

Socio-economic consequences of a leverage ratio

Credit squeeze effect

The Swedish banking sector's capital requirement would increase dramatically if a leverage ratio were to be introduced (assuming that it is at a level of around 3 percent or more). The banks will counter this with various measures intended to shrink their balance sheets, mainly focusing on reducing the volume of low-risk assets. Even if the introduction period lasts for several years, there is a major risk that this would have a credit-squeezing effect on certain sectors such as the mortgage sector and also for high creditworthy companies, municipalities and county councils without access to the capital markets. Capital requirements in general will also increase for the banks due to other new capital adequacy regulations. The capital situation is thus already worse at the outset, so there is increased probability of credit-squeezing effects if a leverage ratio is introduced. The new liquidity regulations will also lead to more expensive loans for companies and households. According to the proposed regulations, the banks must increase their proportion of long-term financing. The funding will thus be more expensive and ultimately this cost will also be borne by the borrowers.

Securitisation of mortgage loans

The introduction of a leverage ratio will probably lead to financing of low-risk assets moving from the regulated banking system to non-regulated companies. As mentioned above, the reason for this is that, in the long run, it becomes untenable to hold more capital than is financially justified. The impact of this kind of trend is illustrated by what has happened in the US where a leverage ratio has been in force for a long time. This has probably contributed to the far-reaching securitisation trend in the American market. In countries where risk-sensitive capital requirements (Basel II) have been implemented, this trend has been much weaker. A change of this kind would be extremely dramatic since it would change the foundations of the Swedish financial system, particularly for mortgage financing. Typical features of the present very efficient system are liquid bond markets and low transaction costs. It is the combination of the proven low risk of Swedish mortgage borrowers – even during the extreme stress of the Swedish crisis in the 1990s – and a liquid, efficient form of financing that has resulted in Swedish mortgage customers having possibly the lowest mortgage costs in Europe. This efficient financing is to a large degree based on the mortgage institutions' financing via covered bonds (backed by legislation and external ratings), and on the supply of large institutional investors such as Swedish insurance companies, pension foundations and national pension funds. The liquidity in the bond market is also secured by a well-functioning repo market and by undertakings from market makers.

Securitisation will in all probability lead to higher costs for mortgage financing. Securitisation is based on an originator selling its loans in the market. This mainly implies four problem areas that lead to higher funding costs than in the present system, particularly compared with funding via covered bonds:

1. **Asymmetric information:** Banks and mortgage institutions have far more detailed information about the borrowers and their circumstances than the market can have. To compensate for this, the investors demand a higher margin. The main reason that securitisation was a competitive option before the financial crisis ensued is that the rating agencies had reconciled this asymmetric information since the investors relied totally on the rating agencies' assessments. After the crisis, the rating agencies have been strongly questioned and although securitisation may occur in the future, the risk premium that investors demand will probably be substantially higher than compared to the situation before the crisis.
2. **Incentives:** In a system based on loans being sold on, the lenders do not have the same clear incentive to secure the quality of the loans granted. This applies both to the selection of borrowers who receive credit and the subsequent processing if the borrowers have payment problems. Experience shows that early, flexible management of customers who start to have payment problems is very important to the customer's well-being and for the losses that later arise. The incentive problem creates uncertainty and the investors compensate for this by demanding a higher margin. This is not only a cost problem; it is also an aspect that risks leading to higher risks in the financial system as a whole since there is a risk that the system's ability to distinguish good borrowers from bad ones will deteriorate.
3. **Transaction costs:** Securitisations normally generate higher costs since the structure and the processing of the securitisation involves more steps and players than when issuing covered bonds. The difference is that the securitisations require separate documentation, rating, administration etc. for each individual programme.
4. **Liquidity:** One problem with market financing is that the liquidity in the market may entirely disappear for relatively long periods, or the price for issuing may be very high. This is not least illustrated by the impact in the US of the latest crisis where securitisations of mortgage loans almost came to a standstill during the financial crisis. If a crisis were to occur in

Sweden, this could lead to major difficulties in financing housing property etc which in turn could exacerbate the crisis. This has occurred in the US even though there are semi-government institutions that are intended to counteract these problems. This is less of a problem in financing via banks.

Apart from the higher costs of mortgage financing that have been highlighted, it is also likely that securitisation leads to a less stable financial system. The recent financial crisis has clearly demonstrated the major disadvantages of securitisation. The disadvantages from the point of view of stability are to a large degree related to the aspects that result in higher costs as discussed above:

- The incentive to only grant loans to borrowers with high creditworthiness is less if the lender does not also retain the risk and this leads to less efficient allocation of capital in society in general and to a higher total credit risk in the financial system.
- A securitised system is in a worse position to retain liquidity in bad times since it becomes almost impossible to issue securitised assets if the creditworthiness of the borrowers can be questioned. Thus, the supply of credit cannot be maintained in a crisis situation.
- Since the loans are not in the books of supervised institutions, it will be much more difficult for supervisory and other monitoring authorities to evaluate the risk level in the financial system.
- The consumer protection aspects of mortgage loans will be much more difficult to regulate and supervise if mortgages are not provided through regulated institutions. This is not limited to the requirements in terms of providing information and reasonable terms when granting credit to consumers. There would also be a risk that customers with payment problems would be handled differently. Banks currently have a customer relationship that they nurture. There is good reason for a bank to take into consideration social aspects when handling customers who have problems, not least because banks have a significant reputation risk in treatment of their customers. An anonymous lender in the form of a SPV that manages the securitisation can be expected to act in an entirely different way when customers have problems. There is thus a risk of a harsher social climate for the private individuals who cannot meet their payment obligations.

In addition to the supervisory-oriented effects of securitisation, certain other consequences may arise due to property lending becoming more expensive and more standardised as a result of securitisation. The latter effect arises since a securitised system for mortgage lending requires a more standardised and homogenous portfolio of borrowers. This in turn is due to the fact that securitisation includes certain criteria that borrowers must fulfil in order to be included in the pool of borrowers to be securitised. Thus it will be more difficult for certain groups to borrow to buy their own property, for example, young people, sole traders, immigrants without documented income and payment history etc. This may have several effects on the development of the Swedish economy:

- Certain groups will have more difficulty in buying a property. This means that home ownership will be lower and there will be a greater need for rented property.
- A larger requirement for rented property and lesser capacity for taking out mortgages will also give private individuals a greater incentive to buy and then sub-let property. This type of secondary market has led to higher risks on the property market in countries such as the UK and Australia.
- Wealth distribution between generations will be affected. Young people will find it more difficult to buy a property and will be more dependent on their parents' assets and repayment capacity for buying a property.

Effects for the financing of companies

Large companies have the opportunity of obtaining funding on the bond market when the cost of bank funding increases due to the introduction of a leverage ratio. The socio-economic effects of companies raising funding in the bond market instead of via banks is a complex issue with certain similarities to the question of securitisation, but also some differences. This is only a general discussion of the subject.

Since to avoid risk concentration, individual banks cannot meet the whole funding requirement of the largest companies, risk diversification will always be needed when granting credits. This is made possible by companies issuing bonds which are purchased by a large number of investors or by several banks joining together in syndications. Furthermore, most large companies

are public, often listed, companies which means that information provision is better and that the information advantage that banks normally have compared to other investors is relatively smaller. These aspects means that some of the above-mentioned negative aspects of securitisation are less evident when it comes to corporate funding in the market.

Perhaps the main disadvantage of market funding is the difficulty in obtaining financing that may occur during periods of financial turbulence. Experience from the latest financial crisis shows that it is impossible for most players to obtain new funding when the risk level in the market increases dramatically, even though they are only extending existing funding. And for the few who are able to find refinancing, the cost increases much more than for bank financing. On the other hand, banks have good reason to assist their existing corporate customers with funding in difficult times. Withdrawing credit runs the risk of undermining long-term relations with customers or leads to liquidity problems or in the worst case suspension of payments, which in turn hits the banks themselves. In the light of this, it might therefore be reasonable to assume that a bank-based financial system is less pro-cyclical than a market-based system. In other words the financial system has less of a reinforcing impact on the business cycle.

Another aspect of the current system is that companies are dependent for their liquidity management on various types of commitments from banks concerning the possibility of utilising a credit limit when the need arises, for example in the form of an overdraft facility. These types of unutilised credit facilities entail a lower risk than drawn credits and the capital requirement is currently lower than for the corresponding loan amount. A leverage ratio that includes these types of undertakings leads to considerably higher costs for customers than is the case at present. Corporate customers will probably therefore be less willing to pay for the insurance against liquidity problems that these undertakings represent. This has a negative impact on companies' ability to survive economic downturns. It also risks reinforcing the impact of business cycle movements.

Small and medium-sized companies with high creditworthiness and which are too small to obtain funding in the bond market are currently unable to borrow outside the banking system. These companies have a low cost of capital when the banks measure the risk with their internal models, but with a leverage ratio they will also have higher capital costs in the form of higher

interest rates on their loans. This group of companies is essential for economic growth and it is often pointed out that they have difficulty in obtaining financing. It is clearly negative that the funding cost would increase for highly creditworthy companies in this category.

An exchange-traded system for government instruments instead of the current market maker system

The question of advantages and disadvantages of different market structures is complex and will not be discussed here. It is principally the government via the National Debt Office that is interested in well-functioning trade in government instruments, since this leads to lower costs for government funding. It is clear that the National Debt Office has so far found the current organisation of the market to be effective. The Swedish Financial Supervisory Authority has also investigated the matter and has found no reason to recommend a transfer to exchange-traded government instruments.

More expensive funding for municipalities in the banking system

Bank loans to Swedish municipalities are currently not subject to a capital requirement since the legislator has found the risk to be non-existent. The consequences for municipal borrowing would therefore be even more drastic than for mortgage lending. Large municipalities have more or less the same opportunities as large companies for direct funding in the market and they already participate in this. The discussion concerning the advantages and disadvantages of market financing for municipalities is more or less the same as for companies. It is, however, possible that municipalities' funding requirements are more counter-cyclical than for companies since municipalities tend to have higher costs in a downturn when tax revenue decreases and unemployment-related costs increase, such as social security payments.

For small municipalities, the transaction costs of market funding are normally too high. Thus there are no alternatives to bank financing. Many of the smaller municipalities obtain their funding via Kommuninvest, which will also be affected by the leverage ratio regulations. Small municipalities will thus be clearly hit by introducing a leverage ratio since their funding costs would increase drastically. Naturally, this cost will immediately affect the tax payers.

Poorer efficiency in the payment system due to higher costs for interbank lending

Banks are the hub of the payment system and through a variety of activities ensure that other players in the economic system can execute payments, trade in securities and cover risks via the derivative markets etc. The banks also play a vital role in the system for monetary policy by evening out liquidity imbalances among themselves and taking measures so that the Riksbank's setting of interest rates impacts other players in the economy. In these roles, the banks at times have large exposures to each other. The control system for monetary policy certainly has these consequences since it is based on banks which have deficits with the Riksbank at the end of the day being covered by loans from banks with a surplus. In a concentrated banking system like the Swedish system, these positions may be large at times.

The financial crisis has shown that interbank lending is not as risk-free as was perhaps earlier thought. This has led to a number of measures in the regulatory field. One is that the regulations for large exposures have been tightened up so that they also limit interbank exposures, which was not the case previously. Another is that it is proposed that the capital requirement for loans to large banks is increased in general. Another is that the capital requirements for derivative exposures will be generally increased.

Following the above changes, implementing a leverage ratio would further increase the capital requirement for bank exposures. It is reasonable to question whether this is in the interests of society and the economy. It may be noted that when the EU constructed the regulations for large exposures, the Swedish government was in favour of the shortest interbank exposures being exempted from this so that the liquidity balance mechanism in the Swedish payments system did not risk being knocked out. The increased capital requirements proposed will reduce banks' willingness to have large exposures on each other. The return on these exposures is already limited and the exposures actually arise as a consequence of the banks fulfilling the above-mentioned social and economic role. If the capital requirement costs for interbank exposures are too high, transaction costs would increase for other players in the system and the result would be reduced efficiency in the payments system in general.

A leverage ratio leads to reduced financial stability

When it comes to creating the right conditions for financial stability, it has already been stated that there are negative consequences from both securitisation and from an increased proportion of market funding for large companies.

A general requirement for a leverage ratio which for low-risk assets is substantially higher than the capital requirement calculated according to Basel II, runs the risk of making financial stability worse rather than improving it. In this respect there are primarily two aspects that should be highlighted.

Firstly, the purpose of the leverage ratio is to act as an upper limit for the amount of debt financing a bank may have and to limit the model risk in the banks' internal measurement of credit risks. It has been discussed here that there is no reason for banks to retain assets with a low credit risk in their balance sheets. These assets will instead be reduced. The restriction in banks' debt that the leverage ratio entails will therefore not lead to banks increasing their equity. The only result is that other types of market players will fund loans for low-risk assets. There will be no reduction of debt in the system as a whole. Nor will the model risk decrease unless other investors are better than the banks at constructing models for credit risk and measuring this risk. It is therefore difficult to see that a leverage ratio would achieve the desired effects.

The second aspect is that to a greater extent, banks will have high-risk assets since these are the only ones worth keeping from a financial point of view if the shareholders' return requirements are to be achieved. It is difficult to see that banks that only finance assets with comparatively high risk would be more stable than banks with more diversified operations and which offer financing to different types of operations with varying risk. Furthermore, the new regulations on liquidity risk assume that the banks will keep assets with very low risk in their liquidity reserves. This will be very expensive when a leverage ratio makes it impossible to finance investments in low-risk assets with a reasonable return for the shareholders. Thus the liquidity risk regulations and the leverage ratio conflict with each other.

In general it is clear that the introduction of risk-based capital requirements through Basel II has been extremely important in increasing the efficiency of capital allocation and the pricing of risk in the financial system. Basel II provides powerful support for a model where low-risk operations are the operations which first receive financing and also at low cost. Basel II has also provided strong incentives for banks to improve their risk measurement and risk management in general.

A leverage ratio would reverse this trend. It means that banks would have less incentive to put major resources into measuring their risks and to spreading

this risk management in their business operations so that the pricing of risk has the correct consequences for the customer. This is a trend that does not exactly encourage the banking system to manage risk in an optimum way.

Concluding comment

The deficiencies in the functioning of a securitised market were one of the central factors behind the financial crisis:

- Lending to sub-prime borrowers in the US would not have been possible without securitisation. This business model was based on high transaction intensity where both the original lenders and intermediaries profited from as many loans as possible being granted. Banks that retain the risk in their own balance sheet would not have been prepared to lend money in this way to borrowers with a weak repayment capacity. Consequently, to a large extent, credits were granted to borrowers who should never have been granted loans.
- Repackaging and selling on loans in many steps has been made possible through securitisation. By constructing CDOs and similar instruments, the same asset has been financed in several steps with the result that the proportion of debt finance for the original assets is much higher than would be possible in the banking system. Thus, securitisation has contributed to the high levels of debt that were one of the reasons for the crisis.
- It was impossible for investors in securitised instruments to themselves assess the risk in the instruments. They had to completely rely on the rating agencies which clearly failed in assessing the risk despite having full knowledge of the instruments. The fact that the rating agencies assessed the risk to be very low has persuaded many investors to buy the instruments. Since the rating agencies gave these instruments high ratings they were advantageous in capital adequacy terms for banks. This prompted banks worldwide to invest in these instruments. This in turn caused the financial crisis to spread considerably more extensively and more rapidly than previous financial crises.
- In the US, mortgage financing during the crisis could not continue within the confines of the existing securitisation-based structure – not even for borrowers with the highest credit ratings and lowest LTVs. There were

quite simply no investors who were prepared to take on the risk of securitised mortgage loan without government intervention. The now state-owned specialised mortgage institutions (Fannie Mae and Freddie Mac) currently offer all mortgage lending, which would not have been possible if the state had not taken them over. Even though the crisis has now abated, this situation still applies and illustrates how vulnerable a securitised system may be in periods of financial crisis.

The paradox is that one of the more radical proposals for improving regulation of banks and counteracting financial crises – the implementation of a leverage ratio – substantially enhances the incentives for banks to securitise assets. Other proposals from the Basel Committee and the EU instead entail regulations to counteract securitisation and make it more expensive. The proposal for a leverage ratio therefore appears not only to be negative in a general socio-economic analysis, but also appears to support a phenomenon which has significantly contributed to the current crisis. The proposal is also inconsistent with other current proposals to counteract future crises.

