SPEECH

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Basel III – much-needed regulations for a safer banking sector

More than two years have passed since the collapse of the major US bank Lehman Brothers triggered panic on the global financial markets and we were close to a widespread financial meltdown. We will never know what would have happened if the authorities had prevented Lehman Brothers from going bankrupt. We do know, however, that financial turbulence spread like wildfire throughout the world. Market agents lost confidence in each other and liquidity on the funding market was severely impaired. Many banks therefore found it difficult to fund their operations and suffered an acute liquidity shortage.

In order to stabilise the situation on the financial markets, governments and central banks around the world were forced to take exceptional measures. By offering loans on favourable terms, providing capital injections and setting exceptionally low policy rates, they managed to prevent a total collapse. But this has not been free, and it is not over yet. To date, the Federal Reserve and the European Central Bank have lent millions of dollars and euros to the banking system to stop the crisis. In addition to this there have been a great number of national rescue measures. These have largely been funded by governments borrowing money. In this way, debts in the financial system have been converted into central-government debts. For some countries, not least Ireland, the debt mountain has grown to unmanageable heights and the financial crisis has changed form to become a sovereign debt crisis.

Sweden has also been affected by the financial crisis. But, unlike many other countries, we have emerged from the crisis in fairly good shape. Growth in the Swedish economy is back to pre-crisis levels and other indicators, such as the level of investment and household consumption, are also positive. I would say that this is mainly due to two factors. First, the Swedish banks, with the crisis of the 1990s fresh in their minds, have been less risk-inclined than many international banks, although of course with the exception of their operations in the Baltic countries. Second, the unusually sound condition of the Swedish economy has made it possible for Swedish authorities to take extraordinary measures without putting our public finances at risk.

However, even if Sweden has coped relatively well with the crisis this time, we should remember that as a small, open economy Sweden is highly dependent on what happens in the rest of the world. This also applies to the Swedish banks as a considerable part of their funding comes from international financial markets. The international operations of the Swedish banks have also increased significantly over the last ten years. This means that events abroad have an increasing impact here in Sweden. This is also the case for most other countries. The collapse of Lehman Brothers is just one of many examples of how a bank with problems in one country can constitute a threat to banks all over the world.

The crisis revealed the lack of effective regulations

In an increasingly globalised world it is important to have well-designed global rules and regulations that contribute to stable financial sectors in all countries. It has been obvious for quite some time that this is not the case. But a crisis was required to eradicate any doubts that reforms are necessary. This is a good aspect of crises. They have the capacity to unite decision-makers and to provide an impulse to processes for change.

Consequently, over the last two years, considerable resources have been devoted to determining why the crisis arose and how we can reduce the likelihood of a similar crisis occurring in the future. Politicians and decisions-makers have left almost no stone unturned. They have discussed everything from bonus systems and the role of accounting in the financial crisis to shortcomings in financial supervision and weaknesses in derivatives trading. Above all, however, they have discussed bank regulation. As a result they have realised that the current regulatory framework has a number of fundamental weaknesses that must be dealt with. The Basel Committee[1] has therefore drawn up new, revised regulations for capital and liquidity, the so-called Basel III regulations. I intend to devote today's speech to describing what the new regulations entail, explaining the effects we can expect them to have in Sweden and presenting my view of the regulations. This means that several parts of the speech will be rather technical, but a thorough review is necessary to clarify what the new regulations actually entail.[2]

Before I begin I would like to point out that although there has been a great focus on drawing up regulations that promote a more stable financial sector it is important to remember that the sector must be effective so that it can continue to manage deposits, provide loans and conduct payments. Finding a good balance between stability and effectiveness is always an important task. In my view, we have managed to achieve this balance.

[1] The Basel Committee is the international body that has established frameworks for bank regulation since 1974. The committee consists of 27 member states represented by national central banks and supervisory authorities. Decisions are made by the governing body "The Group of Central Bank Governors and Heads of Supervision" (GHOS) which is made up of the central bank governors and the heads of the supervisory authorities from the 27 member states.

[2] A more general description of the Basel III regulations and the Riksbank's view of them can be found in the speech that Barbro Wickman-Parak made on 26 November 2010 – "New international regulations for banks – a welcome reform".

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Why we must develop Basel II

Capital inadequate in terms of quantity and quality

A basic problem with the current regulations is that they allow the banks to hold far too little risk-bearing capital, and in many cases capital that is of far too poor quality.

According to the Basel II regulations the capital base consists of two parts: Tier 1 (or primary) capital and Tier 2 (or supplementary) capital. Together, these should correspond to at least eight per cent of the banks' risk-weighted assets, of which Tier 1 capital must constitute at least four per cent. In addition, the regulations state that share capital and retained earnings, so-called Core Tier 1 capital, should make up the main part of the Tier 1 capital as it is these types of capital that can best cover losses.

This vague ruling on how much Core Tier 1 capital a bank must have has led to a number of problems. Not least, it has enabled regulatory bodies around the world to stretch the rules to satisfy the banks and has thus started a race to the bottom – that is a race to low capital levels. Many countries have accepted Core Tier 1 capital levels as low as two per cent. This means that it has been possible to make up the remaining six per cent with cheaper capital instruments of poorer quality. Unlike ordinary share capital and retained earnings, these so-called hybrid instruments have debt-like properties which mean that they can only be used to cover losses when a bank has failed. Core Tier 1 capital, on the other hand, can be used to cover losses under normal circumstances when a bank survives.

Not only have the generous capital requirements helped to undermine the ability of the banks to absorb losses, they have also made it possible for banks to substantially expand their balance sheets by borrowing. Before the crisis began, no one raised their eyebrows at banks with debt levels of more than 30 times their equity. However, as you well know, low levels of capital and high levels of debt turned out to be a catastrophic combination. When the crisis broke out and it was realised that the ability of hybrid capital to cover losses was extremely limited, the highly leveraged banks were left more or less defenceless. It was not long before many of them were forced to turn to the governments and the taxpayers who had to inject capital and become part-owners. The rest is history.

Basel II underestimates the risks in banking operations

Another weakness of the current Basel II regulations is that they do not sufficiently capture the banks' risks. There are many examples of this. One is that the regulations and supervision have focused too much on risks in individual banks and too little on risks in the system as a whole. We refer to this as the lack of a macroprudential perspective.[3]. In general, we have not taken enough account of systemic risks; that is risk that can spread throughout the financial system. In a capital adequacy context, the lack of a macroprudential perspective is reflected in the fact that the banks have

3 The term macroprudential indicates that something – for example regulation, supervision or inspection – aims to limit the risk of serious disruptions to the financial system as a whole.

calculated their capital adequacy requirements on the basis of the risks to their own operations. They have thus ignored the negative external effects that banks may have on the system as a whole. This has led to a banking system with too high a level of risk and too small buffers in terms of capital and liquidity. It has also led to the risk of distorted market prices for risk, capital and liquidity.

Another example is that the models that the banks have used to calculate their capital requirements for market risks systematically underestimate the risk of losses under stressed market conditions. As a result, the calculated capital adequacy requirements have been too low to enable the institutions concerned to manage the losses that occur in serious economic downturns, like the one we have just experienced.

A third and closely-related example is that the banks have not held sufficient capital for the counterparty risks that they are exposed to in their derivatives trading. As financial assets, including derivatives, are accounted in accordance with the real value principle, changes in counterparty risks enter the banks' balance sheets via their income statements. The fact that the banks are not equipped to manage this type of risk became evident when Lehman Brothers collapsed in the autumn of 2008 and the financial problems spread like wildfire between the market agents.

A fourth and final example is that Basel II has in many cases overlooked the risks that have developed off the banks' balance sheets, and this is something that many banks have taken advantage of. By selling their mortgages to special companies that they have set up themselves off their own balance sheets, the banks have been able to sell their own credit risks and thus reduce their capital requirements. The problem with this is that the banks have not been entirely separated from these special companies. During the crisis, the risks therefore moved directly back onto the banks' balance sheets where there was no capital to cover the losses that arose. This problem was particularly evident in the United States.

Inadequate standards for liquidity management

Another important lesson from the crisis is that the regulations have paid far too little attention to the banks' liquidity management. In the present Basel regulations, there are no binding regulations on how banks should manage their liquidity risks.[4]

As banks usually lend at long maturities while their funding is short term, liquidity risks are a natural part of their operations. In the years prior to the crisis, we could see that many banks, including the Swedish banks, exposed themselves to increasing liquidity risks, partly by increasing their lending and partly by choosing to fund their lending on the markets to a greater extent rather than basing it on their deposits. As market borrowing is often short-term in nature, the banks became very sensitive to disruptions on the financial markets. This became obvious during the crisis. The banks lost confidence in each other and they became extremely cautious about lending money to other banks. Market rates rocketed and a large number of banks experienced an

[4] Basel II states the liquidity risk is a central factor in the banks' risk management and that risk management should comprise adequate systems and calculation methods for the correct assessment of the extent of the risk.

acute liquidity crisis. Several central banks, including the Riksbank, chose to supply liquidity to the interbank markets to ease the stressed situation. It is of course not reasonable that government authorities should have to provide massive loans to ensure that the markets work properly. With hindsight, it is easy to see that the regulations have focused too little on liquidity risks.

The procyclical effects of Basel II contributed to the crisis

Finally, it has also been noted that the procyclical tendencies in Basel II contributed to the crisis. The explanation for this is the regulatory framework's strong links to risk. During the upturn that preceded the crisis, when risks were low, banks were able to expand their balance sheets and present good capital adequacy figures, despite the fact that they held relatively little capital. When the downturn then began and the risks increased, more capital was required to reach the stipulated minimum level of capital. With the increase in risks and the loss of confidence between the banks, the markets' capital adequacy requirements also increased. In order to meet these requirements, banks in many countries were forced to reduce their balance sheets. This led to a fall in lending to companies and private individuals. This in turn triggered a downward spiral with a fall in demand and in investment capacity, which reinforced the downturn in global economic activity.

When you list the problems in this way it becomes pretty clear that we need to revise the existing regulations. The Basel Committee has done a lot of hard work to correct these shortcomings and I welcome their proposals on a new international regulatory framework for banks.

Basel III – what is new?

Basel III comprises global minimum regulations and aims to strengthen the banks' ability to manage losses and reduce the probability of new financial crises. To achieve this, the banks will be required to hold more and better-quality capital. An important task for the decision-makers involved has thus been to increase the international capital adequacy requirements But Basel III is not just about capital. On the contrary, Basel III has many important components, including completely new requirements concerning the banks' liquidity management and limits for debt levels. The new regulations will be implemented over a period of six years, starting in 2013.[5] In some cases, however, the banks may be forced to meet the requirements earlier due to the demands of the market and individual countries. I will discuss all of the components of Basel II in more detail, but let me begin with perhaps the most fundamental change, the revised capital regulations.

Higher capital levels and a new definition of capital

The changes in the new regulations mainly affect Tier 1 capital and Core Tier 1 capital. I will therefore focus on these two components. An important new feature is the stipulation of a minimum level for Core Tier 1 capital. In contrast to the present vague wording about the role of equity in the capital base, Basel III makes it clear that all banks must have at least 4.5 per cent of their risk-

[5] For a detailed schedule for the implementation of Basel III see Financial Stability Report 2010:2

weighted assets in share capital and retained earnings. In addition, the lowest permitted level for total Tier 1 capital is raised from four per cent to six per cent.

Basel III also introduces a capital conservation buffer of 2.5 per cent, consisting of Core Tier 1 capital. This means that the banks should have a Core Tier 1 capital holding of at least seven per cent. If a bank falls below the seven per cent limit, its entitlement to pay dividends and to conduct share buy-backs will be restricted. The proportion of profits that must be retained within the bank increases the further below the seven per cent limit the bank goes. The idea behind this is to force the banks to accumulate their profits as capital instead of paying them as dividends to the shareholders.

However, this will not affect Sweden, at least not directly. Swedish banks are well capitalised and have a quota for Core Tier 1 capital that is already above seven per cent. We will, however, see effects at the international level and, as we are highly affected by what happens abroad, Swedish banks and Sweden in general will also benefit from the fact that banks in other countries will become more resilient.

Apart from the changes in levels, there are also stricter requirements regarding the quality of the capital held by the banks. As equity constitutes the difference between assets and liabilities on the balance sheet, both the size and quality of the capital will be highly affected by how a bank's assets and liabilities are valued. To ensure that the banks' capital really can cover losses, they must already today make certain adjustments in their equity on the basis of what actually exists on the asset side. The principles governing how to do this will now be tightened up. For example, deductions will have to be made directly from the Core Tier 1 capital, unlike today when either the total Tier 1 capital or the total capital base is adjusted.

Nor will the banks be able to include assets that form the capital base in other financial institutions. The idea behind such a limitation is to counteract the domino effects that can arise if a bank goes bankrupt. Other important assets on the balance sheet that will require adjustment of the capital are goodwill and deferred tax assets.

Another important change is that it will not be possible to include hybrid capital to the same extent as before. Innovative hybrid instruments with a so-called step up will, for example, be completely excluded from Tier 1 capital. The reason for this is that this relates to out-and-out rule arbitrage. Under the current regulations, it is not permitted to include dated debt instruments in the capital base. To get round this, the banks have issued securities with a so-called step up, where the interest rate rises if the security is not repurchased before a certain predetermined date. This has enabled the banks to signal to the markets that they will pay off their debts on a certain date even if formally there is no specific date on which the securities fall due.

Basel III thus entails a considerable tightening up of the minimum capital requirements. I think this is excellent. I have long advocated clearer and stricter regulations. As equity is expensive in relation to other sources of funding, tighter capital requirements will reduce the banks' appetite for risk and at the same time increase their ability to manage losses. More and better capital will thus not only soften the effects of future crises but also reduce the likelihood of them occurring at all. A clear and uniform level for Core Tier 1 capital will also reduce the scope for arbitrary interpretations. This in turn will reduce the

scope for creating a non-level playing field, which should benefit global competition.

Counter-cyclical capital buffer

In addition to the new minimum requirements, Basel III comprises a counter-cyclical capital buffer of a maximum of 2.5 percentage points of Core Tier 1 capital.[6]. The buffer acts as a dynamic capital requirement, which means that it varies over the economic cycle. The idea is that the banks should build up capital in good times that they can use to deal with losses in bad times.

According to the Basel Committee's guidelines, the buffer should come into play when the ratio between aggregate credit provision in the economy and the development of GDP deviates from an average trend. The greater the deviation the greater the increase, and vice versa. However, this is not something that will happen automatically. The decision on whether the buffer should be activated or not will lie with the national authorities. As countries develop at different rates, the capital requirements will also vary from country to country. A bank that is active on several markets will therefore need to calculate its capital requirement on the basis of the geographical distribution of its exposures. Like the capital conservation buffer, the counter-cyclical capital buffer is linked to sanctions on dividends.

The counter-cyclical capital buffer is good for several reasons. First, it can be used to counteract the procyclical effects that a risk-weighted capital requirement automatically entails and that result in an unwanted high expansion of credit in upturns and cutbacks in downturns.

Second, it can be used to limit the build-up of systemic risks. The reason for this is that the buffer is based on the risks in the economy as a whole rather than in each individual bank. In times of high credit growth, when systemic risks usually develop, the buffer can be activated, thereby increasing the capital requirement for all of the banks at the same time even if the actions of the individual banks do not constitute a risk in themselves. Higher capital requirements increase the banks' lending rates and thus dampen the overall growth of credit in the economy. Considering that we currently lack tools that can be used to counteract risks of a systemic nature, this type of capital requirement is thus a welcome feature.

Convertible debt instruments

A question that is under discussion but not directly related to Basel III is whether a new way for banks to acquire new capital should be introduced. Traditionally, banks can, like other companies, acquire capital in two ways: by issuing bonds or by issuing shares. The choice of method often creates a conflict between the banks' owners and the responsible supervisory authority. While the banks' owners usually prefer the first alternative because it is cheaper [7] and because they do not want to see their share capital watered down, the

[6] The counter-cyclical capital buffer may consist of Core Tier 1 capital or other capital than can completely absorb losses. The Basel Committee will specify what types of capital the banks can include at a later date.
[7] Issuing bond is a less costly alternative for acquiring capital than issuing shares for tax reasons. Interest rate payments for bonds are made pre-tax while share dividends are paid from post-tax profits.

supervisory authorities require the banks to have a certain level of share capital that can be used to deal with losses. As a result, the possibility to use so-called contingent convertibles, also known as coco bonds, is therefore now being discussed. These instruments have a mix of bond and share charectristics in that they are issued as a debt instruments but are automatically converted to share capital when a bank experiences problems. It is still unclear what role this type of instrument will be able to play when the banks calculate their capital requirements. A number of questions remain to be answered – for example what type of event should trigger a conversion?

The sum of the new capital regulations

There are many new regulations and levels and it may be difficult to estimate what the banks' total capital requirement will ultimately amount to. It we limit ourselves to looking at Core Tier 1 capital we can see that the new regulations mean that all banks will need to hold share capital and retained earnings amounting to at least 4.5 per cent of their risk-weighted assets. In addition there is the capital conservation buffer of 2.5 per cent and the counter-cyclical capital buffer of a maximum of 2.5 per cent. This means that in a situation where the counter-cyclical capital buffer is fully activated the banks will need Core Tier 1 capital amounting to at least 9.5 per cent, and this applies to all banks.

There are also discussions about whether additional capital requirements should be placed on those banks that are considered to be systemically important. At present, no decision has been made on which banks this would be, nor on the levels that could apply. It is not even certain that the measures directed at these systemically-important banks would focus on higher Core Tier 1 capital requirements, although this is likely. Decisions on these matters are not expected until the summer. However, if the major Swedish banks are considered to be among the banks concerned they should make provisions for further increases. It is not unreasonable to assume that their total capital requirement could end up somewhere between 9.5 and 12 per cent – at least. According to our own calculations practically all of the major Swedish banks currently have capital levels in this range.

The minimum level for Core Tier 1 capital may of course be affected by the decision on the use of convertible debt instruments. At present, the discussion concerns whether this type of instrument could be used for the increase for systemically-important banks. However, this is still an open question. One method is to require, let us say, six per cent in coco bonds over and above the 12 per cent added up here. The total potentially available share capital would then be 18 per cent.

In connection with this I would like to mention that the Basel Committee has already decided that this type of convertible instrument must be used for Tier 2 capital and that part of Tier 1 capital that does not consist of Core Tier 1 capital. Under the new regulations, a bank will only be able to include debt instruments that can be converted into share capital if the responsible supervisory authority believes that the bank has problems that threaten its survival.[8]

[8] For a debt instrument to be included as Tier 2 or Tier 1 capital the contract must clearly state that it can be converted into share capital if the responsible supervisory authority finds this necessary. This applies to debt instruments issued after 1 January 2013.

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Leverage Ratio

One of the more discussed elements of Basel III is the introduction ofa leverage ratio. The aim of this measure is to restrict the banks' total indebtedness and to set a limit for how large a part of the balance sheet the banks may fund with debts. To comply with the new regulation, the banks must retain capital corresponding to at least three per cent of the value of their total exposures, or assets if you like.

In contrast to the minimum capital requirement, the leverage ratio is not a risk-weighted measure. This means that the banks should not take into account to whom or for what they are lending when they calculate their total assets. In addition, most of the items off the balance sheet should be included at their full nominal value. One reason why this new type of measure has been developed is that a number of banks - not least the US investment banks and UBS in Switzerland – experienced major problems when the financial crisis began because of their high level of indebtedness.

However, many observers believe that a risk-neutral measure such as the leverage ratio constitutes an incentive for the banks to invest in assets that carry a higher risk and that this is directly counter to the traditional capital adequacy regulations. In Sweden, the criticism from the industry has been particularly sharp. The reason for this is that a large proportion (approximately 40 per cent) of the Swedish banks' balance sheets consists of mortgages. As mortgages are considered to carry a low risk they are also subject to low capital requirements. This thus means that banks can have large volumes of mortgages and relatively little capital but still be able to report a high level of capital adequacy. When we now introduce a measure that does not take into account the banks' risk profile, this will probably hit the Swedish banks harder than those in some other countries.

It is probably the case that regulations that do not take risks into account can lead to a poorer pricing of risk and to greater risk taking. As banks are companies that aim to maximise their profits and high risk is generally related to high returns, there will always be a willingness to invest in high-risk assets. And taking high risks can, as we all know, contribute to financial crises that have severe effects on the economy.

Given this it may seem paradoxical for the Basel Committee to recommend a leverage ratio that does not vary with risk. However, we should remember – and this is important – that the traditional capital requirement has not prevented banks from borrowing too heavily, and this was one of the central problems during the financial crisis. As long as the economy ran smoothly the banks could use their debt-burdened balance sheets as levers and make large profits. However, as soon as the downturn began and the banks began to make loan losses they had hardly any capital that could be used to bear the losses. Instead, governments and taxpayers had to provide funds to rescue the indebted banks. Of course we do not want to experience such a sequence of events again. It is therefore positive that we are introducing a complementary capital requirement that ensures that the banks do not overburden themselves with debt. The idea behind the leverage ratio is to limit the growth of credit when the economy is going well. It therefore acts as a complement to the counter-cyclical capital buffer and helps to prevent an extreme expansion of the balance sheets.

Another reason for introducing a leverage ratio is that most large banks use internal models to estimate the risks associated with their lending. If banks estimate these risks incorrectly, for example by underestimating them, they may not hold enough capital. And as major financial crises do not, I am glad to say, occur so often and the banks' data is often limited, there is actually a risk that they will underestimate the risks in their lending. A gross solvency requirement as a complement to the standard capital adequacy requirement thereby acts as an extra safety measure.

In response to the criticism from the Swedish banks there is another factor that I would like to take up. In Sweden, the banks can lend money to households with very little risk. This is because the historical losses for mortgage lending in Sweden have been at very low levels. This in turn can be explained by a number of factors. One explanation is that in contrast to many other countries we do not have a speculative housing market on which households buy several houses or flats for investment purposes and thus take a high risk. Another is that we have a legal structure in which private individuals have to live with their debts until they are repaid. In general, people cannot get rid of their debts by filing for personal bankruptcy. A third reason is that we have a social insurance and benefits system that means that people who become unemployed, for example, do not lose their entire income. The likelihood of borrowers not wanting or not being able to make the interest and amortization payments on their loans is therefore relatively small. This means that banks can lend money at a lower cost than would otherwise be the case. They can thus boost the expansion of credit in the economy without taking any significant risks themselves. This is something that we have actually seen in recent years – lending to Swedish households has increased at a worryingly high rate. I believe that the introduction of a ceiling for how much the banks can lend without increasing their equity is a reasonable measure to prevent an excessive provision of credit.

New standards for the banks' liquidity management

As I mentioned at the beginning, the financial crisis has also given us reasons to consider more direct and specific liquidity regulations. Consequently, the Basel Committee has drawn up entirely new standards for how banks should manage their liquidity. They have drawn up two quantitative measurements; the *Liquidity Coverage Ratio* and the *Net Stable Funding Ratio*, and will also impose considerably stricter requirements on the banks to report their liquidity risks.

The Liquidity Coverage Ratio focuses on the banks' liquidity buffers. The banks must hold liquidity reserves that are sufficiently large and sufficiently liquid to cope with a 30-day stressed cash outflow. The rules for what constitutes liquid assets are strict. At least 60 per cent of the reserves must consist of government securities, the rest can be made up of high-quality, liquid mortgage and corporate bonds.

The second measurement, the Net Stable Funding Ratio, is a structural measurement focusing on the banks' funding models. The aim is that the banks must reduce the differences in maturities between their assets and liabilities and their dependence on short-term market funding. To achieve this, the banks must match their funding and lending to a greater extent than they do today. Assets with short maturities can have short-term funding while long-term illiquid assets, such as mortgages, will need more long-term and stable funding. All

funding with a remaining maturity of more than one year will be counted as stable funding.

This is a sound and important feature of the new Basel regulations. And it will probably affect the Swedish banks' business models. Currently, none of the four major Swedish banks meet the structural liquidity measurement requirements (Net Stable Funding Ratio). This is mainly because they largely fund their lending through short-term market funding. The banks will need to think again here. In addition, a number of the Swedish banks do not meet the short-term measurement (Liquidity Coverage Ratio) either. These banks must, before the LCR is introduced, either strengthen their liquidity buffers, for example by buying government bonds, or reduce their short-term net outflow.

A weakness of the new standards is, however, that they do not contain any specific rules for matching maturities per currency. This is something Swedish authorities should look at more closely. Two thirds of Swedish banks' market funding is in foreign currency. A certain proportion of this is converted via the swap markets to SEK and then lent. As a result, the Swedish banks are sensitive to disruptions both in the primary markets and the swap markets. This was a problem we saw during the crisis, when the Riksbank was forced to lend large amounts of foreign currency. Our outstanding US dollar loans peaked at USD 30 billion.

Increased capital requirements for the trading book

As I mentioned earlier, the current capital adequacy regulations have taken far too optimistic a view of market risk. To correct for this the banks must now complement their calculation methods to take into account potential losses even under stressed conditions. This means that the capital requirement for assets in the trading book will be increased.

In addition, banks that trade in derivatives must use central counterparties to a greater extent than is the case today. The idea is to reduce the banks' counterparty risks and thus reduce contagion risks. For trading where central clearing is not possible or appropriate a more sophisticated method is being introduced to calculate capital requirements for counterparty risk. By and large these changes mean that the banks will need to hold more capital to protect themselves against changes in counterparty risks. This means, for example, that if a counterparty's CDS premium rises then the bank concerned will face a higher capital requirement.

This is of course a good thing. It was precisely in trading in financial instruments that a large part of the losses that affected the banks in the financial crisis arose. This was not actually a great problem in Sweden, but rather in the United States and some other parts of Europe. We have also underestimated the strength of the contagion risks that arose as a consequence of the connections between different agents in the financial system. If the banks are to be equipped to deal with their losses themselves we should endeavour to draw up capital requirements that reflect the banks' real risks.

Reactions and effects

As always, when stricter regulations are introduced, a certain amount of resistance can be expected. The most usual criticism of the new banking regula-

tions is that they will come at a high cost, both in terms of actual expenses and in terms of efficiency. I am very aware that stricter regulations entail certain costs. But these costs are worth incurring if they mean we will get a new regulatory framework that does what it is designed to do. What we want is a safer financial system. Having seen the results of many financial crises internationally and two in Sweden, I can also note that the costs of a deep and wide-ranging banking crisis can be exceptionally high. Looking back, we can see that financial crises are usually drawn-out processes that are followed by long periods of high unemployment and low GDP growth. Situations like this should be avoided, although of course not at any price. Quite simply, this is a matter of designing a set of rules and regulations that will counteract future economic crises at the same time as the socio-economic costs for these rules and regulations are limited.

What will the new regulations cost?

It is easy to get the impression that all of the new requirements I have reviewed will lead to drastically increased requirements regarding the banks' capital. One common and highly-justified question is therefore how the new regulations will affect the banks and their customers.

In recent months, we have read in the headlines about how expensive the new rules will be, above all for private individuals with mortgages. According to the banks' calculations, mortgage rates will go up by up to one percentage point. And yes, it is quite likely that the new regulations will force the banks to adjust their business models, which may lead to certain price increases. While it is too early to say exactly what these costs will amount to, the Riksbank judges that they will not be excessively high. Basel III is a gradual process that will begin to apply in 2013, but which will not have its full impact until 1 January 2019. Furthermore, the market is already placing high requirements on the banks' capital, and we can note that the Swedish banks are coping well – they are well-capitalised in terms of both level and quality. So there should be no question of any extra costs for acquiring capital. However, the Swedish banks need to retain the capital they have at present and, therefore, should not pay any extra dividends.

Neither does the introduction of the leverage ratio look like being any great problem if the banks maintain current capital levels. We have looked more closely at the four major banks (Nordea, Swedbank, Handelsbanken and SEB) and, at present, none of them falls below the minimum requirement of three per cent.

However, the Swedish banks are finding it difficult to comply with the new liquidity requirements. The greatest challenge will probably lie in complying with the structural requirement. Here, the banks have two alternatives – either cutting back on the commitments that require stable funding (for example lending for housing purchases) or exchanging short-term funding for long-term funding. This second alternative could well result in the banks' funding costs increasing, which should push lending rates up somewhat. As yet, we have no exact figure on what this may cost in terms of basis points, but we assess that, despite everything, these costs will be small.

How all this will affect the banks' customers is hard to say. In the final analysis, the question of how these costs will be divided among the banks' owners and

customers is a question of competition. But, as we are now introducing regulations to reduce the risk of bankruptcies, I think it would be reasonable to assume that the banks' financiers will lower their expected return.

Effects on the real economy

So what do we believe about the effects on the real economy? Increased interest rate margins and reduced lending volumes will probably result in certain macroeconomic effects in the form of reduced GDP. How great these effects will be is hard to say. The Basel Committee has appointed two groups with the task of more closely examining both the direct and the long-term macro effects of the new Basel regulations.[9] The results of their work do not indicate any drastic costs. They estimate that, during the actual implementation phase, Sweden's GDP level will be slightly lower (approximately 0.3 per cent) that what it would be without Basel III. But, over the longer term, the new banking regulations will instead lead to higher GDP and prosperity – because we will reduce the likelihood of new crises. Making exact forecasts is always difficult. However, it is helpful to have an estimate of the levels we are talking about. And, in Sweden's case, we can note that the costs for Basel III will not even come close to the costs of a crisis. For society as a whole, this will be a highly profitable investment in increased security.

Basel III is a step forward, but more may be needed

Consequently, the Riksbank welcomes the Basel III regulations. Considering the severe financial crisis we have been through in recent years and the shortcomings we have identified in the current regulations, it is perhaps not so difficult to understand why. If the world's banks had had larger and better buffers, both of capital and of liquidity, the crisis would hardly have been as serious as it was.

But the question is whether the new regulations are sufficient. Even if Basel III is a major step forward, we must not forget that it represents global minimum regulations that are the result of compromises by representatives of 27 countries in which the structures of the financial markets differ considerably. In addition, these regulations will not reach their full effect until 2019.

In my speech today, I have shed light on a number of risks that are specific to the Swedish economy, not least the Swedish banks' dependence on funding from the international capital markets and the households' increased borrowing. Against this background, I believe that there may be good reasons to consider whether we, the Swedish authorities, ought to adopt extra measures or proceed more quickly than planned in Basel III.

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9 The Macroeconomic Assessment Group (MAG) has been assigned to estimate the effects on the interest rate margins, lending volume and GDP during the implementation of the new regulations both as regards capital and liquidity. The MAG report is called "Assessing the macroeconomic impact of the transition to stronger capital and liquidity requirements", and is available at www.bis.org. Using the MAG's methods as a basis, the Riksbank has made its own analysis of the effects of Basel III. This was partially presented in the Riksbank's Financial Stability Report, which was published in November 2010. Long-term Economic Impact (LEI) has studied the long-term effects of the new regulations. LEI takes into account both the benefits and the costs of the new banking regulations. The report by LEI is called "An assessment of the long-term economic impact of stronger capital and liquidity requirements" and is available at www.bis.org The Riksbank has also made its own analysis here, which will be published at some point during 2011.

There are a number of measures that I believe are worthy of further discussion. One is to bring forward the introduction of the new liquidity standards, a second would be to add requirements for the banks to better match their foreign exchange lending with the equivalent amount of borrowing. It became apparent during the crisis that the banks' dependency on currencies other than the kronor was a problem that can be difficult to handle. If it becomes necessary to dampen lending to households, over and above the effect of the Riksbank's repo-rate increases, one could introduce reserve requirements for such lending, or increase the capital requirements, or increase the risk weighting for mortgages. Furthermore, I believe we should consider whether a leverage ratio of three per cent is enough to curb excessive indebtedness, and what attitude we should take towards convertible debt instruments as a supplement above and beyond the other capital requirements. All of these alternatives are worth considering. When I say this, you should also remember that many decision-makers are involved in the implementation process, both internationally and in Sweden. Furthermore, the Riksbank is not responsible for the main part of the new regulations – so this is not something we can decide on. On the other hand, we can and should participate in the debate.

Regardless of our conclusions, it is important that we have an open and realistic discussion on the development of the Swedish economy and or possibilities to counteract potential risks before we are saddled with a new crisis. The discussions currently underway in the EU on how the costs of a crisis should be allocated show how difficult it can be to sort out problems after the fact – and this applies to an even greater extent as regards extensive cross-border banking operations. We should thus learn from this and discuss how we can avoid ending up in such a situation right from the very start.

Finally, I would also like to add that there are a number of important areas that Basel III does not deal with. These include how we should handle banks that encounter problems, what approach we should take to systemically-important participants and how we should solve the challenges set by cross-border banking. These are areas that remain to be regulated and which will be keenly discussed in the future, both in Sweden and in the EU.