

Stefan Ingves: Financial crises and financial regulation – thoughts after five turbulent years

Speech by Mr Stefan Ingves, Governor of the Sveriges Riksbank and Chairman of the Basel Committee on Banking Supervision, to the Swedish Economics Association, Stockholm, 13 June 2012.

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Palmstruch and the Bank of the Estates of the Realm

In 1656, Johan Palmstruch founded Sweden's first bank, Stockholms Banco. In 1661, to facilitate the handling of money, Palmstruch launched the first banknotes. They were initially successful. But it all ended in a bank failure after Palmstruch became tempted to issue too many banknotes in relation to the underlying value that was deposited in the bank. In response to this failure, the Riksdag resolved to form the Bank of the Estates of the Realm in 1668. This bank was later renamed the Riksbank and is today the world's oldest central bank.

Palmstruch's story illustrates the importance of price stability – and also the risks of financial instability.

Today, I would like to discuss financial crises and financial regulation from the perspective of the national economy. I want to explain the value of orderly and well-reasoned financial regulations for the prevention of financial crises. Banks are not normal companies. For one thing, banks in crisis can result in very large costs for the entire economy. The public sector thus has an obligation towards the citizens to attempt to prevent and manage financial crises to the best of its ability.

I will start by touching on the benefits and risks of a financial system, and how these can be balanced against each other. I will then go on to describe the global financial crisis and how it was met. Following this, I will discuss how the global financial crisis turned into a euro crisis, and the role the banks are playing in this crisis. In the final part of my speech, I will try to provide some answers as to how society can better avoid crises like this in the future.

The economic balance between benefit and risks in the financial sector

I have elsewhere described the banking system as a motorway junction for the economy. In the banks, and, more generally, in the financial system, households' and companies' income and expenditure meet like a flow of traffic coming from all directions. A robust structure is needed to make this interaction proceed smoothly. When a lot of traffic is moving at high speed, the structure must also have a clear focus on safety. The higher the speed limit, the greater the safety margins must be.

Banks are important to the national economy

The Riksbank defines financial stability as the maintenance of the financial system's basic functions and its resilience to disruptions.

The system converts savers' money into productive investments, ensures that we can pay each other when we exchange goods and services, and allocates risk among those who are willing to take risks and those who are not.

The banks are the single most important providers of these basic functions. The banks' income largely consists of payments by consumers to the banks for their specialisation in these functions. This income also reflects the fact that the banks borrow over the short term – for example through our wage accounts – and lend over the longer term – for example

through our mortgages. As it is cheaper to lend over the short term than the long term, the banks also earn money this way.

In comparison with companies in other sectors, the banks have little equity. To some extent this is natural, in that the banks' core activity is borrowing money, which is to say taking on debt. Leverage means that the banks can earn a lot of money by maintaining low equity/assets ratios. Of course, leverage applies to all companies, but, as we will see, banks can have particular reason to take greater risks than other companies.

Vulnerability and contagion risks demand special bank regulations

The combination of the banks' central functions and their high indebtedness creates risks. This is a matter of credit risk – the risk of not getting the money you lent back again – and of liquidity risk – the risk of being unable to borrow money. The banks are vulnerable due to their high levels of indebtedness.

Problems at one bank also risk spreading to other banks. This kind of contagion can happen on both the asset and liability sides of a bank's balance sheet. Deposit and lending surpluses in different parts of the world are managed on a global interbank market. The banks' assets thus largely consist of loans to other banks. The banks' liabilities largely consist of loans from other banks.

The banks are dependent on confidence – illustrated, in its most classic form, by a bank run. Rumours that a bank is facing problems can lead people to want to take their money out, which may give the bank problems – even if it had no problems to start with.

So banks have a series of characteristics that distinguish them from normal companies. If a normal company is unable to meet its payments, it will have to file for bankruptcy. If a bank defaults on its payments, the consequences for the financial system – and the real economy – can be enormous.

This means that it is difficult to let banks go bankrupt, at least if these banks are large and times are troubled. So other disciplinary mechanisms must be found – such as tougher regulation and thorough supervision. Special legislation covering banks in distress is also needed.

Of course, bank regulations are primarily a way of allowing the public sector to safeguard the public interest. But the regulation of banks is also a way of mitigating principal-agent problems between a bank's management and borrowers on the one hand, and the bank's owners and lenders on the other. For this second category, it is often difficult or expensive to monitor the risks on the bank's asset side.

One important aspect of bank regulation is the requirement for the amount of capital the banks should maintain. As capital adequacy requirements play a central part in the discussion of financial stability, I would like to examine them in a little more depth.

There is a difference between the private and social benefits and costs of financial regulation

Demands for bank regulation are not infrequently met with resistance from interested parties who claim that regulation is too expensive. Not least, this resistance is aimed at higher requirements for banks' capital adequacy, as the interested parties claim that capital is more expensive than loans. But in this context, it is important to make a distinction between private costs and social costs. Higher capital adequacy requirements entail private costs for the banks. But we public sector participants should primarily be discussing the social consequences.

One cornerstone of modern financial research is the basic theory that was established by Modigliani and Miller over 50 years ago.¹ This says that the value of a company does not depend on how that company is funded – under certain assumptions. In principle, the model shows that the form of funding is only significant if there is a difference between the debts of companies and those of private individuals. And there is, of course – a limited liability company is basically a means of protecting its owners from the private consequences of the company becoming bankrupt. Being able to fund a business operation through borrowing is, of course, necessary and, in most cases, effective. In efficient markets, lenders' risks are handled by means of interest rates and contract clauses. The limited liability company is thus a historically wealth-generating social institution. Nevertheless, the example illustrates that the higher cost of funding through equity is more a matter of private than social costs.

Another factor that separates the costs for own and borrowed funds is the tax system. Companies may deduct interest on loans, but pay corporate tax for profits on equity. But this is just a private economic difference – from the social perspective, the only difference is the subsidisation of debt-financing in preference to equity.

This specifically applies to banks that may be systemically important – it would be socially costly to allow them to file for bankruptcy. So the market often expects that the state will save a bank that is on the ropes, one way or another. These so-called implied guarantees create even greater differences between social and private costs, and risk leading the banks to take even greater risks.

Banks are vulnerable, contagious and sometimes systemically important. There are great differences between private and social cost-benefit calculations. Economic theory and empirical experience gives us good reason to regulate banks. But the difference between social and private costs also makes clear that many well-motivated social measures will meet with resistance from private interests.

The global financial crisis illustrated these risks all too clearly

The global crisis painfully demonstrated the risks of banking activities and financial instability. Of course, experience from the crisis lies behind the comprehensive agenda of regulations that has been developed in recent years.

So I thought I would describe the course of the crisis, how authorities met it, and the lessons we believe we have learned.

The risks were realised during the crisis of 2007–2009

The factor that triggered the global financial crisis was the increasing problems in the US mortgage sector in 2007. These problems then spread, as many mortgages had been repackaged into so-called structured products, sometimes to the point of being unrecognisable. These instruments were held by a number of agents – and the complexity of the instruments made it difficult to see which agents had major or minor problems. At the same time, many banks had low equity/assets ratios. When the problems spread in the financial sector, even relatively limited losses could thus lead to major problems.

The lack of transparency and weak resilience led to an almost-total lack of confidence between financial institutions in the autumn of 2008. Banks became hesitant to lend to each other. As the banks largely obtain funding from loans from each other and other financial

¹ Modigliani, F & Miller, M H (1958): "The Cost of Capital, Corporation Finance and the Theory of Investment", American Economic Review

institutions, the lack of confidence led to a drying-up of liquidity within both the financial and real economies.

The crisis was met in a somewhat similar way by the United States, Europe and Sweden

On the whole, the financial crisis was met in a similar way by all OECD countries. The automatic stabilisers were put to work in fiscal policy, and many countries launched targeted fiscal policy stimulation measures to break the fall. The central banks reduced interest rates to very low levels. Almost all economies also took measures to prevent even deeper problems in the financial sector.

In the United States, where the crisis originated, the Federal Reserve and other authorities provided emergency liquidity assistance to the banks and other parts of the financial system. The Department of the Treasury's TARP (Troubled Assets Relief Program) purchased problem assets from banks and other financial institutions. The guarantee programme for the banks' deposits was expanded. In addition, in 2009, a stress test was carried out of the 19 largest US banks as of the spring of 2009. Ten of these banks were deemed to need new capital, which they also succeeded in raising. It seems likely that this test helped restore confidence in the equity/assets ratios of the US banking system.

In Europe, the banks are more important for the supply of capital to the real economy than they are in the United States. So, on our side of the Atlantic, support was channelled via the banking system to a greater degree. The ECB has increased liquidity, partly by offering loans with longer maturities. In addition, the ECB has supported the markets for both covered bonds and government securities and has thereby supported the banking system of the euro area. It has not been able to prevent European banks from encountering serious problems. Many smaller banks – and a number of major banks – have been forced to close. These liquidations have often been carried out with governmental participation and support. The costs of government capital contributions and guarantees have been comprehensive. These lie behind a large part of the fiscal policy problems currently being faced by many European states, a subject I will return to.

The most critical period for Swedish banks was between the autumn of 2008 and the spring of 2009. The liquidity shortage on the financial markets made it difficult for the banks to renew their loans. This was joined by the threat posed by the crisis in the Baltic countries and the Swedish banks' exposures there. The consequences of this were that the value of Swedish bank securities fell drastically and demand for government securities rose.

In this situation, the Swedish authorities implemented a series of measures:

- The Swedish National Debt Office issued extra treasury bills and, in practice, let the banks exchange their mortgage bonds for more liquid government securities.
- The government and the Riksdag extended the deposit guarantee and quickly passed laws enabling support to the banking sector.
- In addition to the repo rate cuts we implemented, the Riksbank provided liquidity in several ways. We lent money for longer periods, eased the policy for collateral and introduced more counterparties to supply more liquidity to the banking system. We created swap lines with the Federal Reserve and ECB to meet the banking system's need for foreign currency. We also contributed to crisis management in neighbouring countries by creating swap lines with Iceland, Latvia and Estonia. Finally, we also extended emergency loans to Carnegie and Kaupthing Sverige.

The Riksbank no doubt considers that Sweden's crisis management was successful. And other analysts have also shared this assessment – including, for example, Goodhart and Rochet in their review of the Riksbank's work carried out last year.² Unlike other central banks, we have also been able to phase out our crisis measures.

The crisis has cost enormous amounts

The crisis entailed huge costs, both for society as a whole and for the tax-funded public sector.

Andrew Haldane, Executive Director of Financial Stability at the Bank of England, has shown that the crisis cost UK taxpayers just over 1 per cent of GDP. The corresponding figure for the United States is just below 1 per cent, or USD 100 billion.³ Eurostat has calculated the figure for the EU as a whole at 0.7 per cent, or EUR 90 billion.⁴

But these figures are only the direct public costs of keeping the financial system more or less on its feet. The real social costs of the crisis are significantly higher. Financial crises lower output and the growth path. In addition, a part of the effect is permanent, even if it is difficult to say how large a part. A historical estimate of the cost of financial crises, calculated as a present value, is about 60 per cent of GDP. For the global financial crisis, this figure is considerably higher.⁵

The banks are playing an important role in the sovereign debt crisis

The banks are also central to the problems that succeeded the global financial crisis, which is to say the sovereign debt crisis in the euro area. As I mentioned, several governments in Europe were forced to manage problems in the banking sector, often at great expense. Those countries with domestic property bubbles were hit particularly hard. But financial exposures to the United States and the other countries most affected by the crisis impacted the banking systems of several countries. These stresses led to financial problems in many European banks and countries, and, eventually, to the current sovereign debt crisis.

The crisis has created a vicious circle between the real, financial and public economies

The current European sovereign debt crisis has its origins in the period before 2007. In the absence of a common fiscal policy, budgetary discipline in the euro area should have been safeguarded by the Stability Pact. But, by 2003, it could already be seen that the implementation of the Stability Pact was weak. The financial markets also treated the euro countries as a homogenous block for a long time. Consequently, warning signals in the form of interest rate differentials between countries were absent.

When the global financial crisis impacted what were often weakly-capitalised banking systems, and the ability of many countries to support their financial systems became questioned, the crisis became acute. The crisis has often been described as a vicious circle between the real, financial and public economies: weak growth in the economy leads to

² Goodhart, C & Rochet, J-C (2011): "An evaluation of the Riksbank's monetary policy and work with financial stability 2005-2010".

³ Haldane, A (2010): "The \$100 billion dollar question".

⁴ This is reported in, for example, European Banking Federation (2011): "Facts and Figures 2011/2012".

⁵ Haldane gives an interval of 90–350 per cent for the global economy, depending on assumptions of the extent of the permanent effects.

problems in the banking sector; banking problems generate costs for the state; the public sector has to implement austerity measures to maintain credibility, and this reduces growth. This vicious circle also works in the opposite direction: problems in the banking sector spill over into lending and growth, which weakens public finances and the state's ability to back up the banking system when necessary.

Incidentally, this pattern of interaction between problems in the financial, real and public economies recurs throughout history. Reinhart and Rogoff have described how economic problems and bursting speculation bubbles have led to financial crises and subsequent sovereign debt crises time and again over the last 800 years.

Developments in the banking system, 2007 and on

So far, the European banks have not regained their credibility in the same way as the US banks did in 2009 and the Swedish banks did in 1992 and 1993. A great deal of uncertainty still prevails over which European banks are robust in the long-term.

According to one estimate, the total decline in the value of assets on the European credit markets amounted to EUR 184 billion by the summer of 2011. The same publication made the assessment that losses over the years to come could amount to over EUR 200 billion, of which EUR 125 billion would derive from losses linked to government securities.⁶ The IMF has calculated that the effects of the sovereign debt crisis may amount to EUR 300 billion.⁷

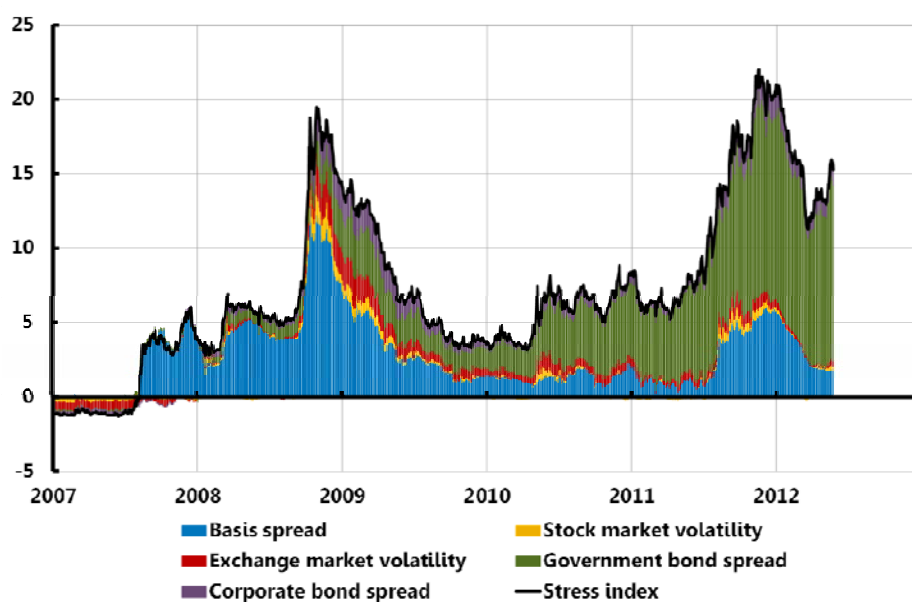
Even so, the European banking sector was reported to have a larger balance sheet total in 2010 than in 2008. This reflects the fact that the problem assets have still not been addressed.

For long periods, European banks have had problems obtaining funding on the market. This uncertainty is also reflected in the Riksbank's calculations of the stress index for Europe. (Figure 1)

⁶ Credit Suisse (September 2011): "European Banks".

⁷ IMF (September 2011): Global Financial Stability Report.

Figure 1: European stress index



Sources: Reuters EcoWin and the Riksbank

State support to the banking sector has been significant. In addition to EUR 90 billion in direct public expenditure, governments and central banks have paid out the equivalent of 13 per cent of GDP, EUR 1.6 trillion, in emergency liquidity assistance and support for the banks. The total commitments amount to triple this figure.⁸

The problems in the banking sector have still not been addressed

The management of the present European banking problems can be contrasted with the way we handled the Swedish banking crisis twenty years ago. Of course, although we are often considered to have succeeded well in Sweden in 1992, this was due to a relatively beneficial political environment, rather than intellectual superiority. Even so, the differences illustrate an important insight from economics – more specifically, the significance of asymmetric information.

Like other central banks, the ECB intervened in 2008 to support liquidity by various means, including offering loans at longer maturities. Unlike in Sweden, these extraordinary loan facilities continue to be available. Furthermore, the ECB has supported the markets for both covered bonds and government securities.

In a crisis situation, it is necessary to maintain liquidity among the banks. The Riksbank and other Swedish authorities did the same in 2008–2010. In 1992, the Swedish government issued a guarantee for the banks' commitments aimed at preserving confidence in the Swedish banking sector.

But guaranteeing liquidity is not enough. Confidence in the European banking market is still low. Few lenders are prepared to lend to European banks on market terms over the longer term. This is where the theory of asymmetric information comes in. As nobody knows with certainty which banks will or will not remain solvent over the longer term, cautious investors

⁸ European Commission (2011): "State Aid Scoreboard: Report on state aid granted by the EU Member States, Autumn 2011 Update".

will treat all banks as high-risk counterparties – in the same way as the car buyers in Akerlof's "Market for lemons" treat all used cars as potential wrecks.⁹

When we, in Sweden, introduced the bank guarantee in 1992, it was to win time while banks were closed down, divided up and recapitalised with government assistance. The banks that were left were robust and able to regain the market's confidence. This action reduced uncertainty and, in the course of time, contributed to keeping government expenditure down. In Europe, similar measures have only been carried out to a more limited extent. This delay and lingering uncertainty have contributed to the current sovereign debt crisis. Before these problems are brought to light and dealt with, it will be hard to see any long-term solution for the European banking sector.

A new framework – the way forward

At the same time as the crisis has to be managed, those of us interested in financial markets must think ahead and build a more robust framework. The world doesn't need a new 2008. Encouragingly enough, we have taken important steps towards creating structures that may prevent new problems. But there is still a lot of work to do.

The crisis taught us lessons about risks in the financial sector

Obviously, the experience of authorities around the world in the crisis will form the basis of a new and more secure financial framework. Academic research has also contributed valuable insights.

It is obvious that risks in the financial sector were underestimated before the global financial crisis. One underestimation concerned the degree of correlation of risks in individual institutions. But it could also be argued that we, on the regulatory side, were a little naive regarding the risk of moral hazard in the governance of banks.

To generalise slightly, it could be said that, before 2008, we felt quite safe when we saw that the risk in individual institutions looked manageable. Today, we know better. Even an individually well-diversified bank has assets that could be highly exposed to the same macroeconomic risk. In addition, as the banks largely act as each other's counterparties, one bank's problems can easily become another's. If the banks providing loans suddenly no longer wish to continue lending, the banks that have borrowed money can face problems. And, if they are not affected before, the other banks will be impacted when one or more banks rapidly need to sell their assets, pushing down the prices. To this can be added the vicious circle of negative effects for the real, public and financial economies that I have already discussed.

To continue these generalisations, it could also be said that previously we usually believed that market discipline was enough to ensure that business incentives would correspond to socio-economic efficiency. Following the crisis, we know that this is not the case. Private economic incentives for decision-makers in the banks can be so strong that market discipline is not always enough to achieve transparency or effective risk management (to take two examples). The observation that US subprime loans were often sold with the same credit rating as Swedish sovereign bonds should be a good enough example of this. The private benefits – or corporate profits, if you prefer – of debt-financing relative to equity lead to moral hazard. Risks can be passed on to lenders and taxpayers. The management of the banks have been rewarded according to return on equity. By using their own risk models, the banks

⁹ Akerlof, G (1970): "Market for 'lemons': quality uncertainty and the market mechanism", Quarterly Journal of Economics.

have been able to keep risk weights low, which has meant that they have not had to maintain so much equity.

New frameworks are being established on the basis of these insights. Here, I will briefly explain what Basel III – the new regulatory framework for the banks – entails. I will also briefly discuss the thinking behind macroprudential policy, which has become something of an in-word in recent years.

Basel III increases demands on the banks

The most important areas of the global Basel III Accord deal with the quantitative demands for capital and liquidity being placed on the banks.

The banks are to have sufficient equity...

As financial crises can lead to considerable losses, the Basel Committee maintains that the banks need substantial resilience.

So capital requirements are being increased in Basel III, above all for Common Equity Tier 1.¹⁰ The minimum requirement for the banks' equity is being set at 4.5 per cent of risk-weighted assets – more than double the requirement under Basel II. A capital conservation buffer of 2.5 per cent, added to a counter-cyclical buffer, has created a stronger shock absorber than previously existed. I will return to the counter-cyclical buffer when I discuss macroprudential policy. The capital adequacy requirement can also be complemented with a pure gross solvency measure, meaning that equity may not fall below 3 per cent of total assets.

All in all, the banks' capital position will be strengthened considerably compared with previous regulations, contributing to the boosting of confidence, both in the individual banks and in the system as a whole.

...and carry out clear measures for liquidity

In the light of the crisis of the autumn of 2008, the Basel Committee has decided, for the first time, on quantitative requirements for liquidity in the banks. Basel III works with two liquidity measures – one short-term and one long-term. The short-term measure is based on, in principle, every bank having sufficient liquid assets to survive for at least 30 days. It is difficult to consider such a requirement as unreasonable. The long-term measure, in principle, limits the gap between the maturity of a bank's assets and the maturity of its debts. So this limits the duration risk of the bank.

In the end, Basel III will be implemented as national legislation

The regulations I have just sketched will eventually enter national legislation. They are to be fully implemented by 2019, with several sub-targets on the way.

In the EU, Basel III will be implemented through what is referred to as the CRR/CRD IV.¹¹ Those of you who have followed the ongoing negotiations know that both countries and EU institutions have different views about how implementation should take place in the EU. An important dividing line has been to what extent countries should be able to stipulate higher requirements nationally than those formulated in the common EU regulations.

¹⁰ Basel III defines Common Equity Tier 1 as, in principle, share capital and retained profits (i.e. previous profits minus dividends).

¹¹ An abbreviation for the Capital Requirements Regulation and the Capital Requirements Directive.

The Basel Committee has been clear that the regulations and the implementation of them form a minimum standard. As you know, the Riksbank and other authorities in Sweden believe that there are good reasons for moving more quickly ahead and setting higher requirements than the minimum regulations in Basel III. Our reasons for this are that the Swedish banking market has distinctive features that entail risks and that there is no international framework for managing banks in crisis. Although banks live globally, they die locally. Ultimately, the Swedish banks are our responsibility.

Macroprudential policy has become a distinct policy area

Responsibility for the national banking systems leads to the final point of my speech: macroprudential policy. The crisis has taught us that relatively stable institutions do not necessarily add up to a stable system, for the reasons I have already discussed. There is a clear need for a system perspective. This is the perspective of macroprudential policy.

The idea behind macroprudential policy is that it should address risks in the financial system as a whole and thus complement microprudential focus on risks in individual institutions. The macroprudential policy analysis can be divided into two dimensions: the structural and the cyclical.

The structural dimension addresses the concentration of risk and interlinking

The structural (or cross-sectional dimension) relates to how the concentration of risk and the links between different parts of the financial system at any given time affect the risk of a crisis hitting the system as a whole. I have already discussed the links between financial institutions and the contagion risks these entail.

Existing and newly-invented tools have been proposed and applied to deal with these structural risks. The former include stricter capital adequacy requirements and limits on activities and exposures. The newly-invented tools include plans to manage banks in crisis (so-called *recovery and resolution plans*), liquidity requirements and special capital adequacy requirements for institutions that are deemed to be systemically important. Work is underway within the framework of the Basel Committee to identify globally systemically important banks which will be subject to stricter capital adequacy requirements. The Swedish authorities' demand for a higher level of capital adequacy in our major Swedish banks is of course an example of the same thinking.

The cyclical dimension addresses risk management over time

The cyclical dimension (also referred to as the dynamic dimension or the time dimension) relates to how risks in the system as a whole can develop over time. The crisis and the period preceding it clearly illustrate the tendencies towards exaggerated cyclical behaviour that often characterise the financial markets. The demand for loans usually increases during periods of strong growth, and the perception of risk often appears to weaken. When the downturn comes, lending is tightened and many players want to sell their assets at the same time, which aggravates the downturn in both the financial and the real sectors.

Cyclical risks can also be met using existing tools or tools especially designed for the purpose. A loan limit has been imposed on lenders in Sweden in the form of a mortgage cap. Although Finansinspektionen introduced this cap for consumer-protection reasons, the measure can also be used, at least potentially, for counter-cyclical purposes. Liquidity requirements also have a cyclical dimension. The Basel III regulations comprise a counter-cyclical buffer that should be built up in good times when lending is increasing faster than the trend. When a downturn comes, the authorities can then release the buffer, which gives the banks a safety margin and can counteract credit tightening.

Macroprudential policy requires organisational development

The advance of macroprudential policy has also led to organizational changes in supervisory work. In an increasing number of countries, individual authorities, or authorities working in collaboration, are being given direct responsibility for macroprudential policy. However, the question of the responsibility for macroprudential policy analysis and tools is not always simple. Macroprudential policy encompasses clear elements of both supervisory and central bank activities. I discussed this in my speech here at Nationalekonomiska föreningen a year ago. Then I made the remark that a separated responsibility for monetary and macroprudential policy, without any coordination, could result in a game between authorities, which could lead to an outcome not desired by any of the authorities.

In the United Kingdom, sole responsibility has been given to the central bank. A *Financial Policy Committee* is to be set up alongside the existing *Monetary Policy Committee*. Such a solution of course means that the coordination between these two almost parallel committees, although each with a different focus, becomes an important issue.

In the EU, the European Systemic Risk Board (ESRB) has been set up at the ECB in Frankfurt. Central banks and supervisory authorities are represented on the ESRB, but the central banks have the majority of the votes when decisions are made.

In Sweden, Finansinspektionen and we at the Riksbank set up the Council for Cooperation on Macroprudential Policy in January this year. This council will discuss the assessment of risks in the financial system as a whole and discuss appropriate risk-prevention measures. The Council will also discuss analyses and the development of tools and methods in the area of macroprudential policy. The Council is a temporary solution while awaiting a more permanent distribution of the responsibility for macroprudential policy. At present, the Financial Crisis Commission is working with this issue. The recently appointed inquiry on capital adequacy regulations will focus specifically on responsibility for the future counter-cyclical capital buffer.

In our region, the cooperation between the Nordic and Baltic countries is also important in the effort to discover and manage systemic risks. This cooperation also covers plans and preparations for dealing with potential crises.

A summary in three reflection

Let me conclude where I started. Palmstruch discovered the benefits of a financial system, but also experienced the individual temptations associated with irresponsible lending and how dependent banking operations are on public confidence. Palmstruch also lived to see how the state – rather drastically – learned the lessons of this experience.

In this speech I have provided an introduction to banks and financial regulation – why banks are needed, but also the risks they entail. I have argued that the differences between a cost-benefit calculation at the social and private levels justifies a strict regulation of the financial sector and declared that such regulation will always meet with resistance. I have spoken about the global financial crisis, how it was met and how it became a debt crisis in the euro area. I have also spoken about the course we should take in the future, and why.

If I were asked to sum up my speech in three reflections they would be as follows:

- We have to distinguish between the economic costs of financial regulation at the social and private levels.
- Problems in the banking sector cannot be resolved unless we do something about them.
- Banks should lend a little more of their own money and a little less of everybody else's.

Now I look forward to discussing this with you in the association.