

Sir Andrew Large: Financial stability oversight - past and present

Speech by Sir Andrew Large, Deputy Governor of the Bank of England, at the London School of Economics, London, 22 January 2004.

* * *

1. Introduction: Globalisation and the Financial World

The financial system has been in the vanguard of globalisation of economic activities. The past 30 years or so have seen a transformation of the financial scene. Just as the financial world has become significantly more complex with an ever more inter-connected global network across firms and countries, so too has the challenge been transformed for those involved in financial stability oversight.

That is my theme tonight.

Much of what I am about to say may be familiar. But what I have tried to do tonight is to tie these subjects together - to provide a picture of the whole area we grapple with. So I may have exchanged some depth for breadth in the interest of getting home tonight.

I would like first to consider what financial stability oversight is and why it is important. Then, what has changed in the financial market place and the challenges that this has brought. And finally the response of the public authorities to these challenges.

2. What is financial stability oversight?

Unquestionably financial stability is a critical ingredient in a high performing market economy, although its definition has been an elusive subject of endless fascination to generations of commentators. I agree with Raymond Goldsmith,¹ who said: "It is hard to define, but recognisable when encountered". But any definition would surely refer to the crucial roles of confidence, resilience and reliable liquidity. These are the indicators if you like of what is a state of financial stability.

In times of instability or crisis, that confidence - and with it liquidity - can evaporate. Bank runs are phenomena that result from loss of confidence: resulting from or causing withdrawal of liquidity. The fear of collapse of other non-bank financial institutions could also give rise to a drain on liquidity. The huge cost of preparing for Y2K was about preventing the dangers of loss of liquidity. And the horrific events of 9/11 required a temporary massive injection of liquidity.

The starting point for this confidence is the players in the market place. It relies on integrity in individual firms and markets, effective standards and high quality prudential controls and risk management practices.

But to underpin integrity and confidence in the financial system as a whole also requires financial stability oversight. In the first instance this relies on effective supervision. This is a key aspect of the prevention of financial instability. Financial stability oversight must also look at the system as a whole. So it is involved with the oversight of concentrations and of risk correlations, interrelationships and interdependencies. There is a premium on understanding channels of risk transfer and likely behaviour in response to shocks. This is what enables an appropriate policy response.

Real effort is needed to try to understand the dynamics of collective, and sometimes irrational behaviour of firms, their clients and counterparties - particularly behaviour that could lead to one-way markets. In a downward market they can be the scourge of stability and destroyer of liquidity.

3. Financial stability and public policy

The business of oversight of, and possible intervention in, the financial system falls to public authorities. The justification for this involvement is accepted by all but the freest of free marketeers.

¹ Raymond Goldsmith, Comment on Hyman Minsky's "The Financial Instability Hypothesis: Capital Processes and the Behaviour of the Economy" in C P Kindleberger and J-P Laffargue Eds, *Financial Crises: Theory, History and Politics*. Cambridge University Press (1982).

Financial stability can be looked on as a public good. And the costs to society of crises and instability can go well beyond the cost borne by players within the financial services arena itself. Not only is it important in providing an effective monetary transmission mechanism, but collapse and instability can lead to decline in aggregate demand and a rise in unemployment. Research suggests that the average cumulative output loss of a banking crisis in an emerging market economy is nearly 14% of GDP, and up to 25% in developed countries.²

The roles and aims of the public authorities - a combination of supervisors, central banks and government - embrace two interdependent fields. First there is the process of oversight itself - spotting risk concentrations and threats that could cause instability: and taking actions to mitigate these threats in a variety of ways.

Second, however, there is as a last resort the mechanism for intervention: if things go wrong and crisis is threatened or actually occurs. And things will go wrong. A zero-risk environment would not only be impossible, but would be undesirable. The moral hazard which would ensue, together with unwelcome restriction of market processes could ultimately add to, rather than detract from, social cost. We need to be in a position to decide about, and where necessary to act, in occasional injections of liquidity and support for particular firms or markets. Breaking the chain of adverse behaviour may sometimes be necessary to restore confidence in the integrity of the system as a whole.

Using financial stability oversight to reduce the costs to society requires sophisticated and up-to-date techniques. Despite today's complexity the basic concepts in relation to oversight have not changed. Concentrations of risk have been with us since financial markets began and so have mechanisms for the transfer of risks. The concepts of guarantees, of options and of securities transfer date back into history - references to the use of derivatives can be traced back to the Sumerians in Mesopotamia 4000 years ago. And so too does the concept of speculative, or misconceived excess being deflated by a variety of possible macro or micro shocks.

4. The new environment

But the financial world today has globalised both across borders and different kinds of firms. Risk transfer processes have mushroomed. And there has developed a corresponding will and ability to exploit them. The new world is characterised by new concentrations of risk. They can be built - and dissipated - with bewildering speed.

Before looking at the consequences of the changes for financial stability oversight it is worth reflecting on the main causes of this new world. There are of course many drivers, but to my mind development of the new products and risk transfer techniques is based on the precondition of liberalisation and technological advance.

5. Liberalisation

As to liberalisation, it was little wonder that the rise in popularity of derivatives in the global economy was stimulated by the emergence in the 1960's of that most liberal of markets: the international capital market. This burgeoning and open market place provided the preconditions to develop the new techniques. Regulation was minimal and market imposed. Disintermediation and securitisation gathered pace from the early 1980's. And as derivative instruments were developed, newly emerging players including hedge funds and others entered the scene. So today we see a global market place of truly astonishing size and breadth where contracts straddle both national boundaries and the old functional areas of banking, insurance, and securities: and where the old silos are no more.

The international capital market was itself in my view a major stimulus in encouraging individual governments to liberalise their markets. The new techniques employed could lead to a lower cost of capital. In addition the market and its capabilities began to highlight the ineffectiveness of national barriers, and restrictive practices. It gave governments the courage to dismantle restrictions and barriers despite protest from those who, in a series of big bangs, lost their franchises. The examples of the international Swiss Franc - and Sterling - debt markets highlight this. In each case the authorities

² Glenn Hoggarth and Victoria Sapporta "Costs of Banking System Instability: Some Empirical Evidence". Bank of England Financial Stability Review (June, 2001).

in the 1970's imposed flow controls on new bond issues through queues. But this could be bypassed. As derivatives and swaps developed, so Swiss Franc liabilities could be created by borrowing US\$ on an unrestricted basis and swapping them outside the jurisdiction of the Swiss authorities into Swiss Francs. So this caused a gradual rethink, as the national grip of the authorities had ceased to be effective.

6. Consequences of technological advance

While liberalisation was an important trigger, technological advance also played a vital role. We may not understand its full impact yet: just as it took us time to exploit fully the benefits of the printing press, electricity, and the motor car. But the advance and speed of communication with its erosion of geographical and national barriers spawned the development of often derivatised financial instruments and risk transfer techniques.

The concepts involved in this risk transfer may not be new. But the instruments to handle them, to quantify their value, to measure them, and to judge the risks inherent in them, are. The consequences of these developments, whose impact took off in the 1980's, have been quite dramatic.

Firstly they have enabled greater dispersion of risks. Banks, at the heart of the financial system, used to act as warehouses, with the loan assets they generated staying on the books until maturity and - normally - repayment. The balance sheet was the net result of these events. But today banks approach matters in a fundamentally different way: they review their balance sheets intraday. They ask themselves, "What is the opportunity cost of not altering the balance sheet?". And they are then in a position to act. Assets can be disposed of, packaged, securitised, and sold. In size. And fast. This is what is so new. So risk can be, and is, dispersed across the system globally. Not only from bank to bank, but also between different types of financial institutions, as well as to private individuals, or to corporate entities.

This can create the build up of concentrations of risk in new areas, and often with new players, who may or may not be well informed about what they are doing.

But this set of processes adds to the opacity of the financial system. It is more difficult to see where risks reside. Despite steps forward through enhanced disclosure and improved accounting standards, there have been other steps back towards opacity: the result of the sheer complexity, speed of movement of risks, and in some cases obfuscation through special purpose vehicles, or other off-balance sheet devices.

Another implication of the derivatised world is the premium it places on risk management. The deployment of intellectual capital in finding new opportunities to create and disperse risk has been prodigious. This in turn places a real burden on the managers of the great array of risks and interdependencies and on those supervising the entities that take them.

A particular feature of these risk management processes is the reliance on modelling techniques. Although when used judiciously models are a valuable tool, they also have limitations and contain hazards when in the wrong hands. First, they are only as good as the assumptions on which they are based. And second, hazards exist where models can provide a false reassurance that liquidity to deliver assumed value will be available.

This leads to the question of measurement and accounting for values and risks. Inherited systems of accounting - with historic cost conventions for banking and insurance - bring real tensions in today's world. There is understandable concern regarding the added volatility which the developing Fair Value techniques can give rise to, in relation to reported earnings and disclosed values. But equally, the need for management of risks, and for comparison of values across all sectors with a mark to market capability, is how business is actually managed and conducted. That is why I have for some time argued that a resolution of the conflict is important. The lack of consensus makes this a difficult process, needing consideration of the governance and control process of accounting, quite apart from the standards themselves. In this respect I recommend a recent report by the G30³ as outlining a possible way forward.

³ The Group of Thirty, "Enhancing Public Confidence in Financial Reporting" (2003).

Paradoxically the existence of standards of risk management, or prudential control, themselves can lead to unintended consequences. For example, if banks all have similar approaches to risk management or all use similar models, or if rules require them all to provide more capital at times of economic downturn, then they may all react similarly to a given shock. This could itself amplify market movements and trigger liquidity difficulties, despite the best intentions.

There is also the question of legal certainty. If counterparties doubt an institution's strength or solvency, their behaviour may be influenced if they feel that complex and untested types of contract may not "close out", particularly in adversity. Such concerns lay behind the LTCM crisis in 1998. Counterparties feared LTCM might be insolvent. They could sense a drain of liquidity from LTCM which might precipitate collapse. If collapse occurred, the vast array of complex contracts within LTCM might not close out. The dimensions of the exposures were considerable, and a disorderly run on LTCM, triggered in part by a lack of legal certainty, could well have provoked a serious liquidity situation. No surprise that there was a co-ordinated purchase by the main creditors to enforce an orderly wind down. A key lesson for financial stability oversight is the need to encourage ways of improving legal certainty.

7. Implications of the new environment: risk and culture

So much for the *drivers* of change - liberalisation; technological advance and new products. But what about the *implications* for the financial markets and their oversight?

The first implication is to highlight the need for examination and possible change in supervisory and regulatory frameworks. What made sense before, in terms of separate regulation for each silo of banking, insurance and securities might look different today. We have also certainly seen a move towards consolidated supervision. I will return to this area later.

But second, oversight needs an understanding of a number of different soft issues: of culture and attitudes to risk which can affect behaviour. These can and do vary across the different areas of activity.

The existence of new concentrations of risk might not matter if their new holders are fully aware of the risk implications, or if their likely behaviour could be anticipated by other financial participants or the public authorities. But new holders of such risk may not have the same understandings of what the risks consist of, as those who generate them. And accordingly they may behave in unexpected ways when shocks arise.

For example in banking, confidence in the liquidity of the system and expected behaviour is underpinned by the presumption that, in the absence of a credit event, obligations will be honoured at a known time and date. This would typically be the expiry of a loan contract - the crystallising event if you like. In general insurance on the other hand, the industry is used to handling crystallising events differently. Rather than acting as the trigger for immediate payment of due amounts, it may instead lead to discussion - even dispute - the results of which will determine how much is eventually paid and when. So risk transfer contracts straddling the two areas may engender expectations that in practice may harbour surprises; with unexpected outcomes and adverse behaviour.

8. Implications of the new environment: new types of financial player

A key ingredient of life in today's financial world of course is the new players, or the increased significance of previously smaller players - encouraged as they have been by liberalisation and new risk transfer techniques.

Firstly there is the advent of globally active Large Complex Financial Institutions - LCFIs. These create a particular challenge for public policy. They are built on highly sophisticated understandings of the global market place. Their deployment of intellectual capital has been dramatic. And they have overcome both technical and juridical barriers so as to operate on a global basis. You cannot label them in the historical categories: - are they banks? Are they securities firms? Are they insurers?

Of course you can categorise them by their historical roots. The large so-called broker-dealers such as Morgan Stanley and Goldman Sachs come from the securities side. The big banks - Citigroup and HSBC - come from the banking side. But today they are all involved in convergent thought processes and operations, even if their precise legal structures, and in many cases regulatory arrangements, may differ. They are all involved in considering in real time whether they are comfortable with the

balance sheet of assets and liabilities that they have. And they all are involved in risk transfer techniques to adjust to a desired proprietary outcome.

Their scope is multifunctional and multinational. This enables them to maximise opportunities for return. But it can also create challenges for the markets, and for the authorities. With global firms if there should be a failure, then who will oversee its resolution, and will there be any safety net to counter what could be significant economic and social costs globally? Which set of taxpayers in which countries will be prepared to share the burden to support such LCFIs?

This highlights a real tension in the globalised world. The markets have globalised, and so have the firms. But, to a large measure, the oversight apparatus remains nationally based. This is an important area which will provide all those of us involved in financial sector oversight with major challenges for years to come.

Increasingly active players are the hedge funds, employing alternative investment techniques and attracting a multitude of investors searching for higher yields. They often operate globally on the strength of the derivatised and securitised world. There has been a dramatic growth in hedge funds: data suggest that the past eight years alone have seen the value of assets rise by nearly 450%. Many of them are unregulated in a prudential sense, and are typically characterised by large proprietary positions, sometimes with an emphasis on unconventional assets and arbitrage positions.

The complex and diverse operations of hedge funds can help to arbitrage away pricing mistakes, and to integrate financial markets. But they also raise new questions for financial stability oversight.

The areas we need to look at are quite wide. There is of course the opacity aspect - what are the underlying concentrations hedge funds hold? But there are also other questions. How leveraged are they? Do lenders to them understand the risks that they are taking? And what is the potential impact of confidence and liquidity if they don't? And what would happen if the new investors in hedge funds became disillusioned by their performance. Would it trigger an exodus and cause markets to go "one way"?

And I would stress that many of the issues raised by the attributes of, and thought processes within, hedge funds themselves are shared increasingly by securities companies and other types of financial institution including banks. Overseers of financial stability take note!

A third group of new players is the non-financial groups who straddle finance and the real economy. I could mention industrial giants like GE. We need to understand their implications, and any new vulnerabilities they may cause.

Next I want to highlight the rating agencies. The new holders of financial assets find that understanding the credit risks inherent in the assets they hold has become more difficult. So they outsource credit evaluations to the rating agencies, as third party specialists who benefit from economies of scale. Indeed in the case of collateralised debt obligations whole categories of assets are dependent on their rating.

But this can give rise to particular vulnerabilities. What happens if there is a rating downgrade? Did the investors in Parmalat bonds rely on the fact that they were rated investment grade? Changes to ratings will be known to all at the same time. And this could trigger mass exodus either by holders of rated assets or, in cases where banks themselves are rated, by depositors or other counterparties.

Of course the rating agencies provide valuable services and information. And their increasingly public significance raises calls for them to be regulated. In my view, attempts to do so could actually create additional moral hazard, particularly in today's compensation orientated society. If rating agencies were regulated who would you blame if mistakes are made: the rating agency, the regulator, or both?

9. Implications of networks

Finally we need to consider the financial stability oversight implications of the networks which increasingly hold the financial system together. These are the plumbing or the nervous system of the financial world. This is the world of payments, clearing and settlement systems. Such networks can and do both generate significant economic benefits, but they also create vulnerabilities.

The economic benefits of scope and scale from such networks come as a result of the development of standardised messaging, IT protocols and other areas of interoperability. However, the universal

reliance on these networks makes the financial system increasingly vulnerable to any failure, whether financial or physical.

If the market all settles in one system and is faced by single points of failure how could we work around these?

Secondly, if there is a failure, what about data retrieval? If an entity containing a series of uncompleted transactions fails, how can that data be retrieved or recreated so that you can get markets up and running again? Fortunately significant effort is being put into developing innovative solutions: something which may give confidence to the many who are unfamiliar with this area.

10. Implications of the new environment for financial stability oversight

It will be clear from the litany of issues I have just mentioned - new players, new products, new risk transfer techniques and interconnections - that the changes in today's financial world are indeed quite profound in relation to financial stability oversight. But are they net benign or net negative? The world here is sometimes portrayed as being in two designated camps. This may be a bit of a parody, but I am sure the two protagonists would forgive my little sketch.

The bullish view is led by Governor Greenspan. This holds that, in the new financial world, banks now possess the enhanced ability to disperse risk - to offload risk to others, be they investors, insurance companies or whatever. The banks have thereby been able to weather a variety of shocks, which in an earlier age might well have engendered financial instability. The Asian crisis, Russia, 9/11, Enron: I could go on. In each case the banks came through and the financial system has demonstrated greater resilience as derivatives and sophisticated risk transfer processes have dispersed risk to a wider audience.

The bearish camp is led by Warren Buffett. This points out the opacity of today's world: the difficulty of spotting risk concentrations; or judging the behavioural expectations in the face of given types of shock.

My view would be that both schools of thought are right! I think in reality it depends on your vantage point. There has been improved capital formation. And well managed banks have indeed been able to weather the shocks - a real positive from the point of view of financial stability oversight. But on the other hand the added vulnerabilities too are real. So I do not find it surprising that there are calls for public policy response.

The consequences of liberalisation and the derivatised world of enhanced risk transfer are indeed formidable. There is the breakdown of the old barriers; with unfamiliar and new players operating in often unfamiliar territory; uncertainty over concentrations of risk and with a more difficult or unpredictable set of behaviours; and newly created networks whose failure could be catastrophic.

Spotting threats is tougher: and there is a premium on intelligence from a broader network to cover a multitude of new transmission channels. The tension between globalised players in a world of national supervisors needs to be managed.

But let me not leave you with the impression that we are deterred by the task. On the contrary challenging certainly, but hopeless certainly not. After all, the market place itself has to act prudently; to judge potential behaviour of counterparties; to improve risk management techniques; to understand where concentrations of risks reside and what their dangers are. If firms fail to do so they go out of business. And as for the public authorities, we all know the maxim or guiding prayer "Lord let there be failures: but let them be small ones". No better way of encouraging market discipline! We cannot, and should not aspire to a zero-risk solution, but we do need to be prepared to take measures to restore confidence if things do go wrong.

11. Public policy response - process

The first area of public policy response concerns how we handle our day to day activities. These have to be sharpened and broadened to oversee this more complex environment: a real life challenge for all of us here in London. Given our position as a major international financial centre the stability of the system could be impacted by any significant storms from elsewhere.

Perhaps I can say a few words about what this means to us at the Bank of England. Responsibility for the overall stability of the financial system as a whole means we undertake activities ranging from behavioural research to oversight of payment and settlement systems; from involvement in standard setting to implementing infrastructural change. To do this efficiently means, as our Governor Mervyn King recently reminded us, that we have to see the wood for the trees. The challenge is where you draw the line. This entails a prioritisation process to decide on the extent and degree of potential threats - and also a "sunset" approach where we subject each area of work to regular review to assess progress and continued relevance.

There are a number of, interconnected, areas of work. These focus both on "hard infrastructure", including payment and settlement systems, and on "soft infrastructure"; standard-setting in areas like accounting, audit, prudential and legal standards. We also analyse key developments in the international arena, for example in relation to threats of failure of emerging market economies and response to this.

12. Public policy response - institutional

As to the second area - the institutional response - there are both national as well as international dimensions.

On a national basis, countries increasingly recognise the distinction between supervision (looking at the individual institutions and markets) and the systemic factors involving concentrations, inter-relationships and behaviour in relation to the system as a whole. Each is an essential element in the provision of financial stability oversight. In relation to supervision, in some jurisdictions - including the UK, Japan and Germany - all the supervisory functions are carried out within one institution. In others they are handled by different agencies.

Certain countries have combined questions of the systemic issues with those of prudential oversight, and then put the investor and consumer protection aspects of regulation into separate agencies [the "twin peaks" approach adopted in Australia and France]. Yet others still survive with a multiplicity of agencies. The US is a case in point - and it is worth noting that, despite all its complexities and conflicts, the health of the US financial sector as well as its economy do not appear to have suffered unduly, despite episodes like the savings and loan crisis. However, the broad trend is to combine investor protection and consumer protection for banking securities and insurance, and split these away from the systemic aspect. The precise architecture in different countries depends on historical, political and institutional factors.

Personally I feel we have been quite enlightened in the UK. As a former Chairman of the old Securities and Investment Board - a forerunner of the FSA - I could certainly see the limitations of the earlier situation. And despite the inevitable challenge - being well addressed in my view - of managing a supervisory authority with the size, scope, and powers of FSA, it reflects the realities of today's environment.

And as for financial sector oversight in the UK, this is carried on under the auspices of a Standing Committee of the three authorities involved: HMT, FSA and the Bank of England. The roles of each party have been carefully thought out in relation to which party is best placed to do what, and laid out in a published MoU.

The FSA is responsible for the supervision of firms, markets and clearing systems, and for the conduct of regulatory operations in response to problem cases affecting these players. The valuable intelligence it gains can help in understanding concentrations and threats. The Bank has responsibility for the overall stability of the financial system as a whole. Without the need to focus on the regulatory responsibilities for the individual firms, we focus on what might disrupt the functioning of the financial system, and especially what might pose a threat to liquidity, and what can be done to mitigate it. We also need to be in a position to advise on the extent of possible financial support if major problems arise, and to provide that support if and as agreed. And the Treasury of course has to play a vital role in reflecting Government policy as a whole, with a particular scrutiny of developments which ultimately could bring into consideration the need for taxpayers' money.

On the global level things are very different. You could argue intellectually that, since national boundaries mean so little in relation to financial stability oversight, there is a case for creating a single global body. In reality of course we are nowhere near that, any more than we are to creating global Government itself. The difference in political and legal systems and culture, clearly make it

impracticable. So for the time being, whether at a global or even an EU level, we have to rely on proxies and co-ordination.

This proxy must be as effective as possible. This explains the activity to create and maintain robust international standards and practice in the institutions, and infrastructure of the global market. It explains endeavours to encourage or enforce compliance with them, through a variety of measures including international bodies, such as the Basle Committee, IOSCO, the Committee on Payment and Settlement Systems, the IMF, and the World Bank - and others too numerous to mention. The Financial Stability Forum is noteworthy too, as it brings together the three sets of key bodies involved in financial stability oversight - central banks, regulators and finance ministries - to supplement the actions of other international organisations in promoting standards globally.

13. Public policy response - if things go wrong

I spoke about identifying threats and the steps to mitigate them, but we also need to be able to intervene if things do go wrong. In a non-zero risk environment, failure is a possibility. So we need to look at both mitigants in relation to the impacts of financial crisis, and how to restore confidence.

This is true both for financial crises which could occur as a result of business failure, as well as possible major operational disruption - whether from terrorism, cyber failure, or natural calamity. They are situations where predictability is so vital, when normal mechanisms for decision making may be in abeyance.

I have left until last the tricky question of emergency liquidity injection and lender of the last resort. This is an area full of mystique and ambiguity. "Intervention," as the late - Charles Kindleberger⁴ said, "is an art form not a science." My contention is that, whilst an aspect of such ambiguity may be inevitable, or even necessary, the demands of today's complex world for enhanced predictability of behaviour and transparency should not be ignored.

Ultimately public policy may require emergency liquidity injection through lender of last resort facilities. This may be justified to defend the public good of financial stability which the market itself cannot provide. I stress the word **ultimately** for this is a last resort after all other efforts have failed. The granting of any such support does, however, contain a basic dilemma. On the **one hand** there is a strong case for market discipline to avoid the dangers of moral hazard. This is the case for ambiguity as to whether and when the lender of last resort facility would be deployed. On the **other hand** people want predictability of process: who can be expected to do what if problems do arise?

In the UK we are quite advanced in addressing these dilemmas. Our former Governor Sir Edward George, in a speech here at the London School of Economics in 1993, outlined the five key principles of lender of last resort assistance. They are equally valid today. To précis: explore every commercial option; ensure the key benefits come to the financial system not the shareholders; aim towards a clear exit; treat with care any details of the support given; and distinguish between problems of liquidity and solvency. A tricky, but crucial, ex ante question.

We do not have a formal agreement as to how these principles are to be handled case by case: nor the circumstances under which emergency liquidity might be made available. Therein lies ambiguity. But equally there is an acknowledgement that the issue might arise, and the Standing Committee's remit includes decision making and implementation in relation to any emergency liquidity as well as a clear statement of the roles of the parties.

Internationally and globally the situation is more complex and diverse. In some countries the subject is still taboo - both process and policy decisions. This might be due to a lack of clarity of roles and powers. To my mind this transparency deficit is not conducive to systemic confidence, either within given jurisdictions or, on a global basis.

But whilst there may be validity in a lack of transparency in relation to the actual **policy decision** - certainly ex ante - there needs, in my view, to be less fear in relation to more transparency of the **processes** that surround it. There will of course always be varying views on when market or institutional failures should be allowed to play themselves out, and when all else has failed, intervention is justified. Prior clarity here might provoke market gaming to the detriment ultimately of

⁴ Charles Kindleberger, "Manias, Panics and Crashes: A History of Financial Crises". John Wiley and Sons (2000).

the taxpayer. But in general, transparency of **process** can contribute to confidence. Some indeed argue that you should improve transparency generally to a point where lender of last resort support could be withdrawn altogether. And let the market take the fallout from, and absorb, the shocks as they arise. This I fear gets into the realms of philosophy and political thought, and as a mere central banker I would prefer to go no further! Some countries are less inclined to such opacity. To quote Governor Heikensten of the Riksbank "Those who have lived through a crisis are generally in favour of a transparent process"⁵

14. Conclusion

I have ranged widely on the many factors which - at least in my view - are relevant to financial stability oversight.

So in concluding, let me try to draw together some of the principal themes in what I have been saying. I am naturally well aware that there are many positive features to today's environment. But central bankers are sometimes accused of being pessimists and seeing the glass half empty. In our defence I suppose it is our job to think out what could go wrong and to be ready accordingly.

The first message to leave you with is that we are concerned about financial stability because of the potential economic and social costs arising from financial instability. Private markets will not always reflect these costs fully and prima facie there is a need for public oversight.

Second, the degree of complexity and interconnectedness has increased dramatically in recent years. Here I would point to market liberalisation, technological advance and the development of a range of new instruments for transferring risk.

Third, market participants need to be aware that financial stability starts with them. Integrity and sensible restraint are the bedrocks of stability. This requires heightened awareness that the leverage in the system as a whole, encouraged by the new risk transfer techniques, contains its own vulnerabilities.

Fourth, in response to the changing environment, the financial authorities have had to adapt their models and procedures for regulation and oversight. Greater disclosure and transparency can be antidotes to the information deficits in an increasingly complex, and sometimes opaque, financial system. International cooperation is at a premium, both in delivering a consolidated view of globally active firms, and in seeking to clarify who is expected to do what when difficulties arise. They need to match this level of technical expertise with the private sector, and to contend with new or heightened risks in such areas as business continuity.

Fifth, as a central bank, we need to be as clear as we can about the nature of our contribution to the oversight process. At the core is our concern with the maintenance of liquidity, and our capacity to inject it when necessary. Much of our financial stability work is aimed at identifying potential liquidity strains, and what responses are likely to be most effective.

Lastly, whilst the challenges for oversight may be daunting, progress in addressing these challenges is significant. But do not expect a zero risk environment - and do not demand it. Fear of failure is the antidote for instability. It will go a long way to underpin the long term health of the financial system.

⁵ Governor Lars Heikensten "The Riksbank's Work on Financial Stability": Speech at Göteborgs University, 25 November 2003.