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The future of central banking under post-crisis mandates

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Foreword

On 24–25 June 2010, the BIS held its Ninth Annual Conference, on “The future of central banking under post-crisis mandates” in Lucerne, Switzerland. The event brought together senior representatives of central banks and academic institutions who exchanged views on this topic. This volume contains the opening address by Stephen Cecchetti (Economic Adviser, BIS), a keynote address by Baron Alexandre Lamfalussy, and the contributions of the policy panel on “Do central bank governance arrangements need to be altered?”. The participants in the policy panel discussion, chaired by Jaime Caruana (General Manager, BIS), were Mark Carney (Bank of Canada), Andrew Crockett (JPMorgan Chase International), Stefan Ingves (Sveriges Riksbank), Lucas Papademos (former Vice-President, ECB) and Duvvuri Subbarao (Reserve Bank of India). The papers presented at the conference and the discussants’ comments were released as BIS Working Papers 326 to 331.

Programme

Thursday 24 June

Opening remarks	**Stephen Cecchetti (BIS)**
Session 1	**The future role and mandate of central banks**
Paper title	The changing roles of central banks
Chair	Armando M Tetangco, Jr (Bangko Sentral ng Pilipinas)
Author	Charles Goodhart (London School of Economics)
Discussants	Stanley Fischer (Bank of Israel) Randall Kroszner (University of Chicago)
Session 2	**International governance**
Paper title	Central banks: between internationalisation and domestic political control
Chair	Henrique de Campos Meirelles (Central Bank of Brazil)
Author	Harold James (Princeton University)
Discussants	Gianni Toniolo (Duke University) Már Gudmundsson (Central Bank of Iceland)
Keynote lecture	
Speaker	Alexandre Lamfalussy

Friday 25 June

Session 3	**Lessons from history for future central bank design**
Paper title	The Federal Reserve, the Bank of England, and the rise of the dollar as an international currency, 1914–39
Chair	Zeti Akhtar Aziz (Central Bank of Malaysia)
Authors	Barry Eichengreen (University of California) and Marc Flandreau (Graduate Institute of International and Development Studies)
Discussants	Robert Keohane (Princeton University)[1] Leszek Balcerowicz (Warsaw School of Economics)

1 Professor Keohane's remarks were read in his absence by Andrew Filardo of the BIS.

Session 4	**Lessons from political economy for future central bank design**
Paper title	The governance of financial regulation: reform lessons from the recent crisis
Chair	Christine Cumming (Federal Reserve Bank of New York)
Author	Ross Levine (Brown University)
Discussants	Gill Marcus (South African Reserve Bank) Howard Davies (London School of Economics)

Session 5	**Central bank finances: Policy relevant? Politically relevant?**
Paper title	Minimising monetary policy
Chair	Zdeněk Tůma (Czech National Bank)
Author	Peter Stella (consultant)
Discussants	Marc Flandreau (Graduate Institute of International and Development Studies) José De Gregorio (Central Bank of Chile)

Session 6	**Are central banks special?**
Paper title	Central banks and competition authorities: institutional comparisons and new concerns
Chair	Masaaki Shirakawa (Bank of Japan)
Author	John Vickers (All Souls College, Oxford)
Discussants	Allan Bollard (Reserve Bank of New Zealand) Mario Monti (Università Commerciale Luigi Bocconi)

Session 7	**Panel discussion: “Do central bank governance arrangements need to be altered?”**
Chair	Jaime Caruana (BIS)
Panellists	Mark Carney (Bank of Canada) Andrew Crockett (JPMorgan Chase International) Stefan Ingves (Sveriges Riksbank) Lucas Papademos (ex Vice President, European Central Bank) Duvvuri Subbarao (Reserve Bank of India)

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Introductory remarks

Stephen G Cecchetti[1]

It is my great pleasure to welcome all of you to the 9th BIS Annual Conference.

Each year, we pick a topic that we hope will be both relevant to central bankers and a bit different from the topics being discussed at other conferences. On the question of relevance, I feel confident that central banks are interested in the future of central banking. And, as the mandates of central banks are in a bit of flux, the specifics of our choice seem timely as well.

But our attempt at originality has been less successful. As Masaaki Shirakawa noted at the Bank of Japan's recent symposium, that conference – and now ours – will be among many this year on the future of central banking.

Naturally, this conference brings policymakers together with academics. The reputations of academics are built on their ability to make novel observations – to teach us about something that is deep, interesting and unexpected. In contrast, monetary policymakers do not, in my experience, strive for creativity. In fact, as we have seen over the past three years, central bankers are generally unhappy about being forced to innovate. The objective of most central bankers I know is not only to make the world boring by making it stable, but to be boring themselves – at least in public. So, in the end, I can't help but think it valuable to focus over the next two days on the question of central banking's future.

Indeed, I think it is fair to say that we all need to be thinking hard about the future of central banks, central banking and central bankers. As Charles Goodhart will point out very shortly, every now and then something comes along to shake up our comparatively settled understanding, and then it is not just our understanding that gets shaken up but also our roles, and with them our relationship with the rest of society.

Now, it may seem alarmist to be talking about major changes in the nature of central banking. But given what we have seen in the past few years, I'm sure you will agree that we have no choice – we cannot go back to the status quo ante of 2006. I can think of at least two very good reasons to address the possibility that roles are changing and to welcome a series of discussions on the issue.

The first of these reasons is that we have just been through an event of a magnitude on the Goodhart seismic scale that is beyond once-in-a-lifetime. The near collapse of the financial system happened not only in our back yards, but in our front yards too. Whether or not central banks were formally responsible for all of the terrain that was ravaged, we nonetheless claim expertise in financial systems, institutions, and markets and their connection to all things monetary. And the crisis struck on our watch. It would seem discordant to suggest that there is little need for us to consider a change in approach. That would be as if BP's Tony Hayward were to tell the US Congress that his company sees nothing to change in its strategies and procedures.

[1] Economic Adviser and Head of Monetary and Economic Department, Bank for International Settlements.

I thank David Archer for his contributions to this presentation. The views expressed here are those of the author and do not necessarily reflect those of the BIS.

The second reason we need to discuss this is that we need to understand the long-term implications of the events we are living through. That is a towering challenge. Liaquat Ahamed's marvellous book about central banking during the interwar years – *Lords of Finance*[2] – brings home the point that epochal changes in the policy environment are not always evident, even to those who seemed at the time to be the masters of events. The commanding figures of monetary policy in the 1920s – the heads of the Bank of England, the Bank of France, the Reichsbank and the Federal Reserve Bank of New York – did not grasp the significance of the events they were living through. Shock after shock confounded them. They clearly understood some of the connections but were blind to many others that we, in hindsight, can recognise.

May I say that I have become much more humble than I was three years ago. And realising the limitations of my earlier thinking, I must accept that, even now, I may be as oblivious to the implications of the events going on around us as were those giants of history to the events of their time.

Returning to the multiplicity of conferences on our chosen topic, I am not concerned that we may be taking several looks at the same question. Stopping to think and consider seems like a very sensible thing to do, especially when there are signs that events are outstripping our understanding. And not expecting new understanding to come immediately seems like a wise approach, even if it goes against the grain of the elected officials to whom many of you answer on a daily basis.

Liaquat Ahamed's account of the interwar years provides additional reasons to consider that we are in the early phase of a seismic shift in central banking. The tectonic forces he describes include the massive pressures created by war debts, which could not be managed by the international adjustment mechanism intrinsic to the existing monetary regime of the time. We are again seeing signs that the international adjustment mechanism intrinsic to the current monetary regime is being put under strain by cross-country payment imbalances. And again, we are seeing signs of crippling debt burdens.

Much has been said in the recent past about exchange rates – that they are a weak equilibrating mechanism and a source of volatility for small open economies. Where nominal exchange rate adjustment is held back for policy reasons, local prices should move to reignite the adjustment process. But that also seems to be a weak mechanism. Obviously, in the absence of well behaved real exchange rates, the interwar problem of international adjustment has its present day echoes.

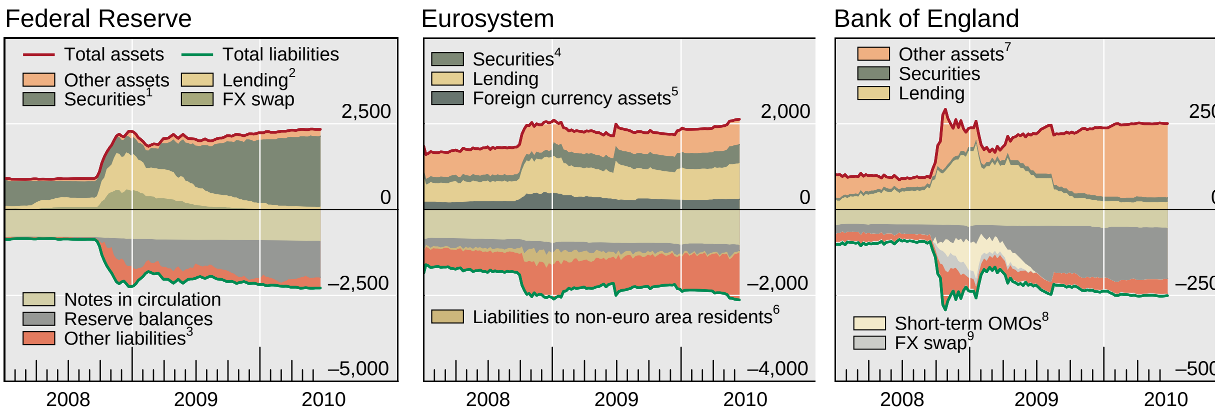
For some people, the big central banking story is the central bank balance sheet – that story is illustrated by Graph 1, which shows the recent growth and change in composition of what central banks hold. I don't want to play down this issue – it is very important, and a number of the actions that shaped the contours in this picture have important medium- and long-term implications, both operationally and politically. Nonetheless, this picture does not frighten me because I trust everyone in this room to do the right thing when the time comes – that is, if you can.

[2] L Ahamed, *Lords of Finance: The Bankers Who Broke the World*, Penguin Press, 2009.

Graph 1

Central bank assets and liabilities

In billions of respective currency units



[1] Securities held outright, including Term Securities Lending Facility (TSLF). [2] Repurchase agreements, term auction credit, other loans and Commercial Paper Funding Facility (CPFF). [3] Including to central banks. [4] Securities of euro area residents and general government debt, in euros. [5] Including US dollar liquidity auctions. [6] In euros. [7] Including US dollar liquidity auctions and asset purchase facility. [8] Open market operations, including issuance of Bank of England sterling bills. [9] Swap lines with the Federal Reserve.

Sources: Datastream; national data.

Which brings me to the key point I wish to make. As many of you know, in my view and that of the BIS, not enough attention is being devoted to the ominous trajectory of public debt in a number of advanced economies. Let me show you the most frightening picture I have seen for some time (Graph 2). It was produced for the paper I wrote with Madhusudan Mohanty and Fabrizio Zampolli this past February, entitled “The future of public debt”.[3] The lines on this picture are projections of debt over the next 30 years under three scenarios:

1. The red line:
   - Revenue and non-age-related expenditure constant at the 2011 percentage of GDP
   - Real interest rate at its 1998–2007 average
   - Growth of potential GDP at its OECD-projected post-crisis level
2. The green line: gradual adjustment, in which the primary fiscal balance excluding age-related spending improves by 1 percentage point of GDP per year for five years.
3. The blue line: the gradual adjustment shown by the green line is coupled with a freezing of age-related spending as a share of GDP at its 2011 level.

The paper has been pretty popular, but I’m not sure the 45,000 people who have downloaded it are taking away quite the right message. First, I think that we should have titled it “The *impossible* future of public debt” because our idea is not that this *will* happen, it is that this *cannot* happen. Second, our message is also that even fairly big adjustments are not enough to stabilise debt for a surprisingly large number of important countries. For most

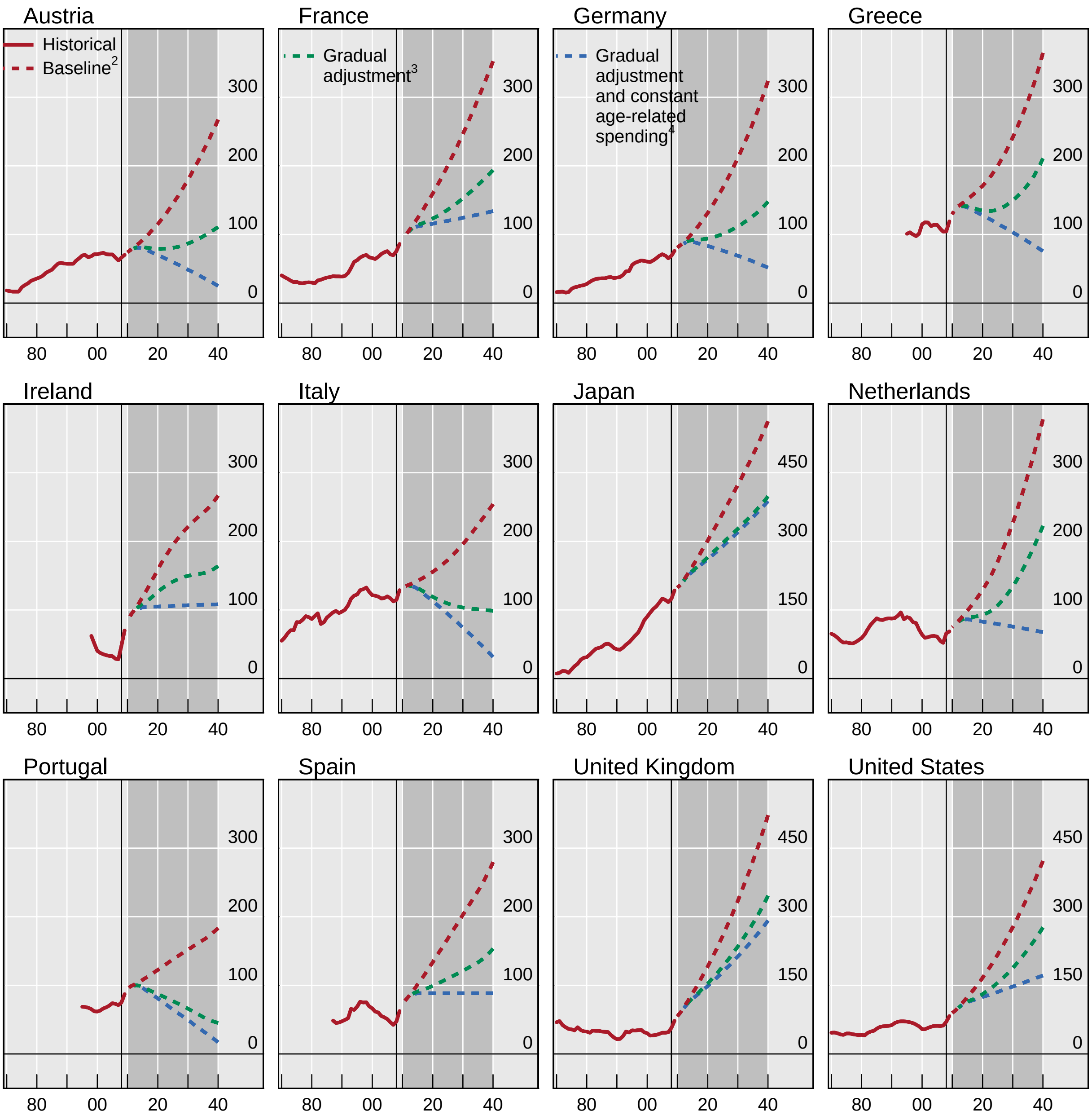
[3] See Graph 4 in S Cecchetti, M S Mohanty and F Zampolli, “The future of public debt: prospects and implications”, *BIS Working Papers*, no 300, March 2010.

countries in fact, recent crisis-related spending plus the coming onset of ageing pressures mean that brutal policy choices will have to be made if we are to get public debt under control.

Graph 2

Gross public debt projections[1]

As a percentage of GDP



[1] Refers to general government debt; the shaded area covers projections by the OECD (2010–11) and BIS (2012–40). The vertical line corresponds to 2008, the first full year of the crisis. [2] Based on the following assumptions throughout the BIS projection: constant growth of potential real GDP at the rate estimated by the OECD for 2012–25, constant real effective interest rate at the 10-year pre-crisis average, 2011 revenue and non-age-related spending (both as a percentage of GDP) held constant. [3] The baseline primary balance excluding age-related spending (as a percentage of GDP) improves from the 2011 level by 1 percentage point per year for the first five years of the projection and remains at that level for the remaining period (all other assumptions as in the baseline scenario). [4] Gradual adjustment scenario with the additional assumption that age-related expenditures as a percentage of GDP remain constant at the 2011 level.

Sources: European Commission; IMF, *World Economic Outlook*, April 2007; OECD; US Congressional Budget Office; authors' projections.

It doesn't take a genius to see that investors are not going to overlook the need to make these choices – they are not going to ignore the risk of debt repudiation, of debt restructuring or of debt depreciation through inflation. Clearly, central banks could be caught in the middle if fiscal authorities do not live up to their responsibility.

I find this challenge to be a remarkably loud and clear echo of the interwar problems that so confused our central banking forebears and that ultimately led to significant changes in the role and character of central banks.

To wrap up, here is my message. Charles Goodhart might well be correct that the tectonic plates underlying central banks are now shifting, and with effects that are nearly impossible to predict. We can't know for sure if the rumbling we feel is of seismically historic proportions, but I do think we should take the possibility seriously.

Let me close with a short story. When I arrived at the BIS two years ago, I realised that a key symbol of the devastating changes in the interwar period no longer seemed to be visible. That is, nowhere could one actually look at the Dawes and Young bonds that represented not simply the founding of the BIS but German hyperinflation, the collapse of the Weimar government and the rise of the National Socialist Party. I asked whether any of the actual certificates existed in the archives. Original specimens of each are now hanging on my office wall. I look at them every day because, well … let me just say that there isn't any space left on the wall for more such bonds, and I don't intend to make any.

Thank you all for coming, and I look forward to the next day and a half of presentations and discussion.

Keynote speech

Alexandre Lamfalussy

By way of introduction

It is a great honour – and a challenging one – to have been asked to be your keynote speaker this evening. Given the high standards achieved by these BIS conferences, this would have been the case even in ordinary times. But now we are living in anything but ordinary times.

Six months ago most of us believed that, with the improvement in the real economy and in the functioning of financial markets, the time had come to begin implementing, at a measured pace, exit scenarios for central banks and governments alike. This of course remains a valid objective, but now the immediate concern of our policymakers is to handle the ramifications of the Greek drama, which has led financial market participants to focus exclusively on the shift of indebtedness from the private to the government sector. This sudden and violent reaction says a lot about the wisdom of markets: after all, this shift represents the realisation of an explicit policy objective, and for about two years its impact on public sector deficits and the explosive growth of public debt have been a well known fact to anybody who cared to look at macroeconomic forecasts.

It is not my intention to comment on this new situation, except to acknowledge that it has injected a great deal of uncertainty into the current environment.

However, despite these uncertainties, I do believe that the past three years have thrown up well identified problems for the central banking community which are unlikely to go away – even if we manage to extricate ourselves from our present predicament sufficiently to minimise the risk of a systemic meltdown. It is to these problems that I propose to turn, by asking you to swallow simplifications which are unavoidable in a speech of half an hour (of which I have already consumed three minutes).

The pre-crisis environment

As a starting point, let's have a look at the pre-crisis situation, by which I mean prior to August 2007.

By the end of the 1970s, it was becoming increasingly obvious that the demand-boosting policies undertaken to offset the deflationary impact of the oil shocks had failed. Inflation had gained the upper hand – without preventing the gradual rise of unemployment. This set in motion an evolutionary process which was influenced by three propositions, strongly supported by a highly activist component of the academic community. The first was that inflation is essentially a monetary phenomenon, and therefore should be kept under control by monetary policy. The second was that in order to put in place the appropriate policy, central banks should be assigned the primary objective of securing price stability. And the third was that central banks should be protected from government interference in the design and implementation of monetary policy.

With ups and downs, this evolutionary process had matured by the late 1980s, producing two results: in the developed world predominantly, but also in a number of emerging economies, central banks were indeed assigned the duty to conduct their monetary policy with the primary objective of reaching price stability; and, simultaneously, they were granted independence from government interference. This independence concerned their monetary policy operations, and was defined in various ways – remember its US definition: independence not so much from, but rather "within" the government. Or the British solution which left the definition of price stability in the hands of the government. At the other end of the spectrum, the independence granted to the Governing Council of the ECB was the most explicit both in writing and in practice.

As regards prudential supervision, there was far less homogeneity within the central banking community. It was fairly generally agreed that central banks should play a role in maintaining financial stability, by assuming (what we would today call) a macroprudential responsibility. But there was not much precision in defining the mandate given in this field to the central banks. The position in this respect of the ECB – or indeed of the ESCB – is quite instructive. The Treaty says: "The ESCB shall contribute to the smooth conduct of policies pursued by the competent authorities relating to the prudential supervision of credit institutions and the stability of the financial system." This remarkably vague wording reflects the fact that a number of national central banks, as opposed to the ECB, are directly involved in microprudential supervision. The Statute of the ECB is barely more illuminating: "The ECB may offer advice to and be consulted by the Council, the Commission and the competent authorities of the Member States on the scope and implementation of Community legislation relating to the prudential supervision of credit institutions and to the stability of the financial system."

Retrospectively, it looks remarkable that the indubitable success of the stability-oriented monetary policies combined with the decent growth performance in the developed world – and the spectacular "emergence" of a number of very large countries – did go hand in hand for quite a long time with the preservation of financial stability. Certainly, danger signals were beginning to flash well before 2007, but in many respects the financial system appeared to be resilient. I myself aired my misgivings in my Bank of Greece Zolotas Lecture in 2006, under the pretty explicit title: *Monetary policy and systemic risk prevention – challenges ahead for central banks.* I argued there that while central banks have been strikingly successful both in maintaining the purchasing power of money and in contributing to the preservation of systemic stability, the sustainability of this success story should not be taken for granted. My concern was explicitly about financial stability rather than inflation, although I was far from expecting the eruption of a financial crisis of the intensity and generality we are now experiencing.

Central banks operating in a crisis situation

After this short historical reminder, let me now turn to the present and the future. The key question on which I shall focus my remarks is whether the active involvement of central banks in crisis management puts at risk the two main achievements of the pre-crisis years: the priority given to stability-oriented monetary policy, and independence of the central banks.

Our current experience has confirmed something that *was* to be expected: that, whether they like it or not, central banks are in the front line when it comes to keeping crisis manifestations under control. They have the resources, and their traditional banking operations give them a proximity to the money and financial markets which finance ministers or supervisors not connected with central banks do not possess. As long as this expertise was confronted with well circumscribed crisis manifestations in terms of geography, markets or sectors – as has been the case in a number of instances over the past 30 years – the central banking involvement could be kept within manageable limits.

What *is* new in the current experience is that central banks have had to carry out their liquidity-boosting operations in an environment where the liquidity shortage turned rather quickly into solvency problems of frightening dimensions – for which there has been no precedent since the 1930s. Nor has there been any precedent for the speed of contamination at the global level. The result has been an increasing variety of "non-conventional" central banking interventions, ranging from the lengthening maturity of liquidity support to quantitative easing of all shapes and sizes. In a number of instances, this has led not only to the spectacular expansion of the balance sheets of central banks, but also to the radical change in the composition of their assets, which implied the acquisition of risky assets. As a result, the key central banks have started navigating in uncharted waters, in terms of both operational techniques and their relations with governments.

Looking ahead

Allow me to have the luxury of standing back a little and discuss the pros and cons of giving a clear mandate to the central banks to assume a well defined responsibility in the preservation of systemic financial stability.

Let me start by making the assumption that the central bank has, or should have, a more or less well defined macroprudential mandate both in preventing the emergence of a systemic crisis and in participating in the management of such a crisis in case its preventive endeavours fail. Does this mean that it should also be in charge of microprudential supervision? Or, if not, what kind of relations should it have with the distinct microprudential authority? The positive answer to the first question would amount to what I would call an "integrated" model. The negative answer would lead to a "cooperative" model on the assumption that, willy-nilly, a form of cooperation has to be established between the micro- and macroprudential activities. There is no convincing empirical evidence, neither in the case of this crisis nor in that of earlier ones, which would help us to decide which of these two models has superiority over the other. Hence we are left to theorise.

There are two powerful arguments in favour of the integrated model, which reinforce each other. The first is the one I have already referred to. Whenever there are signs of an emerging crisis, the central bank is always in the front line: remember early August 2007. To be able to act swiftly and efficiently, it needs information, and the privileged source of information (so runs the argument) is, or should be, bank supervisors. Hence the need to ensure that such information flows freely and speedily from the microprudential supervisors to those who inside the central bank are in charge of the macroprudential responsibility.

The other argument is that the central bank is an operating bank, rather than a public administration, and has at the same time an oversight responsibility for clearing, settlement and payment systems. This means that it has access to direct market information, although it has to be kept in mind that when such information is provided, it might be rather late in the day. As a result, this privileged position does not make superfluous the forward-looking macroprudential vigilance. But it does mean that the central bank can give considerable help to the supervisors to encourage them to focus on the right questions in the accomplishment of their supervisory duties. Thus if the central bank is properly organised – a condition not so easy to satisfy – there can be mutually beneficial two-way traffic between the macro- and microprudential segments of the institution.

At the same time, there are two arguments against entrusting the central bank with a microprudential responsibility. The first is the danger of "polluting" the central bank's monetary policy decisions – an argument of weight when the central bank's primary objective is unquestionably price stability, as it is in the case of the ESCB. The second is the moral hazard argument: how can a central bank refuse emergency liquidity assistance to a bank over which it has supervisory authority?

In my "meditation" (I apologise for borrowing this suitable expression from Jean-Claude Trichet) on trying to find a way out of these conflicting arguments, I propose to submit to you three sets of considerations.

The *first* is to disagree with the argument that by necessity, or at least frequently, there is likely to be a conflict between the pursuit of the objective of price stability and the central bank's crisis prevention, or crisis management, macroprudential duties. It would be disingenuous to exclude the possibility of such conflict, but in matters of this kind we have to live with probabilities, not with certainty. I have two reasons supporting my disagreement.

One concerns asset price bubbles. It is of course true that asset price bubbles *have* coexisted with periods of price stability, but this does not mean that such bubbles would have had no medium- or longer-term upward influence on the price level. The likelihood of such influence seems to me quite high. But even if this were not true, using monetary policy tightening to lean against the developing bubble, or regulatory measures to fight the bubble – a difficult and politically surely not very popular exercise – would be unlikely to go against a (price) stability-oriented monetary policy stance. The exception would be the coexistence of nascent bubbles with a deflationary situation, which would seem to me to be an unlikely occurrence. A deflationary danger is more likely to arise when nothing has been done to try to stop the development of the bubble, retarding its bursting with the distinct risk of a "hard landing". And when the bubble does burst, an easing of the monetary policy stance would go in the right direction. As we saw with the US experience, a dilemma may arise when one type of bubble (the dotcom crisis) bursts, but another one – the real estate boom – continues to grow. The asymmetrical Fed reaction prepared the ground for our current crisis, but this asymmetry was not the result of an unavoidable conflict between stability-oriented monetary policy and the central bank's macroprudential duties, but of the Fed's benign neglect (or miscalculation) of the crisis-breeding potential of the real estate boom.

The other reason for my disagreement is that there are ways and means of separating the conduct of monetary policy from the liquidity support given to the banking system during a crisis. The example of this has been provided by the ECB, which has never missed an opportunity to insist on this dual practice and to forcefully deny its participation in unsterilised quantitative easing.

My *second group of considerations* is about the sources of information which should enable macroprudential supervisors to detect early signals of a potentially systemic crisis. Bank supervisors – the micro supervisors – are, or at least can be, a very valuable and reliable source of information on emerging financial stability problems. But how is it that (almost) none of them rang the bell in time? We should not be unfair to them. They are not without excuses for having remained silent on the emergence of systemic risk. Their mandate is of a microprudential nature. Their main job is to check the compliance of specific supervised institutions with existing prudential regulations and with their own risk management systems. They have not been mandated, and have not be trained, to ask themselves whether the changing nature of banking entails a systemic stability risk, or indeed whether non-banks are beginning to perform highly risky quasi-banking operations on a large scale. These are queries of a macroprudential nature, and you should not count on supervisors to respond to them.

This is far from being a new problem. During my "prehistoric" BIS years, when I tried to promote a dialogue between the bank supervisors of the Basel Committee and the central bankers working in the Eurocurrency Standing Committee (this misleading title hid a macroprudential mandate), the success was, to put it mildly, patchy and uncertain. During the late 1970s, some key central bankers were getting uneasy as they watched the wild enthusiasm and generosity with which banks lent to developing countries, notably in Latin America. I met little concern among the bank supervisors, who insisted on the floating rate arrangements, which were supposed to protect the banks' margins, and on the "highly liquid" nature of the banks' claims. Fortunately, we had at our disposal global statistics on bank claims on these countries, which were held in the banks' portfolios and were increasing at an alarming pace, and much of which were very short-term indeed. This carried the argument, since it was obvious that the liquidity of these claims was an illusion, and that the protection of the margins in case of rising interest rates would have the perverse effect of pushing the debtor countries towards the unilateral suspension of their debt service – which in fact was beginning to happen in 1982. This was an interesting early demonstration of the unintended consequences of a major (but by today's standards very primitive) financial innovation.

It is this experience that triggered my conviction that asking bank supervisors to detect the potentially systemic impact of new practices, of changing management models or of innovative new products is to ask something that may well appear alien to the accomplishment of their prime microprudential duty. It may even distract them from carrying out their – not particularly easy – duty. I have no doubt that this duty (especially in the case of large cross-border institutions) is a very demanding one. We have an expression in French: "il vaut mieux ne pas mélanger les genres".

A possible solution that has occurred to me is that the supervisors should be accompanied in the accomplishment of their core mandate by macroprudential supervisory colleagues in charge of detecting the emergence of potentially systemic dangers. These persons should have full access to whatever would have been detected during the supervisory activities, but should in no way be prevented from having their own contacts, at whatever level of responsibility, in the bank. And if they came across facts and figures that might warrant closer inspection, it would be their prime duty to explore with the rest of the macroprudential team whether the combined information should trigger macroprudential concerns, or even action. Their task would also include gathering information on what might be happening in the broader markets. The large cross-border institutions typically cover a wide range of activities, as a result of which they are a precious source of information on such developments as the emergence of new types of financial intermediaries, the changing business model of existing ones, and, naturally, new innovations. Acquiring such information, cross-checking it and adding it up would help the central bank to obtain a prospective view of what might happen in the future, rather than having to fight the last war.

My *third* point is to stress that if central bankers wish to minimise the risk of being pushed, by circumstances, towards the use of "non-conventional" intervention tools, it is in their prime interest that the reforms under discussion to improve crisis *prevention* be effectively implemented. It is my absolute conviction that, in this respect, *structural reforms* should receive priority treatment. This, unfortunately, is more easily said than done. There are two reasons for this. On the one hand, such reforms have to be implemented globally – and financial structures vary considerably from country to country (look at the well known differences between Europe and the United States). On the other, they touch substantial vested interests, and you can count on the fierce opposition of the beneficiaries of those interests.

Whatever opinion one may have about the desirability and feasibility of the Volcker package, there is no doubt in my mind that the questions to which the package attempts to supply an answer are the right ones. Has the financial sector grown in size beyond a level that would be justified by providing services to the "real" economy? It so, what to do? Has the size of individual financial firms (and not just of banks) grown to the extent that it makes it hard to bail them out, and perhaps even harder to let them fail? If so, what to do? And what are the merit and feasibility of the narrow bank argument?

And, most importantly, *how can we extricate ourselves from the unappealing moral hazard trap*? The widespread belief that systemically important financial institutions will always be bailed out has two devastating consequences: it encourages reckless risk-taking by such institutions, and provides them with an unfair competitive edge over the rest of the financial industry by ensuring cheaper financial resources for them. To avoid this happening, it has to be made clear that no financial firm, and especially banking firm, should count on being protected from failure. But no such statement will appear credible unless ways and means are found to ensure that the absence of a bailout has no systemically disruptive consequences. Trying to find and agree "globally" on such crisis resolution processes should rank very high on the political agenda. It should also receive strong support from the central banking community.

Concluding remarks

To conclude, let me briefly sum up these lengthy remarks by trying to reply as explicitly as possible to the question raised earlier: is there a danger that the active and innovative involvement of central banks in crisis management will put at risk the two major achievements of the pre-crisis years, namely the priority given to (price) stability-oriented monetary policy and the independence of central banks? I propose to submit to you four specific conclusions.

Conclusion no 1. I do believe that central banks should be given an explicit macroprudential mandate as regards both crisis prevention and crisis management. One reason for this recommendation is my conviction that our globalised, competitive and highly innovative financial markets will continue to breed financial disturbances of a size and nature that could lead to systemic meltdown. Another reason is that I have doubts about our ability to correct global imbalances, which therefore will continue to nurture a crisis-friendly environment. My last reason is that, with or without a mandate, central banks will find themselves in the first line of defence. It would seem to me preferable to give them a well defined framework within which they should operate, rather than rely exclusively on improvisation. We will always need improvisation, but we also need an operational framework.

Conclusion no 2. For reasons I tried to spell out in some detail, I believe that we should not attach excessive weight to the argument that such a mandate would "pollute" the implementation of a (price) stability-oriented monetary policy. On the other hand, I believe that the macroprudential mandate should carefully avoid giving implicit approval of asymmetrical policies regarding asset price and/or debt bubbles. Any perceived asymmetry would sooner or later be detrimental to financial stability, and might also cause damage – although not with the same degree of certainty – to price stability.

Conclusion no 3. Should central banks be entrusted with microprudential supervision? I doubt the wisdom of raising this question in abstract terms. I have tried to say this evening that what really matters is the flow, quality and speed of information between micro- and macroprudential supervision and acknowledging that these are two distinct, but very complementary functions. Depending on the specifics of organisation, on tradition and on the "human factor", ensuring the appropriate flow of information may succeed – or fail – in both the integrated and the cooperative model.

Conclusion no 4. Is central banking independence at risk? Yes, it is. The risk arises from the obvious fact that having to comply with two distinct mandates pushes the central banks into a much more complex world. The modalities of their independence in their monetary policy function may be debatable, but, once agreed, the terms of independence can be reasonably well defined. In the case of the macroprudential mandate (in both models), this is much more difficult. Once it appears that an initial liquidity problem is mutating into a solvency problem, and especially when the latter implies the risk of a systemic meltdown, the central bank has to operate hand in hand with the government. But hand in hand can mean very different things – this is why I am pleading for a reasonably well defined operational framework. The macroprudential mandate implies for the central bank a type of relationship with, and therefore a type of independence from, the government that is different in substance from the one governing monetary policy. The rules of the game on both sides have to be spelled out.

How to conclude? All the actors – central banks, governments, international organisations and, naturally, market participants – are navigating in waters uncharted by reliable historical experience. The complexity of the current situation is without precedent. But there is no way of “opting out” of this complex world. Wishing that we could go back to the professional and intellectual comfort of the pre-crisis years is a pipe dream. This does not make me a pessimist. At a time when europessimism is fashionable, I derive quite some hope from the progress being made towards setting up a European Systemic Risk Board, under the auspices of the ECB, which, if properly implemented, will respond to many of my queries.

Thank you for your attention.

BIS Annual Conference 2010

Jaime Caruana[1]

This is the last session of this very interesting conference, and the topic is: "Do central bank governance arrangements need to be altered?"

We have heard all kinds of arguments over the last couple of days about the implications of this financial crisis for the work of the central banks. Now we have the opportunity to listen to a panel of extremely experienced practitioners and hear their views on really how much or how little change is required in terms of the institutional arrangements. We know that central banks, whatever their mandate, will always be in the trenches when a crisis occurs – or even before. We know also that they will not be alone, that financial instability is a shared responsibility and that there will therefore be others who will be interested. So the issue of governance, the issue of the relationship, of how to cooperate, and of how to take decisions, is a very important one. And perhaps, as some of the participants have mentioned, this is one of those defining moments in central banking – we do need to analyse these questions carefully.

Certainly in the debate – at least in the public debate – you can see different perspectives being revealed. Some think that these new responsibilities for the central bank are closely related to regulation or to microprudential elements, and are accordingly in the central banks' genes and can be easily absorbed. Perhaps there are some elements of the framework that need to be changed so that it can be more easily absorbed, but a fundamental change in the way central banks are organised is not one of them. Others have a much more radical view, in the sense that they worry that central banks will perhaps not be able to manage these political relationships, or the political implications of the necessary coordination. They talk on some occasions of a crossing of the Rubicon, of a commitment to something that would be difficult to go back on.

In terms of substance, I think that it will be difficult to avoid discussing the additional complexity we know exists between macroeconomic policy and financial policy or macroprudential policy. We tend to think that macroprudential policy alone will not be powerful enough to manage all the complexities and all the challenges posed by financial instability. Therefore monetary policy will have to help in managing these kinds of situations. This creates a lot of interconnections, and how to best handle the interrelationship between these public policies is something that still needs to be debated.

So, I think we now have a very good opportunity to hear from our very experienced panellists and ask them to what extent we are at a watershed, whether central banks have indeed crossed the Rubicon, what arrangements need to be revised, and how to adjust to very challenging and changing times.

I will not introduce the speakers because they are very well known. I will follow the seating order, so I will first ask Mark Carney, the Governor of the Bank of Canada, to make his presentation.

[1] General Manager, Bank for International Settlements.

Panel discussion comments

Mark Carney[1]

Thank you, Jaime, and thank you to the audience for remaining here on such a nice day while Brazil and Portugal are playing in a key World Cup match.

The recent financial crisis demonstrated the need for financial regulation and surveillance authorities to pay greater attention to the forces that contribute to the build-up of systemic risks. To this end, central banks and other financial sector agencies are devoting considerable effort to designing new macroprudential instruments and strengthening their capacity to conduct macroprudential surveillance. For maximum impact, these initiatives must be accompanied by effective governance arrangements.

A variety of alternative macroprudential governance models have been proposed to coordinate the activities of different financial sector authorities.[2] Among these alternatives, there are important differences in the allocation of responsibilities to central banks and other agencies. It is clear and entirely appropriate that different jurisdictions will adopt different models consistent with the structure of their financial sectors and their regulatory histories. There is no "one size fits all". Regardless of which governance model is chosen, to be successful it should provide: (i) an effective process for macroprudential decision-making, including clear mandates and accountabilities for the central bank and other agencies, and (ii) effective management of the interactions and potential trade-offs with other policy areas such as monetary policy.

With these principles in mind, my comments will be organised around four governance issues of particular relevance for central banks.

What should be the core macroprudential mandate?

The macroprudential mandate can be divided into three elements: surveillance; the development of macroprudential tools; and the application of those tools, including the extent of discretion in their application. It is principally with respect to the last two elements where the greatest differences in governance approaches exist.

With respect to the first – the surveillance function – every paper for this conference and numerous other discussions I have attended have noted the comparative advantage of central banks. The central bank is, indeed, well placed to take the lead in assessing risks to system-wide stability. Through its roles as monetary policy authority and lender of last resort, a central bank develops a broad knowledge of the financial system and must constantly maintain a macrofinancial perspective. This expertise helps it to assess whether systemic risks are emerging from interactions among different parts of the financial system, and to evaluate the potential impact of financial imbalances on real economic activity.

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[1] Governor, Bank of Canada.

[2] In Canada, the Minister of Finance has ultimate responsibility for sound stewardship of the financial system.

The central bank's risk assessment should be shared regularly with other agencies to ensure the timely identification and assessment of risks. Collaborative arrangements among different agencies are discussed below in more detail.

There are some governance questions regarding how central banks share their surveillance. Public communication of major risks – for example, through financial stability reports and speeches – raises awareness among market participants and the general public, and promotes the accountability of the central bank for its risk assessments. Are there legitimate lags in terms of our public disclosure of the results of that surveillance, our rigorous truth telling? What should be the requirements to report to parliaments? Basically, how accountable should central banks be made for surveillance? Right now many central banks have financial stability reports but are not further held to account for the quality and timeliness of their assessments.

Central banks should also contribute to the development of new macroprudential instruments and policies. The central bank's macrofinancial perspective should help it assess whether there are gaps in the current toolkit and design new instruments to close those gaps.

Many argue that, in addition to its role in identifying current risks to system-wide stability, the central bank should be closely involved in implementing discretionary policy actions that might be necessary to mitigate those risks. However, the precise mandate of the central bank in the application of macroprudential policy will depend on its relationship with other agencies, and is likely to vary across jurisdictions.

Who implements macroprudential policy?

Although it is obviously a simplification, there are three models for the application of macroprudential policy. The first two are committee-based. An advisory committee could bring the relevant agencies together: the treasury, the central bank, the prudential regulator, the securities regulator and perhaps the mortgage authority, if one exists. Under this model, there is a joint discussion of the risks and vulnerabilities but the final decisions on the use of policy instruments are made by the agency directly controlling the instrument. I will go into a little more detail on this model shortly. The "comply or explain" model that was adopted by European authorities is a stricter variant of this approach.

The second committee-based model is a directive model (as advocated by the de Larosière report). In the directive model, the constituent members of the committee have to comply with the committee's decisions.

The third model is a control model; it is more or less the unitary model that has just been announced for the Bank of England. Other authors have discussed the pros and cons of a system with shared responsibilities (such as we have in Canada) versus the model with a broad range of responsibilities consolidated in a single institution, so I will not address that issue in detail in my remarks.

Regardless of which model is chosen, there must be effective collaboration between those with expertise in prudential regulation and those with expertise in broader system-wide analysis. Since the late 1980s, Canada has had a statutory inter-agency committee to facilitate information sharing and coordinate any necessary policy actions. Committee members include the heads of the prudential supervisor, deposit insurer, central bank, ministry of finance, and financial consumer agency. The committee meets quarterly (or more frequently, if necessary) and is chaired by the prudential supervisor. Although the committee has had a microprudential focus historically, it has provided a forum for the Bank of Canada to share its systemic risk assessment regularly with other agencies, and, most importantly, it proved to be an effective coordinating body across a range of policies throughout the recent crisis.

Canada's experience demonstrates that a system with responsibilities shared across agencies can function effectively, provided that there are appropriate governance arrangements to ensure effective collaboration and accountability. The next section discusses how to structure these arrangements.

How can central banks ensure more effective collaboration with other financial authorities?

A collaborative model recognises that each agency has a unique perspective and expertise with respect to financial system issues and that combining this knowledge should significantly reduce the risks to financial stability.

A formal statutory committee helps signal to all agencies the importance of assessing and addressing system-wide risks. Moreover, a formal process promotes the sharing of information and different views on a regular and timely basis, thereby facilitating the early identification of system-wide risks. Since systemic risks arise from the collective actions of financial institutions and financial market participants, it is important to include both the prudential supervisor of financial institutions and market regulators in the inter-agency committee.

Better information-sharing is essential to the effective assessment of systemic risks. There are two requirements for this information sharing to work. The first is mandated – ie legally enshrined – proactive information-sharing by all constituent members. This has proven central to making the Canadian committee work. Just to be absolutely clear what this means: every member of our microprudential committee ***must*** contact the other members if they feel they are in possession of any material information or opinion. That means in practice that, if the central bank ever contacts other agencies for information, it is provided, and vice versa. As a result of this provision, and the tradition of cooperation that arose from it, information flowed freely in Canada during the crisis. In short, it is not necessary to have a unitary or control model to have good information flow.

Governance arrangements must also facilitate effective decision-making. Having identified any risks to financial stability, the expertise of different agencies must be exploited to identify and implement appropriate mitigating actions. Given the complexity of this task and the untested nature of new macroprudential tools, the guidance from simple rules will inevitably have to be combined with judgment based on system-wide surveillance. The challenge will be to create an effective decision-making framework for such constrained discretion.

To do so, jurisdictions may consider giving all relevant agencies mandates that acknowledge their roles in promoting overall financial stability. Under the advisory model (as in the EU), final decisions on the use of each instrument would be taken by the agency having direct control over that instrument, and that agency would be held accountable for policy actions under its new mandate. This structure provides the flexibility necessary to avoid mechanical application of rule-based instruments, while providing transparency and accountability for policy decisions.

Should the monetary policy framework be modified to better reflect financial stability considerations?

Recent events have illustrated the benefits of a credible monetary policy framework focused on price stability. This policy regime provided greater certainty for financial markets during times of extreme stress, and helped maintain well anchored inflation expectations. The benefits of the current framework must be preserved in the future. Nevertheless, the financial crisis has raised a number of issues.

First, even in the current framework, the implementation of monetary policy could be improved by taking better account of the links between financial conditions and macroeconomic dynamics, including: how expectations about monetary policy may influence risk-taking behaviour; and the impact of procyclical tendencies in the financial system (such as credit or liquidity cycles). It will also be important to assess how new macroprudential instruments, such as countercyclical capital buffers, will affect cyclical dynamics.

Second, broader issues have been raised regarding the interaction between monetary policy and financial stability. Ideally, macroprudential policies will be the first (second and third) line(s) of defence to maintain financial stability, since they are designed specifically to mitigate financial risks. But these tools are still being developed and their effectiveness will need to be closely monitored. What should be done if macroprudential tools do not fully address financial stability concerns?

In considering this question, it is important to recognise that financial imbalances can build up over a longer period than the traditional monetary policy horizon, and thus these imbalances can affect output and inflation volatility beyond that horizon. This reality supports the well known flexible inflation targeting approach whereby the monetary policy horizon is lengthened in the event of a large financial shock.

There are limits to this approach. Extending the period that inflation deviates from target too far could weaken credibility of the policy regime and lead to less well anchored inflation expectations. A possible solution might be to implement a policy framework with price level targeting. The commitment to a price level path might help anchor longer-run expectations (and strengthen accountability) under these conditions, and therefore improve the trade-off between policy credibility and flexibility in the policy horizon.

Will financial stability mandates create a conflict with operational independence of monetary policy?

I will conclude with comments about central bank independence. First, a very obvious point – the more ambiguous responsibilities are, the greater the risk to any institution's credibility. A second point, which holds for everything that a central bank does, is that if one of its functions is performed poorly, credibility is reduced across the board, whether it is the failure to prevent counterfeiting of notes or poorly executed financial stability responsibilities. The more a central bank is directly responsible for financial stability, the bigger this risk.

A third point concerns fiscal risks arising from the central bank's balance sheet (on which there was a good discussion motivated by Peter Stella's paper). Balance sheet credibility is rarely at risk, given the capital reserves and currency liabilities that most of us have but, on the margin, central banks must be aware of this possibility. As a result, central banks should have negative control – ie central banks should decide what to buy, and to whom we lend. They should not generally have positive control – ie take on new fiscal risks without agreement from the fiscal authority.

In my opinion, some of the discussion at this conference on central bank balance sheet risks stretched a little too far into actions to address solvency rather than liquidity concerns. To put a fine point on it, the discussion was heavily influenced by Fed actions under extreme circumstances. I am a great admirer of what the Fed did and the timelines in which it did it. But the Bank of Canada's exceptional liquidity measures and those of other major central banks involved taking very little actual credit risk. Most central banks provided liquidity against high-quality securities with substantial haircuts (sometimes levied on already distressed prices). We did not put our balance sheet at risk when we increased its size. This was liquidity provision – classic central banking – and I see no valid argument to separate this from our other core activities.

To elaborate on this point, it is vital that the government retains positive control over additional fiscal measures. If central banks take on new fiscal risks, there should be political support. That is why the exchange of letters between the Bank of England and the Chancellor in the United Kingdom made tremendous sense. We would have done the equivalent in Canada if the Bank of Canada had had to take true fiscal risk.

Lastly, one of the issues with credit easing is that it is very hard to avoid potential distributional impacts which have political consequences. So from a governance perspective it is important to have government endorsement of those actions if they were to become necessary.

Concluding remarks

Events of the past few years have shown that a supervisory framework with a stronger macroprudential orientation would improve our ability to evaluate the risks to system-wide stability and identify appropriate policy responses. In many cases this will involve a committee comprising the relevant agencies, similar to the microprudential committee that exists in Canada. Governance arrangements should be structured to ensure that central banks play an appropriate role in the new supervisory framework. More generally, there must be appropriate incentives and accountability for effective information-sharing and decision-making by financial authorities. Finally, central banks also need to continue reviewing how best to integrate financial considerations into the ongoing conduct of monetary policy and the design of monetary policy frameworks.

These are emerging issues, and there is still much to learn. The BIS will play an important role in deepening the analysis and sharing experiences so that each jurisdiction can develop the most appropriate structure for their financial system and regulatory construct.

Central bank governance under new mandates

Andrew Crockett[1]

Central banks have taken on new responsibilities after the financial crisis led to enhanced emphasis on their role in maintaining financial stability. I will not try to assess here the desirability of giving central banks this expanded role but rather focus on its consequences for issues of governance.

The enhanced emphasis on financial stability has implications for the governance model of central banks that have not yet been fully understood. When the focus was on monetary policy, the key governance issues were relatively straightforward and fairly widely agreed. Central banks should pursue price stability under a clear mandate that is embodied in legislation, or at least clearly articulated in public statements. Central banks should have operational independence and a high-quality technical staff. To balance independence, they should be accountable: to parliaments and congresses through periodic reporting; and to the wider public through the transparency of their decisions.

The adoption of financial stability as a major, and perhaps co-equal, responsibility of central banks significantly complicates the governance model, and for several reasons. First, there is no single, quantifiable, objective of financial stability that is as clear and understandable as that of price stability. As a corollary, there is ordinarily no way for an outsider to assess whether or not the financial stability authority has been successful in meeting its responsibilities.

Second, the related responsibilities are multifaceted. They could include, inter alia: the prudential supervision of individual institutions; the assessment and reporting of systemic risks; the imposition of restrictions on financial activity in order to manage systemic risk; intervention to support (or close) individual institutions; and systemic support of financial markets. It is not clear that a single governance model works equally well for all these rather different responsibilities.

Third, financial stability decisions tend to be more politically sensitive than monetary policy decisions. This makes the balance between independence and political responsiveness harder to strike. The prudential supervision of individual banks and the assessment of systemic risks should ideally be performed by an institution that is technical in character and insulated from political pressures. Yet decisions to commit public resources to a failing institution would seem to require the much more direct involvement of governments and legislatures.

Maintaining independence for central banks will accordingly come under greater challenge once responsibility for financial stability assumes a more prominent role. The risk is that outside interference in central bank decision-making will not stop at those aspects where there is a legitimate role for governments, but will extend also to areas in which independence is desirable and justified.

Thus, designing governance mandates for central banks with enlarged financial stability mandates will not be easy. It may help to break down the issue by distinguishing between the *external* aspects of governance (mandate and accountability) and the *internal* ones

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(structure, management and staffing). Note that these cannot always be precisely separated, since legislative mandates often encroach on issues of internal structure.

External governance

The key starting point is the legal mandate of the central bank. While this is relatively easy to specify in the area of monetary stability, it is much less so in the case of financial stability. Clearly, the goal of financial stability should be expressed in terms of the stability of the financial *system* rather than the survival of individual players. This presents a problem right at the outset, since no definition of systemic stability yet commands general assent. Perhaps there is no way of defining it comprehensively in primary legislation. However, it would be useful for the concept to be spelled out through public statements by key officials.

As far as the tools for assuring systemic stability are concerned, the authorities have (i) a preventative role through supervision of the system and its principal players, and the provision of adequate liquidity; (ii) a crisis management role in dealing with turbulence that may arise from time to time, and (iii) a crisis resolution role, of dealing with the aftermath of episodes of financial stress.

In each of these areas, it needs to be clear exactly what are the central bank's responsibilities, and what is to be shared with other relevant bodies. To preserve systemic stability, central banks need to have powers to influence the balance sheets of individual market participants. And to play the role of lender of last resort, they must be able to distinguish between liquidity and solvency shortfalls. When day-to-day supervision of individual banks is elsewhere, care must be exercised to give the central bank access to the information and the regulatory powers needed to exercise its systemic function.

When it comes to crisis management, there will almost always be an important role for government. Judgments about whether to put taxpayer funds at risk cannot reasonably be delegated to non-elected officials. At the same time, the central bank's expertise in balancing the risks to the real economy against the potential for moral hazard and cost to the taxpayer is clearly needed. In my view, best practice might provide a statutory role for central bank advice, but leave ultimate responsibility for the commitment of fiscal resources with governments and legislatures.

In crisis resolution – involving the closing of individual institutions – governments and judiciaries will have a clear role, alongside regulatory bodies. Bankruptcy is particularly complicated for a financial institution because of the implications for financial sector counterparties. So it is desirable to be as precise as possible about the powers given to central banks to intervene in the cases of individual institutions.

The potentially controversial nature of these decisions argues for reasonably clear rules, to avoid stability policy becoming a political football. On the other hand, discretion will be needed if the central bank is to allow for the particular circumstances of individual situations. In crisis situations, the central bank will almost inevitably be exposed to controversy, so it will need to be able to protect itself against unwarranted outside interference in its decisions.

Once the goals of a central bank have been embodied in a legislative mandate, how much independence does it require to fulfill this mandate effectively, and how it is to be made accountable? It is by now well accepted that, in the field of monetary policy, there should be a high degree of operational independence. Thus, decision-makers in central banks should have relatively long tenures, and be protected from removal from office for policy differences.

In the matter of financial policy, certain decisions may, as just noted, be inherently more political. Nevertheless, here too it is important for technical considerations not to fall victim to political pressures. For example, it will undoubtedly be unpopular to restrain lending when an unsustainable boom seems to be getting under way. And there will be loud objections from institutions that face closure because of the central bank's judgment that they have become vulnerable to failure. The freedom for central banks to make such determinations should, as far as possible, be protected in their statutory mandates.

In other areas, however, a greater outside element in decision-making may be appropriate. When the central bank feels public funds should be put at risk to preserve stability, its role should be as influential and informed adviser, rather than ultimate decision-taker. These distinctions should be made clear in legislation. And in all its functions, whether decision-making or advisory, it seems appropriate that the central bank should be responsible to parliaments and congresses to explain its activities. Still, a caveat is in order. Transparency is normally beneficial, but in some cases immediate transparency is counterproductive. For well known reasons, the internal deliberations of monetary policy-making bodies retain a degree of confidentiality. So also in the field of financial stability, it may be counterproductive to reveal a central bank's concern about systemic fragility institutions, lest this give rise to self-fulfilling expectations.

Internal governance

I have introduced the term "internal governance", to refer to the way in which the central bank is organised to meet the objectives of its mandate. This includes the structure of decision-making, which may be included in legislation, but also includes internal organisational and accountability issues, and recruitment and staffing policies.

A first issue is whether decisions should be made by a committee (or board), or a single individual. Most central banks have decision-making bodies in which all duly constituted members have a voting right. In my view, the advantages of group decision-making – fostering collegial behaviour and limiting the idiosyncratic influence of individuals – seem well worth any adverse consequence of slowing the process of decision-making.

Even within a committee structure, however, there are differences in the manner in which dissent is communicated. In the monetary policy area, central banks have developed techniques for reaching agreement and communicating dissent. However, it needs to be considered whether the optimal manner in which decisions are reached and communicated in the field of financial stability is the same as for monetary policy issues. Will the existence of disagreement be equally well understood?

A second question is whether there should be a unitary board responsible for all decisions of the central bank, or separate committees for different functions. The argument for a unitary decision-making body rests on the synergies between monetary and financial stability policies, and the need for consistency and information-sharing. On the other side, it can be argued that the expertise needed to make monetary policy decisions is rather different from that required to assess and deal with financial system vulnerabilities. It may therefore be difficult for individual members of central bank boards to do justice to both requirements.

In my opinion, the best way to address this dilemma, which is a real one, may be to have separate decision-making organs within the central bank, with overlapping membership. Thus, for example, the governor and perhaps one or two others could be members of decision-making bodies for both monetary and financial stability (to ensure information flow and coordination) while the rest of the membership of each body could be made up of individuals selected on the basis of their expertise in the relevant area. In addition, it may be useful to have an overarching supervisory board, which would (i) oversee decision-making processes and help ensure adequate coordination between the decision-making bodies (ii) act as a barrier against unjustified outside interference in decisions and (iii) be responsible for the administrative running of the central bank.

A third issue, of some practical importance, is the scope of decisions that are brought to the relevant board/committee for decision. In the case of monetary policy, this is relatively easy to decide. Nearly all central banks focus their monetary policy actions on periodic decisions on the level of overnight interest rates. This is simple and straightforward. In the case of financial stability, however, there are many different types of decision, whose periodicity and level of complexity may vary. Supervisory policy is usually decided at a point in time, then remains constant for a considerable period. Supervisory decisions with respect to individual institutions are made after periodic reviews. And issues that arise because of a threat to the stability of an individual institution, or the system at large, may have to be taken in real time. This places a premium on having a clear definition of the decisions to be brought to the board, or else conferring considerable discretion on the individual (presumably the governor) to act for the board. Here, too, a supervisory-type body could have useful role in overseeing decision-making processes.

Just as internal coordination is essential, so too it is important for appropriate arrangements to be made for information-sharing and cooperation with relevant external bodies. This is arguably more complicated than in the area of monetary policy formulation. Banking institutions are an integral part of the wider financial ecosystem that includes non-bank financial institutions, as well as markets and market infrastructure such as clearing and settlement systems. Moreover, the financial industry is global in scope. Close and continuous collaboration is needed with other domestic agencies and with foreign supervisors in order to avoid regulatory arbitrage or the creation of an unlevel international playing field.

A final aspect of governance is to ensure that the various functions of a central bank are appropriately staffed, their activities adequately overseen and the necessary coordination achieved.

In the field of staffing, the expertise required in different functions is rather different. A central bank that covers multiple functions will require macroeconomic analysts, commercial lawyers, accountants, business model specialists, and people who know financial systems, markets and infrastructure. Having individuals that can span all these various specialties would be desirable but difficult to achieve. Salary levels high enough to retain competent specialist professionals are needed, while still paying appropriately for the generalists.

Concerning internal organisation, separate departments for monetary policy analysis, market operations and supervisory responsibilities are probably necessary, but the risk exists that “silos” are created with inadequate cooperation and information exchange. Devising mechanisms that ensure proper coordination and cross-fertilisation may again be helped by a supervisory board, charged with ensuring effective administration.

All in all, central bank governance is likely to become more challenging under new mandates. It behoves central bankers to give as much attention to these governance issues as they currently do to the substantive issues of policy.

Governor Stefan Ingves' intervention at the panel discussion

Stefan Ingves[1]

Let me first answer the specific question on what was lacking before and during the recent financial crisis. There was a lack of overview, action, and also effectiveness in many of those cases where action was taken. In fact, we are not yet in a position to assess all these actions since their implications have not run their course.

And now to the main discussion on a macroprudential framework, which we hope will save us from the next crisis. There are three main issues: organisation, governance and mandate, and tools.

As to ***organisation***, you could establish new authorities, such as the ESRB, or joint fora comprising various authorities, or you could use the existing set-up of authorities. Being a central banker, I may be biased but I find some good arguments for allocating the financial stability task to the central bank:

- The monetary policy mechanism will not function properly if financial stability is threatened;
- The smooth functioning of the payment system is dependent on financial stability;
- An important function of a central bank in ensuring financial stability is to be prepared to act as a lender of last resort.

These interdependencies make it natural, even necessary, for a central bank to monitor macroprudential developments. Of course, close cooperation and coordination with the tasks of the Ministry of Finance and with the supervisory authority, if outside the central bank, are also necessary. It is important that each authority has a critical mass of expertise. Hence, especially if you live in a small country, there might be a risk of splitting your scarce resources into too many separate authorities.

Just a few words about the new European institution, the ESRB. I find it very promising that there will be a separate body with the sole task of monitoring macroprudential developments and risks. In particular, I would like to stress one aspect which has not so far been given the prominence it deserves, since it is a very important issue: the difficult task of monitoring developments on a cross-border basis, eg when risks in one country or region may threaten financial systems not only in the same country but also in other countries.

Whichever authority is set up to monitor macroprudential issues, its ***mandate*** must be clear. I am fully aware of the difficulties involved in defining a clear mandate, but we must try. An opaque mandate will not do. Obviously, it is much easier to define a mandate for monetary policy, which is more "technical" and recurrent. But I note that the more we discuss these issues, the more we find that the presumed inherent conflicts between monetary policy and financial stability are less than originally thought. That said, the decision-making process for macroprudential issues is very different.

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[1] Governor and Chairman of the Executive Board, Sveriges Riksbank.

For financial stability we really need two different sets of ***tools***:

- Tools that could be used when macroprudential risks increase in a cyclical manner. This could be either within a general macroeconomic cycle or a cycle within a specified part of the economy, such as real estate. In addition to any new tools, let us not forget traditional ones such as reserve requirements. Actually, this is also an argument for letting the central bank do the analytical work – as the Head of the Swedish FSA asked me, “How can you expect supervisors with their specialised skills to take the responsibility of deciding whether a certain cycle has become too hot and needs to be cooled off?”
- Tools that could reduce cross-sector risks, eg stop contagion. We would need to know how various banks and other major financial institutions and infrastructures relate to each other so that we could take appropriate measures if excessive and dangerous linkages are identified.

There is a tricky issue here. All tools for financial stability will also have some impact on the overall interest rate level. We must therefore be mindful of this and, if financial stability problems are broad, we might need to use monetary policy tools to achieve consistency. Like monetary policy-induced interest rate hikes, financial stability measures will also “take away the punch bowl when the party gets going”, to quote a former US central banker. And like monetary policy measures, financial stability tools will oftentimes be used in a situation of uncertainty, the decision-makers lacking full information, so that the measures will certainly attract criticism from certain quarters. But, being central bankers, we are used to that – that is our job.

Central bank mandates and governance arrangements

Lucas Papademos

I. Introduction

The role of central banks in preserving price stability and fostering financial stability has varied over time and differed across countries. However, at the beginning of the 21st century a number of common features and principal tendencies emerged. The financial crisis has raised important issues with regard to the role of central banks in safeguarding financial stability, their specific responsibilities and powers for achieving this objective, and the appropriate governance arrangements.

The objectives, tasks and governance of central banks have evolved in the light of experience and in order to address serious and pressing policy issues.[1] The events of the past three years have highlighted the role of central banks in crisis management as well as their potential contribution to crisis prevention. As a result, central banks in a number of countries or economic areas, including the European Union, have been assigned new responsibilities for the prevention of systemic risks and the supervision of individual financial institutions. The assignment of enhanced financial stability tasks could have implications for central bank governance.

The answer to the question "Do central bank governance arrangements need to be altered?" depends on the *extent* and *nature* of changes in the mandate of the central bank with regard to its role in promoting financial stability. In other words, it depends on the specific responsibilities assigned to and the tasks performed by the central bank. The choice of the appropriate governance arrangements is also likely to partly reflect the broader political, economic and institutional environment within which the central bank operates, especially in the case of federal jurisdictions.

II. The role of the central bank in safeguarding financial stability

Before providing a more detailed answer to this question, I would like to emphasise three general points that are fundamental and relevant to the issues we are discussing. The first point is that the assignment to the central bank of financial stability objectives and tasks should be without prejudice to the achievement of its primary objective of price stability. The conduct of monetary policy geared to price stability over the medium to longer term should remain the main central bank responsibility. It cannot be effectively performed by another authority or delegated to a "study group", as Charles Goodhart has suggested.[2] Indeed, the performance of financial stability tasks should be *consistent* with, and *supportive* of, the preservation of price stability. In the event of a potential trade-off between price stability and

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[1] For example, the need to effectively deal with the "great inflation" of the 1970s and 1980s contributed to the adoption of price stability as the primary objective of monetary policy and to changes in central bank governance that facilitate the attainment of this goal.

[2] See Charles Goodhart, "The changing role of central banks", 9th BIS Annual Conference, *The future of central banking under post-crisis mandates*. It seems, however, that Goodhart does not strongly support his own provocative suggestion.

financial stability, appropriate policy instruments should be employed to ensure that the pursuit of one goal does not jeopardise the attainment of the other.

The second point concerns an important difference between the ability of the central bank to maintain price stability and its capacity to achieve its financial stability goals. The central bank has at its disposal monetary policy instruments to preserve price stability over a medium or longer time horizon. In general, however, it does not have sufficient instruments and powers to *ensure by itself* the stability of the financial system, either to prevent episodes of financial system instability or to effectively resolve crisis situations should they occur. The stability of the financial system also depends upon the actions of other authorities and of market participants. The preservation of financial stability is ultimately a "shared responsibility".[3]

The third point, with implications for the specification of the financial stability mandate and the choice of the pertinent central bank governance arrangements, is that the concept of financial stability is complex and difficult to define in an explicit and precise manner. Therefore, the policy objective cannot be specified in a reasonably concrete way that can provide a measurable benchmark for accountability, ie for assessing performance relative to set goals.

These observations have a number of implications for the financial stability mandate and the choice of governance arrangements. First, although the mandate may not define the financial stability objective in a sufficiently explicit and precise manner, it should specify explicitly the *tasks* the central bank should perform so as to promote, or contribute to, financial stability. Second, the relevant legal framework should establish an appropriate institutional setup that will ensure effective cooperation and adequate information sharing between all authorities or decision-making bodies with responsibilities for safeguarding financial stability. The legal framework should also ensure clarity about the allocation of such responsibilities to various authorities.

III. Financial stability tasks, decision-making structures and accountability requirements

Let me now elaborate on the relationship between financial stability tasks, decision-making structures and accountability requirements. In the light of recent experience, the potential financial stability tasks for the central bank can be meaningfully divided into two categories: the first includes what may be considered core central bank functions for safeguarding financial stability, while the second involves additional – supplementary and complementary – functions. In my view, the central bank mandate should explicitly assign responsibility for the performance of the following five core tasks: (i) the provision of liquidity to the financial system and the management of that liquidity; (ii) the provision of emergency liquidity assistance to illiquid, but *ex ante* solvent, financial institutions; (iii) the promotion of the stability of payment and settlement systems; (iv) the identification and assessment of systemic risks and the formulation of macroprudential policies aimed at preventing and mitigating those risks; and (v) advisory functions concerning the regulation and supervision of institutions and the development of the financial system. These core tasks naturally include the lender of last resort function and those tasks related to liquidity management and payment system oversight that have traditionally been assigned to central banks – either explicitly through legislation or

[3] The point that financial stability, unlike price stability, is likely to be a shared responsibility is generally accepted. See Jaime Caruana, "The great financial crisis: lessons for the design of central banks", in ECB, *The great financial crisis: lessons for financial stability and monetary policy*, forthcoming.

implicitly as a result of accepted practice. They also include tasks aimed at crisis prevention and financial system soundness and efficiency.

There are good reasons why decisions within the central bank concerning the performance of these five core tasks should be taken by a single decision-making body – with one possible exception relating to macroprudential oversight and depending on the overall supervisory institutional framework. In this case, the accountability requirements should be essentially the same as those adopted in the conduct of monetary policy. Let me explain. In a crisis situation, the central bank actions required to address the impact of the crisis on system liquidity and financing conditions are likely to involve monetary policy measures – both standard and non-standard – which are aimed at mitigating financial stability risks and improving the functioning of markets. In particular, liquidity creation and management as well as credit support measures aim to ensure the smooth functioning of the money market, to prevent liquidity constraints from triggering insolvency problems, and to facilitate the efficient transmission of monetary policy. With regard to crisis prevention, the implementation of macroprudential policies to reduce systemic risks may have implications for the functioning of the monetary transmission mechanism and is complementary to the conduct of a “symmetric” monetary policy that can play a role in preventing the build-up of financial imbalances and unsustainable asset price dynamics.

All in all, the synergies and complementarities of monetary policy, liquidity management and macroprudential oversight support the view that decisions concerning the conduct of monetary policy, liquidity crisis management and systemic risk assessment should be taken by the same decision-making body in the central bank. The corollary of this conclusion is that the institutional framework for central bank independence and accountability that has been established for the conduct of a price stability-oriented monetary policy is appropriate for the performance of the core financial stability tasks.

Having made this point, I should add that a number of institutional arrangements must be in place to ensure the necessary information sharing and coordination between the central bank, the supervisors of financial intermediaries and other relevant public authorities with regard to the performance of various tasks to protect financial stability. Needless to say, decisions on the identification of systemic risks and the formulation of macroprudential policies will require information and will benefit from analysis carried out by the authorities responsible for the microprudential supervision of banks and other financial intermediaries. Moreover, in a crisis situation the distinction between illiquidity and insolvency can become blurred. This possibility, which has to be acknowledged, must be addressed through the effective coordination of actions between all responsible authorities and not by sacrificing the central bank’s independence in carrying out its assigned tasks. For this reason, a coordinating mechanism – for example, the establishment of a coordinating committee – will be necessary to address issues relating to crisis prevention, management and resolution that require the participation of officials of the central bank, all supervisory authorities and the Treasury. Such a committee should be chaired by the central bank Governor – as is currently the case in a number of jurisdictions – except on issues pertaining to crisis resolution.

In addition to the core financial stability tasks previously described, the central bank can be assigned responsibility for other tasks that contribute to financial system stability, notably: (i) the microprudential supervision of financial institutions, which in my view should be limited to banks and insurance companies; (ii) the implementation of the specific measures required to prevent and mitigate systemic risks, which would typically apply to individual financial institutions; and, possibly, (iii) certain aspects of the bank resolution process.[4]

[4] It is preferable for the central bank not to be involved in the substantive issues of bank resolution and for it to limit its involvement to implementation aspects.

Describing these additional tasks as supplementary should not be interpreted as implying that they are less important or less relevant for the central bank. There are solid arguments, which have been strengthened by the financial crisis, supporting the view that the central bank should be mandated to be the microprudential supervisor of banks because this task complements and reinforces its core functions for safeguarding financial stability. These arguments are particularly strong with regard to the microprudential supervision of systemically important institutions. There are, however, certain difficulties and risks associated with drawing a line between systemically important and other institutions and markets, as Randall Kroszner has stressed.[5] Yet for smaller countries this distinction is not likely to be a realistic option. Legislation, recently enacted or being planned in a number of countries, demonstrates that the events of the past few years have convinced lawmakers about the benefits of involving central banks in the supervision of individual financial institutions.

At the same time, the assignment of responsibility to the central bank for the microprudential supervision of financial institutions and for the implementation of macroprudential policies raises issues about, and has implications for, the central bank's decision-making structures, its interaction with the government and its accountability framework. It also entails potential significant reputation and financial risks associated with the direct oversight of institutions. These issues partly stem from the fact that the performance of these additional tasks is more closely linked to the responsibilities of the government and other authorities and may require the use of public funds.

When the central bank has both macroprudential and microprudential responsibilities, the potential for effective and timely information-sharing and coordination of actions increases, but the design of appropriate governance arrangements is relatively more complex. There are various options whose effectiveness is likely to depend on country and institutional specificities and will have to be tested in practice. One option is the establishment within the central bank of two separate decision-making bodies, but with overlapping membership which can help maximise synergies and at the same time deal with issues linked to different expertise, analytical approaches and disclosure requirements. A second option also involves separate decision-making bodies, but with greater operational separation between micro- and macroprudential activities, while retaining functional integration at the highest level. An example of this approach is being developed in the United Kingdom, where a subsidiary of the Bank of England will conduct microprudential policy under the authority of a dedicated board chaired by the Governor, but with the majority of its membership drawn from outside the central bank. A separate body, the Financial Policy Committee, will be responsible for macroprudential policy. The overlapping membership in the decision-making bodies will constitute the minority in each committee. A third governance arrangement involves less separation of prudential responsibilities at both operational and decision-making levels, with all policy decisions being made by the same board. There are several examples of this arrangement: the central banks of the Netherlands and Ireland are perhaps the best known.[6]

There is no doubt that the broader is the range of responsibilities for financial stability assigned to the central bank, the greater the degree of interaction with the government is likely to be, and the greater the need for change in the central bank governance arrangements, which in most cases have been chosen so as to support the effective conduct of a price stability-oriented monetary policy, by shielding it from political pressure. But the performance of microprudential supervisory tasks and the involvement in the *implementation*

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[5] See Randall Kroszner's comments on Charles Goodhart's "The changing role of central banks", previously cited.

[6] For a review of alternative institutional governance arrangements, see BIS, *Issues in the governance of central banks*, a report by the Central Bank Governance Group, May 2009.

of macroprudential policies should not result in limiting the central bank's autonomy to carry out these activities in a manner which protects decision-making from political or market pressures. Indeed, independence of the central bank in fulfilling all its financial stability responsibilities is essential for ensuring its effectiveness and integrity. Nevertheless, the accountability arrangements will have to take into account the legitimate rights and concerns of the government and the public that provide the resources and ultimately assume the cost of potential financial risks.

Defining the appropriate accountability mechanism for a central bank that performs a *broad range* of financial stability functions is not straightforward. This reflects inherent difficulties in specifying the policy objectives that can provide a benchmark for evaluating performance, as well as limitations on the extent or timing of information disclosure because of their potential impact on market confidence. At the same time, disclosure of the strategy that guides the performance of financial stability tasks and explanation of the macroprudential policies can provide the basis for accountability that also supports independence. It would be undesirable, because it would impair policy effectiveness, if the role of the central bank in preserving price stability and safeguarding financial stability is undermined in the future by governance arrangements that compromise central bank independence.

Do central bank governance arrangements need to be altered?

D Subbarao[1]

Thank you Jaime.

You can tell the story of this crisis in several ways. It can be told as a tale of global imbalances, of hubris in the financial system, of a failure of economics or of economists or of faulty regulation or of flawed incentives. It can also be told as a story of failure in the governance structures of central banks, and this is the story we are trying to construct in this panel discussion.

As a preface to my comments, I have put together what I believe are lessons relevant for central bank governance. Admittedly, there is no full consensus on these lessons, but at least, I think they provide a point of departure for debate and discussion. I will not go into them because we have been discussing them over the last one and a half days.

It's difficult to be original as the last speaker in the last session of a conference. All that's worth saying has been said, and what's not said is not worth saying. But all that is said has not been said by me, so I will say it.

Actually, I struggled a little bit to decide what I could say that would add value, and I thought I would present problems about governance structures from the perspective of the Reserve Bank of India. As central banks go, the Reserve Bank of India is a full-service central bank: we are the monetary authority, regulator and supervisor for banks and non-bank financial companies and important segments of the financial markets. We are the debt manager for the government, we are the regulator of the payment and settlements system; we have development and growth objectives, we are responsible for financial inclusion and we are the gatekeeper for the external sector.

The mandate of Reserve Bank of India is derived from convention rather than a narrow definition in law. Of course, there is a law that defines what the mandate is, but that is so broad that it permits anything that a central bank can reasonably do. There is no formal arrangement with the government nor is there any form of an MOU or results agreement. Indeed accountability too is not for precisely defined targets but for loosely defined outcomes. The other functions that we perform also follow from specific acts.

Indeed, what is surprising is that, for years, nobody remarked on the fact that the Reserve Bank enjoys a broad mandate that follows from conventions rather than strictly defined rules. In the wake of the crisis, though, there is debate in India too, on two questions. Whether the central bank's mandate should be more explicitly defined? And whether and how regulatory architecture should be restructured reflecting the lessons of the crisis? Drawing from those two questions, I want to make three comments about governance structures.

The first comment is about inflation targeting. The Reserve Bank of India is not an inflation targeter. However there is an influential view in India that we will serve the economy better if we become a pure inflation targeter. The argument is that inflation hurts much more in a poor country like India where hundreds and millions of people are poor and that the Reserve Bank

[1] Governor, Reserve Bank of India.

of India will be more effective in combating inflation if it is unburdened of other responsibilities.

In my view this is contestable. I believe that inflation targeting is neither practical nor desirable in India. There are several reasons. Let me go through them quickly. First, in an emerging economy like India, it's not practical for the central bank to drive a single objective oblivious of the larger developmental context. We need to balance between price stability, financial stability and growth. Second, the drivers of inflation more often than not are from the supply side. Food for example has a weight between 45% and 70% in the inflationary indices, and if inflation emanates more frequently from the supply shocks, it's beyond the pale of monetary policy. Third, we have a problem about which inflation index to target. We have one wholesale price index and four consumer price indices. It is the WPI that comes out more frequently and with a shorter lag, but it does not reflect consumer price inflation. It is indeed, very difficult to get a single representative inflation for a country of 1.2 billion people with fragmented markets and diverse geography.

Also, a necessary condition for inflation targeting is that your monetary transmission has to be effective, and we have problems in India about the monetary transmission. It is certainly improving but we are still not up to acceptable standards because of administered interest rates, the asymmetric relationship between banks and depositors, illiquid bond markets and large government borrowings. So our effectiveness in inflation targeting is necessarily compromised. And finally we have the problem of capital flows. Large and volatile capital flows have implications for liquidity and hence for inflation. Our effectiveness as an inflation targeter will be eroded by the task of capital flow management.

For all these reasons, it's neither practical nor feasible for the Reserve Bank to be an inflation targeter and I believe the governance structures will have to reflect that.

The second comment, I want to make is about financial stability. As in most other countries, the responsibility of the Reserve Bank for financial stability is implicit rather than explicit. We too are struggling with questions that are by now very familiar and I do not want to go into them. But, I only want to say that our model of regulatory architecture and mandate definition of central bank provides, I believe, a strong case for the central bank to have a wide mandate that also includes financial stability and macro- and microprudential supervision.

As Jaime mentioned, in the period 2002–2006, in India we noticed an unusual build-up of credit flowing to certain areas, notably to commercial real estate, to financing consumption, and to capital markets. Sensing this, the Reserve Bank tightened the norms by way of provisioning and risk weights. I believe that's one of the factors that were responsible for insulating India from the worst impact of the crisis. As we got into the crisis, we reversed some of those measures. So the Reserve Bank has a history and a legacy of using macroprudential tools for managing asset price build-ups. What the Indian experience shows is that there are important synergies to be gained by, first, entrusting the responsibility for bank regulation and supervision to the monetary authority, and, second, for co-locating macro- and microprudential supervision preferably in the central bank. I admit that this is by no means a fail-proof arrangement and there are significant trade-offs, but the cost-benefit calculus is decidedly biased towards a single authority with broad mandate.

The challenge, of course, is to ensure that there is information flow between departments which do bank regulation and supervision and the monetary department. What we need to build is not Chinese walls that prevent all flows of information but semi-permeable membranes that allow osmosis of information.

The third comment I want to make is about coordination with the government. Like everywhere else, in India too there are concerns about the independence of the central bank. I must add, though, that concerns arise not from a sophisticated understanding of how monetary policy should be conducted independently from short-term political compulsions, but from a larger negative perception that there is political interference in almost everything, and that's not value adding. Nevertheless, there is still a debate on the autonomy of the central bank even if it is somewhat limited. The debate arises from two concerns. The first is about the fiscal dominance of monetary policy and the second is the familiar issue that came into sharp focus during the crisis, that coordination and consultation with the government on financial stability issues may actually spill over into the monetary policy domain. Both these concerns are justified, but I believe they are exaggerated. On fiscal dominance, yes, there was a dominance in the 1970s and 1980s but, starting from the 1990s, there has been a continuous process of abatement of fiscal dominance; and there have been legal provisions by way of terminating the egregious practice of the central bank monetising public debt; of the government voluntarily accepting fiscal responsibility through an enactment. So those developments have reduced, although not completely eliminated, fiscal dominance and yielded space for monetary policy autonomy.

There is an argument made in the context of fiscal consolidation about the principle of Ricardian equivalence. The argument goes that current fiscal deficits mean future tax increases and that, in the face of the fiscal deficits, people actually increase their savings thereby offsetting the putative benefits of government borrowing and spending. Regrettably that doesn't happen in India. Indeed the discipline that a public discourse or public view can bring on the government fiscal stance is very weak. Then there is the other issue about the spillover of government influence from financial stability issues to the monetary policy domain. I can't rule out that possibility. Monetary policy and policies for financial stability often overlap and it can be the case sometimes that monetary policy action is required to manage financial stability. It may not be possible to build impregnable Chinese walls between the two. So I think there is a risk there.

To sum up, I have made three comments with reference to the governance structures of central banks. The first comment was by way of explaining why the Reserve Bank cannot be an inflation targeter. The second comment was about the synergies that flow from entrusting the responsibility for financial stability to the central bank. Finally, I commented on the necessity for the central bank of coordination with the government and how the governance structures will have to ensure that such coordination does not dilute the autonomy of monetary policymaking.

Thank you very much.