William A Ryback: Macro prudential policy – a new name for some old ways of thinking?

Speech by Mr William A Ryback, Deputy Chief Executive of the Hong Kong Monetary Authority, at the Macro Prudential Supervision Conference: Challenges for Financial Supervisors, organised by the Korea Financial Supervisory Commission / Financial Supervisory Service and the International Monetary Fund, Seoul, 7 November 2006.

*   *   *

Ladies and Gentlemen,

I am pleased to be here today to add my thoughts to this important discussion on emerging insights into the macro prudential end of the supervision business. I also am pleased to be back in Seoul one of the most dynamic cities in Asia and to be hosted by my friends in the Korean Bank supervisory community - many of whom I have known for a number of years.

It is almost ten years from the financial crises that affected many parts of Asia. This conference then is being held at an opportune time to allow us to reflect on the lessons learned. There has been considerable change over the last decade. Risk management in the regions banking systems' have become more robust. There has also been a step-change in the standards of supervision. Risk-based supervision has replaced compliance checking. There are also now moves under way to improve regional cooperation on issues like Basel II implementation, in which EMEAP will continue to play a leading role.

Clearly, no financial system can be considered stable unless the individual institutions that comprise its whole are themselves healthy. Thus risk-based supervision and proper risk assessment by banks are essential measures to bring about financial stability. In this regard Basel II will no doubt help strengthen our collective financial systems by encouraging banks to adopt stronger risk management mechanisms. Pillar 2 of Basel II will add to the stability of the financial system by providing a deeper and richer mechanism to evaluate a broader range of risks - including risks that will impact on the system more broadly - such as credit concentration risk. Encouraging greater transparency by banks under Pillar 3 also contributes to making financial systems more resilient by providing a consistent framework across national boundaries for analysts to do their job in identifying weak or risky banks.

Ensuring the soundness of individual banks – what some people now call the "micro prudential" perspective – is, however, only part of ensuring a sound financial system. Bank supervisors these days now talk about "pillars" and in addition to the three pillars of Basel II I believe that there are also two pillars of financial stability. One of these is the micro prudential perspective. The other one is the macro prudential perspective. They are mutually reinforcing and both are essential for ensuring financial stability. An important movement in the last decade has been a much more explicit emphasis being given to the macro prudential aspects of banking supervision by central banks as well as academics and other market observers.

What do we mean by macro prudential aspects? I think it has the following four features:

- First, its aims to limit the distress to entire financial systems rather than distress to individual institutions.
- Second, its chief aim is to avoid large and burdensome costs to the economy – such as expensive bank bailouts – rather than aiming to protect more narrowly the depositors of an individual bank.
- Third, it is based largely on the assumption that at least some of the risks faced by the banking system collectively differ from those faced by individual banks. In other words, the risk to the system is not simply the sum of risks to individual banks.
- And, fourth, it aims to examine risks that arise from the interaction of banks as part of a financial system rather than on a bank-by-bank basis.

While having sound and sturdy building blocks of the system is essential, it is also essential to understand how they all fit together in a framework and this is where the macro prudential perspective becomes critical. In short, the difference between the two pillars of micro and macro prudential surveillance is between a system-wide health check and ensuring that individual banks are inoculated

properly from disease. The macro prudential pillar takes account of those risks that may affect all, part, or most banks in the system - and not just individual banks.

Like most other bank supervisors I've spent most of my career looking at banking system soundness mainly from an individual bank perspective. However, as a career central banker, I also have had to spend a good deal of time looking at financial stability from the macro prudential perspective as well. For much of my career we didn't call it macro surveillance but it was very much in our minds when, for example, in the late 1980's the U.S. banking system suffered from the collapse of a number of sectors of the economy episodically resulting in a very unhealthy and unstable banking system as a whole. Over 1,500 banks failed and public confidence in the industry was understandably threatened. In fact, on two occasions during that period the system was so close to collapse that major banks were unwilling to settle transactions unless the physical documents were in hand. At that time public policy was being directed toward eliminating weak and unstable banks so that trust and confidence could return – a necessary precursor to turning around a weak economy. That's why – to use the title of my speech – I wonder whether the trend toward macro prudential surveillance isn't just a new name for something we, as supervisors, have been doing all along.

An interest in macro prudential policy is part of what Tomasso Padoa-Schioppa has called the "genetic code" of central banks. Throughout their history central banks have aimed to ensure the overall soundness of the financial system and this followed naturally from their basic functions. Three historical developments were the key to this. In the beginning central banks were first and foremost banks – and like any bank they needed to consider the soundness and creditworthiness of their clients as well as factors in the general trading environment that might cause them losses. Second, over time, central banks developed a monopoly over ultimate liquidity, the means of final settlement, and they facilitated the settlement of inter bank payments through the rediscounting of commercial bank assets and the collection of reserves in the form of bank deposits. Third, as commercial bank money progressively developed into a larger share of the money stock, the value of money became dependent on the soundness of commercial banks. In this environment the concern of the central bank for the orderly functioning and stability of the banking system arose from the need to maintain the public goods of a stable means of payment, a unit of account and a store of value. This included last resort lending when commercial banks suffered from liquidity strains.

This historical development meant that by the end of the nineteenth century, or by the early years of the twentieth at the latest, central banks' concern for financial stability was an already well-established part of their function. However, the second half of the twentieth century saw many central banks also taking on the responsibility for statute-based micro prudential supervision. In many parts of the world banking laws were passed for the first time and the central bank often became the bank supervisor. In this process the distinction between the micro- and macro- perspectives became blurred.

What has changed in the past ten to fifteen years is that central banks have started to give much more explicit emphasis than in the past on their macro prudential responsibilities and have distinguished it more clearly from the micro-supervision perspective. This renewed emphasis has several different sources.

One of them was undoubtedly the financial crises that hit Asia in 1997. This experience showed that even if the individual banks in a financial system appear to be sound, the system itself can still be overwhelmed by financial shocks. For example, the system can be exposed to a common risk that isn't obvious from looking at each bank individually. In the Asian crisis countries the exposures of banks to foreign exchange risks didn't show up on bank balance sheets. The risks were instead in the balance sheets of their major borrowers, who had borrowed heavily in foreign currencies even though they had domestic currency cash-flows. And this also points to another feature of macro prudential concern – it cannot stop at the traditional boundary of the banking system, but must look at the risks in the non-bank financial sector and at the structure of household and corporate balance sheets.

There are also two other factors worth mentioning.

The first is that central banks have become increasingly aware that monetary stability and financial stability are closely linked. It used to be said that the reason why central banks were concerned about banking system soundness was that the banks were the main transmission mechanism for monetary policy. This still remains largely true, but central bankers have come to recognise that other aspects of financial stability also matter from the point of view of being able to meet monetary policy goals. For example, as the bond market has become an increasingly important as a transmission mechanism for monetary policy, market conditions, the soundness of intermediaries, and the transparency and integrity of pricing have all become relevant issues for the central bank to consider. The debate that

took place a few years back on whether central banks should also target asset price inflation as well as consumer price inflation is another example.

A third factor has been the changing responsibilities of central banks. The recent emphasis given to macro prudential policy has coincided with the move, in some countries, to establish regulatory agencies separate from the central bank. The statutory responsibility for ensuring bank soundness has moved to these agencies, but the central bank has kept its traditional concern for the overall soundness of the financial system. This has led to a clearer distinction between the micro- and macro-perspectives that had become blurred in the second half of the last century. In Britain the creation of the Financial Services Authority led the Bank of England to build up its resources in financial stability analysis. This was a result of the Bank's efforts to ensure that oversight of the financial system did not fall between the gaps in the new institutional structure of supervision. Since then other central banks have followed the Bank of England's lead. Financial stability units – small teams with backgrounds in economics and banking supervision whose job it is to monitor wider trends in the financial system – are now increasingly a feature of the organisational charts of many central banks.

These factors have led to a redefinition in the way in which central banks have begun to approach their traditional macro prudential remit. I would like to mention four of these in particular:

- The formalisation of payments and settlement system oversight;
- The publication of financial stability reports;
- Stress testing and scenario analysis; and
- Concern with financial condition of non-bank financial intermediaries and health of corporate and household balance sheets.

Let me now briefly talk about each of these in turn.

Payment system oversight has been part of the core functions of central banks almost from the very beginning. However, once the formal responsibility for banking supervision was split away from central banks like the Bank of England and the Reserve Bank of Australia, these central banks began to formalise their role in payment system oversight. In Australia, for example, the 1998 Payment Systems (Regulation) Act gives the RBA powers to regulate the payments system and purchased payment facilities (such as travellers' cheques and stored value cards). It also allows the RBA to obtain information from payment system participants and to set access regimes and determine risk control and efficiency standards for designated payment systems. The RBA's responsibilities in this regard are discharged by a Payments System Board.

The adoption of Real Time Gross Settlement (RTGS) has been another key risk reduction initiative on the part of many central banks in the past decade and a half. These systems eliminate the build up of settlement exposure and Herstatt risk between financial institutions as a result of the exchange of high-value payments and debt securities settlements. Instead, individual transactions are settled in real time across accounts at the central bank. The availability of RTGS is also an important step in dealing effectively with foreign exchange settlement risk.

Finally, no discussion of payments system oversight would be complete without some mention of Anti-Money Laundering initiatives. AML is important for the integrity of payments systems, and thus also has important macroprudential implications.

The publication of a Financial Stability Report is the second way in which central banks have given more prominence to their macro prudential responsibilities. The Bank of England was among the first movers and its Financial Stability Report is now a decade old. The report recently underwent a revamp reflecting how rapidly this type of analysis has evolved in that time. Many other central banks have since followed the Bank of England's lead, and in the HKMA we have published our own Monetary and Financial Stability Report for several years now. More recently we began an internal Banking Stability Report which aims to provide a macro prudential perspective on trends in the banking system that we can then use to target our on-site bank examinations more effectively. The eventual goal is to try to draw these two reports more closely together and to bring a more forward-looking perspective to our banking supervision work.

When central banks make their financial stability analysis public it provides financial system participants with an insight into the central bank's perception of the vulnerabilities of the system. It enables policymakers to be transparent in their views of where they perceive the risks and vulnerabilities to be. Hopefully, by raising warning flags at a sufficiently early stage – for example if we

perceive risks in a build up of credit to a particular sector – we can encourage banks to review the risks that they are running and, if necessary, to take action to mitigate those risks. But it is important to be careful how the risks and vulnerabilities are presented. The last thing we want to happen is for the predicted problems to surface because everyone has rushed for the exit at the same time. So the message has to be not one like "we think it's too risky to extend more credit to this sector" but instead more like "have you thought about the entire range of relevant risks in extending more credit and are your underwriting criteria in line with the riskier environment?" It's important in publishing a financial stability report to present its findings as a range of possible outcomes which the private sector can then be encouraged to factor into its own risk management practices.

Stress tests and scenario analysis provide the intellectual backbone for financial stability reports. Stress testing, in particular, has come a long way in recent years. The HKMA's requirements on stress testing by banks have been in place for some time. Our Supervisory Policy Manual Module on Stress Testing, issued in early 2003, requires banks to have in place a stress-testing programme and to integrate stress testing into their risk management processes. For our own internal purposes we also conduct stress tests by applying a range of shocks to the supervisory data that is reported to us. These shocks take into account various adverse movements in banks' liquidity, interest rate and market risk positions.

However, the techniques of stress testing are rapidly evolving and are becoming increasingly more sophisticated. The first generation of stress tests simply took a variable and subjected it to a shock. It was basically just a matter of saying "let's see what happens to capital if NPL's go to 20 percent." This type of crude stress test is quite helpful for a sense of how solid the system's capital buffer might be, but it doesn't allow you to take into account second and third round effects. If NPLs have risen to 20 percent of total assets, then there are likely to be a lot of other things happening in the economy at the same time, all of which could have additional implications for banks' financial soundness. As a result, stress testing is moving increasingly in the direction of scenario analysis. This involves economists constructing scenarios for the outlook on GDP, interest rates etc. and tracing through these changes in terms of their impact on the key measures of banking system soundness including profitability and capital adequacy. This approach involves some quite advanced economic modelling techniques and is still in its early days. However, the recent revamp of the Bank of England's financial stability report that I mentioned earlier was designed to give a larger role to this type of analysis.

A final issue that I'd like to discuss is that macro prudential analysis cannot stop with the banking system or at the borders of a particular jurisdiction.

In the past it might have been reasonable to think that systemic risk was something that began and ended with the banking system. As long as the banking system was – or at least appeared to be – sound, as central bankers we did not need to worry too much about what happened elsewhere in the financial system or the condition of the corporate sector or the structure of household balance sheets. But this is no longer true, if it ever was.

I have already mentioned the role of the corporate sector in the Asian financial crises of a decade ago. The fact that it was the corporate sector rather than the banking sector that had assumed foreign exchange risk ultimately didn't matter from the point of financial system stability. The effects were the same – or possibly were greater as the corporate sector was less well able to handle the risks than the banking sector might have been. From a macro prudential policy perspective this means that we must pay attention to conditions in the corporate sector and the soundness of corporate balance sheets. And given that so many banks in Asia have followed those in the rest of the world in looking to develop their consumer credit business, the condition of household finances is also important to understand from a financial system stability perspective.

In addition, the experience of the last decade has also taught us that non-bank financial intermediaries matter for the soundness of financial systems. For example, there is plenty of evidence that insurance companies have been major sellers of credit derivatives. This passes credit risk from the banking system to the insurance sector. How well can the insurance sector manage such risk? And if bank-insurance linkages are strong (e.g. through financial conglomerate groups) can we be sure that the risk has really passed out of the banking system? Similarly, the role of hedge funds in financial systems has recently begun to receive a good deal of attention from central banks and regulators. The extent to which they increase the volatility of financial markets has long been the subject of debate. But increasingly this largely unregulated sector has become a major provider of credit – thus transferring risks out of the regulated banking sector and into a part of the financial system that is far from transparent. Macro prudential policy cannot afford to ignore these innovations.

Finally, as the debate on hedge funds has also shown, financial stability analysis cannot stop at national borders or in particular jurisdictions. A hedge fund based in the Caribbean is capable of moving markets half way round the globe. In these circumstances, macro prudential policy must take into account the possibility of shocks originating outside our domestic financial systems in today's global, integrated financial marketplace. It also requires central banks and regulatory agencies to cooperate to develop policies to mitigate these risks.

In conclusion I come back to the question with which I started: is macro prudential policy simply a new name for some old ways of thinking? By now it should be clear that my answer is that it both is and it isn't. There is nothing new in central banks' concern with the stability of the financial system. It is part of their genetic code. What is new, however, is the explicitness with which the financial stability goal has been articulated, the broader range of intermediaries and institutions that form the focus of macro prudential policy, and the range and sophistication of the tools of macro prudential analysis. All of these are of a completely different order to those of twenty – or even ten – years ago. Thank you.