Welcome to Sydney. It is a pleasure to be here to make some remarks at the opening of your conference. The opportunity this forum provides to exchange ideas and participate in vigorous discussions is undoubtedly valuable, not least at this particular juncture.

The past nine months have certainly been a very challenging time in international financial markets. We have seen a significant reappraisal of certain categories of risk and considerable financial turbulence in key international markets. Economic prospects in the United States, in particular, have taken a significant turn for the worse. The extent of disengagement in some core markets, which hitherto had been thought to be extremely liquid and reliable, has been quite unsettling.

The fact that your conference has a focus on innovation is apt as well. It will not have gone unnoticed that difficulties associated with some particular innovations of the past decade have been prominent in the recent period. It has been remarked by others that the complexity of some new instruments meant that they were not well enough understood by investors, and perhaps even by those promoting them. Complexity is also the enemy of liquidity, which proved to be much less reliable than had been assumed. Perhaps future innovations will need to take account of the difficulty people inevitably have in grappling with complexity, and the dangers of illiquidity. In the end, though, human nature, with its propensity initially to underestimate risk in good times, then to over-react when risk materialises, is probably a permanent feature of the landscape.

I will organise my remarks today under three headings: How did we get here? Where are we now? And what policy issues arise for future consideration?

I should be clear that my remarks are principally about global events. They are not directed towards the Australian financial system in particular. The local financial community has certainly been affected by the global turmoil but, on the whole, as the Reserve Bank’s Financial Stability Review being released later this morning sets out, is weathering the storm well. Profitability remains very strong and capital sound. There is very little direct exposure to the US sub-prime problems, but the main reason for the resilience is many years of robust economic growth, sound regulatory foundations and prudent risk management. The Reserve Bank has been carefully

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1 This observation has been made by many in the past year, including the Bank of England Governor, Mervyn King (http://www.bankofengland.co.uk/publications/speeches/2008/speech333.pdf and http://www.bankofengland.co.uk/publications/speeches/2007/speech324.pdf) and Federal Reserve Chairman, Ben Bernanke (http://www.federalreserve.gov/newsevents/speech/Bernanke20070515a.htm).
monitoring access to funding, including offshore funding. We judge it to have been more than adequate, even if more expensive, though, of course, we will continue to watch the situation closely. But the centre of recent developments has been offshore, so my remarks today are about the global scene, not the Australian one, unless specifically noted.

**Background to the Present International Situation: How Did We Get Here?**

Although the headlines of the past year have been dominated by stories about the sub-prime loans in the US mortgage market, in fact the genesis of the problems was much earlier. For much of the preceding decade, international capital markets were characterised by the search for yield. An excess of saving over investment in Asia was a feature, resulting partly from the reaction to the late-1990s crisis and the determination to avoid a repeat of it. The rapid growth of Chinese incomes and the lag between that trend and a corresponding rise in consumption was also a factor. These trends, associated as they were with a surplus of internationally tradable goods and services, carried a degree of disinflationary impact for the rest of the world, which made strong growth in demand and low inflation easier to combine. They also lowered the marginal cost of financial capital in global markets. Somewhat later, oil rich nations also provided funds to the global economy and spurred on this search for yield, since mounting revenues from higher oil prices were invested rather than spent by governments that were now more fiscally conservative. In the major developed countries, interest rates at the short end were also lower than normal for a long period after the mild 2001 recession in some of the G7 countries, as monetary policies sought to manage the particular circumstances each country faced.

This was associated with an unusually stable period for macroeconomic conditions. The ‘great moderation’ in volatility of output and prices had been under way in the United States since the mid 1980s but it became more obvious in many other economies in the 1990s and 2000s. In my mind, there is little doubt that this lowered perceptions of risk, and indeed it is a fact that default rates on corporate debt, even sub-investment grade debt, were unusually low through the past decade. They remain low even on the latest data, up to end 2007, though they will presumably rise somewhat over the next couple of years.

In this environment, the search for yield continued. This saw end investors consciously begin to accept more risk in order to find the returns they were seeking. Additionally, the easy availability of credit and benign macroeconomic environment led to an increase in the use of leverage to increase returns further.

It also provided the demand side backdrop for the development of new instruments. The innovative financial community obliged and provided ever more sophisticated ways of achieving the returns desired by investors. The innate complexity and, in some cases, opacity of these instruments made their properties hard to assess. With this reduced transparency, it was easy for investors to underestimate the risks that they were taking on. Observable compensation for risk declined over time, as evidenced by various market spreads, non-price terms of loans and so on. This was something about which numerous prudential supervisors, central banks and private bankers commented on over some years.
Eventually, something was going to occur that would trigger a reappraisal of risk. It is remarkable that this took so long. Over several years, we had a string of events that could have, and in other times surely would have, triggered a reassessment: prominent credit rating downgrades of some major US corporations to sub-investment grade status; a default on foreign debt by Argentina, followed by rather rancorous negotiations over restructuring; political instability in several countries; a very large rise in the price of oil; significant tightening of US monetary policy up to 2006; the list goes on. Through all this, financial sentiment barely missed a beat.

Then, in early 2007, the escalating losses on the 2006 vintage of US sub-prime mortgages first started to come to light. It took some months for those losses to show up in certain hedge funds, structured investment vehicles and so on. But by July and August 2007, enough had emerged for there to be a marked change in sentiment.

There is no need to give a detailed treatment here of subsequent events: they are well known, so it is enough to observe the broad outlines. As the scope of potential losses became clearer, the business models of some of the entities that were exposed came under pressure, particularly those which were reliant on short-term wholesale funding and/or securitisation. Markets for asset-backed commercial paper stopped the flow of new funding, and for a time were very reluctant to roll over existing funding for entities that were seen to have sub-prime exposure. Much of the resulting funding pressure came back to the balance sheets of the major international banks and investment banks that had initially sponsored these entities. Essentially, they took the responsibility for funding sub-prime assets. At the same time, these and other institutions found that a number of other markets had also become difficult to operate in. This saw them unable to shift loans originated from their balance sheets, even though these loans were unrelated to the US sub-prime mortgage market – for example, loans associated with merger and acquisition activity.

In this climate of uncertainty over both credit exposures and funding needs, funding liquidity pressures became acute on occasion during the second half of 2007. Short-term market yields became much less closely connected to the overnight rates that central banks typically control. Central banks responded by expanding the scope and scale of their routine market operations, adding additional liquidity, accepting a wider range of assets in their operations and expanding the maturity of their lending facilities. There were also some internationally coordinated actions to provide foreign currency funding under swaps between some of the major central banks. Practices have continued to evolve.

The Current International Situation: Where Are We Now?

Over the recent period, disclosures of losses associated with various credit products have continued. Financial institutions and investors have continued to be wary of what credit losses may yet be unearthed. Institutions have generally made strong efforts to disclose exposures appropriately, but there are major difficulties in valuing the relevant assets, not least because some markets have effectively ceased to operate – so no price can be observed. It appears that some very high-quality assets are valued at prices that embody extremely pessimistic assumptions about returns.
Key segments of credit markets remain in difficulty. There have been few, if any, issues of mortgage-backed securities in recent months, though the commercial paper markets have at least stopped contracting. It appears that the most highly rated corporate names can still access capital markets, but many corporates are approaching their banks for funding. Business credit provided by the banking system has accelerated in the United States over the period since mid 2007.

This process of reintermediation is a very necessary one, if the flow of credit to the major economies is not to be seriously disrupted. For the time being, and perhaps for some time ahead, the financial intermediaries need to fill some of the gap that the capital markets have suddenly left. With this comes, of course, the need for those intermediaries to have adequate funding themselves – one obvious reason for the pressure on term funding costs. They will also need sufficient capital to take on the risks inherent in the lending, since capital markets apparently no longer wish to accept those risks. This is, in fact, a key element of the whole situation: more capital needed to be carried by the big international banks to support the risks they were taking, and that capital has to be found now. In addition, the risk capital that was available from markets is no longer there to the same extent.

The intermediaries have found substantial capital over recent months. By curtailing share repurchases and reducing dividends, several intermediaries have generated some of the necessary capital internally. More crucial has been the fresh capital raised through selling stakes in their businesses to individuals, institutions and governments. These deals, however, have been costly, leading to a significant dilution of the interests of their existing shareholders. Irrespective of this, with both these sources of capital, intermediaries have been able to maintain, and in some cases increase, their capital ratios – even when they have reported significant losses. With this being the case, they have also, at least so far, been able to step in to fill the gap in corporate funding.

In addition to reintermediation and the pursuit of new capital, we are seeing a significant process of de-leveraging. Entities with high leverage and/or complex structures have come under significant pressure in recent months as share markets question their resilience, and lenders seek a reduction in risk. We have seen some notable cases of this in Australia, but they are merely a reflection of what is going on in the major markets of the world. Private equity firms, hedge funds and so on, all find the environment much less accommodating than was the case a year ago. This process of balance sheet contraction has been an additional further factor disrupting markets of late, as asset sales have to be absorbed under already skittish conditions.

In the meantime, real savings are still flowing into pension funds, insurance companies and other institutional investment vehicles. This is genuine capital, seeking a productive use. But these investors appear to be taking a more cautious approach to risk, given the short-term uncertainty over asset valuations. It is a fair bet that they have higher positions in cash – overnight or very short-term highly rated securities – than would normally be the case. This is placed largely in banking systems, so the major intermediaries are, I expect, generally flush with very short-term liabilities, even though longer-term funding remains difficult. This means

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2 Sovereign wealth funds have been particularly active in providing this fresh capital. They have reportedly provided at least half of the capital injected into these intermediaries in recent times, and acquired stakes in Citigroup, Morgan Stanley, Merrill Lynch and UBS.
that these intermediaries may be undertaking more maturity transformation than they would ordinarily find comfortable.

Increasingly, there are good quality assets at prices that would, in normal times, be very attractive. At some point, investors who are currently on the sidelines will need to summon enough confidence to take up the opportunities for profitable exposure to risk. It is impossible to say when this will occur, but we can perhaps outline what the pre-conditions are. Investors will want a reasonable level of confidence that the bulk of the losses in the most important institutions have been accounted for and disclosed, that remaining ‘excess’ leverage has been essentially sorted out, and that any remaining downside risks to asset quality stemming from slowing growth in the major countries are manageable and within the set of normal parameter variation that their portfolios can cope with.

Where to from Here? Issues for Policy-makers

This financial instability presents a difficult set of challenges for policy-makers around the world. First, central banks have the obligation to maintain liquidity at the core of the system. In the face of repeated system-wide surges in the demand for liquidity, they have accommodated that demand. They have also been prepared to lend at longer terms than usual, and deal with a broader range of counterparties in order to foster a little more confidence in the availability of funding beyond the very short term. The Federal Reserve has also facilitated the absorption of Bear Stearns by a stronger competitor, by being prepared to use assets from its own balance sheet in a collateral swap. This is, however, not a ‘bail out’ – the shareholders and managers of Bear Stearns have lost a great deal of money, but the system will be stabilised.

Turning to the Australian setting for a moment, in the Reserve Bank’s case, we have been prepared to increase the total amount of liquidity substantially, as required. We have widened the range of eligible collateral for repurchase agreements (we already had a pretty wide range of counterparties prior to last August). We have also been prepared to enter into repurchase agreements for six months and longer on occasion, given the pressure on market funding rates at that horizon. Even with that, however, the relationship between the cash rate (or, more correctly, the expected future cash rate) and rates on high-quality private paper at a three-to-six month term is much looser at present than it has tended to be over recent years. This means that the cost to banks of raising funds in the market has moved independently of the overnight rate. The presumption that their lending rates would and should move only in line with the cash rate, which had arisen in an earlier period when all these rates were much more closely related, has not been a realistic one in the recent environment. Of course, in setting the cash rate, the Reserve Bank has taken account of these shifting relationships, just as it does shifts in other relationships in the monetary transmission mechanism.

Returning now to the global scene, central banks are continually assessing the potential impact on economic activity and inflation from these events, as they evaluate monetary policy settings. In the United States, the Federal Reserve has responded to evident weakness in economic activity, and the risks posed by the possibility of a significant disruption to credit provision, by lowering overnight rates quickly.
Elsewhere, policy-makers are trying to assess the potential spillovers. The weak US economy and depreciating US dollar will have some impact via reduced trade in goods and services. But that channel is less important than the possibility of financial contagion from a set of forces not confined to the United States but affecting international capital and money markets generally. What complicates matters is that policy-makers have to consider that possibility at a time when they are also confronted with a troubling level of inflation in a number of cases.

Longer term, a number of issues arise that are the subject of intense work in the central banking and supervisory community. Arrangements for the provision of liquidity by central banks have been changing in response to the events of the past eight months, but it is likely that there will be continued discussion about whether further refinements might be sensible. These will include how to make arrangements sufficiently flexible and adaptive, including across borders, which may be needed given the globalised nature of markets.

The discussion will also need to pay due regard to the potential for other consequences of changes to practice in this area, including the possibility that private entities become so confident that liquidity risk has effectively been removed that they end up taking more risk of other types. That could leave both themselves and their central banks in an awkward position at some point down the track. So in parallel with ongoing development of liquidity arrangements by central banks, there will need to be a focus in the supervisory community and the banks themselves on liquidity management.

**Conclusion**

International financial events over the past nine months have been a source of considerable instability. Risk that was always in the economic environment has belatedly been recognised. The ensuing process of assessing and disclosing losses, finding new capital and de-leveraging has been very difficult. Matters have not been helped by the opacity and complexity of some of the financial instruments involved, and the associated problems in valuing them.

For market participants and policy-makers alike, this environment has been challenging indeed. Those of you in the markets are dealing with heightened volatility and uncertainty. Policy-makers, meanwhile, are working hard to stabilise the present international situation. In some countries, especially the US, that involves being prepared to take measures quite aggressively, in an effort to avert a cumulative spiral of declining asset values and deteriorating creditworthiness feeding back on itself and doing great damage to the economy. In other countries, where financial strains are also occurring though not always to the same extent, it has thus far involved significant changes to liquidity management, while balancing the financial risks against other macroeconomic risks in an effort to foster long-run stability. In all countries, though, policy-makers are also keeping an eye out for the potential low probability, but high cost, downside events that could emerge.

It looks as though the environment will remain quite challenging for us all for a while but the strength of the Australian financial system is, for Australia, a good basis for meeting the challenge. ✧