The Stability of the Financial System

The following is the text of the R.C. Mills Memorial Lecture delivered by the Governor, Mr I.J. Macfarlane, at the University of Sydney on 29 July 1999.

Introduction

It is an honour to be here today at the University of Sydney delivering the eighteenth R.C. Mills Memorial Lecture. It is customary to start a Memorial Lecture by paying homage to the person in whose memory the lecture is held, but I would like to break with tradition and do that a little later where it fits in more naturally.

On nearly every occasion when I speak before an audience such as this, I talk about some aspect of monetary policy. That is what is expected of me because people – very naturally – associate central banks with monetary policy. Monetary policy's major task is to contribute to sustainable economic growth through maintaining low inflation, as we have been doing with some success during the 1990s. I have talked about this at length elsewhere, and I am sure that informed people are well acquainted with the current monetary policy regime in Australia, which is based on an inflation target, an independent central bank and a floating exchange rate. As a result, I do not wish to take up any more time going over old ground.

The subject of *financial* stability does, however, call for some public explanation. For a start, a lot of people are unsure of exactly what it means. Additionally, there are those who are unsure of what its relation is to central banking, which, as I have just said, they usually associate with monetary policy. In the remainder of my lecture I would like to cover both these topics, plus two other issues: what does the Reserve Bank need to do to fulfil its financial stability responsibilities; and whether the changes we have seen in the structure of financial systems over recent decades have made the system more or less stable.

What is Financial Stability?

Financial stability is the avoidance of a financial crisis. A financial crisis is a more modern term for describing what used to be called 'banking panics', 'bank runs' and 'banking collapses'. We use the broader term *financial* because, with today's more sophisticated financial systems, the source of the crisis could be the capital markets or a non-bank financial institution rather than a bank, although almost certainly banks would become involved.

A well-functioning financial sector is critical to an economy's well-being because it is so intimately connected to every other sector of

the economy through its role of providing credit. When large-scale failures occur among financial institutions, the supply of credit dries up and this quickly leads to cutbacks in other industries. Additionally, the finance sector is the part of the economy that is most susceptible to crises of public confidence. A problem that hits one part of the finance sector can quickly spread to the rest of the sector, and then to the economy more widely. Once it becomes widespread, it is termed a systemic financial crisis to distinguish it from one that is confined to a single institution or a very narrow part of the financial system.

Another way of approaching financial stability is to look at it from the perspective of developments in the overall economy. There is widespread recognition in the community that the normal growth path of an economy is not smooth. We have all lived through a number of business cycles, and although we wish that the cycle could be abolished, most of us are resigned to the fact that expansions cannot go on forever, and they will be followed by a recession. Provided that these recessions are not very frequent and not very deep, public confidence in the legitimacy of the economic system remains intact. The problem with a serious bout of financial instability or a systemic crisis – inevitably involving a boom in asset prices, followed by a bust – is that it makes the recession much deeper and longer, and can even turn it into a depression.

The best-known example of this is the Depression in the United States in the 1930s, the severity of which is now widely attributed by modern scholars to the collapse of the US banking system.[1] Australia had a similar experience in the Depression of the 1890s, and some more recent examples, which I will cover later, contained some of the same elements, although fortunately on a smaller scale. Over the past three years, we have witnessed the Asian economic crisis, the depth of which is largely due to the collapse of financial systems in these countries. Although it is not well known in Australia, the Nordic countries (Sweden, Norway and Finland) went through a similar experience a decade ago.[2]

Table 1: Cost of Recapitalisation

Country	Period	Cost as per cent of GDP
Spain	1977–1985	16.8
United States (Savings and Loans)	1984–1991	3.2
Scandinavia		
Finland	1991–1993	8.0
Norway	1987–1989	4.0
Sweden	1991	6.4
Latin America		
Chile	1981–1983	41.2
Mexico	1995	13.5
Asia		
Indonesia	1997–1998	34.5
Korea	1997–1998	24.5
Malaysia	1997–1998	19.5
Philippines	1981–1987	3.0
Thailand	1997–1998	34.5

Sources: Caprio and Klingebiel, World Bank, July 1996; World Bank, Asian Growth and Recovery Initiative, 1999.

1. See, for example, Bernanke (1983) and Romer (1993).
2. See Llewellyn (1992).

In short, it is possible to have a normal business cycle where financial stability remains intact. These are usually quite mild cycles. It is also possible to have cycles where financial instability plays a large role. These are usually very severe. Thus, there are very good reasons for a country to do what it can to avoid financial instability. History shows that it does not happen very often, but when it does, its effects can be devastating.

Another direct and measurable cost of financial crises is the cost to taxpayers of fixing them. When there is widespread failure of banks and other deposit-taking institutions, the government invariably pays out depositors in full or in part, whether or not there is a formal system of deposit insurance. Financial institutions also have to be recapitalised in order to allow them to start lending again. The cost to the budget of both these types of assistance can be enormous, as shown in Table 1. Note that the figures given for Asian countries are only estimates as the final bill has not yet come in. The outcome could be lower or higher, depending largely on how quickly Asian countries resume their growth path.

Central Banks and Financial Stability

The idea that a central bank should have responsibility for financial stability has roots deep in the history of central banking. Indeed, in many countries, financial stability considerations were the original reason for the formation of the central bank. Perhaps the best example is the United States. The establishment of the Federal Reserve System in 1913 was a direct response to the bank runs and financial panic of 1907. It was only later that an explicit monetary policy role was grafted onto the Federal Reserve's financial stability responsibility.

Elsewhere too, financial stability issues played a significant role in central banking. By the end of the 19th century, the Bank of England was well practised in acting as the lender of last resort. In the 1850s and 1860s, following the bursting of speculative bubbles in the US and UK railroad sectors, it lent freely to institutions to prevent financial panic, as it did during the Barings crisis of the 1890s. In France, the unravelling of speculative positions in the stock market in 1882 led the Banque de France to provide secured loans to the Paris Bourse. In Italy, the collapse of a building boom in Rome and Naples in 1893, and the resulting failure of one of Italy's largest banks, prompted the creation of the central bank, the Banca d'Italia.[3]

Financial stability considerations also played a role in the development of central banking in Australia, although less explicitly than in the United States. In the early decades of this century, there were strong advocates for a central bank along the lines of the Bank of England. Progress, however, was hampered by ideological debates about the role of private banking, and by concern that a central bank would out-compete private banks. While the Commonwealth Bank did take on some central banking functions in the 1920s, including note issue and the provision of settlement accounts, the watershed was the 1936 Royal Commission.

It is here that we return to Professor R.C. Mills. In between establishing the economics department of the University of Sydney and chairing the University's Professorial Board, Professor Mills played a prominent role as a member of the Royal Commission. As S.J. Butlin notes in his biography of Mills, the structure of the Commission's Report and its drafting owes much to Mills' hard work and his ability to argue and persuade. Mills was an advocate of a strong central bank with responsibility for ensuring the overall stability of the financial system and the economy. He, and his colleagues on the Royal Commission, argued that the private banks had intensified economic fluctuations by lending aggressively during the boom of the late 1920s and then contracting lending harshly during the

3. Goodhart (1985) gives a comprehensive review of this history.

Depression. This was seen to be a repeat, although on a smaller scale, of the situation in the 1880s and 1890s. The Commission argued that a strong central bank might have been able to limit the unhealthy expansion that eventually brought about the crisis.

The idea that a central bank should seek to restrict those developments in the financial system that threaten the health of the economy strikes a strong resonance today. The difference between today's interpretation and that advocated by Mills and his colleagues is a subtle, but important, one. In the 1930s, banks dominated the financial system, and a framework of regulation on *banks* was seen as the best way to ensure financial stability (and to operate monetary policy). Today we realise that heavy regulation stifles competition and innovation, and is an ineffective mechanism for monetary policy – even though it can achieve a high degree of financial stability.

We also recognise today that, while banks remain at the core of the financial system, financial markets – and by this I mean the money, debt, equity, derivative and foreign exchange markets – play a much bigger role than they did in the 1930s. Control of banks is no longer the same thing as ensuring financial stability – the issue is now much more complicated. Indeed, following the recommendations of the Wallis Report in 1997, the Government specifically separated the prudential supervision of banks from the Reserve Bank and vested it in a completely new institution, the Australian Prudential Regulation Authority (APRA).

This sounds on the surface to be very different from the sort of world envisaged by Mills, but it is only so in a managerial sense, not in a fundamental economic sense. The Reserve Bank still has dual responsibilities for monetary policy and financial system stability, something of which Mills would have approved. And, of course, these two responsibilities were spelled out again in the Wallis Report, and in the speech by the Treasurer when introducing the Wallis reforms.

What is different now is that the day-to-day face-to-face process of bank supervision, with its setting of standards, monitoring, interpretation and data collection, is carried out in a separate agency – APRA – which also has responsibility for the equivalent supervision of other deposit-taking institutions, insurance companies and the superannuation industry. APRA's role is an extremely important one. Recent events in Asia have reminded us that good supervision of financial institutions is the single biggest contribution that governments can make to ensuring financial stability, whether it is the central bank or another agency that carries out the actual work.

While the present system is managerially a different arrangement to the one it replaces, it is not fundamentally different in kind. There are still very close relations between bank supervision and financial system stability through the close connections between the Reserve Bank and APRA (with the former having two Board positions on the latter). In addition, there is the Council of Financial Regulators, which brings together the heads of the Reserve Bank, APRA and the Australian Securities and Investments Commission (ASIC). The fact that I chair this group reinforces the point that the Reserve Bank has not vacated its responsibility for overall system stability, even if it no longer does the 'hands on' supervision of banks.

The Reserve Bank and Financial Stability

I would now like to turn to the third issue: how the Reserve Bank meets its financial stability responsibility. Here it is useful to think about two broad sets of policies: those that help prevent financial disturbances and those that counteract the effects of disturbances if they occur. I will start with the first set.

Policies that help to prevent crises

Maintaining low inflation

When listing policies that help to prevent financial crises, the first one we come to is the maintenance of low inflation. It stands to reason that a background of low inflation is

less likely to underpin rapidly rising asset values, and the speculative excesses that go with them, than a background of high inflation. But we should not take too much comfort from this, as events in Japan remind us. A better formulation would be to say that low inflation is probably a necessary, but not a sufficient, condition for financial stability. The transition phase from high to low inflation and from high to low interest rates can actually raise some asset prices for very good reasons.[4] Similarly, if the move to low inflation has coincided with the deregulation of financial markets, the first observed effect may be increased instability.[5] As so often in economics, it takes a long time to observe changed behaviour in a new steady state, such as low inflation; most of our recent observations come from transition phases between one regime to another.

Ensuring that the payments system is safe

The Bank also has important responsibilities in the payments system. As part of last year's regulatory changes, a new Payments System Board was established within the Reserve Bank. This Board has explicit legislative responsibility for ensuring the stability and efficiency of the payments system. In the stability area much of the hard work has already been done. The introduction, last June, of our real-time gross settlement (RTGS) system for high-value payments greatly strengthened the payments system infrastructure, as did the passage of a number of technical pieces of legislation involving bankruptcy proceedings and the netting of obligations. Australia's payments system is now as robust as any in the world.

Maintaining an influence on regulatory arrangements in Australia

Before explaining this, I must emphasise again that the Bank has no intention of duplicating the work of APRA. We recognise that APRA is the policy-making body responsible for setting prudential standards in Australia. We also recognise that the responsibility for supervising individual institutions lies with APRA, and, as part of this division, the Bank has taken the decision not to receive confidential prudential data on individual institutions on an ongoing basis. It relies on APRA to monitor the health of these institutions, but it does receive aggregate data, and on occasions attends APRA's on-site visits as an observer to keep up to date with the changing nature of financial institutions.

Where the Bank can make a real contribution to regulatory arrangements is through its knowledge of, and day-to-day dealing in, financial markets and through its broad macroeconomic responsibilities. Two examples should help to illustrate this. First, it was through our own dealings in the foreign exchange market that we became aware of the high level of activity of hedge funds in Australia in June last year. This was well ahead of the collapse of Long-Term Capital Management (LTCM), which is the event that alerted the world's bank supervisors to the risks associated with large hedge funds. The second example comes from the macroeconomic studies we have undertaken of the Asian crisis. These reveal that the main contributor to the rapid inflow and outflow of capital to these countries was *short-term* bank-to-bank lending. One of the reasons that banks in Europe, Japan and the United States were so keen to lend short-term to banks in emerging markets was that the Basel capital weights favoured short-term lending over medium- or long-term lending. This is logical from the point of view of an individual bank – there is less risk associated with a short-term loan. But it is not helpful to international stability if banks as a whole show a disproportionate tendency to lend short-term. It is these flows which, with good reason, are often termed 'hot money'. The Bank and

4. A transition from a period of high inflation to a period of low inflation usually leads to a reduction in real, as well as nominal, interest rates which, other things equal, would cause a rise in equity prices. Also, at lower nominal interest rates, people's borrowing capacity rises, which can also lead to rises in asset prices. See Stevens (1997).
5. See Macfarlane (1995). For an earlier Latin American example, see Diaz-Alejandro (1985).

APRA are grappling with this conflict, and I for one hope that the Basel weights are adjusted to remove the incentive towards short-term international lending.

Being able to participate in international fora on financial stability issues

As a result of recent instability in international financial markets, there has been renewed interest in official circles in examining the causes, and seeing what can be done to improve the situation. Australia has taken quite a prominent role in these discussions, with a number of arms of the government involved. The Reserve Bank has contributed to Australia's efforts, particularly by focusing on two areas where we believe the incentive structure is leading to excessive risk-taking and heightened instability. The two areas are the activities of hedge funds, and the arrangements for handling a crisis once it has occurred – in particular, ensuring that at least some of the losses are borne by the lenders. An indication of the success of the Australian effort to date is that Australia is one of the four countries that has been added to the original Group of Seven to form the new Financial Stability Forum. I will be representing Australia at the next meeting in September in Paris.

Keeping abreast of developments in financial markets

In carrying out its ordinary business, the Reserve Bank trades in the money, bond, foreign exchange and futures markets. This gives us a familiarity with financial instruments and market practices which can add value to the views of other regulators. I do not wish to suggest that this puts the Reserve Bank in a better position, only a different position. Regulators such as ASIC have a much better legal perspective than the Reserve Bank, while APRA is more knowledgeable on prudential standards and institutional practices. Taken together, therefore, there is a very broad range of skills among the members of the Council of Financial Regulators.

Handling 'once-off' threats to stability

These will arise from time to time and may be difficult to predict in advance. The clearest example of this to date is the challenge of the Year 2000. While the financial system is well prepared for the new year, the best-laid plans could be threatened if the public were to over-react to Year 2000 concerns. For this reason, given our mandate to maintain the stability of the financial system, we are directing a lot of resources to ensure a smooth transition. A lot of the work has been very technical – making sure that computer systems work, that the financial system has sufficient liquidity and that ample currency notes are printed. But in the final analysis, we have to ensure continued public confidence in the financial system, so it is a matter of public reassurance and communication.

In each of these policy areas, the Bank needs to be mindful not only of the stability of the financial system, but also its efficiency. While in many cases, policies designed to improve the stability of the financial system also improve its efficiency, this is not always the case. A highly regulated system might well be very stable, but it is unlikely to be very competitive or innovative. The Bank's broad policy responsibilities require it to balance these various considerations.

Handling of a financial crisis

The other situation in which the Reserve Bank will be required to play an important role is if a financial disturbance actually occurs. It is unrealistic to expect that financial regulators will be able to prevent all financial disturbances. The Bank, therefore, needs to be able to respond to disturbances when they happen.

The main way in which it would do this is through the use of its balance sheet to provide liquidity to the financial system. The Bank's preference would be to do this through its usual daily operations in the cash market, providing liquidity to the market as a whole, rather than to individual institutions. Nevertheless, in the highly unusual case in which a fundamentally sound institution was

experiencing liquidity difficulties, and the potential failure of the institution to make its payments posed a threat to overall stability of the financial system, the Bank would be able to provide a lender-of-last-resort loan directly to that institution. In principle, a lender-of-last-resort loan could be made to any institution supervised by APRA.

It is important, however, to make clear that the Reserve Bank's balance sheet is not available to prop up insolvent institutions. Put more plainly, the Reserve Bank does not guarantee the repayment of deposits in financial institutions. Indeed, the recent legislative changes have removed from the Bank the responsibility for protecting depositors. This is now APRA's responsibility, and APRA has the power to issue directives to institutions, to revoke licences and to arrange for the orderly exit of troubled institutions. Obviously, if it were necessary to undertake any of these actions, APRA and the Bank would consult closely in order to limit the flow-on effects to the rest of the financial system.

Has the Financial System Become More or Less Stable?

From a purely Australian perspective, our biggest financial crisis was in the 1890s. Although the 1930s were comparable as an economic contraction, it was a lot smaller as a financial crisis.[6] And for the first four post-war decades financial instability was rarely in the foreground. One could be excused for thinking that the problem of financial instability was fading away.

The events from the mid 1980s to the early 1990s dispelled this illusion. A widely based asset price boom came to an end, and the ensuing asset price falls brought down many highly geared businesses and, more importantly for present purposes, a number of financial institutions. Two large State Government-owned banks failed, as did one of the largest building societies, as well as several merchant banks and fringe financial institutions. The effect on the real economy was profound, particularly in Victoria where a disproportionate share of the financial failures occurred.[7] It was a salutary experience, but fortunately many lessons were learned both by the private-sector participants and by the regulators.

From an international perspective, it would be easy to gain the impression that financial instability is on the rise. The past decade has included the banking collapses in the Nordic countries, the Mexican crisis of 1994, the Asian crisis of 1997, Russia in 1998 and Japan's problems stretching over much of the decade. During the same period, we have heard disturbing news of many individual companies and markets, the most celebrated ones being the demise of Barings and the near-demise of LTCM.

Looking over the experience at home and abroad, I do not think it is possible to say that the risk of serious financial instability has either increased or decreased in the course of the past century. The only reasonable working assumption is that the risks of serious financial disturbance are about the same as they always have been. An important reason for this is the unchanging human propensity to go through periods of extreme optimism which pushes asset prices to great heights, followed by a reaction which causes prices to fall precipitously. What has changed over the course of the century, particularly in the past couple of decades, is the nature of the risks we face.

The traditional financial crisis was triggered by the failure of one or more banks, often during a period of declining asset prices. The cause was usually a failure to correctly assess credit risk, for example by lending against temporarily inflated asset values. Fire sales of assets and contagion led to runs on other banks and the emergence of a full-scale financial crisis. Such a scenario is still possible

6. See Fisher and Kent (1999).
7. In the early 1990s recession, final demand in Victoria fell by 6.5 per cent compared with 1.5 per cent for the rest of Australia. There was a similar disparity in employment. See Macfarlane (1992).

today, particularly in an economy heading into recession, but it no longer represents the stereotype. For a start, bank supervision and banks' own control of credit risk have improved enormously over the past decade. Also, financial disturbances are now more likely to originate in, and be transmitted through, financial markets than has been the case in the past.

Financial markets are now much larger and many transactions are much more complex, making the risks associated with them harder to understand. Derivatives – the biggest growth area – are a good illustration. While they enable many businesses to hedge risks which they formerly had to accept, they also allow others to take risks that they formerly could not. Notably, derivatives can make it easier for some participants to engage in leverage – an old-fashioned activity which can greatly increase risk. The recent LTCM episode brought this out clearly and its near-collapse illustrated how market risks can be large enough to be systemic.

Recent events also reminded us that in a globalised market place, financial instability will often come from abroad. Last year, after the Russian and LTCM incidents, risk premia on loans to all but the best credits increased sharply. Even in the United States, lesser corporates found sharply higher borrowing costs, while in emerging markets even large stable companies could not roll over maturing debt at interest rates which would keep them solvent. Fortunately, this situation did not prevail for long, but action by the US Federal Reserve was required to end it. As an aside, I should add that Australia was only marginally affected in this episode, and our new-found reputation for financial stability was not questioned.

Of course, the spread of financial problems across national boundaries is not new. A hundred years ago the default by the Argentinian Government on securities underwritten by Baring Brothers triggered financial turmoil in London, which led to Britain reducing its overseas investments. This, in turn, contributed to major contractions in economic activity in Australia, South Africa and the United States. In Australia, the turnaround in capital flows was as dramatic as that recently experienced in some Asian countries, and the effects on the economy were just as severe. What is new today, however, is the speed with which events are transmitted around the world, and the role that markets, as opposed to institutions, play in the process.

Conclusion

It is important that we maintain financial stability because of the contribution that it makes to ensuring a more prosperous and more fully employed economy. It is also important that we receive recognition as a country that has a world class financial infrastructure which is capable of maintaining this stability into the future. Our recent exemplary performance has helped in this regard.

But the task of ensuring we have an acceptable degree of financial stability in the years and decades ahead is a never-ending one. No-one can or should guarantee that no financial institutions will fail, any more than no manufacturers or retailers will fail. In fact, in an ideal world there would be a scattering of *small* disturbances every year or two to keep everyone on their toes. Unfortunately, the real world is not like this: there are long periods of calm when virtually no financial disturbances take place and rising prosperity is taken for granted, creating a false sense of security and eventually leading to short periods which contain several failures and the threat of many more. The requirement for all those involved in ensuring financial stability is to be alert and proactive during the long periods of calm, just as an army must be during peacetime. There is a constant challenge to be found in identifying new risks, avoiding harmful incentives and adjusting the regulatory arrangements to keep pace with changes in financial technology. It is not an easy task, but I am confident that the major regulators – APRA, ASIC and the Reserve Bank – are up to it.

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