Malcolm Edey: Reflections on the financial crisis

Address by Mr Malcolm Edey, Assistant Governor (Financial System) of the Reserve Bank of Australia, to the CFO Summit 2014, Gold Coast, 16 March 2014.

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Thank you to our hosts for the opportunity to speak here today.

I have called this talk "Reflections on the Financial Crisis". That might seem like a somewhat dated and backward-looking focus. After all, it is now roughly seven years since the early signs of trouble in the US sub-prime mortgage market first came to general attention, in the early part of 2007. It is 5½ years since the failure of Lehman Brothers brought the crisis to its most severe phase. And it is almost exactly five years since the markets and economies that were worst affected began their gradual path to recovery.

Five years is a long time in economics. But one of my themes today is that financial crises are costly events, and one of the reasons they are so costly is that their effects can continue long afterwards. The after-effects of the latest crisis are still with us and, I expect, will continue to shape the business environment for some time to come.

It needs only a few facts and figures to convey the impact of the crisis at its height. In the world's largest economy, national income and output fell by about 4 per cent over the year to June 2009. That made it by far the sharpest US recession of the post-war period. In the euro area the peak-to-trough fall in output was even larger at around 6 per cent, and in the UK it was 7 per cent. These are big numbers when you remember that in Australia's most recent recession, in 1991, output fell by less than 2 per cent.

The contractionary effects around the world were particularly concentrated in trade and industrial production. Some of the economies in the east Asian region posted declines in those variables of the order of 30 per cent in the space of just a few months in late 2008. And of course financial markets were severely affected. Global equity prices fell by around 40 per cent and there was a major dislocation in debt markets.

On all of these counts, the recent crisis was certainly the most severe since the Depression, and in that sense it might be thought of as the kind of once-in-a-lifetime event that helps to define an epoch.

That background suggests a number of interesting questions that I want to think about today:

- Why was the latest crisis so severe?
- What does history teach us about the risk of it happening again?
- In what ways are the after-effects of the GFC still continuing?
- And what will the crisis mean for the way central banks do their jobs?

Let me take those questions in turn.

Why was the latest crisis so severe?

There have been many "post mortem" efforts to analyse the causes of the GFC and the severity of its effects.[1] Generally speaking, they focus on two lines of explanation.

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[1] See for example, Financial Stability Forum (2008), "*Report of the Financial Stability Forum on Enhancing Market and Institutional Resilience*", 7 April.

The first stresses the factors that are common to all financial bubbles: the combination of cheap credit, leverage, rising asset prices (especially in real estate) and increased appetite for risk; and of course, the perception that “this time it’s different”. All of these elements were present in the lead up to the GFC. And, as in earlier cases, there was at least some rationale for the initial exuberance. There were credible arguments, for example, that business cycle risks had been genuinely reduced.[2] Some thought that this could justify an increased appetite for risky assets.

The second line of explanation focuses on the distinctive risk factors that came to the fore in the GFC and made this financial cycle different from others. They included the expansion in US sub-prime lending in the decade leading up to the crisis, the subsequent downturn in the US housing market and the resultant collapse in markets for mortgage-backed securities. Contagion was amplified by exposures to over-engineered securities of dubious value, and by a range of poor risk management and governance practices associated with all of that. We all remember the CDOs (collateralised debt obligations) that were marketed as highly rated securities but turned out to be largely worthless. These initial asset quality problems then exposed other weaknesses that led to institutional failures and the international collapse in confidence. This story has been well told.

Every crisis, of course, has its own particular pathology but that fact in itself doesn’t explain their relative impacts. Why was this one so much more severe than most of the others?

I can think of at least three reasons why that might have been the case.

One is the presence of a common driver affecting asset values and financial systems in multiple countries at once. Many would view the low interest rate environment that prevailed around the world in the pre-crisis years as a key driver in that regard. This was itself a function of deeper factors that were much debated at the time, including what some saw as a global “glut of saving” along with concerns about deflation risks following the collapse of the earlier tech bubble.

I won’t go into that debate today other than to note the consequences. Periods of low interest rates are not uncommon, but what was unusual in this case was its persistence across large parts of the world. While not making a crisis inevitable, it contributed to simultaneous risk-taking and hence vulnerabilities in a number of the major economies.

Another factor is the increasing size and complexity of financial systems. It has been a general pattern, at least within the post-war period, that financial systems have tended to grow faster than the economies that they service. There are some good reasons to expect this to be the case. As societies get richer, the proportion of income that people are prepared to spend on financial services tends to rise. At the same time, technological progress supports innovation and new forms of financial risk-taking. The result is a general trend towards financial deepening as economies develop.

In 2006 the outgoing Reserve Bank Governor Ian Macfarlane made the prediction that these factors would change the nature of the business cycle. In particular he expected that future cycles would be driven more by financial events than by the shocks to demand and spending that had predominated in the post-war period to date. It was a prescient observation, coming not long before the onset of the GFC.[3]

A third factor is that this has really been two separate crises joined together. There was a crisis of asset quality, financial over-engineering and leverage driven by the forces that I have already described. But there was also a crisis of confidence in the stability of the euro

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[2] See for example, Bernanke BS (2004), “*The Great Moderation*”, Remarks at the meetings of the East Economic Association, Washington, DC, 20 February.

[3] Macfarlane IJ (2006), *The Search for Stability*, Boyer Lectures 2006, ABC Books, Sydney.

as a single currency area. The first one triggered the second, but the euro area vulnerabilities were already present for reasons unconnected to the origins of the GFC.

Observers had previously questioned whether the euro area had the necessary governance arrangements to ensure resilience. At heart the question was whether a currency union could be robust to shocks without fiscal and banking union, or at least without appropriate coordination arrangements in those areas to ensure that stress events could be managed.

The effect of the GFC was to put that to the test. By the second half of 2009 the US economy was clearly recovering from the initial crisis impact, and US authorities had taken a number of steps to repair damaged banks. But, initially at least, the strains in European markets intensified further. These strains culminated in the Greek sovereign debt crisis, along with severe pressure on a number of the so-called "peripheral" euro area markets in 2010 and the first half of 2011. All of this made it harder for the European economy to recover, which in turn represented a drag on growth for the global economy as a whole. Confidence-building measures are now being put in place and the euro area economy has started to grow again, but all of this takes time.

So my candidates for explaining why the GFC was so much more severe than previous crises are threefold:

- Correlated risk-taking in a low interest rate environment;
- The increased size and complexity of the global financial sector; and
- The knock-on effect from the initial crisis to the structural stability of the euro area.

What does history teach us about the risk of it happening again?

History tells us that financial crises are not new and not particularly rare. In fact, they go back as far as financial activity itself. Historical accounts highlight many colourful examples like the Dutch "Tulipmania" of the 1620s, the South Sea Bubble of 1720, and the UK railway mania of the 1840s. Australia has its own examples, most notably the banking crisis of the 1890s, and we could also include the asset and credit bubble that occurred in the late 1980s. As I have already indicated, there are some common elements to these episodes but each one had its own distinctive mix of greed, dishonesty and collective folly. The general flavour is well captured by the title of Kindleberger's famous book, *Manias, Panics and Crashes*.[4]

These episodes have not been confined to any particular country or region. A recent historical study by the economists Rogoff and Reinhart[5] identifies roughly 400 banking crises around the world, of varying degrees of severity, over the past 200 years. They affected countries from all regions, and at a wide range of different stages of development. Evidently there is something in human nature that generates these episodes of financial excess, even though in most cases the impacts have not been as severe or as widespread as those generated by the GFC.

This history might lead us into a certain degree of pessimism about the inevitability of future crisis events. But I think that would be the wrong response for a couple of reasons.

One is that, despite the summary figures that I have just cited, genuinely significant international crises have been relatively rare. The Reinhart-Rogoff study identifies only six crisis events of international significance in the past two hundred years, and all but one of those were less severe than the GFC. The others were mostly quite localised, both in their causes and their effects.

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4 Kindleberger CP (1978), *Manias, Panics and Crashes: A History of Financial Crisis*, Macmillan, London.

5 Reinhart CM and K Rogoff (2009), *This Time is Different: Eight Centuries of Financial Folly*, Princeton University Press, Princeton.

The second reason is that good policy can make a difference, both to the risk of a crisis and to the severity of its impact.

I am often asked why Australia was able to come through the GFC relatively unscathed. Unlike the US, the UK and the euro area, Australia didn't have a recession and we didn't have any bank failures. My usual response is that it was a mixture of good luck and good management. On the luck side, we do have the good fortune to be geographically well connected to the fastest growing part of the world economy at a time when its demand for mineral resources has undergone a major expansion. That was undoubtedly a factor in the Australian economy's general resilience over the past few years.

But, without being too triumphalist, there was also the good management side of the ledger. Australia's monetary and fiscal framework was sound, and it gave us plenty of scope to respond when the crisis hit. Interest rates were at relatively normal levels (actually on the high side of neutral) in the lead up to the GFC. This helped to limit some of the aggressive risk-taking seen elsewhere, and it allowed plenty of room to shift to a more expansionary stance when that was needed. On the fiscal policy front, successive governments had maintained high standards of discipline, and again this allowed plenty of room for expansionary action when needed.

At least as important as all this is that Australia was well served by its prudential regulatory framework. The post-Wallis framework that was put in place in 1998 established APRA as the integrated prudential regulator, affirmed the financial stability role of the RBA and set up the Council of Financial Regulators to ensure appropriate coordination among the regulatory agencies. Under APRA's leadership, Australian banks were held to much higher standards of resilience than many of their international counterparts. The banks remained profitable and well capitalised. Loan performance did deteriorate during the crisis period, but nowhere near as much as it did in the North Atlantic economies.

My general conclusion from all of this is twofold: the risk of at least low-level crises is never too far away, so we shouldn't be complacent; but good policy can make a difference in containing that risk.

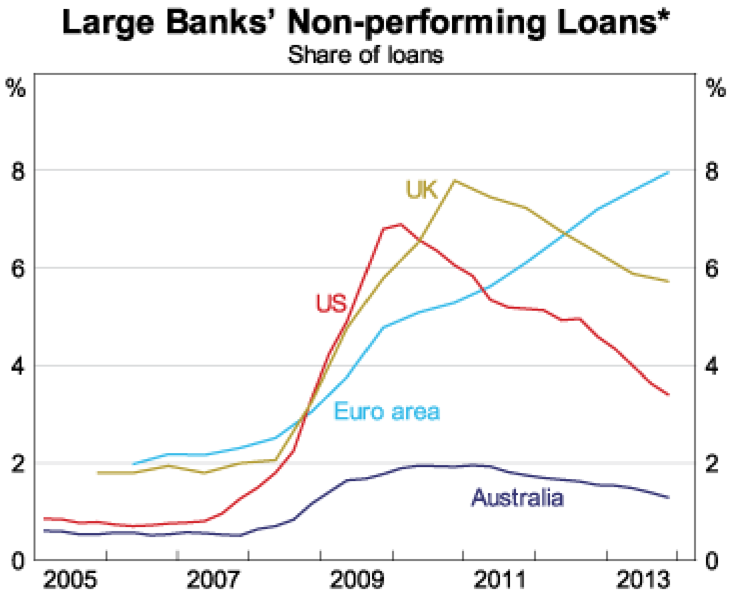
In what ways are the after-effects of the GFC still continuing?

The economic impacts of financial crises can be costly and long-lasting. That is why the risk management effort is so important.

The Reinhart and Rogoff study that I cited earlier assembled some interesting data on the size and duration of impacts from financial crises in history. They found that the average duration of impact from a major financial crisis on variables like output and employment was about four to five years. Given that the GFC was a more severe crisis than average it is not surprising, then, that significant effects are still continuing, five years or more after the event. However, the effects have not been evenly distributed around the world. They have been concentrated in the North Atlantic economies and, in important respects, they have been most severe in Europe.

I have very few slides in this presentation, but if I had to pick a single chart to illustrate the evolution of these effects it would be the following one (Graph 1).

Graph 1



* Definitions of 'non-performing loans' differ across jurisdictions, sometimes including loans that are 90+ days past due but well secured and in the case of Australia small amounts of non-loan assets; includes 18 US banks, 41 euro area institutions, four UK banks, and four Australian banks; latest available data used where banks have not reported for December 2013
Sources: APRA; RBA; SNL Financial; banks' annual and interim reports

It shows non-performance rates on assets in the major banking systems. The initial deterioration in asset quality was sharpest in the US – not surprisingly, since the crisis originated there. Non-performance rates on US banking assets peaked in early 2010 and there has since been a gradual improvement. The UK experience has been broadly similar except that the peak was higher and came about a year later; but, as in the US, a recovery is now clearly underway. The experience in the euro area has been very different. It was marked by a more gradual initial deterioration but one that is still continuing. Non-performance rates in Europe are now around 8 per cent of loans, higher than the US and UK at their peaks, and still rising. The figures also illustrate the good performance of Australian banks during this period.

There are a number of reasons for the contrasting performances of the US and European banking systems. One is that there were more timely and effective corrective actions taken in the US to repair banks' balance sheets than has been the case to date in Europe, both by government authorities and by the banks themselves. The TARP (Troubled Asset Relief Program) program, the early US stress tests, and various actions to recapitalise troubled banks and dispose of poorly performing assets were all important in this regard.

A second reason is one that I have already alluded to. The events of recent years have amounted to a two-stage crisis, and the second stage of it was specifically European (or more accurately, euro area) in focus.

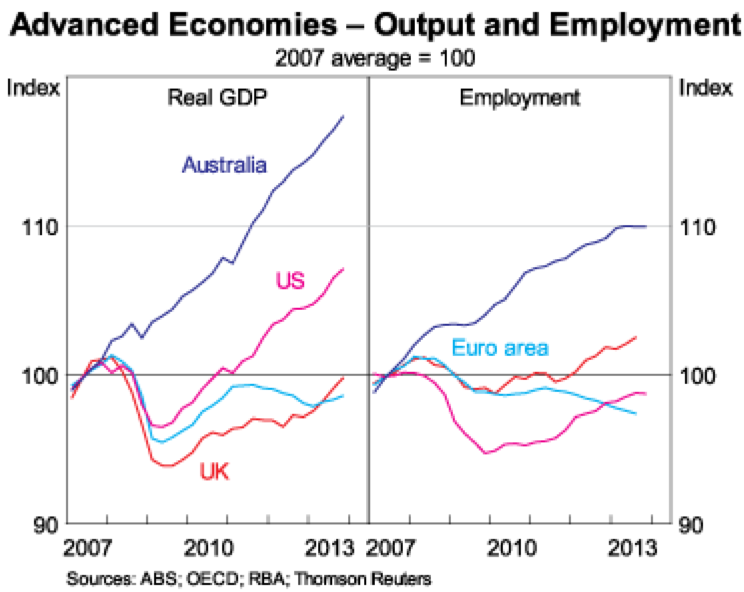
The third is the interdependency between growth and financial stability. It is easier for banks to recover in an environment where the economy itself is growing, and in Europe growth has been sluggish at best in the period since the initial downturn.

Conversely, it is harder for the economy to grow without a strong banking system. As I have already remarked, this two-way dynamic has been weighing on the euro area for some years.

The lingering after-effects of the crisis can be seen not just in the effects on the banks. There are continuing effects on a wide range of economic variables in the major economies. To summarise these I will pick just three: output, employment and government debt.

My next chart shows the levels of output and employment in the same set of economies (Graph 2).

Graph 2



Again, we see some major ongoing effects from the crisis and the contrasting severity among the four economies that I have focused on. One result commonly seen is that economic recovery following a financial crisis is typically slower than the recovery from an average recession, and that has certainly been the case in this instance.

In the United States, GDP regained its 2008 peak level in mid-2011 but growth in the recovery period has generally remained only around trend. This is in contrast to the normal pattern of rapid catch-up seen after earlier recessions. Employment in the US has yet to regain its pre-crisis peak. In Europe, output and employment are still well below pre-crisis levels. Australia, as I have said, didn’t have a recession, with output and employment continuing to expand throughout this period.

My third and final chart shows comparative levels of government debt for the same economies, before and after the crisis (Table 1). Not surprisingly we see that debt ratios have substantially increased. The reasons for that are not hard to understand: a combination of automatic fiscal stabilisers as revenues declined when the major economies went into recession; discretionary stimulus measures to counteract the crisis impact; and in some cases, the costs of emergency public support to troubled financial institutions. Once again, I include the Australian data for comparison, and note that the effects here have been relatively mild and come from a favourable starting point.

Table 1:

Net Public Debt

	Per cent of GDP	
	2007	**2013**[(b)]
US	46.5	87.4
Euro Area	52.1	74.9
UK	38.4	84.8
Australia[(a)]	−3.8	12.1

(a) Financial years 2007/08 and 2013/14

(b) Estimates

Sources: Australian Treasury; IMF

It is interesting to note that the post-crisis debts ratios in the "north Atlantic major three" have been broadly similar, in the range of 70 to 90 per cent of GDP. The reason the euro area experienced a crisis in its sovereign debt markets was not because of the size of its aggregate debt position *per se*. It was because of the distribution of that debt, and the associated divergences in economic conditions among the euro area member countries. Nonetheless, the aggregate numbers are high in historical terms and will need to be addressed.

One implication of high debt ratios in the north Atlantic economies is that they will face significant pressures for medium-term fiscal consolidation. When coupled with the lingering effects of balance sheet stress and labour market weakness, it seems clear that large parts of the global economy continue to face headwinds to growth more than five years after the peak impact of the crisis has passed.

What will the crisis mean for the way central banks do their jobs?

One of the further consequences of the crisis has been a rediscovery, or at least a substantial upgrading, of the role of central banks in financial stability policy. Central banks played a crucial part in the initial crisis response by providing emergency liquidity support to institutions and to markets under strain. In many cases they held direct regulatory responsibilities for dealing with troubled institutions, or else cooperated closely with the agencies exercising those powers. And they have played a key advisory role in helping to shape the post-crisis regulatory response around the world. During this period, governments in a number of jurisdictions have taken steps to strengthen the financial stability mandates of their central banks and in some cases have given them additional regulatory powers to that end.

I refer to this as a rediscovery rather than an innovation, because in many ways it represents a return to the original rationale for central banking. Central banks are often referred to as "lenders of last resort". They evolved in 18th and 19th century Europe as a mechanism of liquidity insurance for banking systems that would otherwise have been highly unstable.[6] In

[6] Goodhart, *The Evolution of Central Banks*.

that way they always had an important role in crisis prevention and crisis management, and it was natural that they took a wider interest in the risk management of the financial system as a whole. It was only in recent decades that some came to see their role as being more narrowly confined to the inflation control function. What we are now seeing, I think, is a better appreciation of the broader original role.

How is that playing out in practice?

In some cases governments have responded to the lessons of the crisis by transferring significant regulatory powers to their central banks. Perhaps the most prominent example of this is in the UK, where the Financial Services Authority has been made a subsidiary of the Bank of England. Both the US and the euro area have also shifted regulatory powers into their central banks, though within more complex arrangements that are quite distinctive to their jurisdictions.

Australia is one of a number of jurisdictions that retains the model of an integrated prudential regulator separate from the central bank. But the Wallis reforms that led to the establishment of APRA still recognised the Reserve Bank's general mandate to use its powers to promote financial stability. This was more recently emphasised by the incorporation of a section on financial stability into the Statement on the Conduct of Monetary Policy in 2010.

Whether or not central banks have formal prudential regulatory powers, they retain an irreducible role in financial stability through their position as managers of system liquidity risk and their associated role in crisis management. What is important is that this function be effectively coordinated with the regulatory policies conducted by the prudential supervisor.

This is not the occasion to examine the relative merits of different coordination models in detail. Most likely there are a range of different models that can be made to work, depending on each jurisdiction's history and legal tradition.

Here I simply make the observation that, in Australia's case, the coordination arrangements held up well during the crisis period. There are a number of mechanisms, both formal and informal, that contribute to this. At the peak level the four main regulatory agencies form the Council of Financial Regulators, chaired by the Reserve Bank Governor. Numerous other coordinating arrangements exist at the staff level. Although the Council is a body without formal powers, it has played an important role in a number of different ways, including information sharing, helping to develop the overall post-crisis response and in making coordinated recommendations to the government. Internationally I find that there is a lot of interest in the Australian coordination arrangements, and it is interesting to observe that a number of other jurisdictions have moved to develop financial stability council structures of their own in the wake of the crisis.

Concluding remarks

Financial crises are costly. Their effects on the real economy can last a long time. More than five years after the main event, the after-effects of the latest one are still being felt. Large parts of the global economy, especially in Europe, still face headwinds in achieving a return to normal conditions.

All of that underscores the importance of better risk management to avoid crises in the future. For regulators, that means holding financial players to better standards of probity and prudence than prevailed in the past. That is what the G20-led regulatory effort is all about. This year, as holder of the G20 presidency, Australia is playing an important leadership role in those efforts.

There are also important lessons for the private sector. Excessive leverage is a bad idea. So is investing in complex financial securities where the risk is not properly understood. Banks around the world need better risk management, and stronger capital and liquidity buffers, than they had in the past. It is not just regulators who are demanding this, but shareholders and investors. Expectations about financial sector growth and about sustainable debt need to be realistic.

That said, history suggests that crises often have the salutary effect of promoting greater prudence, at least for a while. Hopefully that will be the case this time. The longer the lessons stay learnt, the better will be the prospects for sustained recovery around the world.