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**ASSET PRICES, CREDIT GROWTH AND MONETARY  
POLICY: AN AUSTRALIAN CASE STUDY**

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## **Abstract**

The long-running debate about the role of monetary policy in responding to rising asset prices has received renewed attention in the wake of the global financial crisis. This paper contributes to this debate by describing the Australian experience of a cycle in house prices and credit from 2002 to 2004, and by discussing the role played by various policies during this episode. In particular, it focuses on the efforts by the Reserve Bank of Australia to draw attention to the risks associated with large, ongoing increases in housing prices and household borrowing.

JEL Classification Numbers: E58, G28

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regulatory policy

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# **ASSET PRICES, CREDIT GROWTH AND MONETARY POLICY: AN AUSTRALIAN CASE STUDY**

**Paul Bloxham, Christopher Kent and Michael Robson**

## **1. Introduction**

The global financial crisis provided a stark reminder that large falls in asset prices combined with high leverage can severely damage economies. In the United States, which has been at the core of the financial crisis, house prices declined by 25-30 per cent between 2007 and 2009, ultimately contributing to the largest decline in economic activity in over 60 years. Global exposure to the US and a sharp decline in confidence was the catalyst for the first decline in global GDP in the post-War period. In addition, house price declines in Ireland, Spain and the United Kingdom contributed to a significant weakening of these economies. Given the scale of the damage, it is not surprising that these events have reinvigorated the long running debate concerning the role for policy in maintaining financial stability, including that for monetary policy in responding to changes in asset prices.<sup>1</sup>

While much of the earlier debate focused on identification of asset price bubbles and whether monetary policy should respond to them, the debate appears to be shifting towards how policy should respond to financial imbalances more broadly. This reflects a growing recognition that asset price increases that are backed by a substantial rise in leverage and a less prudent approach to risk management by financial institutions can be dangerous. The global financial crisis has clearly demonstrated that a policy of ‘cleaning up the mess’ after a collapse in asset prices is problematic, especially if the collapse is associated with significant damage to financial institutions. This strengthens the case for taking earlier action in order to avoid a damaging correction later on.

Nonetheless, there is much debate about the appropriate nature of the policy response along two broad strands. The first regards how much, if at all, monetary

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<sup>1</sup> Bernanke (2010), Blanchard, Dell’Arriccia and Mauro (2010), Goodhart (2010), Issing (2009) and Trichet (2009).

policy should act to stem financial cycle upswings. The second, and closely related, strand regards the scope for additional or indeed alternative policy instruments, such as so called macroprudential tools. This paper suggests that there is a need to shift debate away from the extremes towards the question of the degree of policy intervention, or ‘leaning’, that is appropriate and the mix of policies that is likely to be effective in maintaining stability of the macroeconomy.

At the interventionist end of the monetary policy options, a number of approaches have been suggested. These include the addition of asset prices to the central bank’s target and mandate. Alternatively, others suggest that the response should be to broader signs of emerging financial imbalances, and that it should not be a mechanical one. The counterarguments to these approaches are numerous, including that: monetary policy is too blunt an instrument to use against imbalances that are likely to be concentrated in particular pockets of the economy; a substantial tightening in monetary policy would be required to ‘burst’ an asset-price bubble; and identification of such imbalances is too difficult and will at best occur with such a lag that any action will be taken late in the piece and, therefore, may do more harm than good given the lags with which policy operates.

More recent discussion has focused on the second strand, suggesting that new macroprudential instruments should address the build-up of leverage, substituting for, or complementing monetary policy. These tools can change the incentives to provide credit, thereby affecting the growth of asset prices and credit as well as the extent of risk-taking. While this approach is more targeted than monetary policy, this is also a significant weakness, since it increases the scope for regulatory arbitrage, with more risky ventures moving outside of the regulatory net.

Understanding the effectiveness of the various approaches is hindered by the limited experience of monetary or other policies being used explicitly to respond to financial imbalances.<sup>2</sup> The few examples cited include: Hong Kong in the early 1990s, with controls on loan-to-valuation ratios (LVRs); Spain’s adoption of dynamic provisioning from 2000; the response in Australia to rapidly rising house prices and credit growth between 2002 and 2004 with a combination of ‘open mouth operations’, a modest increase in policy rates and some regulatory actions;

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<sup>2</sup> Indeed, Greenspan (2010) claims that: ‘There are no examples, to my knowledge, of a successful incremental defusing of a bubble that left prosperity in tact.’ (p 45)

and the Swedish experience using a similar approach in response to rapid growth in house prices and credit between 2005 and 2007.

This paper provides a detailed case study of the Australian experience in the early 2000s. Between 1997 and late 2003, housing prices in Australia more than doubled, increasing by around 40 per cent over 2002 and 2003 alone. There was also a rapid increase in housing credit (of 20 per cent per annum in 2002 and 2003), particularly for the purchase of residential investment properties. The boom ended in late 2003, with national housing prices broadly flat over the subsequent 18 months (and falling in the two largest capital cities) and investor demand for residential property easing significantly. This turnaround is an example where a range of policies seemingly came together (albeit in a not explicitly coordinated fashion) to 'lean against' emerging imbalances at a time when the growth in residential property prices seemed inexorable.

In the five years following the 2003 turnaround, dwelling prices grew at around the same pace as household disposable income while GDP growth averaged 3 per cent per annum. Indeed, the early shake-out of the housing market may be one reason why the Australian housing market and financial system were relatively well placed to weather the global financial crisis. Of course, the generally benign outcome is also likely to have reflected a number of other factors. Among them, Australia benefited from a large rise in the terms of trade starting around the time that dwelling prices peaked. More generally, growth in the global economy was very strong over the period from 2003 to 2007.

One important part of the policy response was a 'public awareness campaign' by the Reserve Bank, highlighting the risks to households and the economy if the existing trends in housing prices and borrowing continued (Macfarlane 2006). As part of this campaign, from mid 2002 there were an increasing number of 'open mouth operations' conducted by senior officials from the Reserve Bank. These public statements were widely reported in the media, and intensified during the period of most rapid growth in house prices. In addition, monetary policy was tightened over this period; in mid 2002, there were two 25 basis point increases, and then another two increases of the same amount in late 2003. While the increases reflected broader macroeconomic developments, they were accompanied

by statements that expressed significant concern about the pace of credit growth and housing price inflation, which could fuel imbalances if sustained.

During this episode, the Australian Prudential Regulation Authority (APRA) raised its concerns with financial institutions regarding lending standards, requiring them to undertake detailed stress testing of their housing lending portfolios. The Australian Taxation Office (ATO) also took a stricter approach to enforcement of housing-related tax laws. In addition, authorities took action against what appeared to be fraudulent activity in the rapidly expanding property investment industry, exposing and prosecuting agents of a prominent ‘get rich quick’ scheme.

This paper provides a case study of the episode, reporting macroeconomic and housing market developments and policy responses. The remainder of the paper is structured as follows. Section 2 reviews the post-financial crisis debate on asset prices and monetary policy, and the literature on the policy responses to asset price upswings. Section 3 provides a brief history of Australia’s experience with cycles in credit and asset prices and discusses events in the Australian housing market in the early 2000s. Section 4 describes the range of policy measures put in place in Australia between 2002 and 2004 in response to rapid house price and credit growth, and examines the media response to the Reserve Bank’s public awareness campaign. Section 5 concludes.

## **2. Asset Prices and Monetary Policy**

### **2.1 The Recent Debate**

The weight of opinion prior to the global financial crisis was that central banks should respond aggressively to the contractionary effects of sharp asset price falls but not respond directly to asset prices during upswings (Issing 2009).<sup>3</sup> A prominent advocate of this view was Alan Greenspan (former Chairman of the US Federal Reserve System), who argued that identifying a bubble with a degree of certainty was not possible and that any pre-emptive policy response would likely be destabilising. Rather, central banks should pick up the pieces afterwards

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<sup>3</sup> For a summary of the state of the literature prior to the global financial crisis see Hunter, Kaufman and Pomerleano (2003), Richards and Robinson (2003) and Cecchetti (2006).

(Greenspan 2002, 2004, 2010).<sup>4</sup> However, the global financial crisis demonstrated that the cost of an asset price and credit market collapse may be large enough to warrant paying some short-term cost to avoid or contain it. As such, there is now less focus on *whether policy* should respond and much more attention being paid to *how policies* should respond (Bean 2009, Trichet 2009).<sup>5</sup>

There are two broad views on how this should be done. On the one hand, there are those who see a greater role for monetary policy to stem excessive financial cycle upswings. On the other hand, there are those of the view that monetary policy should play a minimal role, but that the policy framework more generally is inadequate and in need of reform. In particular, there has been renewed interest in additional policy instruments, macroprudential tools, often motivated by the argument that multiple objectives (price and financial stability) require multiple instruments (Tinbergen 1952).<sup>6</sup> Both streams typically accept the arguments that: better enforcement of existing regulations is required; some regulatory reform may be beneficial<sup>7</sup>; although this should not unduly impinge upon efficiency, nor simply push credit provision outside of the regulatory net.

For those who see a greater role for monetary policy (than in the past), a number of different approaches have been suggested. One possibility – and the focus of earlier work – is that asset prices could be: added to the central bank’s target by including them in the consumer price index; or incorporated in Taylor-type rules and explicitly referred to in its mandate (Cecchetti, Genberg and Wadhvani 2002 and Bryan, Cecchetti and O’Sullivan 2002). There are arguments against this, not least that it is difficult to know exactly which asset prices should be included, as well as the fact that mechanical approaches will have difficulty distinguishing between what might be relatively sustainable increases in asset prices (Goodhart and Hofmann 2002). Others emphasise that large rises in asset prices are more

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4 See Borio, Furfine and Lowe (2001) and Bordo and Jeanne (2002), for a discussion of the moral hazard problems associated with this asymmetric approach to policy.

5 Despite of the costs of the recent crisis, some continue to argue (along established lines) that monetary policy should not respond to asset price misalignments (Greenspan 2010, Kohn 2008, Posen 2009).

6 Fischer (2010) notes that this principle only applies when the objective is strict, in the sense that the objective is to target say inflation (but not output) over a relatively short horizon.

7 This may include measures that better account for the contribution of individual financial institutions to systemic risks (Squam Lake Working Group 2009, Bank of England 2009, Caruana 2010).



likely to be problematic when accompanied by rapid growth in credit and declining lending standards.<sup>8</sup> Proponents of this view argue that a central bank could use its judgement about low frequency movements in a range of variables (not unlike the case of more standard monetary policy decisions) to motivate ‘leaning against’ emerging financial imbalances. In this regard, concerns should mostly be about growth rates (rather than levels) of key variables, such as asset prices or credit, for a number of reasons. First, it is hard to know what constitutes a sustainable or fundamental level of such variables. Second, while high levels of indebtedness, for example, may imply greater vulnerability to adverse shocks, rapid growth may also suggest that individual, as well as system-wide, risks have not been fully appreciated, and that a larger share of exposures have yet to be tested by a period of economic weakness. Third, monetary policy cannot hope to be concerned with the level of a particular variable, such as property prices, but by altering the price of credit it can influence the willingness to service existing debts and to take on new ones.

Counterarguments to a pre-emptive monetary policy approach are numerous (see Greenspan 2002, Bernanke 2002 and Gruen, Plumb and Stone 2005, for example). There are those who focus on the fact that asset price changes may be fundamentally based and the associated higher leverage may be sustainable, so policy should not resist them. Even if it is possible to identify a bubble with some confidence, others argue that countering it with monetary policy would require such an aggressive response that the cost to the ‘non-bubble’ sectors of the economy would be too high. Some suggest that trying to end an asset price boom late in the piece with tighter monetary policy might in fact make things worse. Finally, the use of monetary policy for this purpose may be difficult to explain given central banks’ current mandates and that if CPI inflation is contained, new and more targeted ‘macroprudential’ policies may be preferred.

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<sup>8</sup> A number of empirical papers suggest that there is a role for variables such as money, credit, asset prices (particularly property prices) in providing an early indication of emerging financial imbalances that will threaten financial stability. See for example Borio and Lowe (2002), Borio and White (2004), Detken and Smets (2004), ECB (2005), Borio and Drehmann (2009). Inclusion of a monetary aggregate target as one of the two pillars of monetary policy by the European Central Bank constitutes a related approach, although measurement issues and a dual mandate can make communication of the rationale for policy moves difficult.

More recent discussion has focused on these macroprudential policies, which could serve as either substitutes for, or complements to monetary policy.<sup>9</sup> These policies involve targeting the incentives and ability of lenders to extend credit. A number of macroprudential policy instruments have been widely discussed, including dynamic provisioning, which involves setting aside provisions for expected – rather than actual – losses, direct controls on loan-to-valuation ratios and, more recently, directly linking regulatory capital to credit and asset price developments.<sup>10</sup> One advantage of these measures is that they target the problem of rapidly increasing financial system leverage. A key disadvantage is that they may simply drive the more risky behaviour outside of the regulatory net. The US subprime crisis provided an example of this problem, with a large build up of risk in the ‘shadow banking system’ prior to the crisis eventually putting severe strain on the banking system proper. And while it may be possible to bring the existing ‘shadow banking system’ under the regulatory umbrella, it is unlikely that new regulation could be designed to completely circumvent regulatory arbitrage over the longer term. Indeed, financial innovation is often focused on ways to get around the regulatory net in an effort to reduce the costs of intermediation. Furthermore, in a globalised financial system, regulatory arbitrage may involve financial participants moving across borders, complicating the domestic policy options, and necessitating international cooperation.

As with monetary policy, some suggest that macroprudential instruments could be subject to a rule (say for LVRs or capital requirements) based on the behaviour of particular macro-variables, such as rapid growth in asset prices or credit (Posen 2009 and Goodhart and Persaud 2008, for example). Others highlight the importance of discretion on the part of policymakers given the high degree of uncertainty surrounding the most effective approach to combating any particular imbalance (Tucker 2009).<sup>11</sup>

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9 IMF (2009), Haldane (2009), Financial Stability Forum (2009) and Brunnermeier *et al* (2009).

10 The Financial Stability Forum (2009) discusses these instruments. See also, Griffith-Jones, Ocampo, and Ortiz 2009 and earlier work by Borio and Lowe (2004) and Borio, Furfine and Lowe (2001).

11 This is supported by recent empirical work (such as Kannan, Rabanal and Scott 2009a, N’Diaye 2009 and Gruss and Sghierri 2009) that finds a role for (simple) macroprudential instruments in augmenting monetary policy, but which stress the need for discretion in the implementation and application of such instruments.

In summary, while regulatory overhaul has been the main focus of recent policy discussions, debate about the appropriate role of monetary policy has also intensified. The apparent pre-crisis consensus of benign neglect has softened, with increased interest in approaches which involve monetary policy leaning against emerging imbalances to some extent. However, exactly how such imbalances are to be identified remains problematic and it is likely that a significant amount of judgement is required.<sup>12</sup> This is not surprising, given that every financial crisis is different from the last in crucial and unexpected ways. The idiosyncratic nature of these events suggests that there is value in the case study approach taken here.

## **2.2 International Policy Responses – Some Examples**

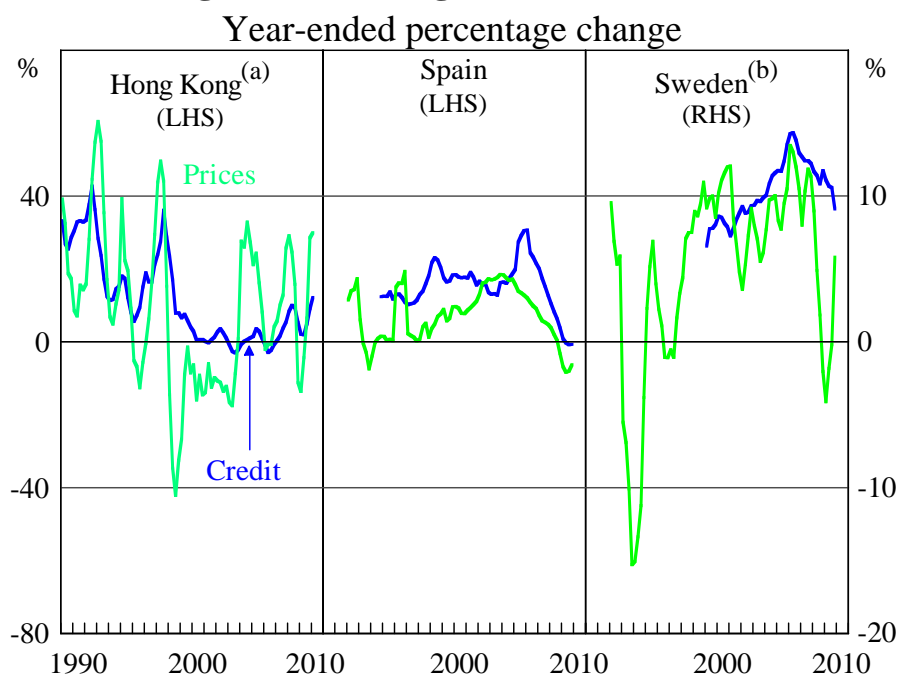
A key argument against the leaning-against-the-wind approach is that policymakers are unlikely to be able to reverse or even slow the course of asset prices during an upswing, at least without causing substantial damage to other parts of the economy. Assessing this is difficult because there are only a few examples of countries that have explicitly used monetary or prudential policies to slow asset price growth. In what follows we briefly review three cases commonly cited in the literature.

### *2.2.1 Hong Kong*

Restrictions on land supply between 1984 and 1997, and the peg to the US dollar via a currency board, meant that Hong Kong was particularly vulnerable to boom-bust cycles in the housing market. Around 1990, as China became more open to investment and trade from Hong Kong, property prices surged. Between 1989 and 1992, residential property prices rose by around 30 per cent per annum on average in Hong Kong (Figure 1). The high concentration of residential loans on the books of Hong Kong's banks (40 per cent of total loans) meant that a rapid reversal of such strong price growth was a sizeable risk for the banking system.

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<sup>12</sup> See Christiano, Motto and Rostagno (2007), Borio and Drehmann (2009), Kannan *et al* (2009b), IMF (2009), and Gerdesmeier, Reimer and Roffia (2009) for discussion of the problems associated with the use of a composite indicator in this regard.

**Figure 1: Housing Prices and Credit**

Notes: (a) Includes all property

(b) Household credit

Source: CEIC

In May 1991, the Hong Kong Banking Commissioner urged financial institutions to tighten lending standards and lower the proportion of net worth that could be lent. Some institutions adopted self-imposed LVR ceilings, but by November 1991 there was little indication that credit growth was slowing and so institutions were asked to take further action. A number of the major banks lowered their LVR ceilings to 70 per cent (from around 80 to 90 per cent), which saw housing credit growth slow substantially from the December quarter 1991.<sup>13</sup> The effectiveness of these restrictions in helping to maintain financial stability was tested in 1994 when interest rates increased in line with the US fed funds rate, ending Hong Kong's asset price boom. Although house prices fell 25 per cent from their peak over the next 18 months, mortgage losses remained below 0.5 per cent of assets and bank profits rose in 1995 (McCauley *et al* 1999).<sup>14</sup>

<sup>13</sup> Other initiatives about this time included a 60 per cent LVR ceiling for luxury properties and a recommended ceiling on the growth rate of mortgage portfolios of 15 per cent per annum.

<sup>14</sup> See Mo and Leechor (1998) for detailed coverage of this episode.

Regulatory controls in Hong Kong have been applied in a flexible way, first by the Banking Commissioner and then by the Hong Kong Monetary Authority (HKMA). Also, regulations have evolved with the financial system. For example, maximum LVRs were increased to incorporate the use of lender's mortgage insurance (LMI) (Yam 2009). The banking system has been stable despite significant house price volatility. Even during the Asian financial crisis of 1997-98, banks remained resilient (Gerlach and Peng 2004). More recently, rising asset prices due to low interest rates once again increased concern about a potential boom in credit and asset prices in late 2009. In response the HKMA decreased the maximum LVR on luxury properties (HK\$20 million and above) to 60 per cent.

While Hong Kong is commonly cited as an example of the successful use of macroprudential policies in the face of financial imbalances, the uniqueness of its housing market and financial system mean that its experience may not be so relevant for other economies. In particular, the exchange rate peg means that the HKMA is unable to use monetary policy and instead needs to use these regulatory tools actively to help stabilise the economy.

### 2.2.2 *Spain*

Between 1995 and 2000 credit extended to households in Spain grew at an average annual rate of 18 per cent. This strong growth followed, in part, from the reduction in interest rates (due to entry into the euro area) as well as increased competition, which led to an erosion of lending standards; at the same time, specific provisions had declined along with the fall in non-performing loans (Griffith-Jones, Ocampo and Ortiz 2009). In response, Banco de Espana implemented a system of dynamic loan-loss provisions in 2000,<sup>15</sup> which forced financial institutions to recognise the risk of loan loss when loans entered the balance sheet, rather than once loans became impaired.<sup>16</sup> The approach was intended to help smooth credit allocation and profits over the business cycle by increasing the cost to banks of making increasingly risky loans as asset prices rose, and providing them with buffers to protect their balance sheets once prices fell and non-performing loans increased.

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<sup>15</sup> See Caruana (2005), Saurina (2009) and Griffith-Jones et al (2009).

<sup>16</sup> For a detailed discussion of dynamic provisioning, see Fernandez de Lis *et al* (2000), and Caruana (2005).

The scheme was significantly scaled back in 2005 as a result of a conflict with the International Account Standard Board conventions (adopted by the EU). Yet according to Griffith-Jones *et al* (2009), dynamic provisions still account for about 1.3 per cent of consolidated assets of Spanish depository institutions, compared with capital and reserves of about 5.8 per cent. These authors also suggest that there is little evidence that the practice of dynamic provisioning has reduced the amplitude of the credit or house price cycle in Spain, with average annual growth in both measures well above the recent historical average between 2000 and 2005 when the dynamic provisioning scheme was in effect. However, Saurina (2009) indicates that much of the pool of provisions amassed since the schemes inception was drawn on over the course of 2009, supporting financial institutions during the global financial crisis.

### 2.2.3 Sweden

Perhaps the policy intervention most similar to the Australian experience was that of the Riksbank between 2005 and 2007.<sup>17</sup> During this period, housing prices and housing credit increased by 11 and 13 per cent per annum on average, respectively. At the same time, the Riksbank raised its policy rate by 200 basis points and publicised its concerns about the sustainability of the expansion and the implications of a sharp house price correction for the financial system and broader economy. In 2005, six of the seven press statements released following policy decisions flagged concerns about developments in asset prices and household credit (Horoeva *et al* 2009), and in 2006 the policy rate was increased with concerns about rapidly rising house prices and household indebtedness referred to in the policy statement.<sup>18</sup> The Riksbank was criticised for its approach. In a report commissioned by the Swedish parliament, Mishkin and Giavazzi (2006) suggested that it was a mistake for policy to consider developments beyond those relevant to CPI inflation. More recently, however, Horoeva *et al* (2009) contend that the policy tightening, when combined with public announcements about the dangers of the housing market boom helped to moderate the financial upswing.

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<sup>17</sup> See Nyberg (2005), Giavazzi and Mishkin (2006) and Horoeva *et al* (2009). The banking crisis in Sweden in 1990, which followed a boom in credit and property price in the late 1980s, required the government to take a large equity share in the banks. The fact that this severe episode was in the living memory of bankers and policymakers may have contributed to the approach taken to the housing boom of the mid 2000s.

<sup>18</sup> See for example <http://www.riksbank.com/templates/Page.aspx?id=20017>

### **3. Asset Prices and Credit Cycles in Australia**

#### **3.1 Key Features of Australia's Earlier Financial Cycles**

Australia has a long history of cycles in both asset prices and credit. Four episodes stand out as having had some degree of financial system instability and economic slowdown. At the core of these episodes was a boom and bust in the property market centred on the early 1890s, early 1930s, mid 1970s and late 1980s/early 1990s.<sup>19</sup> Despite their similarities, there were substantial differences across these episodes in terms of the extent of damage done to the financial system during the phase of declining asset prices. These differences can in the main be traced back to the strength of competitive pressures, the prudence of financial institutions and the decline in lending standards during the expansionary phases.

The most extreme cycle and the most damaging lay behind the 1890s depression. The expansionary phase was underpinned by a sharp rise in competitive pressures among financial institutions which encouraged an easing in lending standards and rapid growth of credit, much of which was channelled into the booming property market. The eventual downturn in the property market led to a severe financial crisis and a depression unequalled in Australia's experience. In stark contrast, Australia's financial system was relatively stable during the 1930s depression, notwithstanding a pronounced cycle in property prices. The cycle in credit was substantial but somewhat muted compared with the 1890s, helped in part by less intensive competitive pressures and more prudent behaviour by the banks. In turn this reflected the change in market structure since the 1890s crisis and the memory of that disastrous episode.

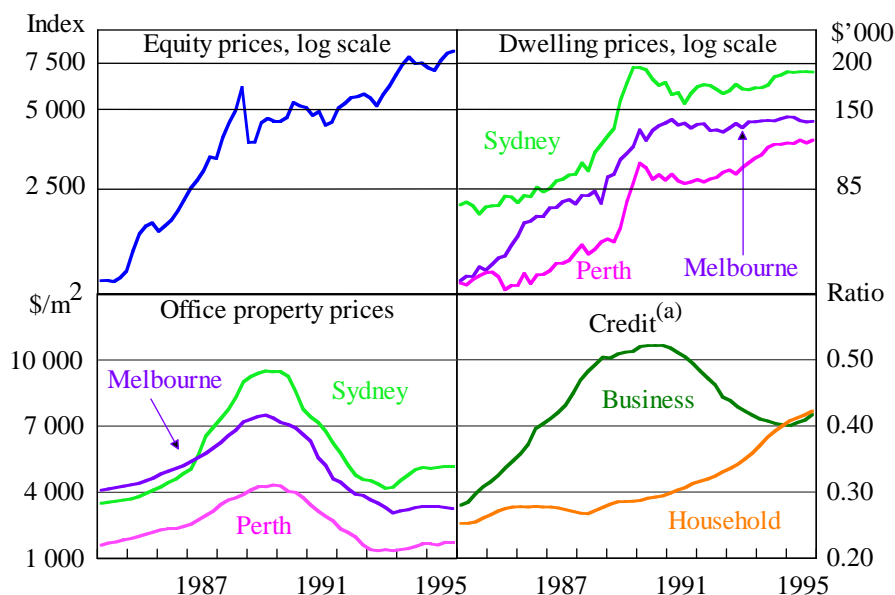
The credit and property price cycle of the mid 1970s was spurred on by rising competition from an emerging fringe of non-bank financial institutions, while banks remained tightly constrained by regulations. There was a pronounced cycle in commercial property, ultimately leading to the failure of almost half of the largest 20 finance companies. However, high levels of debt were less problematic because much of the correction in property prices occurred via relatively rapid generalised inflation.

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<sup>19</sup> For a detailed comparison of these episodes see Kent and D'Arcy (2000) and Kent (2010). Simon (2003) provides a broad discussion of boom and busts in Australian asset markets.

The cycle in credit and property prices of the late 1980s/early 1990s was driven by improving economic conditions and easier lending standards, which followed from the deregulation of the financial system in the 1980s. Businesses were the main recipients of the more readily available credit. A lot of reliance was placed on property as collateral. Not surprisingly then, the large rise in corporate gearing was associated with a boom in the commercial property market. Sydney office prices more than doubled between 1986 and 1989; they fell sharply thereafter, to levels seen around seven years earlier (Figure 2). The October 1987 stock market crash had little impact on the commercial property market (or the economy more generally). It was not until interest rates were increased substantially that commercial property prices began to decline, with adverse effects on financial institutions and the economy more broadly. Eventually, two of Australia's largest banks experienced sizeable losses and had to issue more equity. The early 1990s recession was long lasting, in large part because of the substantial financial headwinds (Macfarlane 2006). Importantly, this event was in the living memory of bankers and policymakers during the 2000s boom in housing prices and household credit.

**Figure 2: Asset Prices and Credit in the 1980s and early 1990s**



Note: (a) As a share of GDP

Sources: ABS; APRA; RBA



### 3.2 Housing Market Developments in the early 2000s

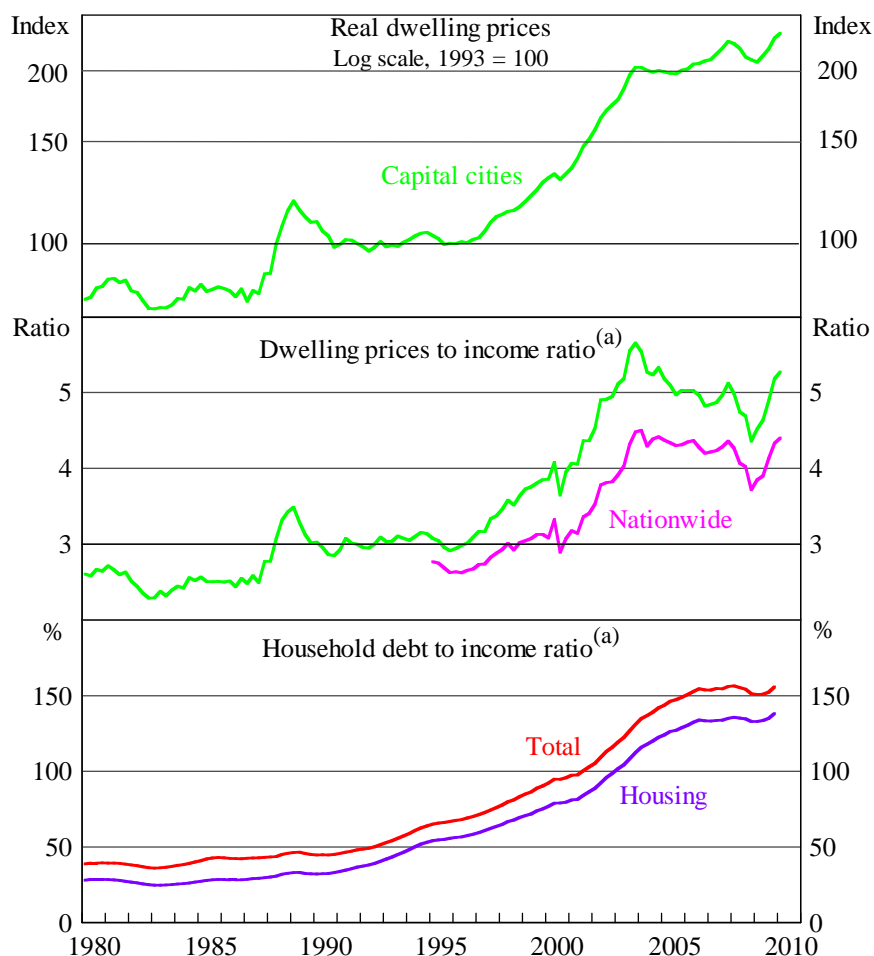
In contrast to these earlier episodes, the large run-up in housing prices and rapid growth of credit in the early 2000s was followed by a levelling out in housing prices over the following couple of years, with little if any adverse impact on the financial system overall.<sup>20</sup> Between 1997 and 2003, dwelling prices in Australia doubled (growing by an average of 13 per cent per annum). Growth was particularly rapid towards the end of this period, with median dwelling prices rising by an average of 18 per cent per annum in 2002 and 2003.<sup>21</sup> Dwelling price growth significantly outpaced growth in household disposable income, with the nationwide dwelling-price-to-income ratio rising from around 2½ in the mid-1990s to a little over 3 by 2001 and then to 4½ at its peak in early 2004 (Figure 3).<sup>22</sup> In late 2003, nationwide dwelling prices levelled out. Over the subsequent 18 months, capital city dwelling prices remained broadly flat, though they fell in nominal terms in some key areas, particularly in western Sydney (see below). Thereafter, nationwide dwelling prices grew at close to the same pace as household disposable income, with the price-to-income ratio trending down slightly up to 2008, before dipping during the global financial crisis and rebounding more recently. The household debt-to-income ratio has also been broadly stable since 2006.

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<sup>20</sup> Cecchetti 2006, IMF 2009 and Posen 2009 provide brief accounts of this episode.

<sup>21</sup> The rise in dwelling prices between 1997 and 2003 was fairly broadly based across the Australian states, albeit with different timing and intensity. Growth was stronger earlier in the larger cities of Sydney and Melbourne (which together account for around 40 per cent of the national dwelling stock), and rose more quickly in the smaller capital cities in 2002 and 2003.

<sup>22</sup> The *capital city* dwelling price to income ratios presented here are biased upwards as the household disposable income measure includes regional areas, which typically have lower levels of income than the capital cities. The more complete *nationwide* measure is lower, though not available for the earlier history. In Australia, around 60 per cent of the value of the housing stock is located in the capital cities.

**Figure 3: Housing Prices and Debt**

Note: (a) Disposable income is after tax and before the deduction of interest payments. Household sector excludes unincorporated enterprises.

Sources: ABS; APM; RBA; REIA

There were many factors which contributed to the prolonged housing price appreciation in the second half of the 1990s and early 2000s. Most were associated with persistent structural changes in the economy that supported a rise in the indebtedness of households and greater demand for housing.<sup>23</sup> These included:

- The effects of the move to a low and stable inflation environment through the early 1990s. Lenders in Australia have frequently determined borrowing capacity according to a rule of thumb whereby initial repayments are no more

<sup>23</sup> See Kent, Ossolinski and Willard (2007) for a discussion of these trends across a range of economies. They note that the adjustment of household sector indebtedness can be drawn out as the greater availability of credit is less relevant to older households that have accumulated assets and paid down debts accumulated earlier in life.

than some fixed share of borrowers' income, typically around 30 per cent of gross income (Stevens 1997; RBA 2003a). By reducing nominal interest rates, lower inflation worked to ease this constraint by reducing initial repayments. Real interest rates also fell after lower inflation was secured, which helped to reduce the real costs of funds for institutions.

- Rising competitive pressures (following earlier deregulation of financial markets) and innovations which reduced the costs and increased the availability of credit. Mortgage interest rate margins were compressed significantly relative to the policy rate; by about 160 basis points over the second half of the 1990s (Figure 4). Innovations in securitisation markets enabled traditional banks to broaden their funding base and provided low cost funding for a range of non-bank lenders, employing an 'originate-to-distribute' business model. These changes supported an easing in lending standards including via the introduction of new types of loans.
- A more favourable tax treatment for investors in housing which increased demand for housing for investment purposes. While Australia's tax arrangements already tended to favour investors (relative to owner-occupiers) more so than in other countries, in September 1999 the Federal government halved the rate of capital gains tax (RBA 2003b).<sup>24</sup> Although the rental yields appear to have been relatively low, the net cash flow position of households investing in rental properties was enhanced by the tax treatment of investment-related expenses.

Assessing the extent to which the upswing in housing prices reflected fundamental factors is not easy. Most time-series modelling approaches seek to identify a stable long-run relationship, but at times of significant structural change this is notoriously difficult. However, given that house prices had already increased substantially over a number of years, the pace of growth in 2002 and 2003 appeared to be unsustainable.<sup>25</sup> Indeed, much of the increased demand for housing

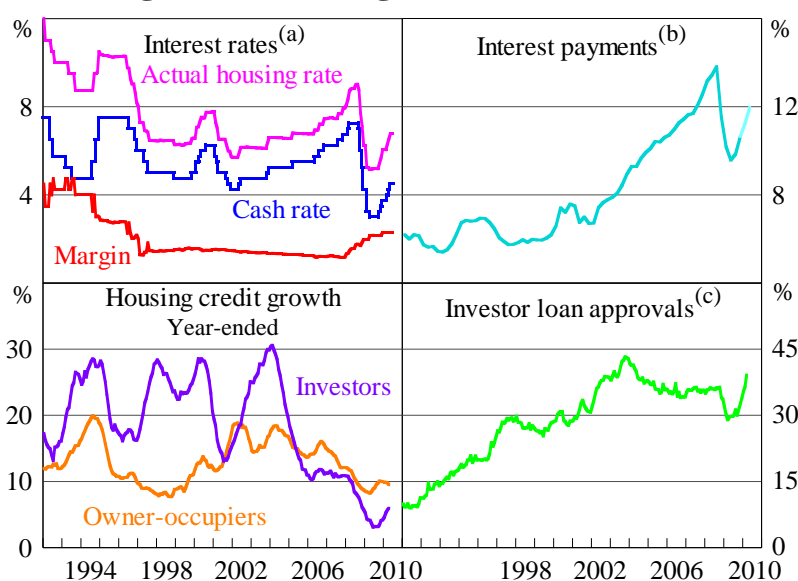
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<sup>24</sup> From September 1999 the rate of capital gain tax on investments was reduced such that 50 per cent of the capital gain from assets held for at least 12 months was then exempt from tax. The taxpayers' main residence is also exempt from capital gains tax, although interest payments are not tax deductible.

<sup>25</sup> Analysis similar to that conducted by Borio and Lowe 2002 (and updated more recently by Borio and Drehmann 2009) using measures of the deviation of credit-to-GDP and house

and finance came from investors (as opposed to owner-occupiers). By 2003, nearly 45 per cent of all new housing loans were for investment purposes, compared to around 25 per cent over the four years prior to 2003, and an even lower share prior to this (Figure 4). This was despite very low rental yields, providing some evidence that investors were motivated by expectations of after-tax returns due to capital gains rather than the current investment income (Figure 5).

**Figure 4: Housing Finance Indicators**



Notes: (a) From 1995 onwards actual housing rate is bank average including discounts. Prior to 1995 actual housing rate is average of five major banks standard variable rates.

(b) Share of household disposable income. Excludes unincorporated enterprises and income is before the deduction of interest payments.

(c) Share of the total value of housing loan approvals.

Sources: ABS; RBA

Financial innovations also encouraged investors into the housing market. Lending criteria on investor loans had become easier starting around 1996 as they moved into line with those that applied to owner-occupiers. Along with the removal of the interest rate penalty on investor loans (of about 1 percentage point in the mid 1990s; RBA *Bulletin* December 2002), low-equity and interest-only loans became readily available. There were also new products – such as deposit bonds – that

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prices from real-time trends, suggests that such ‘gap’ indicators had breached the threshold values (posited by Borio and Lowe) around 2002-2003. In other words, the imbalances that have historically been associated with financial crises were present in the period of interest.

allowed investors to purchase off-the-plan investment properties with no outlay of cash upfront and with only small cash outlays to finance ongoing costs. At about the same time, a number of non-financial companies began to promote investment in residential property. It was ‘not uncommon for promoters of investment in rental properties to suggest that due to the operation of the tax system, investors [could] purchase an investment property worth \$400,000 or \$500,000 for as little as \$50 per week’ (RBA 2003b).

Broader macroeconomic conditions were also conducive to rising household indebtedness as Australia’s economy fared well through the global downturn of 2001, growing at an average rate of 4 per cent from 2001-2003. Initially this resilience reflected Australia’s low production of information technology, and later was partly due to strength in the housing market and the effect of this on consumption. Australia’s unemployment rate rose through 2001, though only back to levels of a year earlier, and by 2003 it was back down to around 6 per cent.

Against the background of a robust economy, overall housing credit growth picked up significantly. From an average of 14 per cent per annum from 1998–2001, it stepped up in 2002 and then again in 2003 to 21 per cent, significantly faster than the growth of household disposable income. Moreover, credit and loan approvals statistics suggest that investors accounted for much of this growth. Household surveys (which became available only with some delay) suggest that the proportion of households owning investor or second homes rose from 16 per cent in 2002 to 20 per cent by 2006. The rise in household debt saw the household interest burden rise to new highs (although it has subsequently surpassed this level).

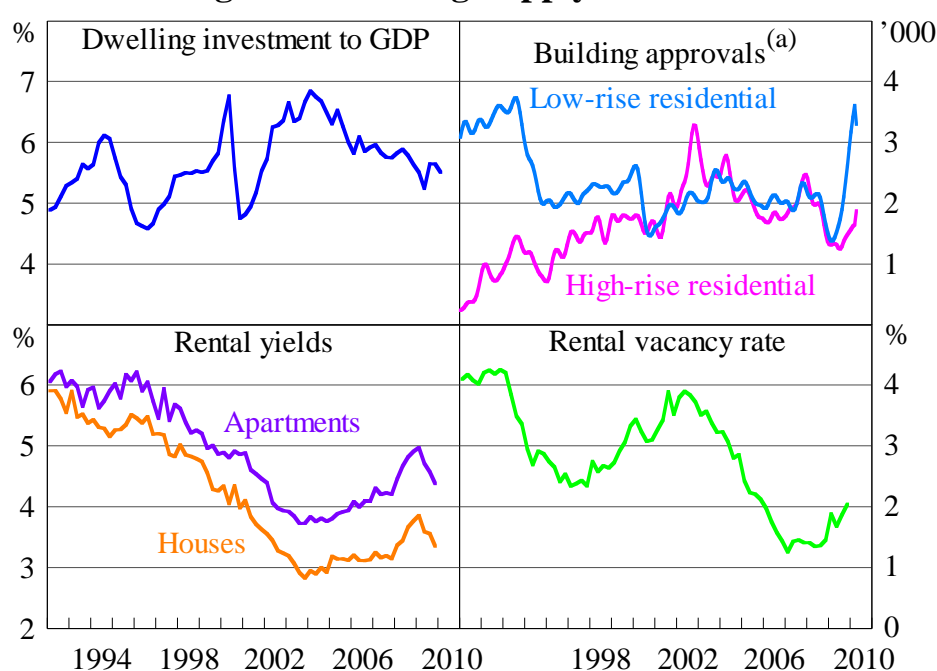
Over this period, there was little evidence that overall supply was running either substantially behind underlying demand (which would have supported dwelling prices) or that it had run ahead of underlying demand (which would have worked to push down prices).<sup>26</sup> While there was a sharp pick-up in construction of apartment buildings, and a significant push by property developers to sell these apartments to investors, there were few signs of broader excess housing supply,

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<sup>26</sup> Estimates of underlying demand can be calculated using data on population growth, average household size and the number of vacant dwellings (including holiday houses etc.). These estimates are then compared to data on the number of dwellings completed to assess whether there is an apparent under/oversupply of dwellings.

with rental vacancy rates returning to around average levels after peaking in 2002 (Figure 5). Any over-building was fairly localised, with approvals for high-rise residential buildings rising sharply over 2002, which by 2003 had contributed to some fears of over-building in this segment of the market. Dwelling investment rose to above average in 2003, at 6½ per cent of GDP, though the introduction of a goods and services tax in 2000 – which added volatility into the housing construction measures – makes it difficult to assess how much of the run-up in dwelling investment in 2002-2003 was pay back for earlier weakness.

**Figure 5: Housing Supply Indicators**



Note: (a) Only medium density, shown in trend terms.

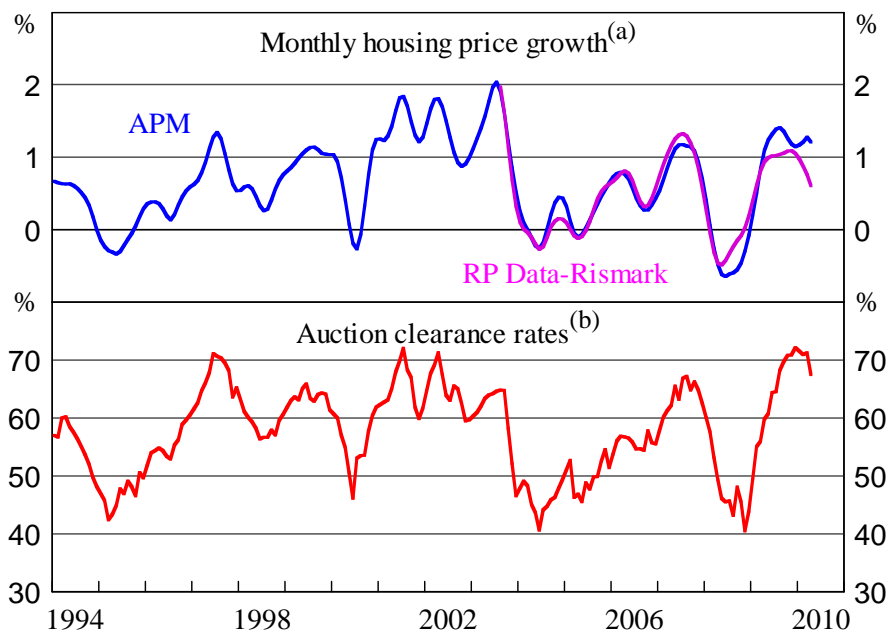
Sources: ABS; RBA; REIA

Housing market activity started to ease in October 2003 and growth of in capital city dwelling prices overall stopped in the last two months of 2003 (Figures 6 and 7). From this point they remained broadly steady for around 18 months, though prices fell in Sydney and Melbourne.<sup>27</sup> At the time, there were timely data available on auction markets (in Australia, around 15 per cent of all residential property sales occur at auction, though this varies substantially across cities.) Auction clearance rates (the ratio of the number of auctions that result in a sale to

<sup>27</sup> While reliable monthly house prices indicators were not available at the time, subsequent improvements allow us to confirm the timing of the easing in housing prices.

the number of auctions that take place) have a strong positive correlation with monthly housing price growth (of 0.9 on a nationwide basis). These rates began to decline in October 2003 and fell substantially to reach previous trough levels by June 2004.<sup>28</sup>

**Figure 6: Housing Market Indicators**

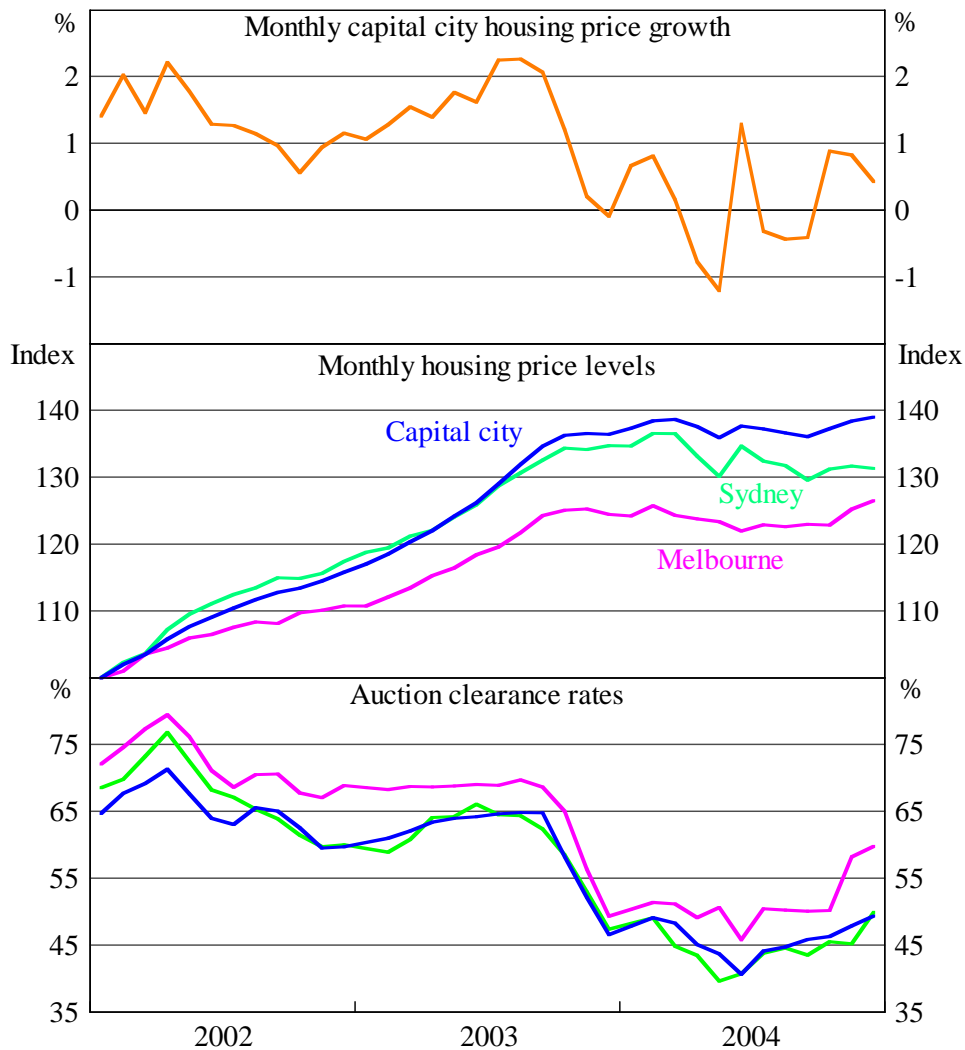


Notes: (a) Capital cities; 13-period Henderson trend.

(b) Dwelling stock weighted capital city measure.

Sources: APM; RBA; REIV; RP Data-Rismark

<sup>28</sup> Measures of consumer sentiment regarding whether it is a 'good time to buy a dwelling' also fell sharply in December quarter 2003, after having taken a step down in 2002 from earlier very high levels, due to rising interest rates and falling affordability.

**Figure 7: Housing Market Indicators – 2002 to 2004**

Sources: APM; RBA; REIV

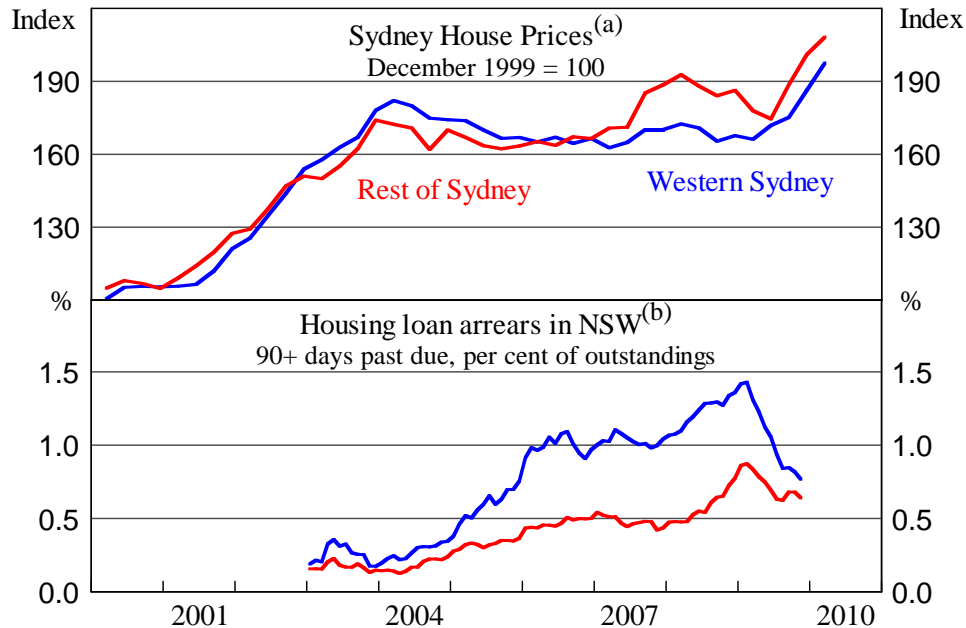
### 3.3 After 2003

Housing price falls were seen for a period through 2004 in both Sydney and Melbourne. Large declines were apparent in the suburbs in western Sydney, where house prices fell by between 5 and 20 per cent (Figure 8). This part of Sydney accounts for about 6 per cent of the national housing stock and tends to have lower-priced housing than much of Sydney; prices also peaked later than in the rest of Sydney. A significant number of the late entrants into the housing market in western Sydney also had loans with high LVRs and low documentation. Mortgage originators (as opposed to banks) comprised a greater share of new lending in this region than in others and, partly through looser lending standards, were able to increase their market share. Western Sydney was the region of Australia that



exhibited the most substantial rise in housing loan arrears and mortgage defaults, with an arrears rate considerably higher than the average arrears rate for loans in other parts of Sydney.

**Figure 8: Sydney House Prices and Loan Arrears**



Notes: (a) Weighted average of suburb medians.

(b) Prime loans securitised by all lenders.

Sources: ABS; APM; Perpetual; RBA; Residex

From 2004 until 2007, nationwide housing prices grew broadly in line with household disposable incomes and housing credit growth slowed considerably, especially for investors. Rents, which had previously not grown very strongly, picked up and there was an upward trend in the rental yield, consistent with low rental vacancy rates and a relative decline in home building. The shake-out of the housing market also had implications for financial institution's balance sheets. On-balance sheet arrears for banks rose gradually and reached a local maximum of around 0.5 per cent of housing loans in early 2007, though they subsequently rose a little further largely due to increasing interest rates. Securitised housing loans rose earlier, by more and to a higher level, partly reflecting the larger share of low-documentation loans in the securitised pool.

The rise in housing loan arrears was eventually reflected in more widespread concerns about lending practices and some additional tightening in lending

standards, although pinpointing the timing and extent of this is hindered by data limitations.<sup>29</sup> Periodic surveys of banks and data on the characteristics of securitised mortgages provide some information in this regard, though these provide only a partial view due to significant shifts in the market share of mortgage lenders. Available evidence suggests that lending standards tightened after housing prices declined, albeit with considerable delay. Eventually, a parliamentary inquiry was held on 'Home Lending Practices and Processes' in August 2007, with submissions from a range of institutions including the RBA, APRA and the Lender's Mortgage Insurance (LMI) providers. Australia's largest LMI provider, Genworth Financial, noted a number of areas in which insurance companies could help to ensure prudent lending practices, including detailed underwriting guidelines for high LVR loans, procedures to verify property valuations, and scoring techniques to identify high-risk loans (Genworth Financial 2007).

#### **4. Australian Policy Developments**

This section summarises the statements by, and actions of, the relevant policy authorities, including the Reserve Bank, in the period from 2002 to 2004 in response to housing market developments. This is based on an examination of public statements. For the Bank, these include the quarterly Statement on Monetary Policy (SMP), statements to parliamentary committees,<sup>30</sup> press releases related to policy announcements and speeches by senior RBA officials. A detailed summary of these statements is provided in the Appendix. It is also worth noting that over this period, the Bank devoted considerable resources to the analysis and research of trends in Australian housing prices and housing finance. This included a careful comparison with developments in a range of other relevant economies. The results of these efforts were released in a number of articles, including an extensive submission by the Bank to the Productivity Commission Inquiry on First Home Ownership (RBA 2003b).<sup>31</sup>

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<sup>29</sup> APRA now collects data on types of loans by banks and LVRs on new loans.

<sup>30</sup> See Macfarlane (2002a, 2002d, 2003b and 2003c).

<sup>31</sup> This type of analysis and research continued beyond 2003. For example, in 2004 the Bank, in conjunction with private sector firms and the Australian Bureau of Statistics, made considerable effort to develop robust and timely measures of housing prices (see the July

While the wider debate surrounding the role of monetary policy in responding to asset prices was particularly vigorous in this period, these issues had been under consideration by the RBA for some time. In the late 1990s and early 2000s, the Bank released a number of papers dealing with issues of asset price bubbles, credit cycles and episodes of financial instability. Some provided an examination of Australia's historical experiences of financial instability, while others undertook more abstract analysis using a more structured framework.<sup>32</sup> The broad conclusion was that rapid growth in asset prices and leverage, accompanied by declining lending standards can pose a risk to financial and macroeconomic stability more generally. This was echoed by a number of participants at the 2003 RBA conference on asset prices and monetary policy, including in closing remarks by Carmichael, Plender and Stevens (Richards and Robinson 2003).

#### 4.1 Policies and Discussions

As the previous Section describes, there were fundamental factors underpinning the rise in housing prices over the second half of the 1990s and the early 2000s in Australia. However, developments in 2002 and 2003 began to cause some unease for policy makers, as the pace of growth in housing prices and credit were accelerating to seemingly unsustainable rates and there were signs that lending standards were declining in a number of important respects. The very prominent role of investors in the housing market also suggested a strong speculative element.

The broad approach of the Bank can be summarised as follows. The RBA attempted to draw attention to the longer-term risks associated with recent trends, especially the high rates of growth of housing prices and housing credit. In particular, the Bank drew attention to the fact that it was unlikely that these trends were sustainable over the medium term, and that borrowers entering the market based on expectations that prices would continue to rise at a rapid rate were taking a significant risk, particularly if highly leveraged. Similarly, the RBA drew attention to the risks associated with declining lending standards. During the

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2004 *Bulletin*, Hansen 2006 and Prasad and Richards 2006), many of which are used in this paper.

<sup>32</sup> For detailed consideration of Australia's historical experience with asset price bubbles see Kent (2010) and Kent and D'Arcy (2000). For a more theoretical approach regarding the case for monetary policy to act against asset prices *ex-ante*, see Kent and Lowe (1997a, 1997b). Gruen, Plumb and Stone (2005) highlight arguments against pre-emptive action.

period, monetary policy continued to be set on the basis of medium-term prospects for inflation and output and the Bank was not targeting housing prices or credit growth. However, developments in the housing market were an important factor in the Bank not delaying a tightening of monetary policy that was likely to be required on more general macroeconomic grounds. The Bank's explanations of its monetary policy decisions also highlighted the risks in the housing market.

The RBA started raising concerns about housing market developments in early 2002. Between 2002 and late 2003 there was a clear progression of themes relating to housing price and credit growth in Bank statements as it endeavoured to use 'open-mouth operations' to draw attention to the risks. Regulatory agencies and governing bodies also provided pointed discussion of market developments and took some regulatory actions. APRA tightened regulations on non-standard loans and coordinated stress tests of individual depository institutions. Federal taxation authorities sought to better enforce the tax code relating to deductions stemming from investment properties, and state governments tightening up regulations regarding the conduct of auctions. The Australian Securities and Investments Commission (ASIC) and the Australian Competition and Consumer Commission (ACCC) also played a role by investigating alleged illegal activities by a number of property marketers.

#### *4.1.1 Developments in 2002*

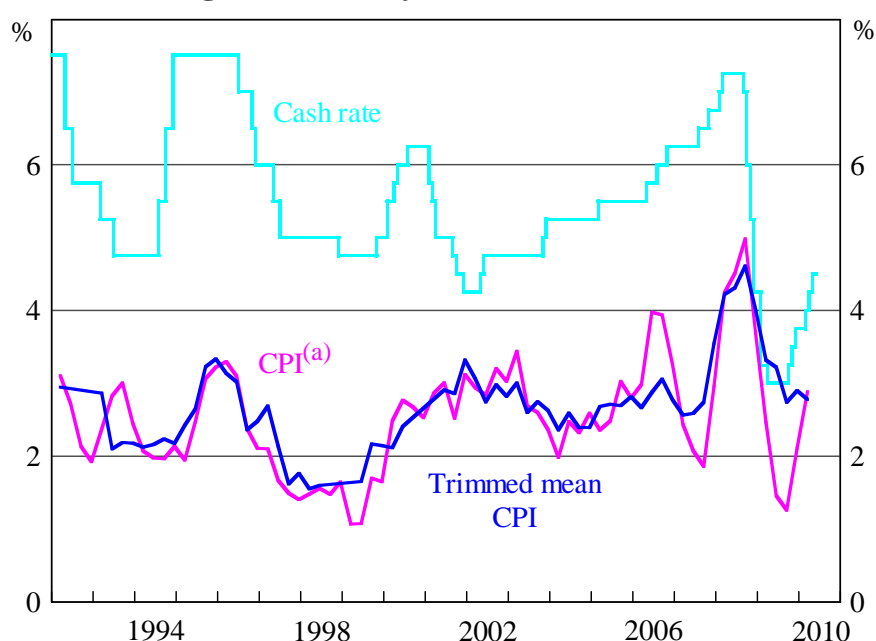
Prior to 2002, house price developments were often discussed by the RBA in the context of positive wealth effects, as the domestic economy attempted to shrug off the headwinds associated with slow global growth. As the recovery gained momentum domestically, the focus turned to the possibility of overbuilding in some segments of the medium-density housing market, and to the question of the sustainability of rapid growth in credit and house prices.

The Bank tightened monetary policy in May 2002 and again in June (by 25 basis points on each occasion) (Figure 9). In explaining the Bank's general strategy, the May 2002 *SMP* highlighted that inflationary pressures were expected to pick up over the course of 2003 as the economy strengthened. The Bank, however, also suggested that low rates risked fuelling imbalances associated with a strong rise in

house prices and household borrowing over a number of years. For example, in the statement accompanying the May decision it was noted that:

*To persist with a strongly expansionary policy setting...could fuel other imbalances such as the current overheating in the housing market, potentially jeopardising the economy's continued expansion. (RBA Media Release – 8 May 2002)*

**Figure 9: Policy Rate and Inflation**



Notes: (a) Excluding interest, tax and health policy changes

Source: ABS; RBA

While the structural shift in the availability of housing finance and macroeconomic conditions more generally justified strong growth in house prices in the late 1990s and early 2000s, low interest rates and tax arrangements were encouraging investors and subsidies were boosting first home buyer demand. Poor returns on alternative investments in the wake of the dot-com bust were also emphasised (Macfarlane 2002d, Stevens 2002). Further, the Bank noted that:<sup>33</sup>

*...whenever [a structural shift] of this type occurs, there is the risk that prices may overshoot, as some purchasers extrapolate past movements as a guide to future capital gains. This may be occurring at present, since the low rental yield on property, and high*

<sup>33</sup> See also Macfarlane 2002b and 2002d and RBA *Bulletin*, July 2002.

*rental vacancy rates, seem inconsistent with rapidly rising house prices. (SMP – May 2002, p 32)*

This line of argument continued throughout 2002 with the clear goal of highlighting the risks:

*...the potential for further capital gains in the housing market [is] likely to be countered by increased supply of rental properties, rising vacancy rates and falling rents in some areas. (SMP – August 2002, p 2)*

However, over the second half of 2002, deterioration in the prospects for global growth and a marked increase in the volatility of global share markets led to an increased focus on near-term downside risks to the domestic economy. Growth in output and inflation failed to reach the rates forecast when the 2002 tightenings were conducted, and in spite of the risk posed by rapid growth in credit and house prices, further moves towards a more neutral monetary policy setting were judged not to be appropriate (*SMP August and November 2003*).

An impact of the policy tightenings and the accompanying rhetoric on the housing market was not obvious in the near-term. For example, loan approvals to investors for housing continued to grow rapidly, increasing by more than 40 per cent in 2002. The Governor, in testimony to parliamentary committee, emphasised, however, that:

*...the market works, but with long lags during which people are encouraged to take decisions based on little more than optimistic extrapolation of what happened in the past. Developers will continue to put up new apartment blocks while there are investors willing to precommit to buy. These are the investors who turn up at seminars where they are told by the developers how they can become very rich if they highly gear themselves and buy an apartment. (Macfarlane 2002d)*

Discussion by the Bank of the sustainability of the high rate of price increases continued throughout 2002 (Stevens 2002, for example). The Bank also began to highlight the role of speculation, the risks associated with rapid growth in leverage, and emerging evidence of a reduction in lending standards (see below). Initially the focus was on the prospect of financial hardship for overburdened investors in the

event of a substantial correction in the housing market, but attention was also directed to the potential effects of increased loan defaults on financial stability.

#### 4.1.2 *Developments in 2003*

In early 2003, in the *SMP* the RBA reiterated its concerns about these risks:

*...the run-up in housing prices and associated expansion in housing-related debt were a source of concern for most of the past year, given the potential of such a process to remain disconnected from fundamentals and develop into a significant imbalance over time. (SMP – February 2003, p 3)*

At the same time, some comfort was taken from the tentative signs that pressures in the housing market were easing, particularly in the investor segment. As it turned out, these signs did not persist as the year progressed.

In a speech in April 2003, the Governor outlined the Bank's concerns regarding rising household indebtedness (Macfarlane 2003a). The worry was not so much that a housing market downturn would directly impinge upon financial stability, but rather that it could have adverse consequences for household consumption and economic activity more generally.<sup>34</sup> Also, the increasingly dominant role of investors in the housing market reinforced earlier concerns that some households did not adequately appreciate the risks and were simply extrapolating recent price trends.

Through 2003, the Reserve Bank repeatedly drew attention to the risks associated with ongoing rapid growth of house prices and housing credit. It also acknowledged that there might be occasions when monetary policy might need to be tightened in response to emerging financial imbalances. The contention was that such a response could be justified within its flexible inflation targeting framework, which allowed longer-term considerations to be taken into account. If imbalances in the housing market could pose a threat to medium-term economic stability, it made sense to tolerate a higher policy rate than that which was justified by shorter-

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<sup>34</sup> Stevens (2003c) provides further discussion of this point.

term inflation pressures. In a speech, the Deputy Governor explained this in terms of a risk-management approach to policy decisions (Stevens 2003b):<sup>35</sup>

*...a case might be made, on rare occasions, to adopt a policy of 'least regret' so far as asset prices are concerned, if financial and macroeconomic stability were thought to be at risk.*

Meanwhile, unease surrounding lending practices was being aired by APRA. In late 2002, APRA wrote to the chief executives of authorised deposit taking institutions, calling for a conservative approach to risk, urging them to avoid the temptation of relaxing lending standards in the wake of such a long and sustained economic upswing; this correspondence was flagged publicly soon after the fact (APRA 2002). While APRA acknowledged the generally healthy state of Australian financial institutions, through 2003 it raised a number of concerns about some emerging trends in the mortgage market, including the growth of broker-originated and 'non-conforming' lending, as well as the substantial increase in the use of lenders mortgage insurance.<sup>36</sup> APRA noted that: '...the psychology of home lending has changed from a credit rationing process to a product marketing process' (Littrell 2003). This had contributed to an increase in average LVRs for mortgages, an over-reliance (by lenders) on collateral as a signal of a borrower's suitability, and a decline in the attention given to the ability to repay loans. So while the stress tests of institutions' home-loan portfolios overseen by APRA around that time revealed that the financial system was well placed to weather a downturn in the housing market, it raised some concerns, particularly for some institutions that were not paying close attention to the extent and nature of their exposures (Laker 2003).

The RBA also commented on the increased level of risk on the balance sheets of financial institutions. At a parliamentary committee in December 2002, the Governor highlighted deposit bonds as a key factor fuelling speculation and increasing risks for more vulnerable investors:

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<sup>35</sup> Macfarlane 2002b and Stevens 2003a provide similar arguments in support of intervention.

<sup>36</sup> See for example APRA 2003, Esho 2003 and Littrell 2003.



*...there are new financial instruments such as deposit bonds that have been created that just make it so easy for people to do it [invest/speculate in property]. People can actually make these investments on almost 100 per cent gearing. (Macfarlane 2002d)*

The Reserve Bank's Annual Report for 2003 (released in September) also noted the increased risk posed by non-standard products such as home equity loans and redraw facilities, which allowed borrowers to build up more debt and run it down more slowly than had previously been the norm.

One factor that appeared to play some role in drawing attention to the risks in the housing sector, was the crackdown on property investment seminars, in particular, the high-profile case of a 'spruiker' (or promoter) Henry Kaye and his companies. In March 2003, ASIC commenced legal proceedings, alleging dissemination of false and misleading information by Mr Kaye and others.<sup>37</sup> When ASIC uncovered evidence that the law had been breached, administrators and receivers were appointed to each of the companies involved. The effect of this on the confidence of investors was reinforced by the commitment of the ACCC in September 2003 to crackdown on deceptive conduct by property marketers, and by increased scrutiny of tax deductions stemming from rental expenses by the ATO. In September 2003, regulations governing sales of residential property at auctions were also tightened in the states of New South Wales and Victoria; in particular, the legislative changes were aimed to reduce the number of dummy bids at auctions.<sup>38</sup>

Towards the end of 2003, the RBA raised the policy rate, by 25 basis points in November and again in December. The accompanying press release in November cited the strength in the demand for credit as a reason not to delay a tightening that was called for on general macroeconomic grounds. At the same time, the inflation forecasts were revised upwards reflecting stronger-than-expected growth in domestic demand, with inflation expected to reach 2½ per cent in the second half of 2005 (*SMP* November 2003). It is worth noting that because of the predominance of variable rate housing loans in Australia, increases in the

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<sup>37</sup> Aside from legal breaches, there were allegations that marketers charged sizeable consultancy fees for investment advice, such as to purchase properties in which advisors had undisclosed financial interests (<http://www.theage.com.au/articles/2003/09/21/1064082867568.html>).

<sup>38</sup> See [http://www.austlii.edu.au/au/legis/nsw/consol\\_reg/psabar2003476/](http://www.austlii.edu.au/au/legis/nsw/consol_reg/psabar2003476/)

overnight interest rate were quickly passed through to higher costs for existing and new borrowers.<sup>39</sup>

In the months that followed, the RBA pointed to data suggesting that the rate of increase in house prices was slowing and the housing market had turned down:

*It remains to be seen to what extent the weakening in the inner-city property markets in Sydney and Melbourne will spread more widely across the national market. However, it is clear that sentiment about the property market has softened.* (SMP – February 2004, p 27)

Following this, there was discussion of the need for credit growth – which up to mid 2004 had yet to show any real weakening – to slow to more sustainable levels.

Finally, a number of developments appeared to have reinforced the housing market correction over 2004. In particular, the ACCC took further action against fraudulent property marketers and purveyors of ‘get-rich-quick’ schemes involving property; and the NSW government instituted a new tax on investment housing aimed at reducing the influence of speculation (although this was partly offset by a reduction in other taxes).<sup>40</sup>

## **4.2 Media Reports of RBA Statements**

While it is difficult to quantify what the effect of the Bank’s ‘open mouth operations’ might have been over this episode, we can at least confirm that the RBA’s statements were widely reported at the time in the popular press. A survey of some of the major papers from around Australia shows that coverage of the RBA’s comments on housing market issues increased noticeably between 2002 and 2004. Based on a keyword search of articles mentioning the RBA and interest rates, the proportion that also mentioned housing increased from an average of 10 per cent in 2001 to 18 per cent in 2002 and 26 per cent in 2003, before trending

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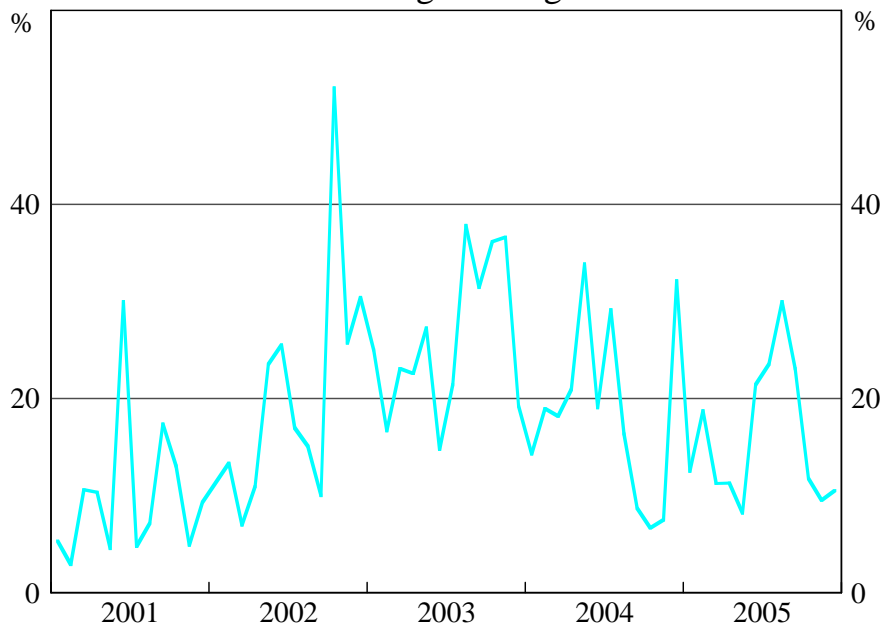
<sup>39</sup> See Bloxham and Kent (2009) for a comparison of the US and Australian housing markets in this regard.

<sup>40</sup> The NSW government levied a 2¼ per cent stamp duty on properties (excluding own homes) where the sale price was more than 12 per cent higher than the purchase price, although the vendor duty could be claimed as a deduction against capital gains tax reducing its effective rate. The duty came into effect on 1 July 2004 and was withdrawn on 2 August 2005.

down in the following couple of years (Figure 10). The timing of these changes aligns with the pattern of RBA statements over this period.

A similar exercise shows that the proportion of articles on the RBA and interest rates which also discussed credit increased between 2002 and 2003, although the series is much more volatile from one month to the next. This share was sustained at a high level in 2004 (at around 10 per cent on average), at the height of RBA statements about the need for a return to more sustainable levels of credit growth.

**Figure 10: Press Index**  
Housing coverage



Notes: Percentage of articles mentioning 'RBA' and 'interest rates' that also mention 'housing'

Sources: Dow Jones Factiva database

## 5. Conclusions

Debate over the role of policy in responding to asset prices remains contentious. However, it is becoming clear that support for the approach of responding only after damaging asset price declines are underway has diminished in light of the fall-out from the global financial crisis. An idea that appears to be gaining wider acceptance is that there is a case for policy to focus on financial imbalances more generally, rather than asset prices in particular. Indeed, if a sharp decline in the price of assets that form the basis of collateral eventually impedes the normal

operations of financial markets and financial institutions, standard monetary policy may run up against the zero lower bound for interest rates and therefore may be ineffective.

If one accepts that policy should respond in some way to growing financial imbalances then the issue is which policies should respond and how much should they 'lean against' emerging financial imbalances. Much recent discussion has focused on macroprudential policies, which could serve as either substitutes for, or complements to, monetary policy. A key problem is that over-reliance on macroprudential tools may simply force credit to be provided outside of the regulatory net. Monetary policy has a potential advantage here given that it influences the cost of leverage across the whole economy. In contrast to the earlier debates about whether to burst asset price bubbles or not, more attention is now being focussed on an intermediate path of leaning against emerging imbalances with a view to reducing their severity and hence the cost of any subsequent financial disturbances. For monetary policy, this would require, at a minimum, avoiding periods of unnecessarily low interest rates that might exacerbate imbalances. Of course, such a strategy is likely to be more effective if complemented by a tightening of macroprudential and other policies.

One difficulty in this whole debate is that there is little practical evidence about how effective an intermediate leaning strategy might be. The Australian experience of 2002 to 2004 is potentially relevant. A key feature of this episode was the significant influence of investors, as well as the decline in lending standards during the expansionary phase. This raised concerns within the RBA, and other authorities, regarding the sustainability of such trends.

The Bank highlighted the risks associated with sustained high rates of housing price and credit growth when the cash rate was raised in 2002. This was not inconsistent with the Bank's inflation targeting framework, which allows for a degree of flexibility, including the ability to account for potential risks to longer-term prospects. From 2002 to 2003, the frequency with which the Bank highlighted the risks arising from housing market developments increased. In late 2003, the Bank raised rates again, highlighting concerns about the pace of housing price and credit growth. This came around the same time as the release of the results of stress tests by APRA, the ATO announcing an increase in the number of audits of

individuals claiming deductions on rental properties, and the prosecution of a high profile property marketer by the ASIC. A number of measures suggest that the housing prices peaked around December 2003. Most importantly, the turnaround in the market was associated with a sharp reduction in the role of investors and clearly demonstrated that large parts of the market can and do experience falling prices.

It is difficult to draw a definitive link between these housing market developments and the policy actions and associated rhetoric. One problem is that, it is difficult to come up with a robust structural model of housing prices. Another related problem is the time it takes for policies to gain traction in the face of growing speculative pressures. Some might be tempted to argue that the rise in interest rates in late 2003 (of 50 basis points) was too small to turnaround the housing market and suggest, therefore, that the market turned on its own accord. However, the timing of the turnaround is consistent with the cumulative impact of the full range of modest but consistent policy actions – by the RBA as well as the regulatory authorities – affecting the dynamics in the housing market. Furthermore, it is difficult to know what might have happened if the RBA had remained silent, kept monetary policy looser than was the case, and the regulatory authorities had not responded.

Looking beyond 2004, it has been suggested that the turnaround was temporary, that house prices did not fall by much and have subsequently rebounded (Posen 2009). However, this ignores some important and persistent effects of the turnaround that started in late 2003. Perhaps most importantly, it provided a stark and timely reminder that house prices can fall and that those with high rates of leverage are more vulnerable to such corrections. Consistent with this, investors have played a less prominent role in the market since that time. Also, the subsequent rise in loan arrears for non-conforming and low documentation loans clearly highlighted the greater risks associated with these products. Finally, the ratio of house prices to income has been reasonably flat for a number of years.

## Appendix: Key Publications

**Table 1: Timeline of Key Public Statements/Publications**

Date	Event	Description
31-May-01	RBA – SMP	‘It is possible that the recent concentration of activity has resulted in some degree of over-building in some areas.’
30-Sep-01	APRA – Working Paper: <i>Asset Prices and Prudential Regulation</i>	‘On balance we conclude that the role for financial regulation in controlling the emergence of, and damage from, asset price bubbles remains relatively limited.’
30-Nov-01	RBA – SMP	‘...the current level of building approvals is well above most estimates of underlying demand.’  ‘...mounting evidence that rental vacancy rates are rising, particularly for medium-density dwellings...’
07-Feb-02	RBA – SMP	‘Oversupply is particularly evident in medium-density dwellings, where there are high vacancy rates in some states.’
08-May-02	RBA – Press release after policy tightening	‘To persist with a strongly expansionary policy setting would risk amplifying inflation pressures and, over time, could fuel other imbalances such as the current overheating in the housing market, potentially jeopardising the economy's continued expansion.’
08-May-02	RBA – SMP	‘A continuation of this trend [of rapid increases in debt] clearly carries the risk of households, at some point, becoming overstretched.’
31-May-02	RBA – Address to House of Representatives Standing Committee on Economics	‘I do not think we are going to get that overshoot [in asset prices]. I sincerely hope it does not happen because those sorts of events are very disruptive.’  ‘...overall average measures of house prices are still going up, but we can see in some important areas that oversupply has already occurred.’
05-Jun-02	RBA – Press release after policy tightening	‘...continued rapid expansion of household debt.’  ‘Today's action is aimed at reducing the risk of potential imbalances, and thereby promoting sustainable expansion of the economy with low inflation.’

- 31-Jul-02 RBA – Monthly Bulletin: *Recent developments in housing: prices, finance and investor attitudes* ‘It would be unlikely that further strong price increases could co-exist with rising vacancy rates and falling rental yields for very long. It is more likely that any assumption by investors that future capital gains can be assured will have to undergo some revision.’
- 08-Aug-02 RBA – SMP ‘[The continued rapid growth in investor finance] looks to be in part a result of expectations by investors that the strong increases in housing prices over recent years will continue into the future. However, the attractiveness of this form of investment now appears to be waning, with the potential for further capital gains in the housing market likely to be countered by increased supply of rental properties, rising vacancy rates and falling rents in some areas.’
- 21-Aug-02 RBA – Speech – Governor: *What does good monetary policy look like?* The rate of growth in the investor segment in the context of rising vacancy rates and stagnant or falling rents suggests a ‘...misallocation of investment, and the likelihood of a shakeout in the market, at least in the major cities. If that is to occur, it is better that it occur sooner rather than later.’
- 01-Oct-02 APRA – Press Release: *APRA reminds banks to observe conservative risk management practices* ‘While we are not presently observing unsound loan growth in any systemic sense, we urge the industry to maintain prudent property lending practices’
- 14-Oct-02 RBA – Speech – Deputy Governor: *Medium Term Economic Prospects for Australia* ‘But at present, our focus is on the role of investors in rental dwellings, which has become much more prominent in the past couple of years. These are people who presumably have been attracted by perceptions of capital gains and tax advantages of leverage, and who recently may have been disappointed with returns in the share market.’  
  
‘It is getting harder and harder to believe that the prospective returns from that outlook are high enough either to sustain valuations which are so high relative to historical experience, or to warrant the \$4–5 billion which is being loaned to investors each month.’

- 07-Nov-02 RBA – SMP  
 ‘Investors have played a large part in the buoyancy of the housing market, accounting for virtually all of the growth in new finance approvals in the sector over the past year, presumably in expectation of strong growth in prices. It has been apparent, however, that this process would not be sustainable indefinitely, with emerging oversupply being bound at some point to limit the scope for further price increases.’
- 13-Nov-02 RBA – Speech – Governor:  
*Monetary policy in an uncertain world*  
 ‘It seemed pretty clear to us that investors were moving into an already over-supplied market, and this behaviour could only be explained by their usual desire for tax minimisation plus their expectation that they would benefit from future large capital gains, an expectation which was encouraged by the marketing programs employed by developers of investment properties.’  
 ‘It is the length of this expansion, as much as the other things I have described, that provided the environment which encouraged this type of investor behaviour.’
- 06-Dec-02 RBA – Address to House of Representatives Standing Committee on Economics  
 ‘Our purpose in what we have been saying is to try to get the market to work a little better and so avoid the overshooting that so often characterises parts of the property market.’  
 ‘...the market works, but with long lags during which people are encouraged to take decisions based on little more than optimistic extrapolation of what happened in the past. Developers will continue to put up new apartment blocks while there are investors willing to precommit to buy. These are the investors who turn up at seminars where they are told by the developers how they can become very rich if they highly gear themselves and buy an apartment.’
- 31-Dec-02 RBA – Monthly Bulletin:  
*Innovations in the provision of finance for investor housing*  
 ‘...prospective capital gains and the ability to negatively gear for tax effectiveness have always been the major incentives for this type of investment [for rental housing].’  
 ‘Over the course of the 1990’s...the supply of finance increased markedly, making geared investment in rental properties available to a much wider cross-section of the public than formerly.’



- 22-Jan-03 APRA – Press Release: *APRA survey reveals rising trend in broker-originated lending* The Australian market for broker-originated lending is reasonably safe however: ‘Over half of the institutions (53%) base the broker’s remuneration solely on the volume of business generated, providing brokers with an incentive to generate loan volume without appropriate regard for risk. With such an incentive structure it is critical that ADIs have procedures in place to ensure their own credit assessment standards are rigorously applied to broker-introduced loans.’
- 06-Feb-03 RBA – SMP ‘...the run-up in housing prices and associated expansion in housing-related debt were a source of concern for most of the past year, given the potential of such a process to remain disconnected from fundamentals and develop into a significant imbalance over time. These risks, however, appear to have eased somewhat in recent months.’
- 13-Feb-03 RBA – Speech – Governor: *The Economic Outlook* ‘With one exception, we have not rushed to ring alarm bells about excessive debt. The exception is, of course, the rapid growth in debt to finance investment in rental properties, where we felt during 2002 that people were being drawn into a position of high leverage by unrealistic expectations of returns. At some stage down the track, this is likely to result in disappointment for many and distress for some...’
- 25-Feb-03 APRA – Speech – Littrell C: *Mortgage Lending Practices, the APRA View* ‘...the psychology of home lending has changed from a credit rationing process to a product marketing process.’  
‘Although home lending is generally safe, in APRA’s view lenders have become too comfortable with this...’
- 04-Mar-03 ASIC – Press Release: *ASIC commences proceedings against Henry Kaye and others* ASIC launch proceedings against Henry Kaye for dissemination of false and misleading information
- 03-Apr-03 RBA – Speech – Governor: *Do Australian Households Borrow Too Much?* ‘...for a high proportion of these investors, tax considerations drive the profitability calculations and so provide an incentive to maximise debt.’
- 10-Apr-03 RBA – Speech – Deputy Governor: *Inflation Targeting: A Decade of Australian Experience* ‘Does inflation targeting allow scope for responding to asset price concerns, if that is thought to be sensible? I think it does, provided we are prepared to adopt a sufficiently long time horizon.’

- 07-May-03 RBA – SMP ‘Although loan approvals for housing have levelled out in the past few months, they remain at a high level consistent with housing-related credit growth of over 20 per cent, which will not be sustainable in the longer run.’
- 16-May-03 RBA – Speech – Assistant Governor: *Financial System Stability – Some Current Observations* ‘...the cloud on the near horizon is the substantial build-up in household debt, which may create strains for financial institutions if Australia's economic circumstances were to deteriorate and mortgage defaults rise sharply.’
- 06-Jun-03 RBA – Address to House of Representatives Standing Committee on Economics ‘I think there is now some evidence that in the most speculative hot spots a degree of commonsense is returning. Investor interest in inner city apartments, particularly in this city, is well down and quite a number of proposed projects have been shelved.’
- ‘We have another financial tool. It is called open-mouth policy, and I have been using it, but it may not be as effective as other tools you could conceive of. I am not putting in a plug for another instrument, although if in the longer run things turned out badly it would not surprise me if people started looking at other arms of policy—for example, tax policy.’
- ‘I think there is a regulatory gap there. It is clearly a problem if there is one group of people who are holding seminars on how to invest your money who are regulated—the financial planners—and there is another group who are doing almost exactly the same thing, although doing it within the one asset class, which is property, who are unregulated. So I think there is a need to extend the capacity for ASIC to do that.’
- 27-Jun-03 ATO – Press Release: *Tax Time Media Kit 2003 – Compliance Focus for Individuals* Increased focus on compliance especially in the area of rental deductions with increased scrutiny and more audits.
- 31-Jul-03 ASIC – Press Release: *ASIC obtains undertaking from Henry Kaye and others* Obtains undertakings from Henry Kaye limiting his and his associates’ ability to conduct spruiking operations
- 07-Aug-03 RBA – SMP (which included a special chapter on credit growth) ‘The risk presented by these developments [rapidly rising debt and house prices] is that, the longer they go on, the larger will be the contractionary effect on the economy when they inevitably turn.’

- 12-Aug-03 APRA – Speech – Esho N: *APRA's approach to broker loans in Authorised Deposit taking Institutions* ‘At present APRA is satisfied that ADIs are effectively managing the risks associated with broker loans, and therefore see no need at this stage to take any particular action in this area.’
- 02-Sep-03 ACCC – Press Release: *ACCC targets property 'Scammers'* Announcement by ACCC of its intention to target property scammers
- 17-Sep-03 RBA – Speech – Deputy Governor: *Economic Conditions and Prospects* ‘But there cannot be much doubt either that running up debt today must diminish the scope to do so in future, and that it must also impair, at the margin, the capacity of some households to cope with adverse shocks which might come along.’
- 17-Sep-03 NSW GOV: Call on federal authorities to extend the powers of ASIC to better deal with property spruikers and wealth creation seminars Successful motion to call on federal authorities to extend the powers of ASIC to better deal with property marketers and wealth creation seminars citing ASIC and ACCC actions.
- 09-Oct-03 APRA – Speech – Laker J: *The resilience of housing loan portfolios – APRA's 'stress test' results* ‘Over the past seven years, it would seem, housing loan default rates have become uncoupled from growth in housing credit. The likely explanation is that the rapid increase in housing prices over the period has enabled any troubled borrowers to exit the market without incurring losses.’  
  
‘When reality inevitably intrudes, however, the earlier linkages between housing credit growth and loan defaults might reassert themselves.’
- 07-Oct-03 ASIC – Press Release: *ASIC commences new proceedings against Henry Kaye and National Investment Institute* Investigations into the operations of Henry Kaye and others for breach of prior undertaking
- 01-Nov-03 APRA – Discussion Paper: *Proposed changes to the risk weighting of residential mortgage lending* ‘APRA is concerned that the current risk-weightings on loans for which the borrowers’ servicing ability is not verified do not adequately reflect the likelihood of increased risk.’

- 05-Nov-03 RBA – Press release after policy tightening
- ‘Credit outstanding is rising at around 14 per cent per year, and at over 20 per cent to households. That is a much faster rate of growth than can be expected to be consistent with economic stability over the longer run.’
- ‘The strength of demand for credit increases the danger associated with delaying a tightening of policy that is called for on general macroeconomic grounds.’
- 06-Nov-03 RBA – SMP
- ‘Those risks [associated with the rapid run-up in household debt], discussed at length on other occasions and so not repeated here, appear to be growing. Monetary policy should, as far as possible, avoid adding to them.’
- 14-Nov-03 RBA: Submission to the inquiry on first home ownership
- ‘This more favourable treatment has played a role in investors being prepared to accept rental yields that are lower than those seen in other countries. While taxation arrangements are not the source of the current speculative activity in the housing market, they may affect the price dynamics once the attractiveness of investing in housing has improved for other reasons.’
- 25-Nov-03 ASIC – Press Release: *Receiver and administrator appointed to Henry Kaye companies*
- Receiver and administrator appointed to Henry Kaye companies.
- 30-Nov-03 RBA – Monthly Bulletin: *Asset Prices and Monetary Policy*
- ‘In particular, the risk of a substantial asset-price correction may be sufficiently low or hard to quantify as to be excluded from any central forecast, particularly at a horizon of only one or two years. But that does not mean that it can be ignored. Rather, these considerations highlight the need for monetary policy to maintain a medium-term perspective...’
- 03-Dec-03 RBA – Press release after policy tightening
- Despite some signs of a change in sentiment in the housing market:
- ‘Monetary policy is continuing to have a stimulatory effect on the economy through domestic credit expansion. The growth of credit remains rapid and indeed has picked up further in the past few months.’

- 08-Dec-03 RBA – Address to House of Representatives Standing Committee on Economics ‘It is clear that, despite our best endeavours to explain ourselves, a number of people think that the bank tightened monetary policy to cool down the property market... However, such an approach would not be consistent with the truth. For a start, signs of overheating in the housing market were clearly evident through the second half of 2002 and all through 2003, yet the bank did not change monetary policy. It was only when it became clear that good economic growth had returned both globally and domestically that rates were raised.’
- 05-Feb-04 RBA – SMP ‘While this [the rapid run-up in household debt] was not the principal driver of policy, it did argue for avoiding undue delay when a case for moving to a less expansionary setting emerged on broader macroeconomic grounds.’
- 17-Feb-04 RBA – Speech – Deputy Governor: Recent Issues for the Conduct of Monetary Policy ‘... it is increasingly clear that a narrow policy focus confined to the product of conventional economic analysis over a one to two year horizon can miss very important developments in the financial sector and asset markets, which often play out over longer horizons but which can have major economic implications ...
- So where does this leave us? I believe it should leave us trying to think about outcomes and risks, and policy settings which seek to manage those risks, over a horizon a bit longer than is common in much discussion of economic policy. Is this a departure from our long-established medium-term, flexible approach to inflation targeting? Definitely not. In fact, it dovetails quite well with the long-held view that policy should not respond solely to the inflation forecast at some fixed horizon and ignore other considerations. All that is new is that there is an additional dimension to the general rationale to maintain, and on occasion to use, the flexibility the system has always had.’
- 06-Apr-04 NSW GOV: 2004 mini-budget announcing Vendor Duty NSW government presented a mini-budget which included changes to land tax and the imposition of a vendor duty on investment properties.

- 05-May-04 RBA – SMP  
 ‘With the heat now coming out of the credit and housing markets, this risk [of a damaging correction] has diminished over recent months. Housing finance approvals [are] still a[t] very high level[s] and will need to fall much further to bring the growth of housing credit back to a reasonably sustainable pace.’  
 ‘While this factor [the overheating housing market] was not the principal driver of policy, it had been an important reason to avoid unnecessary delay in moving the cash rate back up to a more normal position.’
- 01-Jul-04 NSW GOV: Vendor duty came into effect  
 Introduction of 2.25 per cent vendor duty on the sale price of investment property when the sale price exceeds the purchase price by more than 12 per cent.
- 02-Jun-04 RBA – Speech – Deputy Governor: *Economic conditions and prospects*  
 ‘...we have been worried about the housing market as an asset market, and about the borrowing behaviour of participants in that market. The concern was not out of a desire to target house prices, but more over the potential risks to macroeconomic stability from a major boom – and possible bust – in the household sector’s main asset class.’
- 04-Jun-04 RBA – Address to House of Representatives Standing Committee on Economics  
 ‘As the fall in prices becomes widely known, it should allow potential house purchasers to take their time...It should also enable them to resist the blandishments of the banks, brokers and other commission agents plying them with offers of seemingly generous quantities of credit. It should also reinforce the recent tendency of investors to question the assumption about easy capital gains.’  
 ‘When the public recognise that prices are going down rather than up—as they are recognising because they are reading it more and more in the papers—I think it should affect their behaviour.’
- 19-Jul-04 ACCC: Action against spruiker Vision Pursuit for deceptive conduct  
 Vision Pursuit for deceptive conduct

05-Aug-04 RBA – SMP	<p>‘The overheating in the housing market last year carried the potential to destabilise the broader economy, the more so the longer it continued.’</p> <p>‘There has also been an easing in the demand for housing finance, particularly from investors, though this will need to adjust further if the growth of housing credit is to return to a reasonably sustainable pace.’</p>
11-Aug-04 ACCC: Action against spruiker Set Sale Realty for deceptive conduct and misrepresentation	Action against spruiker Set Sale Realty for deceptive conduct and misrepresentation
16-Sep-04 ACCC: Action against spruiker Gian and Gian Pty Ltd for deceptive and misleading conduct	Action against spruiker Gian and Gian Pty Ltd for misleading conduct
04-Nov-04 RBA – SMP	<p>‘The adjustment to date has been an orderly one, so that the risk of an uncomfortably sharp decline in house prices does not appear to be large, though equally there does not appear much risk of a renewed upsurge at present.’</p>
02-Aug-05 NSW GOV: Vendor duty abolished	Vendor duty abolished

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