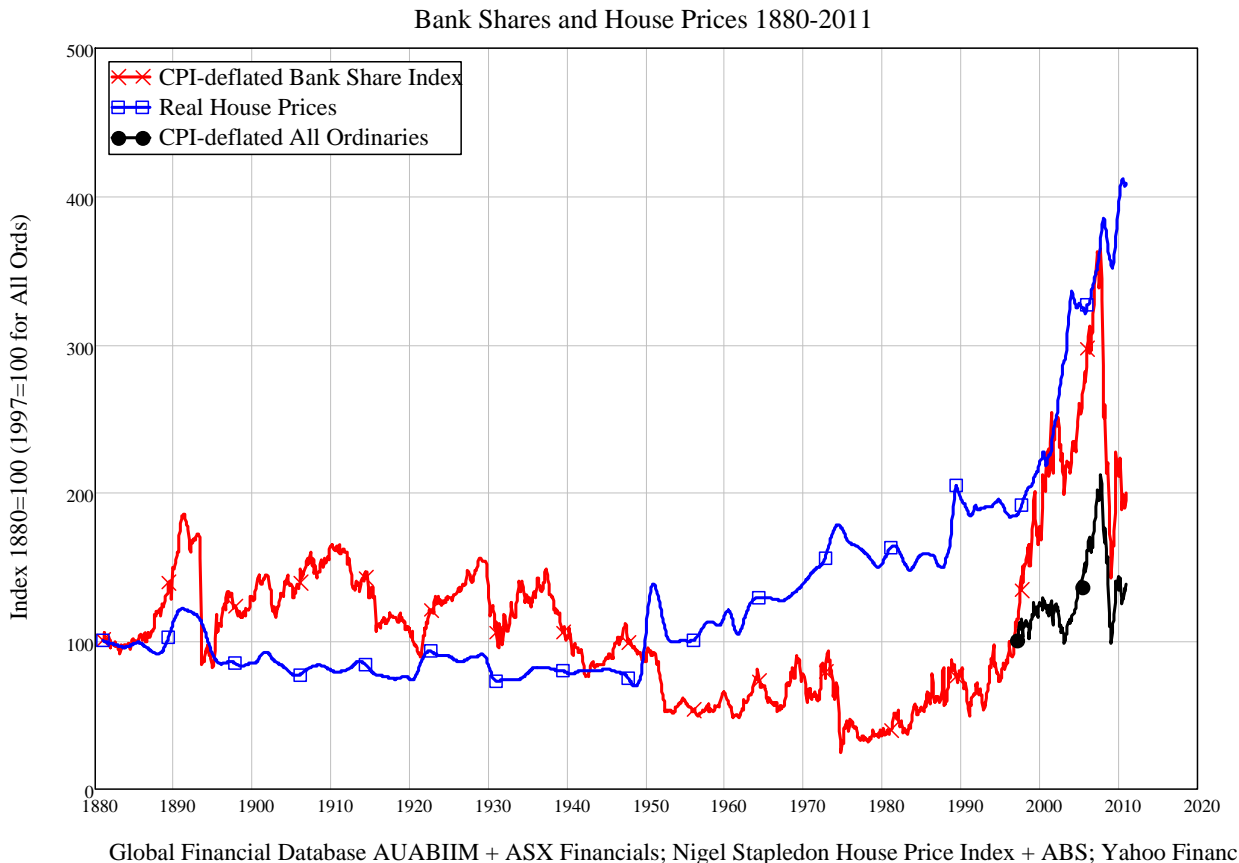


This Time Had Better Be Different: House Prices and the Banks Part 2

Figure 1

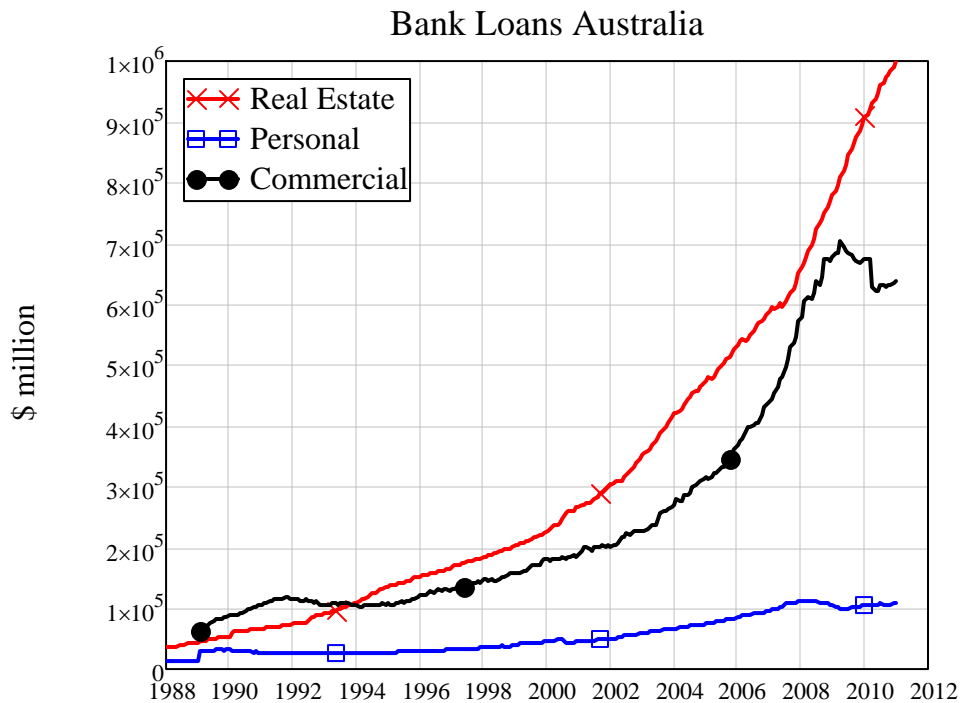


In [last week's post](#) I showed that there is a debt-financed, government-sponsored bubble in Australian house prices (click [here](#) and [here](#) for earlier installments on the same topic). This week I'll consider what the bursting of this bubble could mean for the banks that have financed it.

Betting the House

For two decades after the 1987 Stock Market Crash, banks have lived by the adage "as safe as houses". Mortgage lending surpassed business lending in 1993, and ever since then it's been on the up and up. Business lending actually fell during the 1990s recession, and took off again only in 2006, when the China boom and the leveraged-buyout frenzy began.

Figure 2



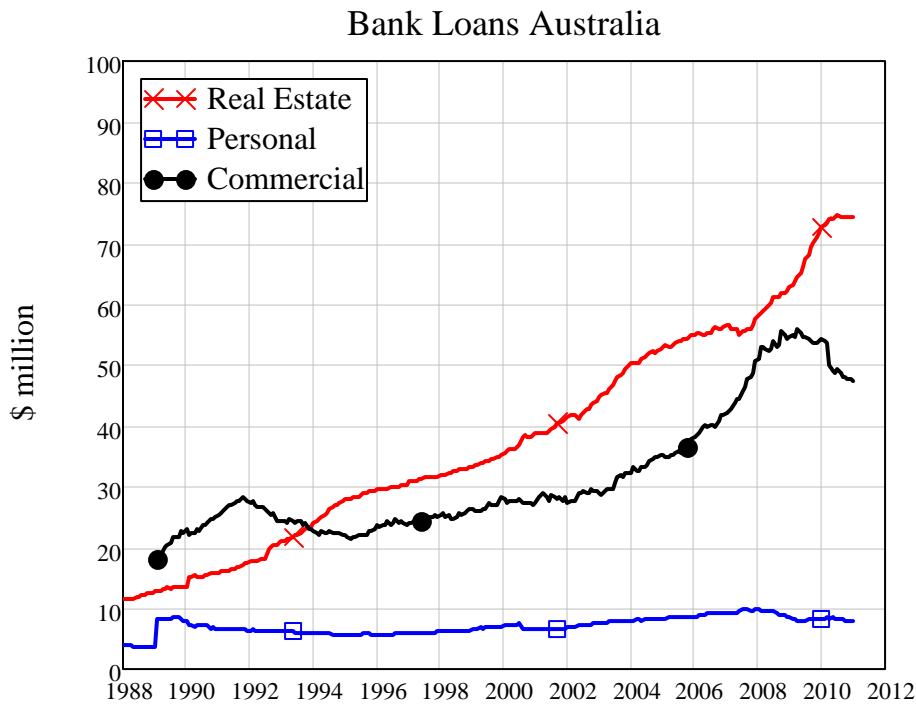
RBA Sheet B02

Regular readers will know that I place the responsibility for this increase in debt on the financial sector itself, not the borrowers. The banking sector [makes money by creating debt](#) and thus has an inherent desire to pump out as much as possible. The easiest way to do this is to entice the public into Ponzi Schemes, because then borrowing can be de-coupled from income.

There's a minor verification of my perspective in this data, since the one segment of debt that *hasn't* risen compared to GDP is personal debt—where the income of the borrower is a serious constraint on how much debt the borrower will take on. As much as banks have flogged credit cards, personal debt hasn't increased as a percentage of GDP.

On the other hand, mortgage debt has risen sevenfold (compared to GDP) in the last two decades.

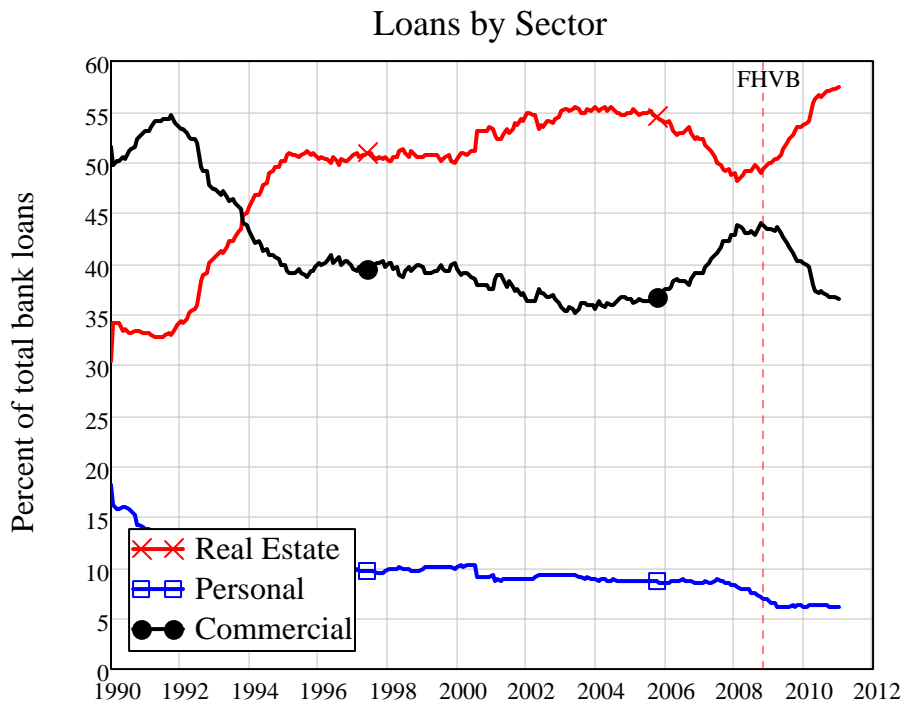
Figure 3



RBA Sheet B02

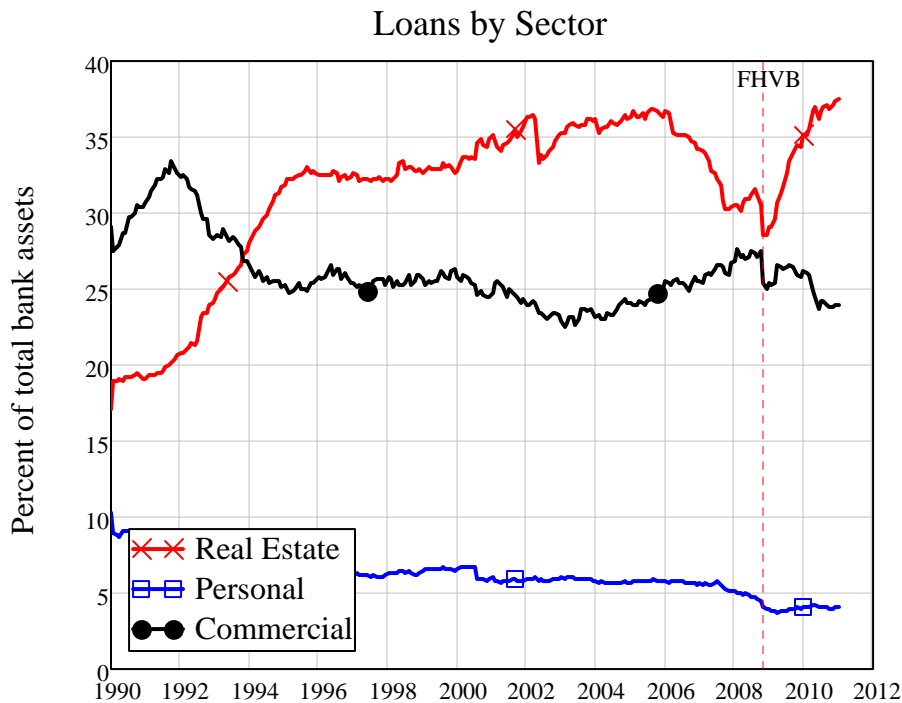
The post-GFC period in Australia has seen a further increase in the banking sector's reliance on home loans—due to both the business sector's heavy deleveraging in the wake of the crisis, and the government's re-igniting of the house price bubble via the [First Home Vendors Boost](#) in late 2008. Mortgages now account for over 57 percent of the banks' loan books, an all-time high.

Figure 4



They also account for over 37% of total bank assets—again an all-time high, and up substantially from the GFC-induced low of 28.5% before the First Home Vendors Boost reversed the fall in mortgage debt.

Figure 5



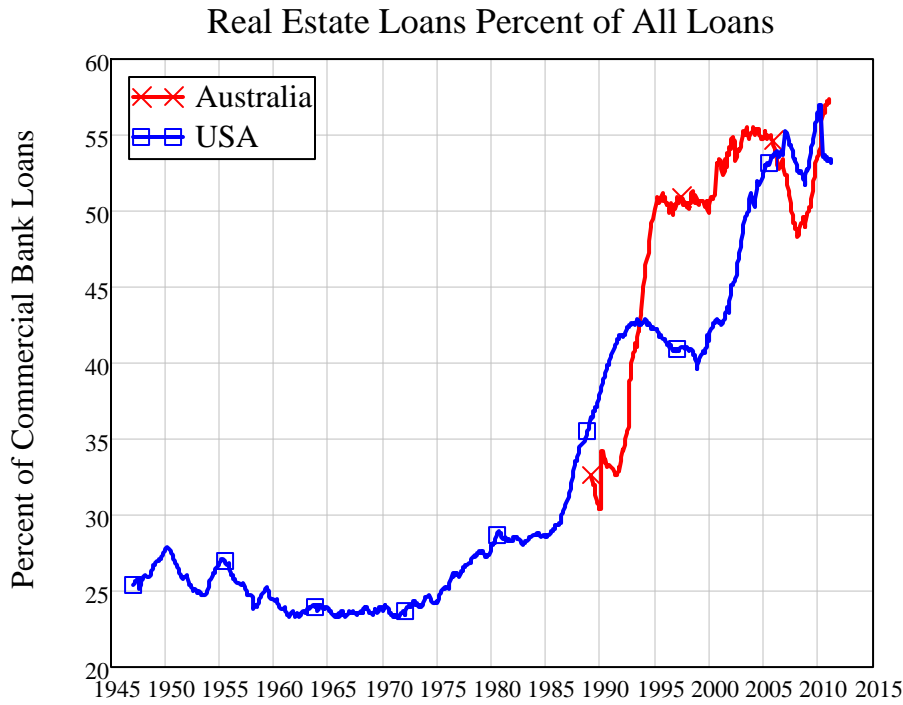
So how exposed are the banks to a fall in house prices, and the increase in non-performing loans that could arise from this? There is no way of knowing for sure beforehand, but cross-country comparisons and history can give a guide.

Bigger than Texas

A persistent refrain from the “no bubble” camp has been that Australia won’t suffer anything like a US downturn from a house price crash, because Australian lending has been much more responsible than American lending was. I took a swipe at that in [last week’s post](#), with a chart showing that Australia’s mortgage debt to GDP ratio exceeds the USA’s, and grew three times more rapidly than did American mortgage debt since 1990 (see [Figure 13](#) of that post).

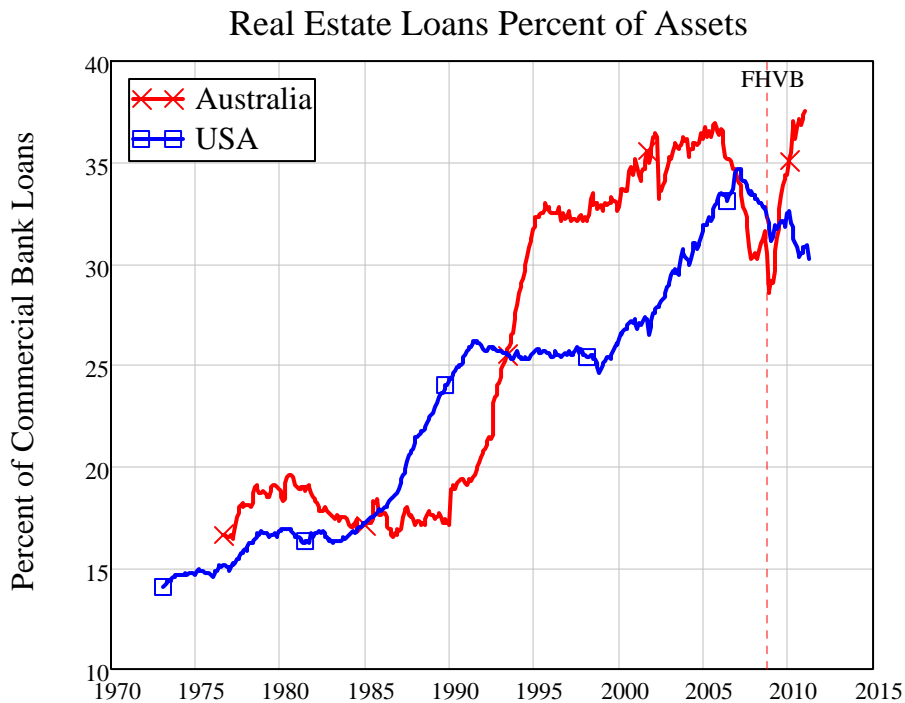
Similar data, this time seen from the point of view of bank assets, is shown in the next two charts. Real estate loans are a higher proportion of Australian bank loans than for US banks, and their rise in significance in Australia was far faster and sharper than for the USA.

Figure 6



More significantly, real estate loans are a higher proportion of bank assets in Australia than in the USA, and this applied throughout the Subprime Era in the USA. The crucial role of the First Home Vendors Boost in reversing the fall in the banks' dependence on real estate loans is also strikingly apparent.

Figure 7



Never mind the weight, feel the distribution

The “no bubble” case dismisses this Australia-US comparison on two grounds:

- most of Australia’s housing loans are to wealthier households, who are therefore more likely to be able to service the debts so long as they remain employed; and
- housing loans here are full-recourse, so that home owners put paying the mortgage ahead of all other considerations..

Bloxham made the former claim in his recent piece:

However, there are other reasons why levels of household debt should not be a large concern. The key one is that 75 per cent of all household debt in Australia is held by the top two-fifths of income earners. (Paul Bloxham , [The Australian housing bubble furphy](#), Business Spectator March 18 2011)

Alan Kohler recounted an interesting conversation with “one of Australia’s top retail bankers” a couple of years ago on the latter point:

There is some 'mortgage stress' in the northern suburbs of Melbourne, the western suburbs of Sydney and some parts of Brisbane, but while all the banks are bracing themselves for it and increasing general provisions, there is no sign yet of the defaults that are bringing the US banking system to its knees.

We often see graphs showing that Australia's ratios of household debt to GDP and debt to household income had gone up more than in the United States. So, while the US is deep into a mortgage-based financial crisis, *it is surely a cause for celebration that Australia has not seen even the slightest uptick in arrears.*

"Please explain," I said to my dinner companion. Obviously, low unemployment and robust national income, including strong retail sales until recently, have been the most important part of it. But on the other hand, the US economy was doing okay until the mortgage bust happened; it was the sub-prime crisis that busted the US economy, not the other way around.

Apart from that it is down to two things, he says: within the banks, "sales" did not gain ascendancy over "credit" in Australia to the extent that it did in the US; and *US mortgages are non-recourse whereas banks in Australia can have full recourse to the borrowers' other assets, which means borrowers are less inclined to just walk away.* (Alan Kohler, "[Healthy by default](#)", Business Spectator August 21, 2008; emphases added)

Kris Sayce gave a good comeback to Bloxham's "most of the debt is held by those who can afford it" line when he noted that "two-fifths of income earners is quite a large pool of people":

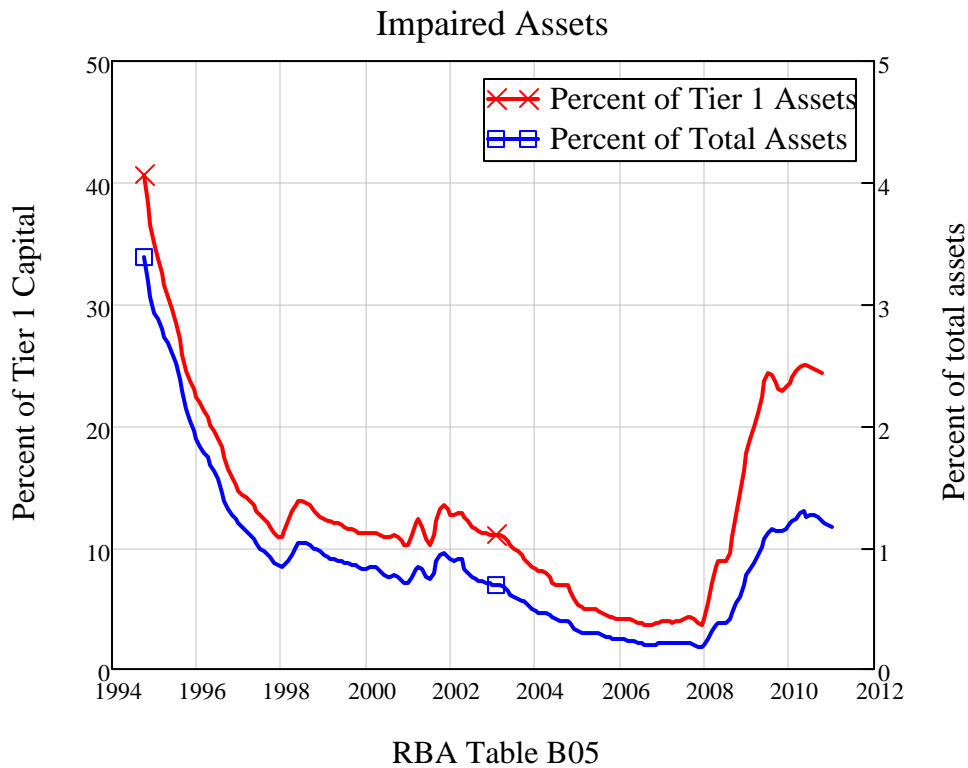
In fact, it's nearly half the income earners. Is that number any different to any other economy? You'd naturally think the higher income earners would have most of the debt because they're the ones more likely to want it, need it or be offered it.

So with about 11.4 million Australians employed, that makes for about 4.6 million Australians holding over \$1.125 trillion of household debt – remember total household debt is about \$1.5 trillion. That comes to about \$244,565 per person.

Perhaps we're not very bright. But we're struggling to see how that makes the popping of the housing bubble a "virtual impossibility." (Kris Sayce, "[Are Falling House Prices "Virtually Impossible"?](#)", Money Morning 18 March 2011)

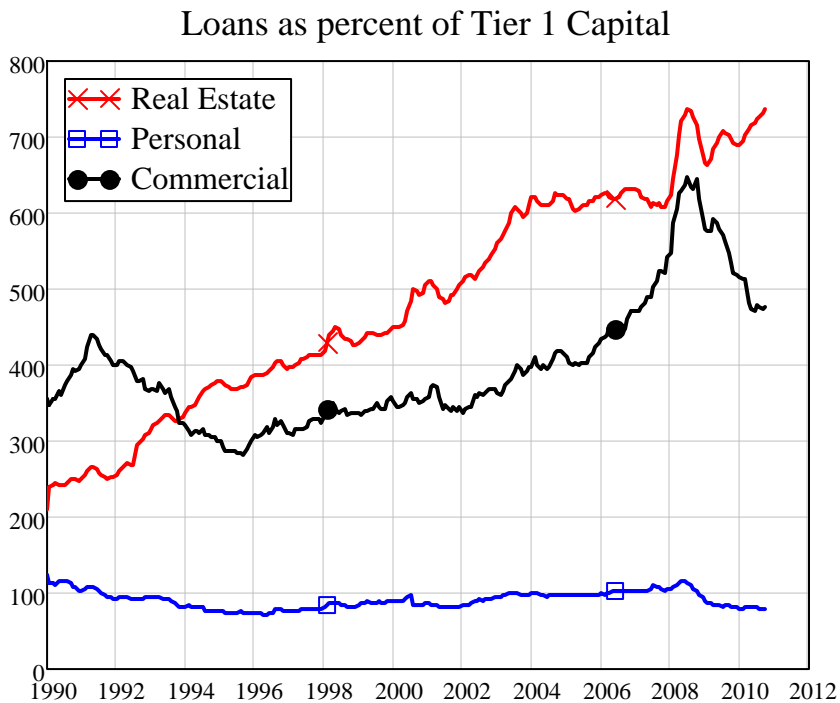
The best comebacks to Alan Kohler's dinner companion may well be time itself. Impaired assets¹ did hit an all-time low of 4.1% of Bank Tier 1 Assets and 0.2% of total assets in January 2008, but by the time Kohler and his banker sat down to dinner, impairment was on the rise again. Impaired assets have since reached a plateau of 25% of Tier 1 capital and 1.25% of total assets—and this has occurred while house prices were still rising. Despite the pressure that full-recourse lending puts on borrowers, this is comparable to the level of impaired assets in US banks *before* house prices collapsed when the SubPrime Boom turned into the SubPrime Crisis (see Table 2 on page 10 of [this paper](#)).

Figure 8



Since real estate loans are worth roughly 7 times bank Tier 1 capital—up from only 2 times in 1990—it wouldn't take much of an increase in non-performing housing loans to push Australian banks to the level of impairment experienced by American banks in 2007 and 2008.

Figure 9

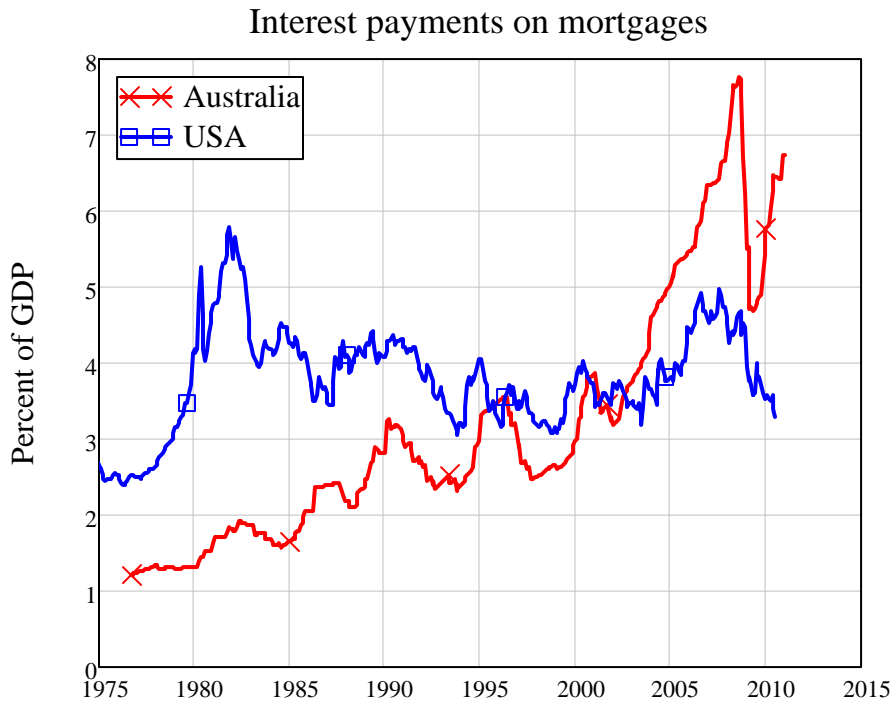


The level and importance of non-recourse lending in the US is also exaggerated. While some major States have it, many do not—and one of the worst performing states in and since the Subprime Crisis was Florida, which has full recourse lending.

Finally, the “never mind the weight, feel the distribution” defence of the absolute mortgage debt level has a negative implication for the Australian economy: if debt is more broadly distributed in Australia than in the USA, then the negative effects of debt service on consumption levels are likely to be greater here than in America. This is especially so since mortgage rates today are 50% higher here than in the USA. Interest payments on mortgage debt in Australia now represent 6.7% of GDP, twice as much as in the USA. It's little wonder that Australia's retailers are crying poor.

Of course, the RBA could always reduce the debt repayment pressure by reducing the cash rate. But with the margin between the cash rate and mortgages now being about 3%, it would need to reduce the cash rate to 1.5% to reduce the debt repayment burden in Australia to the same level as America's.

Figure 10



So if America's consumers are debt-constrained in their spending, Australian consumers are even more so—with negative implications for employment in the retail sector.

Compared to the USA therefore, there is no reason to expect that Australian banks will fare better from a sustained fall in house prices. What about the comparison with past financial crises in Australia?

This time really is different

There are at least three ways in which whatever might happen in the near future will differ from the past:

- On the attenuating side, deposit insurance, which was only implicit or limited in the past, is much more established now; and
- If the banks face insolvency, the Government and Reserve Bank will bail them out as the US Government and Federal Reserve did—though let's hope without also bailing out the management, shareholders and bondholders, as in the USA (if you haven't seen [Inside Job](#) yet, see it);²

On the negative side, however, we have the Big Trifecta:

- The bubbles in debt, housing and bank stocks are far bigger this time than any previous event—including the Melbourne Land Boom and Bust that triggered the 1890s Depression.

I'll make some statistical comparisons over the very long term, but the main focus here is on several periods when house prices fell substantially in real terms after a preceding boom, and what happened to bank shares when house prices fell:

- The 1880s-1890s, when the Melbourne Land Boom busted and caused the 1890s Depression;
- The 1920s till early 1930s, when the Roaring Twenties gave way to the Great Depression;
- The early to mid-1970s, when a speculative bubble in Sydney real estate caused a rapid acceleration in private debt, and a temporary fall in private debt compared to GDP due to rampant inflation;
- The late 1980s to early 1990s, when the Stock Market Crash was followed by a speculative bubble in real estate—stoked by the second incarnation of the First Home Vendors Boost; and
- From 1997 till now.

I chose the first four periods for two reasons: they were times when house prices fell in real (and on the first two occasions, also nominal) terms, and bank share prices suffered a substantial fall; and they also stand out as periods when an acceleration in debt caused a boom that gave way to a deleverage-driven slump, when private debt reached either a long term or short term peak (compared to GDP) and fell afterwards. They are obvious in the graph of Australia's long term private debt to GDP ratio.

Figure 11

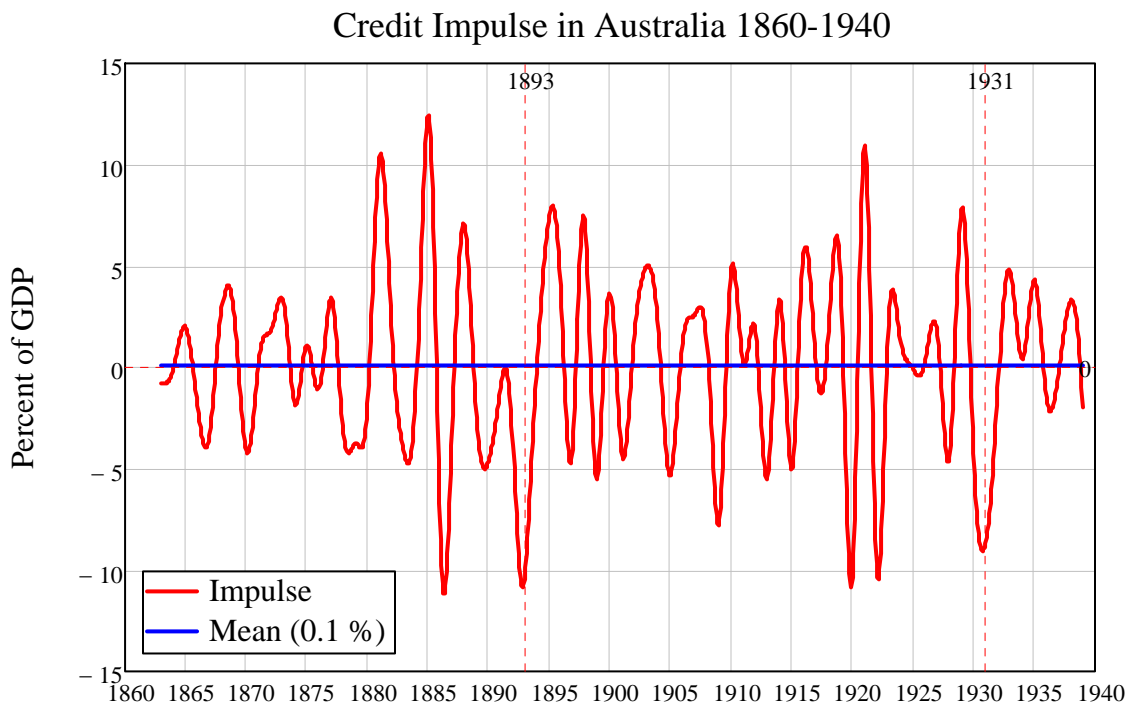


Fisher & Kent 1999; RBA Historical Data; Tables D02, G12

They also turn up as significant spikes in the Credit Impulse (Biggs, Mayer et al. 2010)—the acceleration of debt (divided by GDP) which determines the contribution that debt makes to changes in aggregate demand.³

The Credit Impulse data also lets us distinguish the pre-WWII more laissez-faire period from the “regulated” one that followed it: credit was much more volatile in the pre-WWII period, but the trend value of the Credit Impulse was only slightly above zero at 0.1%.

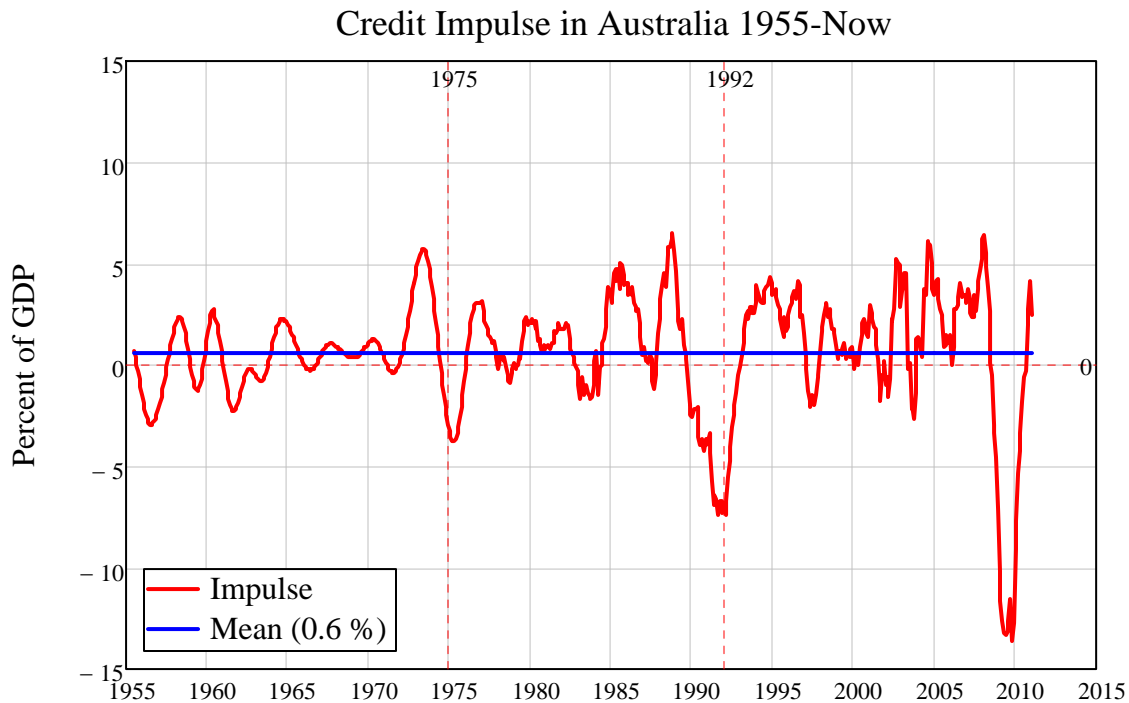
Figure 12



The Post-WWII period had much less volatility in the debt-financed component of changes in aggregate demand, but the overall trend was far higher at 0.6%. This could be part of the explanation as to why Post-WWII economic performance has been less volatile than pre-WWII, but it also indicates that rising debt has played more of a role in driving demand in the post-War period than before.

Ominously too, even though the post-WWII period in general has been less volatile, the negative impact of the Credit Impulse in this downturn was far greater than in either the 1890s or the 1930s.

Figure 13

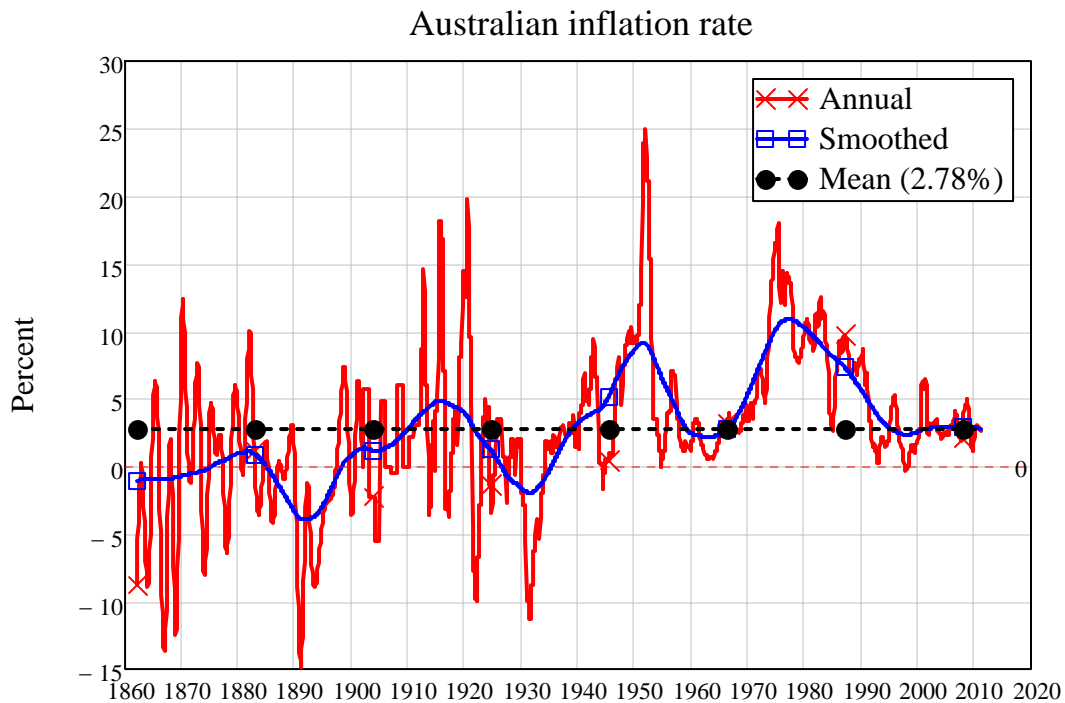


One final factor that also separates the pre-WWII data from post-WWII is the rate of inflation. The 1890s and 1930s debt bubbles burst at a time of low inflation, and rapidly gave way to deflation. This actually drove the debt ratio higher in the first instance, as the fall in prices exceeded the fall in debt. But ultimately those debts were reduced in a time of low inflation.

The 1970s episode, on the other hand, was characterized by rampant inflation—and the debt ratio fell because rising prices reduced the effective debt burden. Whereas the falls in real house prices in the 1890s and the 1930s therefore meant that nominal prices were falling even faster, the 1970s fall in real house prices mainly reflected consumer price inflation outstripping house price growth. The 1990 bubble also burst when inflation was still substantial, though far lower than it was in the mid-1970s.

Today's inflation story has more in common with the pre-WWII world than the 1970s. Our current bubble is bursting in a low-inflation environment.

Figure 14



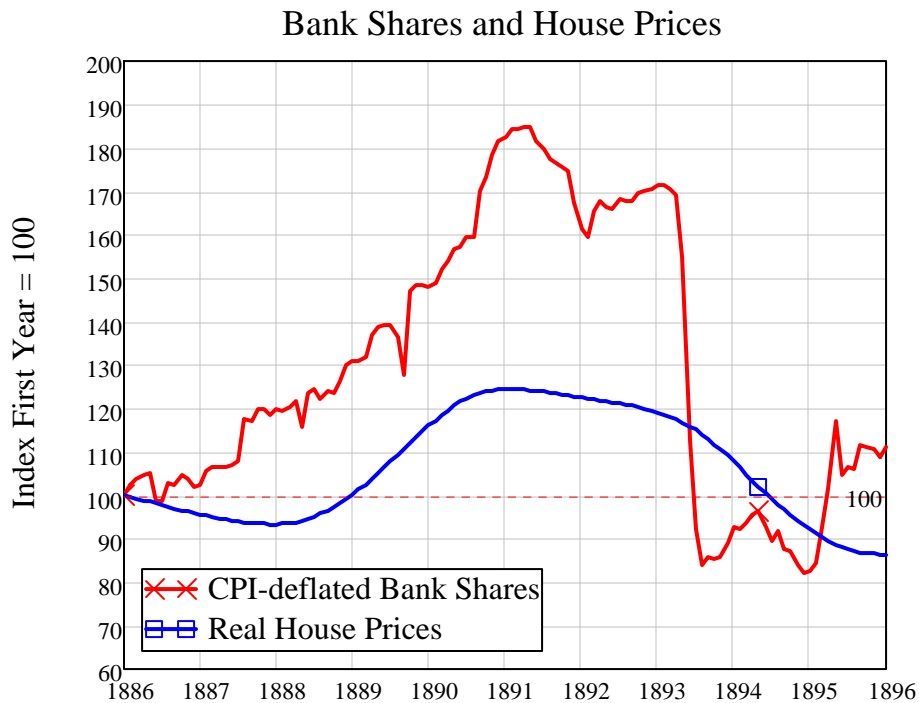
Now let's see what history tells us about the impact of falling house prices on bank shares.

The 1880s-1890s

This was the bank bust to end all bank busts—just like WWI was the War to end all wars. Bank shares increased by over 75% in real terms as speculative lending financed a land bubble in Melbourne that increased real house prices by 33%.⁴ The role of debt in driving this bubble and the subsequent Depression is unmistakable: private debt rose from under 30% of GDP in 1872 to over 100% in 1892, and then unwound over the next 3 decades to a low of 40% in 1925.

The turnaround in debt and the collapse in house prices precipitated a 50% fall in bank shares in less than six months as house prices started to fall back to below the pre-boom level.

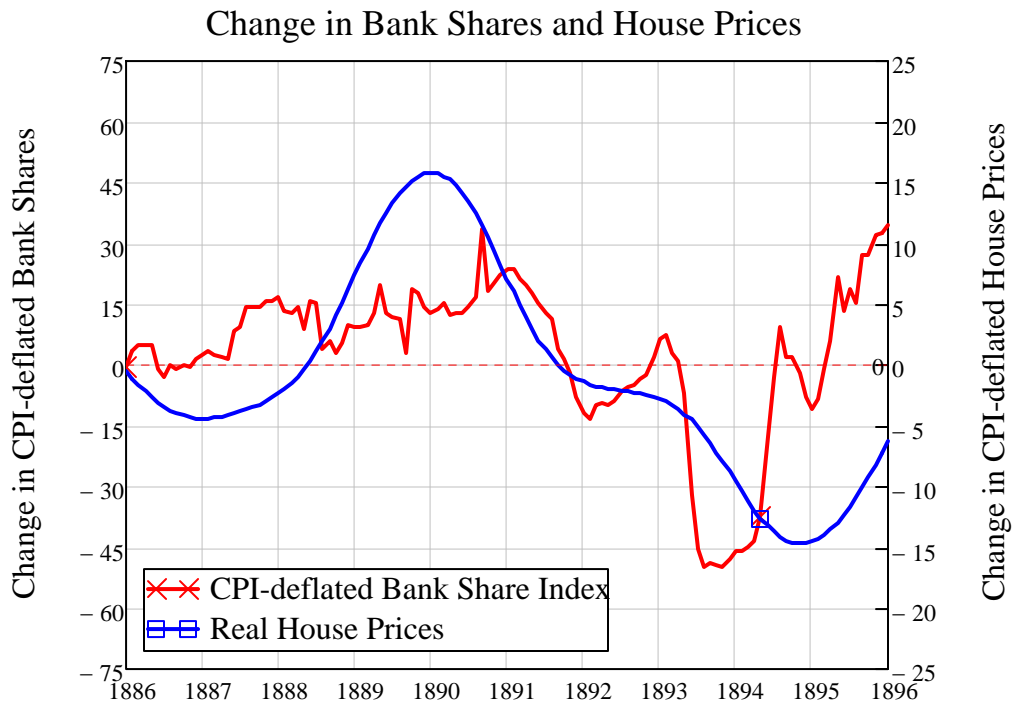
Figure 15



The excellent RBA Research paper “Two Depressions, One Banking Collapse” by Chay Fisher & Christopher Kent ([RDP1999-06](#)) argues fairly convincingly that the 1890s Depression was a more severe Depression for Australia than the Great one—mainly because there were more bank failures in the 1890s than in the 1930s. The severity of the 1890s fall in bank shares may relate to the higher level of debt in 1890 than in the 1930s—a peak of 104 percent of GDP in 1892 versus only 76 percent in 1932 (the peak this time round was 157 percent in March 2008).

The correlation of the two series in absolute terms is obvious (the correlation coefficient is 0.8), and the changes in the two series are also strongly correlated (0.42).

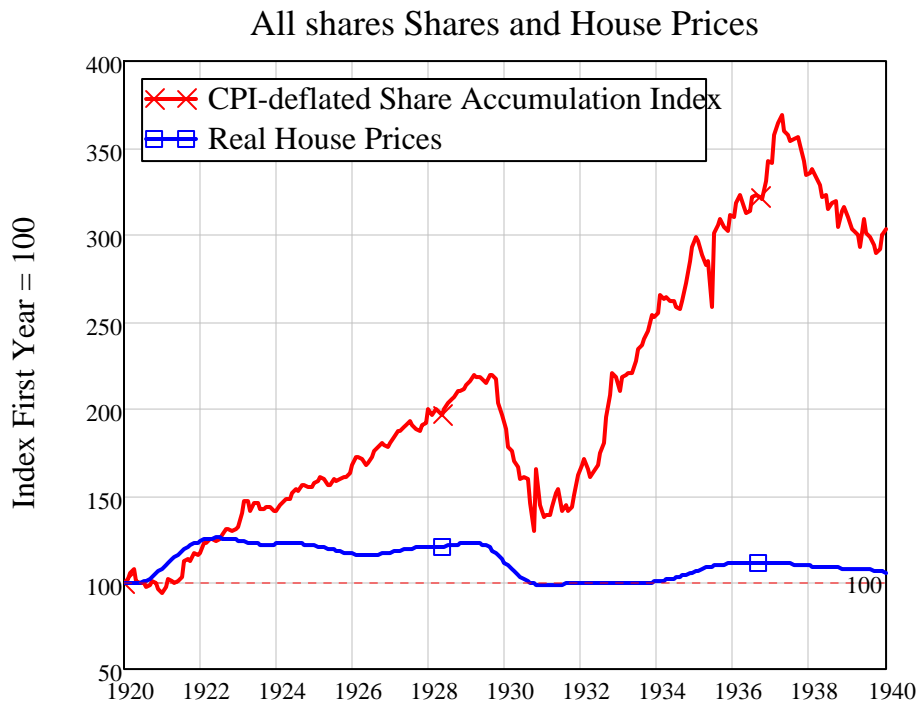
Figure 16



The 1920s-1940s

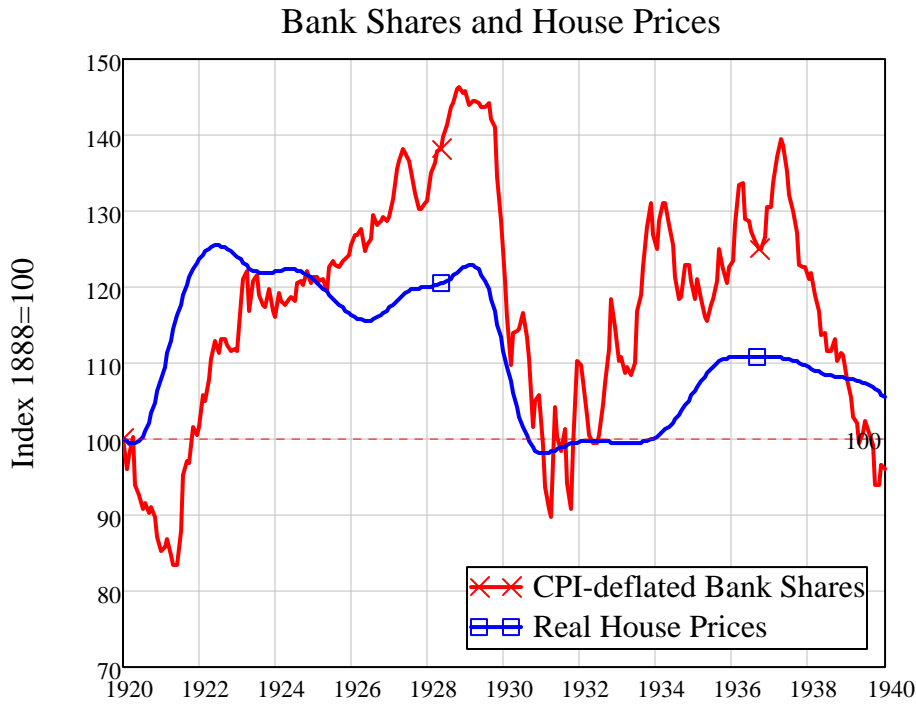
The 1920s began with the end of the great deleveraging that had commenced in 1892. Real house prices rose by about 25 percent in the first two years—though mainly because of deflation in consumer prices—and then fluctuated down for the next four years before a minor boom. But the main debt-financed bubble in the 1920s was in the Stock Market.

Figure 17



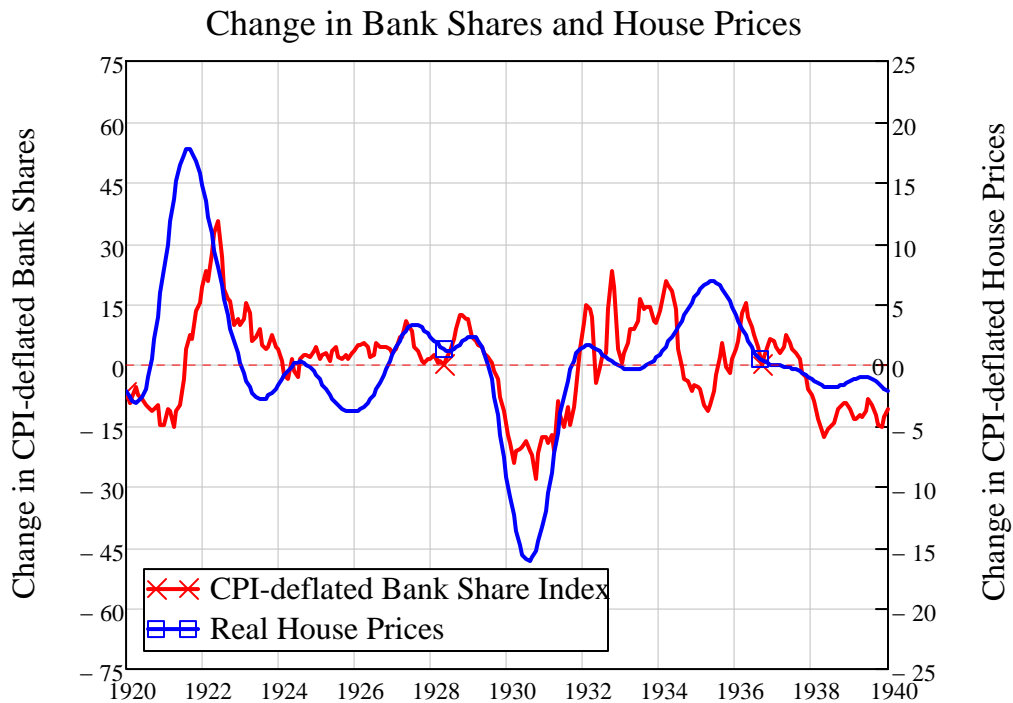
There was however still a crash in bank shares after house prices turned south in early 1929. It was not as severe as in 1893, and of course coincided with a collapse in the general stock market (I can't give comparable figures because of the different methods used to compile the two indices—see the Appendix). But still there was a fall of 24% in bank shares over 7 months at its steepest, and a 39% fall from peak to trough—preceded by a 25% fall in house prices.

Figure 18



Bank shares also tracked house prices over the 20 years from the Roaring Twenties boom to the beginning of WWII: the correlation was 0.44 for the indices, and 0.47 for the change in the indices.

Figure 19



The 1970s

The 1970s bubble was the last gasp of the long period of robust yet tranquil growth that had characterized the early post-WWII period. The peculiar macroeconomics of the time—the start of “Stagflation”—clouds the house price bubble picture somewhat (I discuss this in the Appendix), but there still was a big house price bubble then, and a big hit to bank shares when it ended.

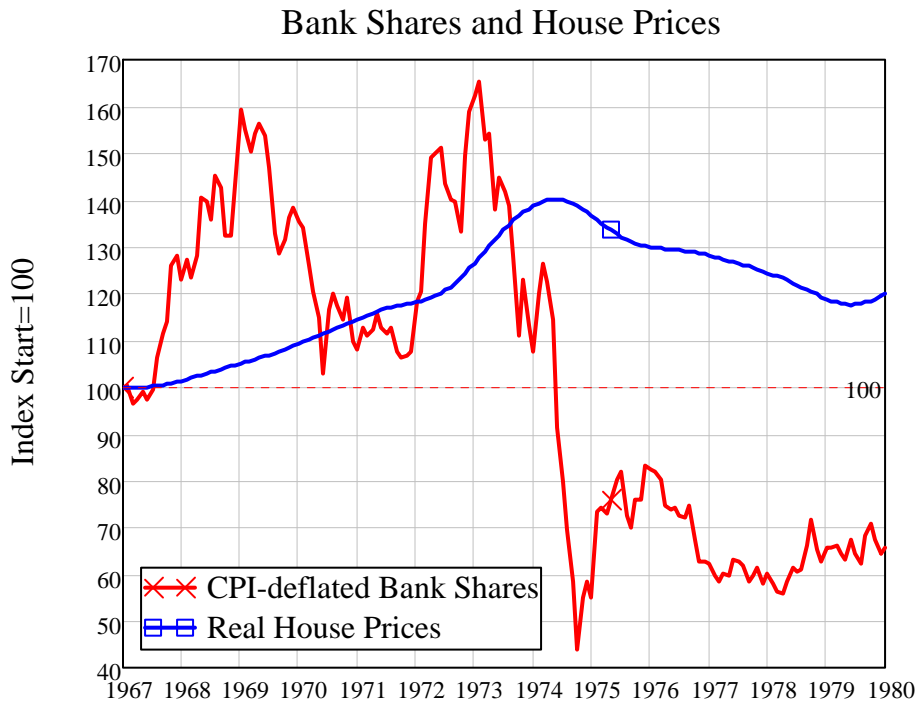
This was Australia’s first really big debt-financed speculative bubble, which most commentators and economists seem to have forgotten entirely. Its flavor is well captured in the introduction to *Sydney Boom, Sydney Bust*:

Sydney had never experienced a property boom on the scale of that between 1968 and 1974. It involved a frenzy of buying, selling and building which reshaped the central business district, greatly increased the supply of industrial and retailing space, and accelerated the expansion of the city's fringe. Its visible legacy of empty offices and stunted subdivisions was matched by a host of financial casualties which incorporated an unknown, but very large, contingent of small investors, together with the spectacular demise of a number of development and construction companies and financial institutions. The boom was the most significant financial happening of the 1970s and the shock waves from the inevitable crash were felt right up to 1980. It was an extraordinary event for Sydney, and for Australia. (Daly 1982, p. 1)

House prices rose 40 percent in real terms from 1967 till 1974, and then fell 16 percent from 1974 till 1980. Bank shares went through a roller-coaster ride, following Poseidon up and down from 1967 till 1970, and then rising sharply as the debt-bubble took off in 1972, with a 31 percent rise between late 1972 and early 1973. But from there it was all downhill, with bank shares falling 35 percent across 1973 while house prices were still rising.

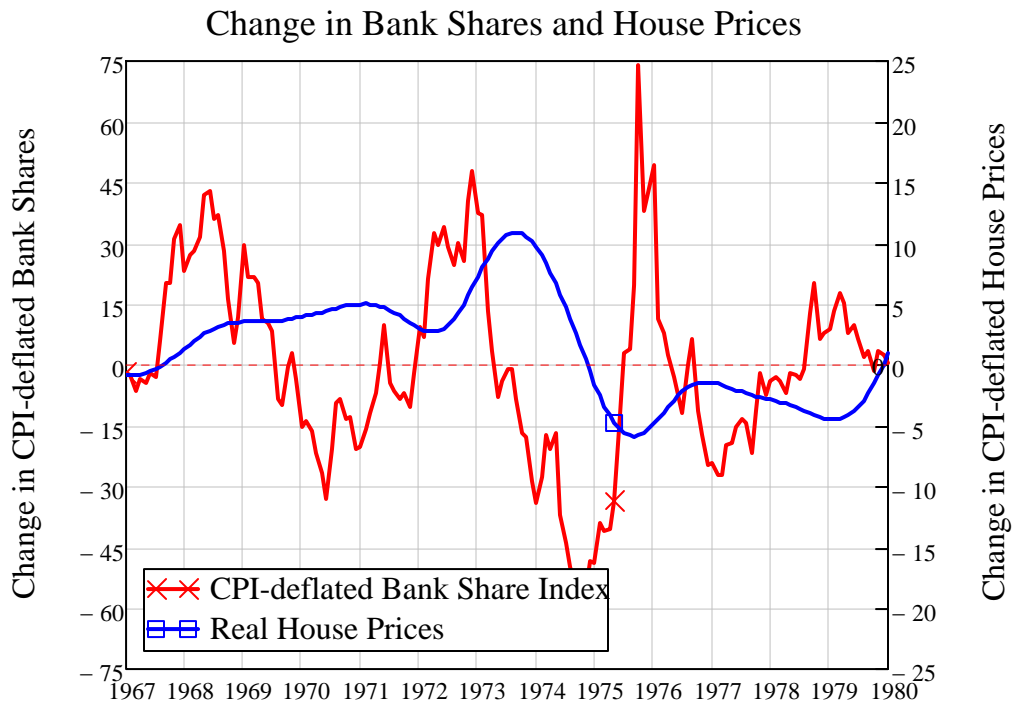
But when house prices started to fall, bank shares really tanked, falling 54 percent in just seven months during 1974.

Figure 20



However, the extreme volatility of both asset and commodity prices, and the impact of two share bubbles and busts—the Poseidon Bubble of the late 1960s and the early 1970s boom and bust—eliminated the correlation of bank share prices to house prices that applied in the 1890s and 1930s: the correlation of the indices was -0.46 and of changes in the indices was -0.01.

Figure 21



The 1980s

“The recession we had to have” remains unforgettable. That plunge began with Australia’s second big post-WWII speculative bubble, as Bond, Skase, Connell and a seemingly limitless cast of white-shoe brigadiers established the local [Ivan Boesky](#) “Greed is Good” church—with banks eagerly throwing money and debt into its tithing box.

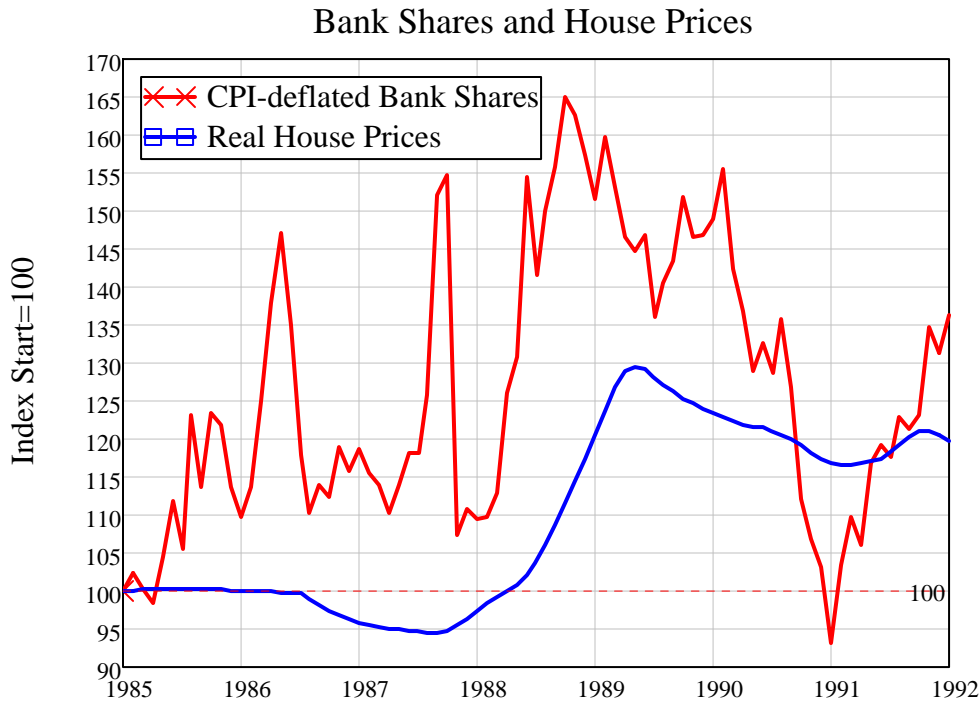
It would have all ended with the Stock Market Crash of 1987, were it not for the government rescues (both here and in the USA) that enabled the speculators and the banks to regroup and throw their paper weight into real estate.

Figure 22



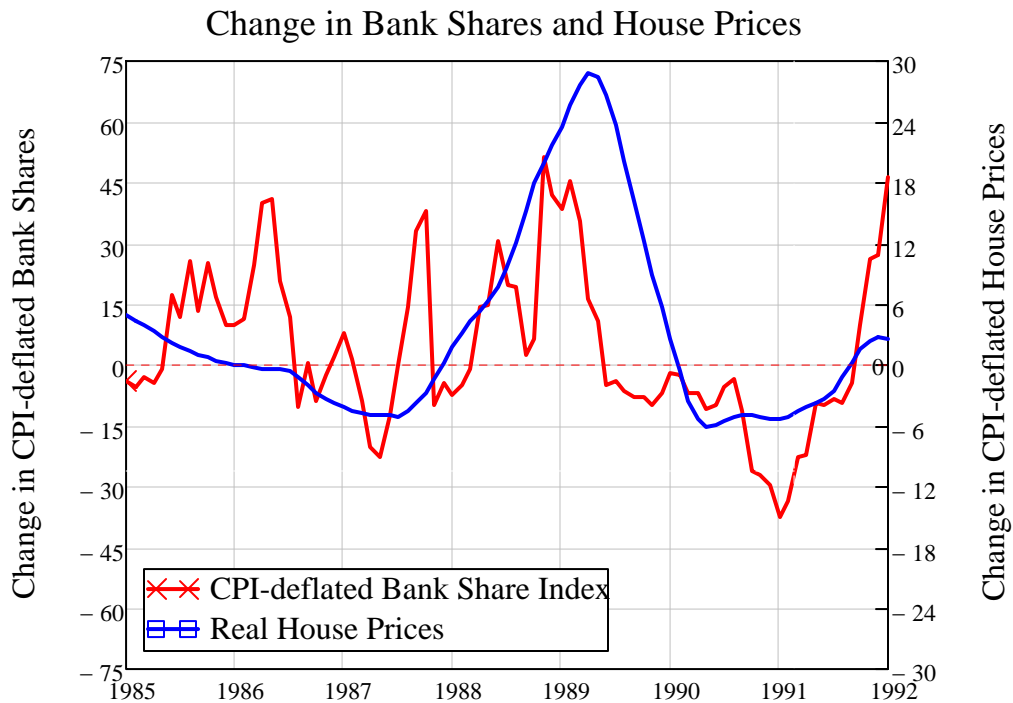
Having plunged 30 percent *in one month* (October, of course), bank shares rocketed up again, climbing a staggering 54 percent in 11 months to reach a new peak in October 1988, as speculators and the second incarnation of the First Home Vendors Grant drove house prices up 37 percent over just one and a half years. Bank shares bounced around for a while, but once the decline in house prices set in, bank shares again tanked—falling 40 percent over 11 months in 1990.

Figure 23



The positive correlations between the indices and their rates of change which had been swamped by the high inflation of the early 1970s returned: the correlation of the indices was 0.45 and the correlation of their rates of change was 0.42.

Figure 24

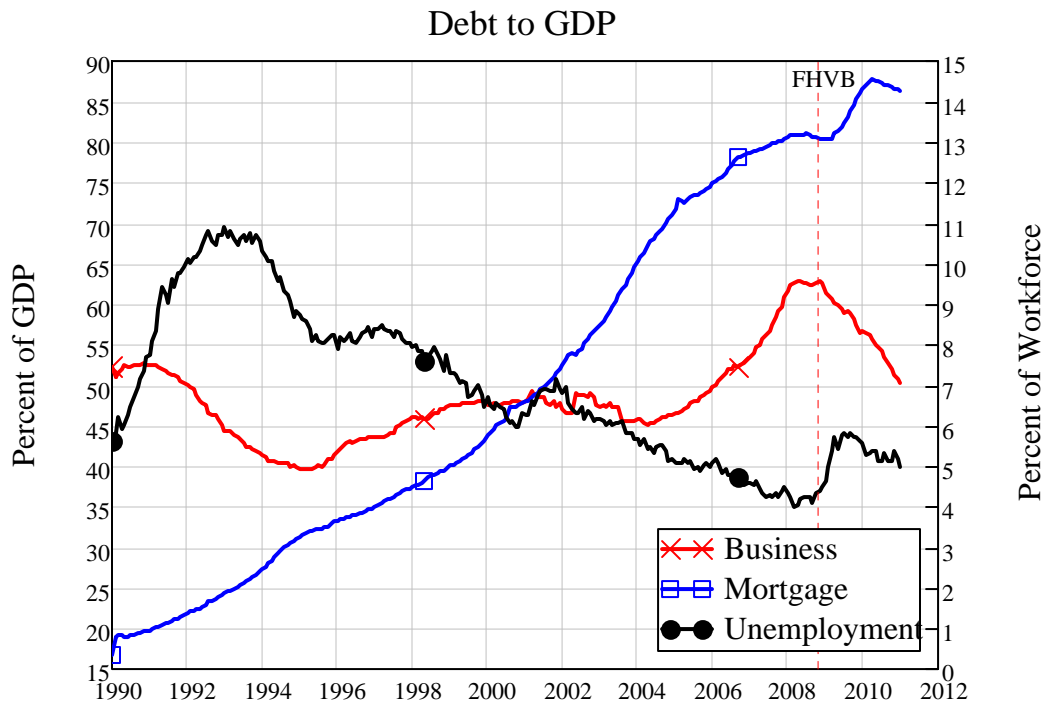


Which brings us to today.

From 1997 till today

I have argued [elsewhere](#) that the current bubble began in 1997, but the debt-finance that finally set it off began far earlier—in 1990. The fact that unemployment was exploding from under 6 percent in early 1990 to almost 11 percent in early 1994 was not, it seems, a reason to be restrained in lending to the household sector. It was far more important to expand the marketing of debt, and since the business sector could no longer be persuaded to take more on, the virgin field of the household sector had to be explored. Mortgage debt, which had flatlined at about 16 percent of GDP since records were first kept, took off, increasing by 50 percent during the 1990s recession (from 1990 till the start of 1994), and ultimately rising by 360 percent over the two decades—from 19 percent of GDP to 88 percent—with the final fling of the First Home Vendors Boost giving it that final push into the stratosphere.

Figure 25



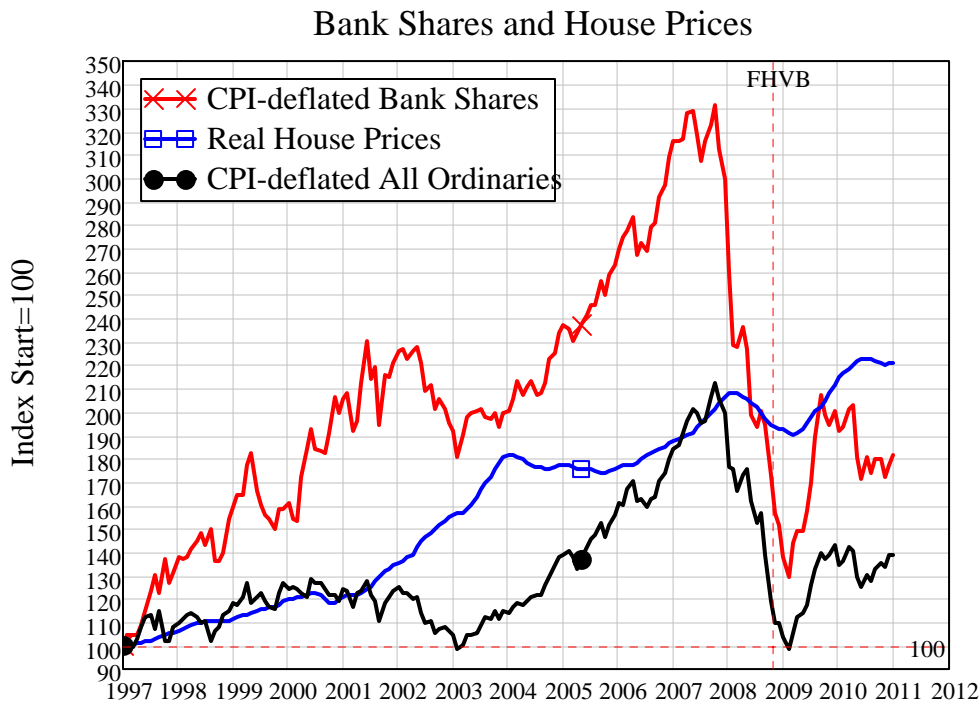
By 1997 the sheer pressure of rising mortgage finance brought to an end a period of flatlining house prices, and the bubbles in both house prices and bank shares took off in earnest.

The rise in bank shares far outweighed the increase in the overall share index.⁵ Bank shares rose 230 percent from 1997 till their peak in 2007, versus a rise of only 110 percent in the overall market index.

The increase in house prices also dwarfed any previous bubble: an increase of over 120 percent over fifteen years.

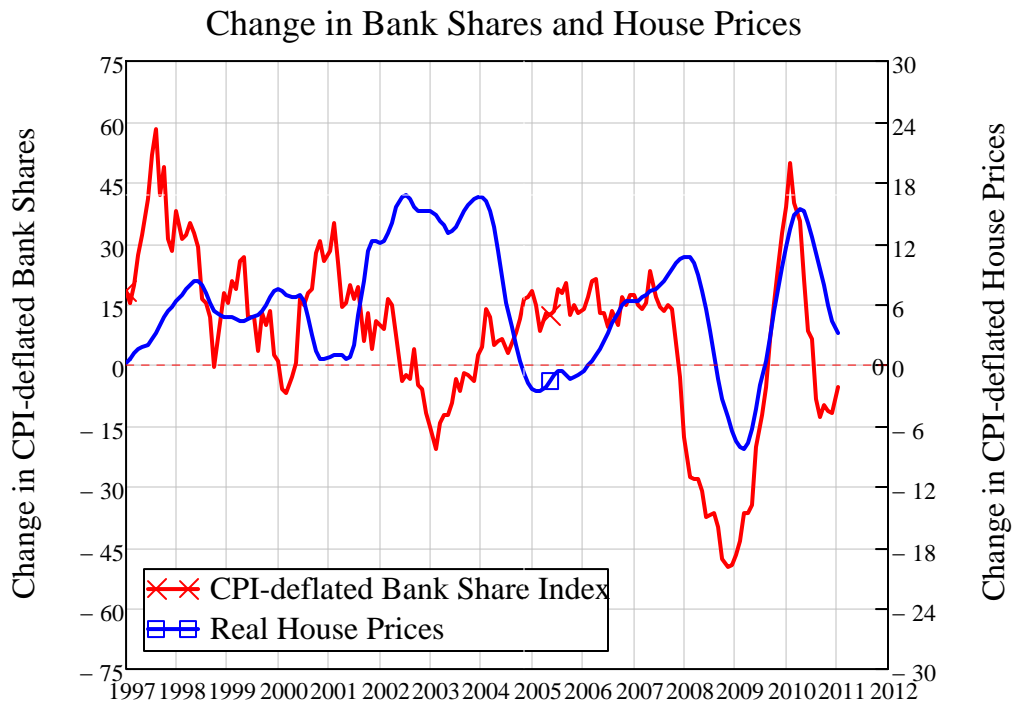
Bank shares and house prices both tanked when the GFC hit: house prices fell 9 percent and bank shares fell 61 percent. But thankfully the cavalry rode to the rescue—in the shape of the First Home Vendors Boost—and both house prices and bank shares took off again. House prices rose 17 percent while bank shares rose 60 percent (versus a 45 percent rise in the market) before falling 12 percent after the expiry of the FHVB.

Figure 26



The correlation between bank shares and house prices is again positive: 0.51 for the indices and a low 0.1 for the change in indices over the whole period, but 0.46 since 2005.

Figure 27



So now we are on the edge of the bursting another house price bubble. What could the future bring?

When the bubble pops...

There are several consistent patterns that can be seen in the past data.

Firstly, house prices and bank shares are correlated. There was one aberration—the 1970s—but that was marked by peculiar dynamics arising from the historically high inflation at the time. Generally, bank shares go up when house prices rise, and fall when the fall. Partly, this is the general correlation of asset prices with each other, but partly also it's the causal relationship between bank lending, house prices, and bank profits: banks make money by creating debt, rising mortgage debt causes house prices to rise, and rising house prices set off the Ponzi Scheme that encourages more mortgage borrowing. The bubble bursts when the entry price to the Ponzi Scheme becomes prohibitive, or when early entrants try to take their profits and run.

Secondly, the fall in the bank share price is normally very steep, and it occurs shortly after house prices have passed their peaks. Holding bank shares when house prices are falling is a good way to lose money—and conversely, *if you get the timing right*, betting against them can be profitable. That's why Jeremy Grantham—and many other hedge fund managers from around the world—are paying close attention to Australian house prices.

Thirdly, house prices and bank shares are driven by rising debt, and when debt starts to fall, not only do house prices and bank shares fall, the economy also normally falls into a very deep recession or

Depression. This is the crucial role of deleveraging in causing economic downturns, including the serious ones where debt falls not just during a short cycle prior to another upward trend, but in an extended secular decline.

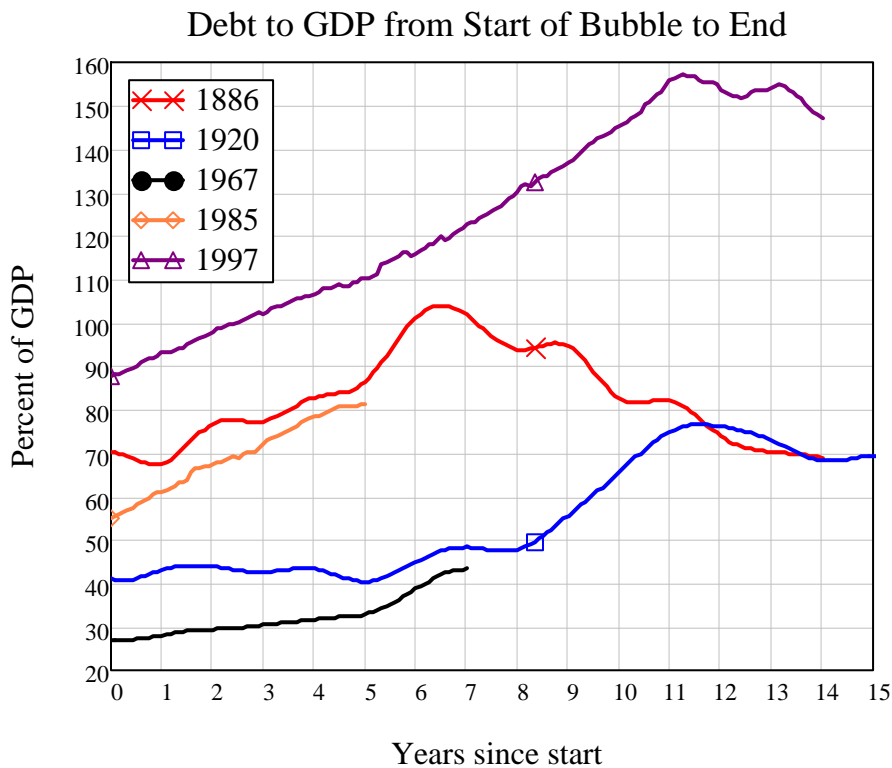
There is also one cautionary note about the current bubble: though history would imply that there is a very large downside to bank shares now, it's also obvious that bank shares fell a great deal in 2007-09, so that much of the downside may already have been factored in.

However, on every metric: on the ratio of debt to GDP, on how much that ratio rose from the start of the bubble to its end, on how big the house price bubble was, and on how much bank shares rose, this bubble dwarfs them all.

Debt to GDP

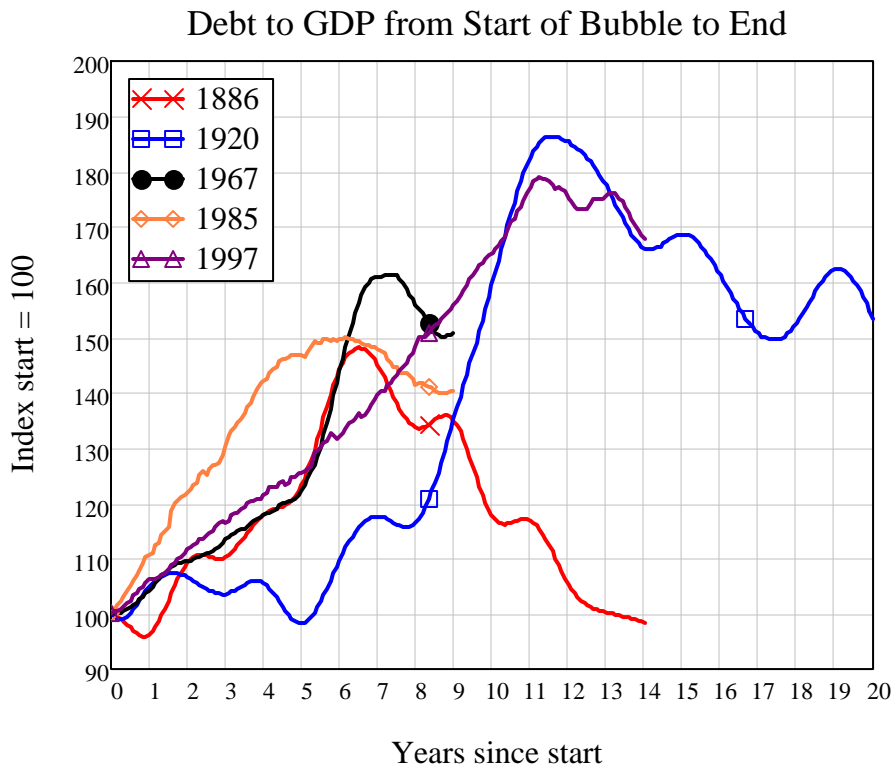
The 1997 debt to GDP ratio started higher than all but the 1890s bubble ended, and the bubble went on long after all the others had popped.

Figure 28



Though the actual debt to GDP ratio today dwarfs all its predecessors, in terms of the growth of debt from the beginning of the bubble, it has one rival: the 1920s.

Figure 29

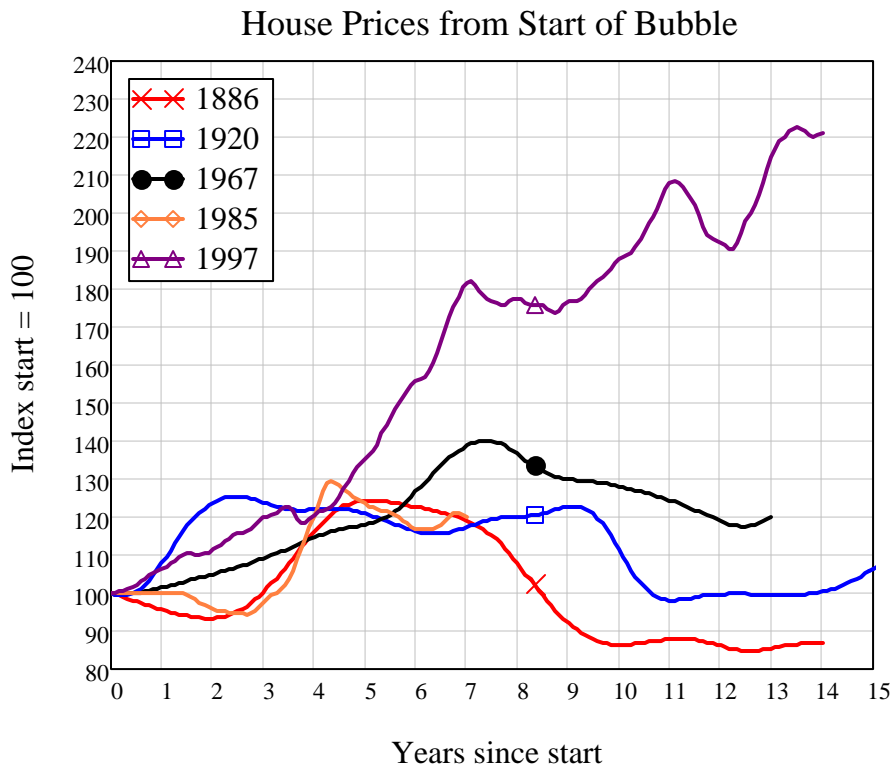


However this is partly because of deflation during the early Great Depression: deflation ruled from 1930 till 1934, and the debt to GDP ratio rose not because of rising debt, but falling prices. Though the increase in debt in the final throes of the Roaring Twenties was faster than we experienced, over the whole boom debt grew as quickly now as then, and it has kept growing for four years longer than in the 1920s. Even though the ratio is falling now, it's because debt is now rising more slowly than nominal GDP: we still haven't experienced deleveraging yet (unlike the USA).

House Prices

The rise in prices during this bubble again has no equal in the historical record.

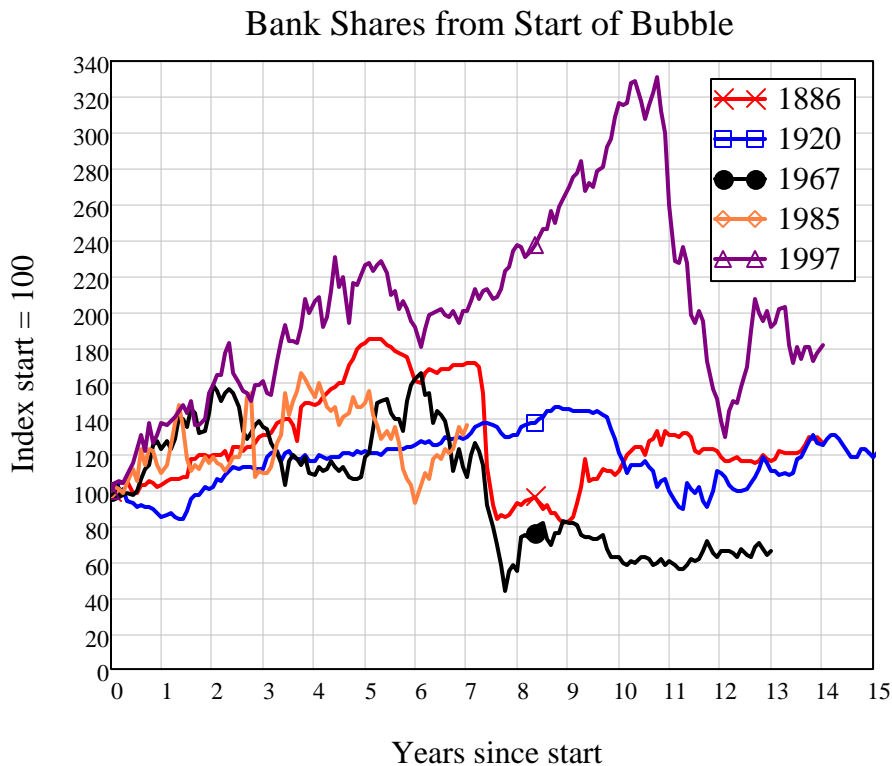
Figure 30



Bank Shares

Bank shares are also in a class of their own in this bubble, even after the sharp fall from 2007 till 2009. In terms of how high bank share prices climbed, this bubble towers over all that have gone before, and even what is left of this bubble is still only matched by the biggest of the preceding bubbles, the 1890s and the 1970s.

Figure 31



It's a long way from the top if you've sold your soul

Bank lending drove house prices sky high, and the profits banks made from this Ponzi Scheme dragged their share prices up with the bubble (and handsomely lined the pockets of their managers).

It's great fun while it lasts, but all Ponzi Schemes end for the simple reason that they must: they aren't "making money", but simply shuffling it—and growing debt. When new entrants can't be enticed to join the game, the shuffling stops and the Scheme collapses under the weight of accumulated debt. There are very good odds that, when this Ponzi Scheme collapses and house prices fall, bank shares will go down with them.

Appendices

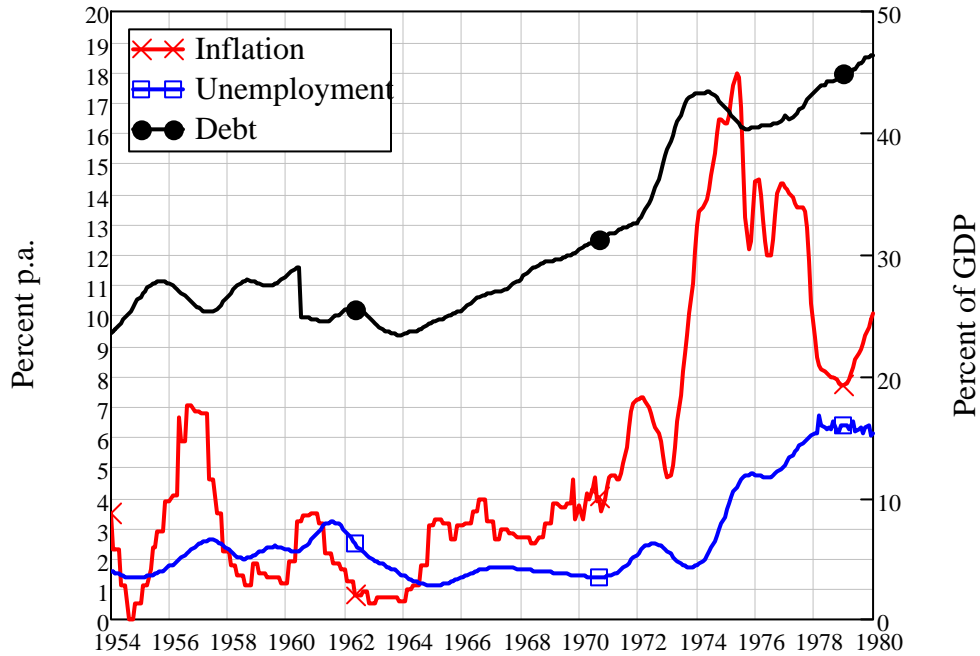
Stagflation

Between 1954 and 1974, unemployment averaged 1.9 percent, and it only once exceeded 3 percent (in 1961, when a government-initiated credit squeeze caused a recession that almost resulted in the defeat of Australia's then Liberal government, which ruled from 1949 till 1972). Inflation from 1954 till 1973 averaged 3 percent, and then rose dramatically between 1973 and 1974 as unemployment fell.

This fitted the belief of conventional "Keynesian" economists of the time that there was a trade-off between inflation and unemployment: one cost of a lower unemployment rate, they argued, was a higher rate of inflation.

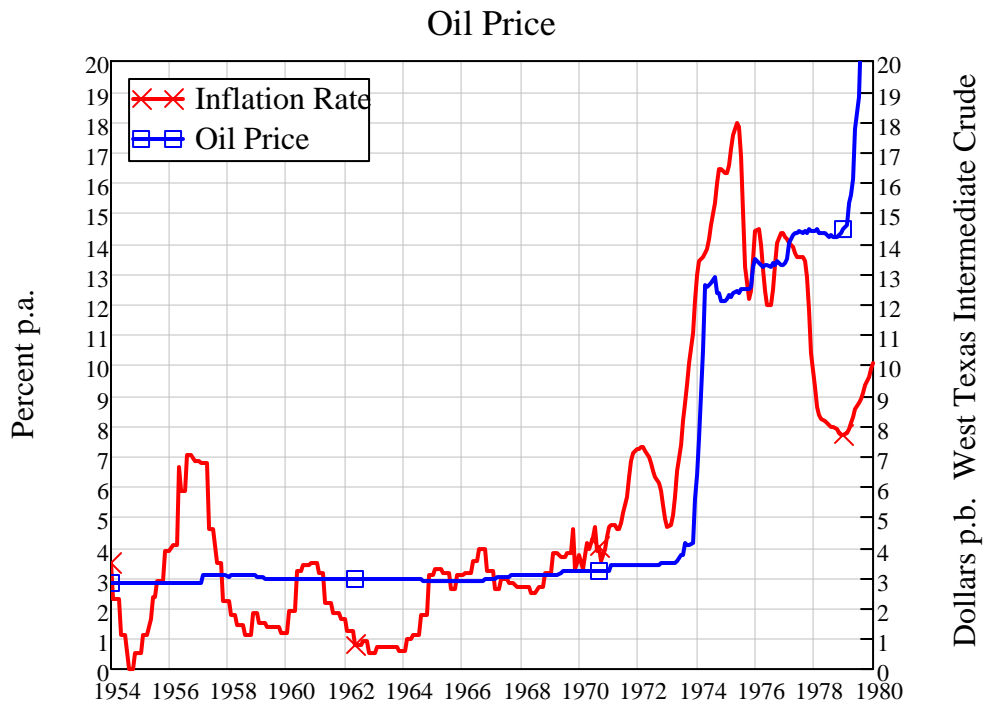
But then the so-called “stagflationary” breakdown occurred: unemployment and inflation both rose in 1974. Neoclassical economists blamed this on “Keynesian” economic policy, which they argued caused people’s expectations of inflation to rise—thus resulting in demands for higher wages—and OPEC’s oil price hike.

Figure 32



The latter argument is easily refuted by checking the data: inflation took off well *before* OPEC’s price hike.

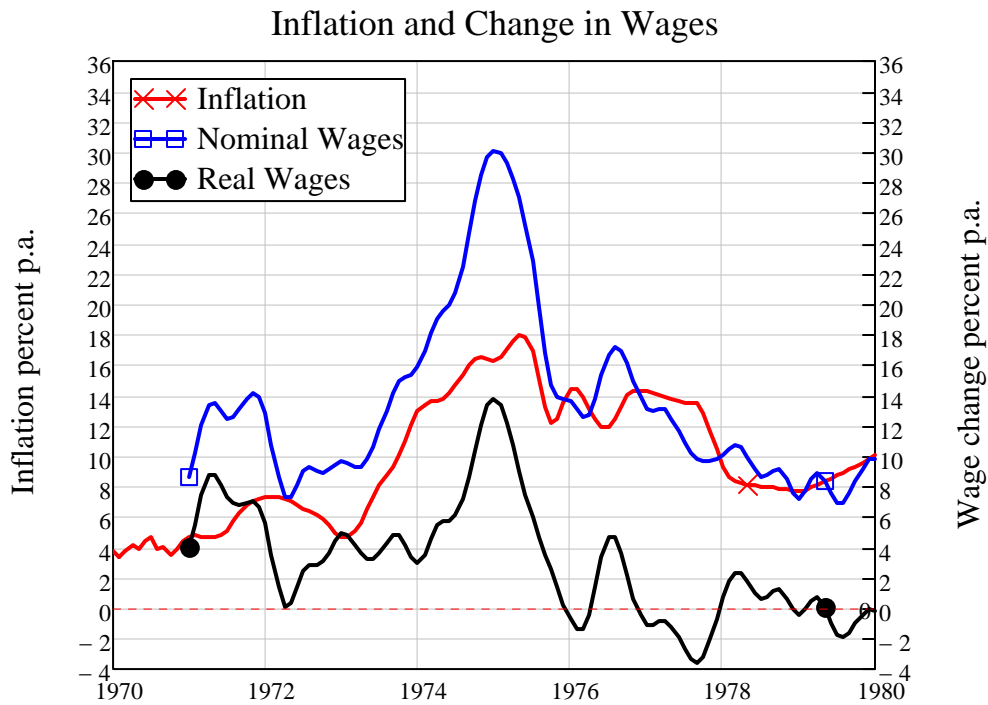
Figure 33



Global Financial Database

The former has some credence as an explanation for the take-off in the inflation rate—workers were factoring in both the bargaining power of low unemployment and a lagged response to rising inflation into their wage demands.

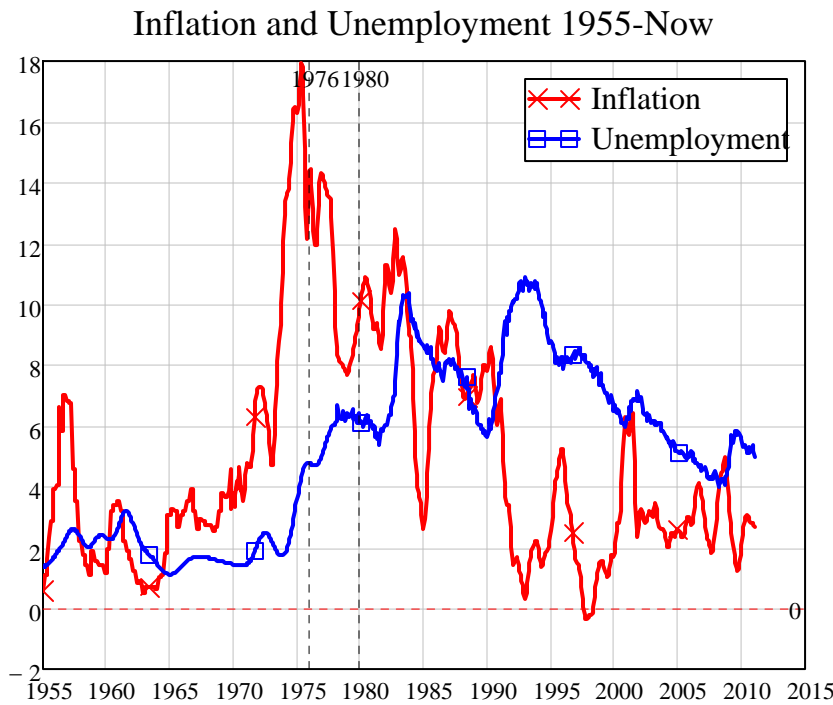
Figure 34



RBA Table G06, Column I

The Neoclassical explanation for why this rise in inflation also coincided with rising unemployment was “Keynesian” policy had kept unemployment below its “Natural” rate, and it was merely returning to this level. This was plausible enough to swing the policy pendulum towards Neoclassical thinking back then, but it looks a lot less plausible with the benefit of hindsight.

Figure 35



Though inflation fell fairly rapidly, and unemployment ultimately fell after several cycles of rising unemployment, over the entire “Neoclassical” period both inflation and unemployment were **higher** than they were under the “Keynesian” period. So rather than inflation going down and unemployment going up, as neoclassical economists expected, both rose—with unemployment rising substantially. On empirical grounds alone, the neoclassical period was a failure, even before the GFC hit.

Table 1

Policy dominance	Keynesian	Neoclassical
Years	1955-1976	1976-Now
Average Inflation	4.5	5.4
Average Unemployment	2.1	7

There was a far better explanation of the 1970s experience lurking in data ignored by neoclassical economics: the level and rate of growth of private debt. As you can see from Figure 32, private debt, which had been constant (relative to GDP) since the end of WWII, began to take off in 1964, and went through a rapid acceleration from 1972 till 1974, before falling rapidly.

The debt-financed demand for construction during that bubble added to the already tight labor market, and helped drive wages higher in both a classic wage-price spiral and a historic increase in labor’s share of national income—which has been unwound forever since.

Figure 36



Inflation, higher unemployment that weakened labor's bargaining power, anti-union public policy and an approach to wage-setting policy that emphasized cost of living adjustments but ignored sharing productivity gains, all contributed to that unwinding.

The share market indices

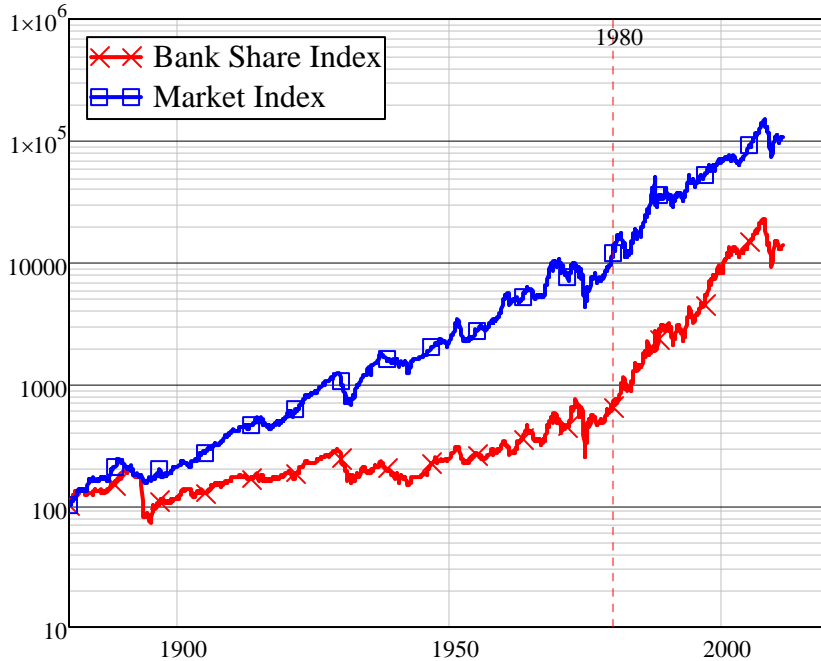
The bank share index used in this post was compiled by combining 3 data sources. Working backwards in time, these were:

- The [S&P's ASX 200 Financials Index \(AXFJ\) from May 2001 till now](#);
- A composite formed from the prices for the 4 major bank share prices that matches the value of the Financials Index from 2000 till May 2001; and
- Data from the Global Financial Database from 1875 till 2000, which in turn consists of three series:
 - "Security Prices and Yields, 1875-1955," Sydney Stock Exchange Official Gazette, July 14, 1958, pp 257-258 (1875-1936), together with D. McL. Lamberton, Share Price Indices in Australia, Sydney: Law Book Co., 1958; and
 - The Australian Stock Exchange Indices, Sydney: AASE, 1980; and
 - Australian Stock Exchange Limited, ASX Indices & Yields, Sydney: ASX, 1995 (updated till 2000)

From a perusal of the GFD documentation and a comparison of the Banking and Finance index to the broader market index, it appears that the bank index is a straight price index pre-1980, whereas the GFD's data for the overall market is an accumulation index till 1980 and a price index after that. These

inconsistencies make it impossible to compare the two over the very long term, but the movements in each at different time periods can be compared (and the comparison is also fine from 1980 on).

Figure 37



Bernanke, B. S. (2000). *Essays on the Great Depression*. Princeton, Princeton University Press.

Biggs, M., T. Mayer, et al. (2010). "Credit and Economic Recovery: Demystifying Phoenix Miracles." *SSRN eLibrary*.

Daly, M. T. (1982). *Sydney Boom, Sydney Bust*. Sydney, George Allen and Unwin.

Fisher, I. (1933). "The Debt-Deflation Theory of Great Depressions." *Econometrica* 1(4): 337-357.

Krugman, P. and G. B. Eggertsson (2010). *Debt, Deleveraging, and the Liquidity Trap: A Fisher-Minsky-Koo approach* [2nd draft 2/14/2011]. New York, Federal Reserve Bank of New York & Princeton University.

¹ The notes to Table B05 state that "'Impaired assets' refers to the aggregate of a reporting bank's non-accrual and restructured exposures, both on- and off-balance sheet, plus any assets acquired through the enforcement of security conditions. Off-balance sheet exposures include, inter alia, commitments to provide funds that cannot be cancelled or revoked and the credit equivalent amounts of interest rate, foreign exchange and other market-related instruments."

² OK, so call me an optimist!

³ One of the many issues that distinguishes my approach to economics from neoclassical economists is my focus on the role that changes in debt play in aggregate demand. Neoclassical economists wrongly ignore the role of aggregate level of debt because they see debt as simply a transfer of spending power from one agent to another—so that there is no change in aggregate spending power if debt rises. This is the reason that Bernanke gave for ignoring Fisher's "debt deflation" theory of the Great Depression (Fisher 1933):

Fisher's idea was less influential in academic circles, though, because of the counterargument that debt-deflation represented no more than a redistribution from one group (debtors) to another (creditors). Absent implausibly large differences in marginal spending propensities among the groups, it was suggested, pure redistributions should have no significant macro-economic effects... (Bernanke 2000, p. 24)

And it's the explicit assumption that Krugman uses in his recent paper on the Great Recession:

Ignoring the foreign component, or looking at the world as a whole, the overall level of debt makes no difference to aggregate net worth -- one person's liability is another person's asset. (Krugman and Eggertsson 2010, p. 3)

This shows their ignorance of the capacity for the banking sector to create spending power "out of nothing", and thus create spending power in the process. I cover this topic in detail in these posts

(<http://www.debtdeflation.com/blogs/2010/09/20/deleveraging-with-a-twist/> and

<http://www.debtdeflation.com/blogs/2010/10/19/deleveraging-deceleration-and-the-double-dip/>)

⁴ Stapledon's index combines Sydney and Melbourne, so this figure understates the degree of rise and fall in Melbourne prices.

⁵ The two indices are now comparable, whereas for the longer series they were compiled in different ways.