

# Steve Keen's DebtWatch No 28 November 2008

## 2nd Anniversary Issue

### Whats Really Going On? or... Why Did I See it Coming and "They" Didn't?

The financial crisis is widely accepted as having started in August 9 2007, with the BNP's announcement that it was suspending redemptions from three of its funds that were heavily exposed to the US securitisation market.

Just three months beforehand, the OECD released its 2007 World Economic Outlook, in which it commented that:

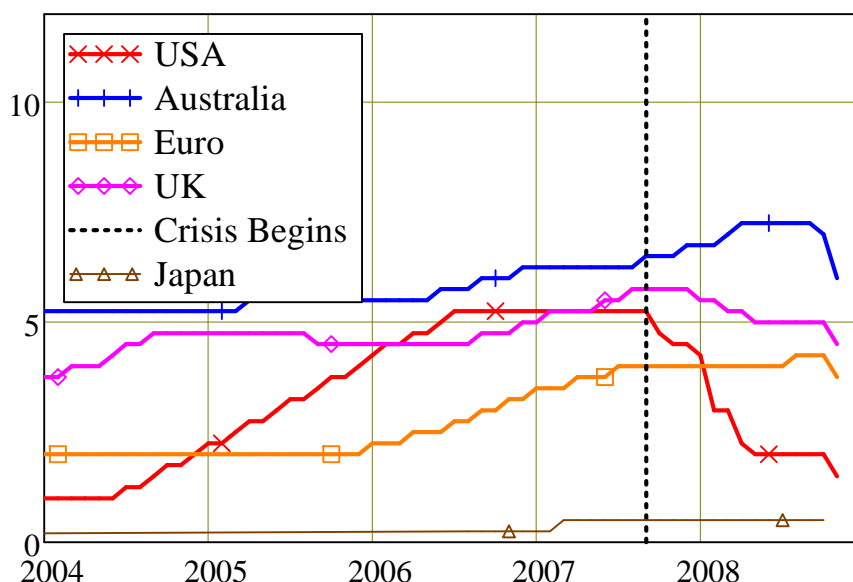
*In its Economic Outlook last Autumn, the OECD took the view that the US slowdown was not heralding a period of worldwide economic weakness, unlike, for instance, in 2001. Rather, a "smooth" rebalancing was to be expected, with Europe taking over the baton from the United States in driving OECD growth.*

*Recent developments have broadly confirmed this prognosis. Indeed, **the current economic situation is in many ways better than what we have experienced in years.** Against that background, we have stuck to the rebalancing scenario. **Our central forecast remains indeed quite benign:** a soft landing in the United States, a strong and sustained recovery in Europe, a solid trajectory in Japan and buoyant activity in China and India. **In line with recent trends, sustained growth in OECD economies would be underpinned by strong job creation and falling unemployment.** (OECD World Economic Outlook Vol 81 p. 7; emphases added)*

Similarly, Reserve Banks around the world had set interest rates to relatively high levels to restrain rising inflation, which was then seen as the main threat to continued economic prosperity. Our own RBA increased rates when the crisis began, and three more times since. And it was not alone: the European Central Bank also raised rates after the crisis (see Figure One) .

## Figure One

## Reserve Interest Rates 2004-Now



In December 2005, almost two years before the crisis hit, I realised that a serious financial crisis was approaching. I was so worried about its probable severity--and the lack of awareness about it amongst policy makers--that I took the risk (for an academic) of going very public about my views. I began commenting on economic policy in the media, started the DebtWatch Report (the first was published two years ago in November 2006), registered a webpage with the apt name of [www.debtdeflation.com](http://www.debtdeflation.com), and established the blog *Steve Keen's Oz Debtwatch*.

How come I got it right, and "they"--the official economic managers--got it so wrong?

It's not because I'm any brighter than they are--there are plenty of highly intelligent people in those organisations. Instead, it's because they follow mainstream views in economics, and I follow a minority perspective. The economic history we are currently living through is proof that the mainstream is fundamentally wrong about the nature of the economy, while my minority perspective is at least partially right.

This is not something one should be able to say about a science, and there lies the rub: economics is not even close to qualifying as a science. A better model for economics is a group of warring religions--or science, such as it was, before Galileo's empirical revolution, when what mattered to scientists was not empirical relevance, but conformity to with the Bible.

Forty years ago, Keynes was The Messiah, and his General Theory was the Bible. But the "stagflation" episode of the 1970s allowed a new Messiah to arise: Milton Friedman, with his doctrine of Monetarism. Though Monetarism itself is no longer espoused, the economic religion that Friedman represented--known as "Neoclassical Economics"--supplanted the previous Keynesian orthodoxy. Today, the majority of economists know of no other way to think about the economy--and they run Central Banks and Treasuries throughout the world, and dominate tuition in universities.

They also develop mathematical models of the economy, which are in turn used to gauge its health, and to advise politicians about policy challenges in the near future. According to these models, just over a year ago the economy was in fine shape, and the main policy challenge was to avoid overheating that would lead to rising inflation.

Well inflation did rise. But simultaneously the global economy was falling into a serious recession driven by a global financial meltdown that these economists and their models completely failed to anticipate. ***Rarely in human history have policy makers been so badly misled by the***

***so-called experts.***

The three key aspects of Neoclassical economics that led to its wildly inaccurate forecasts are the beliefs that:

1. A market economy always tends towards equilibrium;
2. Money impacts "nominal" variables like the rate of inflation, but has no long term impact on "real" variables like employment and GDP growth; and
3. Finance markets are rational; in particular, the level of private debt reflects rational calculations about future income, and can therefore be ignored by policy-makers.

The key aspects of the approach that I take (the "Financial Instability Hypothesis" developed by Hyman Minsky) that alerted me to the approaching danger are the propositions that:

1. A market economy is inherently cyclical;
2. Money is fundamentally credit-driven, and has impacts on real variables as well as nominal ones in the short and long term; and
3. Finance markets destabilise the real economy, because they are prone to bouts of euphoric expectations that lead to debt-financed speculative bubbles.

These very different perspectives have two key effects on the economists who hold them:

- they focus attention on very different sets of economic data; and
- they inspire mathematical models of the economy that are very, very different.

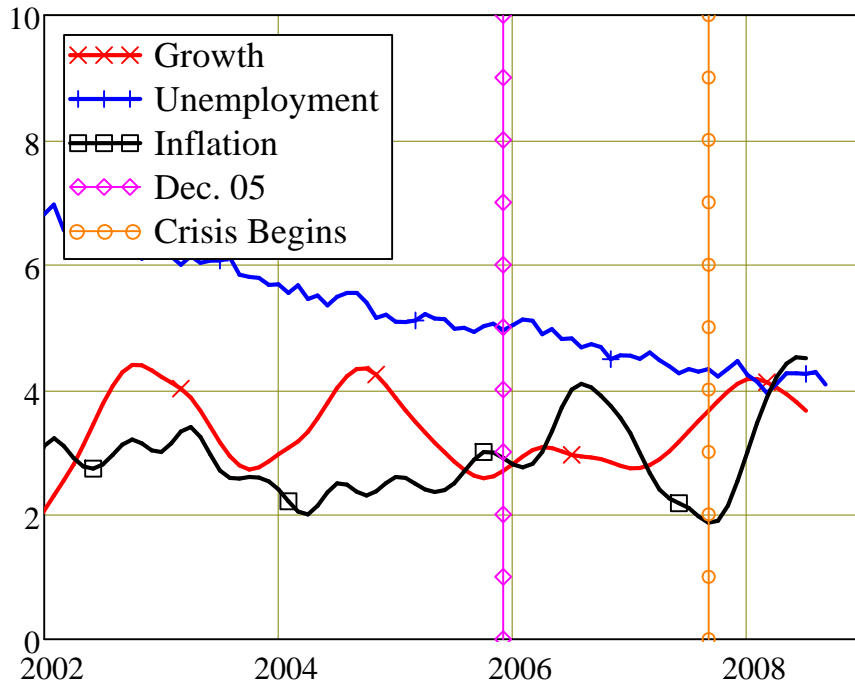
***What is "a beautiful set of numbers" lies in the eyes of the beholder***

Neoclassical macro-economists focus upon three numbers:

1. The rate of economic growth (preferably above 3% per year);
2. Unemployment (which they prefer to be low, but not "too low"--the moving target for which in Australia was 4.5% until recently); and
3. The rate of inflation (which they prefer to be as low as possible, and certainly below 3%).

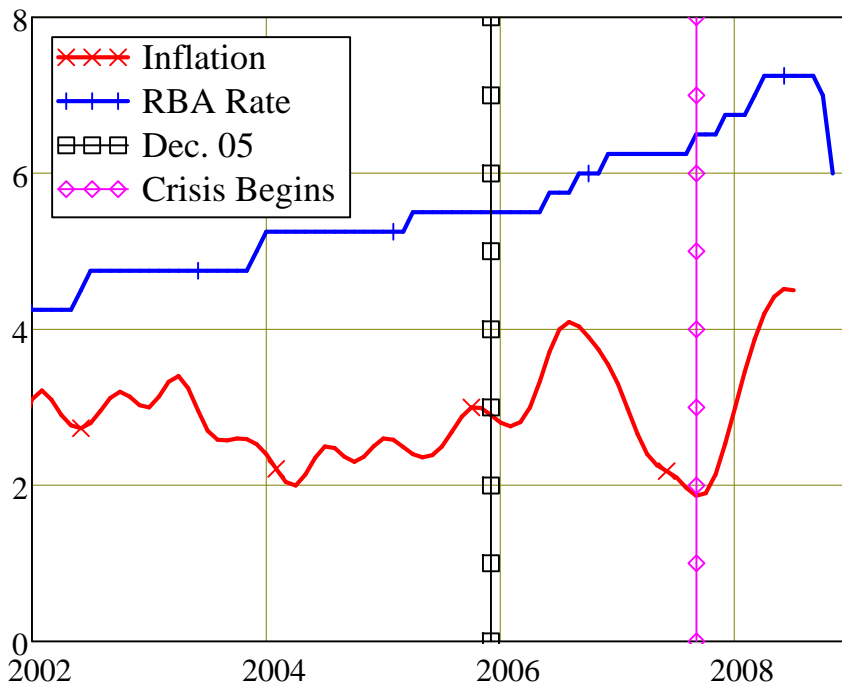
On all three fronts, from the vantage point of 2006, 2007 looked like being a vintage year--except that the first number was so high that the second was tending too low, which could mean that the third could start to rise. Hence the economic focus was on reducing growth via higher interest rates, to increase unemployment slightly and thus reduce the rate of inflation (see Figure Two).

**Figure Two**



The RBA's policy response to this was immediate and decisive. Having already raised rates in 0.25% increments five times since 2002, it accelerated its inflation-control program with three more increases in 2006, two in 2007 --the first of these coming just before the crisis broke, and the other famously during the 2007 election campaign--and two more during early 2008.

**Figure Three**



Unfortunately, the RBA's response was also the wrong one. While inflation did rise, it was not the main problem facing the economy. Trying to control the inflation rate by raising interest rates at that time was a bit like trying to control a patient's blood pressure when he was dying of cancer. That cancer, as is now widely acknowledged, was private debt. The economic variable that their Neoclassical training led them to ignore, the ratio of private debt to GDP, was now indisputably the most important number of all.

Economists who are influenced by Hyman Minsky--broadly known as "Post Keynesians", since Minsky was a follower of Keynes--focus precisely on that datum. This ratio of a stock (outstanding debt at a point in time) to a flow (the annual output of goods and services) tells you how many years of income it would take to reduce debt to zero. It therefore measures the degree of pressure that finance is imposing on the real economy.

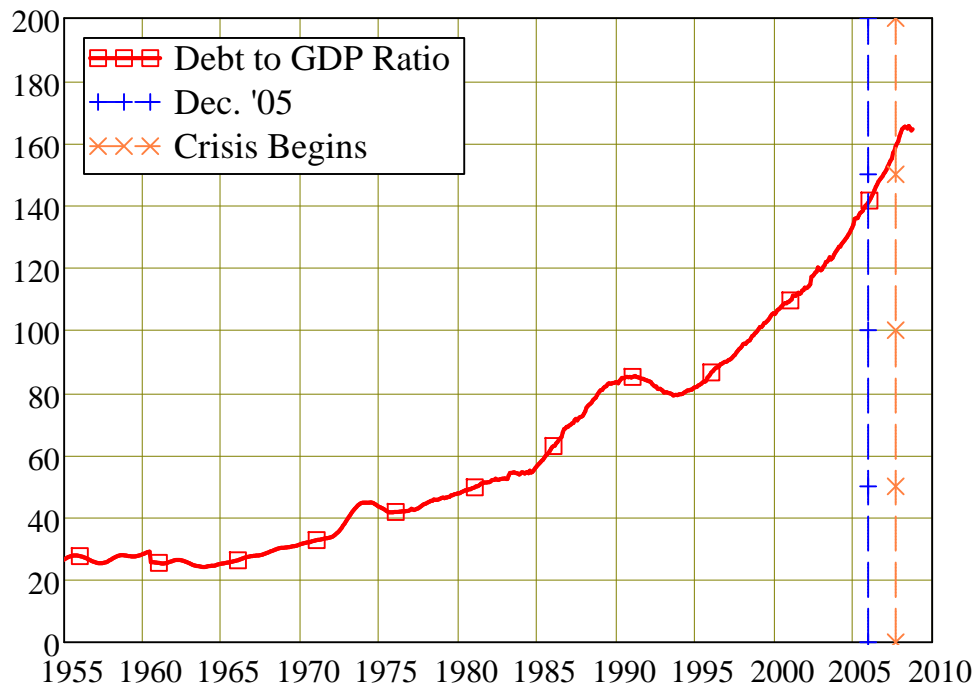
A certain amount of debt is vital to the proper functioning of a market economy, since most companies need flexible working capital to be able to operate, and overdraft facilities and lines of credit provide that flexibility. But too high a debt to GDP ratio means that the financial burden of debt repayment on the economy is excessive, and Minsky's theory implies that there is a tendency for the debt to GDP ratio to ratchet up over a series of booms and busts, resulting eventually to a Depression.

I did not see the data in Figure Three until December 2005, since my "day job" is as an academic rather than an economic policy maker. I had signed a contract to produce a book on financial instability as long ago as 1998, but the unexpected success of *Debunking Economics*, and the follow-on debate that engendered amongst academic economists, forced me to delay commencing that task.

As soon as I did see the data--in December 2005, when preparing an Expert Witness report for a court case (the "Cooks Case")--my Minskian eyes told me that a serious crisis was on its way. Given that the debt to GDP ratio was far higher than during either major post-WWII crisis (1973 and 1989), it appeared obvious that Australia was about to experience its most severe economic crisis since the Great Depression.

Because I knew that neoclassical economists would not realise this was about to happen, were likely to make things worse by increasing interest rates as the crisis approached, and would probably mis-diagnose the cause once it occurred--as they had during the Great Depression--I decided to go public with my analysis via the media, a regular commentary timed to coincide with the RBA meeting (DebtWatch), and eventually a blog ([www.debtdeflation.com/blogs](http://www.debtdeflation.com/blogs)).

## Figure Four

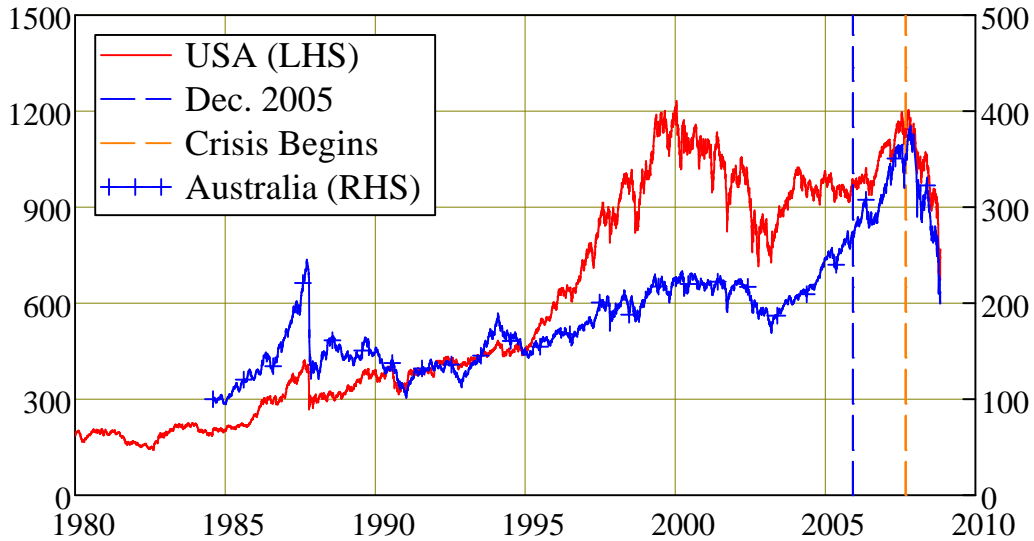


Minsky's hypothesis warns that a crisis begins with the faltering of an asset price bubble. That not one but two bubbles were in progress was obvious in both Australian and American stock market and housing data.

Minsky argues that there are two price levels in a market economy--one for commodities set largely by the costs of production and financed largely from income, and the other for assets, set largely by people's expectations of future gain, and financed mainly by debt. The ratio of one price level to another thus gives an indication of whether the economy is in a bubble, or a bust.

There are curly issues in the ratio of share prices to the CPI--the reinvestment of retained earnings give shares an upward trend over time compared to the CPI, while the index itself overstates share returns due to survivor bias. But the relatively rapid movement in share prices, versus the slower changes in consumer prices, means that a blowout in the ratio is a good indicator of a bubble. On that basis, Australia's market had clearly entered a bubble in early 2003, while the USA's began in 1995 (and had already burst in 2000, only to restart in 2003).

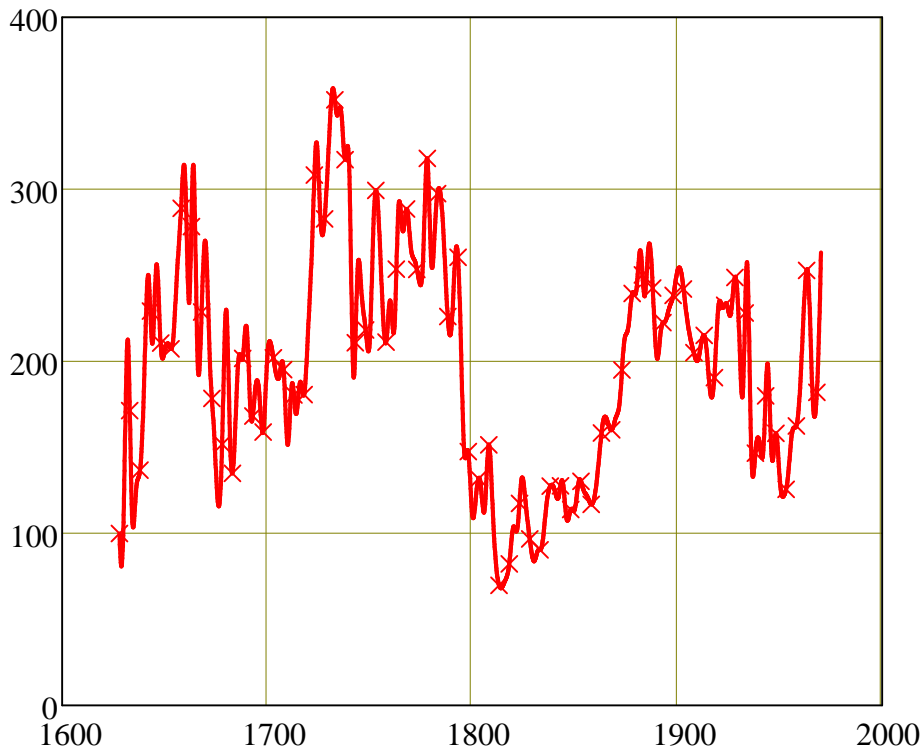
**Figure Five**



No such curly issues apply with the house price to CPI ratio. Especially when dealing with established houses, there is no long term trend, as the Herengracht Canal index establishes. In a real price series going back almost 350 years, house prices rose and fell compared to consumer prices, but clearly displayed no rising trend over time (see Figure Five).

**Figure Six**

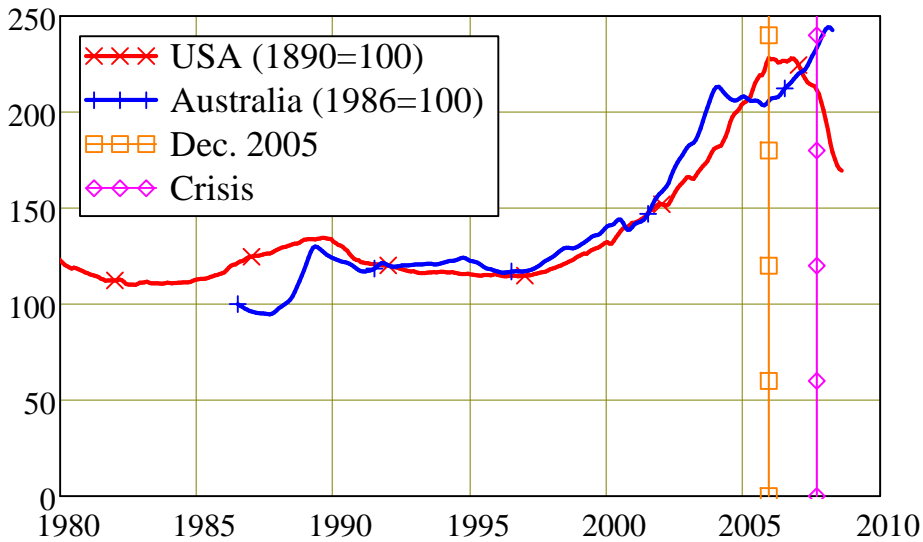
**Herengracht Canal Real House Price Index**



On this basis, both Australian and US house markets were clearly in bubbles, and the US bubble was unprecedented in its history.

**Figure Seven**

**CPI Deflated House Price Indices**

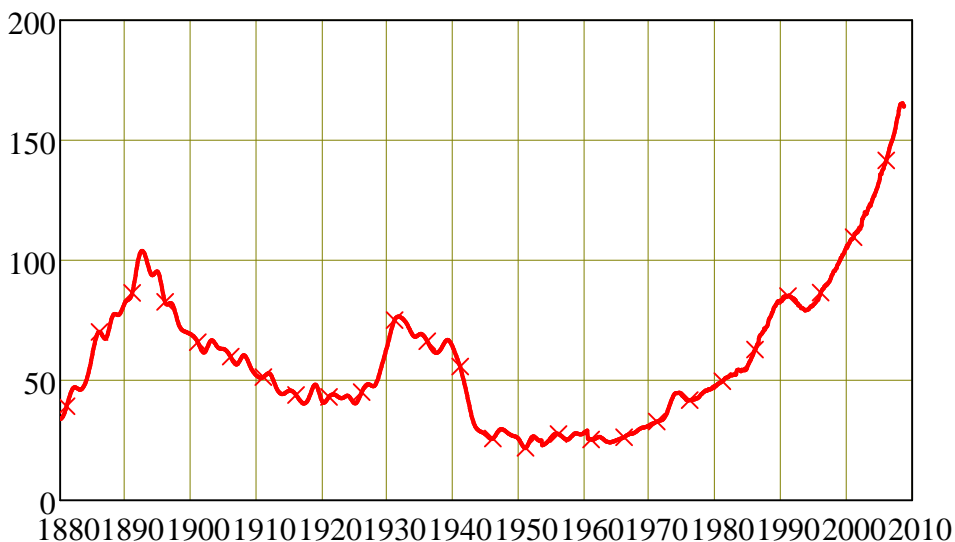


The final piece of evidence that pushed me from expecting a serious recession to quite possibly a Depression was provided by the RBA in September 2007--a month after the crisis began--with a chart showing Australia's private debt to GDP ratio going back till 1860.

Even after I augmented it to include an estimate for non-bank debt prior to 1953 (which made current data look less extreme compared to historical data), it implied that our debt crisis was more than twice as severe as the one that caused the Great Depression. When the Great Depression began at the end of 1929, Australia's debt to GDP ratio was 65 percent. It has now reached a peak of 165 percent.

**Figure Eight**

**Australia's Long Term Debt to GDP Ratio**



That impression was confirmed when I later saw the US data--courtesy of Gerard Minack and the availability online of US Census reports. Its debt to GDP ratio was 150 percent at the end of 1929



(and subsequently blew out to 215 percent as prices and GDP collapsed in the first 3 years of the Depression).

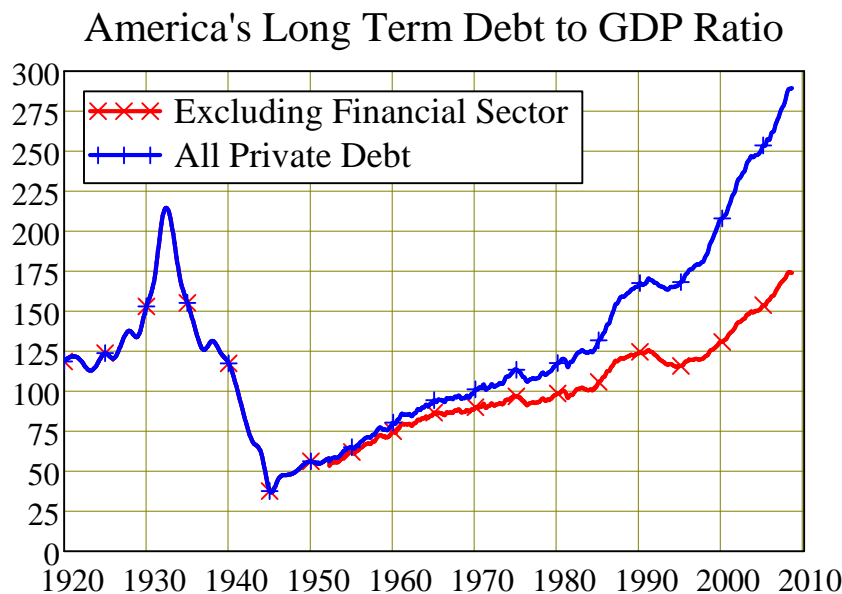
With financial sector debt included, the USA reached that peak again in 1987--the year Greenspan, despite his "Austrian" approach to economics that decried government intervention of any sort, performed his first "successful" rescue during the Stock Market Crash in October.

That rescue worked, not by overcoming the problem of excessive debt-financed speculation, but by re-igniting so that it reached even higher levels. Though borrowing slumped after the Savings and Loans collapse in 1989/90--falling from 170 to 165 percent of GDP--the bubble began once more in 1994. It then rocketed on through the Dotcom Bubble, and didn't even draw breath then since there were now two asset market bubbles feeding off each other--the Subprime Bubble's expansion more than counteracted the Dotcom Bubble's collapse, until finally there were two debt-financed asset bubbles running at once--an unprecedented event in America's financial history.

By 2004, even non-financial private debt had exceeded the level that triggered the Great Depression, while total private sector debt reached a staggering 290 percent of GDP (without including the impact of financial derivatives, another form of debt that did not exist in the 1920s).

It appeared that Central Banks, who had been charged with preventing the development of conditions that could presage another Great Depression, had actually encouraged the growth of private debt to levels far higher than it would have reached in their absence.

**Figure Nine**



The RBA data in Figure Eight was first published in a speech by Deputy RBA Governor Ric Battellino ("Some Observations on Financial Trends" [http://www.rba.gov.au/Speeches/2007/sp\\_dg\\_250907.html](http://www.rba.gov.au/Speeches/2007/sp_dg_250907.html)). I found his interpretation of the chart both stunning, and predictable:

*The factors that have facilitated the rise in debt over the past couple of decades – the stability in economic conditions and the continued flow of innovations coming from a competitive and dynamic financial system – remain in place. While ever this is the case, households are likely to continue to take advantage of unused capacity to increase debt. This is not to say that there won't be cycles when credit grows slowly for a time, or even falls, but these cycles are likely to take place*

*around a rising trend. Eventually, household debt will reach a point where it is in some form of equilibrium relative to GDP or income, but the evidence suggests that this point is higher than current levels. (Emphasis added)*

This was stunning, because the previous two peaks in the debt to GDP ratio were followed by Depressions, and yet they were far lower than the current level. Even the most anecdotal approach to history would imply that all might not be well at present.

It was predictable, because it was consistent with the mindset that has dominated economics for three decades now, ever since Friedman's counter-revolution against Keynesian economics in the 1970s. Whereas the once-dominant Keynesian approach saw the economy as potentially unstable, Friedman's revived "Neoclassical" approach presumed that the economy was self-equilibrating. Thus data which an engineer would see as indicating an approaching breakdown was interpreted by an economist as indicating an approaching equilibrium.

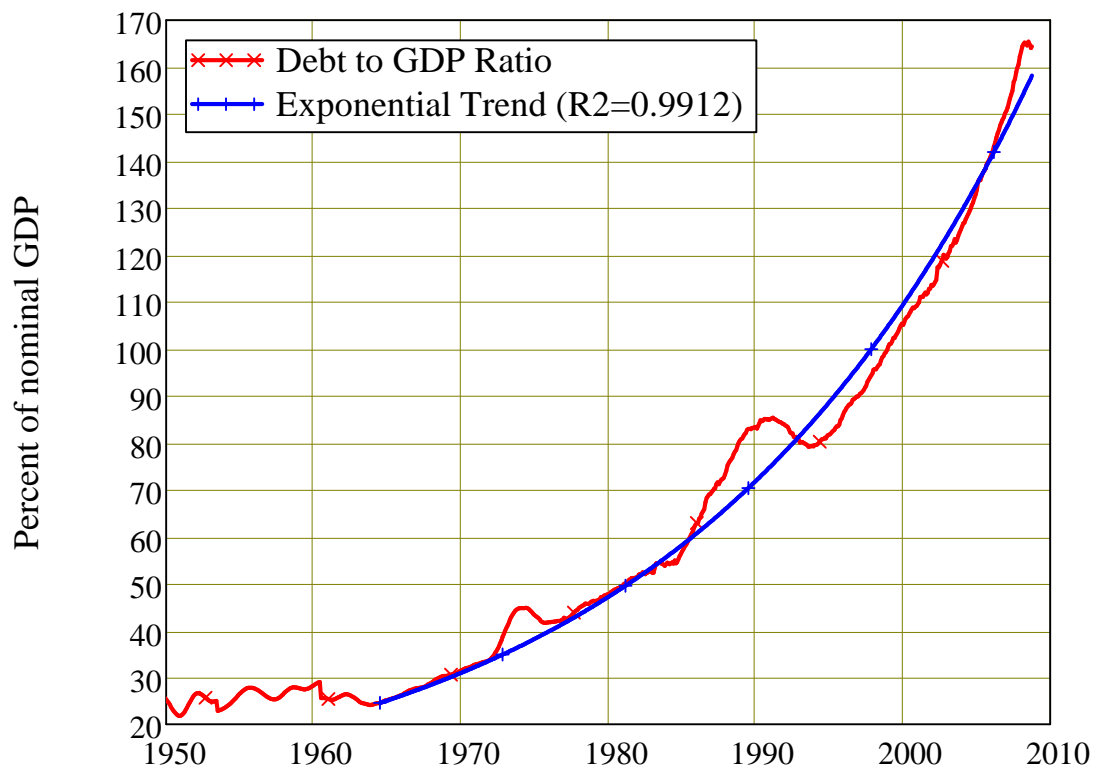
This belief in a tendency to equilibrium is built into the models of the economy that neoclassical economists construct--which is why these models gave no warning of the approaching crisis, and why economists were the last ones to realise that a crisis was actually happening. I'll discuss their models--and the Minskian alternative--in next month's Debtwatch.

### END OF COMMENTARY



### Chart One

#### The Debt Bubble



**Chart Two**

Long Term

**Debt to GDP: The Long Term View**

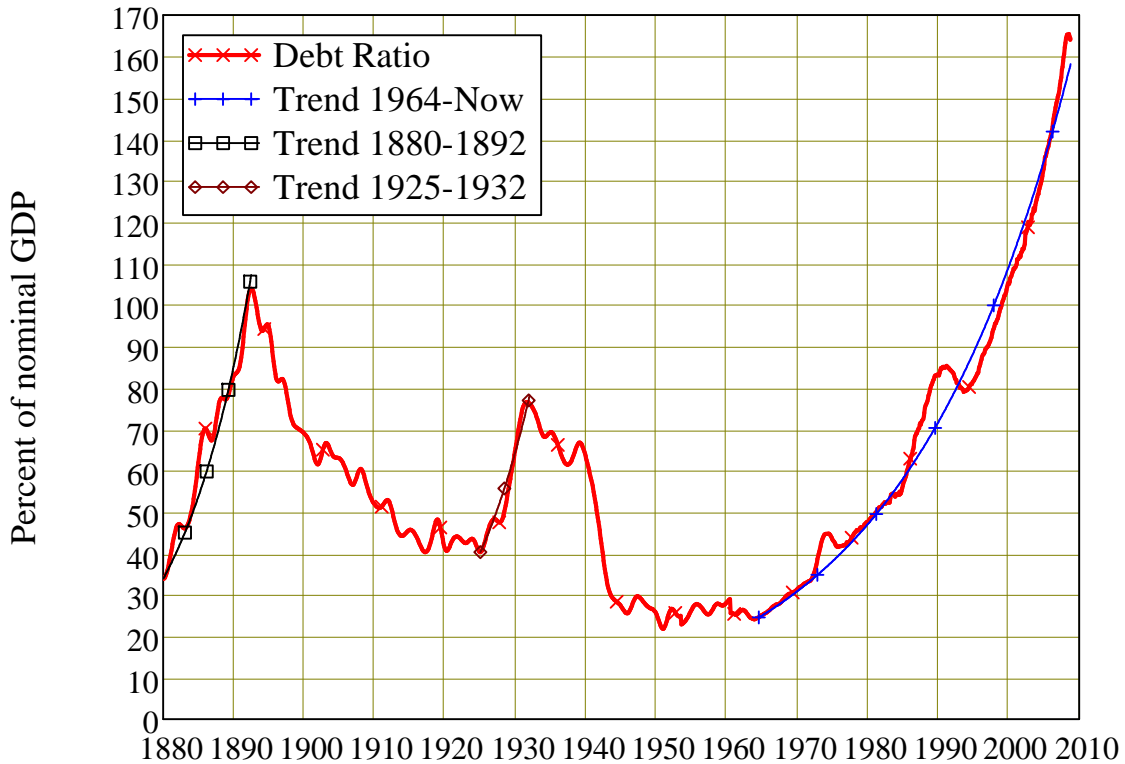


Table One: Aggregated Debt Summary

**Table One**

	0	1	2
0	"Summary"	"Total Private Debt"	"Nominal GDP"
1	"Date (levels)"	2008.75	2008.5
2	"Levels (\$m)"	1903272	1128551
3	"Change Month \$m"	19623	9546.08
4	"Change Month %"	1.04	0.85
5	"Change Year \$m"	203325	84447
6	"Change Year %"	11.96	8.09
7	"Since 1990"	8.88	5.49
8	"Since 1980"	12.01	7.88
9	"Since 1964"	13.46	9.35
10	"Date (% GDP)"	2008.75	"N/A"
11	"As % of GDP"	164.38	100
12	"Change Month"	0.2	"N/A"
13	"Change Year"	2.87	"N/A"

D<sub>1</sub> =

14	"Since 1990"	3.09	"N/A"
15	"Since 1980"	4.15	"N/A"
16	"Since 1964"	4.2	"N/A"

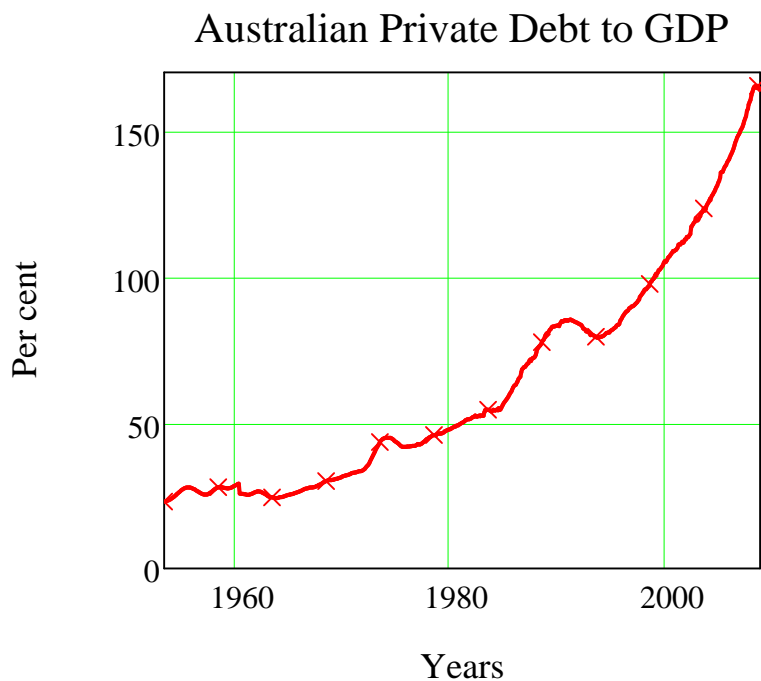
Table Two: Disaggregated Debt Summary

**Table Two**

	0	1	2	3
0	"Detail"	"Business"	"Mortgage"	"Personal"
1	"Levels (\$m)"	770141	982800	151030
2	"Change Mth \$m"	11790	9385	-1290
3	"Change Mth %"	1.55	0.96	-0.85
4	"Change Yr \$m"	112026	89681.96	2726
5	"Change Yr %"	17.02	10.04	1.84
$D_2 =$ 6	"Since 1990"	5.46	14.83	5.77
7	"Since 1980"	10.7	13.99	10.43
8	"Since 1976"	11.21	14.26	11.19
9	"As % of GDP"	66.33	84.64	13.01
10	"Change month"	0.58	-0.01	-1.8
11	"Change year"	7.22	0.83	-6.69
12	"Since 1990"	-0.47	9.3	-0.18
13	"Since 1980"	3.03	6.05	2.63
14	"Since 1976"	3.11	5.84	2.99

**Debt to Income Ratios**

▣ Debt to GDP (D02 &amp; G12)

**Figure 1**

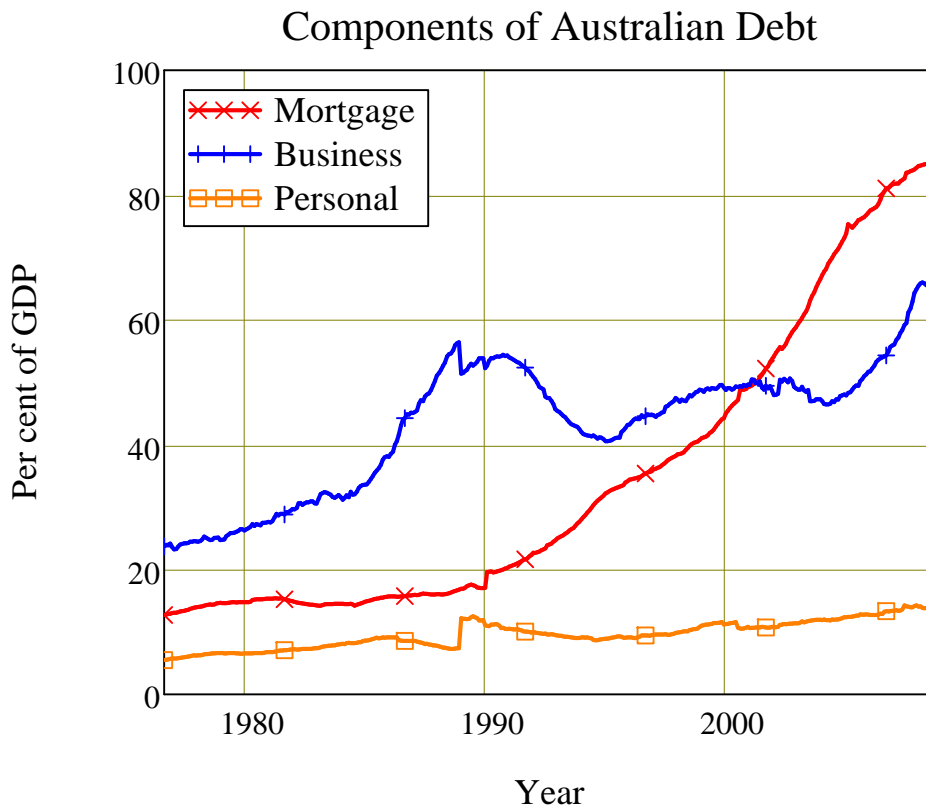
▢ Debt to GDP Regression

**Figure 2**



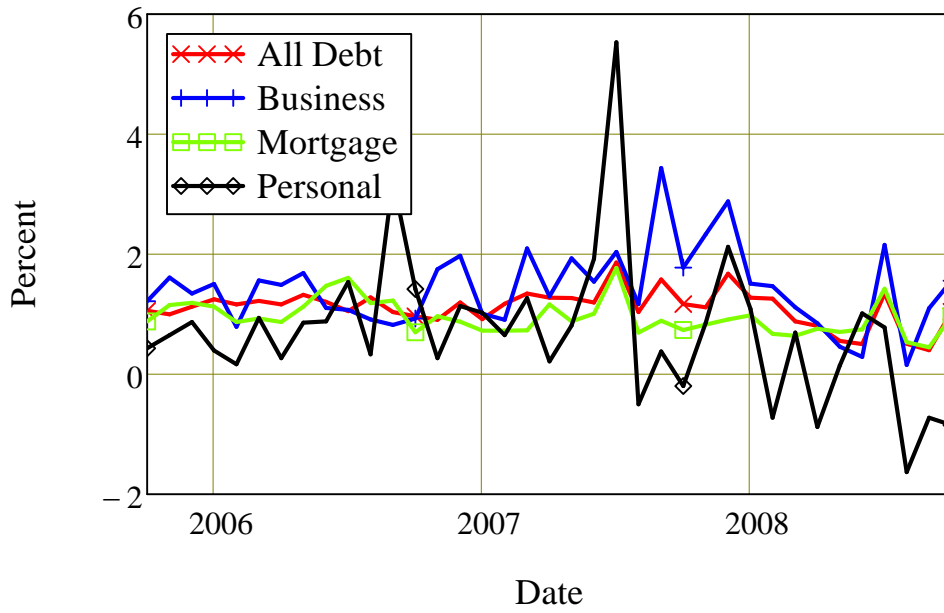
▢ Debt Components to GDP

**Figure 3**



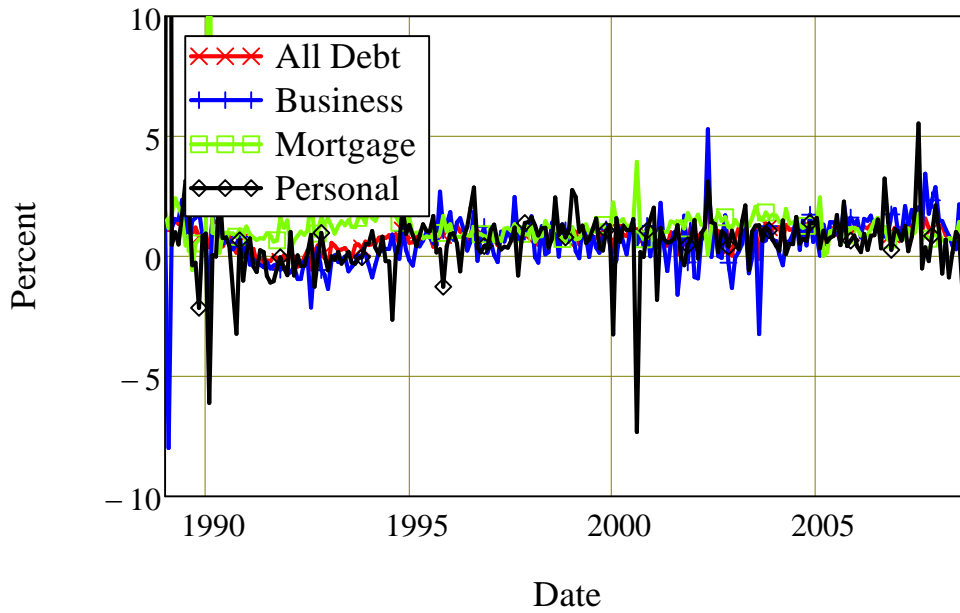
▢ Monthly Growth Rates

### Debt Monthly Growth Rates--Last 3 Years



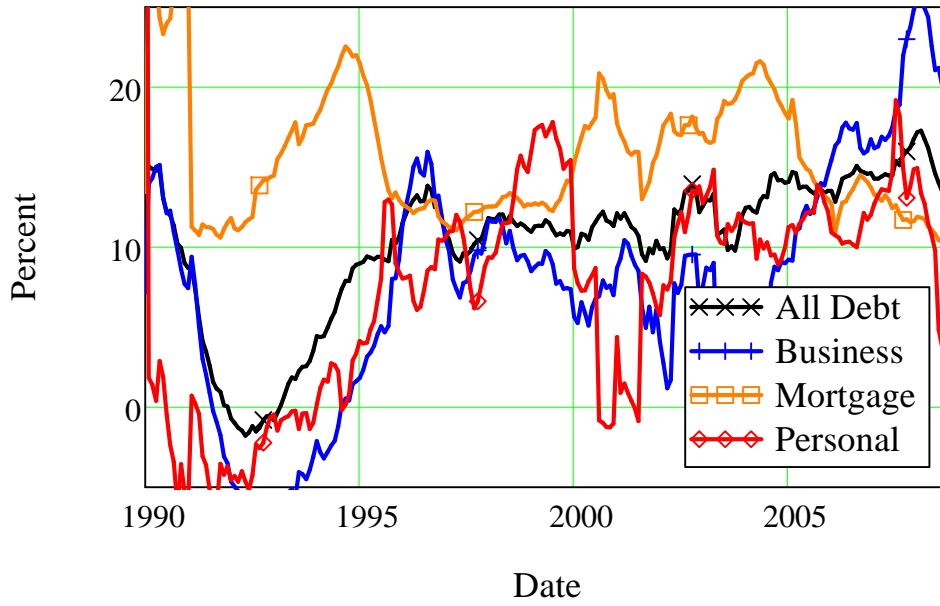
▶ Monthly Growth Rates

### Debt Monthly Growth Rates



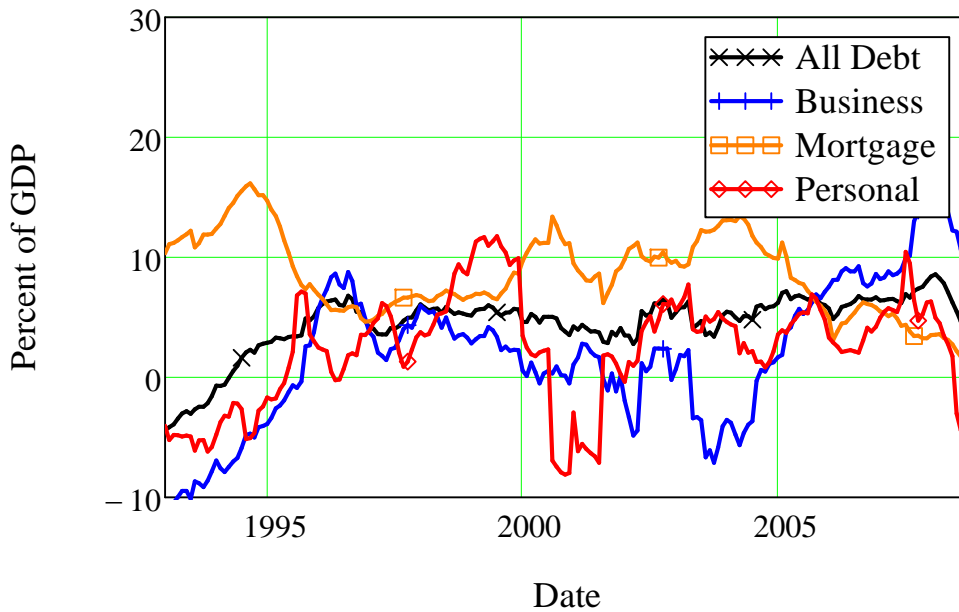
▶ Yearly Growth Rates

### Debt Yearly Growth Rates



### ▢ Ratios Yearly Growth Rates

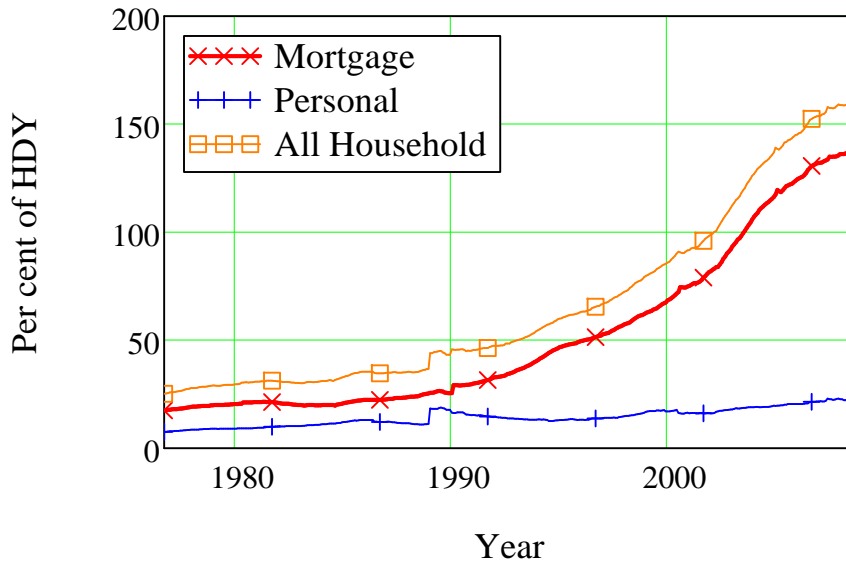
### Debt Ratios Yearly Growth Rates



### ▢ Debt to Household Disposable Income

**Figure 4**

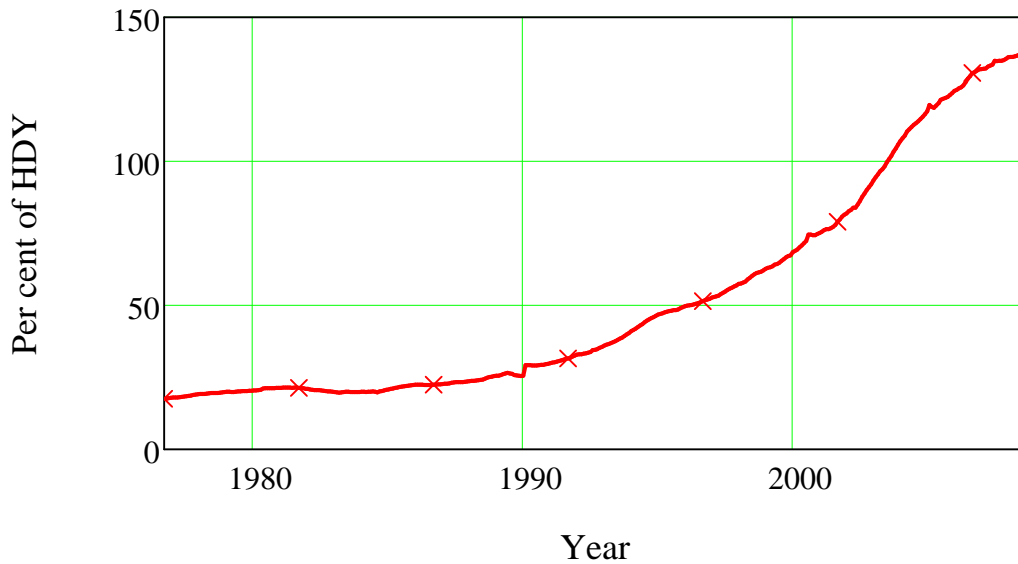
### Household Debt to Disposable Income



▢ Mortgage Debt to Household Disposable Income

**Figure 5**

### Mortgage Debt to Household Disposable Income



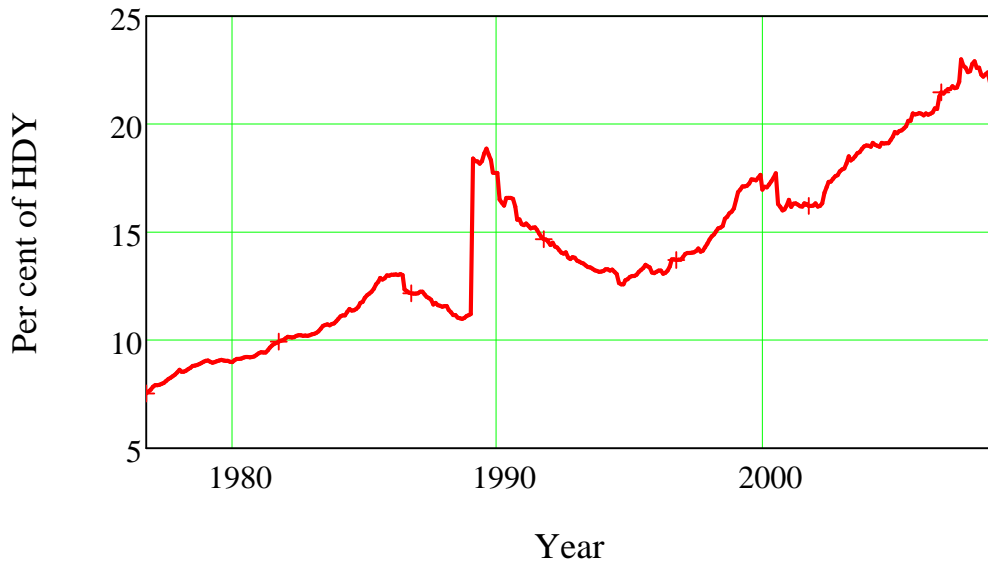
▢ Debt to Household Disposable Income

(the big jump in personal and fall in business debt in 1989 was due to a change in bank classifications of debt types that caused a proportion of business debt to be reclassified as personal).

**Figure 6**



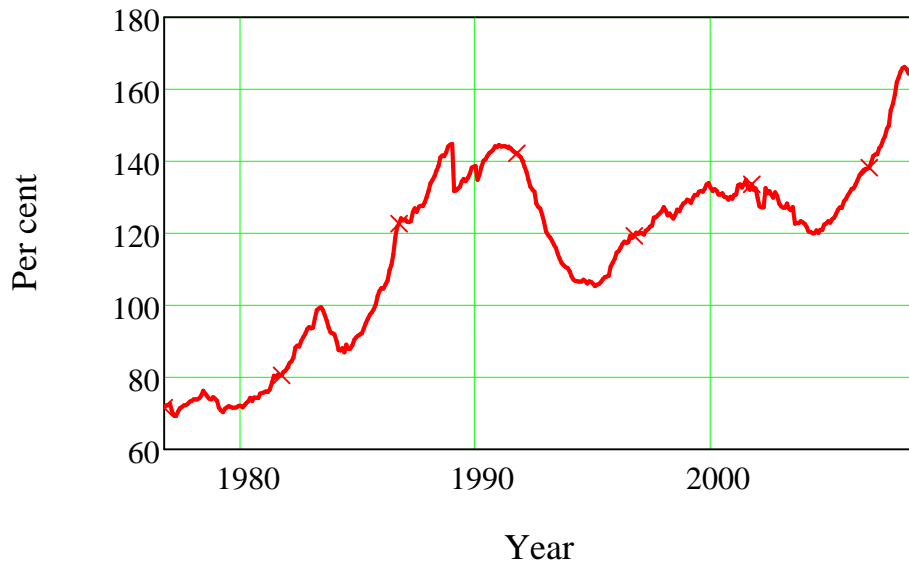
### Personal Debt to Household Disposable Income



▢ Business Debt to GOS

**Figure 7**

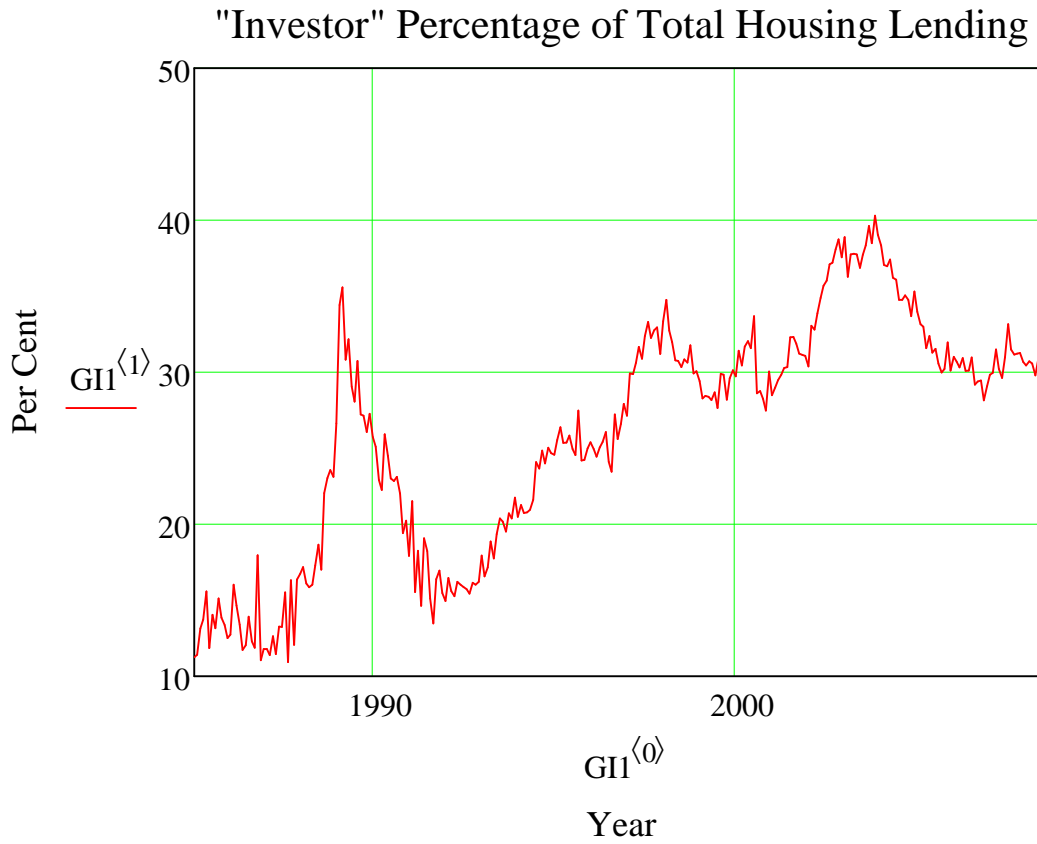
### Business Debt to Gross Operating Surplus



### Housing Finance Analysis

▢ Investment Percent Total Housing Lending

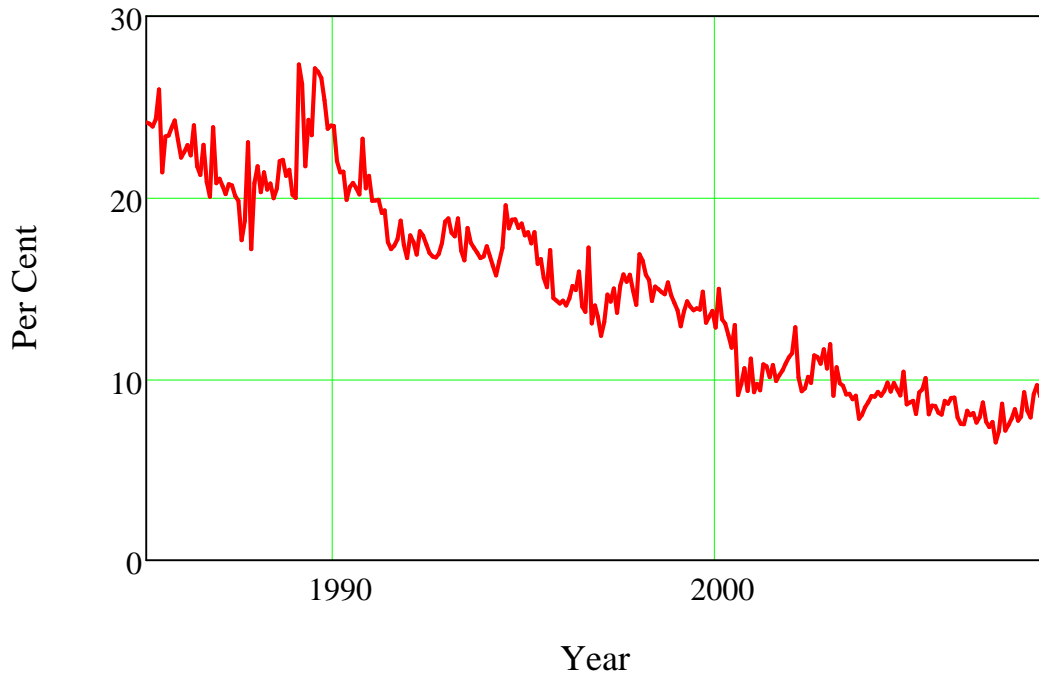
**Figure 8**



▣ Construction Percent Total Housing Lending

**Figure 9**

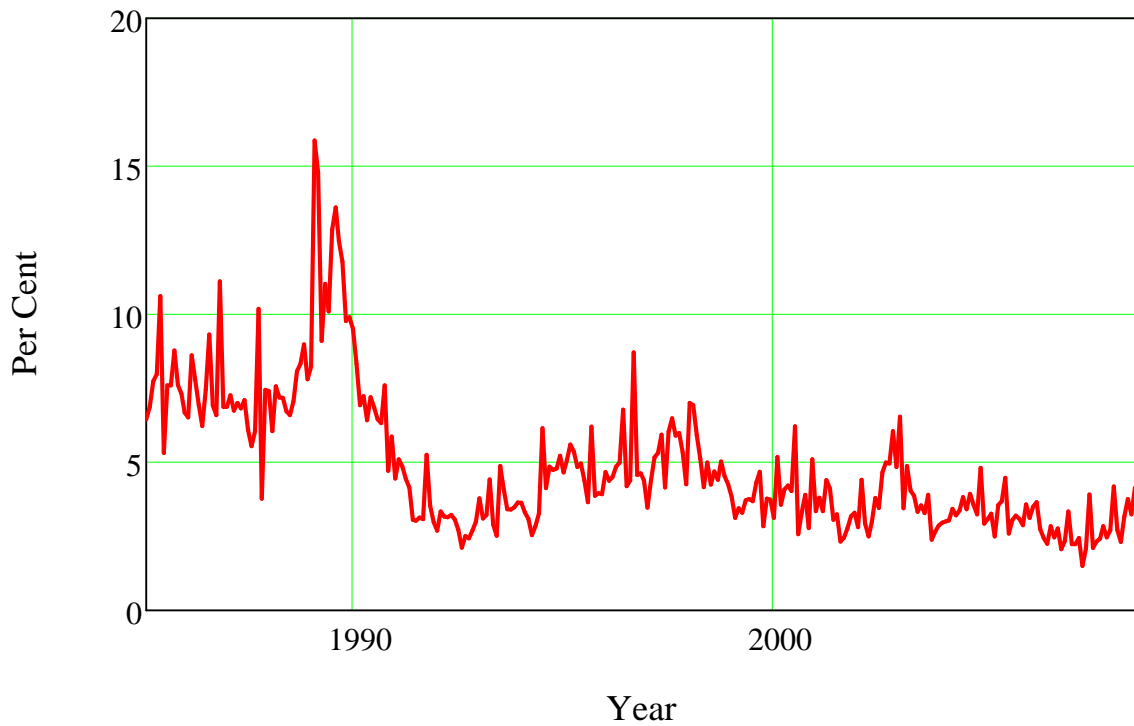
### Construction Percentage of Total Housing Lending



▢ Investment Construction Percent Total Housing Lending

**Figure 10**

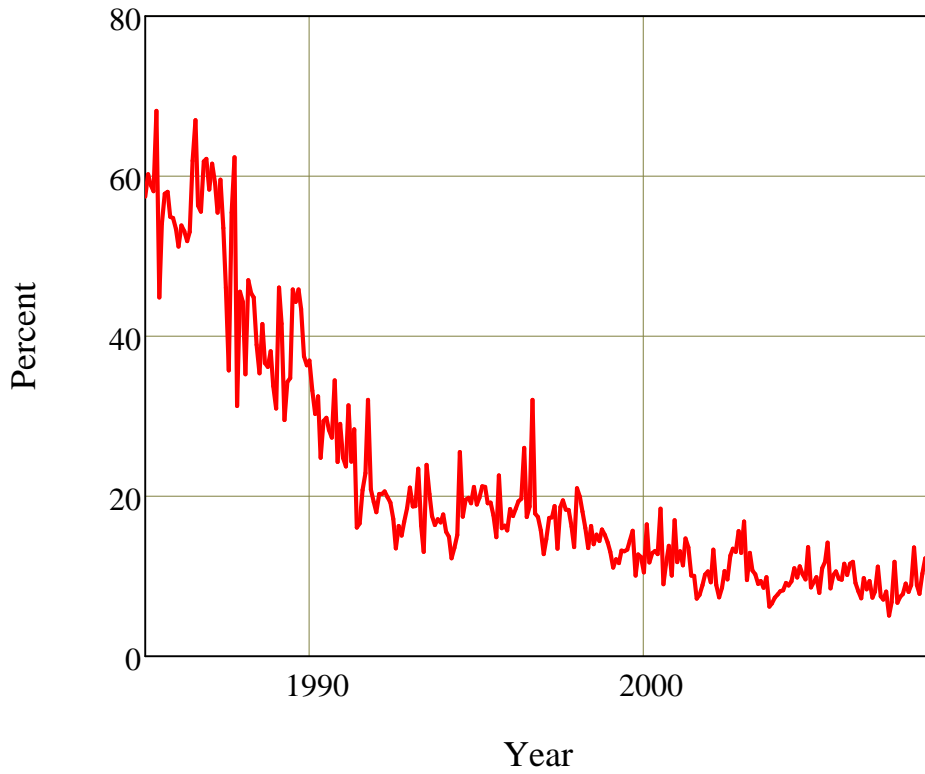
### Investor Construction Percent of Total Housing Lending



▢ Construction Percent of Investor Lending

**Figure 11**

### Construction Percent of Investor Lending



### Total Rents versus Mortgage Interest Payments

