

## Steve Keen's DebtWatch No 11 September 2007

### *Why didn't they see it coming?*

I expect--and hope--that the tenor of discussion at this month's RBA Board meeting will be very different to last month's. In August, I imagine, the community members of the Board listened sagely as the RBA's economists explained why the risk of future inflation had risen, why this justified a "pre-emptive strike" of raising interest rates, and then reluctantly agreed to the rise.

I hope that this month's discussion is more along the lines of "if you guys are the money experts, how come you didn't see it coming?"--it, of course, being the unfolding collapse of the US housing market, and the resulting extreme turmoil on financial markets.

That turmoil had begun before last month's meeting. No doubt, Board fears about its potential impact on Australia were assuaged:

- by reference to FRB Chairman Bernanke's assurances that losses in the US subprime mortgage market would be in the relatively trivial range of "in the order of between \$50 billion and \$100 billion" (Reuters: see <http://www.reuters.com/article/ousiv/idUSN1933365020070719>);
- by the assurance that the exposure of Australia's financial institutions to US subprime loans was limited; and
- by the observation that lending practices in Australia were far superior to those in the USA--with subprime lending accounting for 13 percent of US loans versus 1 percent for the equivalent Australian classification of non-conforming loans.

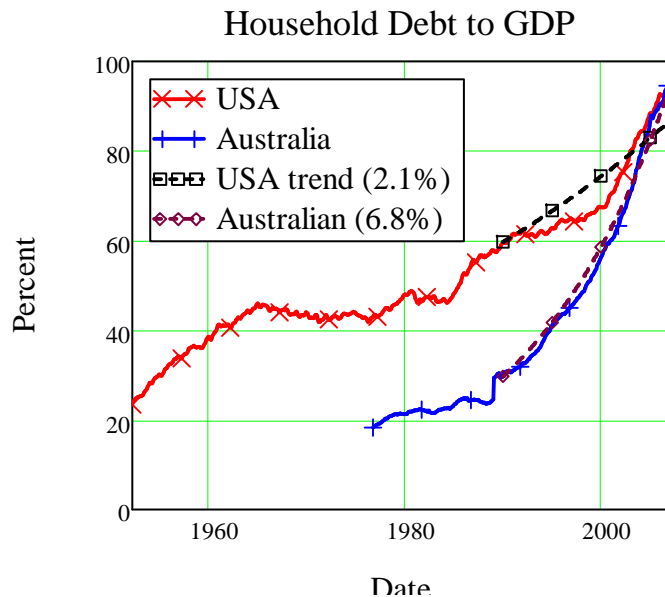
That is all *so last month* now.

- Bernanke observed last week that "global financial losses have far exceeded even the most pessimistic projections of credit losses on those loans" (see <http://www.federalreserve.gov/boarddocs/speeches/2007/20070831/default.htm>).
- Several Australian financial institutions and funds have folded, and quite a few more are facing the need to increase their rates above the 0.25% increase mandated by the rise in the cash rate; and
- If Australian lending practices are so much more prudent than those in the USA, how come household debt has risen more than three times faster in Australia than in the USA? (see Chart 1) And why can Australian households cope with an aggregate level of debt service that, clearly, American households can't handle? (see Chart 2; but also see my closing note below)

▶ USA-Australia Household Debt Comparison

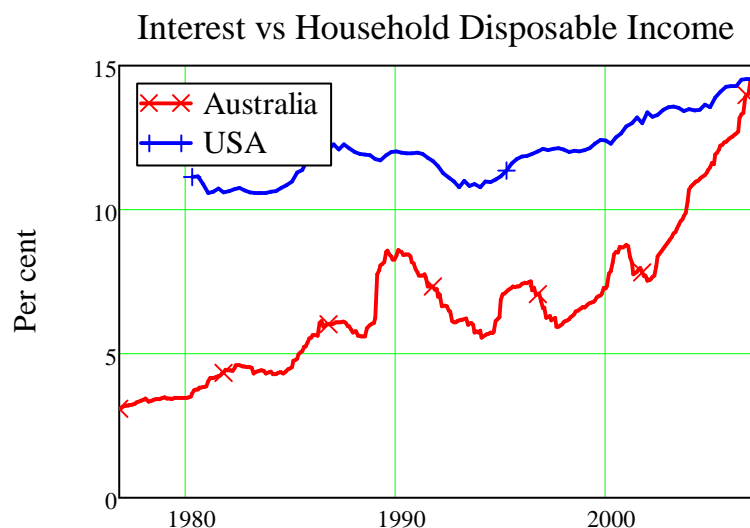
### **Chart 1: Household Debt vs GDP, USA and Australia**

*Charts and text in this report can be used freely so long as attribution is given to either Steve Keen or Debtwatch*



Interest payments USA-Australia

## Chart 2: Interest Payments vs Household Income, USA and Australia



One explanation that I don't expect the RBA's economists will give the Board is possibly the most important: its economic models consider neither credit conditions, nor debt, nor even money itself. As a result, its technical advisors don't even pay attention to the key variables that brought us the subprime crisis in the first place.

In this, they are no different to the vast majority of economists, who share, as Federal Reserve Governor Bernanke and Board member Mishkin once put it:

*"the widespread acceptance of the view that there is no long-run tradeoff between output (or unemployment) and inflation, so that monetary policy affects only prices in the long run"*

*(Bernanke and Mishkin, 1997, "Inflation Targeting: A New Framework for Monetary Policy?", Journal of Economic Perspectives 11, pp. 97-116)*

As a consequence, most economists omit money, credit, debt and the like from their economic models--because they don't believe that they have any impact on the economy (apart from causing inflation).

As the subprime financial crisis spreads, I expect that Bernanke and Mishkin will look back on this statement as so much naive wishful thinking. Hopefully, the RBA's economists will do likewise. In

the meantime, they--and the RBA Board, having agreed to a rate rise at the last meeting--must now be wondering how long it will be before this "unanticipated monetary shock" forces them to consider lowering rates to avoid an even more serious economic downturn.

**... And Deeper in Debt: Australia's obsession with borrowed money**

The *Centre for Policy Development* ([www.cpd.org.au](http://www.cpd.org.au)) will be launching mini-book by me with the above title on September 18, at the Sydney Mechanics School of Arts (280 Pitt Street) at 12pm. Please email the Centre ([contact@cpd.org.au](mailto:contact@cpd.org.au)) if you would like to attend, and/or reserve a copy of the report. Go to [www.cpd.org.au/events/...and-deeper-debt](http://www.cpd.org.au/events/...and-deeper-debt) for more details.

**Abbreviated Report**

This is an abbreviated Debtwatch, since I'm putting most of my energy into **... And Deeper in Debt**. My standard charts are appended below, but the majority of my analysis for this month will be reserved for that book.

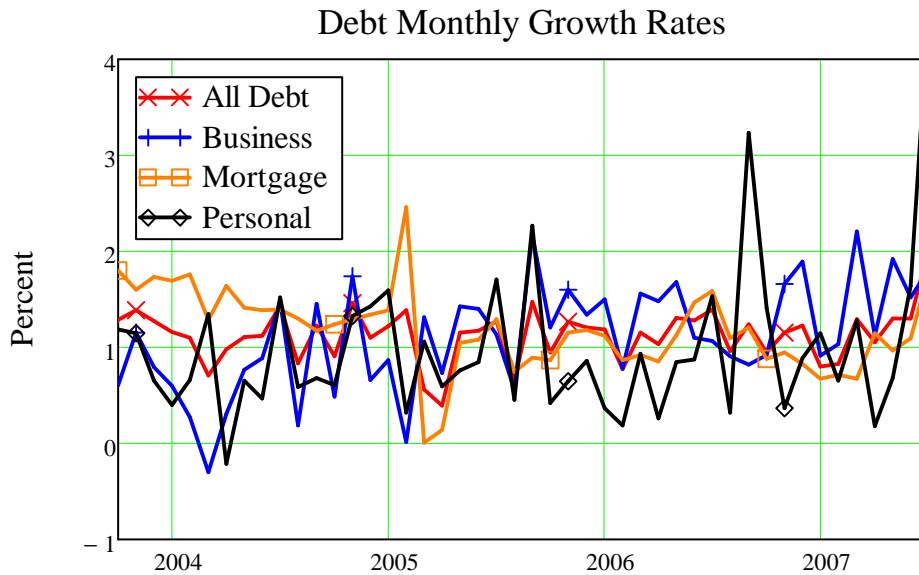
**Closing Note**

While I play down the differences between Australia and the USA above, there are some aspects of the US market that do make it substantially worse than here--notably the practice of extending "teaser" loans to borrowers with initially low interest rates, where the gap between the initial and standard interest payments is added on to the principal. The "honeymoon" period on many of those loans expire in the next few months, and households who took them out will face the double whammy of increased debt and higher repayments.

But Australian households are still under substantial debt-stress, and the recent blowout in personal debt may indicate that it is really starting to bite hard. Last month's growth rate in personal debt was astronomical (see Chart 3), and it may be a sign that households are resorting to easily available credit-card debt to meet living expenses and still be able to pay the mortgage.

▶ Monthly Growth Rates

**Chart 3: Interest Payments vs Household Income, USA and Australia**



**Aggregate Data and Trend Growth Rates**

Debt yet again rose faster than GDP last month, with the ratio increasing a huge 2 per cent last month to 156.19 per cent (see Table One). In a worrying trend, given recent press reports about increases in bankruptcies, the increase in personal debt outpaced both mortgage and business debt by even more than it did the month before (see Table Two).

Table One: Aggregated Debt Summary

**Table One**

	0	1	2
--	---	---	---

0	"Summary"	"Total Private Debt"	"Nominal GDP"
1	"Date (levels)"	2007.5	2007.25
2	"Levels (\$m)"	1636160	1024656
3	"Change Month \$m"	32608	7657.9
4	"Change Month %"	2.03	0.75
5	"Change Year \$m"	215385	73813
6	"Change Year %"	15.16	7.76
7	"Since 1990"	8.53	5.38
8	"Since 1980"	11.97	7.94
9	"Since 1964"	13.48	9.44
10	"Date (% GDP)"	2007.5	"N/A"
11	"As % of GDP"	156.19	100
12	"Change Month"	1.31	"N/A"
13	"Change Year"	6.33	"N/A"
14	"Since 1990"	2.88	"N/A"
15	"Since 1980"	4.09	"N/A"
16	"Since 1964"	4.16	"N/A"

Table Two: Disaggregated Debt Summary

**Table Two**

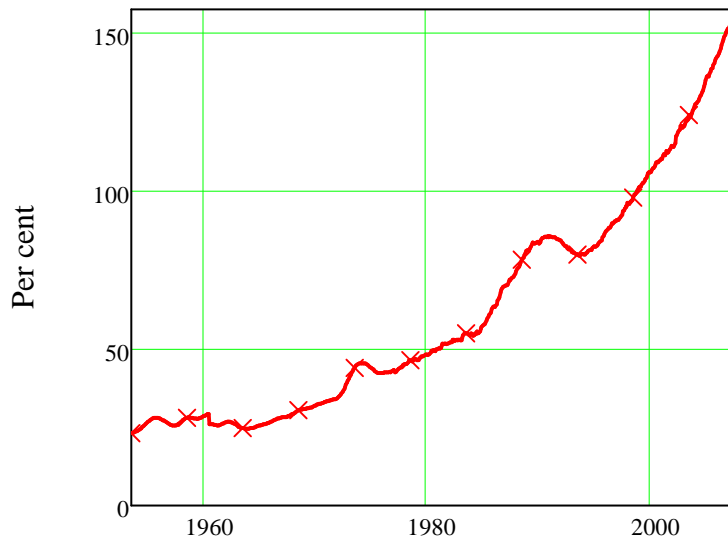
	0	1	2	3
0	"Detail"	"Business"	"Mortgage"	"Personal"
1	"Levels (\$m)"	615544	873819	146795
2	"Change Mth \$m"	10979	15273	6354
3	"Change Mth %"	1.82	1.78	4.52
4	"Change Yr \$m"	94524	98899	21961
5	"Change Yr %"	18.14	12.76	17.59
6	"Since 1990"	4.84	14.72	5.38
7	"Since 1980"	10.61	14.03	10.44
8	"Since 1976"	11.15	14.31	11.23
9	"As % of GDP"	58.66	83.27	13.99
10	"Change month"	1.01	0.97	3.7
11	"Change year"	8.89	3.93	8.39
12	"Since 1990"	-0.85	9.25	-0.44
13	"Since 1980"	3.01	6.01	2.62
14	"Since 1976"	3.07	5.77	2.98

**Debt to Income Ratios**

▣ Debt to GDP (D02 & G12)

**Figure 1**

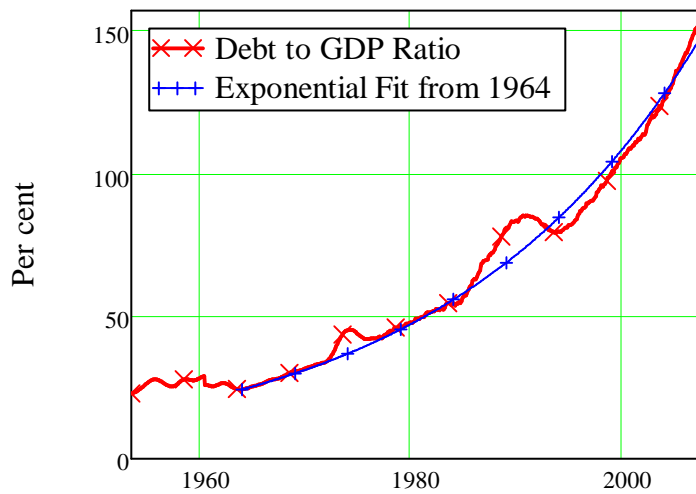
### Australian Private Debt to GDP



▾ Debt to GDP Regression

**Figure 2**

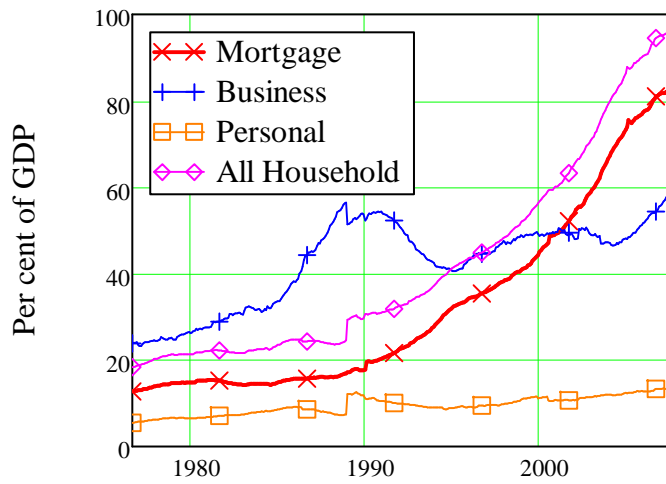
### Australian Private Debt to GDP



▾ Debt Components to GDP

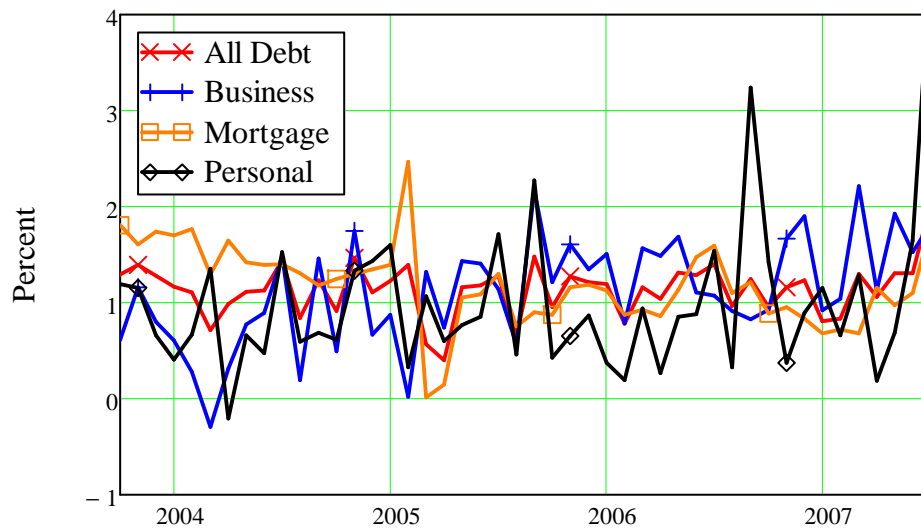
**Figure 3**

### Components of Australian Debt



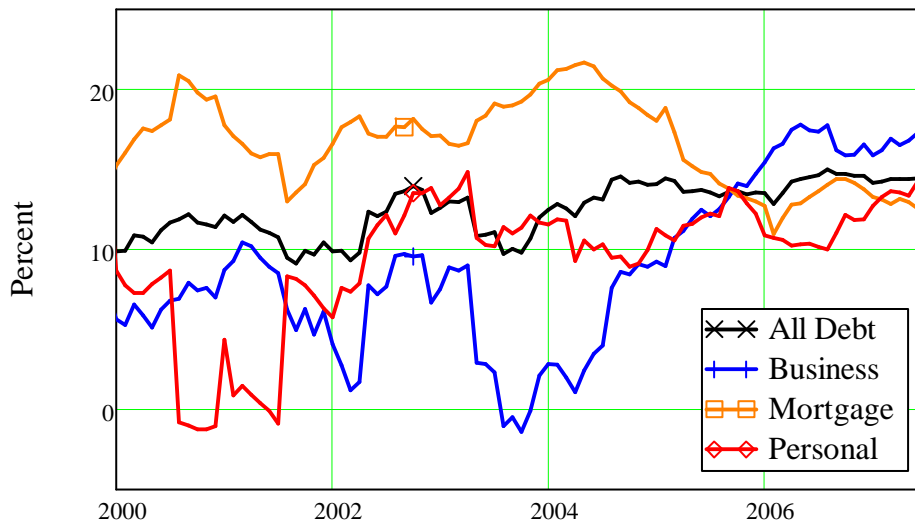
▶ Monthly Growth Rates

### Debt Monthly Growth Rates



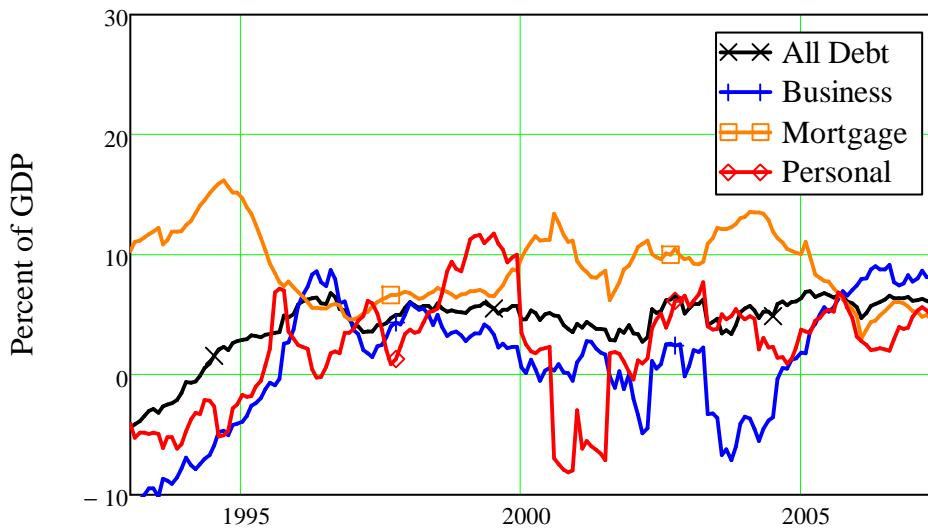
▶ Yearly Growth Rates

### Debt Yearly Growth Rates



▢ Ratios Yearly Growth Rates

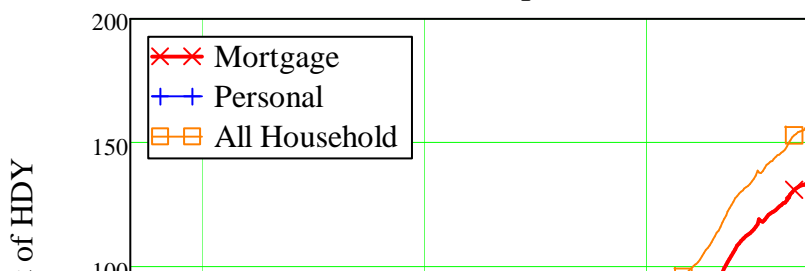
### Debt Ratios Yearly Growth Rates

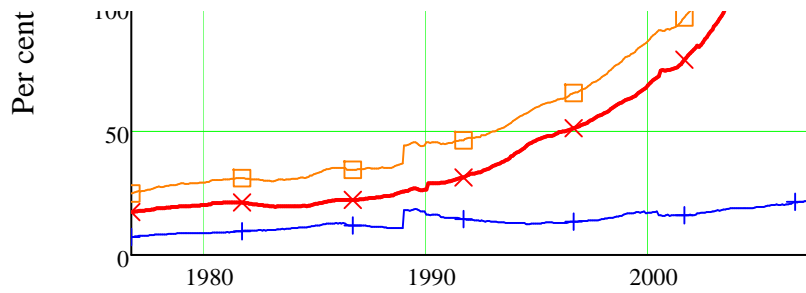


▢ Debt to Household Disposable Income

**Figure 4**

### Household Debt to Disposable Income

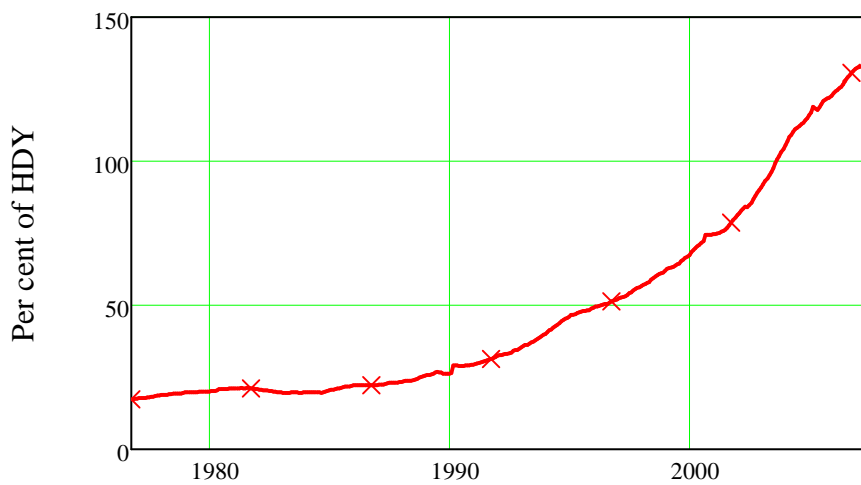




▢ Mortgage Debt to Household Disposable Income

**Figure 5**

**Mortgage Debt to Household Disposable Income**



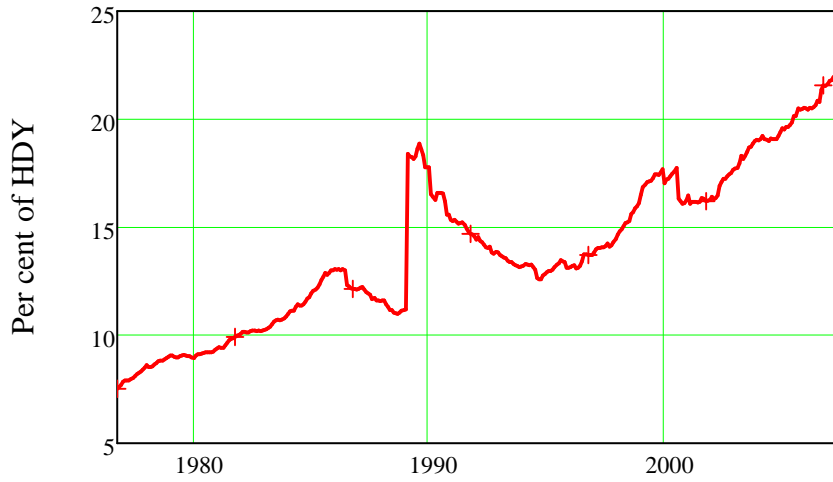
▢ Debt to Household Disposable Income

(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**

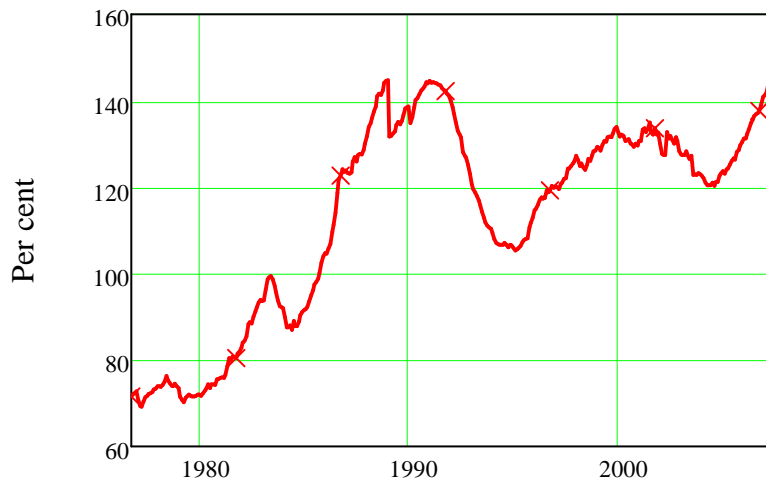
**Personal Debt to Household Disposable Income**



▢ Business Debt to GOS

**Figure 7**

**Business Debt to Gross Operating Surplus**

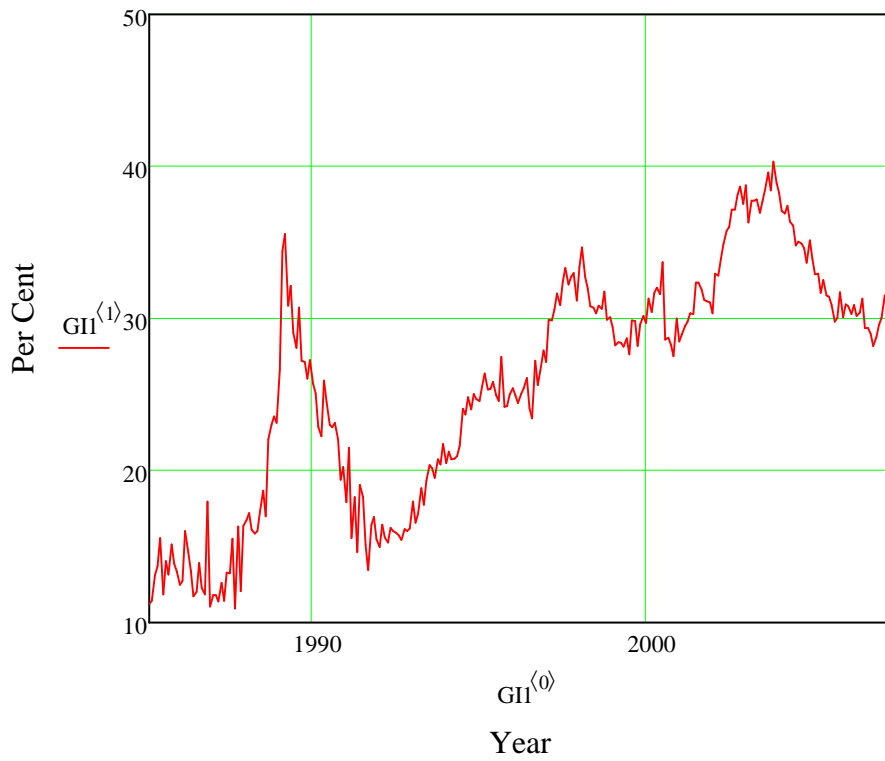


**Housing Finance Analysis**

▢ Investment Percent Total Housing Lending

**Figure 8**

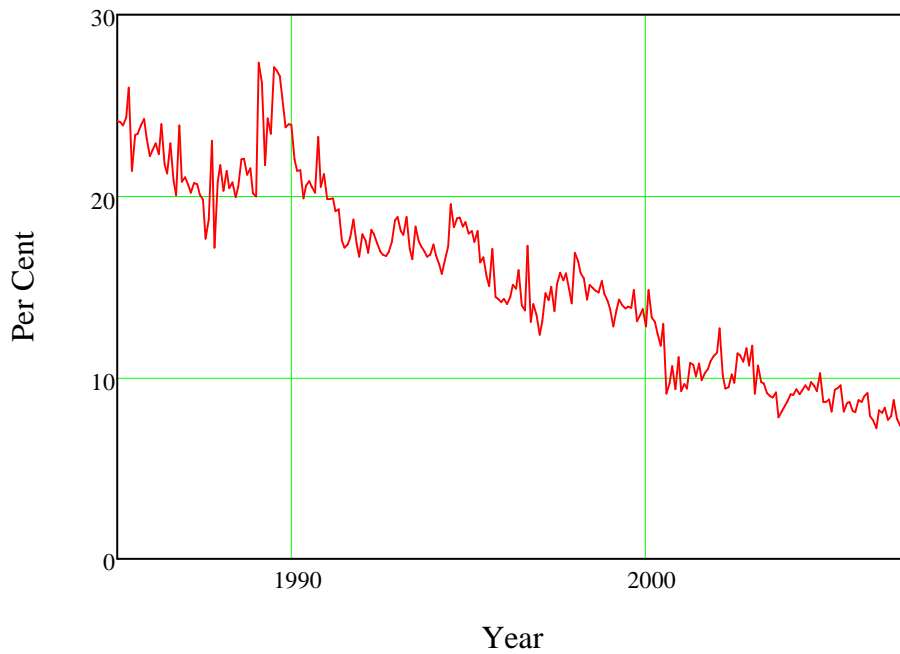
"Investor" Percentage of Total Housing Lending



▣ Construction Percent Total Housing Lending

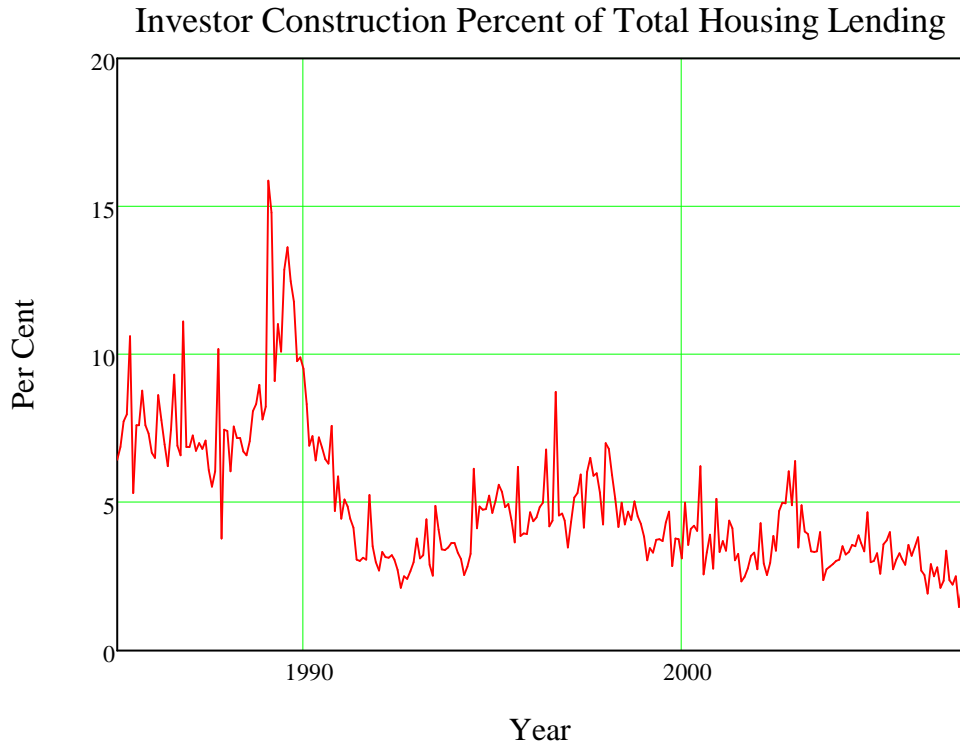
**Figure 9**

Construction Percentage of Total Housing Lending



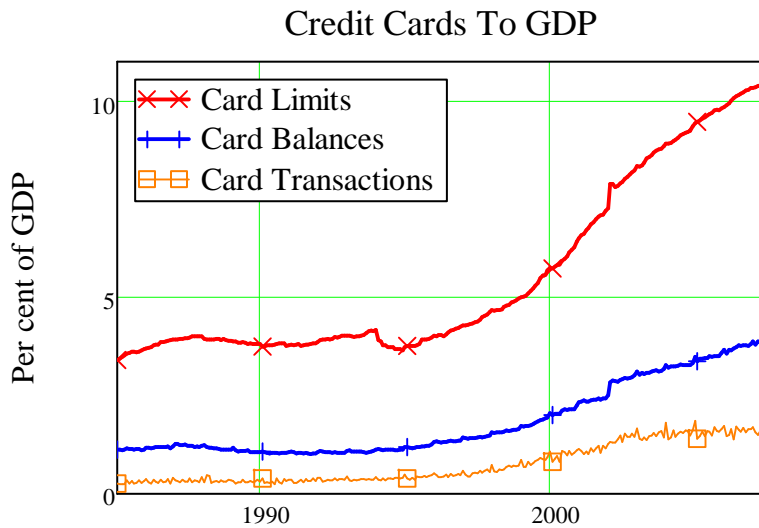
▣ Investment Construction Percent Total Housing Lending

**Figure 10**



**Personal Finance Analysis**  
**Figure 11**

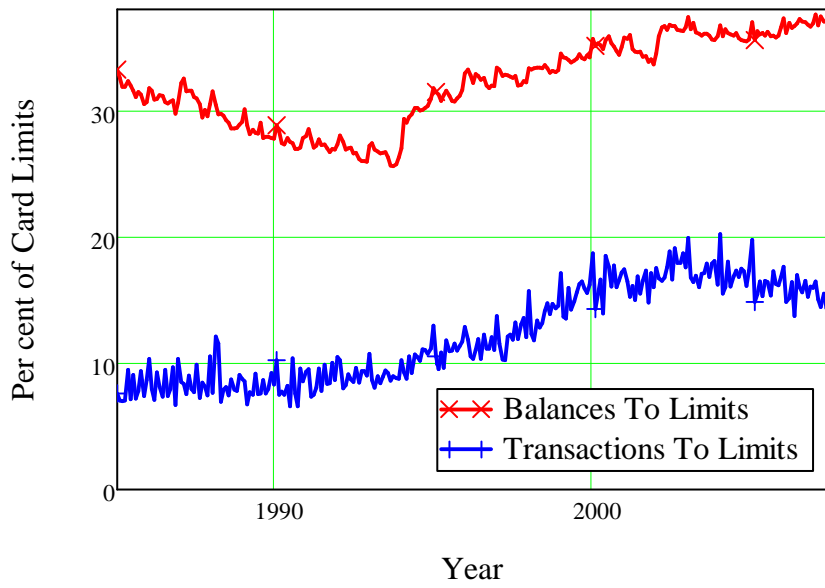
▶ Credit Card Data



**Figure 12**

▶ Credit Card Data

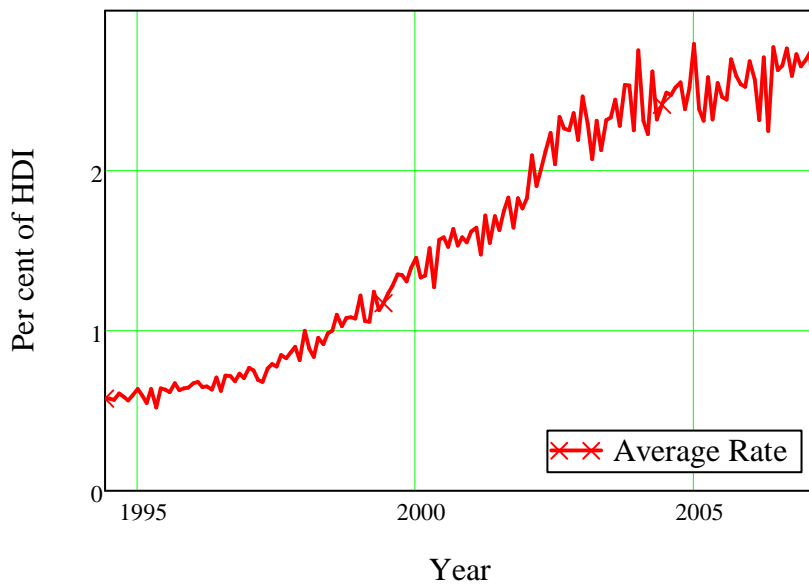
### Credit Cards Usage



**Figure 13**

▢ Credit Card Repayments

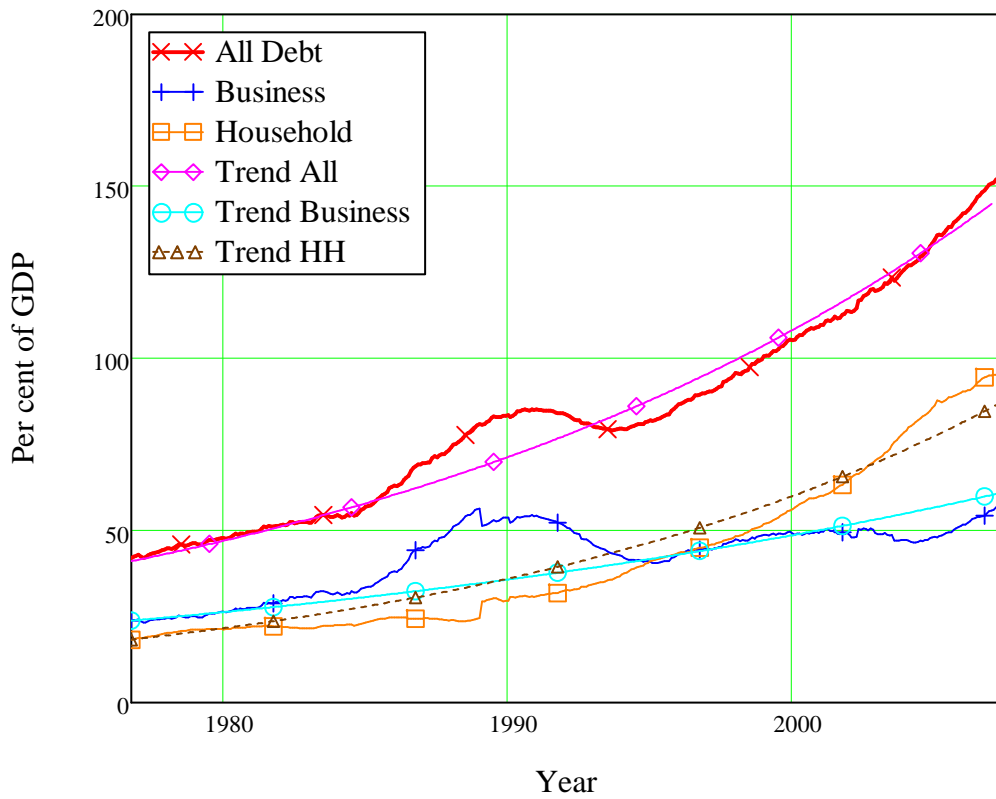
### Credit Card Repayments



▢ Debt components to Income

**Figure 14**

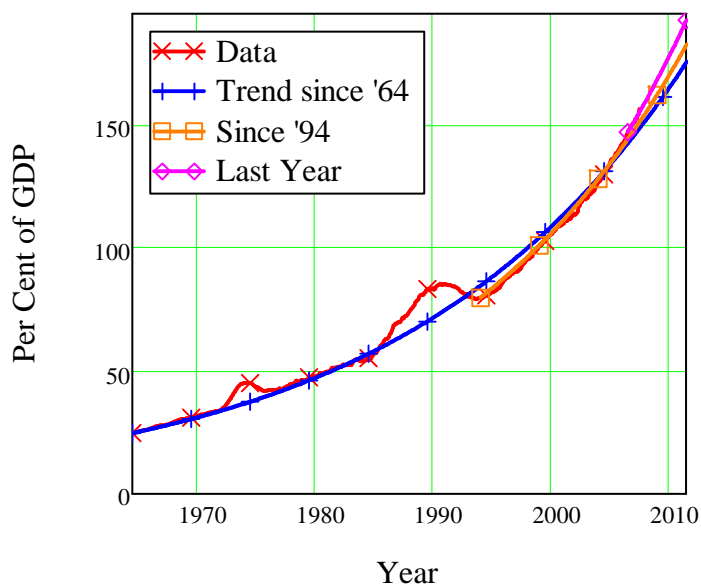
### Trends in Private Debt



▢ Debt to GDP Trends

**Figure 15**

### Debt to GDP Ratio and Trends



▶ Debt to GDP Exponential Growth Correlation Ratio:

These tables show the approximate exponential rate of growth of debt from various starting dates, and the correlation coefficient between this exponential approximation and the data. The correlation is staggeringly high, especially for a data series which, from an equilibrium point of view, should have no trend, or at worst should move in the opposite direction to changes in the official rate of interest--thus keeping the debt repayment burden constant.

**Table Three: Exponential Growth Rates & Correlations since 1964 & 1977**

	0	1	2	3	4	5
Corr77 =	"Debt ratios"	"All"	"All"	"Business"	"Household"	"Mortgage"
	"Start Date"	"mid-1964"	1977	1977	1977	1977
	Growth rate"	4.17	4.05	3.09	5.07	5.77
	"Correlation"	99.11	98.43	73.46	98.11	98.08

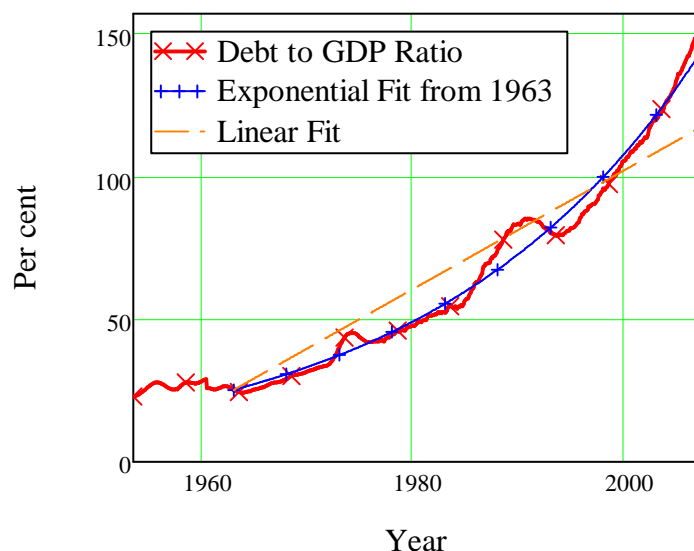
**Table Four: Exponential Growth Rates & Correlations since 1990**

	0	1	2	3	4
Corr90 =	"Debt ratios"	"All"	"Business"	"Household"	"Mortgage"
	"Start Date"	1990	1990	1990	1990
	"Growth rate"	2.8	-0.97	6.81	9.32
	"Correlation"	96.46	-17.31	99.67	99.76

▶ Debt to GDP Linear vs Exponential Regressions

**Figure 16**

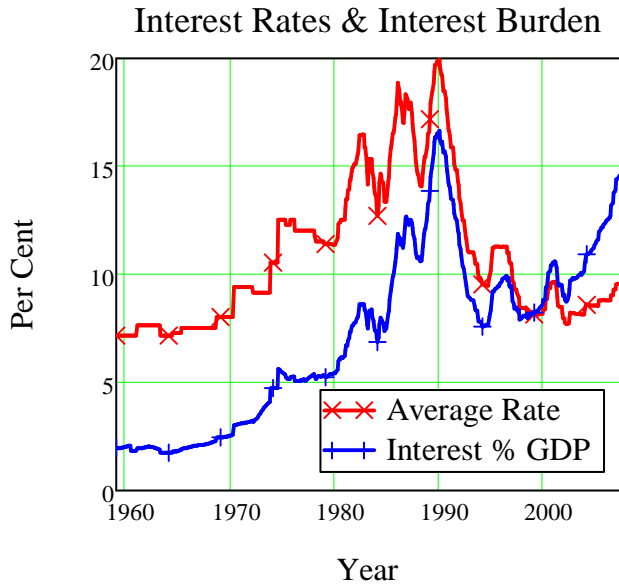
**Australian Private Debt to GDP**



**Debt Servicing Burden**

▶ Interest Rates & Payments

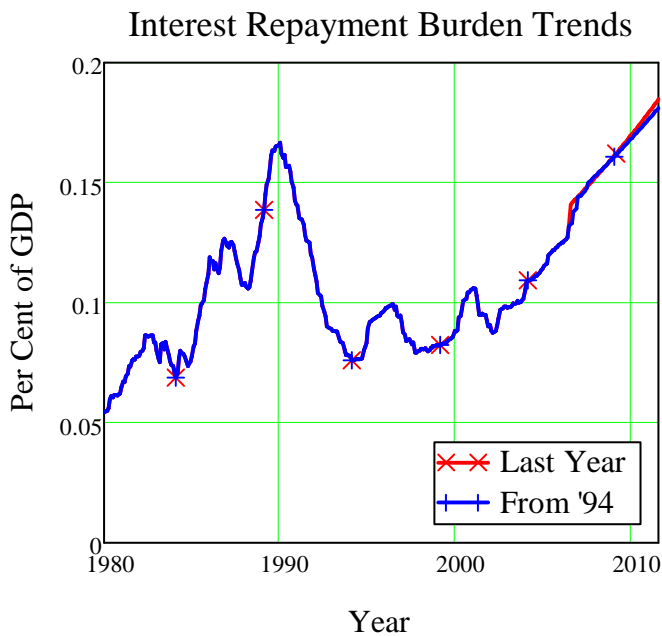
**Figure 17**



▢ Interest Payment Trends

If trends in debt growth continue, then even without any increases in official interest rates, the interest repayment burden on the economy will exceed that of 1990 sometime between September 2001 and September 2009.

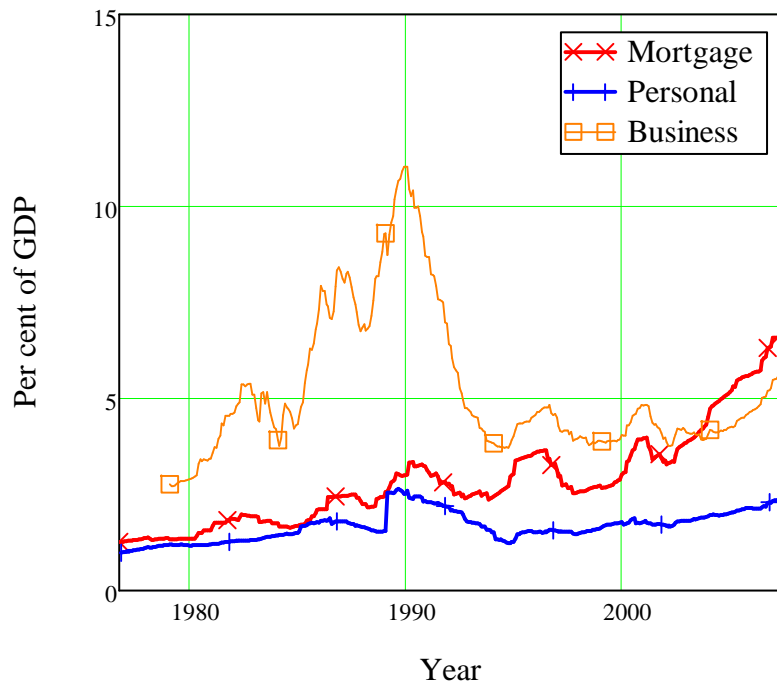
**Figure 18**



▢ Debt Servicing by Loan Type

**Figure 19**

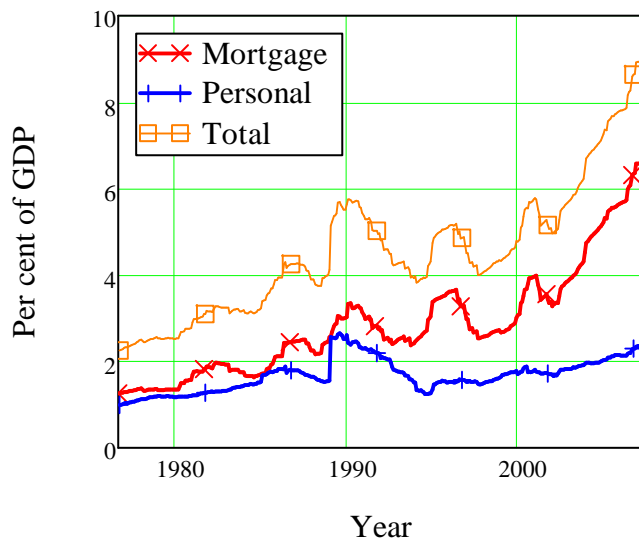
### Debt Servicing Burden



▢ Household Debt Servicing

**Figure 20**

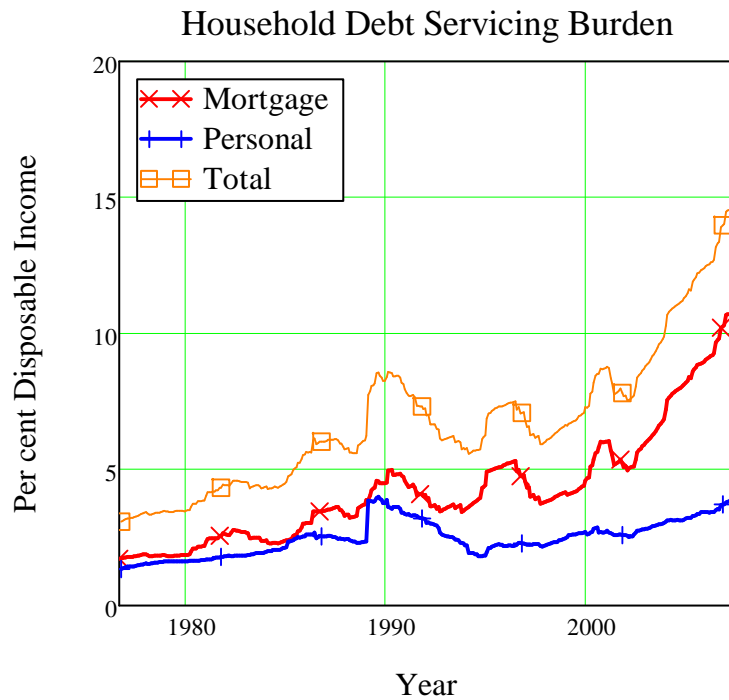
### Household Debt Servicing Burden



▢

**Figure 21**

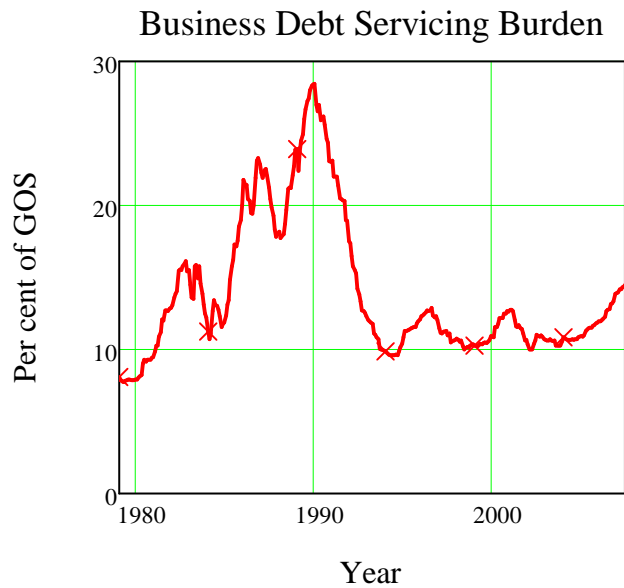




It's obvious why high interest rates prior to 1990 brought the economy to a standstill when one sees the following graph: the interest servicing charge on business loans peaked at almost 30 per cent of Gross Operating Surplus. Even though business debt has recently started to rise as a proportion of GDP, the debt servicing burden remains in the range that applied in the early 1980s.

**Figure 22**



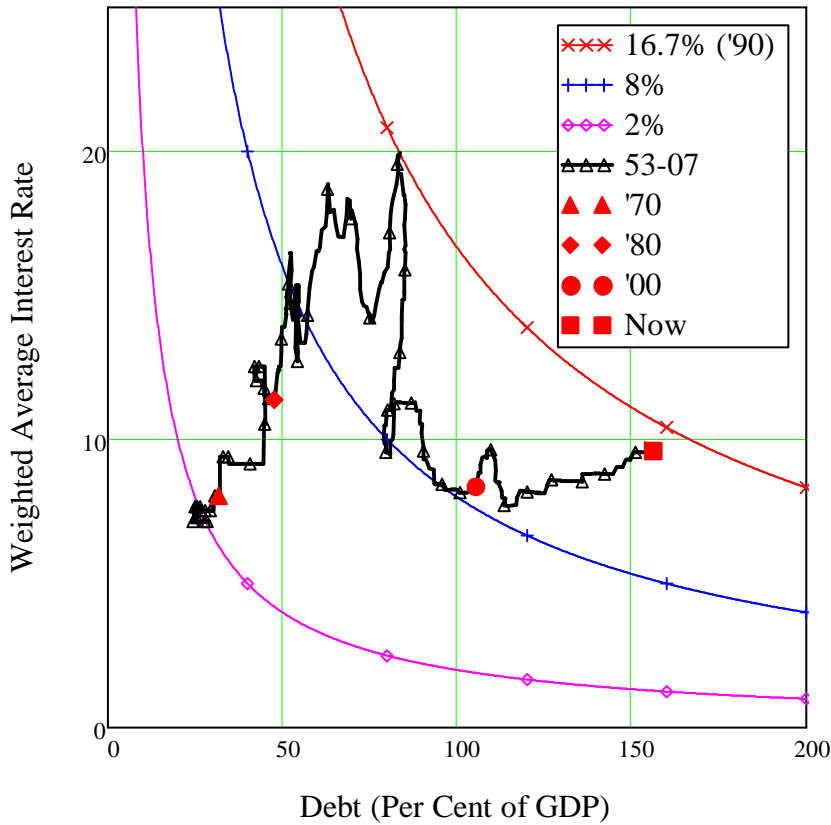


The debt repayment burden is affected by both the rate of interest, and the level of debt. This chart shows the percentage of GDP that is required to pay the interest on outstanding debt, as a function of average interest rates (the vertical axis) and the debt to GDP ratio (horizontal axis). We are approaching the pain threshold that applied back in 1990, when debt servicing consumed 16.7% of GDP. The dramatic rise in household debt in the last thirteen years has almost negated the impact of falling average interest rates.



**Figure 23**

### Interest Payment Burden

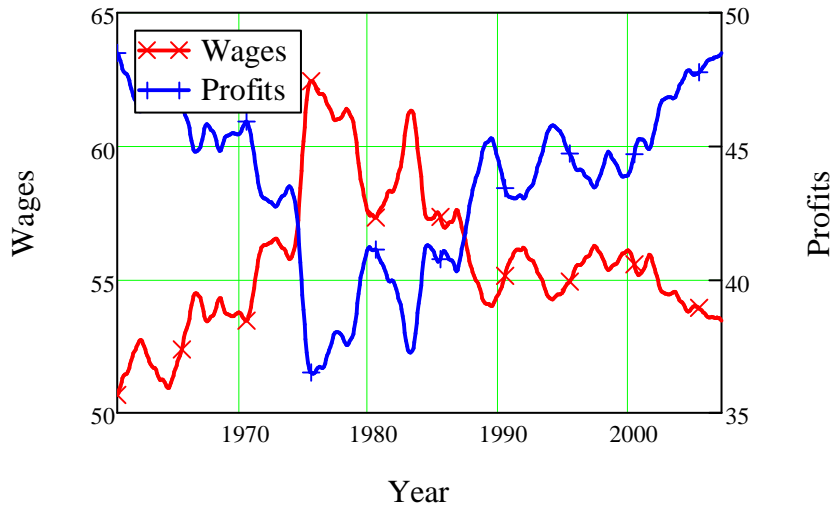


### Income Shares



Figure 24

### Income Shares (% GDP at Factor Cost)

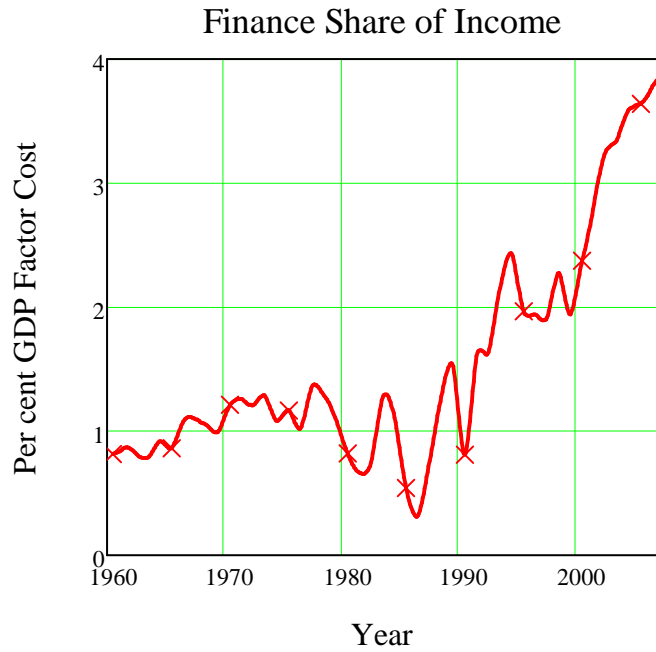


In the "it's an ill wind that blows no good" category falls the impact of rising debt levels on the share of income going to finance capital. Having shown no trend at all between 1960 and 1990, it has

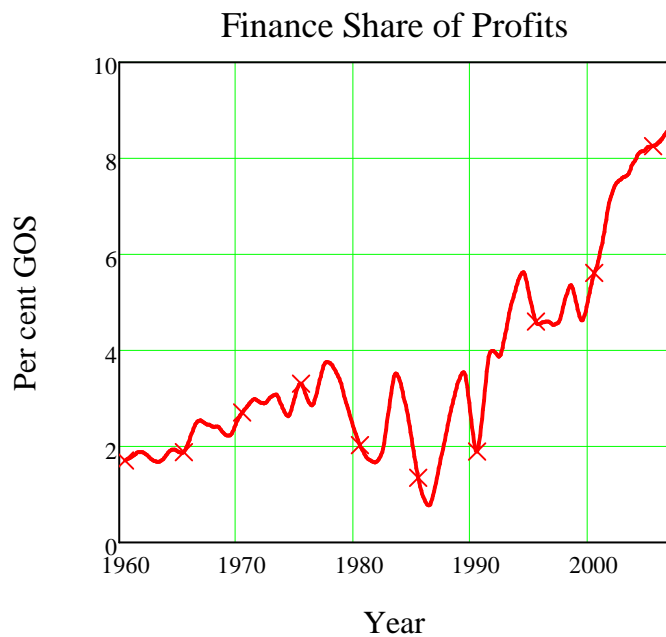
suddenly blown out in the last seventeen years, to almost four times the previous average level.

Somehow I doubt that this is a good thing for the rest of the economy. It is instead a very potent indicator of the extent to which financial commitments are a burden upon the productive sectors of the economy.

**Figure 25**

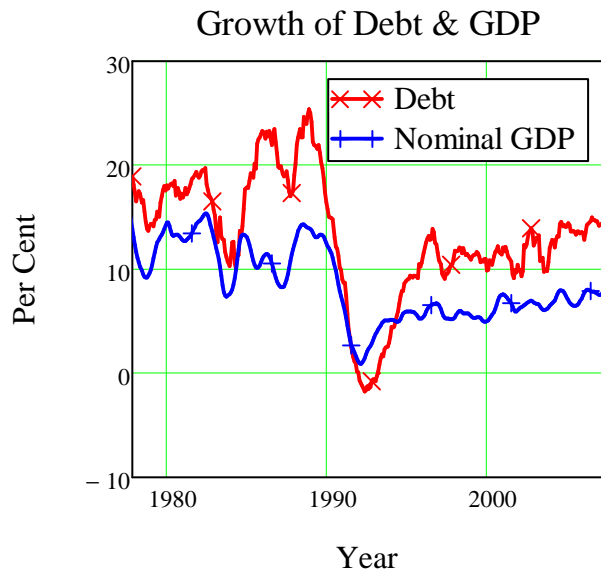


**Figure 26**

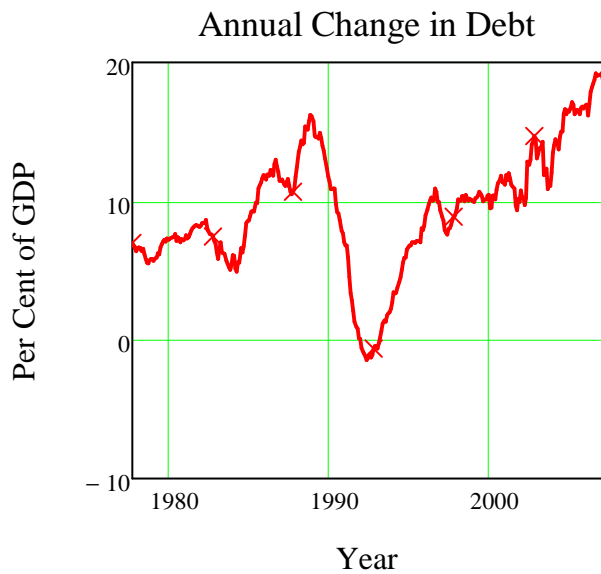


**Debt contribution to Effective Demand**

**Figure 27**



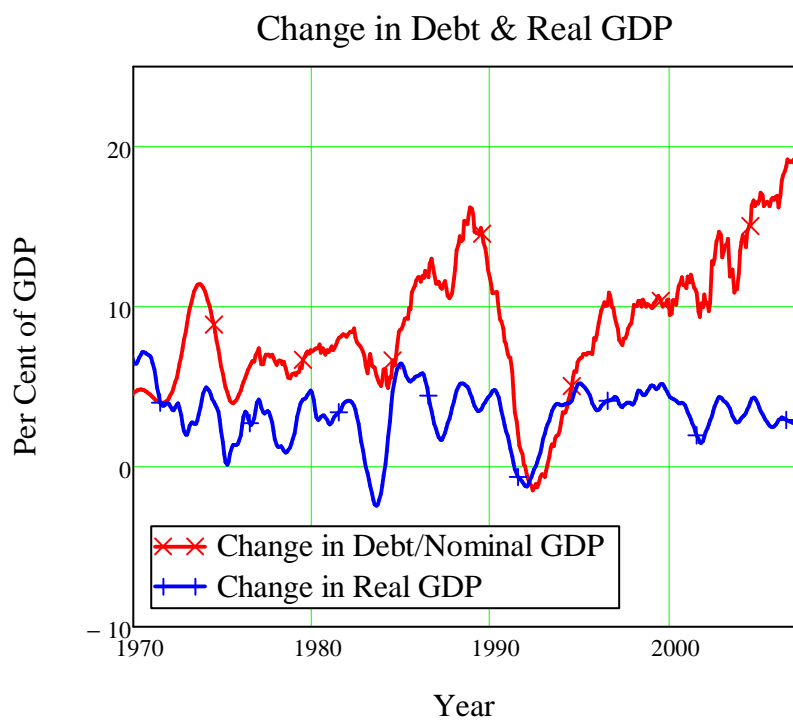
**Figure 28**



**Figure 29**



**Figure 30**

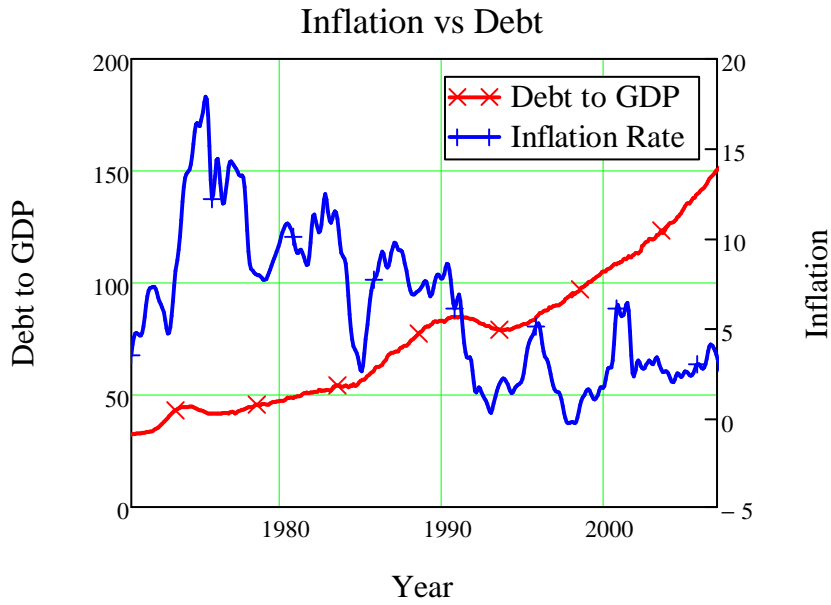


Ignore for a moment the labels on the next graph, and simply imagine that they were indicators on some medical or industrial gauge. Which series would imply an out of control process to you--the red one or the blue one?

Of course, with the bias economists have developed about inflation--and the related blind eye towards debt levels--they ignore the red line, see only the blue line, and worry that this has recently moved up somewhat (even though, over the longer term, it has clearly fallen substantially).



**Figure 31**

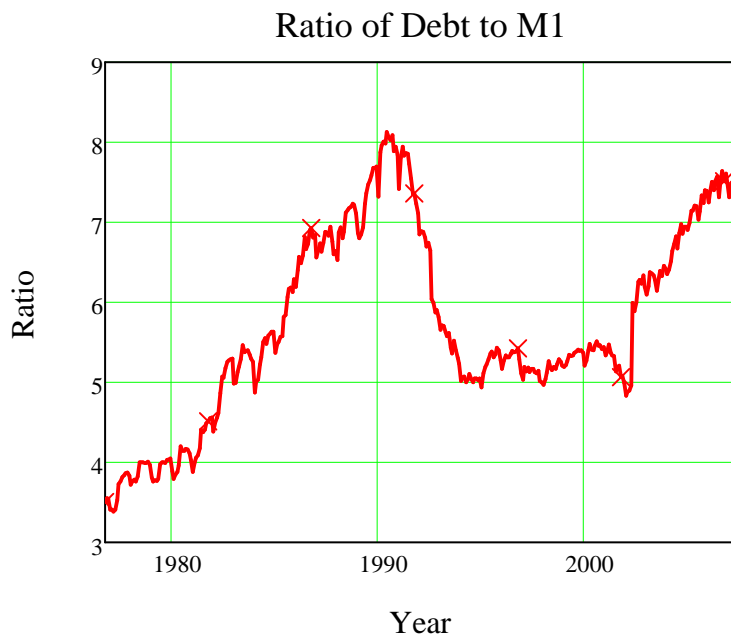


### **Monetary Aggregates**

(The M1 series was affected by a substantial reclassification of assets in early 2002. I expect that the apparent downward trend in the debt to M1 ratio across 2001 can be ignored as a statistical anomaly, later corrected by the reclassification)

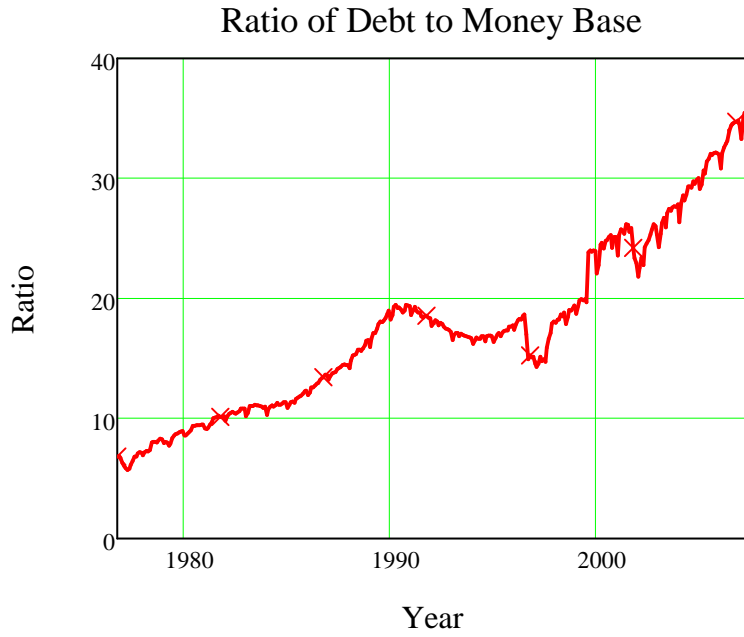
**Figure 32**

▢ Debt to Money



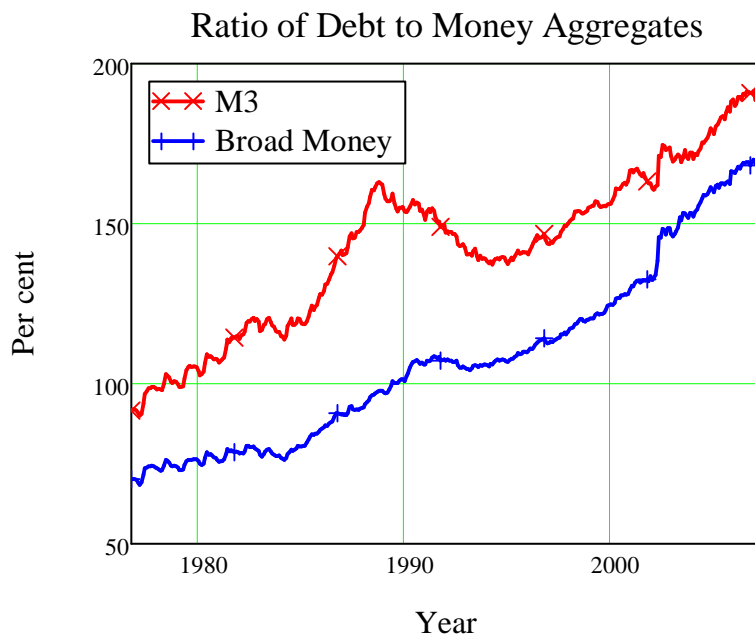
**Figure 33**

▢ Debt to Money



**Figure 34**

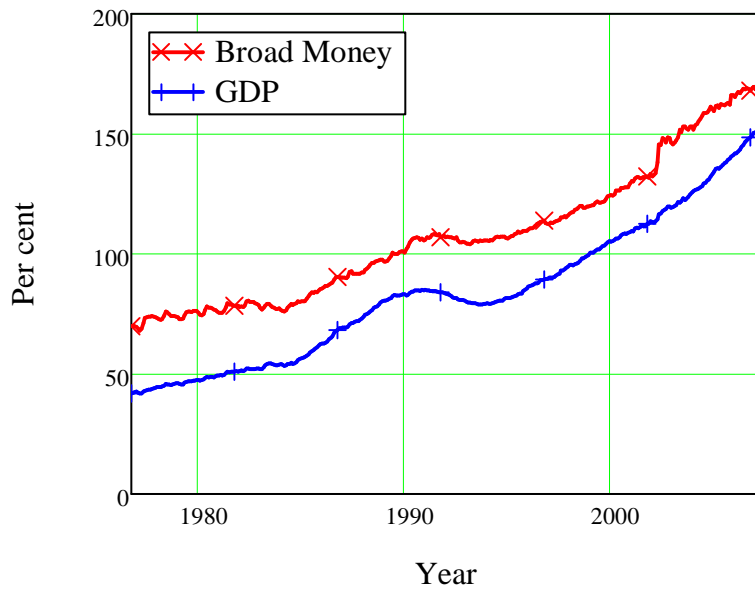
▢ Debt to Money



▢ Debt to Money



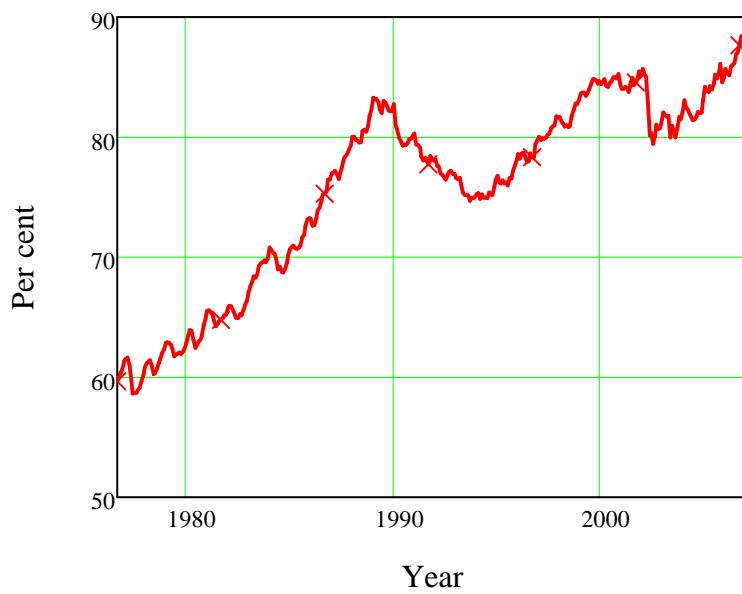
**Figure 35**  
Ratio of Debt to Money & GDP



**Figure 36**

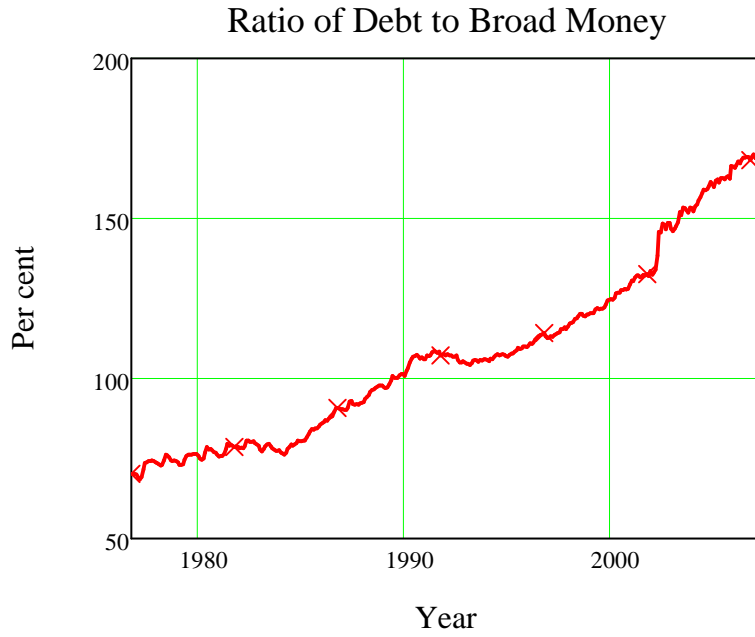
▢ Debt to Money

Ratio of Broad Money to GDP



▢ Debt to Money

**Figure 37**

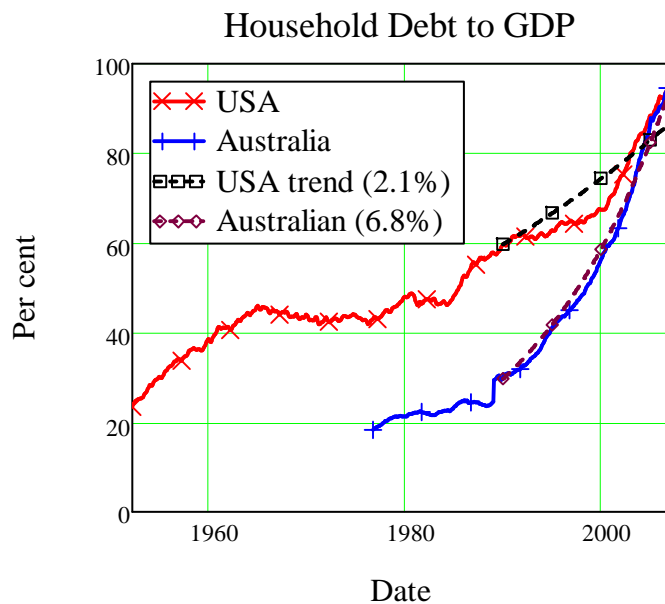


## International Data

### USA Data and USA-Australia Comparisons

**Figure 38**

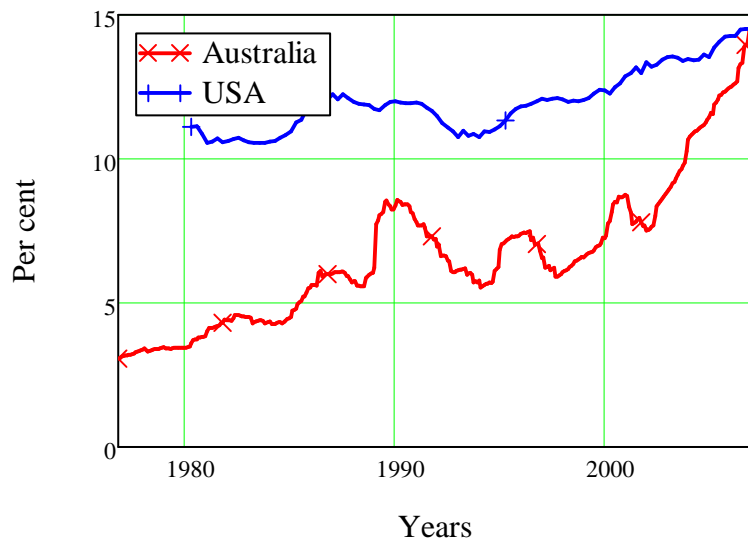
▣ USA-Australia Household Debt Comparison



**Figure 39**

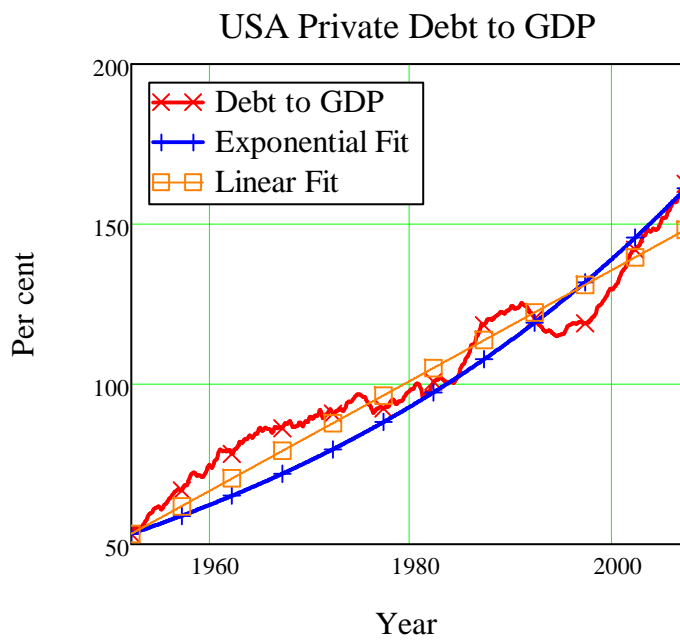


### Interest vs Household Disposable Income



**Figure 40**

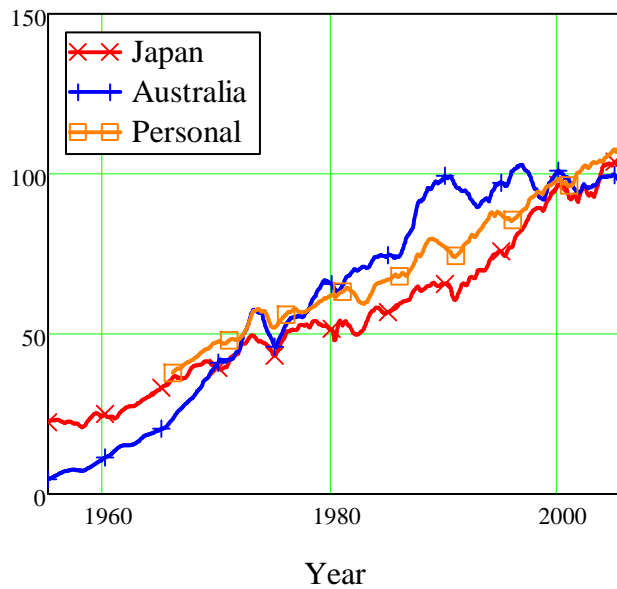
### USA Private Debt to GDP



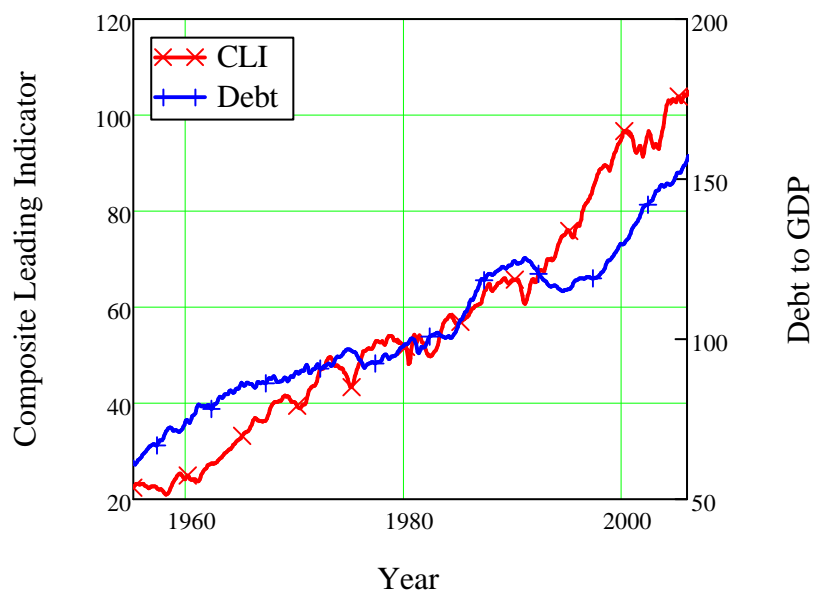
### OECD Composite Leading Indicators

**Figure 41**

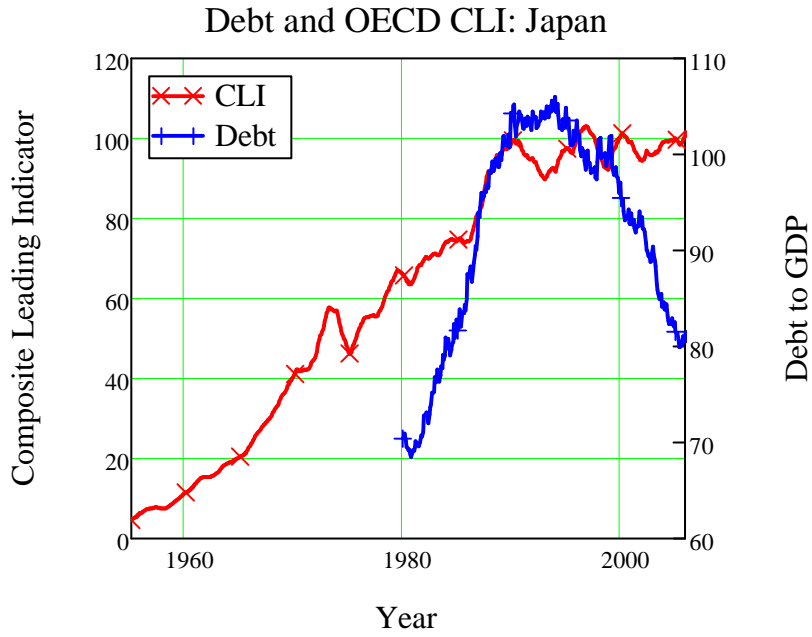
## OECD Composite Leading Indicators

**Figure 42**

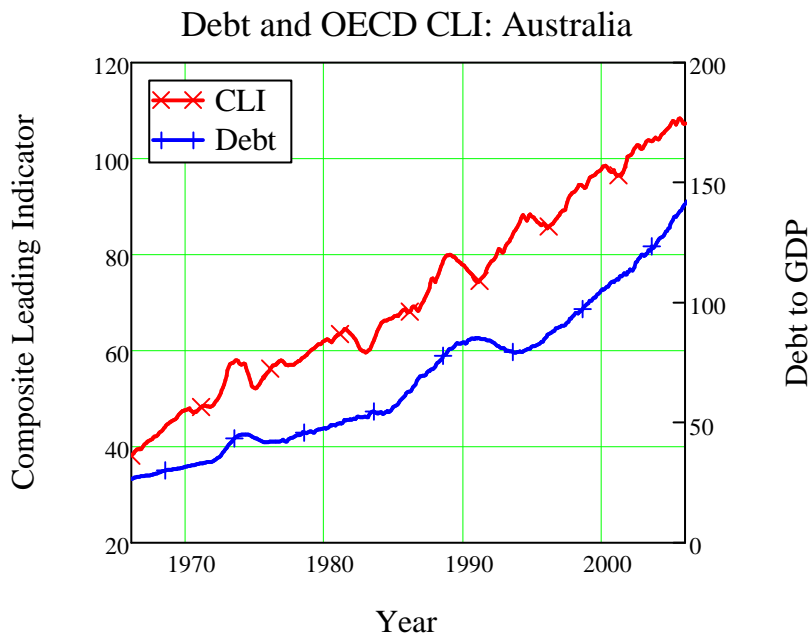
## Debt and OECD CLI: USA

**Figure 43**

Japan was the last major economy to experience a debt deflation. Though I do not think the debt data here is comparable to that shown for the USA and Australia (which is sourced from their respective Central Banks), the role of debt in bringing the economy to a standstill is obvious from this chart. Equally obvious is how economically debilitating the process of reducing debt to income levels was--and also how necessary it was to be able to restore growth.



**Figure 44**



**Figure 45**