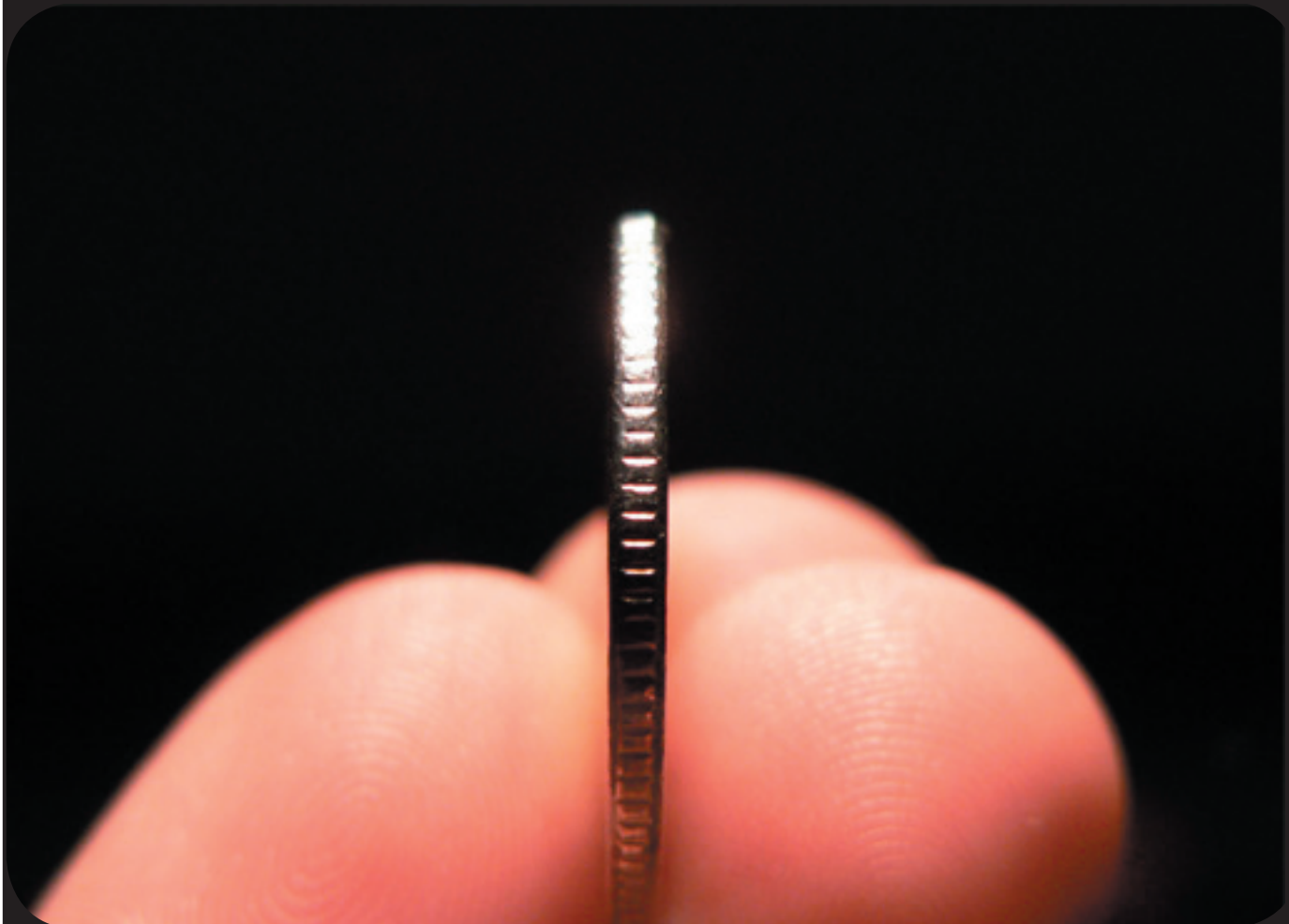


Debt Freedom Day Report 2007

Steve Keen



CONTENTS

Monetary Policy: Inflation or Debt?	-	-	-	-	-	5
Lessons for Australia	-	-	-	-	-	7
What happens if the borrowing stops?	-	-	-	-	-	10
Data Sources and Analysis	-	-	-	-	-	11
Endnotes	-	-	-	-	-	12

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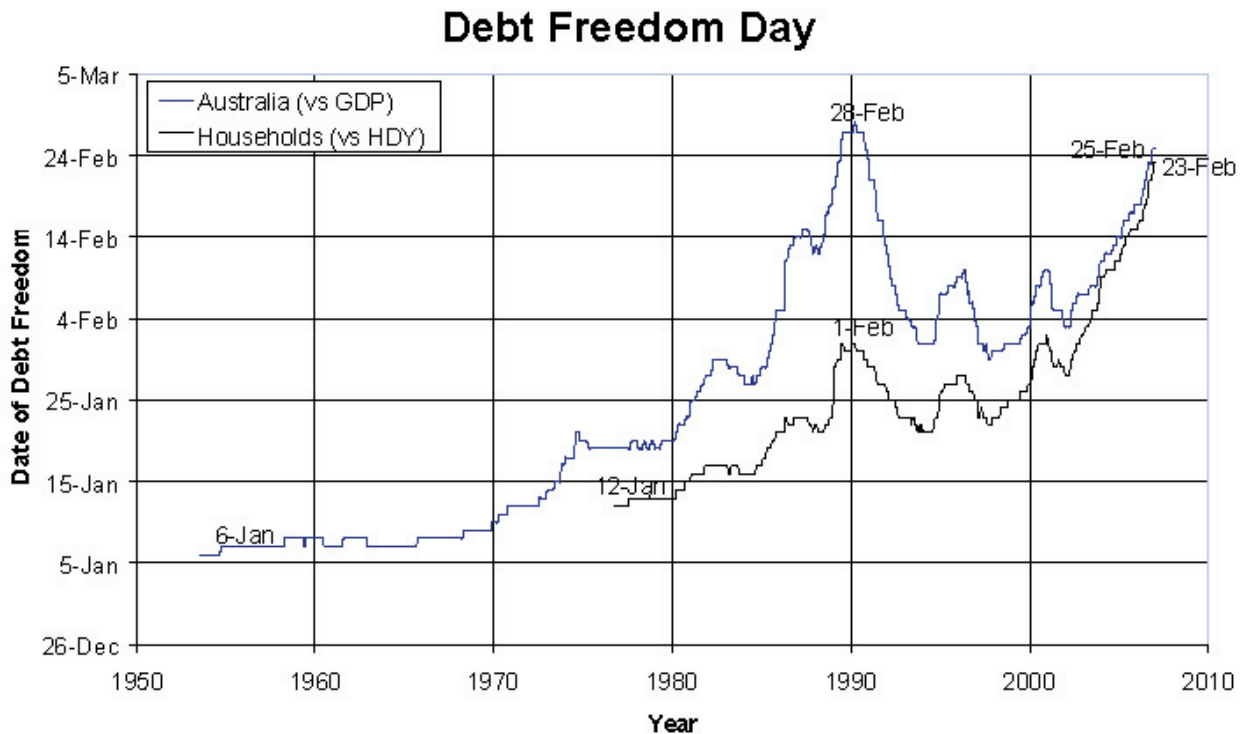
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Debt Freedom Day - 25th February in 2007

If you feel like you're walking more easily this Sunday, it might be because you've kicked off the shackles of interest payments for the year. February 25th is Debt Freedom Day: the day Australia has earned enough income to fund the annual interest on its loans.



The good news is that the day has finally arrived. The bad news is that it has been so long in coming. Except for a brief fall in 2000, when official interest rates were cut as the GST was introduced, the date of debt freedom has been steadily receding since 1997. Then, Debt Freedom Day was January 30th. By 2004, it had receded to February 11th. Just three years later, Australians have to work an additional two weeks of the year for the bank (or the non-bank lender). And that's without making a dint in the debt itself.

While Debt Freedom Day is just a hypothetical point in the financial calendar (in reality of course our interest payments are spread out over the year), it is a good barometer of the pressure that private debt puts upon the Australian economy. Interest rates by themselves don't tell the whole story; multiplying interest rates by the level of debt does. In this report three ratios are calculated to indicate the Debt Freedom Day for households, business, and the economy as a whole:

Day	Applies to	Demonstrates	Date
National Debt Freedom Day	The entire economy	The ratio of interest payments to GDP	February 25 th in 2007
Household Debt Freedom Day	Australian households	The ratio of interest on mortgage and personal debt to Household Disposable Income	February 23 rd in 2007
Business Debt Freedom Day	The Australian business sector	The ratio of interest on business debt to the Gross Operating Surplus	April 24 th in 2007

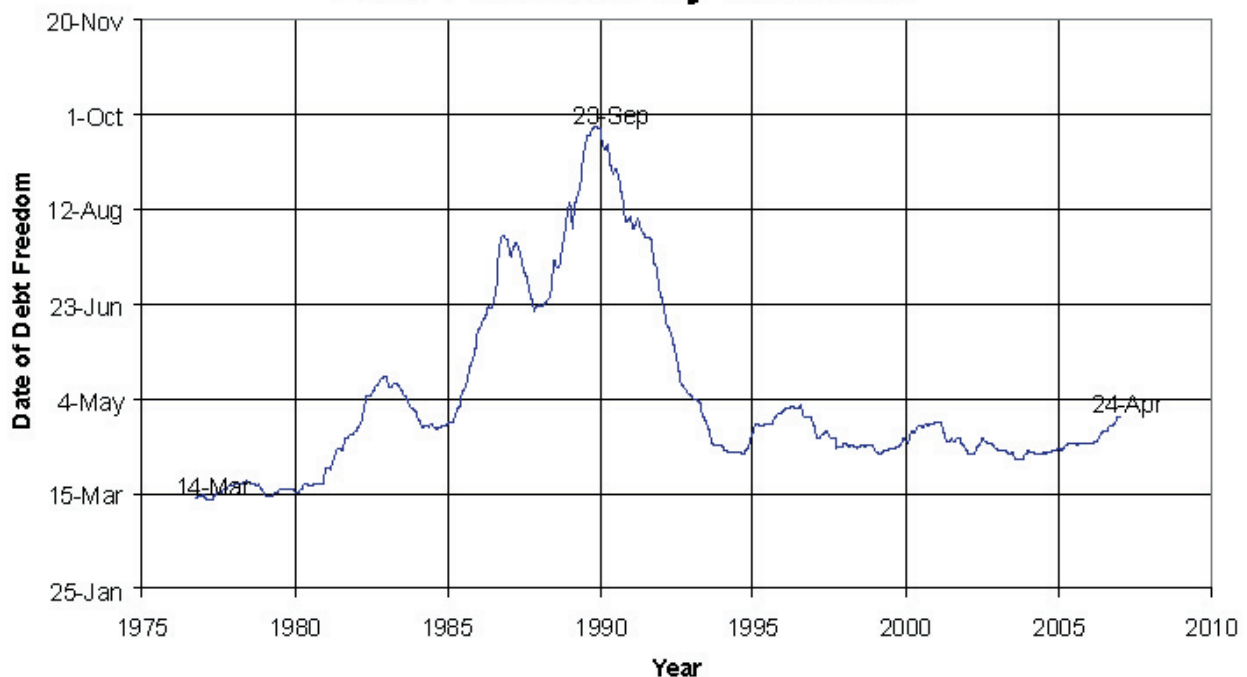
It's no wonder that the 1950s and early 1960s were the decades of relaxed and comfortable living, when it took less than eight days to pay the nation's annual interest bill. From then on, it's been all uphill. The overall debt burden peaked during 1990, when National Debt Freedom Day was the 28th of February, given an average interest rate of 19 per cent, and debt equivalent to 83 per cent of GDP. Rates are much lower today – 10 per cent on average, just over half what they were then. But Debt Freedom is headed back towards that unfortunate record, because of the level of debt that Australians have accumulated in the last decade. Private debt is now over 152 per cent of GDP, and rising at about one per cent each month.

Households have been the big borrowers in the last fifteen years, and the burden on household disposable income is much higher now than in 1990 – even though interest rates are much lower. Debt Freedom Day for households was February 1st in 1990; today it is February 23rd, just two days before the national average. Between 1990 and now, households have had to devote an extra 3 weeks labour just to paying their interest bills.

Households have never had to cope with anything like this level of debt before: we are in uncharted and dangerous waters here. If the 1990 crisis is anything to go by, then a debt-induced downturn appears inevitable – particularly since mortgage debt is continuing to rise. If the current rate of growth of debt continues for another year, the debt burden will be greater now than in 1990 – even without any further increases in interest rates.

The dilemma for households is that most of the debt they have accumulated was used to buy so-called investment properties, on the expectation that their prices would continue to rise. Prices did indeed rise, but in Sydney and Melbourne they stopped rising in 2004. Debt, however, continues to grow.

Debt Freedom Day Business



Business appears to have learnt its lesson from its flirtation with debt during the 1980s. Then, when business debt peaked at over 50 per cent of GDP, corporate interest rates of over 20 per cent meant that business took until September 23rd to cover its interest bill. Business debt then fell to as low as 41 per cent of GDP. It has since crept back up to record levels (56 per cent of GDP), but substantially lower interest rates have dropped Business Debt Freedom Day back to a more manageable April 24th.

The real debt story today therefore lies with households. They have never had to work so long in the past to meet their interest commitments – and this is just the average figure. There are many more households that are stretched well beyond the average, and are on the slippery slope towards bankruptcy.

The 1990 recession showed what can happen when the business sector is pushed over the brink by debt. With the overall debt burden just three days shy of the 1990 level today, we may soon find out what it's like when households are pushed off the same precipice.

In all likelihood, the result will be similar to 1990: a recession as households, voluntarily or otherwise, repair their financial balance sheets. However the pressure on businesses in 1990 was obviously far more extreme than the pressure on households today, and that pressure directly impacted investment. This implies a less extreme decline – and possibly that it will take a higher aggregate debt servicing to income ratio to effect a widespread crisis.

On the other hand, households have far less capacity to repair their balance sheets when in financial distress. Businesses can sack employees, and curtail investment – as obviously occurred during the 1990s recession. They can also go bankrupt, and be permanently removed from the Australian corporate scene. Households cannot sack family members, and nor can they cut back substantially on consumption, or even the “human capital” investments they make in educating children. They also do not disappear from the population when driven into bankruptcy.

This implies that, when a crunch comes – as it must some day, since the trend in debt to income is clearly unsustainable – the recovery will be more drawn out than it was in the 1990s.

Monetary Policy: Inflation or Debt?

The Reserve Bank of Australia's policy emphasis on restraining inflation to a range between one and three per cent implies that inflation is always and everywhere a bad thing. However, one obvious exception to this rule is when the economy is crippled by an excessive level of debt. Then, the economy can suffer from a “vicious circle” of debt and deflation, with falling prices actually increasing the real burden of debt, further pushing firms and individuals towards bankruptcy. Our economy is not yet in that state: it is still growing strongly. But the level of debt we have accumulated, and the low rate of inflation that currently applies, makes it possible that the economy could fall into “debt-deflation”.

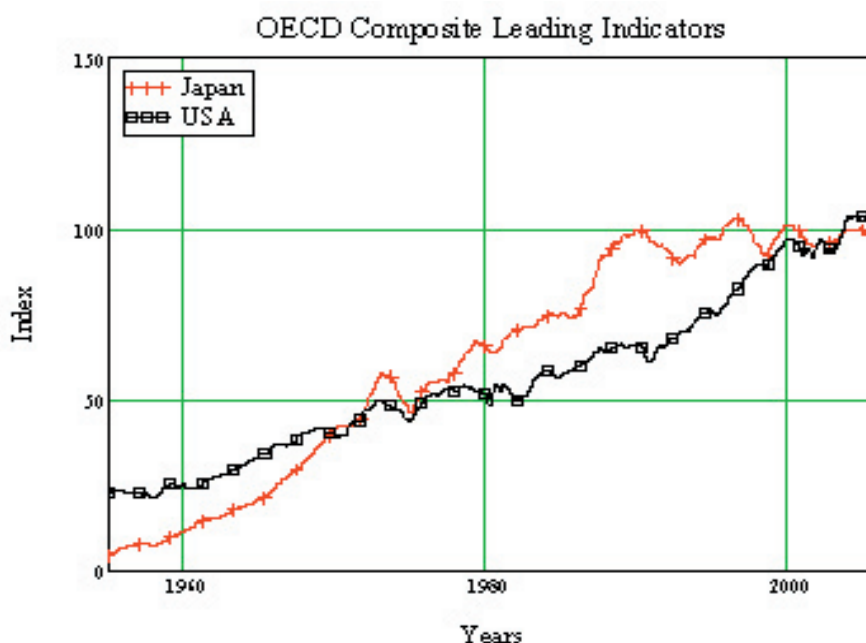
This was Irving Fisher's explanation for the Great Depression, and disequilibrium played a key role in his thinking. It was, he argued, as absurd to assume that key economic variables were always at their equilibrium values, as it was “to assume that the Atlantic Ocean can ever be without a wave”,¹, and he argued that the Great Depression was caused by the

confluence of two disequilibria: “over-indebtedness to start with and deflation following soon after” (p. 341). The combination of too much debt and falling prices locked the global economy – and America and Australia in particular – into ten years of economic misery that was only terminated by the Second World War.

Most economists blame the governments of the 1930s for causing the Great Depression by “not printing enough money”, and they are confident that this historic tragedy could never repeat itself. But there are good reasons to argue that there has been at least one post-WWII debt deflation: Japan’s economic crisis of 1990-2005.

Japan arguably fell into a Debt-Deflation when its Bubble Economy collapsed in 1990, after which the Japanese economy spent 15 years in the doldrums. This can be illustrated starkly using the OECD’s Composite Leading Indicators (*CLI*) database, which provides a standardised means to compare different countries over the post-WWII period.

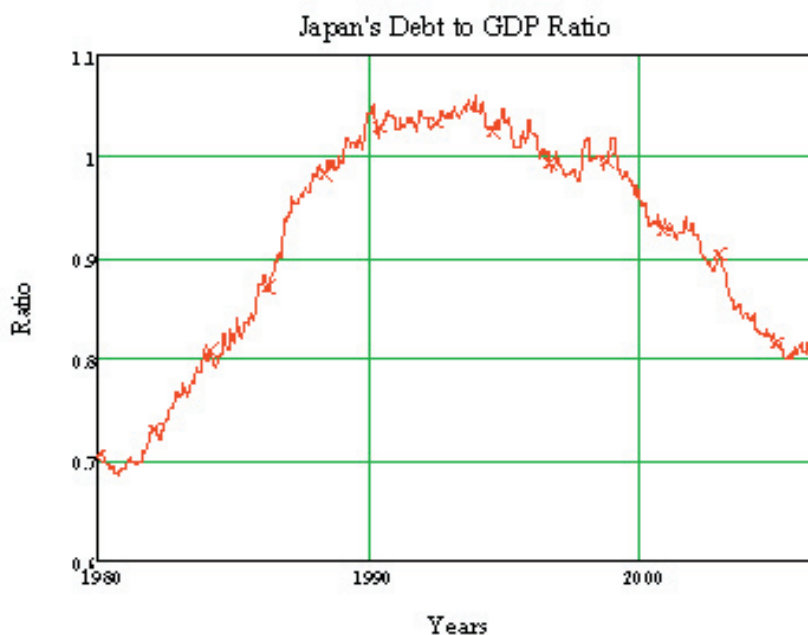
For 35 years, Japan was the “miracle economy”: from a position where, in 1955, it was just a fifth of the USA’s level on the *CLI* scale, by 1990 it was one and a half times the USA’s score. Then it hit the wall: Japan’s ranking on the *CLI* went nowhere for the next fifteen years, while the USA gradually moved forward, and overtook Japan once more in 2002.



Japan was crippled by debt: the enormous sums that had been borrowed to finance speculation on the Nikkei and on Tokyo real estate, brought the economy to a standstill. Not until 2005 had debt had been sufficiently reduced to enable the economy to begin to grow once again.

Part of the reason for Japan’s extended period of economic misery was its low to negative rate of inflation. Inflation was below 3 per cent for almost all of the 1990s and early 21st century. From 1994-96 and again from mid-1998 until 2005, it was actually below zero. As a result, even though the Japanese central bank reduced official interest rates to zero, the market rate of interest remained well above zero – and Japanese companies were forced to devote profits to repaying interest bills, rather than to investing.

Japan went from being inflation-shy to actually wanting to cause inflation, and it attempted to do so by following conventional economic advice that inflation can be caused by government deficits, and – economic sin of sins - “printing money”. During the 1990s, the Japanese government ran deficits equivalent to more than 6 per cent of GDP – not a trade deficit, a government deficit: an excess of government spending over taxation. Surely that would have done the trick.



It didn't. Japan is still running the second highest government deficit as a proportion of GDP in the OECD (the Czech Republic takes first place) – but inflation has remained stubbornly stuck on or near zero.

Printing money also had no effect. In one year, the government engineered an increase in M_1 – the segment of the money supply more directly under its control – by over 27 per cent. Inflation remained negative that year: even “printing money” didn't cause inflation.

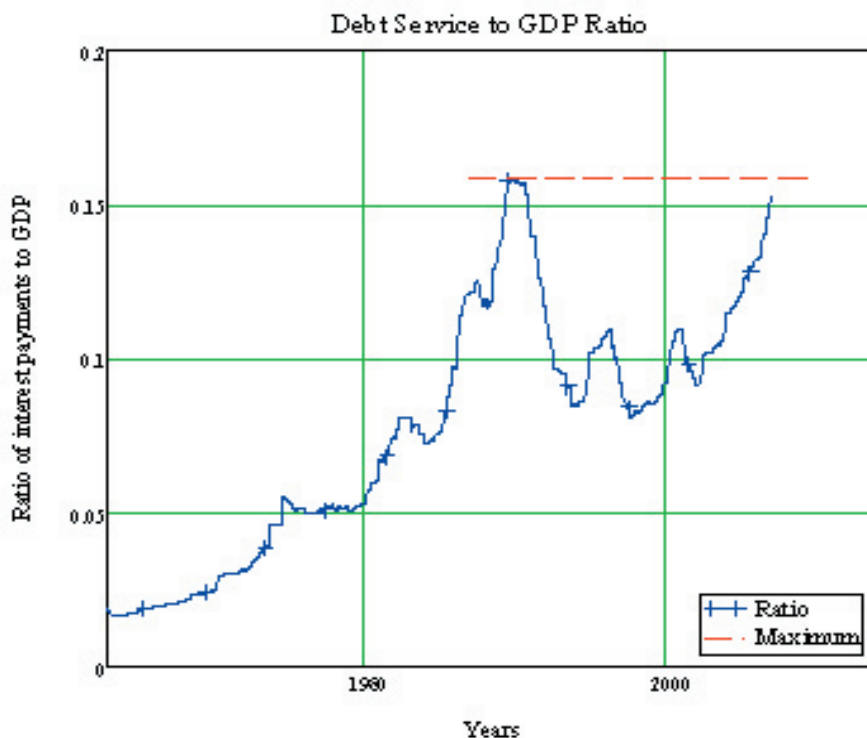
Lessons for Australia

By focusing solely on inflation while effectively ignoring private debt, economic policy may have unwittingly brought Australia to the brink of a debt crisis similar to that experienced by Japan in 1990 – though with the greater debt burden falling on households rather than business.

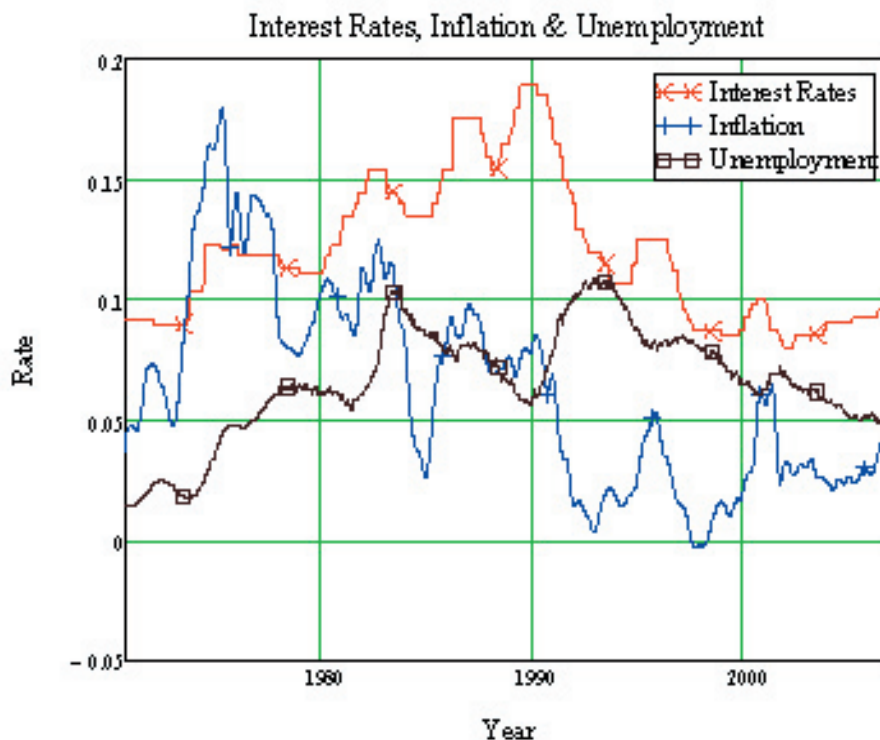
The impact of debt per se on the Australian economy can be isolated by decomposing the Debt Freedom Day data into its two components: average interest rates on the one hand, and the debt to GDP ratio on the other.

The product of the two is the debt servicing burden – the ratio of interest payments to income – and this alone makes it obvious that the Australian economy can't be regarded as being in equilibrium. If it were, then this ratio should be roughly constant over time.² As the next chart shows, this ratio has been in anything but equilibrium – it has risen

from trivial levels of 1.9 per cent in the 1960s to an all-time high of 15.9% in 1990, and at 15.3% today it is again toying with those maximum levels.

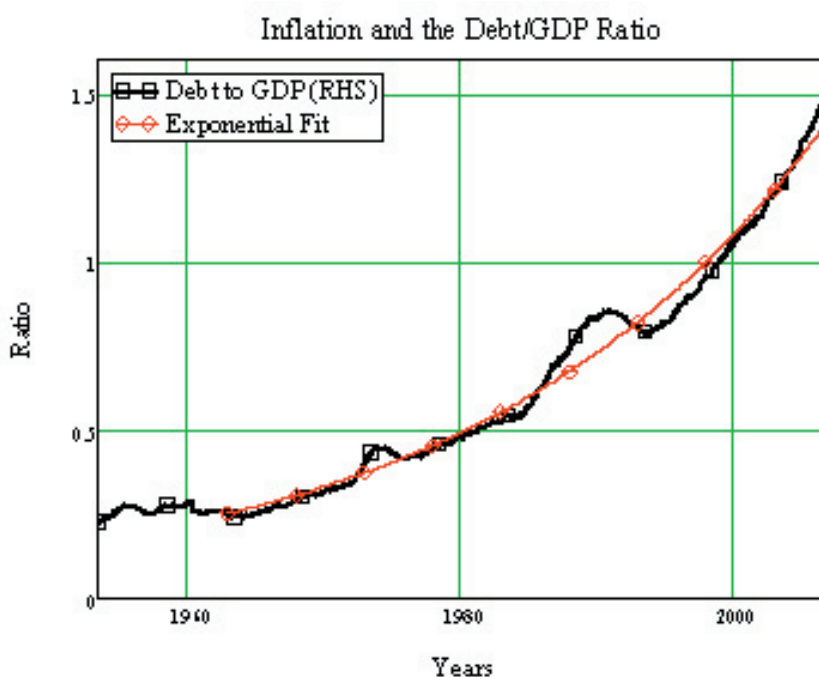


Breaking this composite variable into its two constituents – interest rates on the one hand, private debt levels on the other – shows that the real systemic instability has come, not from government interest rates, but a profound trend towards higher debt to income ratios over time that transcends Liberal and Labor governments, whether the borrowers are households or firms.



Interest rates have had a peripatetic history. From very low levels in the 1950s, they gradually blew out as our economic managers firstly tried to control inflation during the “stagflation” of the 1970s, and then tried to put the brakes on the runaway speculative bubble of the 1980s. Then they fell quite sharply as the monetary authorities tried to revive the economy after it plunged into “the recession we had to have” in 1990. The trend of falling interest rates continued till the early 2000s (apart from the spike associated with the introduction of the GST), until it was somewhat reversed with the recent inflation-inspired rate rises.

The private debt³ to GDP ratio has followed a far more decisive trend, which has escaped the attention of our equilibrium-obsessed economic managers. In Australia, this ratio has been growing exponentially for 44 years. That statement may appear hyperbolic, but it is statistically defensible. An exponential fit to the data shows that the ratio of debt to GDP has been growing at 3.9% per annum since 1963. The regression returns a correlation coefficient (“ R^2 ”) of 0.99. You simply can’t get a better fit than that.⁴

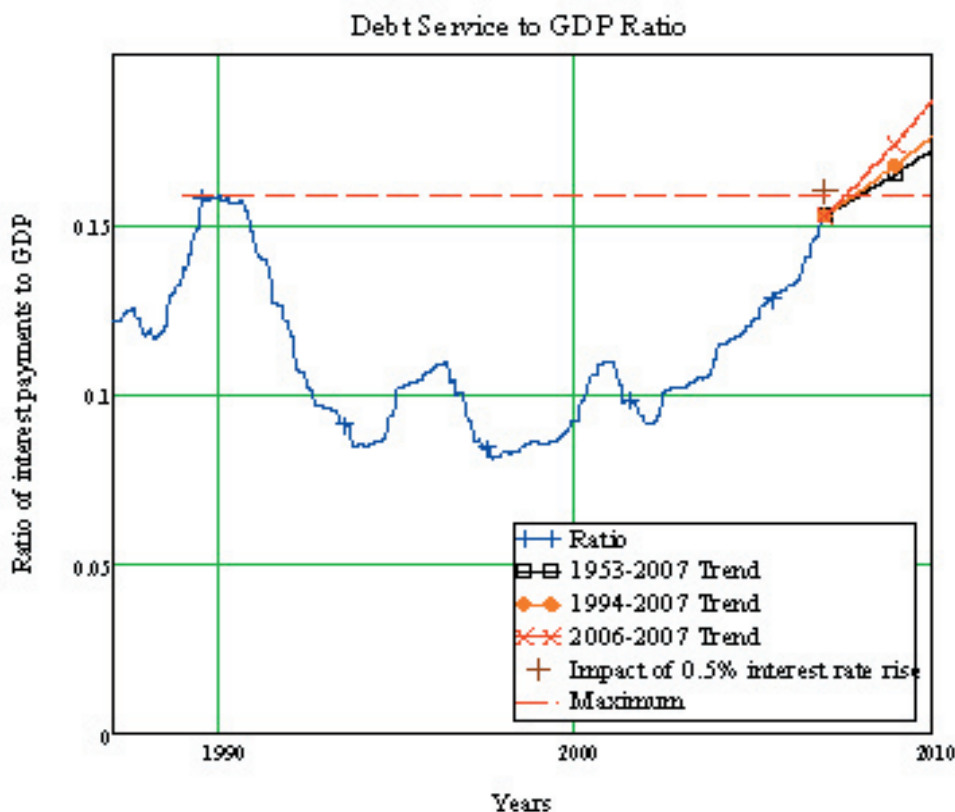


In 1960, debt was 28% of GDP; in 1970, 32% - pretty low levels. But in 1980, it was 49%; in 1990, 73%; by 2000, it was 108%, and today it is 152%, a staggering *one and a half times* the level that brought Japan to its knees in 1990.

The usual equilibrium attempts to explain this phenomenon just don’t hold water. Economists tend to dismiss the rise in debt levels as just a rational response to interest rates being much lower today than in 1990. Yes, interest rates today are lower than those of 1990; but they’re higher than those of the 1960s and early 1970s, when debt was a lot lower. And the rise in debt has been so great that the debt burden is now within a whisker of what it was in 1990 – hardly a year that one could characterise as an instance of equilibrium.

Unfortunately, the growth in debt has more to do with irrational exuberance and

disequilibrium than rationality and equilibrium. Households in particular have taken on enormous and unprecedented levels of debt, primarily to finance speculation in real estate. Mortgage debt rose by about 450 per cent relative to GDP between 1990 and now – rising far more than interest rates fell. We now have the quandary that Australia's continued prosperity depends upon the inflated price of housing not falling, while at the same time we have amongst the most over-valued housing in the world.



The rise in debt has been so great, that we would experience 1990 debt servicing levels if interest rates rose by a mere half a per cent. Even more worrying is the fact that, even without any further rises in interest rates, we'll exceed this historic and painful maximum if the trend rate of growth of debt to GDP continues for just one more year – and if the higher rate of growth of 2006 applies, we'll be there by mid-2007.

The RBA still appears to believe that it could control an inflationary outbreak by varying the rate of interest. With debt levels as high as they are now, increasing interest rates could have a drastic impact on the economy, far more severe than implied by the RBA's equilibrium models – which, in common with most economic models, do not include the level of debt as a variable.

What happens if the borrowing stops?

Ultimately, the rate of growth of debt must fall to no more than the rate of growth of GDP. Given the magnitude of debt, and the contribution that debt increases have made to spending, that implies a substantial cut to aggregate demand in Australia – of the order of ten per cent.

There are two sources of aggregate demand: income, and the change in debt (the same logic applies at the individual level: your spending in a year will be the sum of your income plus any change in your debt). Back in the early post-War period, changes in debt were so small that they could be ignored. But now that debt is so much larger than GDP, the annual increase in debt represents a large and growing fraction of overall spending.

If we go back to 1994, when the current boom began, the increase in private debt over the year was about \$32 billion, compared to (nominal) GDP at the beginning of 1995 of \$507 billion: even then, the increase in debt accounted for about 6.5% of total spending.

Thirteen years later, the increase in debt over the year was \$196 billion, compared to annual GDP of roughly \$1,000 billion at the beginning of 2007. The increase in debt last year thus accounted for almost 16.5% of total spending.

If the debt to income ratio were to stabilise at its current level of 152%, then the rate of growth of debt would need to fall back from its current level of 13 per cent to the 7 per cent rate of growth of nominal GDP.

On current figures that means a fall in aggregate demand of about \$90 billion – or about nine per cent of GDP. That is not a number that one can easily dismiss, and it's why I believe we're headed for, to coin a Keatingesque phrase, "the recession we can't avoid".

Whenever this recession occurs, the government will have to abandon its obsession with accumulating surpluses. A government surplus means that tax receipts exceed government transfers to individuals and purchases from firms. By definition, this means a net transfer from individuals and firms to the government, which they can finance either by reducing their own spending, or by borrowing themselves. Clearly, Australian households have been doing the latter for the past one and a half decades. They cannot continue to do so.

Data Sources and Analysis

- Aggregate debt, nominal GDP and mortgage interest rate data for 1953 till mid-1976 were sourced from the RBA Occasional Paper No. 8 *Australian Economic Statistics 1949–50 to 1996–97* (http://www.rba.gov.au/Statistics/op8_index.html);
 - Business, mortgage and personal debt data from mid-1976 were sourced the *RBA Bulletin* Table D02 (<http://www.rba.gov.au/Statistics/Bulletin/D02hist.xls>);
 - Mortgage, personal, and business loan interest rates from 1959, 1974 and 1976 respectively were sourced the *RBA Bulletin* Table F05 (<http://www.rba.gov.au/Statistics/Bulletin/F01hist.xls>);
 - Nominal GDP data from mid-1960 was sourced from the *RBA Bulletin* Table G12 (<http://www.rba.gov.au/Statistics/Bulletin/G12hist.xls>);
 - A weighted average interest rate was calculated for the period after 1976; the margin between this and mortgage rates (roughly 1.4 per cent) was added to the pre-1976 aggregate credit data, when only the mortgage interest rate was recorded by the RBA, to make the pre-1976 calculation comparable with the later period;
 - Credit and interest rate data is recorded monthly, and GDP data is recorded quarterly. Quarterly GDP figures were summed to produce annual figures (following Australian statistical practice), and then interpolated monthly estimates of annual GDP were calculated to make the series comparable;
 - Credit and interest rate data was available till December 2006; GDP data was available until September 2006. The final three monthly estimates of annual GDP from October to December 2006 were interpolated, using an autocorrelation procedure based on the previous 12 monthly estimates;
 - Since debt has continued to rise more rapidly than GDP in the recent future, it is likely that Debt Freedom Day will actually be later than estimated in this document.
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Endnotes

¹ Irving Fisher, 'The Debt Deflation Theory of Great Depressions', *Econometrica*, V1, 1933, p. 339

² In a complete model it might need to be augmented with some measure of the assets to liabilities ratio, but this ratio should also be stable in equilibrium.

³ This is the sum of mortgages, personal and business debt.

⁴ For the uninitiated, R^2 is a measure of the degree of correlation of two series, and the maximum value it can take is 1.00. A correlation of 0.99 tells us something very profound about our economic system.