

# The Great Unwind

## TAMRIS Perspectives on Capitalism in Crisis

Risk and uncertainty over the magnitude of risk is a fact of life. Investment discipline within the portfolio context is structured around this reality. There are times, however when the risk event is of a potentially far greater magnitude and of far longer duration than would be considered normal and manageable within a sensible portfolio construct. The question is, are we in such a period at this moment in time and to what extent?

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### Perspective 2

#### Consumer debt & Related Issues

Inflation and interest rates have been falling since the 1980s. In an environment of lower interest rates and falling inflation, stable and longer economic cycles it is natural for the level of debt that (*consumption focussed*) individuals hold to increase as service costs fall, asset prices rise and risks to earned income decline. At the same time financial innovation (*supported by very low interest rates*) and a more competitive financial services industry have<sup>1</sup> fostered a much more accommodative attitude towards debt and the level of debt that individuals can hold.

One function of the ability of consumers to hold debt is the rate at which wealth increases and the volatility of asset prices that underpin wealth; if rises in property prices can to a certain extent be counted on (*perception*) then individuals may assume that they can safely withdraw capital (*part of this appreciation*) from their homes without necessarily exposing themselves to greater financial risk.

Indeed we saw a much more stable risk environment pre the 2007 sub prime initiated credit crunch. Lower high yield bond spreads (*lower yields on all types of debt*) and lower volatilities on equity and debt created the perception of a much lower risk environment; whether this be on the part of the borrowers or the lenders (*quite definitely*). This low risk environment has now reversed and many borrowers were sucked into taking much higher levels of debt as a result.

Another function of the ability of an economy (*companies and consumers*) to hold higher levels of debt is the growth rate of productivity<sup>2</sup>. Providing productivity growth translates into higher growth of earned income, we could also see higher absolute and relative levels of consumer debt as consumers can more safely bring forward higher levels of future consumption and today's debt can more easily be repaid in the future<sup>3</sup>.

However, we have also seen that consumer debt has been increasing at a far higher rate than the rate of output growth since the late 1990s; in the US, consumer debt now represents close to 100% of GDP (not just GDP growth).

Debt to income ratios should also be dependent on wage increases and the stability of earnings increases. A higher rate of debt should imply that either wages are increasing at a stable and/or higher rate or that wealth is increasing at a higher and stable rate, or both. There is nothing to suggest that wage increases globally are rising at levels sufficient to justify the rate at which debt is being accumulated; indeed in the US wage increases in the current economic cycle are running below historical growth rates.

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<sup>1</sup> How far this is to be reversed remains to be seen.

<sup>2</sup> The relationship between debt, the growth rate of earnings and the return on capital is of course more complex.

<sup>3</sup> Whether most individuals think like this is another subject

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Research by Becker and Gordon at Northwestern University<sup>4</sup> also shows that the majority of US employees have not benefited from productivity growth over the period 1966 to 2001.

Given the above, in an environment where wealth is increasing at a high rate (*net wealth to income ratios have been increasing globally*) and where the volatility of that rate of change is low, the amount of debt that consumers will be able to bear will increase (*debt to wealth ratios have also been increasing globally*), as will the willingness of institutions in competitive financial markets to lend. However, while global debt to income ratios have risen, so have debt to wealth ratios, which means the rate at which debt is accumulating has exceeded the rate at which wealth is increasing. Both ratios emphasise the difference between the ability of current output to support asset prices and asset prices themselves.

Consumer debt to GDP ratios have risen at a far higher rate than the rate of national output growth in the US (and other countries). The real growth rate of earnings has also slowed while the debt to earnings ratio has expanded.

The period 2001 to 2007 witnessed a period of historically low interest rates and historically high levels of broad money supply growth. It also witnessed a period of enormous growth in demand for products of financial innovation (*securitised debt products and credit default swaps*) and financial leverage with respect to credit and debt markets. Hedge funds, financial institutions, pension funds and foreign central banks provided the capital for and invested in the products that allowed the consumer to increase their level of mortgage debt and consumer credit. This period also coincided with a boom in global real estate prices and a significant and sustained increase in personal consumer debt.

It is likely that much of the increase in debt and asset prices is excessive and that this excess has less to do with domestic demand growth supported by growth in productivity and output than by financial innovation, low interest rates and excessive money supply growth.

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## **Significance of higher debt ratios**

Higher debt to income ratios are a concern for a number of reasons.

- **They make consumer demand more sensitive to rises in interest rates** and especially so where higher debt has gone hand in hand with asset price bubbles. US consumer finances have already come under significant pressure as interest rates moved up from historic lows and house<sup>5</sup> prices continue their very significant declines.

It is TAMRIS's view and one borne out by recent stress in debt markets that the amount of debt individuals have taken on (*US, UK, Australia and New Zealand in particular*) exceeds the ability of many individuals to service in anything but a low interest environment characterised by strong availability of credit and stable asset price increases. Those who argue that increases in net wealth are more important to consumer demand and economic stability are correct as long as interest rates and inflation remain low and stable and monetary demand for assets remains high.

- **Excess money supply growth and asset price bubbles.** An increasingly asset focussed increase in broad money supply growth had driven up asset prices over the last 10 years and real estate in particular over the last six years. This enhanced the wealth of existing real estate holders and increased the cost of real estate for new buyers, raising both consumer expenditure (*via home equity withdrawals and economic multipliers*) and debt burdens. As such the consumer debt problem is not confined to a higher than normal level of

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<sup>4</sup> Becker and Gordon, Northwestern University; where did the productivity growth go? Inflation Dynamics and the distribution of income.

<sup>5</sup> This perspective does not focus specifically on the US housing market.

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expenditure, but high to extreme levels of asset dependent debt and the risks associated with a collapse in asset prices.

- **Higher consumer debt associated with asset price bubbles increases the systemic risks to the financial system;** banks' assets (*loans*) are exposed to greater risk of default<sup>6</sup>, and credit availability is at risk when off balance sheet loans and other credit instruments are forced back onto bank balance sheets. A rise in loan defaults as an economic cycle peaks would be enough to restrict money supply growth and the availability of credit on its own. The systematic risks brought on by collateralised debt obligations, asset backed securities and off balance sheet conduits and structured investment vehicles has raised the stakes to a far higher magnitude.

- We have had a large increase in global money supply since 2001 and this money supply, enabled by financial innovation and leveraged investment vehicles, has been to a large extent focussed on securities and real assets. This focus (*along with lower interest rates and easier access to credit*) has raised the cost of assets to consumers and increased the amount of debt they hold beyond that which would otherwise have occurred without a substantial accompanying increase in the productive potential of the economy; such an increase in productive potential would be required to justify the leverage used to buy the assets. US economic growth, investment and real earnings growth have all been below the historical average for the post 2001 US economic recovery.

As noted by a Federal Reserve research paper<sup>7</sup>, *"The most important factors behind the rise in debt and the associated decline in saving out of current income have probably been the combination of increasing house prices and financial innovation. They forgot to mention money supply growth.*

- It is the structural relationship between debt, asset prices, consumption and production/productive capacity that makes high levels of consumer debt a risk to both the economy and the financial system.

The financial system is exposed to the current asset price bubbles, which are themselves exposed to highly indebted consumers (and global economic imbalances), who are themselves exposed to (*in the US and now in the UK*) to a declining housing market and a slowing economy.

- **Where high debt ratios are accompanied by global economic imbalances** they also pose risks to the global economic and financial system.

High debt to income ratios and low savings rates are currently found in US, UK, Australia and New Zealand and to lesser extent Canada (declining savings ratios have also been seen in Japan). The position of the US consumer and the US economy's domestic structural imbalances, being the largest economy in the world, poses the greatest risk to world economic growth.

- US economic growth has been disproportionately driven by consumer demand over the last 7 years. This demand has been fuelled by exceptionally low interest rates (negative real rates and easy availability of credit) and a corresponding surge in asset prices (and the ability to borrow against home equity).
- US Consumer demand represents close to 71% of gross domestic product compared to 56% amongst the Euro countries (European Exchange Rate members), 55% in Japan and some 47% in China. Even in the UK, another highly indebted consumer entity, consumer demand only represents 64% of GDP.

Between 1952 and 1982 US consumer expenditure has averaged some 62% of GDP. Since 1982 (*as disposable personal income grew*), the percentage accelerated to reach 66.8% in 1997 and from then to reach 70.3% in 2003. A pull back to 66% would be equivalent to a decline in GDP of some 4% (*and more with the impact of economic and money multipliers*). But a decline in disposable personal income

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<sup>6</sup> Naturally because the ability of earned income to finance debt is often strained and asset prices exposed to risk of significant declines.

<sup>7</sup> <http://www.federalreserve.gov/pubs/feds/2007/200737/200737pap.pdf>

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due to higher inflation/interest rates and lower/declining economic growth could see consumer expenditure fall even further.

- Consumer demand as a percentage of GDP has been falling in Asia and according to Citi research currently stands at 59% of GDP; as a percentage of GDP it has fallen much further in China<sup>8</sup> since 2000. This lends some credence to the assertion that Asian economic performance has been leveraged by excessive US consumer demand and that export demand is more likely to fall than consumer demand to rise by a substantial amount.
- Falling asset prices, high levels of debt and a slowing to recessionary US economy would leave global economic growth (*marginal GDP growth*) dependent on a significant increase in foreign domestic demand.

The trouble is domestic demand growth as a percentage of GDP does not normally make the type of gear change that is needed in the space of time that would be required to supplant US domestic demand; changes in the components of gross domestic product are more evolutionary than revolutionary. Indeed, markets such as China and Japan are to a large extent driven by demand for domestically produced goods; it may not therefore be possible to rely on these economies to replace US domestic demand.

According to the BIS 2007 Annual Report<sup>9</sup>, *“Final consumption goods constitute only 4% of China’s total imports and calculations suggest that the elasticity of demand for its ordinary imports (i.e those not used for processing in the export sector) with respect to domestic spending is insignificant. In line with this, China also appears to be engaged in large-scale import substitution; for example, it has recently become self-sufficient in steel.”* What this means is that countries like China are unlikely to pick up the slack and start importing displaced global exports to the US economy.

If global domestic demand growth is at or close to a cyclical peak, then a decline in US demand would make it difficult for the global economy to substitute lost US demand. The only developed economic area which appears to have the financial and structural punch to drive consumer demand forward is Europe. Europe (Euro members ex UK) has a much lower debt to income ratio and higher savings ratios and hence room for an expansion in consumer demand. But the Euro area is still heavily dependent on exports and is now facing a strong headwind in a sharply appreciating Euro. Japan on the other hand has a relatively high debt to income ratio and a declining savings rate leaving it with not as much leeway as it would need to have to drive global trade in the absence of US demand.

- US imports are worth some 17% of US gross domestic product (Q3 2007). In this context a mild slowdown in US demand growth could conceivably have only a limited impact on world economic output. On the other hand a significant decline could reverberate throughout the global economy with economic multipliers compounding the initial fall in import demand.
  - German exports comprise 47% of [GDP](#) in the second quarter of 2007 and French exports comprised 27% of [GDP](#) in 2006. Europe would be impacted by declining US demand for foreign imports.
  - A number of economists and institutions (*Stephen Roach Morgan Stanley<sup>10</sup>, Nouriel Roubini and research from Citi Group, the IMF and the Asian Development Bank*) doubt that Europe and Asia will be able to decouple from US demand growth.
    - **Citi Research** states that on the contrary Asian economic dependence on US GDP growth has become more correlated and the contribution of net exports to GDP growth the highest for the last 15 years.

<sup>8</sup> [http://www.usitc.gov/ind\\_econ\\_ana/research\\_ana/seminars/documents/Nyhus-closingchinappr.pdf](http://www.usitc.gov/ind_econ_ana/research_ana/seminars/documents/Nyhus-closingchinappr.pdf)

<sup>9</sup> <http://www.bis.org/publ/arpdf/ar2007e3.pdf>

<sup>10</sup> <http://www.morganstanley.com/views/gef/archive/2007/20070326-Mon.html>

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- **Morgan Stanley Global Economic Forum**, Stephen Roach March 2007<sup>11</sup> “China is at the top of the external vulnerability chain. Its export sector, which rose to nearly 37% of GDP in 2006, surged at a 41% y-o-y rate in the first two months of 2007. Moreover – and this is an absolutely critical point in the decoupling debate – the United States is China’s largest export market, accounting for 21% of RMB-based exports. As the US economy now slows, the biggest piece of China’s export dynamic is at risk. So, too, are the large external sectors of China’s pan-Asian supply chain – especially Taiwan, Korea, and even Japan. Lacking in self-sustaining support from private consumption, the Asian growth dynamic remains highly vulnerable to an external shock. That’s yet another important reason to be very suspicious of the case for global decoupling”.
- The **Asian Development Bank** cite the fact only 1/5<sup>th</sup> of Asian exports are consumed by Asia with most of Asian interregional trade comprised of intermediate goods shipped to China for assembly. Note the following excerpts from ADB’s working paper number 95<sup>12</sup>.

*While the G3 economies consume nearly as much as they produce, East Asia consumes only about 70% of what it produces. The great bulk of East Asia’s products are being exported outside the region.....*

*The world’s major industrial countries continue to contribute the bulk of final demand from which much of East Asia’s trade in intermediate goods is derived. More than 60% of East Asian exports are ultimately headed for the G3 economies, after tracking the ultimate destination of trade of intermediate goods.....*

*Cyclical comovements of output in East Asia and the G3 have also visibly strengthened since the 1997 Asian crisis. Finally, there is evidence of stronger, not weaker, sensitivity of cyclical movements of East Asian output to cyclical movements of the G3 in the postcrisis period. The International Monetary Fund (IMF 2007) broadly corroborates the evidence presented in the ADO 2007*

- China’s global current account surplus is some 12-13% of GDP according to Goldstein and Lardy<sup>13</sup> and net trade some 7% of GDP compared to Japan’s of current account surplus of 4% of GDP and trade surplus of 1.5% of GDP. While China does not appear able to provide the necessary import demand for global goods in the event of a US recession it would be impacted by a significant decline in US demand for foreign exports given a) the impact on global trade and b) the impact on its own significant tradeable goods sector.
- Japanese imports in the Q2 2007 represented some 11% of **GDP** and exports some 15%. According to Richard Katz in a recent column in the Financial Times, since 2002 a third of Japan’s growth in GDP has come from the growth in the trade surplus and another third from business investment. His letter also points out that while growth in trade to the US has been flat, exports to Asia have soared 52%.

However he points out that “Much of Japan’s exports to Asia and China consist of parts, supplies and equipment used for Asia’s own exports to the US..... Japan is able to export so much to Asia only because Asia exports so much to the US. Far from becoming “decoupled”, Japan’s economy has become even more dependent on US growth during this decade..... In 2000-2007, the correlation between GDP growth in the US and Japan was 74 per cent. No other comparable period going back to at least 1980 even comes close”.<sup>14</sup> Indeed, many discount the impact of declining exports on China’s economy (*note the UBS report “Is China Export-led?”*) but forget the impact on those countries who pass goods through China for onward export.

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<sup>11</sup> <http://www.morganstanley.com/views/gef/archive/2007/20070326-Mon.html>

<sup>12</sup> [http://www.adb.org/Documents/ERD/Working\\_Papers/WP095.pdf](http://www.adb.org/Documents/ERD/Working_Papers/WP095.pdf)

<sup>13</sup> <http://www.iie.com/publications/papers/goldstein-lardy1007.pdf>

<sup>14</sup> <http://www.ft.com/cms/s/0/0307f41a-608f-11dc-8ec0-0000779fd2ac.html>

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- When we normally look at the impact of a decline or rise of an economic sector on demand we assume that capital or expenditure (*supply of money*) is merely reallocated from one sector or area of demand to another. A decline in consumer demand due to falling asset prices and high levels of debt and a decline in economic activity precipitated by tighter lending standards takes out absolute demand (declining money supply/credit) from the economy. With a decline in absolute as opposed to relative demand, the economic and monetary multipliers work in reverse.

Global interest rates have been on the rise (*up till September 2007*) and the ability of consumers to cope with higher levels of debt appears to have long since peaked, at least in the US; note the cracks in the US started to appear in the middle of 2005 and have only recently widened to the point of obvious significance. Rising interest rates have been accompanied by falling real estate prices in the US (*prices are now falling in the UK*) and most recently by a rise in the cost and the availability of credit.

In fact, all the conditions that led to the rise in debt (*low interest rates, easy access to credit and a financial "originate and distribute securitisation model"*) have now all but receded.

The impact of high debt ratios is of much greater consequence given the global asset price bubble, the potential for contraction in money supply growth and consumer demand, US structural imbalances and the inter dependence of global trade.

One thing should be clear; a higher level of debt relative to income increases the sensitivity of consumer expenditure to risk thereby increasing the impact of a risk event. With the collapse of the US real estate market and the still ongoing credit crisis, we are now in such a risk event. With consumers stretched in the US, the UK, Australia and New Zealand (and to a lesser extent Canada) and in many eastern European countries the risks to growth are more likely to continue to develop.

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## **Debt, consumer expenditure, savings and relevant issues**

### **Global consumer savings and consumer debt ratios**

Consumer debt in the US stands at 136% (95% of DPI in 2000) of disposable income, in the UK 162%<sup>15</sup> (100% in 1997), in Australia close to 170% (92% at the end of 1999), New Zealand 160%, Japan at 139% (circa 125% in 2000 and 140% in 1992) and Canada some 125% (95% in the first quarter of 2001).

Among European economies, with higher savings ratios and more subdued consumer demand components of GDP, debt as a percentage of disposable income is at a more respectable 93% (from 73% in 2000) according to the European Central Bank<sup>16</sup>.

Gross household savings rates in the Euro economies stood at 14.4% in the second quarter of 2007<sup>17</sup>, in the UK 3.1%, in Japan close to 3% and in the US 0.5%.

### **The Japanese example**

It is worthwhile looking at Japanese debt to disposable income ratios in the early 1990s. This ratio was just over 130% of personal disposable income in 1990, moved up to some 140% in 1992 as asset prices fell but debt remained on personal balance sheets and then steadily fell to 110% in 2002. This rate has since increased to 139%. The Japanese property market peaked in the early 1990s and continued to fall for a decade, negatively impacting consumer demand for more than a decade<sup>18</sup>. High levels of property related consumer debt do matter and can have significant long term economic consequences.

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<sup>15</sup> [First quarter 2007, Bank of England August 2007 Inflation report](#)

<sup>16</sup> <http://www.ecb.int/pub/pdf/mobu/mb200709en.pdf>

<sup>17</sup> [Eurostat August 2007 Release](#)

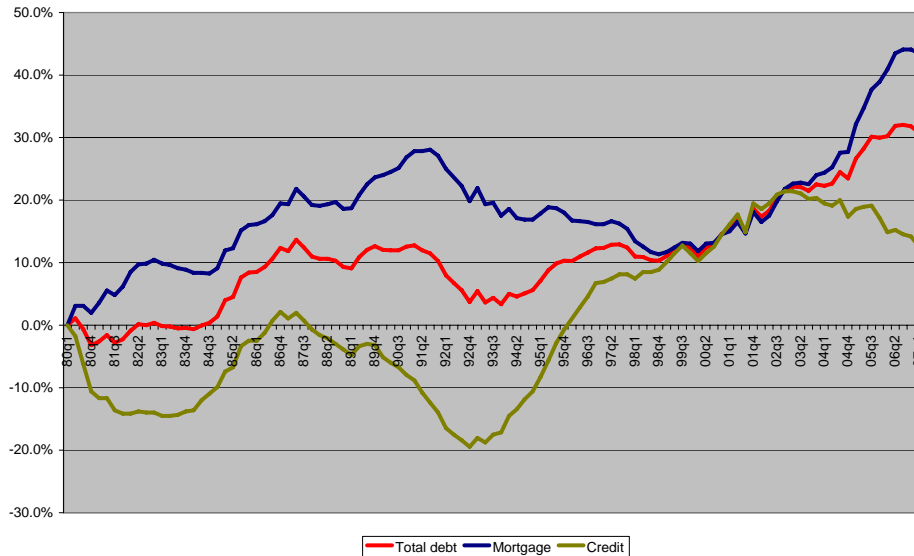
<sup>18</sup> <http://www.bankofengland.co.uk/publications/fsr/2002/fsr13art1sec4.pdf>

## The evolution of US financial debt obligations

Chart 1 shows financial obligation ratios (*total debt, mortgage and credit*) for US consumers from 1980 to 2007 as a percentage of the 1980 obligation ratios. The 2001 recession did not affect financial obligation ratios at all. In fact, at the behest of negative real interest rates, financial obligation ratios continued to rise. This is contrary to the declines in total financial obligations seen in previous economic cycles.

Chart 1 – Source US Federal Reserve

US Consumer Credit - % change on First quarter 1980

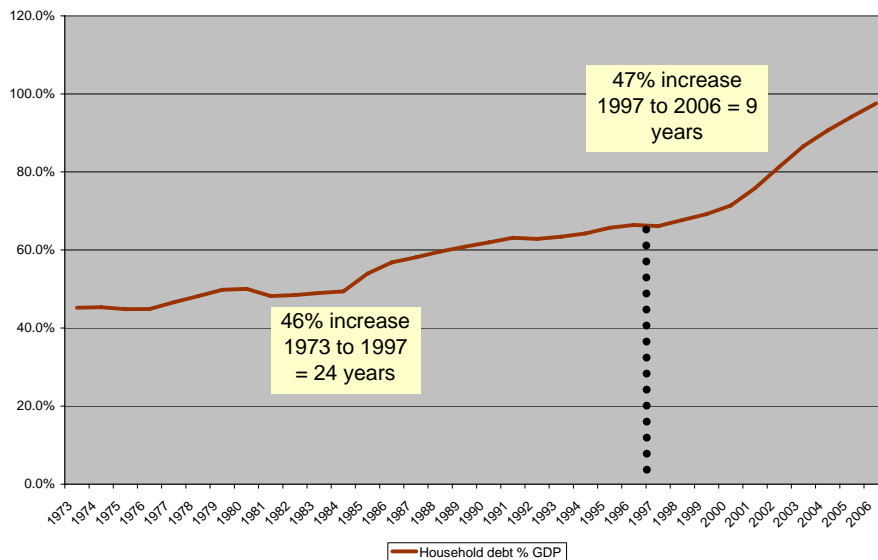


## GDP, household debt as a % of GDP and stocks (wealth) and flows (income)

Chart 2 shows total US household consumer debt as a percentage of GDP and chart 3, the differential between the annual rate of change in household debt and annual GDP growth expressed as a % of GDP.

Chart 2 – Source US Federal Reserve

Total Household debt % GDP



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Chart 2 shows the rise of consumer debt as a percentage of GDP. Annual economic output is all important in terms of being able to support high debt ratios; debt levels impact consumer spending and consumer spending is 70% of GDP; output impacts disposable personal income which impacts spending; in the long run, the value of the capital stock is tied to the future rate of GDP growth.

Small marginal changes in GDP growth are called recessions and small marginal changes in demand for assets and securities lead to market declines or bear markets; all prices are determined by marginal buyers and sellers. With consumer debt so large relative to annual gross domestic product, current levels of debt pose a very real risk to both asset values and economic growth.

We therefore cannot seek comfort in high (*and extended relative*) valuations attributed to assets based on historical prices that were determined during a period of excess demand for those assets. With marginal changes in demand influenced by changes in GDP, the measure of total debt as a percentage of GDP is a more useful measure of the risks than net wealth (stock) to income ratios (flow). Indeed, high asset valuations relative to income (*especially when consumers are saving next to nothing from income*) are as good an indication as any that the relationship between economic output and asset values is stretched.

**Chart 3 – Source US Federal Reserve**

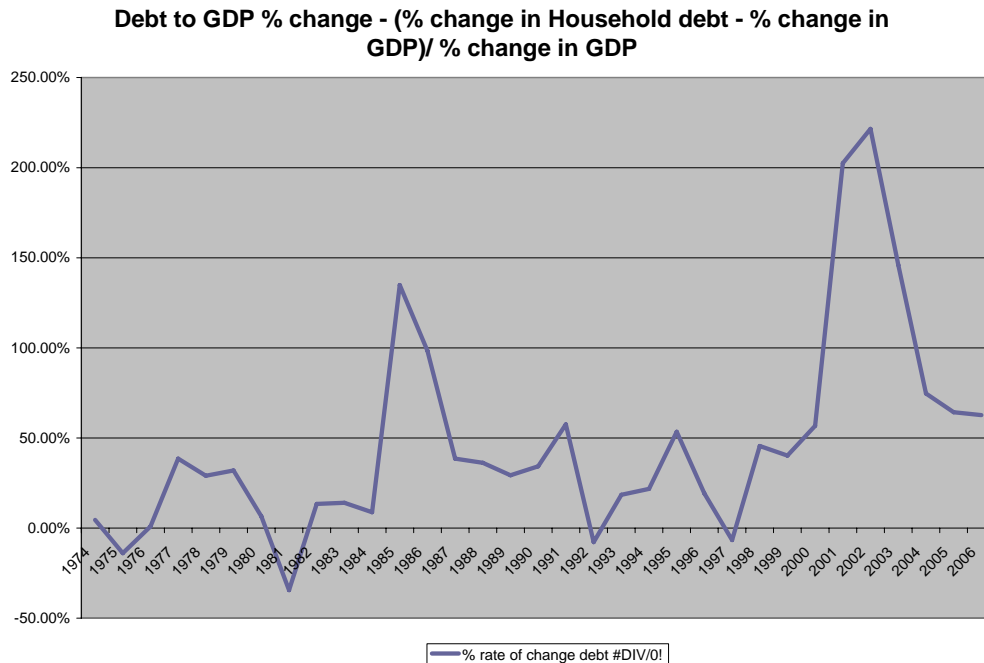


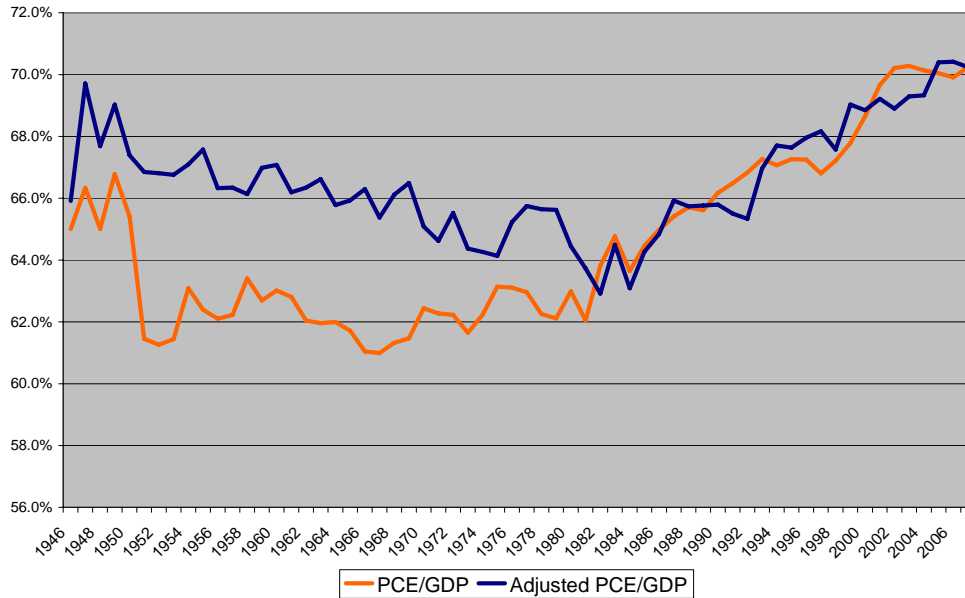
Chart 3 shows that debt has been increasing at a far higher rate than GDP growth. This reflects the fact that a significant element of broad money supply growth has been focussed on assets. Over the long term asset prices should be related to growth in nominal output, instead current valuations have been influenced more by asset focussed excess money supply growth. This differential indicates that structural economic imbalances are tied directly to high asset prices. It is also worthwhile remembering that debt is consumption (*income*) brought forward which means any drop in GDP growth impacts the ability to finance debt and current asset values.

**US Personal consumer expenditure as % of GDP**

Chart 4 (*red line*) shows personal consumer expenditure as a percentage of GDP. If we exclude the immediate post war years, consumer expenditure as a percentage of GDP averaged 62% between 1952 and 1982. The current ratio of PCE to GDP is the highest on record (*at least in the post war period*).

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**Chart 4 - Source US Federal Reserve**

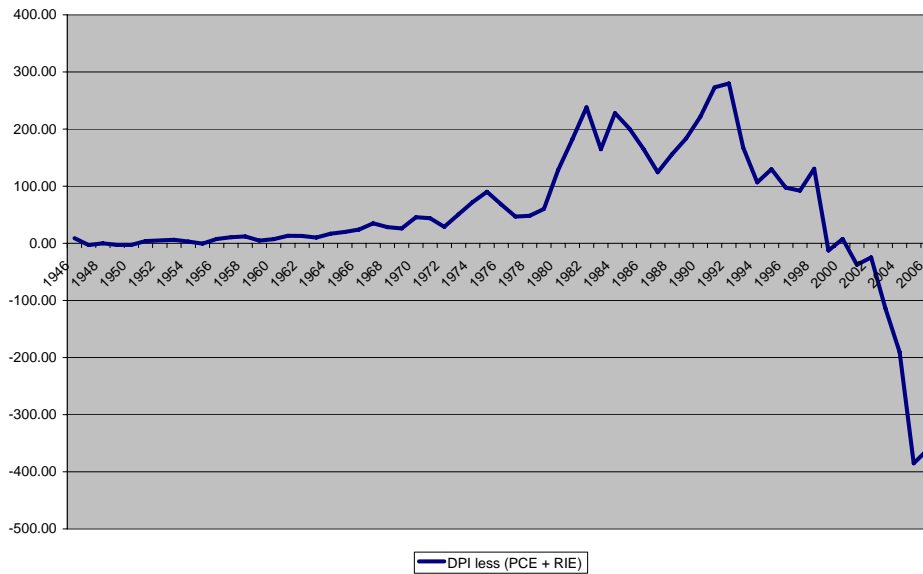
**Personal Consumer Expenditure US as a % of GDP & Adjusted PCE as a % of GDP**



However the lower ratio of personal consumer expenditure during the 1950s and 1960s was due to a lower level of disposable personal income as a percentage of GDP. Adjusting for this shows the blue line (*chart 4*), or the adjusted (*for disposable income*) PCE/GDP ratio. We can also tie in the rise in PCE as a % of GDP to the fall in interest rates and inflation from the early 1980s onwards. The following chart is a reconstructed shorter version of the one found in Paul Kasriel's recent Financial sense editorial.<sup>19</sup>

**Chart 5 – Source US Federal Reserve**

**US Disposable Personal Income less (PCE + RIE)**



<sup>19</sup> 1. Financial Sense Editorials – Paul Kasriel; Wall Street and Main Street Joined at the Hip

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Chart 5 shows US disposable income less personal consumer expenditure and residential investment expenditure drawn from the Federal flow of funds accounts. The chart shows that the residual was strongest toward the end of the 1970s through to the middle of the 1990s. This period actually corresponds (*late seventies*) to the period disposable personal income rose from 70% of GDP in 1979 to 75% in 1992. It took a while for the US consumer to adjust for this increase, but from 1997 onwards US consumption (DPI less PCE and RIE) has moved into the deepest and most sustained deficit in history – please see Kasriel's article for more historical context and information on this chart.

## US Residential fixed investment

Many point to the fact that residential fixed interest investment is such a small component of GDP that it is unlikely to impact economic growth. As of the second quarter of 2007 residential fixed investment represented some 4.9% (*having earlier hit a peak of 6.3%*) of GDP. On its own it is unlikely to significantly impact economic growth either way. However the accumulated financial excess surrounding real estate is the problem. In 1998 at the time of the LTCM crisis mortgage debt represented some 40% of GDP; it is now equivalent to 74% of GDP.

It is the ratio of mortgage debt to GDP rather than the annual incremental increase in GDP, that real estate represents, that is important. As stated before it is not the value of assets but the impact of changes in marginal demand for those assets (*itself dependent on GDP and GDP growth*) that matters.

## Productivity Growth & debt distribution by income percentile

Now if the increased demand in the US came by way of increased productivity growth then capital released via increased productivity growth could well have been reallocated to consumption. If productivity growth was expected to continue to grow, investors could likewise bring forward future expenditure by borrowing today, thereby saving less and spending more.

Given that one of the benefits of productivity growth is reduced costs to consumers, higher than average consumer expenditure means that actual consumption of goods has increased at a far higher rate than dollar for dollar personal consumer expenditure comparisons would suggest. This would again raise issues of excessive consumption over the last decade.

However, with the lower than average rate of growth of earnings in the current recovery it is unlikely that recent productivity growth has filtered through to consumption via higher real wages for most Americans.

Research by Becker and Gordon of North Western University<sup>20</sup> looked at the relationship between “macro productivity growth and the evolution of the income distribution at the micro level”....and found “that over the entire period 1966 to 2001...only the top 10% of the income distribution enjoyed a growth rate of real salary wage and salary income equal to or above the average rate of economy wide productivity growth...Indeed, to the extent that the productivity growth “explosion” of 2001-2004 was achieved by cost-cutting, layoffs, and abnormally slow employment growth (as suggested in Gordon, 2003), then the historical link between productivity growth and higher living standards falls apart. Not only have the bottom 90 percent of American workers failed to keep up with productivity growth, many have been harmed by it”.

That higher productivity growth has not filtered down into US consumers at large would suggest that at the earned income level, that productivity growth has done little to assuage the risks of high debt levels for the majority of Americans and that higher productivity is not at the root of higher debt levels for most Americans.

Indeed, if we look at the distribution of debt across income percentiles<sup>21</sup> we find that (*as of 2004*) the lowest (*significantly lower*) debt service ratios occurred in the highest income group. While this data is 3 years old and debt burdens globally have increased significantly, as have interest rates, most of the mortgages currently in

<sup>20</sup> [http://www.brookings.edu/es/commentary/journals/bpea\\_macro/forum/200509bpea\\_gordon.pdf](http://www.brookings.edu/es/commentary/journals/bpea_macro/forum/200509bpea_gordon.pdf)

<sup>21</sup> OECD Working Paper number 35 Has the rise in household debt made households more vulnerable, and Alliance Bernstein US Weekly Economic update April 2007.

default were taken out post 2004. It would not be irrational to assume that this data still has relevance, if not more so.

## Buybacks and consumer expenditure

Another way in which higher productivity growth rates can be transferred to consumers is via stock buybacks. US household net equity withdrawals (corporate equities and mutual funds) have averaged 1.6% of GDP since 1992. However in the key years, 5 years to 2005 (0.8%) and the 5 years to 2006 (0.7%) stock buybacks were less than the average for the last 27 years. Also, many of the buybacks have been related to private equity deals taking stock private and are more often than not backed up by high levels of debt and do not represent as yet a return of excess productive capital. Stock buy backs do not appear to account for the large increase in consumer expenditure and personal debt since 2001.

**Chart 6 – Source US Federal Reserve**

### Average 5 year net equity withdrawals (corporate equities and mutual funds) % GDP



It must also be reiterated that the consumption of capital via the purchase of foreign goods represents a transfer of capital outside the country. Excess consumption in this respect reduces the capital available to produce future growth in income. Up till recently this capital shortfall has been met by foreign investors.

Issues affecting investment in productive capacity and the long term implications of sustained and significant trade deficits are not the specific focus of this document. There is no doubt, in aggregate, that productivity gains have encouraged greater levels of consumption but they do not account for or rationalise the large increase in debt to fund that and more expenditure. Again, consumption looks to be more influenced by low interest rates, easy access to debt, high asset prices and home equity withdrawals.

## For and against the risks of high debt to income ratios

In line with previous TAMRIS reports, this perspective argues that consumer debt is too high and that such debt poses a risk to global economic growth. The focus of this article is however US consumer debt given the importance of the US economy within the global economy and the importance of US consumer demand to world growth over the last few years.

Nevertheless the views about the relative risks of high consumer debt are split. Some like a number of US Federal Reserve economists<sup>22</sup>, David Malpass (Chief Global Economist Bear Stearns) and Royal Bank of Canada economists believe that high levels of debt do not pose a risk (or at least did not), that high debt levels represented efficient resource allocations and that the net wealth to income ratios were more important. Others such as Paul Kasriel (Northern Trust), Stephen Roach (Morgan Stanley), Nouriel Roubini of Stern Business School (NYU) and Shiller of Yale, amongst others, believe that high levels of debt pose high to extreme levels of risk to the US and global economies. The two reports/commentaries addressed here are from RBC and Paul Kasriel.

### RBC – Seven Myths About Household Finances

A report prepared by RBC Financial Markets titled “Seven Myths About Household Finances<sup>23</sup>” in March 2006 put forward the view that household debt risks were over played. The following looks at their assessment of risks with regard to myths 1, 4, 5 and 6; Myth 2 relates to consumer bankruptcies and is not necessarily relevant with respect to the important cyclical structural issues of high levels of debt.

The first myth discussed was that the debt to income ratio was the wrong ratio to look at given that the asset to debt ratio was some six times the value of debt in both Canada and the US. It also pointed out that the vast majority of debt was used to acquire assets and not for expenditure. It argued that all high household debt to income ratios indicated was that capital markets were highly developed allowing consumers to smooth income and spending needs over time.

### TAMRIS comments

While the value of assets relative to debt and net wealth to income are important considerations, it must be noted that debt to wealth ratios and financial obligation ratios have also been rising to new historical highs. If asset prices are being inflated by excess money supply growth and focused, leveraged investment vehicles, then net wealth to income ratios do not offer the necessary support to consumer demand. As asset prices fall, debt to wealth ratios will rise further and individuals will no longer be able to spend a portion of home equity, but instead will need to increase saving to replace lost capital. A similar thing happened in the late 1990s bull market when occupational pension funds went on a contribution holiday because the rise in the value of their assets meant that they were now overfunded relative to their future liabilities. Unfortunately come the 2000 to 2003 bear market, this positive balance evaporated and pension funds moved into significant deficits. Where high asset to income/debt ratios are generated by asset price bubbles, then all this should mean is that consumption is more sensitive to asset valuations than income.

Note the following quote from Stephen Roach’s March 16 comment “The Great Unravelling<sup>24</sup>”, “*Asset-dependent economies go to excess because they generate a burst of domestic demand that outstrips the underlying support of income generation.*”!... *At the same time, reflecting the asset-dependent mindset of the American consumer, debt and debt service obligations have surged to all-time highs whereas the*

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1. <sup>22</sup> Federal Reserve Bank of San Francisco – What’s Behind the Low US Personal Savings Rate March 2002

<sup>23</sup> <http://www.rbc.com/economics/market/pdf/myths.pdf>

<sup>24</sup> <http://www.morganstanley.com/views/gef/archive/2007/20070316-Fri.html>

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income-based saving rate has dipped into negative territory for two years in a row – the first such occurrence since the early 1930s. Equity extraction from rapidly rising residential property values has squared this circle – more than tripling as a share of disposable personal income from 2.5% in 2002 to 8.5% at its peak in 2005. The bursting of the housing bubble has all but eliminated that important prop to US consumer demand. The equity-extraction effect is now going the other way – having already unwound one-third of the run-up of the past four years. In my view, that puts the income-short, saving-short, overly-indebted American consumer now very much at risk – bringing into play the biggest spillover of them all for an asset-dependent US economy”.

The fourth myth looks at the exposure of North American consumers to rises in interest rates and points out that North American has a relatively low sensitivity to rising interest due to the lower percentage of adjustable rate mortgages. It also looked at liquidity levels and the ability to use such liquidity to either increase expenditure or reduce mortgage debt.

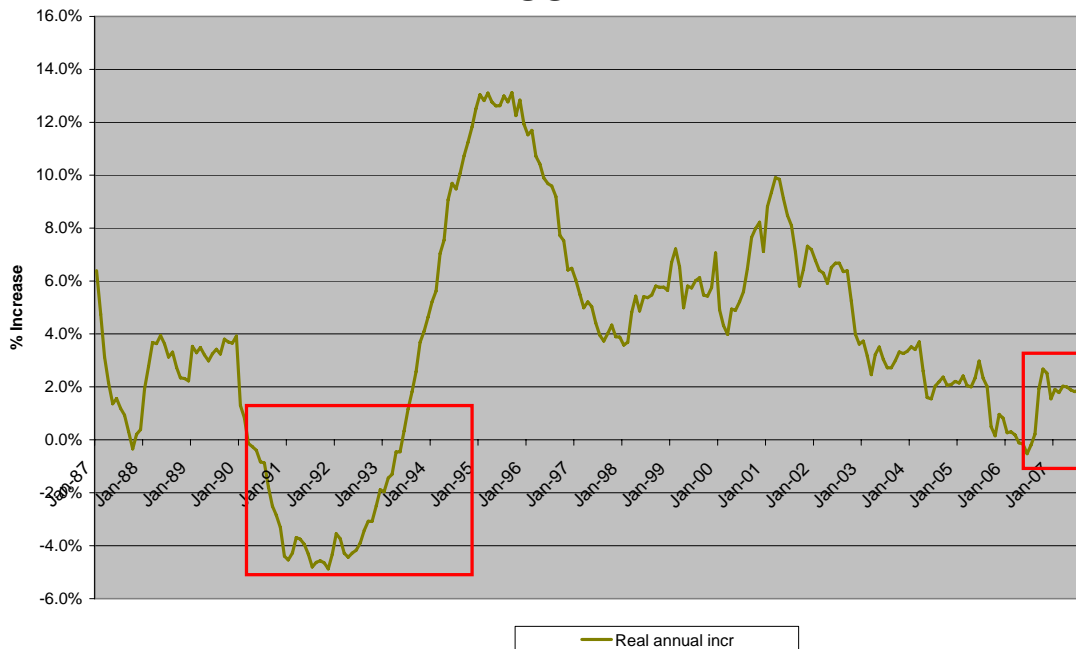
**TAMRIS comments**

This also ignores the historically high financial obligation ratios in the US and the fact that part of home equity withdrawal has been used to support expenditure; it is also worthwhile noting that as the housing market faltered and the rate of home equity withdrawals fell that credit card debt increased. Obviously as mortgage rates adjust to higher interest rates, this financial obligation ratio could rise considerably higher. If the US and other economies were to move to a (long term) higher interest rate environment, then financial obligations would rise irrespective and asset prices would fall. Unfortunately the impact on asset valuations can occur much more quickly. The above RBC argument is really only an argument as to why short term spikes in interest rates may not have an immediate impact on the ability to spend from income. This misses the point.

Chart 7 shows the real annual increase in US consumer credit since 1987. It shows the annual increase in consumer credit falling from the end of January 2002, presumably as home equity withdrawal and mortgage refinancing stepped up. Notably as the property market slump gathered pace towards the end of 2006, growth in consumer credit resumed and growth in home equity withdrawals fell.

Chart 7

**Real annual increase in total consumer credit - US**



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Myth 5 looked at the low savings rates and provided a wealth adjusted savings measure which adjusted for increases in wealth as opposed to saving out of income.

### **TAMRIS comments**

Again, this takes us back to the occupational pension fund analogy where contributions were stopped as rises in stock markets placed these pension funds into an overfunded position, only to find when markets fell that the funds moved into deficit. Where increases in assets are related to large increases in broad money supply growth/financial leverage, the increase in asset values becomes a risk to expenditure where such are used to supplement either saving or expenditure. Use of adjusted savings ratios also ignores the fact that the increase in the real value of economic output is often insufficient to justify these asset values. Also assets do not increase in price all on their own; foreign capital has been important in supporting demand for North American real estate and other assets. Relying a) on this foreign demand and b) on financial leverage, increases the future risks to consumer demand and therefore risks to the current value of wealth. Positive wealth adjusted savings rates may well support why at a point in time consumer demand is positive but it says nothing about how consumer demand will act in a downturn.

Myth 6 looked at whether or not households are spending all the equity raised from home equity withdrawals and its analysis is limited to survey data related to 2001/2002.

However we know that total debt has increased since then and that the survey data precedes the stronger economic recovery in asset prices post 2002 and much of the larger increases in home equity withdrawal. It is also not necessary for all home equity withdrawals to have been spent on consumption since what is more important are the overall debt and consumption relationships that have clearly built up over the last six to seven years.

Myth 7 looks at whether equity and real estate markets pose risks to credit quality. The report makes the following comments which have obviously been superseded by events;

*“Some suggest that we may be in a North American housing bubble, and if so, that when it pops it will take down household credit quality. Our own view is that we are not in a housing bubble, though there are pockets of concern across parts of North America....People don’t default on their loans because the book values of their homes have dropped by 10, 20 or 30%. They do so when cash flows become impaired. This occurred in the early 1990s when a real estate bubble popped, but not because of it. Cash flows back then deteriorated because of weakening employment markets and rising debt servicing costs in a sharply deteriorating environment for both fiscal and monetary policy made worse by many other simultaneous adjustments.”*

### **TAMRIS comments**

The belief that the US was not in a housing bubble is key to understanding the contextual reference of the RBC analysis. If asset prices had not been driven by excess money supply growth then consumer demand would not have expanded as far as it did and, consumers would not have been so heavily in debt. Cashflows have however been impacted by rising interest rates and higher levels of debt and further discussion of this is provided in Alliance Bernstein’s<sup>25</sup> April report.

Finally, it is worth pointing out comments made in another RBC report regarding “Why the US consumer can withstand weaker housing markets”<sup>26</sup>.

*It would be a mistake — and a reversal of cause and effect — to conclude that the challenges facing ARMs, HEWs and a plethora of new household debt products are signs that financial innovation was not sustainable and was driven by over-heated real estate markets. Financial innovation deserves much of the credit for influencing*

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<sup>25</sup> [http://www.alliancebernstein.com/CmsObjectABD/PDF/EconomicPerspectives/REPUS\\_070413\\_JC.pdf](http://www.alliancebernstein.com/CmsObjectABD/PDF/EconomicPerspectives/REPUS_070413_JC.pdf)

<sup>26</sup> <http://www.rbc.com/economics/market/pdf/usconsumer1206.pdf>

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*the resiliency of U.S. consumers by offering them a growing universe of debt and liquidity management vehicles by which to smooth out income and consumption over the cycle through good times and bad.*

Another consumer debt camp apologist is David Malpass, Global Chief Economist of Bear Stearns, his views can be read in a recent article titled "Running on Empty".

## **Proponents of risks of high debt levels**

An interesting perspective on consumer debt can be found in recent commentary Paul Kasriel<sup>27</sup>. This points out the significant and unprecedented household deficits of the last seven years and the highest levels of personal consumer expenditure since the great depression. This article counters the arguments of the pro debt commentators (in particular Malpass) by pointing out the following.

- Given that total household debt has been rising to historical highs, increases in household debt have done more than merely replace more expensive credit card debt.
- Declining net acquisition of financial assets by households out of disposable income indicates that increases in household debt have not been used to increase holdings of other assets.
- That net sales of corporate equities and mutual funds indicate that it has not only been home equity that has been used to support expenditure but also the sale of other assets.
- That rising costs of credit to fund share buybacks and the enveloping credit crisis will restrict another avenue that had been available to the consumer to fund their expenditure.

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## **Conclusion**

Lower interest rates, financial innovation and more stable economic growth should allow for higher debt levels and the use of wealth to smooth income needs over short time periods. However, it is likely that consumer debt, empowered by financial innovation, low interest rates and excessive growth in money supply has moved to levels which are now posing ever increasing risks to economic growth.

As discussed, what makes high levels of debt in the US economy more of an issue is the central role the US consumer has played in world economic growth and, the dependence of marginal world economic growth on US domestic demand. With a deceleration in US domestic demand there is at yet little evidence that foreign consumers are able to make up not just for the decline in this demand but to provide the necessary uptick of growth in demand in the time frame required to avoid a further deceleration in world economic growth.

Many economists believe that the US housing market has further to fall and that the current credit crunch hitting the world's financial system has yet to run its full course. This means by implication that the risks posed by high debt levels are likely to intensify. As stated perspective 1, central banks may be forced to cut rates further to support consumer demand and to ease the pressure on the financial system.

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<sup>27</sup> <http://www.financialsense.com/editorials/kasriel/2007/0813.html>

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