

Russell Napierrussell.napier@clsa.com
(44) 1316549830

June 2009

**Global
Macro strategy**

How the rally ends

We are in another rally in the long bear market that began in 2000. It is not a new bull market: valuations did not reach rock bottom in March and interest in equities remains far too high. The last rally lasted from 2002-2007 and this current one should also last for a few years. One cannot call the end by using valuations or magnitudes of returns. Instead we must wait for inflation to claw its way back to around 4%. Although forecasting inflation is incredibly difficult in a period of quantitative easing, we cannot see it approaching that level anytime soon. We are thus in for a prolonged equity market rally, accompanied by economic and earnings recovery.

A rally in a long bear market

- Long term valuations suggest this long bear market will not be over until the S&P500 Index nears 400.
- There was no revulsion against equities in March 2009 needed for a great bottom.
- Creative destruction was once again halted by the government, so the creative destruction of government credit will be the catalyst for the great bottom.

Why 4.0% inflation caps the rally

- Equities benefit when deflation ends and inflation returns.
- In 1968, 1973, 1987, 2000 and 2007, inflation rising through 4.0% resulted in material corrections in equity prices.
- As 4% inflation is unlikely until at least 2H10, a considerable further rally in equity prices is likely.

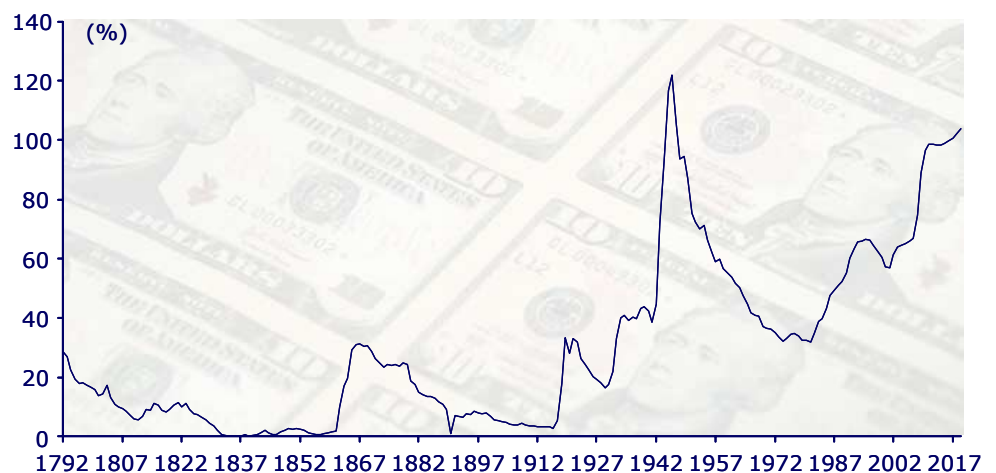
Bond yields need to beat 5% to be of concern

- In periods when inflation has risen from low levels, it has taken a 5.0-6.5% rise in bond yields to end equity rallies.
- A re-acceleration of foreign central bank support is likely to slow the selloff in Treasuries.

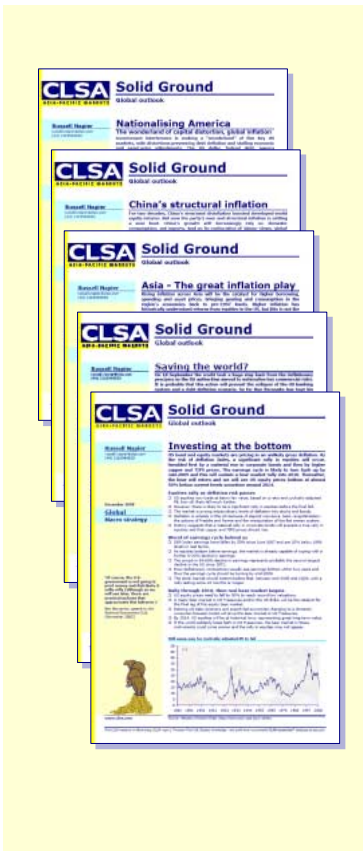
A decades-long bear market in Treasuries

- In a best-case scenario, the US gross public debt to GDP level is only going back to WWII records.
- Levels of public debt at WWII levels were only supported by government direction of commercial banks, unrestricted Fed liquidity and price controls.
- One final rearguard action against inflation by the Fed will trigger the final leg of the equity bear market

US gross federal debt as % of GDP



Source: Historical Statistics of the United States, EH.net, Congressional Budget Office



Contents

Executive summary 3

Rally capped by 4% inflation..... 4

Foreign central bank support slows rise of Treasury yields 10

The creative destruction of US government credit..... 16

About Russell Napier

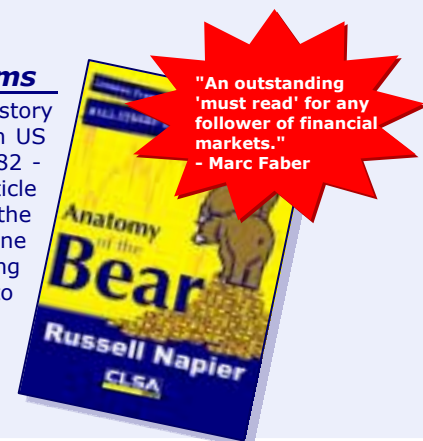
Russell Napier is a consultant with CLSA, writing on issues affecting global equity markets. He worked as an investment manager at Baillie Gifford in Edinburgh, before moving to Foreign & Colonial Emerging Markets in London. In May 1995, Russell became Asian equity strategist at CLSA in Hong Kong. He was ranked No. 1 for Asian strategy in both the *Asiamoney* and Institutional Investor polls in 1997, 1998 and 1999. Since 1999 he has worked as a consultant for CLSA. Russell has developed and runs a course called A Practical History of Financial Markets. The course is aimed at fund managers and involves teachers with some 200 years of experience communicating the key lessons in financial history in just three days (www.sifeco.org). Russell's book *Anatomy of the Bear* was named investment read of the year for 2006 in the *FT*, and was republished in 2007.



Available from select bookstores, amazon.com and clsabooks@clsa.com

Anatomy of the Bear: Lessons from Wall Street's Four Great Bottoms

Russell Napier's acclaimed book examines financial market history as a guide to the future. Looking at the four occasions when US equities were most undervalued - 1921, 1932, 1949 and 1982 - Napier set out to answer key questions by analysing every article that appeared in *The Wall Street Journal* either side of the market bottom. Through the 70,000 articles he examined, one begins to understand the features pointing to a great buying opportunity arising. Napier offers investors a field guide to making the best financial provisions for the future



How the rally ends

Why is the current strength in equities just a rally in a long-term bear market and not a new bull market? More importantly, what will be the warning signs that it is coming to an end?

Valuations are too high for March 2009 to signal the end of the 2000-12 bear market

By March 2000, US equities were as overvalued as they have ever been. Whether one assesses value relative to earnings (cyclically adjusted PE) or assets (q ratio) these far surpassed those achieved at the peak of the 1929 bull market. The bad news is that history suggests only terrible returns can come from investors paying such a price, as valuations mean-revert. The good news is that valuations have *already* returned to their mean! Following previous excessive valuations in 1901, 1929, 1937 and 1966, valuations fell well below their mean. This has not occurred today. Even at the March 2009 low for the S&P500, the market could, at best, be described as somewhat cheap. This report deals with the dynamics which are eventually likely to reduce valuations to the lows seen in 1921, 1932, 1949 and 1982.

The deflation fear is just passing and equities will continue to benefit

In a previous *Solid Ground*, 'Finding The Bottom' (December 2008), I argued that deflationary fears were overdone; and that key indicators (TIPS, corporate bond and commodity prices) would stabilise and rise, indicating that government cures for deflation would succeed. A collapse in the deflation risk would reduce risk premiums and send the price of US equities higher. So far this is how things have worked out - but now a key fear for investors is that an *inflationary* shock, with very negative implications for the price of Treasuries, will bring the equity market crashing back down.

Equities can be very resilient in a period of rising bond yields

This report shows that inflation is a worry, but it is far too early in the business/reflation/inflation cycle to worry now. It is indeed likely that inflation and rising Treasury yields produce the next down leg in the bear market - but financial history strongly suggests that equities are major beneficiaries in that sweet spot when inflation rises from around zero to four percent.

Until inflation nears 4%, it will remain safe to hold equities

To be frank in an era of global quantitative easing, almost nobody is likely to forecast exactly when and how rapidly inflation will return. But this is not as important as you might think. What we can suggest is that equities will be dangerously extended when inflation nears 4%. My best guess is that such a level will not occur until at least the end of 2010. Until that time, many other positives will develop for equity investors; and before inflation reaches 4% we will see economic and earnings recovery. Crucially, a floor will be set for US residential property prices and this will be very good for the credit markets.

The key catalyst for the last leg of the bear market is a collapse in Treasuries

This author fully expects, by the end of 2010, to hear heralds singing the birth of a big new bull market. But such talk will be dangerous, as the rise in Treasury yields will still be in its infancy. Perhaps only slowly will it dawn upon investors that the US government is headed for the form of polite bankruptcy that democratically elected governments prefer. The last bear market in Treasuries lasted from 1946-81 and there is every reason to believe that the one now just beginning could also take decades to play out.

Very high bond yields (+6.5%) can force the S&P500 down to 400

History shows that equities are unspooked by the early stages of such bear markets in Treasuries, but it also suggests that a very material rise in Treasury yields is exactly the sort of catalyst that could reduce equity valuations to the lows seen in 1921, 1932, 1949 and 1982. If this is correct, when the current wonderful rally ends, sometime in late 2010 to early 2011, we will see a decline in the S&P500 to around the 400 level.

Inflation and not earnings or valuation is key for equities in the near term

The CAPE provides long term guidance as to future prices

Sometimes it's easy: you just pay too much and get a bad return

CAPE works best over five-year plus timeframes

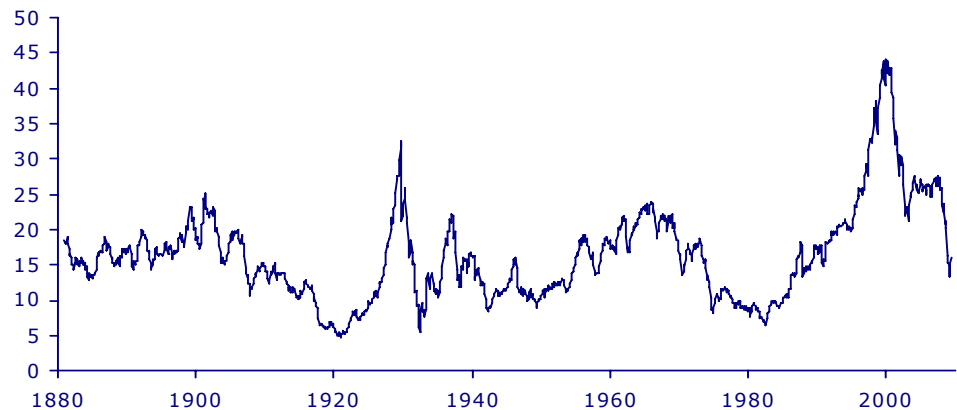
Rally capped by 4% inflation

Einstein once said that the secret of his success was to ask the right questions and keep going until he got the right answers. In investment, just asking the right question is the most difficult bit, as hundreds of questions can be raised every time you switch on your Bloomberg machine. Following two years' work on my book (*Anatomy of the bear: Lessons from Wall Street's four great bottoms*) and five years' running the Practical History of Financial Markets course, I have come to the opinion that one of the most important questions for investors is about the outlook for inflation. Now, before fundamental investors get upset, I think the evidence does show that equity valuation is the key driver of return in the very long term, followed over even longer time frames by dividend growth. By the 'very long term' I mean periods of at least five years and probably something nearer ten or more. But for investors who do not have the luxury of such a time frame, the key question to ask is about inflation. This report looks at how changes in inflation are central to calling the twists and turns in this long bear market.

Regular readers of *Solid Ground* will by now be very familiar with the chart below, showing Robert Shiller's cyclically adjusted PE (CAPE) of the S&P Composite Index stretching back to 1881.

Figure 1

Cyclically adjusted PE (CAPE) ratio of the S&P Composite Index



Source: Robert Schiller: <http://www.econ.yale.edu/~shiller/data.htm>

This chart is evidence for the proposition that, in the very long term, equity valuation is crucial to equity returns. As an example, the wonderful economic progress made by the USA from 1901-1921 did not result in capital gains for the holders of US equities. This was primarily because they paid too high a price for those equities in 1901, but also because corporate earnings in 1921 were below 1901 levels due to poor returns from railroads and an economic collapse from 1919-1921. So while dire economic problems were visited on investors post the 1929 and 1968 peaks, even fairly benign economic conditions don't produce good returns if the initial price paid is too high. By 2000 valuations had reached such an astronomical level that even benign economic conditions were unlikely to result in good returns for investors.

Remember that CAPE uses entirely backward looking data and yet it has always produced bad returns for those who bought at high valuations and good returns for those who bought at low valuations. This statement is true only if we are dealing with investors who have very long term holding periods. CAPE suggested that equities were expensive and likely to produce poor

There has been a sense of inevitability about a move from high to low valuations

Inflation in conjunction with CAPE helps explain near term market movements

High valuations extrapolate low inflation and high earnings growth

Bear market bottoms are created by deflation

Deflation is so destructive as it leads to myopic discounting

returns from 1995. Of course wonderful short term returns (1995-2000) occurred even if the long term returns (1995-2009) have been some of the worst on record.

Of course there are many occasions when the cyclically adjusted PE is neither at high levels nor at low levels. On these occasions the value criteria can be of use to the very long term investor due to the mean reverting nature of the series. If we are coming from a high valuation the data suggests that valuations will have to go well below their means. The reverse is also true. However, once again these signals pertain to very long term time frames.

Investors concerned about holding periods of less than five years should look at the CAPE data in conjunction with changes in inflation. That such a relationship exists is best illustrated by looking at the extreme of the CAPE data. The extreme high valuations for US equities (1901, 1929, 1937, 1966, and 2000) have all coincided with periods of high growth and low inflation.

Figure 2

Earnings growth & inflation prior to peak valuations			
(%)	Earnings growth in previous 5 yrs	Average inflation in previous 5 yrs	
1901	+75	+2.4	
1929	+65	zero	
1937	+86	(1.4)	
1966	+63	+1.4	
2000	+57	+2.4	

Source: <http://www.econ.yale.edu/~shiller/data.htm>

As the table above shows valuations have peaked after prolonged periods of low inflation and high earnings growth. Investors have foolishly extrapolated that combination into the future and the low risk free rate and high dividend growth rate have combined to produce high valuations. This wonderful combination of high earnings growth, low inflation and a low discount has never been sustainable.

If high valuations are based on extrapolations of high growth and low inflation, then low valuations are driven by deflation or the risk of deflation. In 1921, 1932, 1949 and 1982, actual deflation or the prospect of it was the key driver depressing share prices. Although some question the role of deflation in 1982 those present remember the fear that the capital of the US banking system had been eradicated by the debt defaults by lesser developed countries. The collapse in commodity prices and bond yields tells a story of a risk of debt deflation which, as we only subsequently discovered, was prevented by government action. If low inflation and high growth produces high valuations deflation and contraction produces low valuations. The link with inflation/deflation is evident at the extremes of CAPE.

Deflation is such a terrible dynamic for equities because it threatens the very survival of equity, that thin sliver of hope between assets and liabilities. When the survival of the thin sliver is questioned investors have to heavily discount the prospect of future cash flows. If the selling price of corporate goods fall it is less likely that corporations can meet their financial obligations and thus equity may be valueless. If asset prices decline more quickly than liabilities then book value can shrink rapidly or even disappear. Investors trust in the survivability of equity and thus can discount cash flows well into the future. However when deflation rears it's ugly head there is a real chance that the thin sliver of hope does simply not make it to the long term. As argued in the

The long swings in valuations are driven by disturbances to the general price level

In the great bear market (1929-32) no inflation preceded the valuation collapse

Inflation rising from close to zero is very good for equities

December Solid Ground (Finding Bottom) government action was very likely to overwhelm deflationary forces and thus the equity market would bottom. It does appear that understanding this deflation/inflation dynamic has once again helped call the bottom of the equity market.

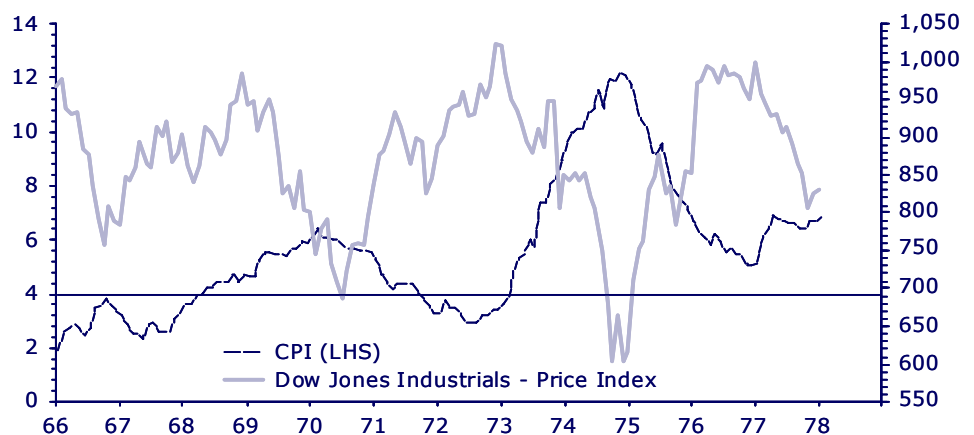
As with most things in life understanding extremes is always easier. So how does the inflation dynamic help us understand the bits in the middle which dominate the 1881-2009 dataset? As already mentioned, the key reason why high valuations decline is that evidence arises to make it unlikely that high earnings growth and low risk free rates can be sustained. From 1901, this may initially have been the trust busting activities of President Roosevelt and also increasing evidence of structurally poor returns from the railroads. This focus shifted squarely to inflation with the outbreak of WWI. Similarly, in 1968, there was a rise in inflation well above expectations and a persistence of inflation which was unexpected. Following on from 2000, the 'new economy' also failed to deliver the promised high growth low inflation economy especially when the boom in commodities came along. In these three incidences rising inflation played a key role in undermining the faith in high growth and low inflation which had buoyed equity valuations. Inflation was a key trigger for the mean reversion of valuations.

Of course things were somewhat different in 1929. Instead of inflation it was deflation which ruined the high growth and low inflation nirvana. Clearly the key driver then was the collapse in earnings, rather than a surge in the risk free rate, but the 1929-1932 deflation was a key driver in producing the fastest ever decline in equity valuations. So whether it was a lurch to higher inflation or a lurch into deflation these disturbances to the general price level did play a key role in driving valuations from peak to trough levels.

The good news is that the use of inflation to determine the direction of equity valuations is not confined to tops, bottoms and broad long term directional shifts. There is lots of evidence that equity valuations will benefit in periods when inflation rises from very low levels. This is clearly an element in driving the current rally. Perhaps more importantly there is also evidence that the benefits from low and rising inflation will cease when inflation reaches around 4%. The charts below look at all the periods in the post war period when inflation rose from low levels towards four percent.

Figure 3

US inflation and Dow Jones Industrial Average 1966 -1978



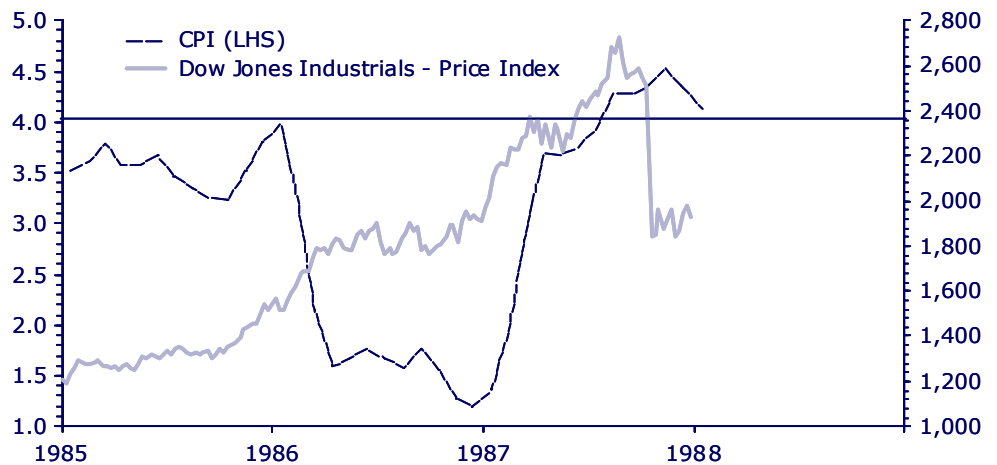
Source: Datastream

In 1968 and 1973 inflation rose through 4.0% and the DJI collapsed

The chart above shows how US inflation rose from low levels to breach 4% in early 1968. There was no immediate negative reaction from equities and the bull market continued. By the end of 1968 inflation had breached 4.5% and this was followed by a very sharp sell off in US equities. This chart also shows how inflation had been reduced below 4% in the second half of 1971 but then rose strongly through that level in 1973. Once again there was a rapid reaction from the US equity market and a second major bear market ensued.

Figure 4

US inflation and Dow Jones Industrial Average 1985 -1988



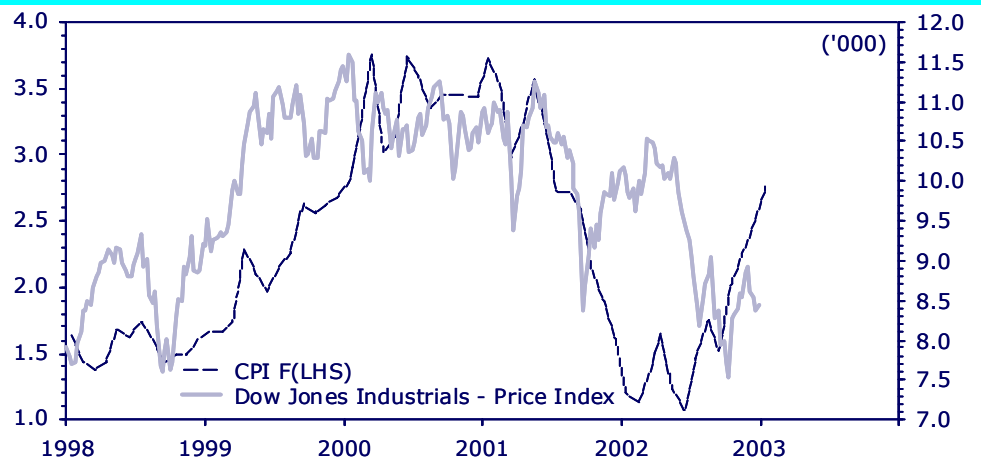
Source: Datastream

In 1987 inflation rose through 4.0% and the DJI collapsed

The chart above shows a rise in inflation from low levels and a breach of the 4.0% level in August 1987 with a move to 4.5% inflation by November of that year. Once again, this coincided with a dramatic fall in US equities. On this occasion, perhaps due to aggressive central bank reaction, inflation did not materially decline but remained near the 4.0% level and went higher through 1989. The equity market did not react negatively until well into 1990. Thus after the 87 crash, when inflation remained at high levels, the stock market did not react negatively to a move in inflation from 4.0% towards 4.5% for a couple of years. This suggests that the real risk to equities occurs when inflation starts well below 4.0% and rises to or through that level.

Figure 5

US inflation and Dow Jones Industrial Average 1989 -2003



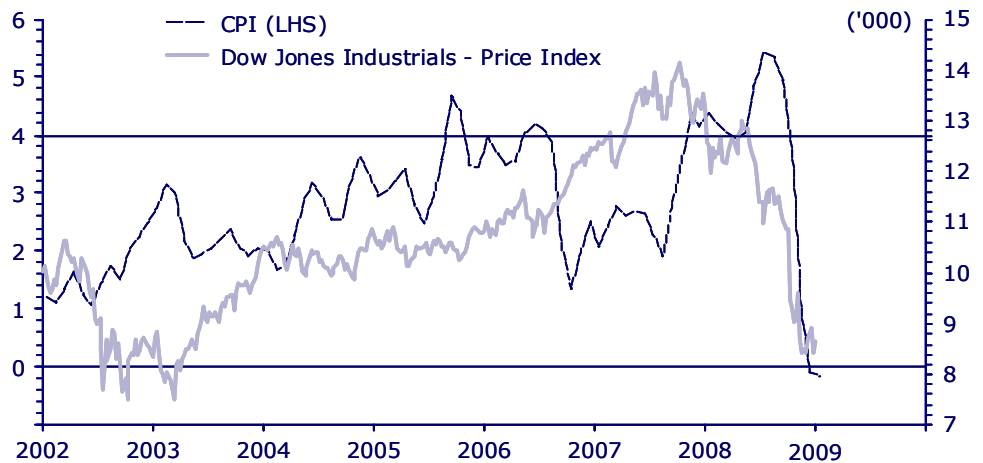
Source: Datastream

In 2000 inflation got just short of 4.0% and the DJI collapsed

The chart above shows how inflation rose from low levels in the late nineteen nineties to reach levels just below 4% in 2000. Although the 4.0% level of inflation was not breached this rise in inflation to around the 4.0% level coincided with the beginning of another bear market in US equities.

Figure 6

US inflation and Dow Jones Industrial Average 2002 -2009



Source: Datastream

The chart above shows how inflation rose from very low levels from 2001 onwards against the background of strong rises in the price of equities. Inflation did breach 4.0% briefly in 2005 and 2006 and equities took this level of inflation in their stride although the rise in the market was very muted over that period. However, when inflation next breached the 4% level, in late 2007 and in to 2008, this coincided with a terrible bear market in US equities.

The analysis above suggests that equities will benefit in periods of rising inflation, until inflation reaches 4%. It's an imprecise number, with inflation just below 4% associated with the bear market of 2000 and a number nearer 4.5% associated with the bear market of 1968. However this is a narrow range and provides a clear warning area for those holding equities. With the US currently reporting deflation of 0.6% it does suggest there is a major buffer before inflationary fears can be a catalyst to reduce equity prices.

There are various potential explanations as to why a level around 4% has been so important. The Federal Reserve is less relaxed about inflation rising through the 4.0% level than it is about inflation rising through lower levels. While deflation is unacceptable, a rise of inflation to around 2% is to be welcome. Although the Fed is always forward looking, one should not expect aggressive Fed monetary tightening during that part of the interest rate cycle. As inflation rises from 2% the Fed will get more active but history does suggest that an element of panic at the Fed may set in if inflation is rising through 4%. If 4% triggers more aggressive monetary tightening then one could see why this is negative for equities.

It also seems likely that capital secures a greater share of national wealth, relative to labour, at the early stages of the inflation cycle. With unemployment lagging the business cycle and labour seemingly tolerant to low levels of inflation corporate profits can benefit when inflation rises from low levels. It may be that inflation moving towards 4% triggers a reaction

By 2007/2008 inflation again flirted with the 4% level

With inflation currently at 0.6% we are a long way from inflation snuffing out this rally

A key reason for the negatives associated with 4% inflation is the Fed's reaction

Capital seems to get a good share of the inflation spoils until we near 4%

from labour in seeking higher wages and thus squeezing corporate margins. Whatever the reason, equity investors need to be wary when inflation rises from low levels to reach 4%.

As there should be a link between bond yields and inflation it is worth looking at bond yields for warning signals of equity bear markets (all the data below is for ten year treasury yields). That data is less consistent but it does show that bond yields rising to 5.0% should not impinge on rising equity prices. The table below looks at the level of government bond yields which snuffed out the rallies in equities analysed above.

Figure 7

Rising government bond yield levels capping equity rallies

1968	six percent
1973	six and a half percent
1987	eight and a half percent
2000	six and a half percent
2007	five percent

Source: Datastream

The table above shows the rough levels at which rising bond yields have interfered with rising equity prices. There is a very big range with one particular outlier. Equities were very resilient relative to rising bond yields in 1987. However this may have been partly because bond yields were not coming from particularly low levels on that occasion. The big bull market in bonds which began in 1981 had only reduced ten year yields to 7.0% in 1986. As we are currently dealing with a situation where government bond yields are rising from very low levels it might be dangerous to compare this situation to the shift from 7.0% yields to 8.5% yields in 1987. With this in mind there is a general proposition that equity investors should be wary when bond yields rise from low levels into the 5.0-6.5% range.

So while investors are right to be worried about the impact of rising bond yields the rise in yields to 3.6% in early June 2009 is not to a level which should unduly concern investors. If a bull market has to climb a wall of worry it seems likely that one of those persistent worries will be rising bond yields. This analysis suggests that investors are in for a surprise as higher and higher bond yields do not prevent a rise in the price of equities. Of course it is just as they become complacent about equities resilience that yields will cause problems as they rise into the five to six and a half percent range.

Many investors are seeking to define the scale of this rally in terms of its duration and magnitude. This is an appealing approach as it seems to provide the certainty of numbers which human beings crave. However this may be the wrong approach. It may be more valuable for investors to know the *trigger* for the end of the rally rather than to calculate some 'fundamental' price at which the rally ends. This less fundamental approach would have paid off in the 2002-2007 period. As we have seen, equities bottomed in October 2002 at very high (CAPE) valuations. They then doubled, driven primarily by one of the biggest earning booms in US economic history. Investors looking at those very high valuations and expecting a normal earnings recovery were presumably wrong-footed by the rise of almost 90% in the Dow Jones Index from 2002-2007. Investors who bought equities in late 2002, convinced that the dragon of deflation had been slain, and held until inflation breached 4.0%, would probably have had a better chance of capturing most of the returns from the rally than the fundamental investor.

Equities will rally with bonds yields rising at least to 5%

Somewhere in the 5.0% to 6.5% range bond yields halt the equity rally

With ten year bond yields at 3.6% the equity rally can continue for some time

The 2003-2007 period is a warning about how far equities can rise even from high valuations

Foreign central bank support slows rise of Treasury yields

While Treasury yields are well below the 5.0-6.5% danger range for equities, many fear that yields could rise rapidly. The fear is that foreign central bank support for the dollar and treasuries might evaporate, spiking yields higher even without a return of inflation. In this section we analyse why this is a very unlikely scenario.

The chart below shows the rise and rise of foreign ownership of US Treasuries. By the second quarter of 2Q 2008 foreigners owned 51.6% of the total of US public debt held outside the US government sector. The percentage held by foreigners declined to just 50.3% of the total issuance by the end of 2008 as Americans flocked to buy Treasuries. Many see that decline in foreign ownership as a worrying sign that foreign support for the dollar and treasuries is ending. However while foreign percentage ownership may have declined this was driven by a boom in issuance and not any liquidation of Treasuries by foreigners.

Figure 8

Percentage of US Treasuries owned by foreigners



Source: Datastream

The data suggests that foreign support for Treasuries, more recently from the private sector, remains strong. More detail on foreign activity in the Treasury market is provided by the US Department of the Treasury data for the Treasury International Capital System. The TIC data provides numbers on net purchases of Treasury bonds and notes (not bills) by foreigners on a more timely basis. This shows foreign net purchasing of US\$110bn in the third and fourth quarters during the period when foreign percentage ownership of the Treasury market was declining.

This scale of foreign purchases of Treasuries is particularly impressive when one considers that foreign central bankers were buyers of just US\$19.9bn in 3Q and sellers of US\$23.4bn in the fourth quarter. In the fourth quarter foreign central bankers were not accumulating Treasuries for the key reason that many were forced to liquidate reserves to support their exchange rates during a period of capital flight. However foreign private capital flows into the US Treasury market remained strong driven by private sector capital flows. A key question we need to answer is what are the prospects of those private sector purchases now being bolstered by central bank purchases through 2009 and beyond?

Investors fear a very rapid rise in Treasury yields

The unique vulnerability of the US bond market is due to high foreign ownership

Foreign net purchasing of Treasuries stayed high through the crisis

However foreign central bank purchases were scaled back- temporarily

The need for foreign central banks to liquidate their Treasury holdings has ended

Foreign central bankers have not given up on Treasuries

Purchases have not kept pace with new issuance

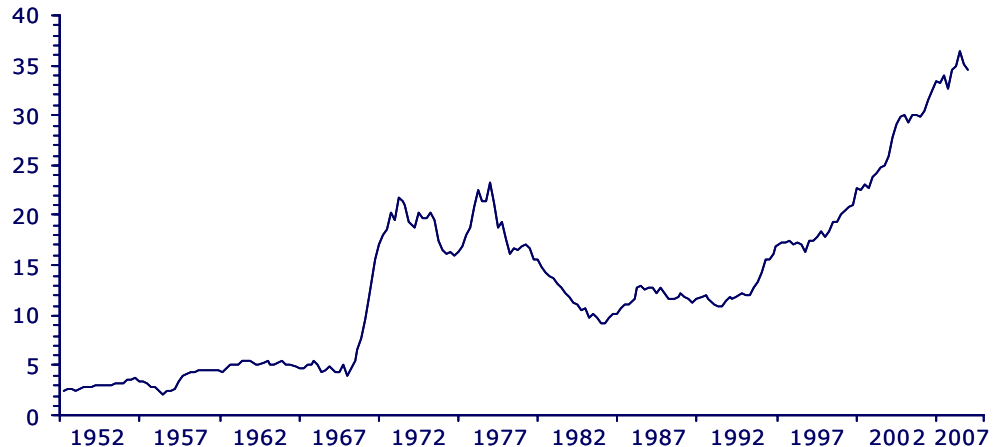
The value of foreign central bank holdings of Treasuries continues to rise

The most up to date data suggests reasons for optimism for continued foreign support for US Treasury prices. The TIC data is complete until the end of March 2009 and shows continued strong foreign buying of US Treasuries. In the first quarter of 2009 the foreign private sector bought US\$63bn and the foreign central banks bought US\$25bn. Once again foreign central banks were sellers of Treasuries in January and February as they sought to defend their exchange rates. In March, as the extreme anti-risk appetite of global capital abated, foreign central bankers bought US\$29bn of US Treasuries. All the evidence is that rising risk appetites have sent capital pouring back into the emerging markets. The need for foreign central bankers to liquidate their holdings of Treasuries to sell dollars and buy their own currencies has now passed. The selling of Treasuries by foreign central banks in October and November 2008 and in January and February 2009 was most likely a short term necessity which has now ended with the normalisation of capital flows.

While the foreign private sector can chose whether to hold Treasuries, foreign central banks are compelled to hold Treasuries in their battles to depress the value of their currencies relative to the US dollar. It is this forced purchase of Treasuries which has distorted the Treasury market for a generation and is the most important factor in determining future yields and prices. As the chart below shows, they continued to increase their Treasury holdings even faster than the growth in the Treasury market until the end of 2Q08.

Figure 9

Percentage of US Treasuries Owned By Foreign Central Banks



Source: Datastream

The percentage of the US Treasury market owned by foreign central banks peaked at 36.5% at the end of 2Q08 but had fallen to 34.6% by the end of 4Q08.

The table below measures the value of a stock of securities during a period when the price of US Treasuries has been falling from a high point in December 2008. Thus the net purchasing of these securities by foreign central banks is likely to be well in excess of the US\$215bn rise in the value of total holdings over the period. This is the most current data available and suggests that foreign central bank support for the US dollar and Treasury securities has picked up markedly from March of this year. If we ignore price changes and assume that accumulation of securities has been running at US\$215bn to May then total net purchases of US securities by foreign central

Treasury prices are falling but total value of holdings are rising showing recent net purchases

If emerging market external accounts improve they will buy more Treasuries

Capital inflows to emerging markets will force more intervention

Foreign exchange reserves are already rising as external accounts improve

banks should reach US\$516bn this year. While this number underestimates net purchasing, due to the fall in the price of the total stock of Treasuries held, it still amounts to funding for 37% of the forecast budget deficit.

Figure 10

Face value of us marketable securities held by foreign official institutions 2009	
(US\$bn)	
27 May	2,724
20 May	2,709
13 May	2,683
7 May	2,660
29 April	2,650
25 March	2,594
25 February	2,580
28 January	2,548
29 December 2008	2,509

Source: <http://www.federalreserve.gov/releases/h41/>

The key to whether foreign central banks will continue to buy dollars and Treasuries is changes in the condition of their external accounts. If countries with managed exchange rates see net purchasing of their currencies, they are forced to accumulate reserves. As long as the dollar remains the key reference currency for managed exchange rates then, in aggregate, foreign central bankers must continue to buy US dollars and US dollar assets. The good news is that emerging market balance of payments are now returning to significant surplus as risk appetite returns and as current accounts normalise.

A key driver forcing liquidation of US Treasury securities by foreign central banks from October 2008 to February 2009 was short term capital outflow. In this period, short term capital outflows, to repay US\$ debt and repatriations by foreign portfolio managers, reduced the upward pressure on these key currencies. There is evidence from financial markets across the globe that the period of extreme preference for low risk assets and reduced gearing has run its course. In such an environment the capital exodus from these key jurisdictions has abated and capital inflows are returning. The scramble to liquidate domestic currency assets to repay US\$ debt also appears to have ended. The recent strength in equity markets in these jurisdictions and rises in exchange rates does indicate that this reversal in the condition of the external accounts is already underway. History suggests that excessive exchange rate appreciation will not be acceptable to the authorities of the export orientated world for very long. Soon the private sector capital flows to the emerging markets will trigger foreign exchange intervention and accelerated purchases of US Treasuries by foreign central banks. This support for Treasuries will be further exacerbated by improvements in the current accounts of the emerging markets.

A good example of this dynamic is the changes in the foreign exchange reserves of Korea. These reserves fell by over US\$50bn from June 2008 to February 2009 as the government attempted to support the Won. However since February reserves have risen by US\$26bn. While some of this movement may relate to translation effects from non-dollar reserves it also shows how the decline in reserves has ended. Whether one looks at the foreign exchange reserves of Brazil, Russia or other major owners of US Treasuries a similar pattern is evident. The liquidation of reserves, which began in late summer of 2007, ended in March 2009. The TIC data shows that Chinese investors (the central bank given the operation of capital

Soon more aggressive intervention will be needed to prevent exchange rates rising

Will they let exchange rates return to summer 2008 levels?

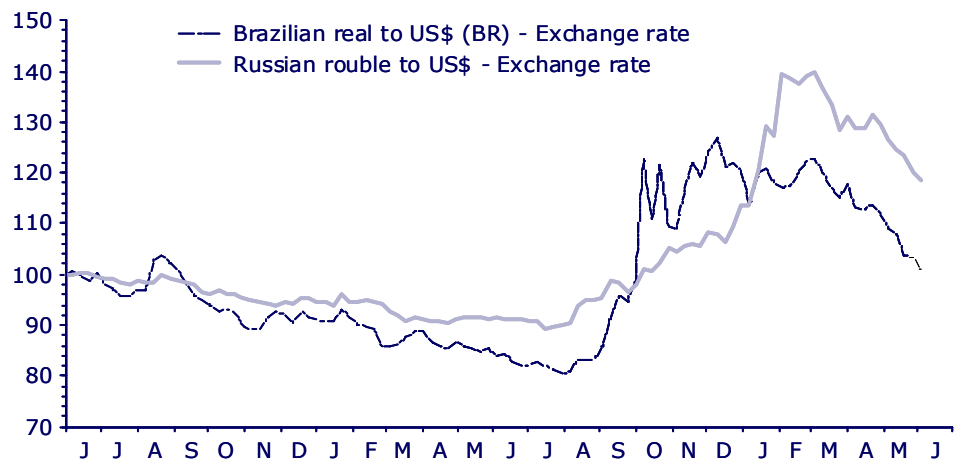
With global demand weak undervaluing exchange rates is an easy response

controls in China) saw an increase in the value of its Treasury holdings of US\$23.7bn in the month of March. When one takes into account the decline in Treasury prices over that period, PBOC net purchases of Treasuries will have been significantly above this level in March.

The accumulation of reserves is only likely to accelerate. Key emerging markets central bankers were unable to maintain their targeted exchange rates in the September 2008 to February 2009 period. In particular central banks who had been major accumulators of Treasuries were forced to allow material exchange rate depreciations. Although some reserves were expended in the defence of exchange rate targets the authorities in Brazil and Russia did allow significant exchange rate depreciations. With the exchange rates now appreciating again one would expect this to trigger intervention. Thus although these key central bankers are already likely forced buyers of dollars to slow the appreciation of their exchange rates the accumulation of reserves should accelerate when the exchange rates once again near the targeted levels. As the charts below shows the exchange rates of Brazil and Russia are returning to levels where very extensive purchases of US dollar assets would be triggered.

Figure 11

Russian and Brazilian exchange rates



Source: Datastream

It is extremely unlikely that emerging-market central bankers will eschew exchange rate targeting as the key to their monetary policy. In a period when global demand growth is fragile which policy makers are likely to opt for a very strong currency? Any revaluation relative to the dollar would be a revaluation relative to other emerging-market exchange rates. As we discuss later the time may come when, following a sustainable rise in domestic consumption, such a risk can be taken but we are very far from any such policy re-evaluation. The easiest response for the authorities in the emerging markets is to intervene to even prevent currencies rising back to their summer-2008 levels. Such action will improve export competitiveness and also result in the equivalent of quantitative easing for the domestic economy. In 1998 investors saw how emerging market authorities acted to prevent undue currency appreciation at levels well below previous targeted rates. This was the easy thing to do. It is still the easy thing to do and when it begins in earnest there will be accelerated support for the dollar and the treasury market.

Current account improvements will put more upward pressure on exchange rates

We have suffered a huge inventory liquidation which is running its course

Inventory liquidation was very high given just-in-time inventory systems

Treasury yields will not spike as emerging market BOP improvements drive reserve accumulation

The normalisation of global capital flows is just one factor enforcing accelerated accumulation of US dollar assets by central banks. It is also likely that an improvement in emerging market current accounts is imminent. Many expect that such an improvement must await an improvement in final demand in the developed world. However a major improvement is probable well before a final demand recovery simply due to a normalisation of inventory levels. The table below shows the role which inventory contractions have played in post WWII US recessions:

Figure 12

Decline in US GDP attributed to inventory liquidation	
(%)	
1953-1954	(1.4)
1957-1958	(1.2)
1960-1961	(1.0)
1970	(0.3)
1975	(1.1)
1980	(1.0)
1982-1983	(2.4)
1990-1991	(0.6)
2001-2002	(1.1)
2007-2009 (1Q)	(1.9)

Source: Datastream

As the table above shows the inventory liquidation in the current recession has only been surpassed in the 1982-1983 era. Such a high degree of inventory liquidation by historic standards has been surprising as modern technology has brought us the just in time inventory delivery system. This technological innovation was supposed to mean that inventory liquidation cycles would be milder in the modern era. This has not been the case in 2007-2009. It is particularly surprising that the current inventory liquidation is approaching the scale of the 1982-1983 liquidation. This record previous liquidation occurred in a period of high inflation when companies were incentivised to hold high inventory levels. With inflation muted going into the current recession there was much less incentive to hold high levels of inventory.

With just-in-time inventory management in operation, and low inflation, it is much more likely that the current inventory liquidation was driven by the lack of credit. The seizure in credit which followed the collapse of Lehman Brothers forced companies to realise their liquid assets to raise cash and bolster cash flow. This unique seizure in credit compelled inventory liquidation from reasonable levels and as credit markets increasingly normalise an inventory rebuild is likely. It was this surprise rapid destocking in the developed world which produced the extremely rapid deterioration in Asian current accounts. When credit seized up new sales were taken from existing inventory to generate cash and retire debt. Inventory rebuilding has been hampered by a lack of credit which is only now returning. The normalisation of global credit conditions will bring with it the normalisation of inventory levels. This normalisation of inventory levels can bring very considerable improvements to the current accounts of the export orientated nations.

Rising stock markets and exchange rates indicate that capital inflows have returned to the emerging markets. As 2009 progresses a further boost to the balance of payments is likely as global inventory rebuild leads to very material improvements in the current accounts. Already early evidence from

the TIC data shows this is once again forcing foreign central banks back to accumulate dollars and Treasuries. Such buying pressure will continue as external accounts continue to and as concerted intervention is necessary to prevent the rise and rise of emerging market currencies. Of course there is every reason to be concerned about the long run appetite among foreign central bankers for ever more Treasury securities (see next section). However for a period well into 2010 and perhaps beyond these central bankers are very likely to return as major buyers of Treasury securities. Those who worry about spikes in US Treasury yields driven by the failure of foreign central bankers to buy these assets will be right in the very long term. Their fears are very likely to be misplaced for at least the next couple of years and will be another factor in the wall of worry which this rally will climb.

The creative destruction of US government credit

Without changes to current policy, the program's cash surpluses are expected to disappear in 2013. To cover the subsequent annual cash shortfall, the Trust Funds will begin drawing on the Treasury, first relying on its interest income and, eventually, on its assets. This will have a direct and increasingly negative impact on the federal budget.

General Accountancy Office - Social Security Solvency

The US government now drives the US credit super-cycle

To understand the degree of pain ultimately to be visited upon the holders of US equities it is necessary to understand the nature of the exercise just conducted by the US government. This was not an exercise which simply deadened the pain of the economic cycle. What we have witnessed is a structural shift in which the government decided to be the borrower of last resort in a credit fuelled economy. This structural shift is key to understanding just how negative the implications will be when the markets bring that shift to an end.

True creative destruction must now be driven by the destruction of US government credit

That long-awaited "Austrian moment" produced nationalisation rather than creative destruction. The next cycle will now be dominated by a government owned/directed credit cycle triggered and sustained by fiscal profligacy. The ultimate result of this will be that the true creative destruction will come, eventually, through the government debt markets. Given the governments willingness to jump into the credit breach the great US credit supercycle can only end with the collapse in the credit quality of the US government itself. Then, and only then, can we witness the much awaited creative destruction.

The Austrian wait continues

Many people saw 2008 as the end of the US credit supercycle. While it is inevitable that the supercycle must end 2008 saw the opening of the final act rather than the end of the play. By the summer of 2007 the world was replete with US commercial credit risk. Indeed it was so replete that it began in gross but accurate terms a great financial vomit of its exposure. This should have been the end of the supercycle as market determined interest rates soared the dollar declined and deflation and depression swept across the US. Not since 1982 had the US witnessed anything which could be described as 'creative destruction' but finally it seemed to have arrived and it was driven by a lack of private sector demand for US private credit.

Avoiding creative destruction is a dangerous political imperative

We should thus, after a 27-year wait, finally have arrived at the Austrian moment for the USA. However this is to ignore the fact that the US government has reacted by turning water into apparent wine and turned US commercial credit risk into sovereign credit risk. Starting with Freddie and Fannie and spreading to the entire banking system and even the automobile sector, huge swathes of commercial credit have been given sovereign credit status. That support is being passed on through nationalised financial institutions to the residential property market and beyond. Creative destruction in the form of depression and deflation were judged to be politically unacceptable. The democratically elected governments of the world have put themselves in the way of creative destruction but the cost is escalating government debt to GDP ratios. So the key question is not how creative destruction will work in the private sector but how the markets will wreak creative destruction on the private sector through the government debt markets. It is likely that market participants, relieved of imminent creative destruction, will increasingly embrace the new political economy cycle. Indeed

Longer term foreign support for Treasuries must wane

Government debt growth continues for the foreseeable future

Even when growth returns public debt to GDP ratios keep rising

Very optimistic assumptions mean the situation is likely to be much worse

some may come to believe that it is a better way to proceed. However there can only be a couple of years, at best, of such relief before the true nature of the eventual creative destruction, through government debt and fiat currencies, becomes all too apparent.

Excessive government debt issuance is just part of the structural shift underway. The other part of this equation is the unwinding of the beauracritic mispricing of US Treasuries which has been escalating for the past two decades. At the core of financial market distortions for the past two decades has been a gross distortion to the global risk free rate. Whether one was pricing a AAA US corporate bond or a hotel in Mongolia one would find the yield on US Treasuries imbedded into the pricing methodology. The problem has been that the 'free market' in US Treasuries has been completely distorted by a band of foreign bureaucrats we know affectionately as foreign central bankers. This was a dangerous dynamic in normal times but now that politics in the West dictate a heady mix of inflation, currency depreciation and taxation it is a potentially explosive dynamic.

US government debt to GDP levels will reach near record high levels by 2019. Optimistic estimates show the US government debt to GDP ratio doubling from 2008 to 2019 and continuing to rise. As at the end of April 2009 the US government has issued US\$11.9tn in Treasury securities. However US\$4.3tn of this is held by government agencies themselves. There is thus US\$6.9tn in US Treasuries in the 'free' market. The Congressional Budget Office estimates the growth in that US\$6.9tn, which it refers to as 'held by the public', as follows:

Figure 13

US Treasury securities held by the public and as a % of GDP			
	(US\$bn)	(%)	GDP growth (%)
2008(Actual)	5,803	40.8	
2009	7,987	56.8	(1.2)
2010	9,319	64.7	+2.5
2011	10,292	68.3	+4.6
2012	11,055	70.1	+4.7
2013	11,770	71.4	+4.6
2014	12,628	73.2	+4.5
2015	13,508	75.2	+4.2
2016	14,491	77.5	+4.0
2017	15,523	79.9	+4.0
2018	16,013	79.3	+3.9
2019	17,277	82.4	+3.8

Source: Congressional Budget Office

The table above shows that the public debt to GDP ratio keeps rising until 2019 which is as far into the future the CBO are prepared to forecast. The GDP growth numbers are of course in nominal terms as debt is measured in nominal terms. In real terms the CBO expects the recession to end in 2009 and to be followed by 2.9% and 4.0% growth in 2010 and 2011. The CBO assumes 3.6% real growth from 2012-2015 and 2.3% from 2016-2019. A golden period of real growth is forecast with real GDP growth above 3.5% in each of the four years from 2011 to 2014. The lowest level of real growth assumed throughout the ten year period is 2.2%. So even assuming these highish real growth rates and no recession from 2009 to 2019 the public debt

Public debt to GDP is rising to WWII levels

Can this degree of debt be serviced in peace time?

In WWII the debt was financed by unlimited Fed credit to commercial banks

These numbers assume government can finance itself with for less than 4.5% thru to 2019!

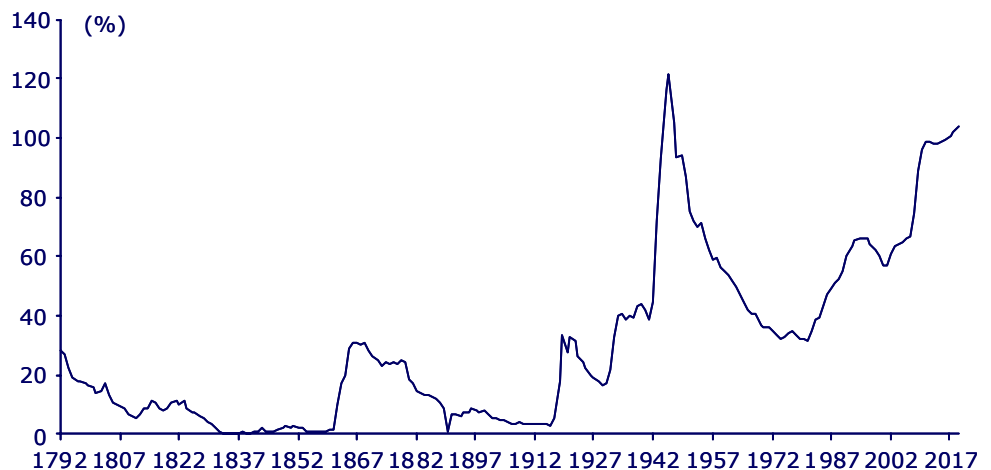
to GDP ratio continues to rise. If growth estimates fall short of these numbers or if we face another recession in the next decade the government debt to GDP ratio will be nearer 100% than 80%.

It may come as a surprise that the US debt to GDP ratio continues to rise even after the US economy is projected to return to strong GDP growth. The key driver of this escalation is the retirement of the baby boom generation and the triggering of their social security and medicare entitlements. The best estimate of this total unfunded liability is around US\$50tn and a portion of this obligation is coming due between 2009 and 2019.

So just how large will the US government debt be relative to where it has been in the past? For a long term comparison it is only possible to look at the gross public debt as long run historical data is not available for the percentage of the US federal debt which is held by government agencies. The CBO only forecast the increase in the federal debt held by the public making the comparison with historical numbers difficult. Thus the numbers in the chart below use CBO forecast budget deficit numbers to forecast the increase in the gross public debt up to 2019.

Figure 14

US gross federal debt as % of GDP



Source: Historical Statistics of the United States, EH.net, Congressional Budget Office

As the chart above shows even assuming no recession between 2010 and 2019 the gross federal debt, relative to GDP, will reach a level only previously surpassed in the 1945-1947 period. Historians will note that the US government was only able to finance that WWII debt through providing unlimited liquidity to the commercial banking system to finance the purchase of Treasuries. The result was that the majority of commercial bank assets were composed of federal debt and an explosion of inflation was only prevented by war time price controls. Thus the only time the US has supported such high levels of public debt was in a period when it neared command economy conditions in pursuit of war time victory. The new levels of public debt to GDP level far surpass anything seen in the New Deal era.

As already stressed even these terrible numbers above assume no recession from 2010 to 2019. However there is an even more panglossian assumption in the CBO numbers. Based on these CBO numbers 20% of total government revenues in 2019 will be needed just to pay the interest on the public debt.

However this assumes that net interest as a percentage of publically held debt is not expected to breach 3.0% until 2013 and will average 4.3% thereafter. It is possible that the cost of debt for the US government will rise this slowly and peak out at levels less than 4.5% but it is also unlikely. If we assume that total funding costs will average 100bp higher over this period then interest expense will represent 25% of budget receipts by 2019. If they were 200bp higher on average interest expense would be 29% of all budget outlays by 2019. It is the nature of government debt, financed with fixed coupons at various maturities, that interest expense does not rise rapidly. However the more it is clear that the average cost of funding will exceed 4.0% then the greater the focus will be on the ability of the US government to meet its obligations. Unfortunately this question will be raised as foreign support for Treasuries wanes.

The long run outlook for Treasuries is dire

As already discussed there are good reasons why foreign central banks are likely to remain large buyers of Treasuries for at least a couple of years. It would be dangerous to be so sanguine about the long run outlook for foreign central bank demand for US Treasuries.

Even based on historical rates of purchase the issuance of Treasuries swamps buyers

The CBO forecast is for US Federal debt held by the public to rise from US\$5,803bn in 2008 to US\$17,277 by 2019. Digesting that US\$11.5tn slug of Treasuries will be a challenge for central bankers even assuming they maintain their historical enthusiasm for the asset class. In the seven years from end 2001 to end 2008 the total value of foreign holdings of US Treasuries increased by US\$2,092. This was the period when global reserve accumulation was at its fastest pace in history and total foreign ownership of the Treasury market soared from 30% to 50%. If net purchasing of Treasuries can match that record pace then foreign central banks would be buyers of US\$3,287 from 2009-2019 at a time when Treasury issuance will be a minimum of US\$11,474. This is a very different supply demand dynamic from the US\$2,092 increase in foreign central bank holdings 2001-2008 when the total value of Treasuries increased by US\$2,986bn.

When Chinese domestic demand growth comes along reserve accumulation ends

Given extremely optimistic assumptions for reserve accumulation foreign central bankers might finance around 30% of net Treasury issuance from 2009-2019. This is a very long way from the 70% of the net issuance they financed from 2001-2009. Given over optimistic assumptions by the CBO (no recession from 2009-2019 and continued low cost of government funding) and a shift to domestic demand driven growth in the emerging markets foreign central banks may well account for less than a fifth of net Treasury issuance from 2009-2019. The very negative long term implications for Treasury yields from this huge shift in dynamics are very clear.

40% of the world's population now need to consume their way to prosperity

The events of 2008 make it very unlikely that foreigners can play an important role in funding the US\$11,470bn rise in US Federal debt forecast by the CBO to occur from between 2008 to 2019. In 2008 the ex communist/socialist 40% of the planet realised that they could not continue to get rich selling to 14% (North America and Europe) of the planet. The only plan B is to do more to promote consumption within that 40% of the world's population. As these policy actions take effect reserve accumulation will slow and perhaps plateau at a time when the new issue of Treasury bonds will boom. As the chart below shows China in particular has ample scope to change its growth emphasis with terrible long run implications for US Treasuries.

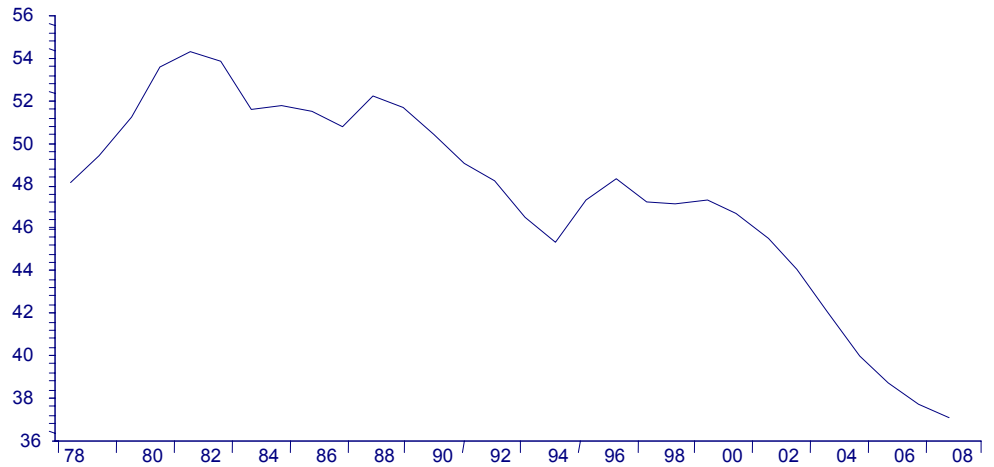
Chinese consumption levels can only rise as consumer credit is created

China cannot continue to consume like a communist country

The new type of growth means shrinking surpluses and less intervention

Figure 15

China - Private consumption as a percentage of GNP



Source: Datastream

The chart above is truly stunning as it shows private consumption in China slumping from 54% during the communist era to just 37% today! Chinese statistics are of course somewhat dubious but the long term direction of this chart is still indicative of the fact that Chinese growth has been driven by exports and investment for two decades. That growth model worked as long as China could find a ready market for its products amongst the greedily geared consumers of the west. Now of course that growth engine has faltered and China needs to awaken the sleeping giant that is its domestic consumption base. Nobody expects this switch in emphasis to happen overnight but it is highly likely that this change in trend will become increasingly evident over the 2009-2019 period.

The enforced shift in Chinese growth will reduce external surpluses, reduce the need to depress the exchange rate and reduce or eradicate the need to accumulate further foreign reserves. China is the most clear cut example of an economy where the events of 2008 will enforce a new growth strategy with terrible long term negatives for US Treasuries. However similar less extreme situations exist amongst almost all those countries who have amassed huge foreign reserves over the past two decades. Whether in Brazil, Indonesia, Russia or Japan the need to undervalue exchange rates and ship products to Europe and the US will increasingly diminish. This necessitates a decline in reserve accumulation at a time when, even using optimistic assumptions, the US federal debt to GDP level will double.

How is the US government likely to respond to a situation where the public debt to GDP ratio of the USA doubles at a time when foreign support for the Treasury market wanes? Will they default? History suggests that there are less dramatic ways to rob bondholders than outright default. As we have seen the US public debt reached an even larger percentage of GDP in the 1945-1948 period. The US government did not default on those obligations but as Homer and Sylla make clear this was little comfort to holder of US public debt:

The greatest of all secular bear bond markets, which began in April of 1946, and probably ended in September 1981, carried prime long American corporate bond yields from their lowest yields to their highest.

Inflation is the easy option when government debt burdens soar

This bear market in Treasuries could last decades

The US will seek inflation as a solution as it is very different from Japan

The yield index rose from 2.46% to 15.49% for seasoned prime issues and up to 16.5% (industrials) and 18.0% (utilities) for high-quality new issues....If a constant maturity thirty-year 2.5% bond has been available throughout this second bear market of the century, its price would have declined from 101 in 1946 to 17 in 1981, or 83%.

A history of interest rates, Homer and Sylla

History makes it crystal clear that a highly indebted government will do everything in its power to avoid a deflationary creative destruction. In 1929 the US government did nothing to defeat such forces and the public debt to GDP ratio soared from 16% to 40% by 1933. That surge in the ratio was driven by a 33% rise in public debt combined with a 46% decline in nominal GDP. The lesson learnt in the post WWII period was that with public debt at high levels an inflationary business cycle, whether in the expansion or contraction phase, was the only way to reduce the government debt to GDP ratio.

Heading into this crisis, the gross public debt to GDP ratio was 66% and already well above the 43% peak seen in the Great Depression. The US government will now seek to follow the post WWII game plan and inflate away the public debt overhang. The lower the rate of nominal GDP growth the higher the fiscal burden shouldered by American voters. Any democratically elected government must seek to ease the burden through high levels of nominal GDP growth. While ideally that high level of nominal growth would be high in real economic activity and low in inflation history does not suggest such a wonderful combination is likely. Today's investor needs to realise that they are in a very similar situation to that facing bond investors in 1946. Indeed the situation is worse as the Treasury holdings of US commercial banks were subject to some domestic control in 1946. Today the key holders of Treasuries are foreign central banks and there can be no domestic control over these institutions short of the imposition of de facto capital controls.

Why, some will ask, did the Japanese government not pursue similar policies? While this is properly the subject for a book rather than a paragraph the following bullet points hopefully indicate the different dynamics at work:

- ❑ Democracies cannot permit deflationary contractions due to the negative feedback from voters at the polls. The ability/willingness of the ruling elite of Japan to endorse economic contraction says much of the truly democratic nature of Japan.
- ❑ Japan's public debt to GDP level was at a much more manageable level when the economic malaise set in during the early nineties. There was less urgency for the government to act to produce inflation in the early days of the contraction. It was clear very quickly in the US just how quickly public debt would rise as the financial system was bailed out.
- ❑ The vast majority of Japanese government debt is owned by Japanese people. Indeed a key voting demographic are reliant upon returns from the government debt market to finance their retirement. It is easier for the US government to disregard the interests of bond holders when 54% of US Federal debt is held by foreigners.
- ❑ The Japanese have relied very heavily on fiscal rather than monetary responses to their crisis. The US government does not have this luxury as its entitlements problem already gives it a deteriorating fiscal position.

US action has been quick and prevented a deflationary mindset from developing

A collapse is coming for Treasuries but it will come slowly

- ❑ The Japanese banking system did not undergo a rapid collapse but rather the death of a thousand cuts. The collapse of the US banking system triggered immediate fiscal intervention. The need to find inflationary responses to a rapidly escalating fiscal burden became evident rapidly in the US but slowly in Japan.
- ❑ There may be cultural issues at play where an individualist culture seeks more immediate gratification than a consensual society where personal sacrifice is more acceptable. US society may tolerate risks with inflation in the pursuit of short term growth while Japanese society may be less focused on obtaining short term growth at all costs.
- ❑ A country in a weak structural position (high government debt to GDP ratio and a bankrupt banking system) will be tempted to take the inflationary option much more quickly than a country in a strong structural position.

These are just some of the key differences between the Japanese government's response to its crisis and the likely US response. While Japan may have gotten round to trying most things eventually, the US tried them all instantly. The crucial difference may be that these immediate actions prevent the development of deflationary expectations and thus perceived real rates of interest do not rise to the very high levels witnessed in Japan. It is the rapid action in the US, enforced by a position of structural weakness, which means that investors should proceed on the basis of an inflationary future for the US and not the long term deflationary past endured by Japan.

There will be some who doubt whether the US government even gets the luxury of inflating its way out of its current problems. Surely a collapse in US Treasury prices is imminent and soaring bond yields will rapidly enforce the deflationary adjustment which the authorities so dread? While this is of course a possibility there are a host of reasons why any such dynamic is not likely imminent:

- ❑ As illustrated above, foreign central bank support for Treasuries remains robust and will likely improve over the next few years.
- ❑ US government bond yields have shown no tendency to rise sharply from low levels. The most dramatic yield deterioration in modern times was the 158bp rise in yields in the 18 months from 2Q 1958. It is suggested that even a repeat of such a rapid rise in bond yields today would not have gross material impacts on economic activity or asset prices.
- ❑ The Federal Reserve is a buyer of Treasuries as part of its quantitative easing project.
- ❑ Inflation in the US is likely to remain quiescent for some time given the slowdown in global growth.
- ❑ The move to easier monetary policy in the US has not resulted in a collapse in the dollar as the rest of the world has also been forced to much easier monetary policy. A steady dollar reduces inflation risks, encourages foreigners to buy Treasuries and would likely facilitate further quantitative easing if necessary.
- ❑ The history of the post-war era shows that governments will live with high bond yields and high inflation before they will live with tight money and painful recessions. What is the right economic decisions may be political suicide. A rising government bond yield can and has been met by even looser monetary policy.

The bear market in Treasuries is the catalyst for the final leg of the equity bear market

While Treasuries are likely to be a great destroyer of wealth in years to come, that destruction is likely to begin slowly, as it did in 1946. Investors will come to realise slowly that the key driver of rising Treasury yields is not the cyclical uptick in current inflation but a growing institutional necessity to inflate away the government debt overhang. This bias towards inflation will combine with the usual political difficulty in retracting fiscal stimulus and a monetary difficulty in liquidating the Fed's increasingly illiquid portfolio of securities. History suggests that investors will only come to realise slowly that this is a structural and not cyclical bear market. At some stage in that realisation process rising bond yields will snuff out the current equity rally and force equities to the low valuation levels seen in 1921, 1932, 1949 and 1982.

Conclusion

The rally in equities will likely continue until inflation nears 4% and the yield on ten-year Treasuries is in the 5-6.5% range. However when Treasury yields move into this range, the reality will begin to dawn that Treasuries have entered a multi-decade bear market. This, along with a final Fed fight against inflation, will be the catalyst to bring the S&P500 to around the 400 level.

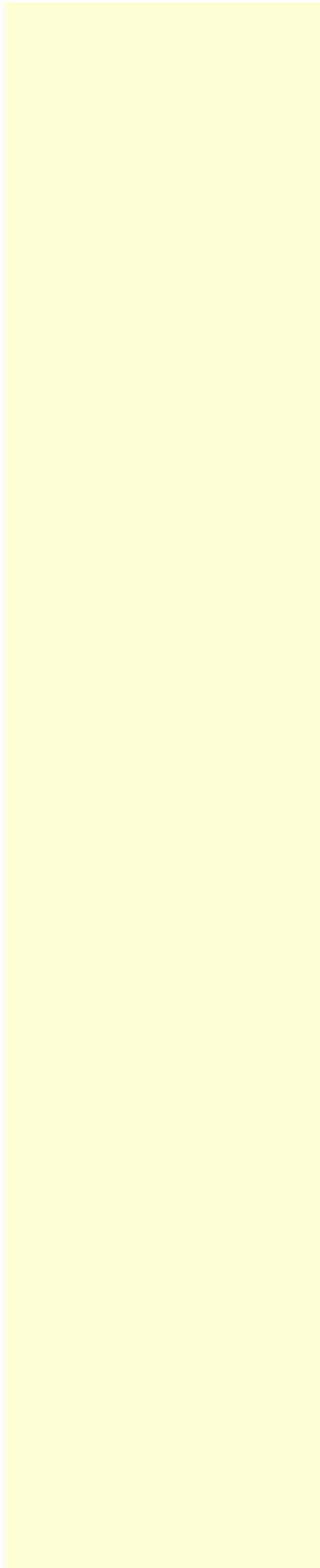
Notes



Notes



Notes



© 2009 CLSA Asia-Pacific Markets ("CLSA").

This publication/communication is subject to and incorporates the terms and conditions of use set out on the www.clsa.com website. Neither the publication/ communication nor any portion hereof may be reprinted, sold or redistributed without the written consent of CLSA.

CLSA has produced this publication/communication for private circulation to professional and institutional clients only. The information, opinions and estimates herein are not directed at, or intended for distribution to or use by, any person or entity in any jurisdiction where doing so would be contrary to law or regulation or which would subject CLSA to any additional registration or licensing requirement within such jurisdiction. The information and statistical data herein have been obtained from sources we believe to be reliable. Such information has not been independently verified and we make no representation or warranty as to its accuracy, completeness or correctness. Any opinions or estimates herein reflect the judgment of CLSA at the date of this publication/communication and are subject to change at any time without notice. Where any part of the information, opinions or estimates contained herein reflects the views and opinions of a sales person or a non-analyst, such views and opinions may not correspond to the published view of the CLSA research group. This is not a solicitation or any offer to buy or sell. This publication/communication is for information purposes only and is not intended to provide professional, investment or any other type of advice or recommendation and does not take into account the particular investment objectives, financial situation or needs of individual recipients. Before acting on any information in this publication/communication, you should consider whether it is suitable for your particular circumstances and, if appropriate, seek professional advice, including tax advice. CLSA does not accept any responsibility and cannot be held liable for any person's use of or reliance on the information and opinions contained herein. To the extent permitted by applicable securities laws and regulations, CLSA accepts no liability whatsoever for any direct or consequential loss arising from the use of this publication/communication or its contents.

The analyst/s who compiled this publication/communication hereby state/s and confirm/s that the contents hereof truly reflect his/her/their views and opinions on the subject matter and that the analyst/s has/have not been placed under any undue influence, intervention or pressure by any person/s in compiling such publication/ communication.

Subject to any applicable laws and regulations at any given time CLSA, its affiliates or companies or individuals connected with CLSA may have used the information contained herein before publication and may have positions in, may from time to time purchase or sell or have a material interest in any of the securities mentioned or related securities or may currently or in future have or have had a business or financial relationship with, or may provide or have provided investment banking, capital markets and/or other services to, the entities referred to herein, their advisors and/or any other connected parties. As a result, investors should be aware that CLSA and/or such individuals may have one or more conflicts of interests that could affect the objectivity of this report.

The Hong Kong Securities and Futures Commission requires disclosure of certain relationships and interests with respect to companies covered in CLSA's research reports and the securities of which are listed on The Stock Exchange of Hong Kong Limited and such details are available at http://www.clsa.com/member/research_disclosures/. Disclosures therein include the position of the CLSA Group only and do not reflect those of

Calyon and/or its affiliates. If investors have any difficulty accessing this website, please contact webadmin@clsa.com on (852) 2600 8111. If you require disclosure information on previous dates, please contact compliance_hk@clsa.com.

This publication/communication is distributed for and on behalf of CLSA Limited (for non-US markets research) and /or Calyon Securities (USA) Inc. (for US research) in Australia by CLSA Limited; in Hong Kong by CLSA Research Ltd.; in India by CLSA India Ltd.; in Indonesia by PT CLSA Indonesia; in Japan by Calyon Securities Japan, a member of the JSDA licensed to use the "CLSA" logo in Japan; in Korea by CLSA Securities Korea Ltd.; in Malaysia by CLSA Securities Malaysia Sdn Bhd; in the Philippines by CLSA Philippines Inc.; in Thailand by CLSA Securities (Thailand) Limited; and in Taiwan by CLSA Limited, Taipei Branch.

United States of America: This research report is distributed into the United States by CLSA solely to persons who qualify as "Major U.S. Institutional Investors" as defined in Rule 15a-6 under the Securities and Exchange Act of 1934 and who deal with CALYON. However, the delivery of this research report to any person in the United States shall not be deemed a recommendation to effect any transactions in the securities discussed herein or an endorsement of any opinion expressed herein. Any recipient of this research in the United States wishing to effect a transaction in any security mentioned herein should do so by contacting Calyon Securities (USA), Inc. (a broker-dealer registered with the Securities and Exchange Commission) and an affiliate of CLSA.

United Kingdom: Notwithstanding anything to the contrary herein, the following applies where the publication/communication is distributed in and/or into the United Kingdom. This publication/communication is only for distribution and/or is only directed at persons ("permitted recipients") who are (i) persons falling within Article 19 of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2001 (the "FPO") having professional experience in matters relating to investments or high net worth companies, unincorporated associations etc. falling within Article 49 of the FPO, and (ii) where an unregulated collective investment scheme (an "unregulated CIS") is the subject of the publication/communication, also persons of a kind to whom the unregulated CIS may lawfully be promoted by a person authorised under the Financial Services and Markets Act 2000 ("FSMA") by virtue of Section 238(5) of the FSMA. The investments or services to which this publication/communication relates are available only to permitted recipients and persons of any other description should not rely upon it. This publication/ communication may have been produced in circumstances such that it is not appropriate to categorise it as impartial in accordance with the FSA Rules.

Singapore: This publication/communication is distributed for and on behalf of CLSA Limited (for non-US markets research) and /or Calyon Securities (USA) Inc. (for US research) in Singapore through CLSA Singapore Pte Ltd solely to persons who qualify as Institutional, Accredited and Expert Investors only, as defined in s.4A(1) of the Securities and Futures Act. Pursuant to Paragraphs 33, 34, 35 and 36 of the Financial Advisers (Amendment) Regulations 2005 with regards to an Accredited Investor, Expert Investor or Overseas Investor, sections 25, 27 and 36 of the Financial Adviser Act shall not apply to CLSA Singapore Pte Ltd. Please contact CLSA Singapore Pte Ltd in connection with queries on the report. MICA (P) 001/01/2009 File Ref. No. 931318

MSCI-sourced information is the exclusive property of Morgan Stanley Capital International Inc. (MSCI). Without prior written permission of MSCI, this information and any other MSCI intellectual property may not be reproduced, disseminated or used to create any financial products, including any indices. This information is provided on an "as is" basis. The user assumes the entire risk of any use made of this information. MSCI, its affiliates and any third party involved in, or related to, computing or compiling the information hereby expressly disclaim all warranties of originality, accuracy, completeness, merchantability or fitness for a particular purpose with respect to any of this information. Without limiting any of the foregoing, in no event shall MSCI, any of its affiliates or any third party involved in, or related to, computing or compiling the information have any liability for any damages of any kind. MSCI, Morgan Stanley Capital International and the MSCI indexes are services marks of MSCI and its affiliates. The Global Industry Classification Standard (GICS) was developed by and is the exclusive property of Morgan Stanley Capital International Inc. and Standard & Poor's. GICS is a service mark of MSCI and S&P and has been licensed for use by CLSA Asia-Pacific Markets.

Australia

CLSA Australia
Suite 2302, Level 23
400 George Street
Sydney NSW 2000
Australia
Tel : (61) 2 8571 4200
Fax : (61) 2 9221 1188

China - Beijing

CLSA Beijing
Unit 10-12, Level 25
China World Trade Centre Tower 2
1 Jian Guo Men Wai Ave
Beijing 100004
Tel : (86) 10 5965 2188
Fax : (86) 10 6505 2209

China - Shanghai

CLSA Shanghai
3/F, Suites 305-310
One Corporate Avenue
No.222 Hubin Road
Luan District, Shanghai 200021
Tel : (86) 21 2306 6000
Fax : (86) 21 6340 6640

China - Shenzhen

CLSA Shenzhen
Room 3111, Shun Hing Square
Di Wang Commercial Centre
5002 Shennan Road East
Shenzhen 518008
Tel : (86) 755 8246 1755
Fax : (86) 755 8246 1754

Dubai

Calyon Gulf
Dubai World Trade Centre
Level 32
PO Box 9256 Dubai
United Arab Emirates
Tel : (9714) 331 4211
Fax : (9714) 331 3201

Hong Kong

CLSA Hong Kong
18/F, One Pacific Place
88 Queensway
Hong Kong
Tel : (852) 2600 8888
Fax : (852) 2868 0189

India

CLSA India
8/F, Dalamal House
Nariman Point
Mumbai 400021
Tel : (91) 22 6650 5050
Fax : (91) 22 2284 0271

Indonesia

CLSA Indonesia
WISMA GKBI Suite 901
Jl Jendral Sudirman No.28
Jakarta 10210
Tel : (62) 21 2554 8888
Fax : (62) 21 574 6920

Japan

Calyon Securities Japan
15/F, Shiodome Sumitomo Building
1-9-2, Higashi-Shimbashi
Minato-ku, Tokyo 105-0021
Tel : (81) 3 4580 5533 (General)
(81) 3 4580 5171 (Trading)
Fax : (81) 3 4580 5896

Korea

CLSA Korea
15/F, Sean Building
116, 1-Ka, Shinmun-Ro
Chongro-Ku
Seoul, 110-061
Tel : (82) 2 397 8400
Fax : (82) 2 771 8583

Malaysia

CLSA Malaysia
Suite 20-01, Level 20
Menara Dion
27 Jalan Sultan Ismail
50250 Kuala Lumpur
Tel : (60) 3 2056 7888
Fax : (60) 3 2056 7988

Philippines

CLSA Philippines
19/F, Tower Two
The Enterprise Center
6766 Ayala corner Paseo de Roxas
Makati City
Tel : (63) 2 860 4000
Fax : (63) 2 860 4051

Singapore

CLSA Singapore
9 Raffles Place, No.19-20/21
Republic Plaza II
Singapore 048619
Tel : (65) 6416 7888
Fax : (65) 6533 8922

Taiwan

CLSA Taiwan
27/F
95, Tun Hwa South Road
Section 2, Taipei
Tel : (886) 2 2326 8188
Fax : (886) 2 2326 8166

Thailand

CLSA Thailand
16/F, M Thai Tower
All Seasons Place
87 Wireless Road, Lumpini
Pathumwan, Bangkok 10330
Tel : (66) 2 257 4600
Fax : (66) 2 253 0532

United Kingdom

CLSA (UK)
12/F, Moor House
120 London Wall
London EC2Y 5ET
Tel : (44) 207 614 7000
Fax : (44) 207 614 7070

USA

Calyon Securities (USA)
Calyon Building
1301 Avenue of the Americas
New York 10019
Tel : (1) 212 408 5888
Fax : (1) 212 261 2502



At CLSA we support sustainable development. We print on paper sourced from environmentally conservative factories that only use fibres from plantation forests. Please recycle.

CLSA Sales Trading Team

Australia : (61) 2 8571 4201
China (Shanghai) : (86) 21 2306 6022
Hong Kong : (852) 2600 7003
India : (91) 22 6622 5000
Indonesia : (62) 21 573 9460
Japan : (81) 3 4580 5169
Korea : (82) 2 397 8512

Malaysia : (60) 3 2056 7852
Philippines : (63) 2 860 4030
Singapore : (65) 6416 7878
Taiwan : (886) 2 2326 8124
Thailand : (66) 2 257 4611
UK : (44) 207 614 7260
US : (1) 212 408 5800



CLSA is certified ISO14001:2004