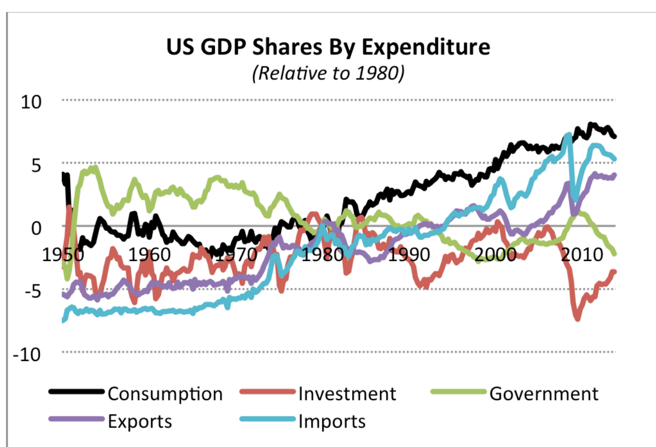
Thursday, March 20, 2014

Global Macro Themes –The Fed Paradox

The general perception amongst investors is that while far from perfect, the US is one of the better economies from a structural perspective. For example, of the major world economies, it is the highest ranked in the World Economic Forum Global Competitiveness Report[1]. Nevertheless, the US has one, often overlooked but very significant, structural flaw; one not related to the structural indicators often considered such as ease of doing business or flexible labour/product markets. In this research note we identify this structural flaw and consider the macroeconomic and financial market implications. For US monetary policy makers, in particular, it is especially problematic; resulting in something we call "The Fed Paradox".

Conspicuous Consumption

Analysis of quarterly US GDP reports usually consists of economists looking at the data in terms of growth rates and examining the contributions from the various expenditure components. While this is obviously a worthwhile exercise for assessing the cyclical trends in an economy, it excludes a great deal of valuable information that can shed light on the deeper structural trends impacting an economy. Ignoring such information is often not perilous to one's financial health as cyclical developments are, as a general rule, more pertinent for assessing short-term financial trends and determining the likely direction for monetary policy. However, this is not always true, and it is certainly not the case in terms of US monetary policy at the present juncture.



Rather than examining the GDP growth contributions from the main expenditure components, consider their relative GDP shares (see chart). The most obvious trend seen over the past 50 years is the rising share of consumption in national output. Since 1980 (an

[1] See: http://www3.weforum.org/docs/WEF_GCR_CountryProfilHighlights_2011-12.pdf for the full details of the report.

arbitrary date that we benchmarked the GDP shares to zero for ease of illustration) the GDP share of consumption has increased by more than seven percentage points to stand at 68% - close to its highest level in the post war period. In almost all major economies, consumption is the single largest item of expenditure, but even by international standards the US consumption share is high[2].

Obviously given that GDP shares need to add up to 100% this gain in the share of consumer expenditure has been at the expense of business investment (its share has declined 3.6 percentage points), government spending (-2.2 percentage points) and net exports[3] (-1.3 percentage points).

Given that consumer spending has steadily increased over recent years, to account for more than two-thirds of national output, the clear implication is that a solid and sustained US economic recovery is almost unimaginable without robust consumer spending. To illustrate this point consider the following simulations.

Assume consumer spending grows only very modestly (approximately 0.4% per annum) between now and the end of the decade[4]. For overall GDP growth to be in line with the FOMC's central tendency projections[5], the other expenditure components – investment, government spending or exports - would have to witness annual growth rates of just under 10% over the entire projection period. Alternatively, US imports would have to effectively collapse. While some decline in imports would naturally occur as a result of weak domestic consumption, by itself this would not be of a sufficient order of magnitude.

Absent - by construction - strong US consumer spending it is hard to envisage business investment running at such sustained high growth rates. Businesses only invest if they anticipate that the return from the capital outlay will be more than compensated for by increased (profitable) future sales; a doubtful prospect.

Similarly, given almost all the other major economies are struggling to boost their own GDP growth, in the zero-sum game of international trade such a rapid

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[2] One notable exception is China where consumption accounts for just 35% of GDP; an equally important observation that we will discuss in a separate research note.

[3] While the GDP share from exports has increased the rise in the import share has been even greater and obviously imports subtract from aggregate GDP.

[4] While the assumed growth rate of consumer spending in our simulation exercise is somewhat arbitrary, the implied share GDP share declines steadily over the projection horizon to return to the level recorded in 1980.

[5] The FOMC projections for the central tendency of longer run real GDP growth are published on a quarterly basis. The latest projection, published in this week had a midpoint of 2.25%. Interestingly, the long-run central tendency for real GDP was revised down slightly relative to the December forecast. At the same time the central tendency for the jobless rate was also lowered slightly. This suggests that the FOMC members collectively have become less optimistic about the potential growth rate of the US economy; something we definitely judge to be a move in the right direction – albeit nowhere near far enough.

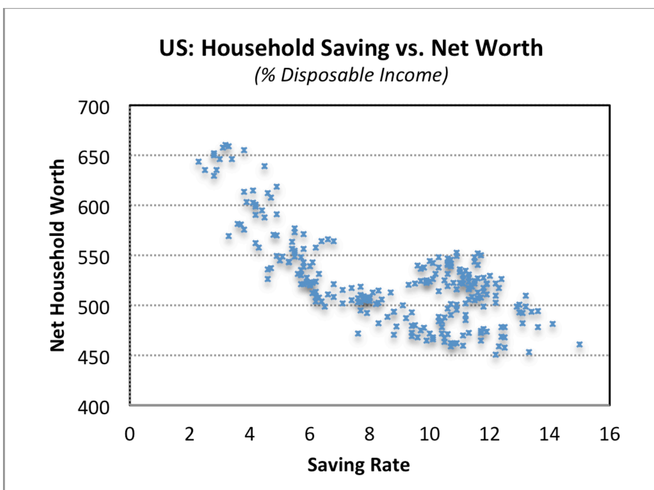
increase in US exports would be very unlikely to be tolerated politically. Moreover, there is also little doubt that the USD would experience significant pressure to appreciate if this optimistic trade scenario unfolded, leading to a loss of international price competitiveness for US exporters[6].

Finally, given the already elevated of level of US government debt and the pressing need to tackle the unfunded future liabilities[7] such a strong and sustained expansion in government spending is equally implausible[8] as the US is already close to (some would argue already beyond) its fiscal limit.

With robust consumer spending a major prerequisite for a sustained US economic recovery, it is hardly surprisingly that Fed officials have maintained (at least in their own minds) a very accommodative monetary stance. However, what is entirely understandable from a cyclical perspective – low interest rates to support present period consumption – is problematic from a structural perspective, especially in relation to financial stability (the latest fad in global policymaking circles and an area Chair Yellen clearly indicated during her inaugural press conference where the Fed has much work to do). Let us explain.

Consumer Rebalancing

In economics, saving is defined as the difference between income and consumption, and given at the economy-wide level income is equivalent to GDP[9], a rising GDP share of consumption is the same as a decline in the saving rate. There are many motivations for saving: the level of income, perceived uncertainty about future income prospects, bequest motives, or age. However, given that saving can also be considered delayed consumption, namely not spending money today makes



[6] Obviously this is based on the view that the USD exchange rate is market determined and not controlled by the US authorities.
[7] We outlined in some detail this demographically-induced fiscal challenge in *"Global Macro Themes – US Fiscal Hyperbole"*, 7 October 2013.
[8] For computational simplicity the above projections are calculated *ceteris paribus*. Obviously if all three non-consumption expenditure components expanded simultaneously the implied growth rates would be somewhat lower. However, the point of this thought experiment is to highlight just how dependent any US recovery is on robust consumer spending.
[9] As any first year economic student can tell you GDP, or national output, can be measured in three ways: expenditure, income and value-add. Theoretically they are equivalent, although due to statistical quirks in practice there is usually a slight difference resulting from the three calculation methods.

it available to spend later on, there is - not surprisingly - a strong correlation between household net worth and the present period saving rate.

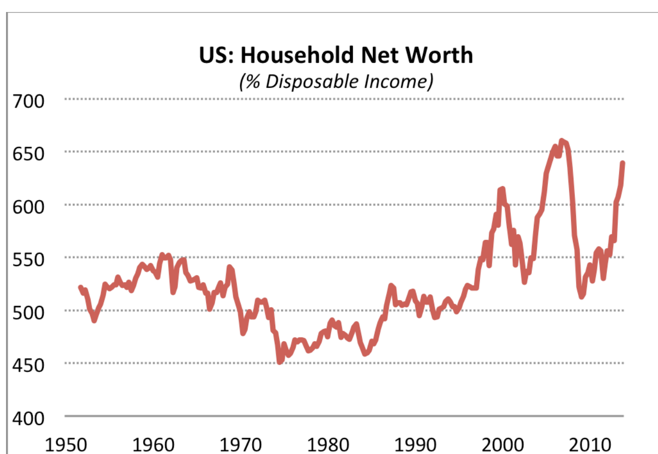
As shown in the chart, which plots the household saving rate versus net worth since 1950, there is a strong negative relationship between the two; as would be entirely expected. The intuition is simple. The more funds currently available to meet desired future consumption the less a household needs to save in the present time period. Conversely, the lower the level of net worth, the more a household needs to save in the present time period (and in future time periods) in order to achieve the same desired level of future consumption[10].

Net Worth Drivers

Household net worth is effectively the accumulated pool of savings; a pool whose size is determined by three variables: historical saving rates, the income generated from the accumulated stock of savings[11] and, finally, the capital (or price) appreciation of the asset in which the saving is held. The lower each of these three variables is - for a given future level of desired consumption - the higher is the required saving rate, consistent with the observed negative correlation.

As discussed above, over recent decades, the US saving rate has been trending down. Similarly, the rate of return has also been falling. Here we are not simply referring to the level of interest rates – which have undoubtedly been declining on a trend basis over recent decades - but to the rate of return to all US assets, financial and nonfinancial.

The percentage of income that is utilised to purchase goods and services is, by definition, consumed in each time period - that is why it is called consumption! Hence, only the income after consumption is available to provide the rate of return on the existing stock of savings[12]. Given that the GDP share of consumption has steadily increased over the past few decades, it therefore follows that this "residual" income has similarly declined. Ergo, the economy-wide rate of return must have



[10] This is based on the simplifying assumption the expected future return on the existing pool of accumulated saving is the same in both situations.
[11] We define this as the rate of return. It does not include the capital, or price, appreciation of the asset in which the savings are held as we include this separately in our analysis.
[12] At this macro level it is immaterial in what asset form the existing stock of savings is held.

necessarily declined as household net worth has not been consistently falling over the same time period[13].

Given the downward trend in the US household saving rate, and as we have just argued, a declining economy-wide rate of return, applying the logic of Sir Arthur Conan Doyle's famous fictional character Sherlock Holmes[14], the rise in US household net worth must be increasingly attributable to capital, or asset price, appreciation. In short, buyers of US assets have been paying higher and higher prices for less and less return.

Give Me A P!, Give Me An O!, Give Me A N!, Give Me A Z!, Give Me An I!

The best description for what we have just described? Well, in its extreme form it approaches a Ponzi scheme, in its less extreme form a financial bubble[15]. US economic growth relies upon high rates of consumption, which in turn requires a high level of net worth to sustain it. Yet, with the actual savings rate having declined, and in the face of diminishing economy-wide rates of return – due to the declining share of residual income less consumption – this can only be achieved by ever increasing capital, or asset, prices. Quite simply, there is no other way to boost the level of household net worth required to support consumption.

With the Fed able to lower benchmark interest rates, this dynamically inefficient equilibrium can be maintained for a time, but not indefinitely. Once it dawns on US households that the level of net worth required for them to meet desired future consumption is dependent upon an unsustainable asset price bubble it will almost certainly trigger a significant jump in saving rates as this is the only variable in their control. This would have a very detrimental effect upon US economic growth and asset prices, not unlike the sudden-stop seen in 2008/9.

To avoid such a dark economic scenario unfolding in the future, the Fed needs to set interest rates at a higher level than it currently expects to (based on their latest projections) to discourage present consumption and encourage saving. However, with consumption having such a high GDP share – the structural flaw – this would jeopardise an economic recovery that is already one of the weakest in the post-war period; also something the Fed strenuously wants to avoid.

In other words, in order to achieve its stated goal of sustained economic recovery the Fed requires interest rates to be both low and high, simultaneously; the very definition of a paradox!

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[13] Household net worth has fluctuated greatly over the past decade but it has not been declining.
[14] The quote we are referring to is: *"How often have I said to you that when you have eliminated the impossible, whatever remains, however improbable, must be the truth?"*, from The Sign of Four, Chapter 6 (1890).
[15] Purchasing an asset that increasingly relies on a later buyer paying an even higher price for the asset, rather than the asset generating an actual return, to be profitable is the very definition of a financial bubble.

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