Bond market turmoil in a Trumpian economy

Dr Woody Brock | SED | 01 December 2016

Many investors worry that "the new normal" may be over, that the peak of the bond market has been reached, and so forth. This change in heart is primarily due to the belief that President Elect Trump not only has the intention of greater fiscal stimulus via tax cuts and infrastructure spending, but also the power to achieve this. At a deeper level, it is possible that "American Gridlock" as described in my book may be over. We agree in part with this new view, but are very cautious about what it really means, especially on the international front.

In this Memo, we offer some thoughts on how to navigate several developments that lie ahead. In doing so, we attempt to dispel investor confusion that arises from three myths and half-truths about the behavior of bond prices, both domestically and globally. One of these half-truths concerns how to measure changes in real versus nominal yields, and which of these two kinds of yields gets repriced when there is news to which traders react.

1. BOND YIELDS AND INFLATION

When all is said and done, bond yields are a function of expected domestic future inflation, and of credit risk. In the case of the US and several other G-7 economies, there is little if any credit risk in the government bond market, so bond yields will be driven almost completely by inflation expectations. Heightened credit risk in non G-7 bond markets can also drive G-7 yields down, as global investors seek the greater safety of, say, German or US government assets. But changes in asset preferences of this kind primarily impact currencies and not interest rates, as Professor Bill Branson of Princeton and the author demonstrated formally over two decades ago. More specifically, a global shift in preferences out of EM assets into safer US dollar assets will cause the US dollar to rise significantly (just what has been happening), but in general will not drive down US government bond yields by any significant amount.

This counter-intuitive result stems from the mathematical accounting identity in national income accounting whereby total net inflows of capital into or out of any country will not change even if foreign asset preferences change a lot. This is because each nation's capital account must equal its trade deficit on current account. The latter is sticky and changes little. Thus, if there is little or no change in foreign capital inflows reflecting no change in the US trade deficit, then it turns out that the US dollar and not the interest rate will do most of



the adjusting needed to preserve international asset market equilibrium. This result is non-trivial.

But changes in domestic inflation within any given country (the US today) will cause government bond yields to change in that country, almost one-to-one.

Today, the principal risk in interest rate forecasting stems from a widespread failure to understand why inflation has been falling for decades – long before the Global Financial Crisis – and why it is unlikely to rise significantly even with greater fiscal pump-priming. The truth is that inflation is very poorly understood, which is why we devoted an entire report (February 2016) to explaining its behavior.

Recall, most importantly, that inflation is always and everywhere solely due to the magnitudes of the shifts in the supply-versus-demand curves for goods and services on Main Street. (Asset price inflation has nothing to do with anything). This is axiomatically true.

Is inflation "everywhere and always" a monetary phenomenon?

Many investors and even economists believe that it is, citing Milton Freeman's views. But it is not. It can be, as when central banks drop helicopter money and everyone has more money in their bank accounts with which to demand more suits or tables at a given price than before the drop. In this case, a monetary phenomenon causes the demand curve for goods and services to shift outward, which causes prices to rise.

But an industrial or digital revolution that reduces by half the cost of making products and delivering services will cause the supply curve on Main Street to shift way outwards. This phenomenon has caused the G-7 deflation of the kind we have witnessed since the start of the 1980s, just as it partly caused the US deflation of the 1870 to 1900 period. (The other reason for the latter deflation was the constraining role of the gold standard.) Supply-side shocks of this kind do not represent a monetary phenomenon.

Our essay on inflation sparked a lot of interest, and it was followed by our August 2016 report that attempted to explain both deflation and stagnant growth in a new and unified manner. Here we demonstrated formally that, in predicting and/or explaining inflation on Main Street, what matters is not whether there is an outward shift in the demand curve due to, say, Trumpian fiscal stimulus. Rather, what matters is the rate at which the demand curve moves outward relative to the rate at which the supply curve is moving, whether outward or backwards.

As an aside, whereas government can shift the location of the demand curve via fiscal and monetary policy, it has virtually no control over shifts in the supply curve. It is crucial to understand this policy asymmetry.



For the autonomous behavior of "S" may require a much greater fiscal thrust and thus outward shift of "D" than might seem normal in order for a nation to achieve its inflation and growth objectives. This reality is summarised in Figure 1. Only when "D" shifts out more than "S" will inflation always rise, as seen by the increase of price on the vertical axis.





So too will nominal GDP always rise – as seen by the fact that the Price times Quantity "area" of the new shaded box will be bigger than the lighter-shaded area of the original box. Mathematically, the percentage change in the "size" of the before-and-after rectangles will always be the same as the percentage change in nominal GDP, as we proved. For years, while it has regularly been acknowledged that "demand growth has been sluggish" (i.e., that the demand curve has been shifting out too slowly), it was never to our knowledge pointed out that the "S" curve was shifting out faster than the "D" curve between 1980 to 2015. This was due to the cascading efficiencies and innovations made possible by the entire digital revolution, not merely by the internet which is in fact a footnote to larger underlying revolution. By failing to take this S-curve story into account, policy makers and economists everywhere have been unable to explain observed deflation in a meaningful manner.

The risk today is that an accelerated outward push of "D" via fiscal pump-priming will have less of an impact on future inflation than expected, since the outward shift of "S" shows no signs of decelerating.

Once again, what will matter to actual inflation is the outward shift in "D" relative to the outward shift in "S".

In pointing this out, we are not denying that US inflation will rise. We are simply warning that this rise may be less than expected. Additionally, if history is any guide, there will be a lag



before pump-priming goes into action and causes actual increases in demand for labor and material.

2. CHANGES IN "REAL" YIELDS

Above, we argued that changes in inflation and in inflation expectations are the primary drivers of the prices of credit-risk-free government bonds. But what about the behavior of real yields, due perhaps to changes in the supply/demand for savings and investment in the long term? Such changes can also impact nominal yields, independent of changes in inflation.

Two problems arise here. First, there are very serious problems in measuring changes in real yields. The usual way to determine these is to chart over time the spread between nominal and inflation-adjusted yields on bonds.

But such spreads are highly problematic partly because there is ever more confusion about how to measure inflation itself. Thus, what we observe in changes in these spreads can be very misleading as regards the true change in real yields. For example, Professor Martin Feldstein of Harvard has recently demonstrated that the official BLS and Commerce Department data have been overstating inflation (probably at an accelerating rate) during the past three or four decades. If so, then widespread beliefs about the fall in real rates in recent years is largely incorrect, and this realisation will gradually be incorporated into market views.

Second – and more important – when investors re-price bonds, they do so in reacting to news about variables that they think will cause changes in inflation, for example, additional fiscal thrust and larger deficits. So in reacting to news, investors are repricing nominal yields. Conversely, they do not react to news that will impact real as opposed to nominal yields for the simple reason that such news rarely exists. That is, there is no agreement on which variables drive changes in real yields. As a result, there is little "news" that investors can and do react to. As a result, the belief that investors reprice real yields is highly problematic and almost certainly false.

3. GLOBAL VERSUS US BOND YIELDS

An additional point of confusion in asserting that the New Normal is over stems from the differential performances of the US versus other economies, even within the G-7. Only the US has Donald Trump, and thus confronts the prospect of a significant fiscal thrust. Merkel and her Bundesbank are non-Trumpian, and a significant amount of austerity will remain throughout much of Europe. Such austerity along with the looming problems of Brexit and of what may well happen in forthcoming Italian and French elections may depress growth in Europe, whereas growth may accelerate in the US. As for China, forecasts are pessimistic,



and political repression gets ever greater. This reality, along with widespread distress in many emerging markets, suggests that a rise in growth and inflation in the US will not be mirrored in the rest of the world.

Why this is important, via the Branson-Brock theorem cited above, is that a rising US dollar may bear the brunt of global adjustment, thus keeping a partial lid on inflation in the US. And, by extension, while US yields may rise further than they already have, yields elsewhere will not rise in-sync due to accelerating growth and inflation. Nonetheless, non-US yields might rise for other reasons, namely increasing government debt, failing banking systems, and reduced credit worthiness as a result. In short, changes in the risk premium rather than the inflation premium may well be what matters.

The main point here is that interest rates in any country must be analysed in terms of domestic developments. To the extent that these developments vary across countries, so will changes in yields. For this reason, be cautious about FT-style armchair speculations such as "the new normal is over everywhere, and global yields will now rise". It is a statement with little if any meaning.

4. "PRICING MODEL UNCERTAINTY" AND YIELD OVERSHOOT

Consider what happened on the day after Trump won the US election. The US stock market collapsed and then fully regained its previous value. It has since soared. As many observers have pointed out, we witnessed "overshoot" in every direction. But why? What underlies such overshoot?

One certain reason is the role that has been (and continues to be) played by the phenomenon of "Pricing Model Uncertainty" introduced in SED's reports a decade ago. The basic idea here stems from one way in which real world markets depart from the idealised markets of Efficient Markets and Rational Expectations. In that textbook world, given the news (e.g., "Trump won"), all investors are assumed to know the correct new price of every asset and will enforce that new price with no overshoot. More formally, the pricing model that maps news into price is assumed to be fixed and known by all. That is, it is assumed that Pricing Model Certainty exists.

When this is not true, it becomes rational for benchmarked traders to make trades that collectively generate market overshoot and "trends" that Efficient Market theory deems impossible. Moreover, these overshoots get ever greater as the degree to which investors do not know the right new price given the news gets greater and greater.

Importantly, no "irrationality" is involved in these overshoots, contrary to what is universally assumed. Rather, as we showed formally, the individual behavior that generates such overshoots constitutes the unique equilibrium point of a well-defined game of incomplete information – a result due to the efforts of two MIT Professors and to my mathematically



gifted colleague John O'Leary at Acadian Asset Management in Boston. Equilibrium point behavior is "rational" in the extreme.

The relevance of this result to what is happening today is obvious. How could anyone have had a clue as to what the "Trump-is-Elected" news would imply for the economy, and thus for inflation and for bond and stock prices? The news-to-price map was a mystery to all! The market went into overdrive, producing rumors and overshoots of many kinds. Moreover, this market behavior was fully rational as noted just above.

Sorry, Behavioralists, but your pseudo-science takes yet another hit here, and a very important one.

Stay tuned, as Pricing Model Uncertainty is now here to stay, with markets that will often over-react to every bizarre statement and tweet from the President Elect. This will generate excess volatility.

Hopefully these pointers will help clients navigate those bond market shoals that lie ahead.



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