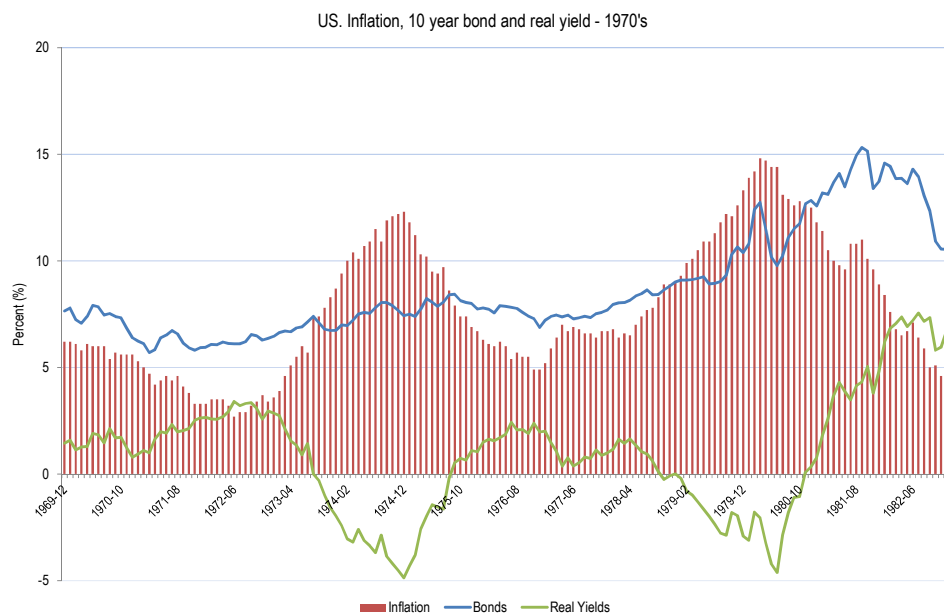


## Real Yields: still looking expensive after a second look

- Are real yields an outcome or a goal?
- Demographics and Japanese style circumstances don't explain 0% real yields.
- Increases in real yields will have varying effects on asset values: hybrids aren't much affected, infrastructure is.

*So what are real rates anyway?*

After our last article which pointed out that real yields are at levels only seen twice in 50 years and that an increase in real yields will produce chunky falls in infrastructure values, we received comments along the line that maybe real yields are what's left over after inflation and bond rates interact, rather than something investors target. And we can understand the thought. No one really knows what drives the interaction between interest rates, inflation and whether investors should receive a premium over inflation. The prime example of that is the 1970's detailed in the chart below. Early in the decade inflation surged but bond rates only went up marginally producing negative real yields.



*Try explaining that, smarty pants*

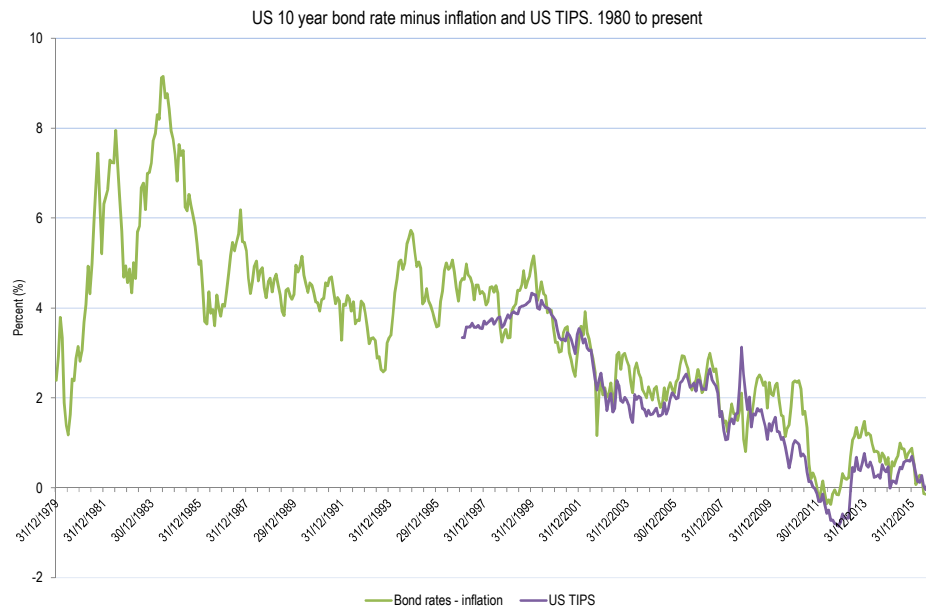
Did investors expect inflation to fall dramatically? (i.e 'ex ante' real yields are lower than 'ex post'). Did they decide to accept negative real yields for a short period? Maybe there was nothing else to buy? We think all these reasons might be valid in the short term, but not in the long term. If you were an investor and were expecting inflation to be much higher than the yield you receive on bonds, you would pretty soon go and find

*We're also  
sceptical on  
the ex post/ex  
ante issue*

something else to invest in that would give you an inflation type return. Go and buy pallets of Vegemite and come back in 4 years and sell them for the same real price and make a better return than bonds. And that is what happened in the 70's. By the end of the decade investors stopped buying bonds at negative real yields and bought other assets, such that, real yields on bonds increased to very high levels. Real rates seem to matter, even if it is with a lag.

One of the other valid criticisms is that simply subtracting the inflation rate from the bond yield doesn't give you an idea of what investors think future inflation/real rates will be: just what they are now. For example, if investors 'knew' that future inflation would be 2% lower than the current inflation rate, buying a bond trading at the current inflation rate is ex ante a 2% real yield, compared to the ex post 0%. There are 2 issues with this:

- Inflation linked securities, which allow investors to specifically purchase a bond which guarantees a real yield have been around for a long time (30 years in Australia, 20 in the US, 40 in the UK).
- There isn't actually much difference between the "specific real yield" and the one we get by subtracting inflation from the bond yield. The chart below shows the "specific real yield" on US inflation securities (TIPS) and the simple derivative. We've used the 10 year bond rate and the current level of implicit price deflator of US private consumption (a smoother version of CPI) as the inflation rate. As you can see, there is a very good fit, although you could argue that TIPS real yields recognise changes in inflation a little earlier.

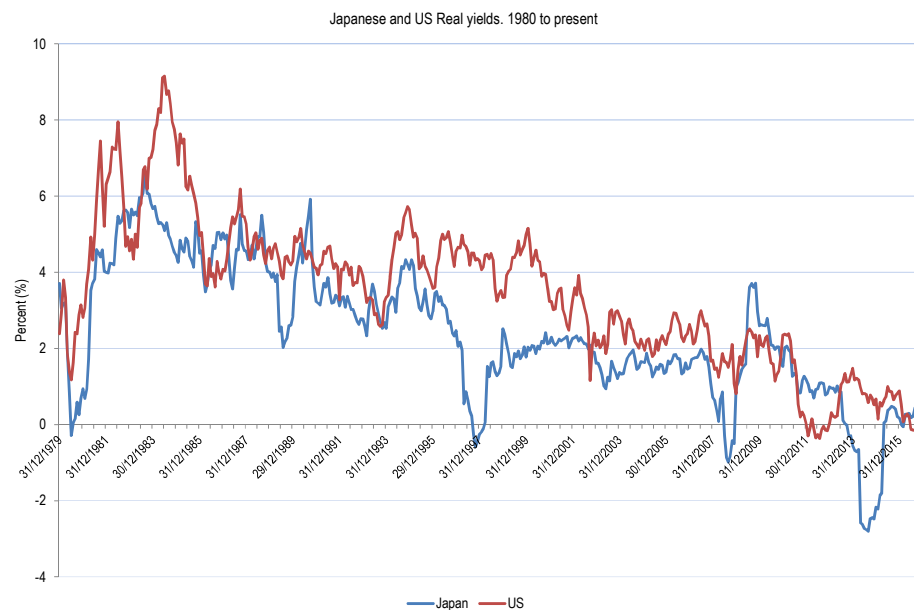


*So  
measurement  
issues aside,*

Although the concept of a real rate of interest emerged in the 1890's, its usefulness or definability meant that it is a dangerous area for economists. Evidently Keynes thought about it and then changed his mind and Friedman ignored it as impossible to define and target. More recently, the literature talks about the balance between savings and

*what drives  
real yields?*

investment (i.e) if economies are moving to a low investment phase due to factors like ageing populations or low productivity, the supply of money relative to that required for investment will lead to lower real rates. Now that's impossible to measure, however there is one global test tube for that kind of thing; Japan. Japan has a rapidly ageing population, and low economic growth with poor productivity for almost the last 2 decades. As an example of what happens in this scenario, there are a lot of Japanese banks, particularly regional ones that have balance sheets comprising 30%+ government bonds. There are not enough people or companies that want to borrow, so the banks buy lower yielding assets (bonds) instead. You'd expect that to result in lower real rates. The chart below shows Japanese and US real yields since 1980. For consistency, we've used bond rates and core inflation rates in each country to generate a real yield.



*And what  
does that  
mean?*

Japanese real yields were c2% between the late 1990s and early 2010s, and were probably 1% below US real yields. You could probably explain the slightly lower real yields by reference to all the demographics/supply demand imbalance factors mentioned above, although it must be acknowledged that the Japanese government was an enormous issuer of bonds over that period, so that might push Japanese bond rates higher than would otherwise be the case. However, there is no evidence from Japan to suggest that weak demographics and slow economic growth justify a zero real yield. There appears to be something that happened from 2011 to 2016 that pushes Japanese and US real yields to their historically low levels. The obvious candidate is global ZIRP, but that has been in existence since 2008, so unless there is a lag, there is something else at play.

*Are real  
yields still  
too low?*

We can't find many reasons to believe that zero real yields are sustainable. We can't find any historical precedents and we don't think that secular stagnation justifies anything lower than 2% real yields over the long run. As we have seen with negative nominal bond rates, the path from ridiculous to sublime can drag on for a while (we're up to

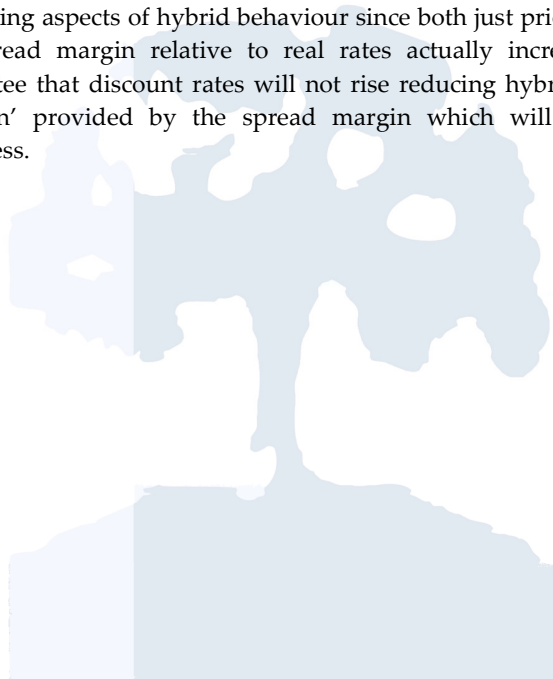
*Asset valuations*

about 3 years of negative bond yields). So, maybe real yields can stay at low levels for long period, but the risk has to be to the upside.

We've had some super tailwinds for asset valuations: some growth in inflation adjusted cash flows, a little bit of inflation, big falls in real rates and, for some asset classes, stability or falls in the margins over real rates. Infrastructure seems to have been a major beneficiary of them all. If we get a retreat in real rates or increases in margins over real rates, most asset values will decline but long dated infrastructure assets will be most affected.

*Hybrids are insulated from many of these outcomes*

Hybrids, which pay coupons that vary with the cash rate, are insulated from many of the outcomes. A change in real rates does not change the value of these instruments. The coupon rate actually increases should short term interest rates rise. One of the interesting aspects of hybrid behaviour since both just prior to and after the GFC is that the spread margin relative to real rates actually increased. Although there is no guarantee that discount rates will not rise reducing hybrids values there is a material 'cushion' provided by the spread margin which will mitigate the extent of any weakness.



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