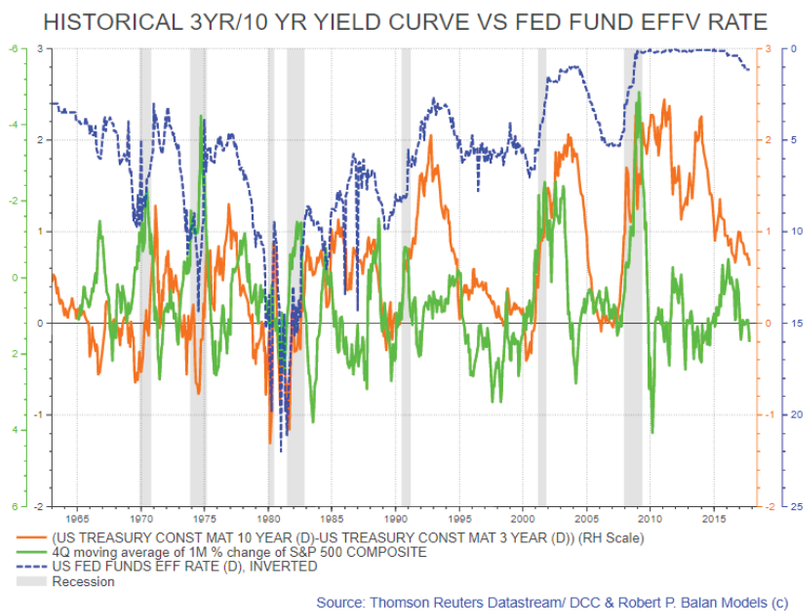
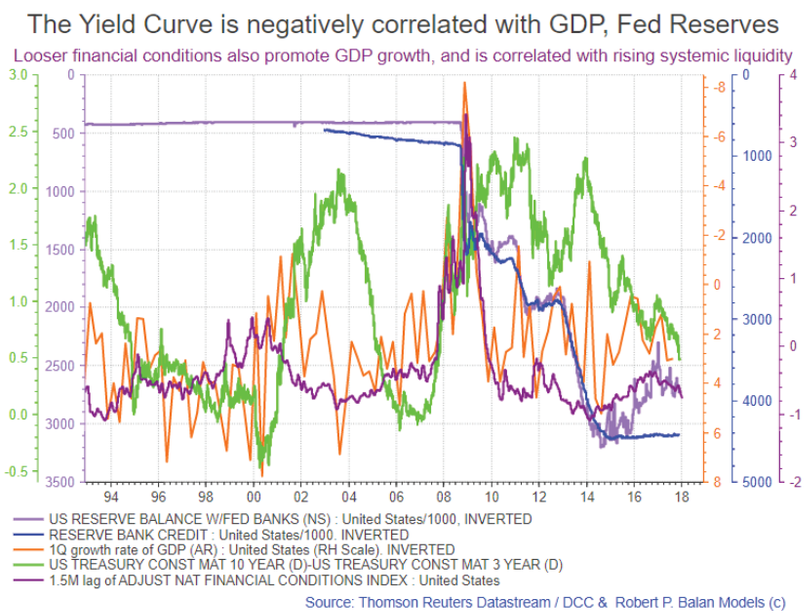
17 / At this stage, is a tactical steepening of the US curve nonetheless possible?

Much like in previous policy tightening cycles, the yield curve has been flattening as a direct consequence of the corresponding rise of short-term rates as the Fed tightened policy rates. The yield flattening can be directly attributed to the rise of the 3-year yield, which has been moving higher since the summer of 2013 when the Fed first declared that the era of zero interest rate policy and Quantitative Easing were coming to an end (*see first chart on this page*). And as the Fed Funds rate has risen, so too have 3-year yields. **But the flattening in recent weeks has some differences from previous episodes in that the 3-year yield has been rising, at the same time that the 10-year yield has been steadily falling. This has accelerated the flattening of the yield curve recently.**





The low absolute level of US bond yields today may also be introducing some non-linearity in the yield curve changes. During the equity boom days in late 2000, the yield on the 3-year and the 10-year were trading north of 7% at their peaks. And in 2007, these same yields were over 5%. Today, they are around 2% and probably will be even lower over the near-term. **The low absolute levels mean that yields do not have to change significantly (in percentage terms) to come close to the zero or the inversion point.** This is especially significant going forward because a policy tightening is practically baked-in during the FOMC meeting later this month. **And as the graph above illustrates, the harder the Fed raises policy rates, the flatter the yield curve becomes. The consensus, group-think is that the yield curve can only become flatter as the Fed carries out the policy regime set out in their Summary of Economic Projections (SEP) during their last FOMC meeting in September**. Certainly, we also see a flatter curve in the wake of a December tightening.

However, further flattening of the yield curve beyond December is not a given. In this article, we set out to find out the circumstances by which the flattening of the curve can be held in check, with the yield curve subsequently steepening. The flatter curve we have today has been accompanied by a significant loosening of US financial conditions. This was discussed in detail in another article in this publication (*"Risk assets are reaching a trough as financial conditions ease further; cyclical sectors should lead the way"*). So, in other words, if US financial conditions are to tighten, then it should follow that the yield curve should reverse it current course. The easy financial conditions, we believe, are partly due to the massive Fed balance sheet that it is starting to unwind. **In an article in the previous Capital Observer edition, we illustrated that there is a distinct positive correlation between the fed balance sheet and bank reserves held at the Fed versus US GDP growth.**

In effect, reducing the liquidity coming from these two vectors essentially tightens financial conditions and will subsequently be detrimental to economic growth. This is especially significant in the light of the Fed program of reducing its balance sheet gradually. The cumulative effect, we believe, will soon translate into lower GDP growth impulse and tighter financial conditions. That can trigger some tactical steepening of the yield curve (*see 2nd chart on previous page*).

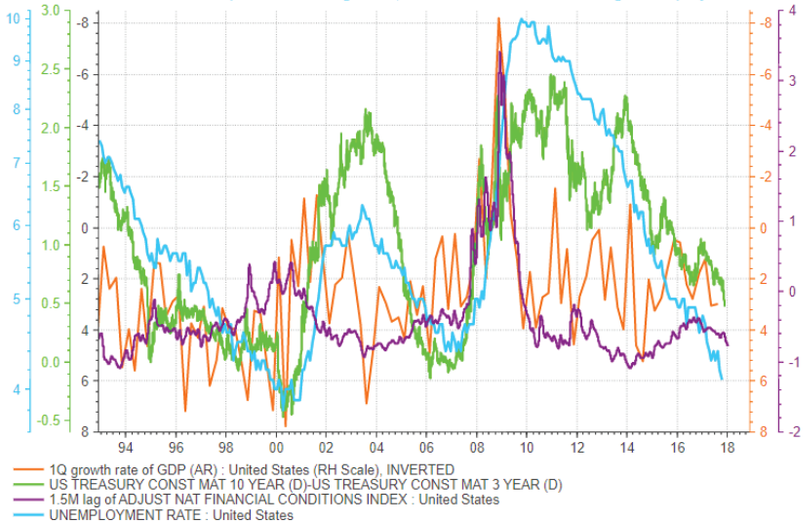
Another possible trigger for a steeper yield curve is if the Unemployment Rate (UR) is to stop falling, and start rising. The first to react will likely be the stock market which will fall, and the act itself, will lead to tighter financial conditions. The stock market is also a signalling devise of higher likelihood of declining growth further in the near-future. So, a rising UR and lower growth prospects will likely lead to some steepening of the yield curve, at least (*see 1st chart on this page*).

In fact, it does not take a long leap of faith to see this to be true. There is a strong equivalence between GDP growth and Unemployment rate (as should be the case), which is easy to see once the UR is converted into its yearly rate of change. **The UR tends to rise, 3 to 2 months after GDP growth declines, and vice versa** (*see 2nd chart on this page*).

We have been tracking the US labor sector for some time, and we are seeing some evidence that the decline in the UR may end sometime soon. We have plotted the correlations between US growth, Fed Funds rate, the PCE Index and the Unemployment Rate in a modified Phillips Curve platform, and came to the conclusion that changes in the US trails changes in the PCE and FFR by 9 to 10 quarters. If the thesis is valid, the US should bottom before the year is over (*see 3rd chart on this page*). That could help steepen the yield curve.

The Yield Curve is negatively correlated with GDP, Fed Reserves

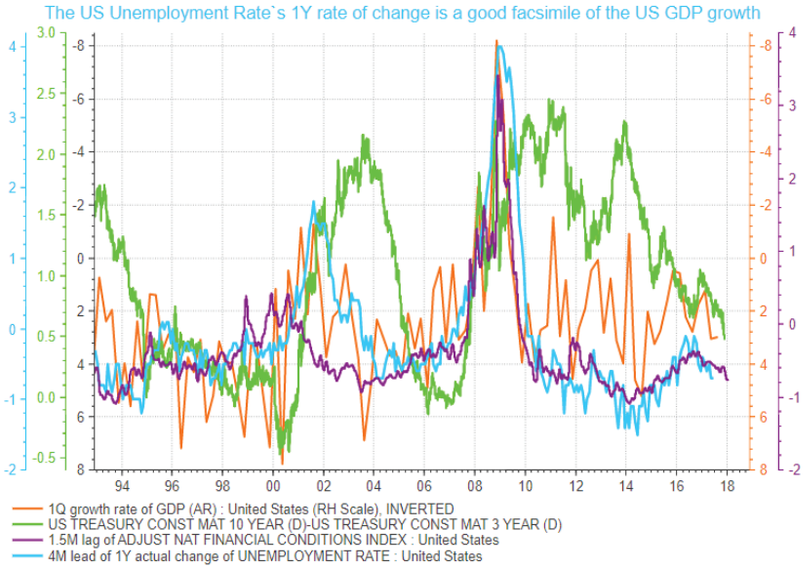
Looser financial conditions promote GDP growth, and is correlated with falling Unemployment Rate



Source: Thomson Reuters Datastream / DCC & Robert P. Balan Models (c)

The Yield Curve is negatively correlated with GDP, Fed Reserves

The US Unemployment Rate`s 1Y rate of change is a good facsimile of the US GDP growth

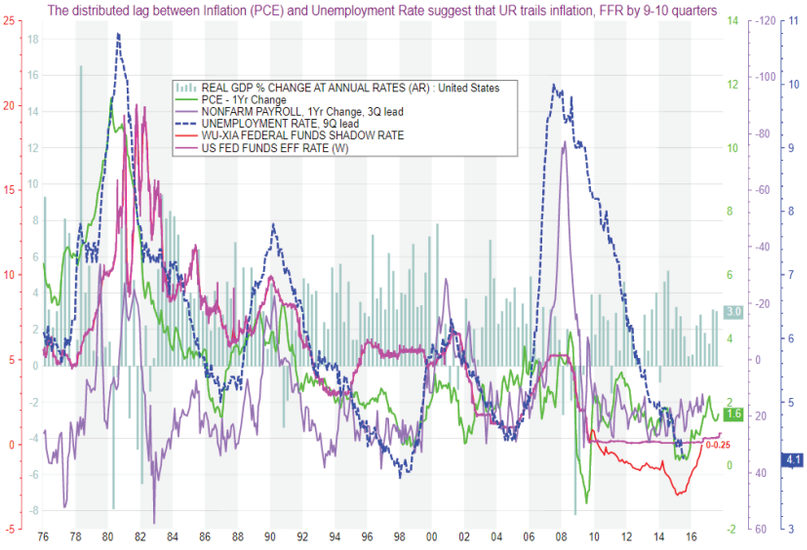


Source: Thomson Reuters Datastream / DCC & Robert P. Balan Models (c)

US GDP growth, Phillips Curve (inflation vs unemployment) and Fed funds rate

The Phillips Curve relationship between inflation and unemployment rate suggest the UR is due for a major trough by late Q4 2017

The distributed lag between Inflation (PCE) and Unemployment Rate suggest that UR trails inflation, FFR by 9-10 quarters



Source: Thomson Reuters Datastream / DCC & Robert P. Balan Models (c)

By this time, in the wake of the flatter curve, practically every investor is now aware that inversion of the yield curve is dangerous – it is a harbinger of a recession. Pundits are fond of stating that the last seven recessions have all been preceded by an inversion of the yield curve (*see 1st chart on this page*). In the wake of the yield inversion, equity markets are hammered as GDP growth takes a nose-dive.

While the premise is generally true, the devil is in the details. And the unsavoury consequence of a yield inversion takes some time to develop. A US GDP recession, and the S&P 500 trough occur 18 to 24 months (even 32 months thereafter) after the yield curve first inverts. Investors will have plenty of time to curb their bullish sentiments -- the yield curve inversion and the bottom of the equity market do not happen simultaneously. **In fact, some of the strongest gains in the SPX happened after the yield curve inverted (e.g., Sept 1988 - Sept 1999)**. No need to panic when (if) the yield curve inverts. If at all, investors should be glad when you see a yield curve inversion – that provides the knowledge that a market top is just a matter of time, and they can use other tools to determine the top of the bull market. One of the effective tools to use is the yield curve itself -- actually, it is a sharp steepening of the yield curve that forebodes the onset of a recession. In all the recessions "called" by yield inversion, the yield curve steepened sharply just before or at the onset of a recession.

Sometimes, it is difficult to envision all the details that accompany a yield inversion, which leads to a recession, simply because of the long, distributed lags. However, supposing we do a simple extrapolation work after a simple regression procedure, using the same yield curve, GDP and stock market data we used in the previous graphs. What we do is move forward the yield curve by 6 quarters, the average time lag between the trough of a yield curve inversion and the GDP trough following recession. What we get is the graph above. So, it means that you can have all the trappings of growth today, even as the flattening yield curve is already cutting down the legs of the recovery. There is another dimension to the graph above that is very informative. If the yield curve is to sharply steepen today (an indication of the onset of a recession), it simply means that the middle of the recession will be sometime in May 2019. **So, we are enjoying a Goldilocks phase now -- but a recession has already been baked-in. We all know that the current reflation phase is not going to last forever. We anticipate that H1 2018 could be a key inflection period for many markets.** We will duly keep you informed.