INTRODUCTION

Since the start of 2014, long-dated Treasury prices have defied most analyst forecasts and rallied. Despite the Federal Reserve’s ongoing gradual reductions of Treasury and MBS purchases, signs of an upturn in core inflation pressures and an acceleration in the pace of payroll growth that has lowered the unemployment rate to only 6.2%, long-dated Treasury yields have declined. Since the start of 2014, the benchmark 10-year Treasury yield has fallen from 3.02% to 2.50%. At the same time, the yield curve has flattened, implying that long-dated forward yields have fallen by much more, with implied 5-year 5-year forward (hereafter 5y5y forward) Treasury yields having declined by around 100 bps to around 3.50%.

This decline in forwards in 2014 has reversed around two-thirds of the upward correction that occurred in H2 2013 following the FOMC’s guidance that it would ‘taper’ its asset purchases. The scale of the renewed decline has been particularly perplexing, as depressed 2013 levels had been widely viewed as distorted by the Federal Reserve’s large scale asset purchases (LSAPs). LSAP ‘tapering,’ which commenced in December 2013, had been expected to permit forward yields to return towards ‘fair value’ (i.e. towards the trend nominal GDP growth rate) by increasing the available net supply.

This note outlines various arguments that might have contributed to the strength of long-dated Treasury prices in recent months. Although attributing the magnitude of individual factor contributions to the decline in Treasury term premia is beyond the scope of this discussion, we conclude that (i) the strengthening of FOMC guidance on the shallow path of future rate hikes, (ii) easy monetary policy developments in the euro-zone, (iii) renewed Treasury purchases by foreign official institutions, and (iv) wrong-sided positioning by investors are all likely to have played a part in bolstering Treasury demand. At the same time, we can find no conclusive evidence that pension funds increased their allocations meaningfully.

While so-called ‘secular stagnation’ arguments can explain the existence of a ‘global savings glut’ that has been partially directed into the Treasury market by foreign central banks and private investors, the argument is much less persuasive when applied to the US economy. It is true that US trend GDP growth has probably slowed, but private sector deleveraging is well advanced and the labor force is still expected to grow by a respectable 0.3% - 0.5% p.a. over the next decade, meaning that equilibrium interest rates do not need to be as depressed as...
in other economies. Furthermore, a secular stagnation argument could not explain the timing of most recent declines in forward yields, or the results of yield curve decomposition studies, which show that risk-neutral expected future short rates in the US have actually risen in recent months.

On the supply side, it is likely that reduced Treasury borrowing needs have offset a portion of the reduction in Federal Reserve System Open Market Account (SOMA) purchases, so that tapering of LSAPs is not ‘freeing up’ as much supply as previously anticipated. We caution that the reductions in Treasury issuance have come primarily in bills and short-dated Treasuries, though, meaning that the net supply of overall duration has changed very little.

WHERE SHOULD FORWARD YIELDS TRADE? FORWARD YIELDS AND TREND GDP GROWTH

Forward yields have historically had some relationship with estimates of trend GDP growth. The intuition behind this assertion is straightforward. The ‘neutral’ nominal policy rate should be linked to trend nominal GDP because short-term risk-free borrowing rates impact consumption and investment choices. In a simplified closed-economy model, at equilibrium, household savings (i.e. delayed consumption) must match investment spending. Hence the interest rate that households use to decide between consuming today or consuming tomorrow must come into balance with the risk-adjusted rates of return on the marginal investment project that their savings will be financing. In turn, the rates of return on investment activity will be a primary driver of trend output growth.

Short-term central bank policy rates can deviate for some time from long-run equilibrium levels, as central banks seek to stimulate or slow an economy that is operating away from trend, but over the cycle policy rates should gravitate towards a ‘neutral’ level (or slightly below) that allows an economy to grow at a sustainable pace consistent with full employment. So, in theory, longer-term forward rates should be relatively stable, and loosely tethered to trend GDP (plus a term premium to provide compensation for interest rate volatility).

To illustrate the link between forward rates and trend GDP, Larry Dyer from HSBC has highlighted that US 5y5y forward Treasury yields have historically peaked around the Congressional Budget Office’s (CBO) estimates of trend nominal GDP growth\(^1\). As a guide to value, this observation has clear implications.

Chart 1: Treasury 5Y5Y Forwards and CBO Estimates of Trend GDP

---

\(^1\) See “Peak Rates” presentation, 11 March 2014, Lawrence Dyer, Fixed Income Strategy, HSBC
If trend GDP is a stationary process that changes only slowly over time in response to gradual developments in demographics, the capital stock and total factor productivity, then the implication would be that variability in longer-dated forward yields derive mostly from fluctuations in term premia. Term premia, of course, can be negative or positive, and may equally reflect the distortionary impact of central bank asset purchase programs or regulatory incentives, as much as changes to investor risk preferences, volatility or correlations. In the US, for example, heavy domestic and foreign central bank purchases of long-dated Treasuries artificially depressed yields (and thus term premia during 2012 and 2013)\(^2\).

There are potential problems with using standard interest rate modelling methods to decompose yields into their risk-neutral expectations and term premia constituents when the Federal Reserve is essentially distorting longer-dated Treasury yields via massive permanent open market operations. Nevertheless, Adrian, Crump & Moench (ACM) (2013) of the Federal Reserve Bank of New York provide an econometric decomposition that we can use as a benchmark\(^3\).

Chart 2 below shows estimates of forward yields and term premia, as calculated by ACM (2013). We present results in both 10-year zero coupon yields and 5y5y forward space. One can see the close correlation between the ACM term premium estimate and implied Treasury forward rates, indicating that the bulk of the volatility in yields derives from fluctuations in risk premia rather than risk-neutral expectation of future short-term rates (fitting our intuition).


\(^2\)In the case of the Fed’s Large-Scale Asset Purchase and Maturity Extension programs, this distortionary impact on Treasury yields was intentional.

PRIOR EPISODES OF TREASURY TERM PREMIUM COMPRESSION

So what factors drives changes in risk premia for an asset class (in this case, interest-rate risk on long-term bonds, also known as duration)? From a theoretical perspective, the factors should be:

(i) Fluctuations in asset price volatility (i.e. interest rate volatility). Note that interest rate movements can be decomposed into real rate and breakeven inflation rate changes.

(ii) Changes to correlation with other assets. Recall the distinction between idiosyncratic risks that can be largely mitigated through diversification and therefore do not warrant a risk premium as compensation, and non-diversifiable systemic market risk that cannot be hedged, possibly requiring compensation for the bearer.

(iii) Changes to investor risk preferences that result from the correlation of asset returns with an investor's marginal utility for those returns when they are delivered. Put another way, assets that deliver positive returns in scenarios where investors might value those returns more (such as during a recession) can command higher prices.

(iv) Changes in supply / demand dynamics. Among other things, demand can be affected by government regulation or central bank activity. Actual or expected changes in fiscal policy can also impact the term premium.

Using this intellectual framework, we can consider three notable episodes of term premium compression from the last decade:

1. 2004 - 2007: Greenspan’s “Conundrum” episode
2. 2012 - 2013: Operation Twist & QE3
3. 2014 - ????: Conundrum Part 2

Greenspan’s Conundrum

The protracted reduction in Treasury term premia during 2004-2007 occurred when the Federal Reserve was gradually raising short-term rates, albeit at a ‘measured pace.’ During the tightening cycle, long-term Treasury yields remained range-bound, flattening the yield curve and driving implied 5y5y forward yields lower. The steady and protracted decline in term premia ran counter to expectations and prompted Chairman Greenspan to famously declare the phenomenon a ‘conundrum’.

In retrospect, the compression of long-term yields has been widely attributed in part to significant global savings and investment imbalance, leading to significant net purchases of Treasury debt from countries with current account surpluses. A key component of this phenomenon was the accumulation of official US dollar reserves by certain emerging economies as a result of growing trade surpluses and opposition to exchange rate appreciation that created a pool of reserve buyers of Treasuries that compressed US yields.

Interestingly, while the ramp-up in reserve accumulation began in 2003, the term premium did not begin its steady descent until 2004. This suggests that other factors were at play, and may have been as, if not more important, an influence on the term premium as central bank purchases. One distinct possibility is that the Federal Reserve’s forward guidance ahead of and during the previous tightening cycle served to suppress the term premium. The FOMC made considerable efforts beginning in the middle of 2003 to ensure that the term premium would not rise sharply as markets began to price in eventual policy tightening. These efforts gathered steam in January 2004, when the Committee stated that it would be “patient in removing its policy accommodation”. And in June 2004 when the Committee began raising rates, it noted that “policy accommodation can be removed at a pace that is likely to be measured”. These communications, aimed at limiting interest rate volatility, coincided with steady declines in the term premium.

Certainly, Chairman Greenspan’s forward guidance on the path or rates would have restrained rate volatility. In addition, the term premium is a countercyclical variable that tends to rise when the economy is deteriorating and fall when it is improving. But we should also remember that interest rate volatility is typically also related to the level of yields, so the fact that short-rates were being raised, and that a
The housing boom was generating an avalanche of MBS origination (with the associated interest rate hedging needs) should have offset some of the downward pressure on swaption implied volatility from forward guidance. Yet term premia declined steadily, and for a protracted period. Unfortunately, whether the cause of Greenspan’s conundrum was the Fed’s own forward guidance or a ‘global savings glut’, the longer-term consequences, in the form of an unsustainable credit-fuelled housing boom and subsequent financial crisis would prove almost catastrophic.

**Operation Twist & QE3**

The 2012-13 episode is a particularly remarkable both in terms of the policies being deployed by the Federal Reserve (policy rates at zero, LSAPs, maturity extension of the balance sheet and forward guidance), as well as the historical low yields achieved across the Treasury term structure. The decline in term premia during this period probably reflected a number of factors. First, the FOMC had already lowered the policy rate to the zero-bound, dragging the whole term structure of yields lower. Since interest rate volatility is usually impacted by the level of yields, so term premia would naturally have also fallen. Note, though, that policy rates had already hit zero by December 2008, so other factors must also have been at play.

Second the FOMC gradually strengthened its ‘forward guidance’ on the path of policy rates, moving from the vague ‘extended period’ commitment to a stronger date-based guidance in August 2011, then to data-threshold-based guidance in December 2012, before reverting to qualitative guidance in March 2014. The changes in guidance almost certainly contributed to a reduction in term premia, but are unlikely to have been the only cause.

Third was the increasingly aggressive deployment of the Fed’s balance sheet. The Fed’s Maturity Extension Program (launched in late 2011) and subsequent third round of QE (initiated in late 2012) focused on long-end purchases and extracted a sizeable proportion of net duration supply from the Treasury market, adding to an already huge portfolio.

In addition, by engineering a huge mortgage refinancing wave and then absorbing the greater part of new origination through its MBS purchases, the Fed simultaneously removed much of the hedging need for the pre-payment optionality inherent in MBS securities. With the Fed not hedging its MBS portfolio, the requirement for vega protection usually channeled through the swaption market dried up, reducing implied volatility and encouraging yet more maturity extension by investors.

In our opinion, the collapse in term premia during 2012-13 did not occur just because of a change in investor attitudes to risk, or even necessarily a change in yield volatility, but rather because of the central bank’s decision to remove a large proportion of available Treasury and MBS supply from the secondary market. It seemed reasonable, therefore, that once the FOMC communicated its intent to end the asset purchase program, forward yields should correct towards consensus trend GDP estimates. This is exactly what occurred in the second half of 2013, as 5y5yTreasury forward yields quickly climbed from 3.25% to a peak of 4.50%, following the FOMC’s signal of imminent tapering.

Since December 2013, however, real and nominal 5y5y forward yields have fallen back dramatically to 1.00% and 3.50%, respectively, even as the labour market has made faster-than-anticipated progress towards the Fed’s full employment goal and CPI and PCE price indices have begun to recover. The divergence between improving economic fundamentals and the level of long-dated forward yields has now become unusually wide, and warrants deeper investigation.

**2014 - ???: Conundrum Revisited**

Economists and market analysts have proposed a number of explanations for the recent declines in longer-dated forward yields (which have taken most, including ourselves by surprise).

1. **Forward guidance: “tapering is not tightening”**

One theory is that forward yields moved sharply higher in the second half of 2013 because investors misunderstood the FOMC’s message in May when it communicated that it would taper LSAPs, and then fell back in 2014 as the FOMC introduced the guidance that rate hikes, when they did begin, would be very gradual.

---

*It is intriguing that, once again, the local peak in 5y5y forwards at 4.50% roughly approximated the FOMC’s concurrent assessment of trend nominal growth, namely 2.25% trend GDP growth plus 2.00% PCE inflation objective.*
The suggestion is that, in the second half of 2013, investors presumed tapering would be swiftly followed by policy rate hikes. Clarification that tapering did not equate to a warning on imminent rate tightening (“tapering is not tightening”), or signal a change in the Fed’s reaction function, and reinforcement of threshold-based and subsequent qualitative guidance are argued to have corrected this misperception and to have helped reduce uncertainty on the path of rates.

Our own view is that this argument is overstated as an explanation for the volatility in 5y5y forwards, and not strongly supported by the evidence. If investors had in fact concluded that the FOMC’s LSAP tapering warning represented an abandonment of forward guidance and a signal that rate hikes were coming earlier, then front end yields should have adjusted abruptly. Although front-end yields did react, the increase was relatively modest. Implied OIS short rates for end-of-2016 never exceeded the FOMC’s own median policy rate projection (of 2.25%), and only rose by around 50 bps – around a third of the move in 5y5y Treasury forwards.

In our opinion, the modest move in front-dated Treasuries in the second half of 2013 simply reflected the reality that if better data could impact economic forecasts and bring forward tapering of LSAPs, better data could equally bring forward rate hikes. Steady declines in the unemployment rate were also shortening the time until the FOMC’s 6.5% unemployment threshold would be breached.

Still, forward guidance has evolved over the last 12 months. On the one hand, the switch in March 2014 from the quantitative 6.5% unemployment threshold to a qualitative reference to a broad set of labor market variables has weakened guidance by reducing clarity on timing of rate hikes. On the other hand, the FOMC has also stressed that, even after the economy had returned to full employment and price stability, policy rates would likely only be adjusted slowly towards longer term normal levels, even after the economy had met the Fed’s full employment and price stability objectives. The message that although the timing of rate hikes was uncertain, the path of rate hikes would likely be shallow is bound to have had an impact on restraining yield increases in 2014 in the face of better data.

The success of forward guidance in damping expectations and term premia is evident when one compares the implied path of rates from OIS swaps and Fed Funds futures to the Committee’s own policy rate forecasts (provided in the Summary of Economic Projections). The fact that market-implied forward rates are, at time of writing, still 25 to 50 bps lower than the FOMC’s own policy rate forecasts, even as unemployment and inflation indicators have recovered faster than the Fed’s projections is testament to the power of forward guidance.

2. Secular stagnation and the “new neutral” of lower policy rates

Another argument that has gained currency in recent months is the idea that the global economy has entered a period of secular stagnation. Most developed economies continue to be weighed down by excessive debt burdens accumulated prior to and following the financial crisis, as well as demographic pressures that have slowed labor force growth (and thus potential GDP growth), raised average age (increasing preference for saving and fixed income assets) and increased the dependent / worker ratio (placing added pressure on social security systems and government budgets). As these economies struggle to service and pay down their private and public debt loads amid reduced potential output growth, the argument is that central banks have had to engineer much lower policy rates across economies, and that policy rates will by necessity remain depressed for many years. To use a phrase coined by analysts at PIMCO, global policy rates may have reached a “new neutral”.

This argument certainly rings true for most developed economies to varying degrees. Even in the United States, the ageing of the ‘baby boomer’ generation implies a reduced rate of growth in the working-age population and an eventual explosion in social security and medical entitlement obligations. A slowing in productivity and labor force growth may have shaved off as much as half a percentage point off US trend real GDP growth over the last decade, which most economists now estimate between 1.75% and 2.25% per annum5.

---

5 Adding 2% PCE inflation, this would imply trend nominal GDP growth between 3.75% and 4.25% p.a. In our view longer-term neutral Fed funds would then be around 3.50-3.75%.
If slow-growing, ageing, indebted economies are deleveraging, the global savings rate will remain elevated, since paying down debt is the same thing as saving⁶. International data confirm that the overall G10 savings rates has indeed risen over the last decade (see Chart 3). The savings rate also increased in the United States after years of easy domestic credit conditions permitted excessive spending on real estate and imports essentially financed by exporters, until the financial crisis forced a period of painful deleveraging. If US households have opted to raise their savings rate, it again implies that real interest rates will remain depressed across the term structure for a time.

Chart 3: GDP Weighted Savings Rate: Canada, United States, Eurozone, United Kingdom, % of GDP

So how quickly could policy rates rise in such a world? Fed Chairs Bernanke and Yellen have both referred to ‘headwinds’ that could keep policy rates below longer term ‘normal’ levels even after the economy returns to full employment. These headwinds include: (i) elevated debt burdens; (ii) the psychological impact of the financial crisis on households, which left many cautious and chastened; (iii) reduced trend GDP growth; (iv) an ageing workforce with a preference to save; and (v) higher private borrowing costs due to a stricter and more expensive regulatory framework.

In our opinion, with the exception of the structural demographics factor impacting potential GDP growth, the impact of these headwinds is fading: (i) household debt is much reduced, and debt obligation ratios are at historical lows so it is unclear how much deleveraging is left to occur; (ii) consumer confidence has recovered as balance sheets and wealth have been repaired and job prospects have improved; and (iii) broader financial conditions are easy, despite increased banking regulation, and loan officer surveys indicate credit availability is much improved.

The real problem with the secular stagnation theme, of course, is that despite its validity and ability to explain the downward trend in global long-term real yields over the last decade, it cannot account for the timing of the 100bps decline in 5y5y Treasury forwards since December. After all, the changing demographic profiles of G10 economies have been known for years, and economists and investors have had years to consider the implications.

⁶ Remember also that from a flow of funds perspective, one person’s debt is another’s asset, and funds used to pay-down debt ultimately turn around and look for new lending opportunities, though the interest rate on new loans may need to fall to entice new borrowers. In a closed economy, savings and investment are brought into (internal) balance by changes in interest rates. However, in an open economy with capital mobility, excess income (savings) generated by trade surpluses can be moved abroad in search of better investment opportunities, until interest rate differentials and exchange rates adjust to generate both internal and external balance.
Importantly, the secular stagnation argument would allow for declines in future equilibrium /neutral policy rates (as per the “new neutral”), but does not necessarily allow for dramatic declines in term premia. In this context, it is worth noting that the ACM decomposition of Treasury yields indicates a recent increase in expected future short rates, but a decline in term premia.

Although it has gained popularity in recent months, we consider the secular stagnation theme a red herring. In our view it is a valid argument about structural trends being used to fit short-term price action actually being driven by other factors. Something else has changed.

3. Foreign central bank policy developments and international yield spreads

Within developed markets, the demographic problems hampering growth are most acute in the Eurozone and Japan. It is no surprise, therefore, that, in the absence of fiscal headroom following the financial crisis, the ECB and BOJ have steadily ramped up monetary policy support to their economies, driving domestic sovereign yields to historic lows.

The ECB’s promise to “do whatever it takes” to prevent Eurozone break-up in the summer of 2012, in combination with long-term repo programs, set in train a trend of tightening in peripheral spreads. However, since the beginning of 2014, speculation that persistently soft euro-zone inflation prints might force the ECB to go beyond recently announced negative policy rates, forward guidance and ‘targeted LTROs’ and finally commence large-scale outright purchases of government bonds has squeezed all euro-zone yields lower. With Spanish and Italian 10-year yields almost on top of US Treasuries, and Bund yields some 140 bps lower than Treasuries, Treasuries have rarely been cheaper on an international spread basis. With peripheral sovereign yield spreads having collapsed, yield enhancement opportunities are especially scarce. With global savings searching for yield in a global zero-policy-rate, low-volatility environment, the incentive for international investors to switch from JGBs and Bunds into US Treasuries are clear, particularly on a currency un-hedged basis.

And the timing fits. The term premium began its steady descent downward in early 2014 as expectations for aggressive policy action in Europe built. It is also worth noting that this impact is likely related not just to expectations for eventual QE in the euro-zone, but also to policy guidance used by the ECB that serves as a pledge to leave rates low for a long period of time. Both QE expectations and the ECBs forward guidance would serve to depress term premia in the European sovereign bond market, with spillover effects to the US Treasury term premium.

Chart 4: 10-year Treasury, JGB, Bund, OAT, BTP, SPG Yields

Source: Bloomberg, as of August 5, 2014
4. Foreign central bank purchases of Treasuries

Emerging market economies tend to be prolific savers, often due to underdeveloped social safety nets that require higher levels of precautionary balances. Fast growth over the last couple of decades means emerging economies have also become a larger proportion of global output, many by pursuing export-driven growth strategies that have generated massive export surpluses. A reluctance to allow exchange rate realignment, and a desire to build a ‘war chest’ of foreign exchange reserves have combined to turn a few central banks and sovereign wealth funds into the largest holders of US Treasury debt.

In 2004-2007, the accumulation of official foreign exchange reserves and investment into Treasuries is widely credited with contributing to Greenspan’s conundrum of depressed term premia. Given the obvious parallels between the 2004-07 period and the current situation – rising expectations for average short-term rates being offset by a declining term premium - we need to consider whether reserve accumulation could again be contributing to term premium compression. Furthermore, in 2004, the term premium declined for many quarters after the Fed began raising rates. Could such a phenomenon be repeating itself, potentially frustrating those calling for higher Treasury yields?

One problem we face in trying to measure the impact of reserve accumulation on Treasury yields is that foreign central banks, sovereign wealth funds and other official entities buy a range of US financial assets, and even US Treasury purchases could be at any maturity point. Furthermore, US Treasury yields can be impacted by official buying in substitute sovereign debt markets also – for instance, buying of German Bunds by a foreign central bank could encourage the displaced investor to switch into Treasuries, indirectly driving down US yields.

Data on US Treasury accumulation by foreign official institutions is hard to track, with some countries understandably not wishing to provide complete clarity on the size and composition of official reserves. Treasury’s TIC data on US securities holdings by international investors shows holdings by domicile of the custodian, rather than the location of the end investor. TIC transactions data, meanwhile, is classified by the domicile of the relevant branch of the transacting institution, which will often differ from the domicile country of the end user.

Nevertheless, US Treasury TIC data on net purchases of long-term Treasuries by foreign official institutions indicates that the pace of buying has indeed picked back up in 2014, having been roughly flat in 2013. Indeed the 3-month average monthly pace ($16.9bn / month) has returned towards the elevated levels of 2009-2012, with TIC data indicating mainland China accounted for the bulk of the purchases. These

---

7 The pace of foreign official buying of Treasuries appears to have turned negative in H2 2013, possibly as reserve growth may have reversed amid capital outflows from EM markets amid concerns over the impact of LSAP tapering on those economies.

8 China’s State Administration of Foreign Exchange is reported to have intervened heavily in the foreign exchange markets in Q1 2014, reportedly selling Yuan against the dollar to depreciate the currency, perhaps both to support its export sector and to reintroduce two-way risk into the market and remove speculators. Scrutiny of Federal Reserve and Treasury data suggests that the Treasury securities that were probably bought with FX intervention proceeds may have been custodied in Belgium or Luxembourg, rather than at the Federal Reserve Bank of New York.
data corroborate the anecdotal evidence from discussions with our own counterparties that foreign official institutions have been heavy buyers of Treasuries in 2014.

The observation invites the question as to whether these flows can continue. If increased Treasury purchases reflect proceeds from a one-off currency intervention by China, then purchases should slow once those US dollar intervention proceeds are invested. On the other hand, if official Treasury purchases reflect renewed recycling of trade surpluses, or an active decision to add Treasury duration (perhaps even losing an underweight), then these flows could prove more persistent.

We should be careful not to over-interpret the increase in official purchases. In the end, it is the overall balance between demand and supply that will determine yields, and official purchasers are only one source of demand. Treasury’s data suggests official purchases in the 3-months ending in May 2014 were running at approximately $16.9bn / month. But since January the Federal Reserve has trimmed the monthly pace of Treasury purchases by $25bn / month to $15 bn/month, offsetting much of this renewed official foreign buying.

5. Reduced treasury issuance

Better tax receipts and Government-Sponsored Enterprise (GSE) remittances have steadily reduced Treasury’s borrowing needs, such that the CBO has reduced its baseline forecasts for the 2014 federal deficit from $616bn in the February 2013 forecasts, to $492bn in the April 2014 forecasts, as projected receipts have risen and outlays have declined. So could reduced Treasury supply explain the richening in Treasuries?

First, to provide perspective, consider that even a $124 bn improvement in the 2014 deficit projection would amount to only around 3 months of SOMA purchases when the Fed was buying $480bn of Treasuries a year.

Second, the reduction in associated debt issuance is occurring mostly in bills and short-dated securities, so that the Treasury’s overall supply of duration will barely diminish this year. In fact, the Treasury is even considering issuing 50-year debt, which would increase duration supply.

Third, the most recent CBO projections show that deficits are likely to be higher from 2016 onwards, meaning that any reduction in issuance is likely to only be temporary.

Finally, consider that the improvements in the deficit projections have been incremental, and we must conclude that temporarily reduced Treasury supply cannot realistically explain the reduction in long-dated yields that has occurred in 2014.

6. Pension fund reallocation to fixed income

One investor group that has also received scrutiny is the pension fund community. As pension fund solvency ratios improved in 2013 amid rising equities and falling bond prices, many speculated that pension funds might have rebalanced out of equities into long-dated bonds in the first quarter of 2014. Increases in PBGC premiums and potential changes to mortality tables might also have incentivized a switch to fixed income. Unfortunately, there is little evidence either in Treasury data or from our discussions with consultants that pension funds in aggregate added Treasuries to their portfolios in early 2014. In fact, the Federal Reserve’s Flow of Funds data indicate that pension funds reduced their Treasury purchases to only $7bn of Treasuries in the first quarter, from around $35bn in the third quarter and fourth quarter, and also reduced corporate bond purchases.

7. Positioning squeeze

Finally, we need to consider the potential for positioning to have impacted Treasury yields. With the bulk of market analysts predicting that better economic data and Fed tapering would allow yields to rise in 2014, many had positioned themselves underweight duration versus their respective benchmarks.

With an unexpectedly sharp contraction in output in the first quarter, and the FOMC’s decision to focus on a broader range of labor market indicators than the U3 unemployment rate measure, or official unemployment rate, and signal an extended period of low rates, those positions came under severe pressure. Since the start of 2014, the significant non-commercial short base in Bond and Ultra-Long Treasury
futures has actually flipped to an overweight position, while underweights in Eurodollar contracts have remained persistently high. This suggests that speculative users of futures have, on balance been buyers of the long end, while remaining sellers of the front end, thereby establishing curve flattening exposures (or at least offsetting steepeners in cash securities). The evidence from futures positioning is consistent with the considerable bull flattening of the Treasury curve since the start of the year.

CONCLUSIONS AND TENTATIVE INVESTMENT IMPLICATIONS

The decline in long-dated forward Treasury yields in 2014 has clearly caught many investors off-guard. In retrospect, improvements in US economic data have had very little influence on the long end of the Treasury curve. Instead, our analysis suggests that the primary contenders to explain the decline in term premia over the last six months include:

(i) **Accommodative foreign central bank policy and international yield spreads that have encouraged international investors into purchasing Treasuries**

Investment Implication: With the ECB signalling that policy rates could stay negative for years, and seemingly on the verge of launching asset purchases to head off deflation risks, and with Eurozone peripheral debt offering little yield pick-up, euro-zone debt yields seem set to stay depressed. While the Federal Reserve may be ending its liquidity injections, the ECB and BOJ look set to step into the role of global liquidity provider, fuelling international demand for high-quality sovereign assets. This factor will probably have a persistent influence on Treasury yields.

(ii) **Foreign official institution buying of Treasuries**

Investment implication: Foreign official sector buying of Treasuries is hard to track, and harder still to predict. However, the pace of total international reserve accumulation has been reasonably steady since 2010, as emerging economies have reinvested trade surpluses into G10 financial assets rather than permit a realignment of their currencies. With the Chinese authorities seeking to support growth via exchange rate management while they rebalance their economy, it is not implausible to see international reserve accumulation continue. The risk, therefore, is that foreign official purchases offset reductions in SOMA purchases and help contain term premia for an extended period. Having said that, there is probably a limit to how far foreign official purchases can distort term premia.

(iii) **Strengthened forward guidance from the FOMC that ‘tapering is not [policy rate] tightening’ and that rate hikes, when they commence, will likely be gradual.**

Investment implication: In our opinion, the Fed’s strategy during the coming tightening cycle bears striking similarities to the 2004 tightening. Namely, the FOMC will seek to assure investors that rate increases will be predictable and moderate in order to prevent a term premium shock. At the current juncture, however, such assurances may become increasingly difficult to maintain with credibility.

First, the policy rate is well below historical norms given current levels of growth, inflation and employment. Core Committee members have repeatedly articulated the reasons for this atypical stance. However, as the economy improves further, more traditional-minded Committee members, and many investors, will become increasingly uncomfortable with highly accommodative policy. Adjustments to the FOMC statement already reflect some contrast between the improving outlook and core Committee members intent on maintaining high levels of accommodation. In July, for example, the Committee acknowledged that the risks of persistently low inflation – a key condition of the forward guidance – have diminished. This weakening of the forward guidance was balanced, for the time being, with a contention that labor market slack remains considerable.

We expect the Committee to continue to attempt this tight-rope walk between improving fundamentals and highly accommodative policy in the months ahead. However, given this balancing act, the risks of another communication policy error from the Federal Reserve are significant. Similar to 2013, the FOMC risks a term premium snapback if investors perceive, rightly or wrongly, a shift in the policy reaction function. In addition, even if the Fed can continue to convince investors that policy will remain accommodative during the years ahead, it would instead risk a policy error that could lead to a loss of credibility in its inflation-fighting objective, and the associated loss of credibility would drive yields higher.
Cedric Scholtes, Head of Global Rates and Head of US TIPS Portfolios

Cedric is Head of Global Rates and Head of US TIPS Portfolios at FFTW. He is responsible for the overall performance of the Global Rates team, implementing and improving investment processes for this team as well as managing the dedicated interest rate specialists who comprise the team. He also has responsibility for overseeing US inflation-linked portfolios as well as US government portfolios, including generating alpha ideas within US rates and inflation markets for implementation across applicable portfolios. Cedric joined FFTW in June 2006 as a portfolio manager and is based in New York.

Cedric joined the firm from the Treasury trading desk at Goldman Sachs, where his responsibilities included taking proprietary positions and market-making in index-linked markets, as well as enhancing the desk’s analytical capabilities. Prior to working at Goldman Sachs, Cedric spent five years at the Bank of England, two of which were spent on secondment to the Federal Reserve Bank of New York. At the Bank of England, Cedric spent two years in the Foreign Exchange Division, helping to manage the UK Treasury’s foreign exchange reserves. Prior to that, he worked as a research economist within the Monetary Analysis Division, researching fixed income markets. Cedric has published articles on nominal and inflation-linked debt markets in Bank of England, BIS and IMF periodicals, as well as RiskBooks. Cedric has 15 years of investment experience.

Cedric holds an MSc in finance and economics from Warwick Business School (1999), an MSc in economics from the London School of Economics (1997), and an MA/BA in economics from Cambridge University (1996).

Steven Friedman, Director, Official Institutions

Steven is a member of the Central Banks and Official Institutions team responsible for client service and business development. He joined FFTW in 2013 and is based in New York.

Before joining FFTW, Steven held various positions at the Federal Reserve Bank of New York, most recently as director of market analysis, where he worked on both market and policy analysis and relationship management for the Bank's Investment Advisory Committee on financial markets. Prior to that, Steven worked in other roles within the Markets Group, including director of foreign exchange and investments, where he had oversight for the Fed's and Treasury's foreign exchange portfolios. During the financial crisis, he worked on the design and implementation of a number of liquidity facilities, such as swap lines with other central banks. Steven also spent two years at the Bank for International Settlements as a member of the Basel Committee Secretariat. He has over 14 years of markets-related experience.

Steven holds a BA in government and Russian studies (with honors) from Wesleyan University (1993), an MA in international relations from The Paul H. Nitze School of Advanced International Studies at The Johns Hopkins University (1998), and an MBA (executive program) from Columbia Business School (2011).
DISCLAIMER

This material is issued and has been prepared by Fischer Francis Trees & Watts* a member of BNP Paribas Investment Partners (BNPP IP)**. This document is confidential and may not be reproduced or redistributed, in any form and by any means, without Fischer Francis Trees & Watts’ prior written consent.

This material is produced for information purposes only and does not constitute:
1. an offer to buy nor a solicitation to sell, nor shall it form the basis of or be relied upon in connection with any contract or commitment whatsoever; or
2. any investment advice.

Opinions included in this material constitute the judgment of Fischer Francis Trees & Watts at the time specified and may be subject to change without notice. Fischer Francis Trees & Watts is not obliged to update or alter the information or opinions contained within this material. Fischer Francis Trees & Watts provides no assurance as to the completeness or accuracy of the information contained in this document. Statements concerning financial market trends are based on current market conditions, which will fluctuate. Investment strategies which utilize foreign exchange may entail increased risk due to political and economic uncertainties. Investors should consult their own legal and tax advisors in respect of legal, accounting, domicile and tax advice prior to investing in the financial instrument(s) in order to make an independent determination of the suitability and consequences of an investment therein, if permitted. Please note that different types of investments, if contained within this material, involve varying degrees of risk and there can be no assurance that any specific investment may either be suitable, appropriate or profitable for a client or prospective client’s investment portfolio.

Given the economic and market risks, there can be no assurance that any investment strategy or strategies mentioned herein will achieve its/their investment objectives. Returns may be affected by, amongst other things, investment strategies or objectives of the financial instrument(s) and material market and economic conditions, including interest rates, market terms and general market conditions. The different strategies applied to the financial instruments may have a significant effect on the results portrayed in this material. The value of an investment account may decline as well as rise. Investors may not get back the amount they originally invested. Past performance is not a guarantee of future results.

The information contained herein includes estimates and assumptions and involves significant elements of subjective judgment and analysis. No representations are made as to the accuracy of such estimates and assumptions, and there can be no assurance that actual events will not differ materially from those estimated or assumed. In the event that any of the estimates or assumptions used in this presentation prove to be untrue, results are likely to vary from those discussed herein.

This document is directed only at person(s) who have professional experience in matters relating to investments (“relevant persons”). Any person who is not a relevant person should not act or rely on this document or any of its contents. The performance data, as applicable, reflected in this material, do not take into account the commissions, costs incurred on the issue and redemption and taxes.

* Fischer Francis Trees & Watts, Inc. is registered with the US Securities and Exchange Commission as an investment adviser under the Investment Advisers Act of 1940.


** “BNP Paribas Investment Partners” is the global brand name of the BNP Paribas group's asset management services. The individual asset management entities within BNP Paribas Investment Partners if specified herein, are specified for information only and do not necessarily carry on business in your jurisdiction. For further information, please contact your locally licensed Investment Partner.

For investors located in the United Kingdom, any investment or investment activity to which this document relates is available only to and will be engaged in only with Professional Clients as defined in the rules of the Financial Conduct Authority.