Global Rates Strategy
October is looking spooky for USTs

Interest Rates

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What does the rise in German bund yields mean for USTs?
On Tuesday, US yields started to move higher on the back of taper concerns in Europe. While tapering is not part of our views, we have highlighted that euro-area core yields look too low relative to fundamentals and markets are excessively dovish. As such a potential back up in EUR yields may push USTs up by 20bps at most. We have discussed this and related views in three recent notes: Euro-area yields: Too low any way you cut it , Can a bond sell-off derail markets and What could cause a US bond market sell-off?

Tactically neutral on duration and curve due to uncertainty
Given the near-term improvement in the US data, upcoming money market reform deadline and US elections in November, we think it is better to take a tactically neutral stance on duration and curve. Looking ahead, our Evidence Lab team expects higher than consensus payroll outcome, which is bearish for intermediate yields and argues for a flatter curve. But, we have the money market reform deadline on October 14th as well as US elections in November. The latter events are likely to deliver increased uncertainty. We also have long-end UST auctions next week and 30-year TIPS reopening this month. The uncertainty combined with long-end supply argues for a steeper curve. With these near-term events, we prefer to be neutral on USTs. On a longer-term basis, we continue to like 30-year TIPS outright and prefer 5s/30s nominal/real curve flatteners.

Low implied vols offer an opportunity
Following the lead of BoJ meeting in September, US implied vols have declined quite significantly while the US financial and inflation outlook has improved. In particular, if the US data continues to remain firm, intermediate UST yields look susceptible to a move higher. We think buying 3m5y ATM + 25bp payer is an attractive way to position for more uncertainty and higher intermediate rates.

Enough concession is priced in 30-year TIPS, Long 30y BEIs
We discuss the nuances of upside August core CPI surprise. We find that the upside surprise could have been predicted via the PPI healthcare data. Separately, our tactical breakeven model suggests being long breakevens. In our review of 30-year TIPS supply, we find that the issue is attractive on real yields, breakevens and versus 10s. Given our view that reopening size will only be $5bn and our expectation of 0.09y index extension, we recommend being long 30-year breakevens outright or versus 10s ahead of month-end. Tactically, we find 10s30s breakeven steepeners to be an attractive trade going into the month-end TIPS index extension.

Note: Any references to options in this document refer to over-the-counter instruments.

Current events: ECB taper question?

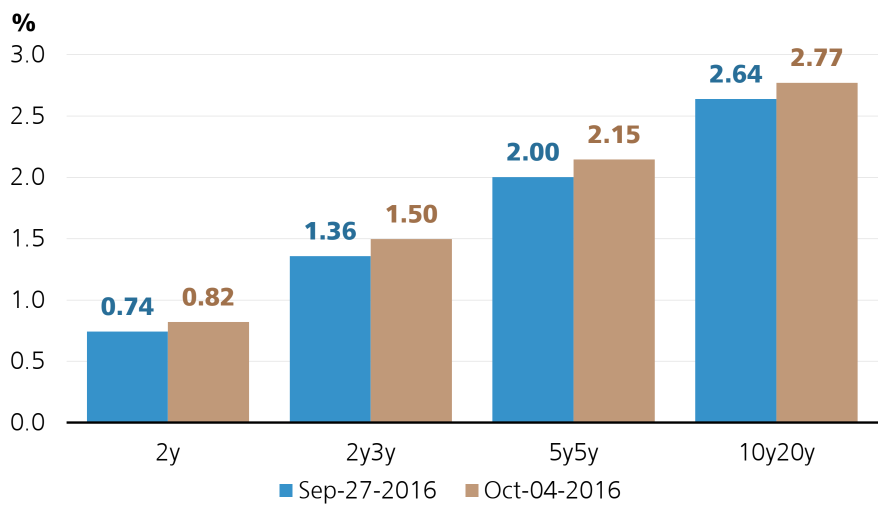
The global developed market bond yields have suddenly moved higher, led by US and German bunds. **Figure 1** shows the move up in US term structure over the past week. The key impetus for the move seems to be a Bloomberg story which suggests that ECB will wind down its bond purchases.

The news article does not explicitly state when the programme is due to end or when tapering will start. It simply states that when the time to taper QE comes, it could be in steps of €10bn/month and the programme could still be extended at the current pace of €80bn/month beyond Mar-17.

While ECB tapering is not part of our views, **we have highlighted that euro-area core yields look too low relative to fundamentals and markets are excessively dovish (Please see Euro-area yields: Too low any way you cut it)**. As such a potential back up in EUR yields may push USTs up by 20bps at most. We dicuss this further in two related notes: Can a bond sell-off derail markets and What could cause a US bond market sell-off? It is notable that the underlying HICP inflation excluding food and energy still remains at 0.9% Y/Y, which is well below the ECB's inflation objective. Nevertheless the contents of the article will increase the focus on the length of the ECB's QE programme and comments by Draghi on this topic on 8 October will be watched closely for any signals in this regard.

Over time, with the experience of US taper tantrum, we have seen that such back-up in 10-year rates is not sustainable if it is not supported by fundamentals. With this development in sight, we bring the focus back to the other near-term drivers of the US bond market. This includes monetary policy reaction function as laid out in the September FOMC meeting, September non-farm payroll report, money-market reform deadline (October 14) and US elections (November 8th).

Figure 1: US term structure of yields as of Septebmer 27 and October 4th



Source: UBS, Bloomberg

Market action speaks louder than FOMC words

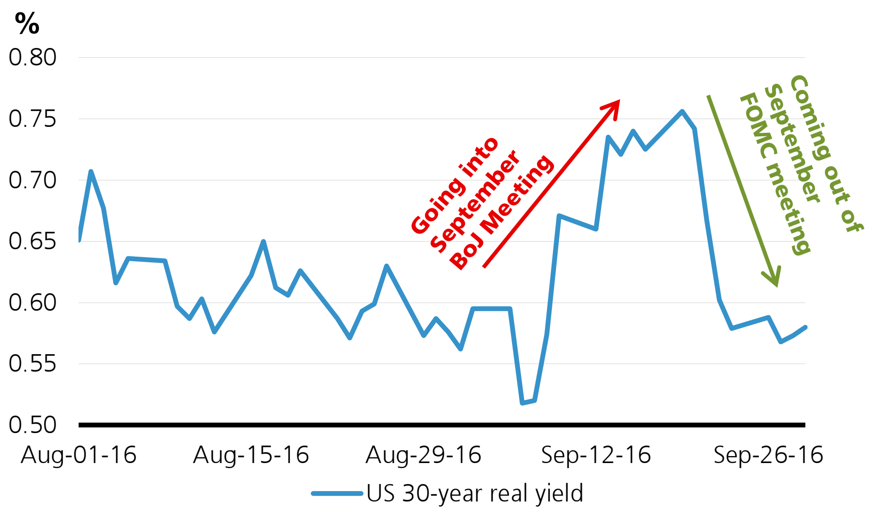
The September FOMC statement read near-term hawkish but was dovish on pace. 30-year TIPS rallied by almost 15bp around the September FOMC meeting date. **Figure 2** shows the move in 30-year real rates pre and post September FOMC. That is a 3-4% return in bond TIPS in one day! Beyond the market reaction, the Fed Chair Yellen's press conference offered additional clues about the Fed's current reaction function.

Why is the Fed dovish on pace of hikes?
During the September FOMC meeting press conference, the Fed Chair Yellen highlighted key reasons why the FOMC espouses gradual approach for policy removal. One of these reasons is that the Fed believes that monetary policy is only modestly accommodative (relative to short run neutral) and there appears little risk of falling behind the curve in the near future. Secondly, speaking on her own behalf and not the committee, the Fed Chair noted that the unemployment rate is not declining despite the US economy having added 180k jobs on average recently. As such, her view is that the US economy has little more room to run. In terms of near-term hike expectations for this year, she notes:

"I would expect to see that (referring to a hike later this year) if we continue on the current course of labour market improvement and there are no major new risks that develop and we simply stay on the current course." **-** Quote from September 2016 Press Conference by the Fed Chair Yellen

Why not a hike in November? Market not prepared, money-market reform deadline and US elections uncertainty
Thus for hike expectation this year, assuming global financial and economic conditions are stable, the key data to watch is the September, October and November labour market reports. We think that in the near term uncertainty is likely to rise ahead of US elections scheduled for November 8th. We found that excluding 2008 elections, since 1992 VIX index rose by about two index points into the elections. Next two US election debates are scheduled for Sunday, October 9th and Wednesday, October 19th. It is notable that VIX index rose about two points during the last US Presidential debate on September 26, 2016.

Figure 2: A large rally in 30-year TIPS indicates that the market was setup for a more hawkish Fed in September



Source: UBS, Bloomberg

Increased volatility is generally negative for risk assets, good for duration and translates to a steeper curve. Additionally, the market is only pricing in a 17% chance of a November hike, which itself makes the Fed less likely to hike in November. Also, we have money market reform deadline on October 14th, which is likely to induce further volatility in the market. Investors may have noticed that Libor-OIS basis has widened more than 20bp over the past few months. As we have written in a recent note, we do not expect Libor-OIS basis to revert post this deadline. This is because commercial paper issuers are in the process of finding a new funding source for close to $500-$800bn issuance needs. A lack of decline in Libor-OIS basis post the deadline may create uncertainty in the market.

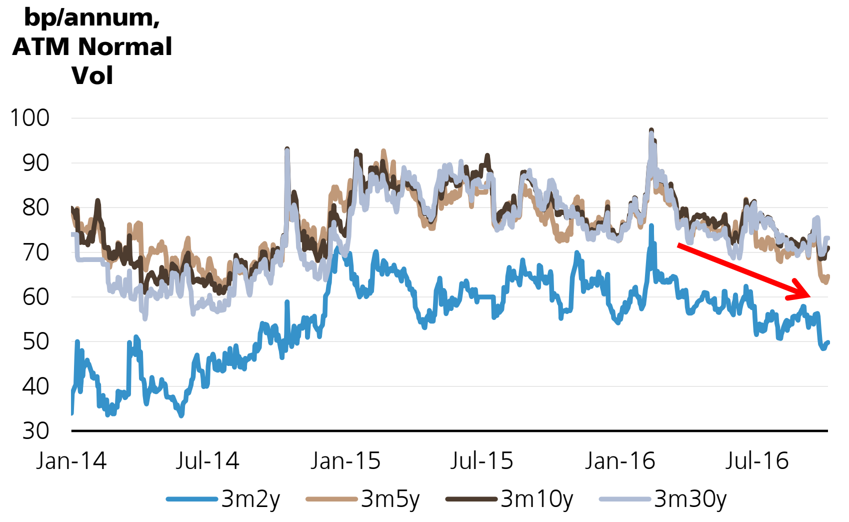
Stay neutral on duration until US elections

Above we noted that yields have backed up unduly and highlighted that US elections and money market reform can deliver volatility, which is generally good for duration. So why do we suggest staying neutral on duration tactically? Counteracting the long-duration view is the fact that our Evidence Lab team expects an upside surprise in payrolls relative to consensus. The Fed Chair Yellen's speech suggests that an uptick in payroll with a reduction in the unemployment rate would make the Fed more confident on its hiking path. Given that the market is under-priced relative to the Fed's modal path, in the event of an upside payroll, the front-end rates are more likely to move higher. Combining our election long duration and payroll upside short duration narratives, we prefer to remain neutral on front-end rates for the coming month.

Neutral on curve until elections

In the previous monthly, we recommended staying in flatteners given the recent Fed rhetoric and we have a view that 30-year real rates are too high. With aforementioned uncertainties (elections, money-market reform deadline), which typically deliver volatility, risk appetite is likely to be subdued. Also, with oil having risen and breakevens widening, curve steepeners are more likely to be in favour in the near-term. The election event market dynamic does not tie with our fundamental view of flatteners, which puts us at a neutral stance on the yield curve as well. Along the point of rising oil prices and upside surprise in core CPI, in the TIPS section, we recommend being long 30-year breakevens.

Figure 3: US implied vols declined further after the September 20th BoJ meeting



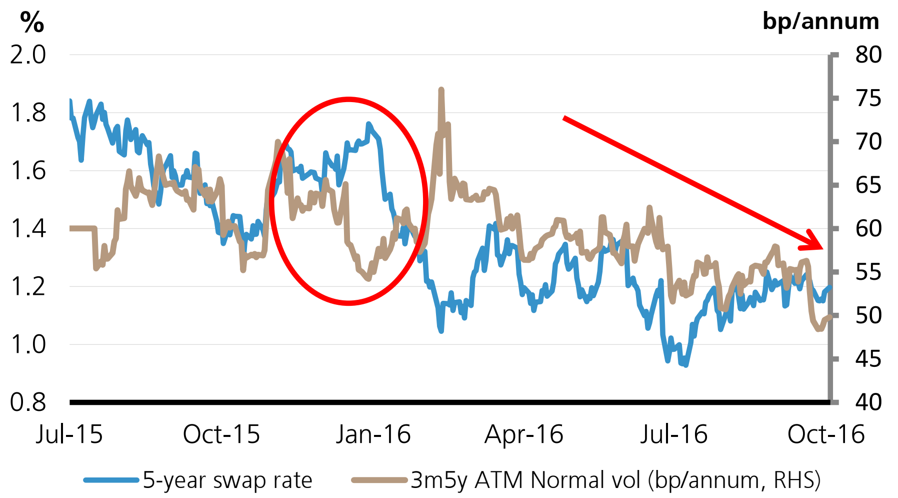
Source: UBS, Bloomberg

US Interest rates implied vols have declined following BoJ meeting

On September 20th, the Bank of Japan announced a decision to introduce "Quantiatitve and Qualititative Monetary Easing (QQE) with Yield Curve Control". Specifically, the Bank will purchase JGBs so that 10-year JGB yields will remain more or less at the current level (around zero percent). Effectively, the central bank is managing a longer run yield target. Since then, continuing with recent trends, US gamma has declined further (**Figure 3**). The coincidental decline in the implied vol of US intermediate rates makes less sense to us. Given stronger headline inflationary impulse via higher oil prices, Y/Y core PCE at 1.7%, the Fed rhetoric for near-term hike and our Evidence Lab's view that the near term US data can improve, we think the belly rates can potentially move higher. As noted above, we also have US elections, which could increase volatility and benefit long gamma trades. In terms of comparison, going into the December hike in 2015, short-end implied vols tended to increase and intermediate rates moved higher, but instead since December 2015, 5y nominal swap rates have rallied 25bp (see **Figure 4**).

We think this decline in 3m5y rates and implied vols offers an attractive way to position for higher belly rates. Tactically, we recommend buying ATM+25bp 3m5y payers. Based on a 3-month maturity, we are likely to receive benefit from a gamma carry, as we move closer to the expiry date (near December Fed meeting) and belly rates trend higher on the back of better data and the Fed rhetoric for near-term hike. The net premium outlay for the option is $20 for $10k notional. Next, we assess the outlook for inflation-linked markets.

Figure 4: 5y swap rates and implied vol are low relative to the recent data and Fed rhetoric. Ahead of Dec. 2015 hike, both implied vols and intermediate rates moved higher (see highlighted Oct-Dec 15 period).



Source: UBS, Bloomberg

Use PPI to get a better forecast for CPI healthcare inflation

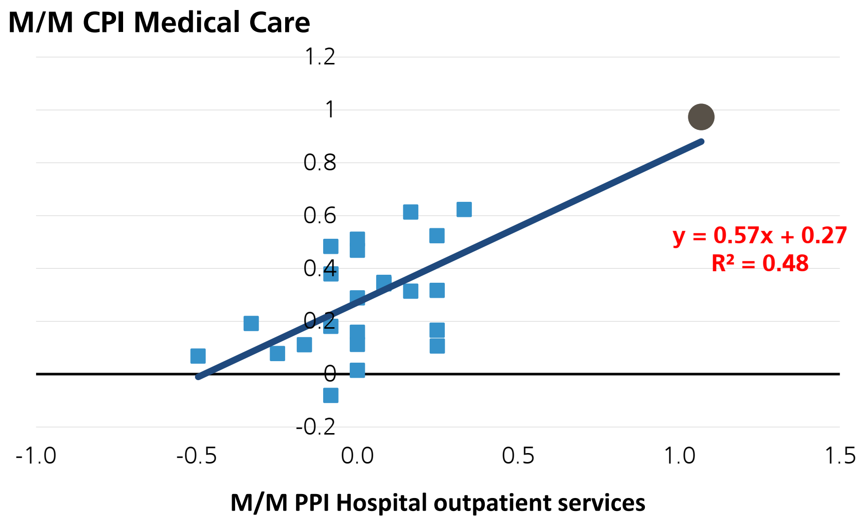
In September, we received an upside surprise in August core CPI (0.3% m/m, 2.3% Y/Y) led by the out-of-town lodging and healthcare inflation components. In this report, Medical care inflation came in at 0.94% m/m (5.1% Y/Y). It is notable, that the m/m rise was attributable to hospital and related services and correlated to the uptick in August PPI outpatient hospital services, which was released a day earlier. For reference, as per the BLS, in terms of medical care inflation, CPI approximates what households spend out-of-pocket on goods and services used for day-to-day living.

Additionally, BLS states that these "include fees (not recouped through health insurance) that consumers paid directly to retail outlets for medical goods and to doctors and other medical providers for medical services, as well as health insurance premiums that consumers paid (including Medicare Part B). To arrive at the consumer out-of-pocket medical expense, the consumer expenditure survey nets out direct insurance reimbursements to the consumer from the total amounts paid by the consumer."

Out-of-pocket healthcare expenses have been rising as the demand for healthcare services is growing. Naturally, we question whether this local upside surprise in CPI could have been predicted. And indeed, the August PPI report released a day before August CPI report did suggest an uptick in hospital driven healthcare inflation. **Figure 5** shows the relationship between PPI hospital outpatient services and CPI medical care. The highlighted dot shows the August print.

The key reason why this uptick is important is that as August CPI release surprised to the upside and subsequently 2y, 5y, and 10y widened 6bp, 4bp and 2bp, respectively. We typically publish our forecast a week ahead of PPI or CPI so we are unable to incorporate this data, but for the tactical investor base such PPI to CPI mapping may be relevant.

Figure 5: M/M August CPI healthcare inflation upside surprise was also reflected in the PPI healthcare data, which was released a day before CPI

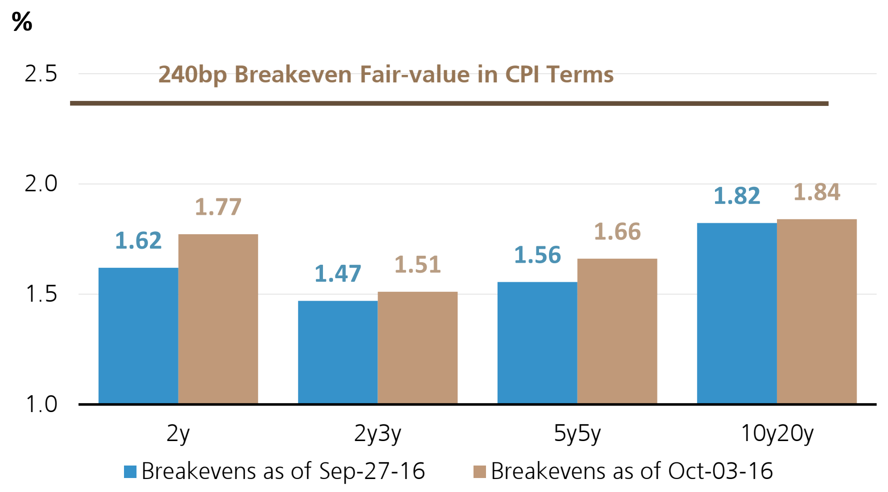


Source: UBS, Bloomberg, Haver

Yes to tactical breakeven longs, but cautious beyond the near-term

On Wednesday, September 28, OPEC reached a tentative deal to cut production and since then oil prices have rallied close to 9%. Gasoline futures have rallied close to 6%. Given roughly 60% pass-through of oil prices to headline CPI and motor-fuel weight of about 3.3%, we think the 9% oil should translate to about 18bp impact to headline CPI. With a recent m/m uptick of 0.3% in core CPI (2.3% Y/Y core CPI), investors are once again seeing value in breakevens. Since the move up in oil prices, 2y, 2y3y, 5y5y and 10y20y breakevens widened about 15bp, 4bp, 10bp, and 2bp, respectively (**Figure 6**).

Figure 6: Breakeven term structure pre OPEC announcement and as of Oct. 3rd



Source: UBS, Bloomberg

The model says, buy 10-year breakevens tactically

On the back of this, our tactical 10-year breakeven scorecard model indicates that one should be long breakevens for the week ahead (**Figure 7**). To form the tactical view, we aggregate eleven indicators. As shown in **Figure 7**, most of them look at 1-month change in the underlying factors and suggests signals to buy/sell 10-year breakeven (i.e. if oil goes up, buy breakevens and vice versa).

We have one valuation signal where we compare breakevens to 5-year average core CPI, if breakevens are lower than average core CPI, then, we suggest buy and vice versa. As of October 3rd, only three of the eleven indicators recommend selling breakevens, including lower US equities and food futures index and higher VIX index versus a month ago. All other indicators, which have been back tested, suggest buying breakevens: for an aggregate score of 5 out of total 11. This model has back tested well with about 60% hit ratio.

In some sense, this model is backward-looking. One has to be careful that beyond next week, it is possible that the Fed becomes hawkish or the market interprets the Fed as overly hawkish and we repeat another dollar feedback cycle. Also the model does not include factors such as declining US import prices from China, global disinflation or the US election uncertainty. If we see dollar strengthening and VIX rising, we would likely turn neutral on breakevens. Thus, while we think breakevens are cheap here, we would not expect normalization to our fair-value of 170-240bp straight away.

We think this move up in breakevens to fair-value would likely happen gradually. Beyond that, it is worth noting that the next OPEC meeting is on November 30th and our oil analyst team does not anticipate a sharp rally in oil prices given expectations of an inventory build in 4Q-16. Thus, on balance, we recommend tactically being long 10-year or 30-year breakevens. Next, we elaborate on the upcoming 30-year TIPS supply and why prefer 30-year breakevens to 10-year breakevens.

Figure 7: UBS Breakeven Scorecard, as of October 3rd, suggests being long breakevens for the week ahead.

Security	Overall 10-year BEI Buy/Sell Indicatoras of Oct-03-2016
Aggregate 10-Year BEI Signal	BUY
Individual Factor 10-year BEI Buy/Sell Signal	
1M change Factor	Signal
DXY Index	BUY
Oil (CL2)	BUY
Food Prices (SPGSAL Index)	SELL
US Equities (SPX)	SELL
EM Equities (EEM)	BUY
Eur BEIs (10-year HICPx swaps)	BUY
UK BEIs (10-year UK BEIs)	BUY
30y Treasuries	BUY
Valuation (10-year breakevens minus 5y average core CPI)	BUY
BEI Momentum	BUY
VIX	SELL
Total Signal Strength (Sell/Buy, -11 to +11)	5

Source: UBS, Bloomberg

30-year TIPS supply: High real yields and low breakevens, Stay long

Throughout this year, we have expressed our preference for duration and 30-year TIPS duration specifically. This month, the Treasury is scheduled to tap 30-year TIPS (TIIFeb46s, Announcement date: Thursday, October 13, 2016, Auction date: Thursday, October 20, 2016). We expect $5bn in size for this re-opening. As of October 4, 2016, 30-year TIPS are trading at real yields of 65bp whereas 30-year breakevens are trading at 176bp. Also the 10s30s breakeven curve is trading at a local low of 13bp.

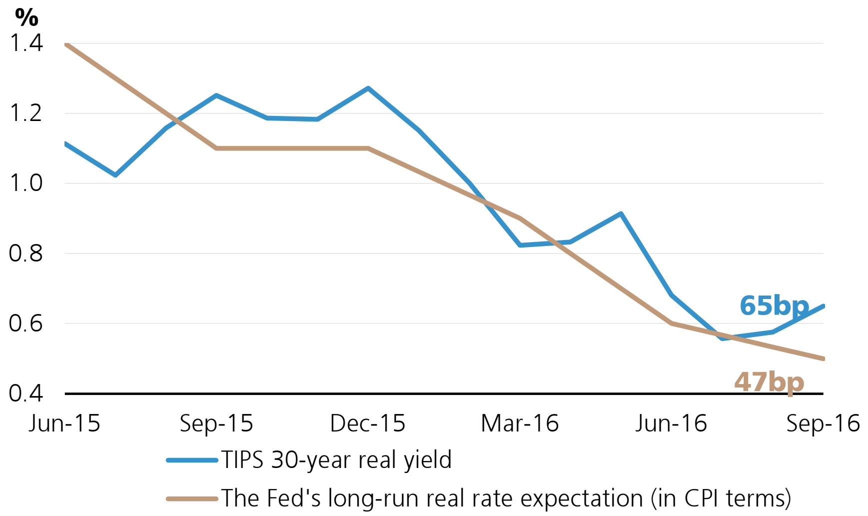
Fair-value of 30y real yields and breakevens

As we have discussed previously (see Inflation Expectations back in Focus), we estimate the fair-value of 30-year real yields in CPI terms using several estimates, we think it can be as low as 30bp. Most recently, the Fed's long-run nominal rate projection was reduced from 3% to 2.875%. Assuming, 200bp of PCE inflation target plus 40bp of CPI or 240bp CPI inflation target, the Fed's modal estimate of long-run real rate is likely to be close to 47bp (see **Figure 8**).

It is notable, that the central range of the Fed's long-run nominal rate was somewhere between 280 and 300bp, which suggests that the Fed's range of terminal real rate is between 40bp and 60bp. As of October, 4, 2016, 30-year real rates are trading at 65bp (see **Figure 8**). While it is fair for 30-year real rates to have some positive term premium, we think such a term premium is unjustified when 5y5y breakevens are near historic lows at 155bp.

That is, market is effectively saying that realized inflation will be well below the inflation target while the Fed will continue to normalize monetary policy. Over time, we have seen that longer breakevens remain low, the more long-run market based real rates decline. Thus, we think 30-year TIPS yielding +58bp (relative to Fed's terminal rate expectation of 47bp) offer about 10bp of positive term premium.

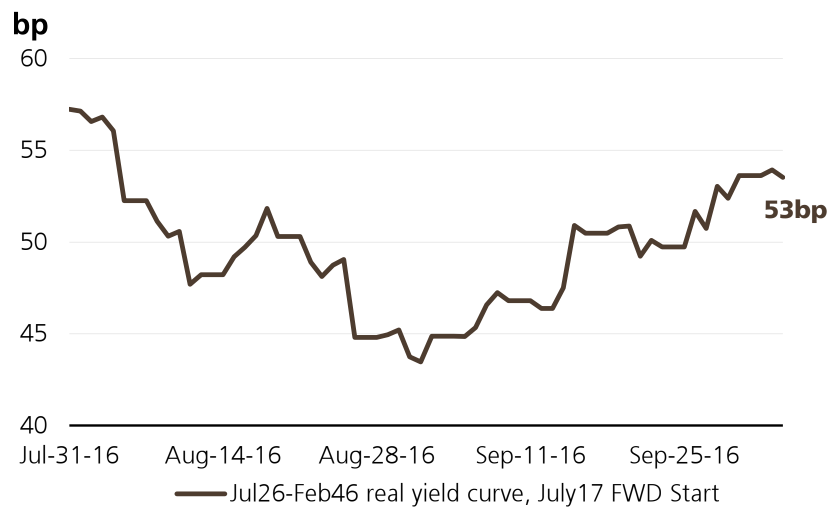
Figure 8: 30-year TIPS real rate versus the Fed's estimate of long-run real rate expectation (using CPI expectation of 40bp)



Source: UBS, Haver, Federal Reserve

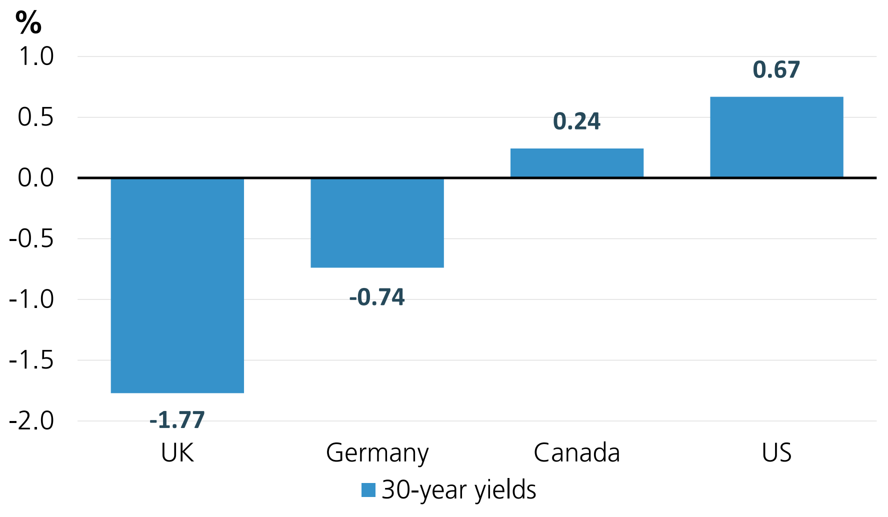
Over the past month, the 10s30s real yield curve has also steepened (see **Figure 9**), which suggests that there has been a concession for this supply on a real yield basis. It is also notable that US TIPS look attractive relative to their global counterparts (see **Figure 10**). The last 30-year TIPS reopening came through by 3.5bp and foreigners took down close to 17% of supply (see **Figure 14** for auction stats). We do not think additional concession is required. Also, because of this supply, we expect TIPS index extension to be close to 0.09yrs this month. In the previous monthly (See page 8, In Flatteners, We Trust), we noted that large extension are correlated to positive TIPS returns in the last week of the month. In summary, we like the issue on a fundamental real yield basis, relative to 10s and because of the index extension of 0.09yrs this month.

Figure 9: 10s30s real curve is 10bp steeper head of the upcoming 30-year TIPS supply, indicating that there has been a concession



Source: UBS, Bloomberg

Figure 10: US 30-year real yields still the most attractive globally



Source: UBS, Bloomberg

On breakevens: 30y BEIs are still at the low-end of the fair-value range

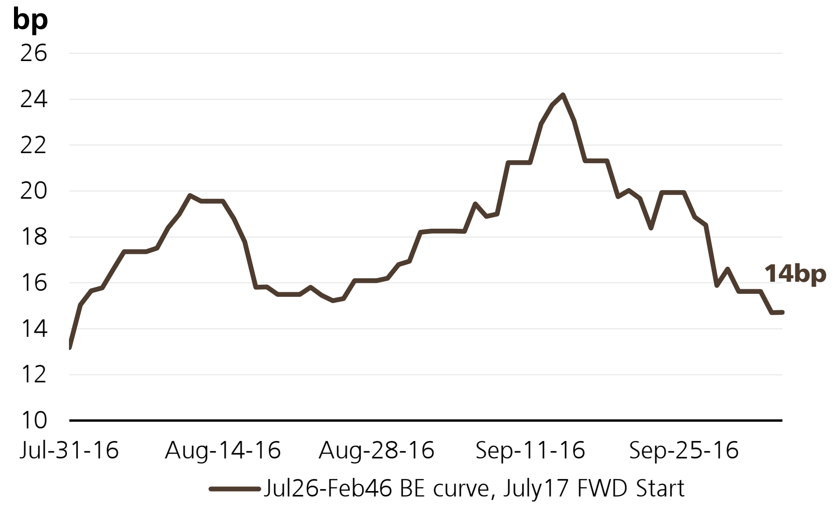
In terms of fair-value of breakevens, over the past 10-years core CPI has averaged about 190bp and the August 2016 print has core CPI running at 2.3%. The Fed's inflation target in CPI terms is likely close to 240bp as they a have indicated CPI-PCE wedge of 40bp in their models. Though, given the weight and trend differences in CPI and PCE shelter and medical care components, core CPI-core PCE wedge has ranged between 50-80bp recently. Thus, the Fed likely views the fair-value of 30-year or 5y5y breakeven close to 240bp.

If oil prices remain here, it is likely that headline CPI will be above 2% by January 2017. Yet, 30-year breakevens are trading at 177bp. We think the key reason for the market under-pricing is that the market is cautious of dollar feedback loops which weigh on goods inflation. Also, US import prices from China have been on a continuous decline for the past three years and more recently food futures have fallen. Thus, the market has been trading cautiously around the Fed events and global macro-economic developments. In our view, goods inflation expectations have likely fallen and inflation risk premium is negative, which is why 30-year breakevens are lower.

Over time, we see the fair-value of 30-year breakevens to be between 170-240bp. We find current 30-year breakeven valuations at 177bp with oil prices having risen to be on the lower end of this range. Therefore, for the upcoming auction, we think fundamental investors are likely going to be attracted to TIPS. Also, it is notable that the 10s30s breakeven curve has flattened 10bp ahead of this supply and on the back of the oil move (see **Figure 11**).

We think additional concession is not required here. Combining with our tactical view of long breakevens, index extension of 0.09yr and a decent relative concession already, we recommend being long 30-year breakevens or 30-year TIPS outright for this month. We would express this view via Feb42s and Feb44s, adjusted for duration; they appear to be the most attractive security in this sector.

Figure 11: 10s30s breakeven curve 10bp flatter ahead of 30-year TIPS supply, indicating that there has been a concession



Source: UBS, Bloomberg

TIPS Relative Value

In terms of relative value, in the 0-5y sector, we find April19s, Jan20s and Jan21s to be cheap. In the 5-10y sector, we find Jan23s, Jul23s, Jul25s and old Jan26s. In the old 10-20y sector, we find Jan27s, Jan28s and Jan29s to be cheap, respectively. In the 30-year sector, we find Feb42s and Feb44s to be cheap. Across the curve, we find the following securities to be rich, April20s, April21s, Jan22s, newer Jan26s, Jul26s and Feb46s.

September CPI preview

In terms of CPI outlook, we expect September CPI NSA to print 241.44 or (0.24% m/m) with core CPI SA of 0.19% M/M. Please see **Figure 12** for longer forecast. We expect Y/Y headline CPI to be about 1.5% and if oil prices maintain at these levels, headline CPI should be over 2% by December, 2016. While this is a well-known outlook for CPI, it may help with demand for the TIPS product given that breakevens are well below two percent. Our core CPI forecast is based on our economics team's long-term path of core inflation. Food futures and US Import prices from China have continued to decline this year, we think this represents the biggest risk to headline and core goods inflation. It is possible that we get some payback to the out-of-town lodging and healthcare prescription drug categories.

Figure 12: CPI Forecasts from UBS Rates Strategy as of October 4, 2016. Using core CPI SA path from UBS economics team

Date	CPI NSA	CPI NSA M/M (%)	CPI SA M/M (%)	Core CPI SA M/M	CPI Y/Y	Core CPI Y/Y
1/31/2016	236.916	0.17	0.03	0.29	1.37	2.22
2/29/2016	237.111	0.08	-0.17	0.28	1.02	2.34
3/31/2016	238.132	0.43	0.09	0.07	0.85	2.2
4/30/2016	239.261	0.47	0.41	0.19	1.13	2.15
5/31/2016	240.236	0.41	0.22	0.2	1.02	2.24
6/30/2016	241.038	0.33	0.22	0.17	1.01	2.23
7/31/2016	240.647	-0.16	-0.04	0.09	0.84	2.16
8/31/2016	240.853	0.09	0.2	0.25	1.06	2.3
9/30/2016	241.439	0.24	0.31	0.19	1.47	2.29
10/31/2016	241.751	0.13	0.37	0.19	1.65	2.28
11/30/2016	241.624	-0.05	0.31	0.19	1.81	2.29
12/31/2016	241.409	-0.09	0.14	0.19	2.06	2.32
1/31/2017	241.842	0.18	0.04	0.19	2.08	2.21
2/28/2017	242.622	0.32	0.07	0.19	2.32	2.11
3/31/2017	243.792	0.48	0.14	0.19	2.38	2.23
4/30/2017	244.446	0.27	0.2	0.19	2.17	2.22
5/31/2017	245.286	0.34	0.15	0.19	2.1	2.21
6/30/2017	245.963	0.28	0.16	0.19	2.04	2.22
7/31/2017	245.839	-0.05	0.07	0.19	2.16	2.32
8/31/2017	246.309	0.19	0.3	0.19	2.27	2.25
9/30/2017	246.778	0.19	0.26	0.19	2.21	2.25
10/31/2017	246.904	0.05	0.29	0.19	2.13	2.25
11/30/2017	246.444	-0.19	0.17	0.19	1.99	2.25
12/31/2017	246.206	-0.1	0.14	0.19	1.99	2.25

Source: UBS Research, Bloomberg

Figure 13: Estimated 5y, 10y and 30y TIPS and BEI carry per month

Carry (bp) Per Month	TIPS			Breakevens		
Month	5y	10y	30y	5y	10y	30y
Oct-16 Stub	0.4	0.5	0.4	-1.1	-0.8	-0.5
Nov--16	4.1	2.4	1	2.5	0.8	0.1
Dec--16	1.5	1.1	0.6	-0.2	-0.7	-0.5
Jan--17	-2.9	-1.1	-0.1	-4.6	-3.1	-1.3
Feb--17	-3.7	-1.5	-0.3	-5.4	-3.6	-1.4
Mar--17	2.7	1.7	0.8	0.8	-0.6	-0.5
Apr--17	6.3	3.5	1.3	4.5	1	0
May--17	10.5	5.5	2	8.6	2.8	0.5
Jun--17	5.1	2.9	1.1	3.2	0	-0.4
Jul--17	7.1	3.8	1.4	5.1	0.7	-0.2
Aug--17	5.4	3	1.2	3.3	-0.3	-0.5
Sep--17	-3.7	-1.2	-0.1	-5.8	-4.7	-1.9

Source: UBS, Bloomberg

Figure 14: 30-year TIPS auction stats

Auction Date	Offering amount	High yield	Bid-to-cover	Tail	Dealers and Brokers	Foreign	Individuals	Investment Funds	Depository Institutions	Pensions	Other
10/20/2016	5?										
6/22/2016	5	0.91	2.69	-3.5	28	17	0	48	0	7	0
2/18/2016	7	1.12	2.11	5	23	13	0	62	1	0	0
10/22/2015	7	1.2	2.62	-0.4	28	8	0	64	0	0	0
6/18/2015	7	1.14	2.45	0.1	28	7	0	66	0	0	0
2/19/2015	9	0.84	2.43	-1.3	31	9	0	59	0	0	0
10/23/2014	7	0.99	2.29	2.3	34	14	0	51	0	0	0
6/19/2014	7	1.12	2.76	2.6	41	11	0	47	0	0	0
2/20/2014	9	1.5	2.34	6.2	40	24	0	35	0	0	0
10/24/2013	7	1.33	2.76	-2	42	11	0	46	0	0	0
6/20/2013	7	1.42	2.48	3	34	12	0	53	0	0	0
2/21/2013	9	0.64	2.47	1.9	40	9	0	50	0	1	0

Source: UBS, Bloomberg

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