

US TIPS: floor plans

NY Fed President Williams proposed moving the Fed framework to inflation averaging or price level targeting. If implemented we anticipate lower long term average inflation volatility and recommend selling LR inflation floors.

Euro IL: one more egg in the same basket

As inflation expectations have fallen, inflation curves have (unsurprisingly) steepened. However, 2s30s Euro inflation, 2-years forward, has steepened while the US equivalent has flattened. This prompts a box trade with attractive entry and roll.

UK IL: it isn't all about the elephant

We reemphasise our UKTI 2022/2027/2047 cash-and-duration neutral barbell as a way to express a "safer" real yield curve flattener. In addition to prior arguments, we would argue for a strong upcoming sale of UKTI 2041s as a catalyst.

Australia IL: slow and gradual momentum building

Q4 CPI is due for release on Wednesday 30 January. We expect inflation to remain below the RBA's target band. We are constructive on breakevens at current valuations.

EM IL: EEMEA – follow FX & oil

Lower oil flattened EEMEA curves. We expect inflation to move higher from current levels in 2019 so the flattening may be broadly over. Less hawkishness by central banks may still help the level of rates lower. We like Russia nominals and Turkey protection.

US Economics: a reminder about residual seasonality

Core CPI exhibits positive residual seasonality in Jan. A rolling window analysis reveals that this bias has weakened this cycle. However, there are quirks in the data. Once controlled for, the case for residual seasonality remains strong.

Euro Area Economics: dropping like a stone

We update our inflation forecasts incorporating new oil prices, \$14-\$17 lower across the curve from the last time we did so. We warned that a simple mark to market exercise would take our current inflation forecast for 2019 30bps lower, to 1.3%. Adding the new profile for oil prices takes away another 30bps. In other words, our 2019 inflation forecast moves to 1%, from 1.6%, with 2020 only moving 10bps lower.

UK Economics: how low can it go

Assuming a smooth Brexit we think the key question this year is how low can inflation go? If there is a deal UK inflation expectations face a recoupling risk in our view, to the global environment and the economics; there is little underlying inflationary pressure.

Fixed Income Research
Global

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US TIPS

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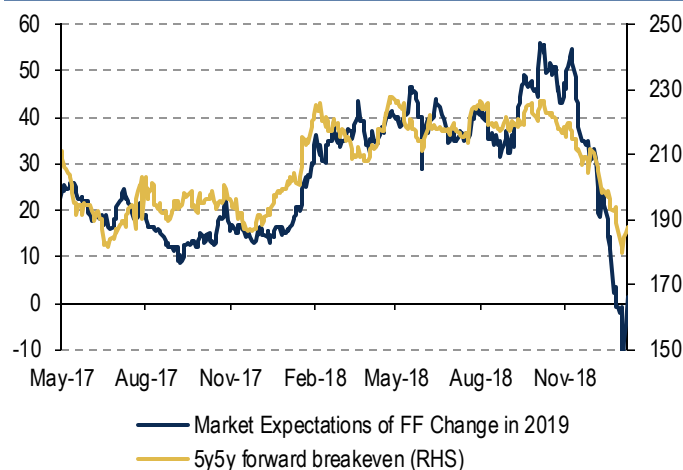
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Floor plans

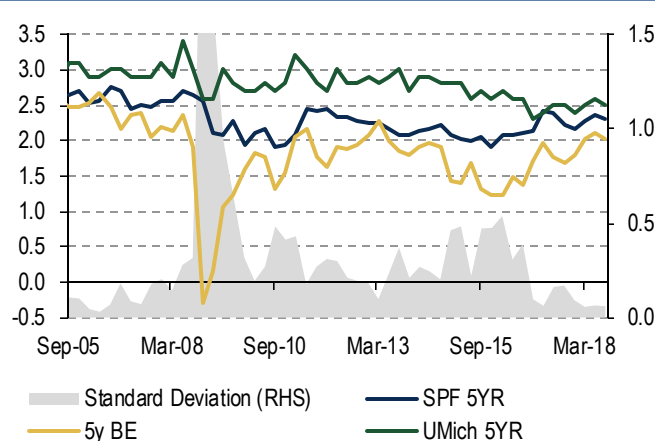
The Fed has persistently undershot its 2% inflation objective over the last several years. Risks of a sustained undershoot are compounded by the sharp decline in longer term inflation expectations over recent weeks with broader risk off (Chart 1). Fed President Williams has recently proposed moving to an inflation averaging or price level targeting regime in hopes of a more effective strategy, which would greatly reduce average inflation volatility. We recommend selling a 10yr ZC floor with a 2.0% strike which we partly reinvest in a 3yr ZC floor with a 2.5% strike. We would stress the use of zero coupon (ZC) floors because price level targeting should reduce long term average inflation volatility, while year on year volatility could actually increase.

Chart 1: Decline in long term inflation expectations (bps)



Source: BofA Merrill Lynch Global Research, Bloomberg

Chart 2: Convergence in 5y inflation expectations (%)



Source: BofA Merrill Lynch Global Research, Bloomberg, Survey of Professional Forecasters, University of Michigan Survey of Consumers

Price level targeting would provide a strong anchor

The Fed has announced that this year it will review the “strategies, tools, and communication practices it uses to pursue its mandate of maximum employment and price stability.” NY Fed President Williams and former Fed Chair Bernanke have both addressed price level targeting in recent history, leading us to believe it will be a topic of discussion this year. It is too soon to know if the Fed will follow through on this relatively radical approach, but the move would provide a strong anchor for inflation expectations and decrease average long term inflation volatility.

The inflation averaging or price level targeting approach proposed by Williams essentially commits to balancing any inflation undershoot with an overshoot in future years. This makes the future path of inflation easier to predict vs the current inflation targeting regime in which PCE can remain below 2% without any expectation for an offsetting increase. In this way, Williams argues that price level targeting anchors inflation expectations especially when faced with risks of policy constraints at the zero lower bound. This should reduce average long term inflation volatility, but could actually increase year on year volatility because of inflation error correction. In addition, if the Fed uses a look back period that includes the last several years when PCE has

persistently fallen below target, we could see an increase in long term inflation expectations.

A move to inflation averaging or price level targeting would continue the theme of reduced volatility in longer dated inflation measures that we have begun to see in current survey and market expectations. Measures of 5y inflation expectations (UMich Survey of Consumers, Survey of Professional Forecasters and cash breakevens) have converged over the past few years and the standard deviation of the three measures now sits at relative lows (Chart 2).

Continue to expect lower near term inflation

There is a risk that the Fed makes no change to their framework and the macro environment continues to deteriorate. To help compensate for possible loss on the long end of our trade, we buy a 3yr ZC floor with a 2.5% strike, which would benefit from lower near term inflation. [Our economists](#) already anticipate headline CPI will decline and remain at a low level in 2019. They look for CPI to hover around 1.5% y/y for most of this year, finally approaching 1.8% in December. This is substantially below the Fed's 2% PCE target, given that CPI has averaged about 0.3% above PCE since 2000, implying a "CPI target" of 2.3%.

Based on underlying components of the core CPI basket, we see some potential for a near term increase in inflation volatility. An increase in near term volatility would also support our long 3y ZC floor position, as realized vol could influence implied vol. The standard deviation across components of core CPI has been increasing over the past year (Chart 3). In November, components in the -1% to -2% inflation range increased, as well as components in the 3% to 4% range, creating a more skewed distribution versus a few months prior (Chart 4). The shift to a more skewed distribution could point to greater volatility ahead.

We recommend **selling a 10yr ZC floor with a 2.0% strike at premium of 236 which we partly reinvest in a 3yr ZC floor with a 2.5% strike at a premium of 236** (all levels based on Bloomberg mid-values). This position benefits from a decrease in inflation volatility in the long term, together with an undershoot of inflation expectations and slightly higher volatility regime in the near term. We enter this trade at a current price of 0, with a target of 40 and a stop of -20. Risks to this trade are a shift in the Fed to allow inflation to stay lower for longer or a sudden increase in short term inflation.

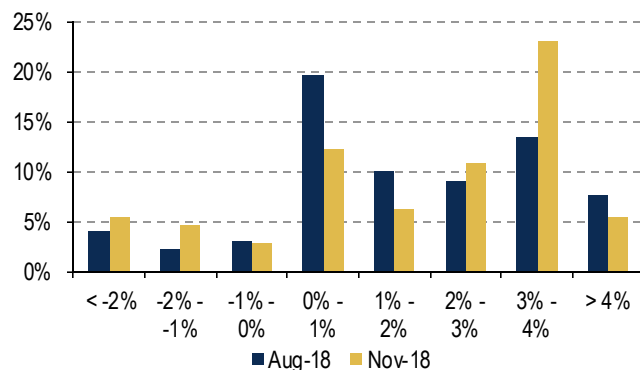
Chart 3: Standard deviation across 66 core CPI components (%)



Source: BofA Merrill Lynch Global Research, HAVER

Chart 4: Recent volatility in components of core CPI, excluding OER

x-axis: inflation/deflation level, y-axis: proportion of CPI basket



Source: BofA Merrill Lynch Global Research, HAVER

Euro IL

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One more egg in same basket

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A different play on a recurring cross-market theme

We have two shorts in long-dated Euro inflation on our trade idea list: in bond breakevens, we recommended selling OATe 2047s versus OAT 2066s in [September 2017](#) at 192bp (currently 188bp) and at the [end of last year](#) we suggested shorting 30y EUR inflation as a year-ahead trade at 195bp (currently 184bp). The risks to both trades are increased inflation hedging by pension funds and heavy long-dated nominal supply.

This makes us a little reticent about putting another egg in the same bearish long-dated inflation basket. However, there are several tempting variations. Last month we noted the fact that longer-dated forward Euro inflation has been far more resilient than in the US (and especially Canada) in the recent inflation sell-off. For instance, the US-EZ 10y20y spread had re-narrowed to 13.5bp (and is now even tighter at 9bp):

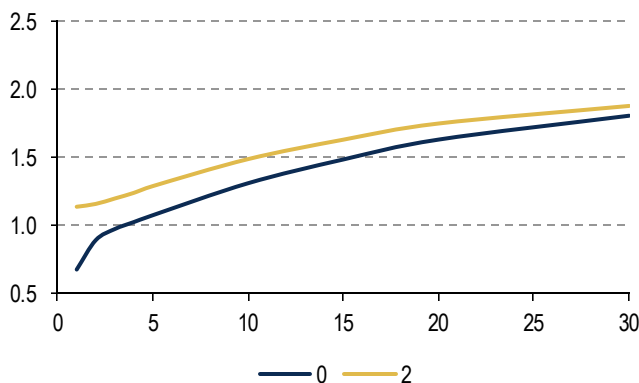
Chart 5: Re-convergence of US-EZ 10y20y inflation spread as inflation sells off, bp



Source: BofA Merrill Lynch Global Research, Bloomberg

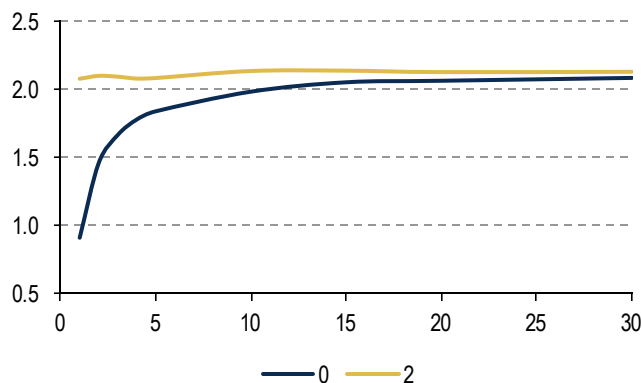
We will not rehash the case for this spread to widen. However, it's worth thinking about this from a relative curve shape also; consider these two charts:

Chart 6: Euro inflation swap curve, spot and 2-years forward, %



Source: BofA Merrill Lynch Global Research

Chart 7: Euro inflation swap curve, spot and 2-years forward, %

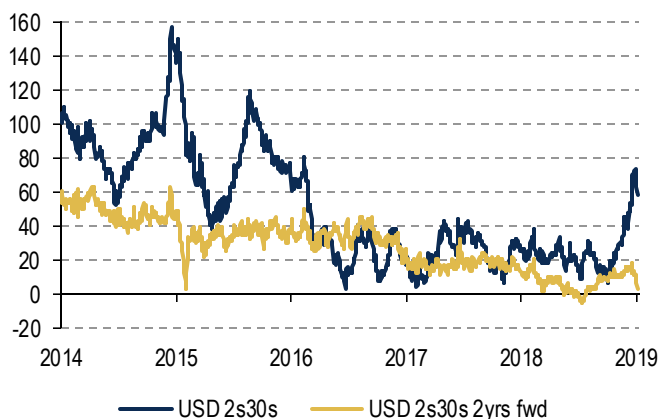


Source: BofA Merrill Lynch Global Research

The linearity of the Euro inflation curve means that it retains much of its steepness when you roll the curves forward, while the pronounced curvature in the US inflation curve means it loses almost all its steepness when you do the same thing there.

On the face of it, this marked difference is not too hard to defend with a macro story: the US cycle is more developed, making it easier in principle for US inflation to bounce back to give a flatter future curve. However, this misses the more subtle fact that the recent behavior of the two curves has been quite different on a forward starting basis:

Chart 8: In recent months, the 2s30s USD inflation curve has steepened sharply on a spot basis but flattened on a 2y forward starting basis, bp



Source: BofA Merrill Lynch Global Research

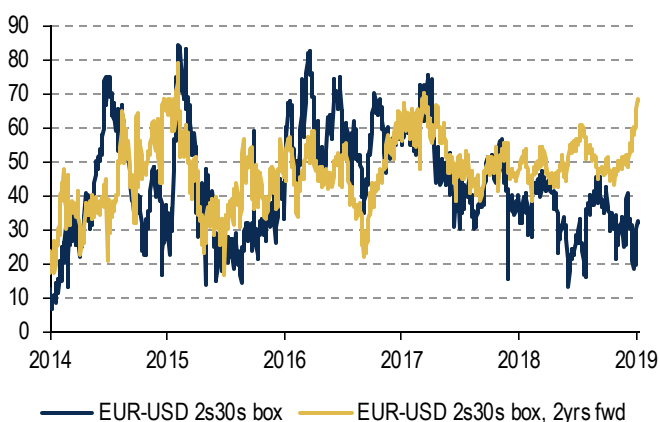
Chart 9: ...while the EUR 2s30s curve has steepened from both a spot and forward start, bp



Source: BofA Merrill Lynch Global Research

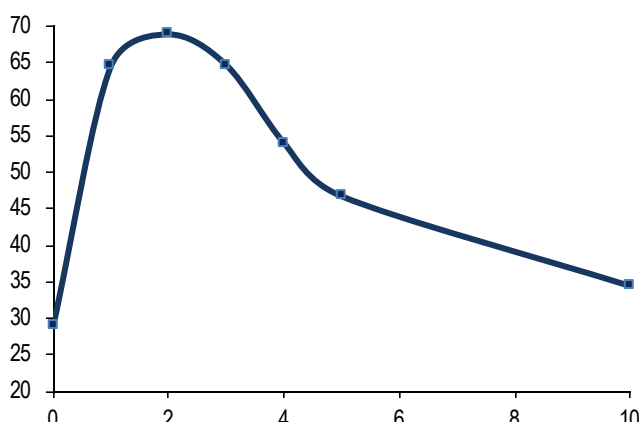
Both the US and Euro 2s30s inflation curves have steepened on the oil collapse and macro worries. However, out of a 2-year forward start, the US 2s30s curve has flattened, while the Euro curve has steepened. On a spot basis, the two curves have actually converged (to 29bp) but on a 2-year forward basis they have diverged to 69bp (close to the widest level over five-year):

Chart 10: As a result the 2s30s EUR-USD “inflation box” is relatively low on a spot basis but close to five years highs, 2-years forward, bp



Source: BofA Merrill Lynch Global Research

Chart 11: Implied future evolution of this 2s30s inflation box (from spot to 10-years forward), bp



Source: BofA Merrill Lynch Global Research

We recommend a 2-year forward EUR 2s30s inflation flattener, combined with a 2-year forward USD 2s30s inflation steepener. The current value for this box is 69bp and we target 45bp with a stop-loss at 85bp. The risk to the trade is probably a surge in pension inflation hedging in the Eurozone.

Footnote: Why specifically a 2-year forward hedge? Chart 11 shows that the peak of the implied future evolution of the 2s30s EUR-USD inflation box is two years out.

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It isn't all about the elephant

- We reemphasise our UKTI 2022/2027/2047 cash-and-duration neutral barbell as a way to express a “safer” real yield curve flattener. In addition to prior arguments, we would argue for a strong upcoming sale of UKTI 2041s as a catalyst.

Reiterating the “safer flattener”

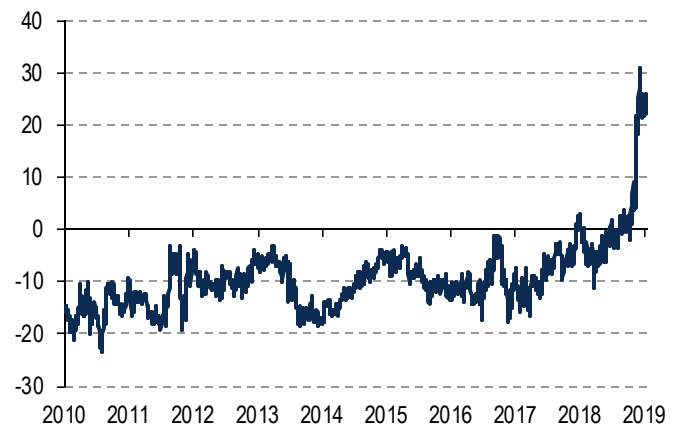
In [late November](#), we proposed a UKTI 2022/2027/2047 cash-and-duration neutral barbell (long wings) as a “safer real yield curve flattener for risky times” (current level 22, target 0, stop 32). When weighted in this way, the trade becomes a 5s25s real curve flattener, four years forward (i.e. out of a Nov 2022 forward start date). Why safer? Firstly, being cash neutral (and forward starting), the exposure to RPI print volatility is removed. Secondly, because the gapping wider witnessed in the barbell yield spread looks more-stretched relative to the well-behaved past than is the case for standard UKTI 2027s/47s real flattener. We update the comparison charts below:

Chart 12: UKTI 2027s/47s curve, bp



Source: BofA Merrill Lynch Global Research

Chart 13: UKTI 22s/27s/47s barbell, bp



Source: BofA Merrill Lynch Global Research

The trade was recommended at +21.5bp (with +35.9%/-100%/+64.1% risk weights), targeting 0bp with a stop-loss at 32bp (currently 22.3bp). We saw the main risk to the trade being further issue-specific dislocation due to positioning unwinds.

The appeal of the trade rests on the following main arguments:

- Our view that 5y5y real rates are too negative, regardless of the Brexit outcome.
- The market seems to be justifying high 5y5y inflation on the risk of a more expansionary Labour government as well as an extremely accommodative BoE in the event of a no-deal Brexit. However, we would judge such a fiscal policy change as bearish real rates rather than bullish.
- We expect the pensions bid to return as heavy cash outflows from schemes subside.
- The two large Over 5y UKTI index extensions (when the two 2024 issues exit in March and July) will prompt rebalancing longer (out of sub-10y issues).

The baby elephant in the room should be friendly for the trade

Ahead of Brexit (the proverbial elephant in the room), the linker market has to navigate its way through the UKTI 2041 syndication, either later this month or in early February. The three syndications (nominal and inflation-linked) we have had so far this fiscal year have weighed on the market, so nervousness about difficult pre-Brexit conditions would be understandable. In spite of this, we think the sale will likely see strong demand, with the potential to re-flatten the real curve, thereby helping our trade.

The Budget cut the remaining linker syndication programme by £0.7bn, to £3.6bn cash, meaning a minimum size of £2.5bn notional for the sale. Using, say £400m of the £1.5bn unallocated programme would mean £2.75bn face. The prior sale was somewhat larger at £3.25bn face.

Couldn't the DMO use a lot more of the unallocated for the sale? It could, of course, but that would seem odd after cutting the programme, we would argue. We think that a large upsizing would require very strong market conditions (probably real curve bull-flattening) because of the wish to avoid the sort of indigestion seen in the recent sales. A desire to top-up nominal Gilt sales will also likely be strong; the DMO will be conscious that upcoming BoE reinvestments will mean negative net nominal supply over the next few months.

We also know the direction of travel. Lighter linker issuance is the future, proportionally, with the Treasury having flagged its concerns about the size of its inflation-linked liabilities. This probably raises the bar for large, extra, discretionary allotments to linkers.

A last chance to de-risk before Brexit. This sale will be the last significant de-risking window of opportunity before Brexit for pension funds (that have tended to focus their demand on such events in the past). Rather than being a deterrent to get involved in the sale, we see Brexit as a potential catalyst for interest.

Australia IL

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Slow and gradual momentum building

CPI for the December quarter is due for release on Wednesday 30 January. We currently see headline inflation at around 0.5-0.6%qoq, which would be a decent number considering the global backdrop and the fall in oil prices at the end of the quarter. This would drag down the annual rate from 1.9%yoy to 1.8%yoy and below the RBA's target band. Seasonal increases in domestic and international airfares, a tobacco excise hike on 1 September and stabilization of administered prices stabilize following declines in Q3 are expected to contribute to Q4 CPI. Risk to our forecasts is skewed to the downside.

We still expect to see greater inflationary pressures in 2019 compared to 2018 that allows inflation to gradually track higher with wages growth (Chart 14). Spare capacity is being absorbed and we expect the unemployment rate to move lower over the medium-term. Headwinds are likely to arise from government initiatives to lower the cost of living. We see softer electricity prices and greater impact from lower petrol prices in Q1 2019. Ongoing focus on cost reduction, fierce competition remaining in the retail sector and a well-supplied rental market suggests that inflation will only rise gradually.

Constructive on breakevens

The aggressive repricing of global core markets to reflect increased downside risks on the global growth outlook, falling energy prices and a turn in domestic sentiment have weighed on AU inflation markets. In fact, inflation breakevens are near all-time lows (Chart 15), but also appears consistent with the sharp repricing of the policy outlook to reflect rate cuts as the next move by the RBA. The weakening of the AUD keeps financial conditions loose and is also constructive for BEIs. While not our base case, easier policy would support front-end linkers and improve the inflation outlook.

Global uncertainty and sensitivity of AU rates to global moves leaves us preferring cross-market expressions. We like buying [AU 5y inflation swaps](#) vs. UK RPI inflation, which is currently at 1.72% (entered at 1.74%) and targets 1.34%. The trade is supported by our expectations of inflation falling in the UK relative to AU tracking modestly higher. Risk to the position is a very sharp fall in the GBP or the dislocation in AU breakevens lasting longer than we anticipate.

Chart 14: Wages Price Index is slowly tracking higher

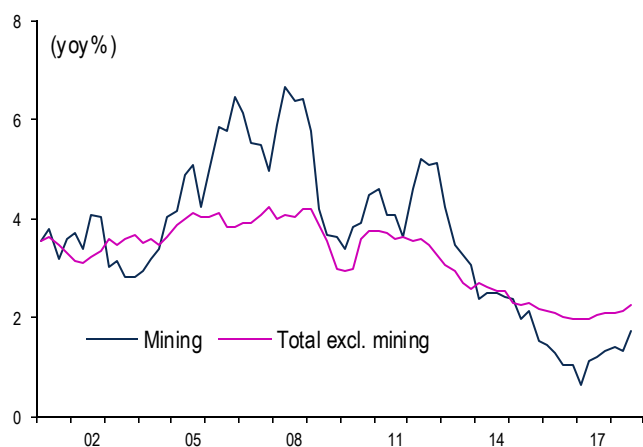
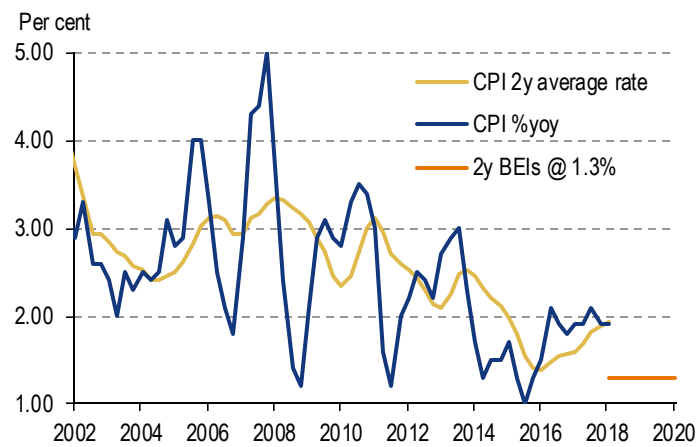


Chart 15: Market-based measures reflect low inflation expectations



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EEMEA – follow FX & oil

- Lower oil flattened EEMEA curves. We expect inflation to move higher from current levels in 2019 so flattening may be broadly over. Less hawkishness by central banks may still help the level of rates lower.
- Rates are most attractive in Russia, SA may benefit from better EM sentiment. In Turkey, protection is attractive via payers and linkers. In CEE, CZK and PLN rates have a leg higher while HUF will flatten (most likely in 2H19 though).

Lower oil flattened EEMEA

In EEMEA, inflation expectations moved down in 4Q18 as a result of lower oil and stronger currencies. Since October 3rd, Brent is down 30% and EEMEA FX is up vs USD, with the exception of the RUB. Since the oil peak, EEMEA rates moved lower and curves flattened, with the exception of Turkey.

Flattening seems done for now

The broad flattening theme seems exhausted, for now, at least when looking at inflation. The move in non-core component means 2019 inflation will be higher than the latest monthly print almost everywhere in the region, despite long-end rates having already performed (Table 1). The US yield curve is now almost flat, so that further flattening would require worse US growth expectations, with mixed impact on EM long rates.

More relaxed central banks = another leg lower for EEMEA rates?

Lower inflation expectations will likely lead to some relaxation in the tightening bias from central banks in the region. In Israel, the BoI refrained from hiking a second time, while NBP and NBH will likely find renewed conviction in their cautious/dovish approach. The SARB doesn't need to hike again given low growth, and the CBT may be tempted with cuts. In Czech and Russia the trend is less clear, given the CNB hawkishness and the sanctions risk in Russia. As market prices hikes everywhere in the region except in Turkey, the level of rates may have another leg lower. Our house view for a weaker USD and a rebound in risk may help further tightening.

SA and Russia have highest real rates

From a historical perspective, real rates remain high in S. Africa and Russia, as the 2018 EM slump increased the risk premium in high beta markets. We see more value in Russia since SA rates already enjoy a decent rally, while OFZs positioning is at all-time lows due to sanctions fears. In CEE, real rates are less attractive. Long-end rates in Hungary will likely benefit once NBH decides to tighten, which seems unlikely before 2H19.

Table 1: Energy and FX weights in CEEMEA CPI inflation basket

	Energy weight	Oil weight	FX pass-through	FX (%)	1y rates (bp)	10y yields (bp)	Latest CPI	BofAML 2019F CPI (eop)
Hungary	15.1	5	10-15%	0.6%	-12	-69	3.1	3.2
Poland	16.2	5.4	10-15%	0.2%	-4	-46	1.1	2.9
Israel	6.8	2.7	10-15%	-1.6%	21	25	1.2	1.3
Czech Rep	11.9	4	10-15%	0.6%	7	-31	2	2.8
Turkey	14.9	7.3	20%	12.9%	-985	-273	20.3	19.1
S. Africa	8.4	4.6	10-15%	5.7%	-9	-36	5.2	5.3
Russia	8.8	4	10-15%	-2.6%	57	16	4.2	4.5

Note: FX, 1Y rate and 10Y yield change since 3 October 2018. FX change represents strengthening/weakening of the local currency. CEE countries are measured against EUR while the rest against USD. Source: Bloomberg, BofA Merrill Lynch Global Research

Turkey – buy protection

In Turkey, the market turned too complacent on the macro risks. Since October, front-end rates rallied almost 1000bp and lira rallied 11% vs the USD. Inflation still hovers around 20%, and upcoming elections may induce the government in temptation with more stimulus or cuts. Geopolitics remains a risk too. The swap curve is strongly inverted, and inflation breakevens are now much lower than our 2019, 2020 forecasts (Chart 16). We recommend protection via payers (2y is our favourite tenor) and rank linkers above nominals.

S. Africa – squeezing a few bp

In S. Africa, inflation dynamics remain subdued due to a relatively low oil weight in the CPI basket. Still, some of the increase in inflation we experienced since March is likely to be taken back, removing pressure from the SARB to hike further. Long-end rates already tightened with stronger ZAR, and real money are long bonds, suggesting less space for further curve flattening. Nominals are more attractive than linkers when looking at levels, but the difference is not large.

Russia – where value lies

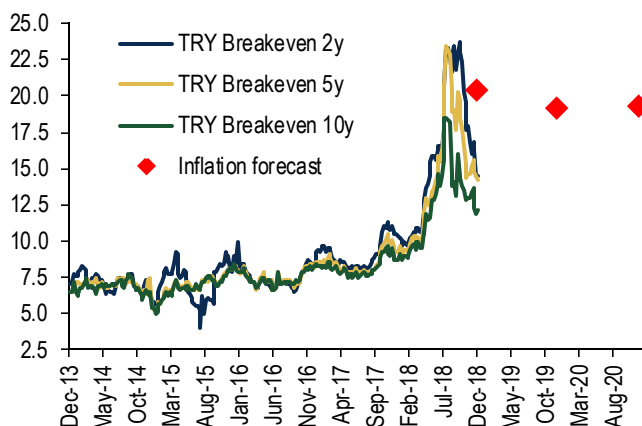
We find Russia the most undervalued local market in EEMEA. FX and rates didn't follow the move stronger in EM since October as sanctions risk keeps OFZs wide and lower oil weighed on the RUB. Inflation is likely to spike up in 1Q19 due to the recent VAT hike, but real yields are still wide to peak inflation and the market is pricing 120bp in hikes over the next 12m, suggesting higher inflation is priced. OFZs foreign ownership collapsed in 2018, making the positioning picture favorable for rates.

CEE/Israel – hikes are not what they used to be

In CEE and Israel, central bank hikes will be less of a driver than they have been over the past couple of years. Inflation data allow the NBP to remain on hold for long time, and the Czech story is now well anticipated (though some hike fell out of the price recently). The NBH will hike but not before the second half of the year, and the hiking cycle in Israel will be shallow as inflation dynamics are not that convincing. In Romania, inflation is finally moving lower giving the NBR the opportunity to stay on hold.

CEE rates move lower since oil moved as core rates tightened and the oil weight is the highest in the region. We would then look for opportunities to re-enter payers, especially in Czech and Poland, but an improvement in European data may be needed for curves to move higher. In Hungary, the curve is too steep and NBH tightening should help it flatter. Still, lower oil means the NBH can postpone hikes until 2H19.

Chart 16: TRY breakevens are now too optimistic



Source: Bloomberg, BofA Merrill Lynch Global Research

Chart 17: ZAR breakevens seem fairly priced



Source: Bloomberg, BofA Merrill Lynch Global Research

US Economics

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A reminder about residual seasonality

- Core CPI exhibits positive residual seasonality in Jan, a phenomenon we have discussed in the past.
- A rolling window analysis reveals that this Jan bias has weakened over the current cycle.
- However, there are quirks in the data. Once controlled for, the case for residual seasonality remains strong.

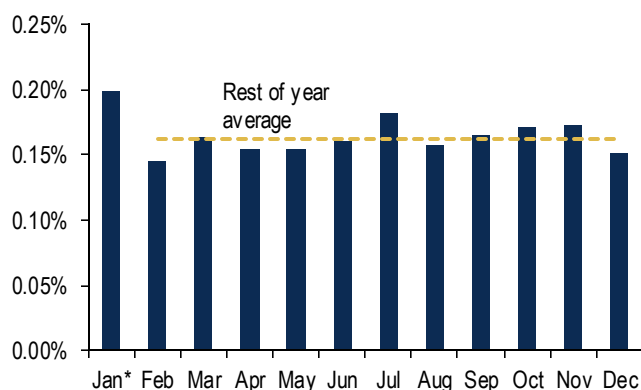
Don't worry about a December disappointment

Heading into the December CPI report, our expectations are for soft readings. We forecast core inflation to edge down to 0.1% mom, following 0.2% readings in October and November. This compares to consensus expectations of 0.2%. If inflation does disappoint, we believe the volatile used car component will be a major driver, which would warrant fading the move as the underlying inflation trend is better than it looks. In our view, the slowing would be short-lived—the risk for % mom core CPI in the following Jan report is to the upside due to residual seasonality. We have explored this issue in the past, but one question we consider here is whether or not residual seasonality is getting stronger or weaker over time. We find that residual seasonality has moderated somewhat since the 90s but believe the relationship remains significant. While this means a strong % mom growth rate for core CPI in Jan, the % yoy rate could edge lower in the upcoming report given that last Jan also benefitted from residual seasonality, with core CPI popping 0.35% mom.

Rolling through the times

As a refresh, residual seasonality is the presence of a seasonal bias in seasonally adjusted data. The CPI data are not seasonally adjusted at the aggregate level but rather at the component level. Moreover, some components of CPI are not seasonally adjusted. When adding it all up, residual seasonality can emerge. Using the last 20 years as a sample, the core CPI data reveal a seasonal bias at the start of the year: Jan averaged

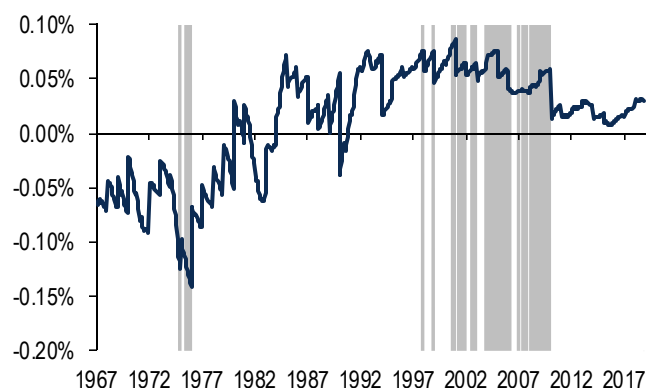
Chart 18: Core CPI tends to come in strong in Jan (average % mom by month, Dec 1998 – Nov 2018)



*Statistically significant at 10% level

Source: BofA Merrill Lynch Global Research, Bureau of Labor Statistics

Chart 19: Residual seasonality weakened since the 90s (Jan avg % mom less rest of year avg, 10yr rolling window)



Note: Shaded areas represent when difference is statistically significant at least at the 10% level.

Source: BofA Merrill Lynch Global Research, Bureau of Labor Statistics

0.20% mom, which is about 4bp higher than the rest of year average (Chart 18). It is not a huge bias, but it is statistically significant.

To assess how residual seasonality has evolved, we use 10yr rolling windows since the data began in 1957. Chart 19 shows that Jan initially had a downward bias relative to the rest of the year, though this bias was not significant as the data were more volatile back then. This bias turned positive in the 80s, and more convincingly in the 90s before falling in recent cycles. The 10yr rolling average gap moved sharply lower in 2010, which reflected a particularly weak 0.1% decrease in Jan core CPI that year. To put this in context, at the time this was the first rounded mom decline since December 1982. Following 2010, the gap between Jan and the rest of year moved roughly sideways at lower levels, suggesting weak and not statistically significant evidence of residual seasonality. However, as we discuss below there is more than meets the eye.

An anomaly in the data

Investigating the drivers of the dip in Jan 2010, we find that the weakness owed primarily to a 0.5% mom slide in shelter inflation. It is here that we discover an unusual inconsistency in the data: shelter prices slid 0.5% mom but the components of shelter—owners' equivalent rent (OER), rent of primary residence, lodging away from home, and tenants' & household insurance—suggest a smaller 0.1% decrease in shelter. This inconsistency is quite clear when comparing the history of reported shelter prices to its calculated estimate from its components (Chart 20). The BLS noted that the anomaly reflects a methodological change, and that a reasonable way to control for this quirk would be to replace it with the estimated -0.1% change from shelter's subcomponents.

Doing so would add 17bp to core CPI % mom bringing Jan 2010 core CPI to 0.1% mom. Making this adjustment in the rolling window analysis, there is a clear level shift higher in the Jan bias (Chart 21). It is still the case that the gap has moderated since the 90s, but by only a few basis points and the bias is statistically significant for most of the current cycle with the exception of 2014 to mid-2017. Also, residual seasonality has been on the uptrend in recent years, which if continued could benefit % yoy inflation over time. That said, this year % yoy inflation may edge lower given a tough comparison with Jan 2018, which saw core CPI surge 0.35% mom.

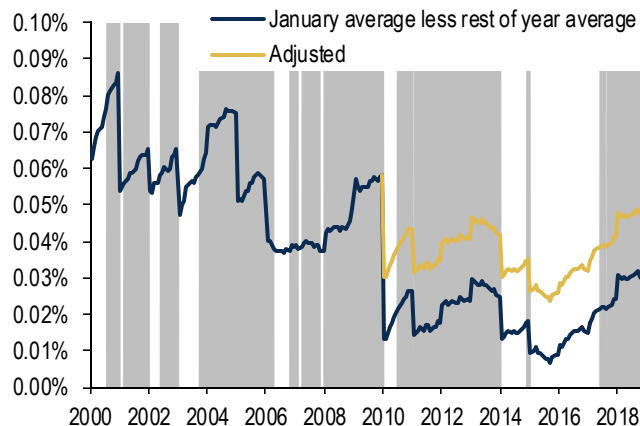
Even without this adjustment to shelter, Jan 2010 will get rolled off the 10yr window in 2020. Unless Jan 2020 core CPI drops by 0.1% mom, the average will recover higher, providing confirmation that residual seasonality is a material factor for today.

Chart 20: Inconsistent shelter in Jan 2010 (Reported % mom shelter prices less estimated % mom shelter from components)



Source: BofA Merrill Lynch Global Research, Bureau of Labor Statistics

Chart 21: Greater Jan residual seasonality after adjustment (Jan avg % mom less rest of year avg, 10yr rolling window)



Note: Adjusted controls for Jan 2010 shelter inconsistency. Shaded areas represent when adjusted series is statistically significant at least at the 10% level.

Source: BofA Merrill Lynch Global Research, Bureau of Labor Statistics

Table 2: Monthly CPI forecast update

	Non-seasonally Adjusted			Seasonally Adjusted			
	Total CPI			Total CPI		Core CPI	
	Level	mom	yoy	mom	yoy	mom	yoy
2018: Oct	252.89	0.18	2.5	0.33	2.5	0.19	2.2
2018: Nov	252.04	-0.33	2.2	0.02	2.2	0.21	2.2
2018: Dec	250.97	-0.42	1.8	-0.16	1.8	0.14	2.1
2019: Jan	251.36	0.16	1.4	0.05	1.4	0.23	2.0
2019: Feb	251.94	0.23	1.2	-0.05	1.2	0.19	2.0
2019: Mar	253.09	0.46	1.4	0.18	1.4	0.19	2.1
2019: Apr	254.19	0.43	1.5	0.30	1.5	0.19	2.2
2019: May	255.16	0.38	1.4	0.22	1.5	0.19	2.2
2019: Jun	255.83	0.26	1.5	0.23	1.6	0.19	2.2
2019: Jul	255.67	-0.06	1.5	0.09	1.5	0.19	2.2
2019: Aug	256.01	0.13	1.5	0.26	1.5	0.19	2.3
2019: Sep	256.19	0.07	1.5	0.01	1.5	0.19	2.4

Source: BofA Merrill Lynch Global Research, Bureau of Labor Statistics

Euro Area Economics

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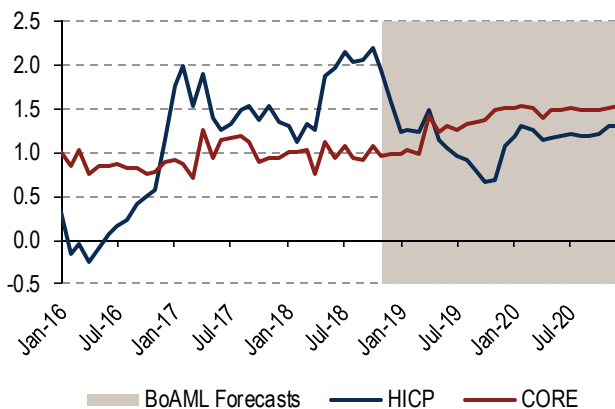
Dropping like a stone

Inflation: dropping like a 100bps stone

We argued before the Christmas break that the recent drop in oil prices was starting to feed quickly into retail prices and that it would leave a significant imprint on the December inflation release. We were expecting Euro area headline inflation to drop to 1.6% (from a revised lower 1.9% in November) and this is what we got. And core was even weaker than we expected, at 0.98 (we were at 1.04). Core inflation, despite all the inflation bulls out there, ended the year 4bps higher than it ended in 2017 – a clearly insufficient speed of convergence to target which questions the ECB's very optimistic core inflation forecasts.

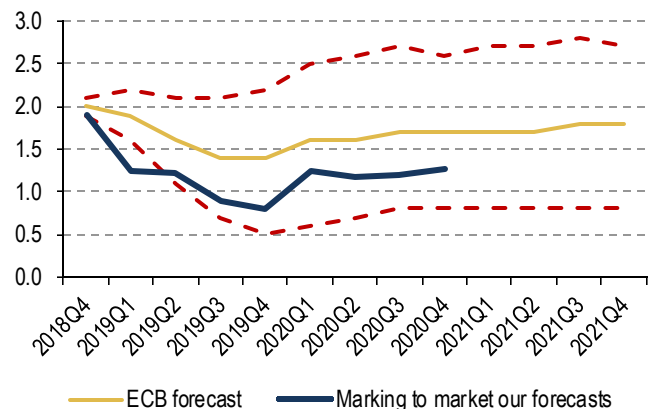
Today we update our inflation forecasts incorporating new oil prices, \$14-\$17 lower across the curve from the last time we did so. We warned that a simple mark to market exercise would take our current inflation forecast for 2019 30bps lower, to 1.3%. Adding the new profile for oil prices takes away another 30bps. In other words, our 2019 inflation forecast moves to 1%, from 1.6%, with 2020 only moving 10bps lower, to 1.2%. Our core inflation forecasts remain unchanged at 1.3% in 2019 and 1.5% in 2020, but with 1.2% and 1.4% only a couple of bps away (Chart 22).

Chart 22: Headline and core inflation forecasts



Source: BofA Merrill Lynch Global Research

Chart 23: ECB vs. BofAML forecasts



Source: ECB, BofA Merrill Lynch Global Research

We now expect the trough in inflation in September-October, at 0.6%. And our new inflation forecasts are pretty much at or below the lower bound of the confidence interval of the ECB's forecasts: the ECB will be surprised on the downside pretty soon (Chart 23). In other words, when the ECB is just getting past the "through the summer" inflation will be well below 1%. This adds additional arguments to the significant risk of no hikes at all in 2019.

Of course the ECB will be tempted to focus on the improvement in core inflation, after the summer core should stand at around 1.3-1.4%. But given the distance to 2% that would also need an improvement in the data flow to push ahead with hikes in 2019.

Table 3: Monthly inflation forecasts

Euro Area HICP ex-Tobacco			Germany CPI			France CPI ex-Tobacco			Spain HICP			Spain CPI			Italy CPI ex-Tobacco		
CPTFEMU Index			GRCP2000 Index			FRCPXTOB Index			CPALES Index						ITCPI Index		
Nov -18	104.10	1.86	Nov -18	112.40	2.27	Nov -18	103.14	1.65	Nov -18	104.52	1.74	Nov -18	104.88	1.69	Nov -18	102.20	1.39
Dec -18	104.10	1.49	Dec -18	112.50	1.72	Dec -18	103.14	1.36	Dec -18	104.00	1.23	Dec -18	104.46	1.23	Dec -18	102.12	1.01
Jan -19	102.79	1.13	Jan -19	111.64	1.67	Jan -19	102.54	0.86	Jan -19	102.45	1.21	Jan -19	103.35	1.26	Jan -19	102.35	0.84
Feb -19	103.01	1.15	Feb -19	112.06	1.60	Feb -19	102.64	0.98	Feb -19	102.30	0.91	Feb -19	103.41	1.18	Feb -19	102.40	0.89
Mar -19	104.03	1.17	Mar -19	112.69	1.79	Mar -19	103.57	1.12	Mar -19	104.17	1.54	Mar -19	103.89	1.53	Mar -19	102.53	0.81
Apr -19	104.60	1.43	Apr -19	112.27	1.41	Apr -19	103.70	1.08	Apr -19	105.02	1.61	Apr -19	104.63	1.41	Apr -19	102.60	0.89
May -19	104.75	1.07	May -19	112.59	1.25	May -19	103.89	0.81	May -19	105.18	0.82	May -19	105.04	0.90	May -19	102.73	0.71
Jun -19	104.79	0.99	Jun -19	112.66	1.22	Jun -19	103.89	0.79	Jun -19	105.28	0.69	Jun -19	105.12	0.71	Jun -19	102.86	0.64
Jul -19	104.32	0.88	Jul -19	112.97	1.23	Jul -19	103.70	0.71	Jul -19	103.97	0.64	Jul -19	104.39	0.73	Jul -19	103.14	0.62
Aug -19	104.43	0.84	Aug -19	112.94	1.11	Aug -19	104.17	0.66	Aug -19	104.04	0.61	Aug -19	104.42	0.62	Aug -19	103.49	0.57
Sep -19	104.79	0.71	Sep -19	112.86	0.68	Sep -19	103.83	0.56	Sep -19	104.55	0.47	Sep -19	104.50	0.46	Sep -19	103.11	0.69
Oct -19	104.88	0.54	Oct -19	112.86	0.50	Oct -19	103.86	0.48	Oct -19	104.87	0.10	Oct -19	105.26	0.25	Oct -19	103.06	0.64
Nov -19	104.70	0.58	Nov -19	113.01	0.54	Nov -19	103.78	0.62	Nov -19	105.10	0.55	Nov -19	105.61	0.70	Nov -19	102.93	0.72
Dec -19	105.12	0.98	Dec -19	113.70	1.07	Dec -19	104.02	0.85	Dec -19	105.10	1.05	Dec -19	105.63	1.13	Dec -19	103.05	0.91
Jan -20	103.92	1.11	Jan -20	112.92	1.14	Jan -20	103.48	0.91	Jan -20	103.59	1.12	Jan -20	104.58	1.19	Jan -20	103.39	1.02

Source: BofA Merrill Lynch Global Research

UK Economics

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Tweaks to our forecast on oil

We cut our 2019 inflation forecast 10bp on lower oil prices and weaker food price inflation signalled by the recent British Retail Consortium (BRC) shop price index. We now expect 1.6% CPI inflation in 2019, down from 1.7% previously. Our core inflation forecasts and 2020 forecasts are unchanged as is our RPI forecast to 1dp.

What can we say with Brexit risks live?

We condition our forecasts on a random walk for sterling and the oil futures curve. But there is no getting away from the big risks to the former assumption in particular. A no deal would, our FX strategists argue, take cable to 1.10, while they see PM May's deal passing leading to a large appreciation.

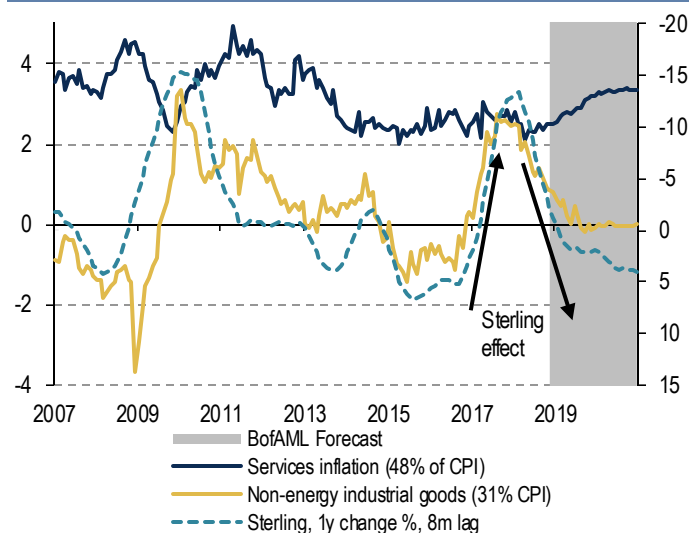
While that might be a council for despair – huge uncertainties with little way of putting objective probabilities on the scenarios – we think our 'neutral' inflation forecasts show how skewed the risks to consensus are in the near-term. Consensus forecasts 2.0% CPI inflation for end-2019 vs our 1.6%. For 1Q consensus has 2.2% vs our 1.7%. A horizon of 3 months will not be affected by sterling risks and arguably the end of the year won't be much either given that sterling inflation effects take 12-18 months to peak (Chart 24). We think the question for this year then, given that a Brexit deal eventually remains the overwhelming consensus, is 'how low can inflation go'?

Table 4: CPI forecasts

	CPI Headline %yoy	Core %yoy	RPI Index	Headline % yoy
Sep-18	2.42	1.89	284.1	3.27
Oct-18	2.39	1.86	284.5	3.34
Nov-18	2.31	1.84	284.6	3.19
Dec-18	2.06	1.85	285.8	2.78
Jan-19	1.68	1.77	282.6	2.38
Feb-19	1.74	1.82	284.8	2.41
Mar-19	1.83	1.90	285.2	2.49
Apr-19	1.72	1.77	286.5	2.43
May-19	1.58	1.66	287.1	2.27
Jun-19	1.69	1.92	288.1	2.36
Jul-19	1.59	1.87	288.2	2.30
Aug-19	1.44	1.73	290.0	2.04
Sep-19	1.44	1.81	290.0	2.07
Oct-19	1.42	1.91	290.2	1.99
Nov-19	1.42	1.88	290.6	2.09
Dec-19	1.58	1.91	292.3	2.25
Jan-20	2.00	1.99	290.2	2.71
Feb-20	1.98	1.96	292.5	2.71
Mar-20	1.98	1.96	293.3	2.82
Apr-20	2.02	2.04	294.8	2.88
May-20	1.97	2.02	295.2	2.83
Jun-20	1.93	2.00	296.2	2.79
Jul-20	1.95	2.03	296.3	2.81
Aug-20	1.94	2.01	298.2	2.81
Sep-20	1.97	2.04	298.5	2.92
Oct-20	1.95	2.01	298.7	2.94
Nov-20	1.93	2.00	298.8	2.84
Dec-20	2.00	2.03	300.9	2.97

Source: BofA Merrill Lynch Global Research, ONS

Chart 24: Repeat after me, there is no underlying inflation pressure



Shaded grey area shows BofAML forecasts. Source: BofA Merrill Lynch Global Research, ONS.

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