

# Global Macro Strategy

## Euro-area Yields: Too Low Anyway You Cut It

### Global Macro Strategy

Europe Ex. UK

#### **Euro area long-term yields may be lower than in the past for good reasons...**

There are good macro and policy reasons why euro-area yields are lower than in previous cycles. Trend growth has slowed; a large output gap implies that monetary policy may need to stay extraordinarily accommodative for years; and the ECB's QE is compressing term premia in an environment where risk-free assets may be scarce.

#### **...but are at least 70bps too low even accounting for macro fundamentals/QE**

However, neither macro fundamentals nor QE can account for the extremely low level of 10y yields. We find that even after macro fundamentals and QE (coupled with negative rates) are taken into account, they still leave Euro-area 10y rates at least 70bps too low.

#### **The drivers of this overvaluation may be transitory**

Looking into other factors that may contribute in keeping yields at extremely low levels, it is not clear that the scarcity of safe assets in the Euro-area has a lasting effect. Additionally, current excess levels of risk-aversion are ultimately likely to reverse.

#### **The risk-reward is in favour of higher yields and steeper curves...**

Overall, we see the risk-reward of Euro-area yields skewed to the upside from current levels of c.50bps (using 10y swaps as reference). Should global risk aversion decline from current extreme levels, we would expect a re-pricing of EUR yields to c.1% and a consequent steepening of the curve. A narrowing of the spread between US vs EUR 10y yields would also likely follow. We acknowledge, however, that this may take some time until the relevant catalysts materialize.

#### **...with important implications for equity markets as well**

A re-pricing of the expected forward path for European rates (higher) will likely coincide with outperformance for European stocks in general and the banking sector in particular, as steeper curves are likely to support [already favourable valuations](#) for the sector as a whole.

#### **Which catalysts could drive Euro-area yields back to "fair" levels**

Over the coming months we are looking for catalysts that may drive extreme levels of risk aversion lower and push Euro-area yields (and equities/banking stocks) higher. Resilience in China activity data and strength in assets sensitive to China growth (e.g. industrial metals and A-shares) linked to the authorities' stimulus efforts would be a key catalyst. Additionally, we would also need to see the Fed's policy tightening not filtering through to another round of excess tightening in financial conditions in result. Data-wise, we would look for evidence that inflation in the Eurozone may be picking up and that activity in Q2 remains resilient following a strong Q1. Finally, we would look for further reduction in event risk surrounding the UK's EU referendum, the Spanish elections in June, and the formal conclusion of the Greek review, where [significant progress has been achieved in the last few weeks](#).

#### **Lefteris Farmakis**

Strategist

lefteris.farmakis@ubs.com

+44-20-7568 8305

#### **Themos Fiotakis**

Strategist

themos.fiotakis@ubs.com

+44-20-7567 7215

#### **Nishay Patel, CFA**

Strategist

nishay.patel@ubs.com

+44-20-7568 8298

#### **Jeremy Chalder, CFA**

Strategist

jeremy.chalder@ubs.com

+44-20-7567 1223

#### **Daniel Waldman**

Strategist

daniel.waldman@ubs.com

+1-203-719 4281

#### **Yianos Kontopoulos**

Strategist

yianos.kontopoulos@ubs.com

+44-20-7568 8924

## Euro-area yields

UBS Research THESIS MAP

### PIVOTAL QUESTIONS

#### **Q: Can macro fundamentals account for the current low level of yields in the Eurozone?**

No. While there are good reasons to expect yields to be lower than in past cycles, we estimate that on the basis of macro fundamentals 10y rates should be over 100bps above current levels.

#### **Q: Can QE explain this valuation gap?**

Only to a small extent. QE (coupled with negative rates) can only explain away 30bps of that gap, leaving 10y rates at least 70bp too low. (Note that yields would typically hover above what "fundamentals" imply, compensating investors for duration risk; QE has suppressed this premium).

#### **Q: What could drive yields back towards fair value?**

Technical factors (such as the perceived scarcity of safe assets and/or foreign buying flows) are unlikely to have a lasting effect. Additionally, current excess levels of risk-aversion could reverse, provided that the appropriate catalysts play out in line with our views.

### UBS VIEW

**The risk-reward is in favor of higher yields and steeper curves:** We see the risk-reward of Euro-area swap rates skewed to the upside from current levels of c.50bps. We would expect a re-pricing of EUR yields to c.1% and a consequent steepening of the curve. A narrowing of the spread between US vs EUR 10y yields would also probably follow. Additionally, a re-pricing of the expected forward path for European rates (higher) would likely coincide with outperformance for European stocks in general and the banking sector in particular.

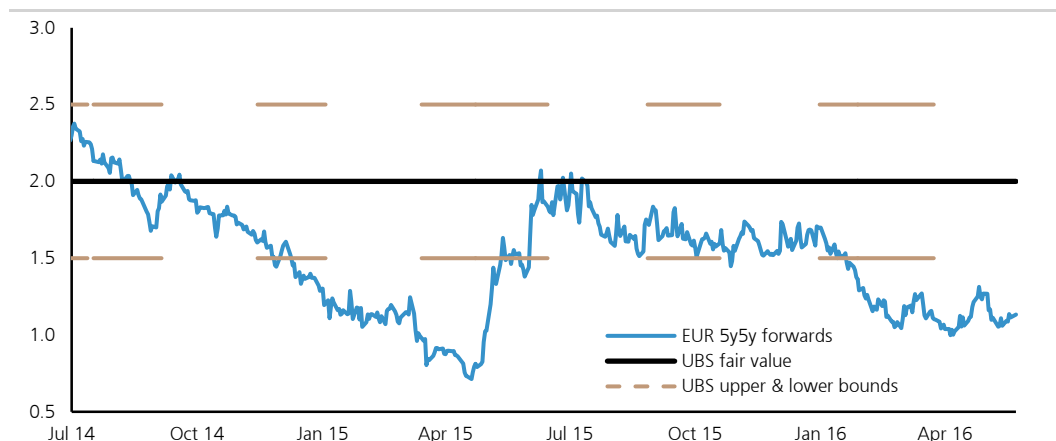
### SIGN POSTS

**A reduction in extreme risk aversion is key.** Over the coming months we look for catalysts leading to a substantial reduction in risk aversion. Resilient activity data from China (on the back of the stimulus deployed) and strength in assets sensitive to China growth (e.g. industrial metals and A-shares) could offer one. We would also need to see Fed tightening avoiding another round of unwarranted financial conditions tightening. Data-wise, we look for evidence of Eurozone inflation picking up and that activity in Q2 remains resilient following a strong Q1. Finally, we are also looking for further reduction in event risk surrounding the UK's EU referendum, the Spanish elections in June, and the formal conclusion of the Greek review.

### WHAT'S PRICED IN?

5y5y forward swap rates are currently hovering around 1%. This is c. 50bps below even the lower bound of our fair value estimates, which range between 2.5-1.5% with a central value of 2%.

#### **Long-term interest rate expectations are well below levels consistent with trend growth**



Source: UBS calculations, Haver Analytics, Bloomberg

## Euro-area yields: too low anyway you cut it

The level of Euro-area yields is currently extraordinarily low, with 5y swap rates hovering around zero and 10y rates around 0.5%. Moreover, markets expect yields to stay low for a long time; in 5yrs from now the market expects that 1y rates will still be only 0.6% and 10 years from now only 1.7%! This is in stark contrast to recent cycles, which featured an average ECB policy rate of around 3%.

There are good macro reasons why long-term euro-area yields have declined and why they may stay low for longer. Following the Global Financial Crisis (GFC) and the Euro-area debt crisis, growth in the Euro-area has slowed and part of this slowdown may be secular rather than cyclical. A large output gap implies that monetary policy may need to stay extraordinarily accommodative for years, until the cycle matures and allows for higher rates. Additionally, the ECB's QE is raising the demand for assets of low risk and long duration (i.e. it compresses term premia). Lastly, against significant demand, risk-free assets may be scarce in the Euro-area.

But for every risk there is a clearing price. Are current prices accurately reflecting the balance of the various macro forces and risks at play? We look at different macro and technical frameworks to identify levels for Euro-area yields, where macro risks are appropriately priced. We find:

1. Macro fundamentals alone cannot account for the full decline and the extremely low level of Euro-area yields. Macro drivers alone – such as the low trend growth rate and the wide output gap - point to 10y swap yields at least 100bps higher. But the ECB's easing may suppress yields beyond and above the impact of fundamentals.
2. EUR yields look low even accounting for ECB's policy easing. QE is aimed at diminishing the excess compensation investors receive to hold bonds of long duration (term premia). In our estimates, QE (coupled with negative rates) may even account for a small negative yield that investors are forced to pay to own risk-free assets of long duration. But still, even accounting for this, the current level of Euro-area 10y rates may still be at least 70bps too low.
3. The drivers of this overvaluation may be transitory. It is far from clear that factors often thought to be responsible for excess demand for Euro-area bonds, such as the scarcity of safe assets in the Euro-area, have a lasting effect. Other factors likely keeping Euro-area yields at low levels – such as the excess levels of risk-aversion currently prevalent- could reverse should the relevant catalysts materialize.

Overall, we see the risk-reward of Euro-area 10y yields skewed to the upside from current levels of c.50bps. Should global risk aversion decline from extreme levels currently, we would expect a re-pricing of 10y yields to c.1% (and a consequent steepening of the curve). This, however, may take time. Over the coming months we would need to see resilient activity data from China and strength in assets sensitive to China growth (e.g. industrial metals and A-shares). We would also need to see how the Fed's policy tightening plays out and the financial conditions tightening it may result in (also see [Are Equities Right to Fear Fed Hikes?](#)). Finally, we are looking for evidence that inflation in the Eurozone may be picking up and that activity in Q2 remains resilient following a strong Q1.

**The market expects Euro-area yields to stay extraordinarily low for a very long period of time.**

**There are good macro reasons for that...**

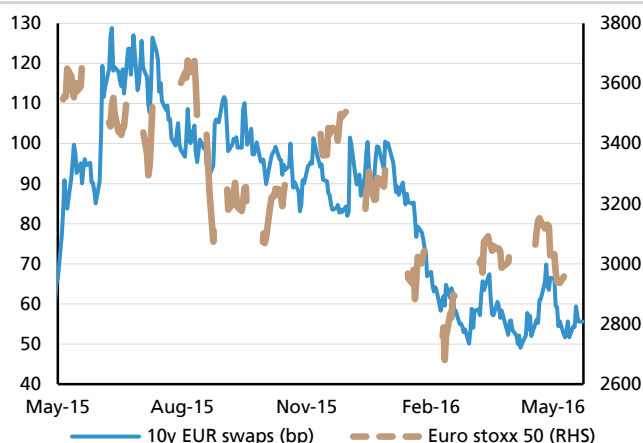
**...but is the price right?**

**Not really. 10y swap yields are likely around 70bps too low...**

**... and the factors that drive this valuation gap may be transitory.**

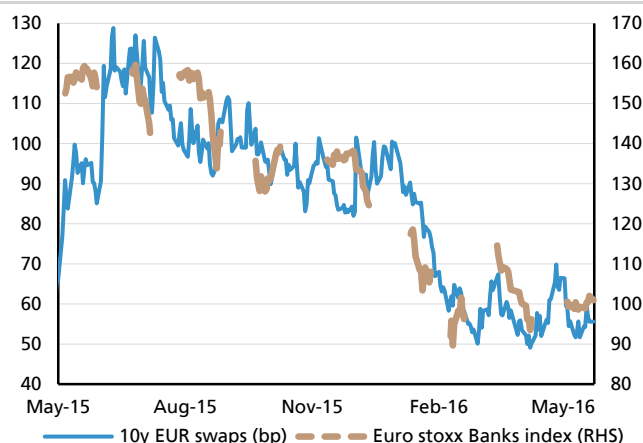
**A decline in risk aversion can see 10y yields re-price from c.0.5% currently to c.1%. What to look for.**

**Figure 1: Excess risk-aversion that has compressed EA yields, has also weighed on broad equity performance...**



Source: UBS, Bloomberg

**Figure 2: ...and expectations of low rates for long periods of time have hurt bank valuations**



Source: UBS, Bloomberg

Such a move would have important implications for equity markets as well. First, the part of the excess risk-aversion that has compressed Euro area yields has also weighed on broad equity market performance, which has so far been largely underwhelming (Figure 1). And more specifically, expectations of low interest rates for long periods of time have hurt the performance and valuation of banks (Figure 2). A re-pricing of the expected forward path for European rates (higher) will likely coincide with outperformance for European stocks in general and the banking sector in particular (our bank equity analysts have already argued that the [European banks sector valuation is attractive](#)).

**Such an upgrade in interest rate expectations for the Euro area will likely coincide with outperformance in Euro-area stocks (banks in particular).**

## Macro fundamentals suggest that 10-year swap yields are over 100bps too low

### Yields look too low relative to current nominal growth rates

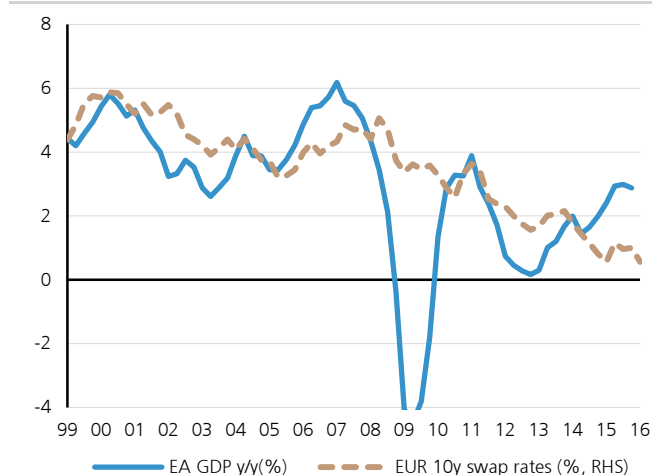
Nominal growth offers high-level evidence that current nominal yields are significantly lower than their "fair" levels. Nominal growth in the Eurozone has slowed down considerably over the last few years from around 5% before the GFC to 2.9% in 2015. Nonetheless, while the above observation bodes well with the declining trend in nominal yields over the same period, it fails to capture the latest rebound in Eurozone growth (Figure 3). A simple linear regression of 10y nominal yields on growth rates confirms this, showing that yields have undershot their historical average by 250-300 bps (Figure 4).

**10y swap yields look too low relative to Euro-area growth rates.**

The experience of yield curves at the zero lower bound, however, has shown that the actual level of growth matters less for curve behaviour than the duration of the period during which an economy may feature a wide output gap at a given growth rate. In the next section we attempt to incorporate the persistence of output gaps into our analysis.

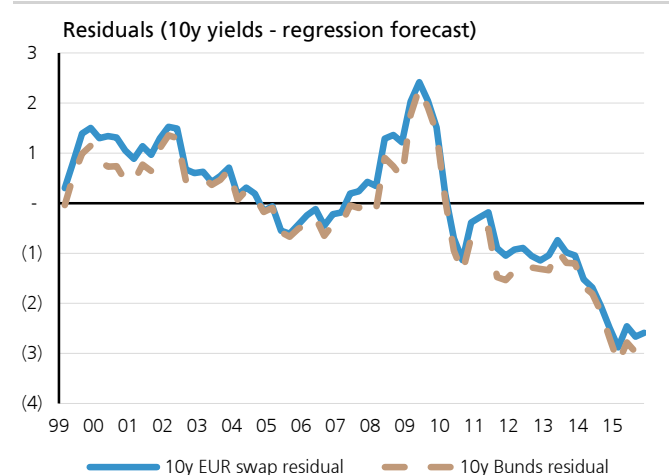
**But this approach underestimates the effect of a large output gap.**

**Figure 3: 10y rates are a function of nominal growth...**



Source: UBS, Haver Analytics, Bloomberg

**Figure 4: ...but residual shows that rates have undershot**



Source: UBS calculations, Haver Analytics, Bloomberg

### Yields are too low accounting for the large output gap

A general problem with monetary policy at the zero lower bound is that even when rates are at (or fairly close to) zero, they may in fact be *too high* given a large output gap. Being at the zero lower bound, however, it is not possible to reduce them further. As a result, policy rates may need to stay at their lower bound for a longer period of time than if that lower bound constraint did not apply.

This has important implications for the yield curve, as it implies that a large part of the front end is levelled down at near-zero (or even negative) levels. There are also typical bounds to curve steepness, above which carry flows tend to drive long-term yields lower. Hence, a wide output gap suppresses long-term yields below the levels that one would anticipate based on nominal growth rates alone.

Currently, there is significant uncertainty regarding the level of the output gap in the Euro-area. For that reason, we err on the side of caution. First, we assume (rather conservatively) that the Euro-area output gap is 3.5% (note: the IMF estimates it to be around 2%). Secondly, we employ a framework that identifies an “optimal” path for policy rates based on Janet Yellen’s (2012) optimal control rule<sup>1</sup>. In the presence of an output gap, this framework tends to prescribe lower rates for longer, even after the output gap has narrowed. This is because a credible commitment from the central bank to reflate the economy once the cycle matures allows for inflation expectations to rise in the near term as well.

We find that even under the above assumptions, the prevailing term-structure is significantly flatter and medium- and long-term yields substantially lower (over 100bps) than what the optimal control rule implies (Figure 5).

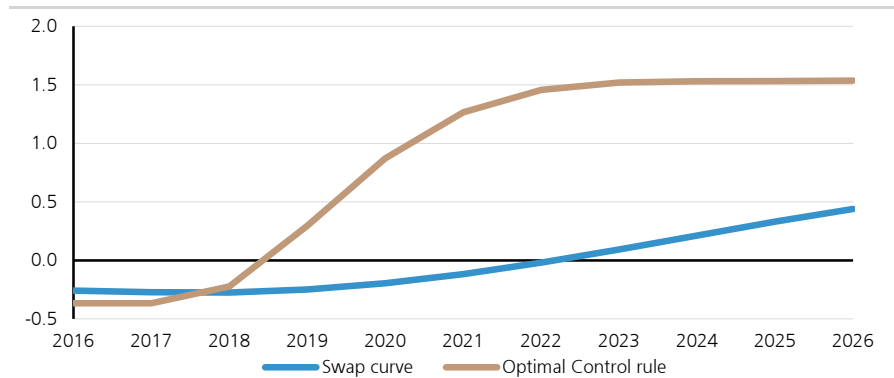
But could current low yields simply reflect an overly pessimistic picture regarding trend growth in the Eurozone? We tackle this question in the following section.

**We look at a quantitative approach first used to assess for how long US rates should optimally stay at zero in 2012 (Yellen’s optimal control rule).**

**Accounting for the large output gap, 10y rates should be closer to 1.5% vs 0.5% currently**

<sup>1</sup> Yellen, J. L. 2012. Revolution and Evolution in Central Bank Communications. Board of Governors of the Federal Reserve System.  
<http://www.federalreserve.gov/newsevents/speech/yellen20121113a.htm>

**Figure 5: The optimal control-implied swap curve is significantly steeper than the actual swap curve for medium- and long-term tenors**



Source: UBS calculations, Bloomberg

### Yields are too low even accounting for lower trend growth

As discussed in considerable detail in [Big Macro 01](#), trend growth has slowed down across developed economies. Still, we find that current yield levels are too low even accounting for this development.

One way to visualise the deceleration in trend growth in the Euro-area is via the use of Okun's law. In Figure 6 we have estimated the level of real GDP growth required to keep unemployment constant, in effect a high-level proxy of trend (or potential) growth. Trend growth has slowed considerably in the Euro-zone over the last 10 years driving long-term yields lower.

In order to gauge the "fair" level for 10y swap rates for a given level of trend growth we estimate the long-term equilibrium real rate for the Eurozone. This is the level of policy rate at which inflation reaches target and actual output converges to potential output. It can be shown that the trend in long-term equilibrium real rates closely matches that of trend growth.

We follow the approach introduced in [Big Macro 01](#) and offer four different estimates of long-term equilibrium real rates: a pure statistical estimate, one based on a simple model of real rates as a function of the output gap, and, lastly, estimates based on two versions of the Laubach and Williams model (one with endogenously and one with exogenously determined output gap – for more details on the methodology see [Big Macro 01](#)).

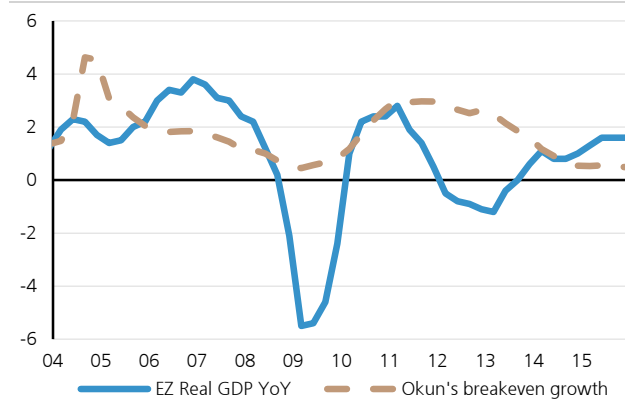
The upshot is clear: real equilibrium interest rates (and, by extension, trend growth) have declined significantly since the GFC, currently hovering around 0% (Figure 7). Hence, it is certainly no surprise that yields are now *lower*.

But are they too low? In our estimates, they are. The simplest way to see this given an estimate of the long-term real equilibrium rates is via forward rates. Figure 8 plots the EUR 5y5y forward rate vs our estimate of its fair value. Conceptually, 5y5y rates are broken down into a) the market's expectation of the long-run equilibrium real rate, b) inflation expectations 5y5y forward, and c) a residual term premium to compensate for duration risk. On the basis of our forecast of real equilibrium rates and assuming 1) that the ECB will manage to hit its inflation target within the next 10 years and 2) that term-premia are zero (for further analysis on term-premia see the next section), 5y5y forward rates should hover around a central value of 2%. Instead, they are currently around 100bps below that level (Figure 8).

**There is evidence that growth has structurally declined following the crisis. We try to quantify what this means in terms of "equilibrium" (neutral) real rates in Europe.**

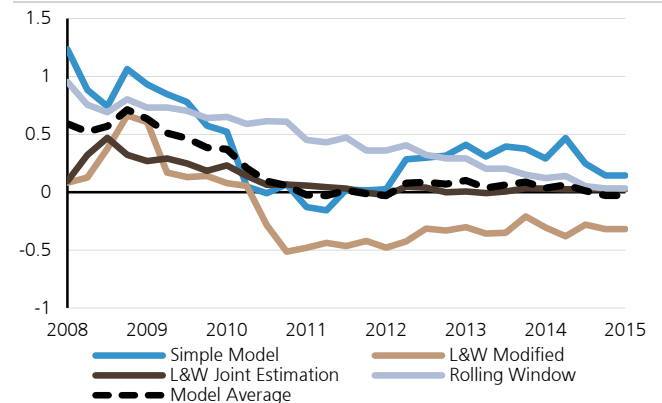
**A family of models - including the Laubach and Williams framework we used for US yields – argue that current long term rate expectations in the Euro area are way too low, even accounting for slower trend growth.**

**Figure 6: Euro-area trend growth has slowed...**



Source: UBS calculations, Haver Analytics, Bloomberg

**Figure 7: ... taking equilibrium real rates close to 0%**



Source: UBS calculations

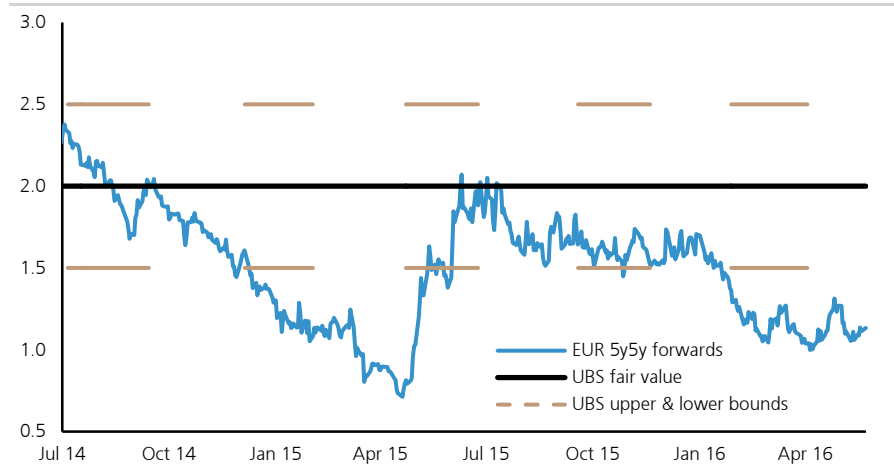
Overall, our estimates indicate that 10y swap yields are over 100bps lower than where they should be if the sole constraint imposed on them was to fully capture the current macroeconomic backdrop. Economic models, however, never tell us if market prices are simply right or wrong. They merely point to inconsistencies between the assumptions underpinning those models and market prices. Those assumptions, however, may well fall short in describing the economy.

In our case, this residual of c. 100bps can be attributed to a number of factors not captured by the aforementioned frameworks. First of all, we have not yet discussed QE, which aims at explicitly compressing term-premia. An oversized effect on term-premia could go a long way towards explaining away our residual. Secondly, negative rates could have altered market dynamics in a way that leads to temporary distortions, for example via a bias towards flatter curves. Thirdly, technical factors around the implementation of QE such as scarcity or flow effects from monetary policy decisions in other jurisdictions could also play a role. Lastly, more generic considerations such as over-arching risk aversion could also suppress long-term yields well-below what fundamentals plus term-premia compression would imply.

In what follows we take issue with each of the above possible alternative explanations.

**Such "macro estimates" for the fair level of 10y yields may be missing key policy factors (ECB) and technical drivers.**

**Figure 8: Long-term interest rate expectations are well below levels consistent with trend growth**



Source: UBS calculations, Haver Analytics, Bloomberg

## Accounting for ECB policy leaves 10y swap yields around 70bps too low

### QE in the Eurozone and abroad only partially capture the residual overvaluation in 10y swap yields

Implicit in our work so far has been the assumption that Euro-area yields are ultimately likely to converge to a level dictated by long-term macro fundamentals (trend growth, output gap etc.). However, it is important to keep in mind that, typically, investors seek a level premium to hold long duration instruments even if these are free of credit risk (this compensation for duration risk is referred to as “term premium”). We have not incorporated shifts in term premia in our analysis so far.

Prior to the GFC, term premia used to be wide and positive. The introduction of QE was primarily aimed towards compressing term premia. Figure 9 breaks down the moves in Euro-area 10 year rates into “term premia” and market expectations of long run interest rates on the back of fundamentals. It shows that currently, term premia are actually negative (-0.5%). Investors are paying (rather than receiving) a premium to own risk-free assets of long duration. Some of this compression is driven by QE – but how much of it? In what follows we are looking into whether QE justifies such negative term premium or whether something else is at play. We then assess how our findings affect our valuation assessment.

In [Big Macro 3](#) we decomposed the impact of QE on bond valuations. We update our estimates for the two additional episodes of Euro-area QE (namely the QE extension in December 2015 and the QE upsizing in March 2016). Figure 10 captures the cumulative effect of ECB on term premia in Europe.

According to our estimates QE cannot explain the full decline in term premia since 2008. At most one can justify a mildly negative term premium for 10y Euro-area rates. Plugging in a small negative term premium to our fundamental macro-based estimates reduces our fair value assessment only marginally. On our model, 10y yields are at least 70bps too low accounting for both macro drivers and QE.

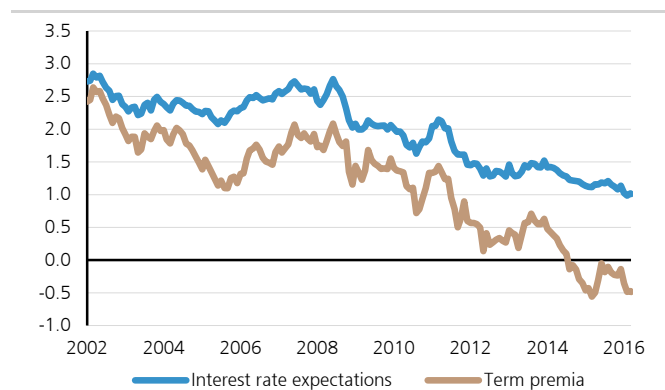
So far we have not discussed negative rates. Should we consider their effect separately? We answer this question in the next section.

**Our analysis so far does not account for “term premia”.**

**ECB actions are aimed at compressing term premia – but how much of the valuation gap does QE explain?**

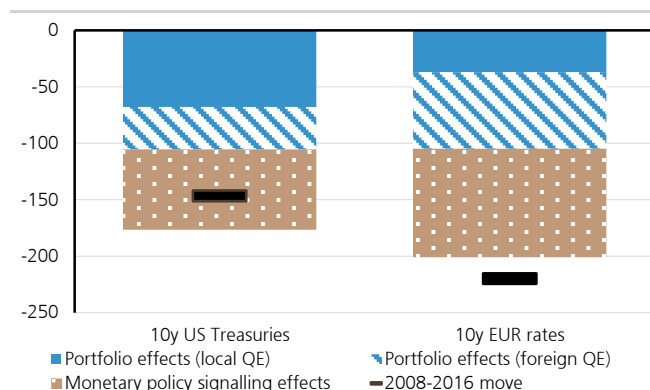
**The effects of QE cannot fully explain the decline in term premia. A thorough accounting exercise changes our “fair value” assessment only marginally.**

**Figure 9: 10y swap rate break-down into interest rate expectations and term premia**



Source: UBS calculations, Bloomberg

**Figure 10: QE explains 200bps of Euro-area term premium compression – term premia have declined more than that.**



Source: UBS calculations, Bloomberg. The chart provides a breakdown of the impact of domestic and foreign QE accounting for the different channels of transmission of monetary policy (portfolio and signalling effects. US estimates are also updated and presented for comparison purposes.



## Negative rates are unlikely to have an idiosyncratic and separable effect on valuations

In its effort to provide additional monetary accommodation, the ECB has also experimented with negative policy rates, which have already redefined the concept of the zero-lower bound substantially. Nonetheless, negative rates per se are unlikely to have had a separable effect over and above the effects of QE (or at least over and above our estimates of the QE effects).

To be sure, since negative rates were first introduced in 2014 Euro swaps curve has behaved differently compared to the past (Figure 11). Lower front end rates used to trigger curve steepness. Yet, since negative rates were first introduced, lower policy rates only led 10yr rates flatter relative to 2yr rates. Does this mean that negative rates may be responsible for part of the overvaluation in long-term yields in an idiosyncratic fashion?

This is unlikely, in our view, for three reasons:

- First, conceptually, negative rates ought to lead to steeper curves, if only because they demonstrate that zero is not the lower bound and that monetary policy is less restricted than previously thought.
- Secondly, there is a simpler explanation for the observed curve flattening; this is that QE may already account for a large chunk of it. At the very least, our estimates of the QE impact on long-term rates (which are based on a case study around episodes) already reflect a big part of this effect.
- Thirdly, there are other, more likely macro drivers of this flattening. 2014 marks the beginning of a sharp drop in inflation expectations, which coincided with the initial phase of the flattening. The subsequent introduction of negative rates is more plausibly explained as a consequence of an unwanted flattening of the curve rather than its cause (Figure 12).

Overall, then, it is hard to argue that negative rates have had a discernible impact on the level of long-term Euro-area rates, over and above QE and macro fundamentals. The upshot of our analysis thus remains: policy and macro drivers still leave core Euro-area yields 70bps too low.

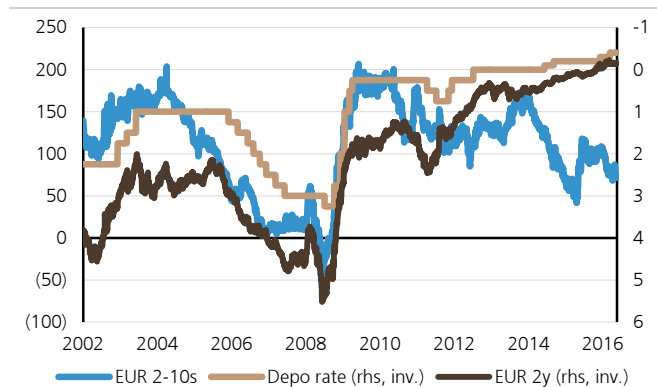
But what about technical drivers of long-term yields? In what follows we look into whether factors outside the scope of macro fundamentals and monetary policy could account for the overvaluation in 10y rates.

**Since negative rates were introduced curves have flattened despite additional stimulus**

**Yet it is hard to attribute this to negative rates. In fact there are other more dominant and likely drivers.**

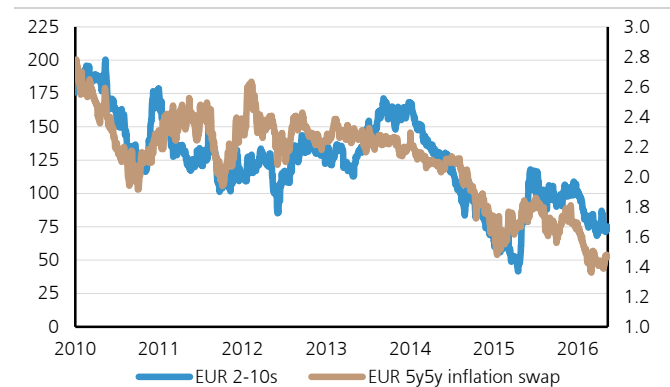
**Overall, macro and policy considerations included, 10y yields are 70bps too low.**

**Figure 11: EUR 2-10s curve begun flattening before the introduction of negative rates ...**



Source: UBS, Bloomberg

**Figure 12: ...at a time that inflation expectations begun their rapid decline**



Source: UBS, Bloomberg

## Flow factors capture at best only a small portion of the valuation gap

**(Perceived) scarcity of bonds may be playing a role – a marginal one, however.**

A key technical consideration that has dominated the discussion around potential flow factors affecting valuations is the (perceived) scarcity of risk-free bonds in the Euro-area. Scarcity can take a number of forms. It can take place if the amount of bonds to be purchased is too large compared to some reference variable such as gross supply. It can also arise if the central bank is unable to buy a sufficient amount of bonds in one part of the curve, resulting into an unintended disproportionate flow into another.

One problem with the above arguments is that there is no single Eurobond market. Instead, different bond markets have different supply/demand characteristics which makes generalisation hard. For the purpose of the present discussion we shall treat concerns surrounding the Bund market in particular as the basic determinant for the level of the aggregate level of core interest rates in the Eurozone (as represented by the swap rate). The absence of any meaningful shift in the German ASW spread since the start of the ECB's asset purchase programme arguably allows this extrapolation (Figure 14).

Scarcity construed in terms of the QE programme purchase volumes vs issuance does not seem to be a major problem on its own. Although the Bund gross issuance-to-purchases ratio may appear low, one can see that it is not substantially lower than for other QE episodes in other jurisdictions. While lower than the average ratio across the various QE episodes in G4 economies, the Fed's QE1 and the BoE's Asset Purchase Programmes have seen ratios just as low or even lower (Figure 13 – see also [The case for higher bond yields in Europe](#)).

The existence of the deposit rate threshold for the execution of QE, on the other hand, could pose a more acute scarcity problem. Since November 2015, when the ECB considered moving further into negative territory, a larger share of German bonds have tended to trade below the deposit rate threshold, therefore becoming ineligible for QE (Figure 15). This mechanically shifts the weight of purchases to the longer-end of the curve, arguably exerting undue pressure on longer-term yields. In fact, the weighted-average maturity of QE purchases has increased recently for a number of core countries, indicating that the Eurosystem may have shifted the weight of purchases to longer-tenors.

**Figure 13: The low Bund issuance-to-purchase ratio does not stand out vs other QE episodes**

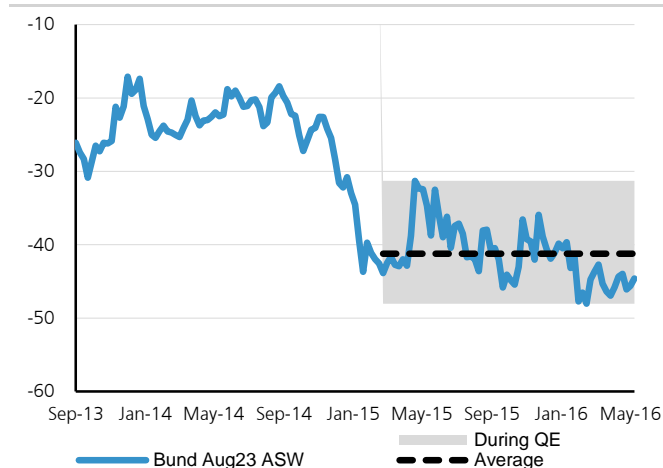
	From	To	Issuance / purchases
<b>Fed QE1</b>	30/11/2008	30/11/2009	1.28
<b>Fed QE2</b>	31/10/2010	30/06/2011	2.73
<b>Fed QE3</b>	31/10/2012	31/10/2014	3.35
<b>BoE APP1</b>	31/03/2009	31/01/2010	1.06
<b>BoE APP2</b>	31/10/2011	31/10/2012	1.16
<b>BoJ QQE1</b>	28/02/2013	31/10/2014	1.69
<b>BoJ QQE2</b>	30/11/2014	29/02/2016	1.09
			<b>1.77</b>
<b>ECB QE</b>	31/03/2015	31/03/2016	1.23

Source: UBS calculations, Haver Analytics, Bloomberg, Federal Reserve, SOMA, DMO UK, BoE, BoJ, Bundesbank

**Is there enough supply of risk-free bonds (in light of ECB purchases)?**

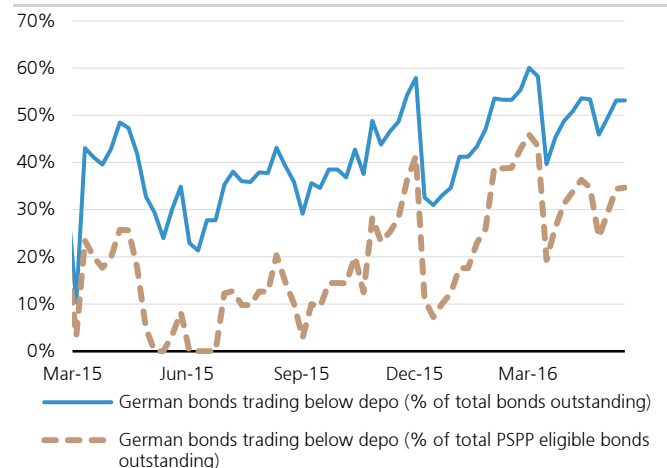
**The size of ECB purchases of German government bonds is not extreme relative to QE episodes in other countries.**

**Figure 14: Stability in the 10yr German ASW spread since the start of ECB QE allows extrapolation to swap rates**



Source: UBS, Bloomberg

**Figure 15: The share of Bunds trading below the deposit rate has increased recently**



Source: UBS, Bloomberg

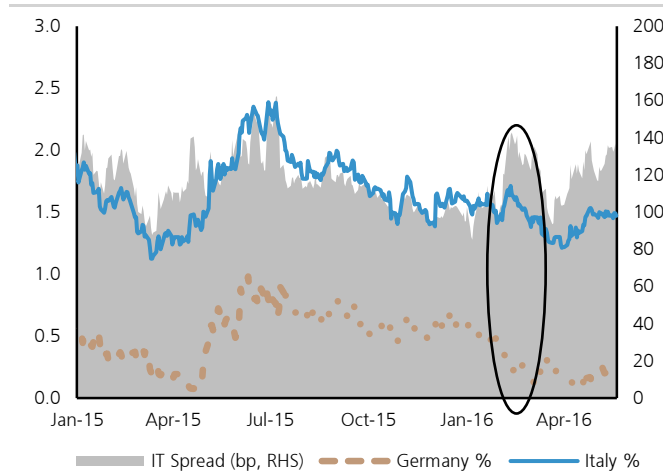
This theory sounds intuitive in principle, but it is still hard to substantiate. A simple exercise provides evidence against it: If Bunds are becoming scarce, while peripheral “risky” bonds are abundant, you would expect to see a wider spread between Bunds and periphery bonds driven primarily by lower Bund yields.

Let’s review how the spread between Bunds and Italian yields has behaved since the start of QE (Figure 16). There has been only one notable case in which Bunds outperformed BTPs in a rally. This happened in Q1 2016 by as much as 40bps, a mini-trend that reversed fairly quickly towards the beginning of March. Since then the pricing-in of banking sector problems in Italy regarding NPL management has probably played a role in spread re-widening, blurring the picture.

Overall, then, we cannot exclude the possibility that scarcity problems may aggravate term premia compression. Available evidence, however, points to a fairly small and temporary effect (at most 40bps in our illustrative example, which ultimately reversed).

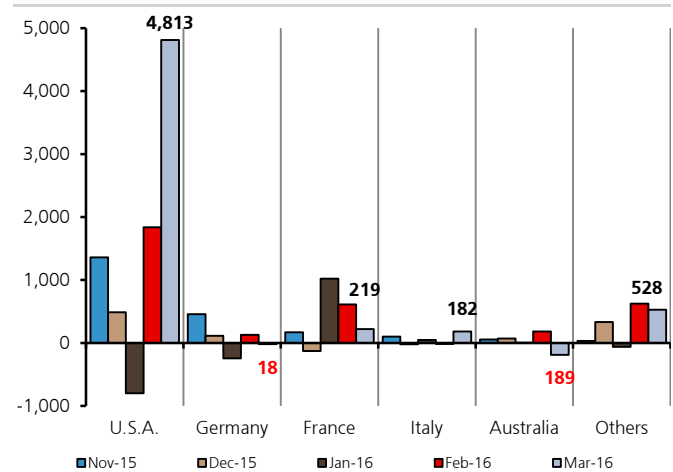
But could flow effects appear as a result of monetary policy action in other jurisdictions? We turn to this question in the next section.

**Figure 16: The 10y BTP-Bund spread could indicate the existence of a small and temporary scarcity effect**



Source: UBS, Bloomberg

**Figure 17: Japanese net purchases of Euro area bonds are not large enough to add to flow effects (¥bn)**



Source: MoF Japan, UBS

**If Bunds were scarce, periphery spreads should widen driven by lower Bund yields.**

**Yet, there is little evidence of persistent scarcity-driven spread widening.**

## Recent monetary policy easing abroad does not add to flow arguments

In our view, recent monetary policy initiatives outside the Eurozone have not generated flows of a size sufficient to exert significant downside pressure on yields. The launch of negative interest rates by the BoJ in January 2016 is the main recent event that should be examined in this context.

**Japanese purchases are not large enough to account for such big overvaluation.**

While negative rates have coincided with sizeable buying of overseas bond purchases by Japanese domestics, the bulk of these flows have not been directed towards the Eurozone. The country breakdown of Japanese foreign purchases highlights strong appetite for US Treasuries (87% of total foreign bond purchases in March - Figure 17). Among Eurozone bond markets, France remains the preferred market for Japanese investors, who were net sellers of Bunds in the first quarter of the year. Overall, however, the relatively small magnitude of those flows into the Eurozone does not indicate the existence of a significant flow effect on Euro area yields.

## Extremely low EUR yields may reflect extreme risk aversion

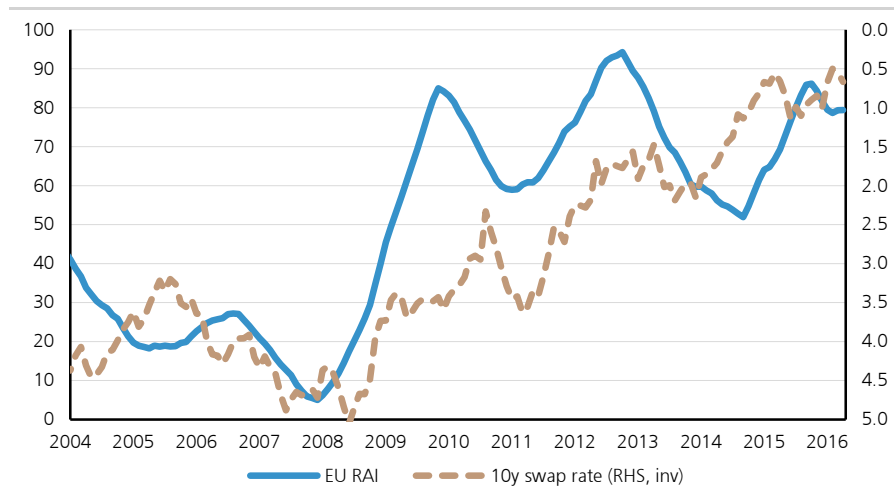
So far we have argued that 10y swap yields are 70bps too low according to our estimates, even considering macro and ECB policy drivers. We also suggested that the effect of technical factors on 10y yields is at best marginal and unlikely to have a long-term effect. So what else could plausibly be driving Euro-area long-term yields?

Extreme levels of risk aversion may be plausibly linked to the overvaluation in long-term Euro-area yields. We have already laid out a rigorous framework for assessing risk aversion in [Scaling a Wall of Worry](#), in which we also introduced our own indicator of risk aversion. In this section we shift our attention to risk sentiment in the Eurozone in particular.

**Yield overvaluation takes place in an environment of extreme risk aversion...**

We have noted on a number of occasions that global risk aversion remains particularly elevated despite the absence of a commensurate deterioration in economic data. The same holds to an even greater extent in the Eurozone, where risk aversion is nearly as elevated as it was at the peak of the sovereign debt crisis in 2012. The declining trend in core rates closely tracks our index over time, as we moved from a regime of structurally low into a regime of structurally high risk aversion since GFC (Figure 18).

**Figure 18: Eurozone risk aversion index (EU RAI) vs 10y swap rate**



Source: UBS calculations, Haver Analytics, Bloomberg

That fixed income assets should trade resiliently during periods of high risk aversion is no surprise. What is surprising is that the current risk aversion regime persists despite the absence of a meaningful deterioration in economic data. On the contrary, in q-o-q terms Eurozone growth registered its 2<sup>nd</sup> best quarter in Q1 since 2011 while sentiment indicators (PMIs and ESI) are yet to signal a significant slowing down of economic activity (in line with our views on Eurozone growth supported by [healthy credit dynamics](#)). Additionally, the ECB only added to monetary accommodation in March, implying a high likelihood for further improvement in underlying data in the months ahead given the lags with which monetary policy operates.

There are of course countervailing considerations. The resumption of the Fed's hiking cycle with potential ripple effects on global financial conditions, China's continued soft landing and the resulting vulnerabilities in broader EM arguably weigh on risk sentiment. In addition, Europe-specific risks such as the referendum on the UK's membership in the European Union also contribute to elevated risk aversion.

Concerns around China's growth continue to linger. On the positive side, a number of recent data releases offer evidence that policy relief late last year is gradually feeding through money and credit growth with positive effects on real estate and construction. The surge in property sales has led our China economics team to [revise their 2016 GDP growth forecast](#) from 6.2% up to 6.6%.

That said markets remain unconvinced. Assets sensitive to China growth (metals, A-shares) continue to trade poorly while data has not been consistently strong (e.g. new loan growth in April was particularly weak while manufacturing PMIs are yet to rebound despite a large stimulus effort). We still think [that China data is likely to improve sequentially in the months ahead](#) owing to the stimulus already deployed, however the responsiveness of the economy to additional stimulus may be falling.

At the same time, the Fed's hawkish turn has become yet again the main question mark for global markets. We have argued extensively that the Fed begun its tightening cycle well before it raised nominal interest rates in December via the tightening of broad financial conditions since late 2014 (see [Can one small hike cause a giant tightening?](#) and [Are Equities Right to Fear Fed Hikes?](#)). Although we acknowledge that its next hike may not cause the same degree of tightening that the December hike caused, the signal the Fed sends with regards to its monetary policy path is a key risk in the coming weeks.

## What to do and what to look for

Overall, a favourable starting point of already extreme risk aversion and the misalignment between current levels of risk aversion and fundamentals suggests that the balance of risks continues to favour upside surprises that will reduce risk aversion.

Following a meaningful reduction in risk aversion we would expect a re-pricing of 10y yields to c.1% (from c. 0.5% currently) and a consequent steepening of the curve. A narrowing of the spread between US vs EUR 10y yields would also likely follow, in line with our [rates strategists' view](#).

**... despite the absence of a meaningful deterioration in Eurozone economic fundamentals.**

**Global and Europe-specific risks abound, weighing on risk sentiment.**

**Chinese data has been mixed recently despite a large stimulus effort late last year. But we are not despairing yet.**

**The Fed's hawkish turn is once again emerging as a key threat to risk sentiment.**

**The balance of risks favours a reduction in risk aversion.**

**This can lead 10y swap rates to c. 1%, steeper curves and a narrower US-Euro rates gap.**

This, however, may take time. What we have been missing so far is a catalyst sufficiently important to reverse the prevailing attitude and bring risk aversion lower. For this to happen, over the coming months we would need to see resilient activity data from China and strength in assets sensitive to China growth (e.g. industrial metals and A-shares). We would also need to see how the [Fed's policy tightening plays out](#) and the financial conditions tightening it may result in. Data-wise, we will be looking for evidence that inflation in the Eurozone may be picking up and that activity in Q2 remains resilient following a strong Q1. Finally, we are looking for further reduction in event risk surrounding the UK's EU referendum, the Spanish elections in June, and the formal conclusion of the Greek review, where [significant progress has been achieved in the last few weeks](#).

**We are looking for catalysts that can push risk aversion lower.**

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