

# Global Rates Strategy

## 10s30s - Comparing Carry and Dispelling Directionality Myths

- The need to find yield is as strong as ever. In an environment where belief in suppression of tail risks and continuation of the status quo is strong, carry trades remain seductive. Previously we looked at carry trades at the front end, comparing forward starts across currencies, and used our flow data to see where these were most crowded - see [Global Rates Strategy - How crowded are carry trades?](#) Here we turn our attention to the other popular class of carry trades: 10s30s steepeners.
- We address three key questions:
  1. In which currency is carry the best in 10s30s?
  2. Which are just directional trades in disguise?
  3. Are 10s30s steepeners crowded, and, if so, in which currency?<sup>1</sup>
- Our analysis leads us to the following answers:
  1. Carry looks most attractive in USD, followed by EUR, spot or 1yf.
  2. 10s30s in GBP is the most directional and consistently bull steepens and bear flattens. Similar rules of thumb about the directionality of 10s30s in other currencies are, at best, unreliable. Monitor for when swaptions price more directionality than actually exists. 10s30s in USD and EUR are broadly similar in their sensitivity to the overall yield level. The most consistent behaviour exhibited by 10s30s in USD and EUR is flattening in sell-offs. 10s30s in both USD and EUR have had a close relationship to their respective front ends, but while EUR 10s30s is currently at its steepest levels relative to the front end, USD 10s30s looks flat vs 2s.
  3. Our analysis suggests that 10s30s carry trades are not crowded. The market seems to be far longer carry trades at the short end than 10s30s steepeners. Our net flows over the last 12m indicate that the market is short 10s and long 30s in both USD and EUR, i.e., steepening is a potential pain trade. Positioning suggests that bear steepening in 10s30s in both GBP and JPY would also be very unwelcome. Net flows in long end swaps have dominated net flows in bonds in both USD and EUR. We have seen improving appetite for long end EUR cash and declining demand for long end swaps.
- See below for an analysis of the directionality of 10s30s curves globally, relative carry, and accumulated positioning.

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<sup>1</sup> And is the trade on in bonds or in swaps? If it is on predominantly in bonds, for example, you would expect cash to lead swaps in any unwinding of the trade, creating an opportunity in swap spreads.

### See Appendix A-1 for Analyst Certification, Important Disclosures and non-US research analyst disclosures.

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# 10s30s - Comparing Carry and Directionality

The need to find yield is as strong as ever. In an environment where belief in suppression of tail risks and continuation of the status quo is strong, carry trades remain seductive.

Previously we looked at carry trades at the front end of the curve, comparing forward starts across currencies<sup>2</sup>, and using flow data to see where these were most crowded. (See [Global Rates Strategy - How crowded are carry trades?](#)) Here we turn our attention to the other end of the curve and the other popular class of carry trades: 10s30s steepeners.

## Introduction

We address three key questions:

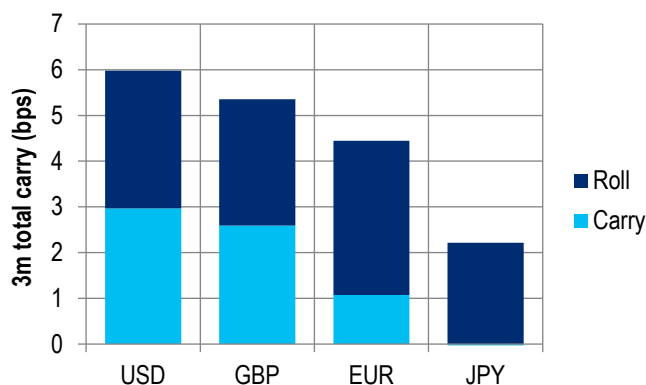
1. In which currency is carry the best?
2. Which are just directional trades in disguise? (And is this directionality reliable?)
3. Is the trade crowded and, if so, where? And is the trade on in bonds or in swaps? (If it is on predominantly in bonds, for example, you would expect cash to lead swaps in any unwinding of the trade, creating an opportunity in swap spreads).

## In which currency is carry the best in 10s30s?

**10s30s carry is highest in USD, roll is highest in EUR**

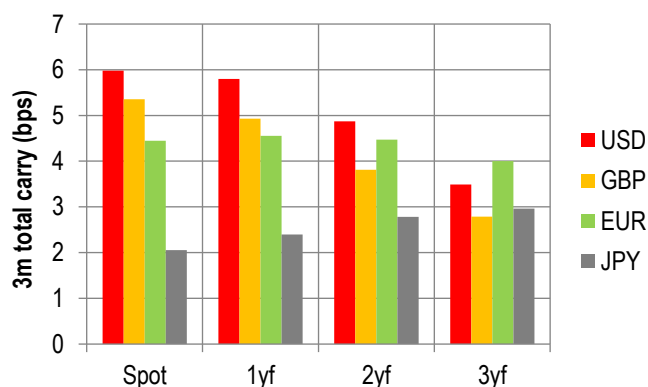
Figure 1 (below left) shows carry and roll for spot starting swaps in USD, GBP, EUR and JPY. Total carry for 10s30s steepeners is highest in USD, followed by GBP, but roll is greatest (and positive carry smallest) in EUR. JPY is all roll.

Figure 1. Total carry (3m) for 10s30s steepeners in swaps is highest in USD, followed by GBP



Source: Citi Research

Figure 2. Total carry (3m) for 10s30s steepeners in swaps looks best spot or 1yf in general



Source: Citi Research

**10s30s spot or 1yf looks most attractive in terms of total carry (except in JPY)**

Figure 2 (above right) shows carry for 10s30s steepeners from spot to 3yrs forward. There are 3 main points to take away from the chart:

1. Carry is at its highest for spot-starting and 1yr forward swaps in USD and GBP. For EUR the forward start doesn't make much difference.
2. Carry decreases as the swap start increases in USD and GBP, but increases in JPY.
3. For all forward starts there is less than 2bps difference between carry in USD, EUR and GBP. 3yrs forward the level of carry for 10s30s steepeners in USD, GBP, EUR and JPY is very similar.

<sup>2</sup> We looked at forward starts out to 5y and at both volatility-adjusted and unadjusted carry and roll.

## But which curves are just a function of market direction?

**10s30s in GBP is the most directional**

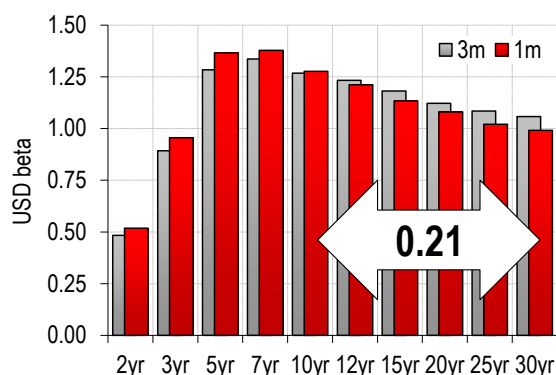
**10s30s in USD and EUR are broadly similar in their sensitivity to the overall yield level.**

**There is nothing doing in conditional 10s30s steepeners unfortunately**

Figure 3 - Figure 6 show the sensitivities (betas) of different maturities in USD, EUR, JPY and GBP to overall changes in the average yield level in their respective currency. The arrows show the difference between the beta of the 10yr point and the 30yr point. A positive difference indicates the 10yr point leading, i.e., bull steepening/bear flattening.

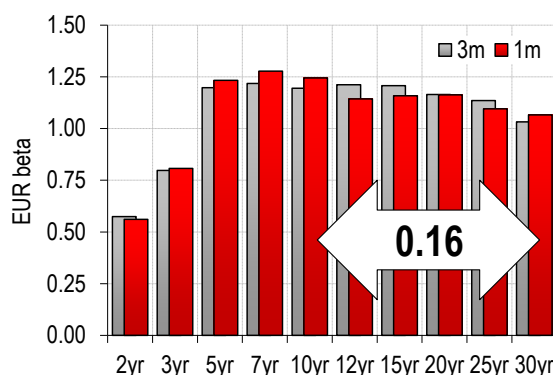
10s30s in USD (Figure 3) and EUR (Figure 4) are broadly similar in their sensitivity to the overall yield level. Swaption vols are in line with the ratio of the betas in EUR (116% vs 1.17) and broadly in line in USD (107% vs 1.18).

**Figure 3. USD – some directionality: the high beta point is the 5-7yr sector. 10s is leading 30s – bull steepening/bear flattening**



Source: Citi Research

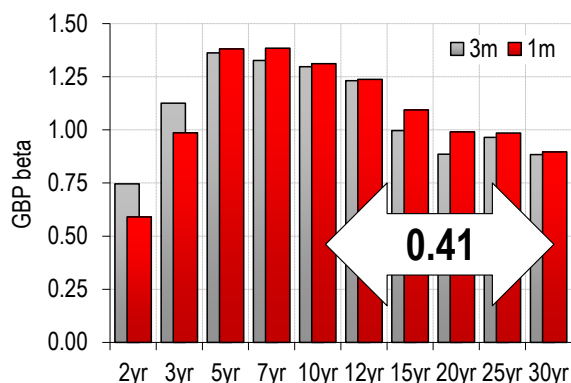
**Figure 4. EUR – mild directionality: the relatively flat beta curve from 5yr points to broadly parallel curve moves, but 10s is still more sensitive to direction than 30s**



Source: Citi Research

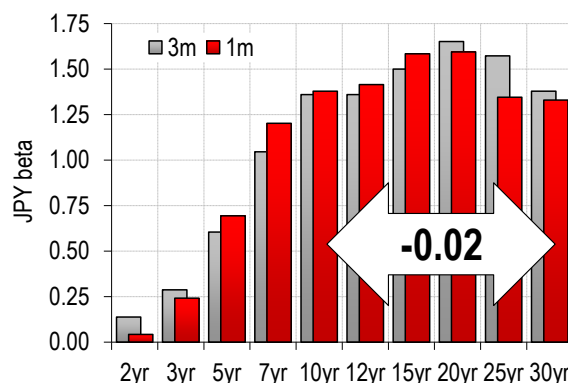
As you can see, 10s30s in GBP is the most directional of the four curves (Figure 5 below). The ratio of 3m10yr bpvol to 3m30yr bpvol is 145% vs the ratio of the 10yr to the 30yr beta of 1.17. This points to bear steepeners but this is something you are unlikely to want given the directionality, even though you take in nearly 4bps. Better to pay up for bull steepeners/bear flatteners or just take the vanilla trade off when it is against your directional view<sup>3</sup>.

**Figure 5. 10s30s in GBP is the most directional: this has the biggest beta difference between 10s and 30s, i.e., the strongest directionality. Like USD, the 5-7yr sector is leading.**



Source: Citi Research

**Figure 6. 10s30s in JPY is the least directional: 10s30s has been moving sideways. The 20yr point has been the high beta point on the curve.**



Source: Citi Research

<sup>3</sup> And in JPY, the ratio of the vols is 66% vs a beta ratio of 0.99. You would take in 2bps to put on a bull steepener, but there isn't any directionality and the spread is tightly rangebound so seems pointless.

## How reliable is this directionality?

As well as the strength of the directionality, there are significant differences in the persistence of the directionality

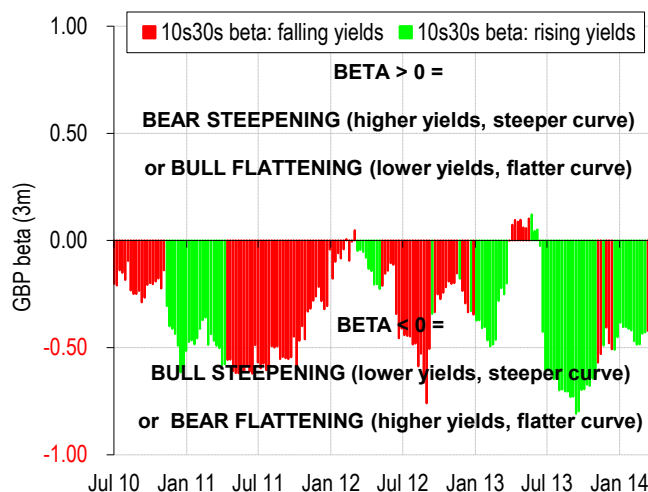
The bull steepening/bear flattening rule of thumb works consistently in GBP, but only in GBP

The directionality of 10s30s is a widely held rule of thumb, but there are important differences in its reliability, and variance, in different currencies.

Figure 7 - Figure 10 show the 3m beta of 10s30s in GBP, JPY, USD and EUR in bull and bear moves<sup>4</sup>. As you can see, both the strength and sign of the relationship of changes in curve slope to changes in the yield level vary significantly.

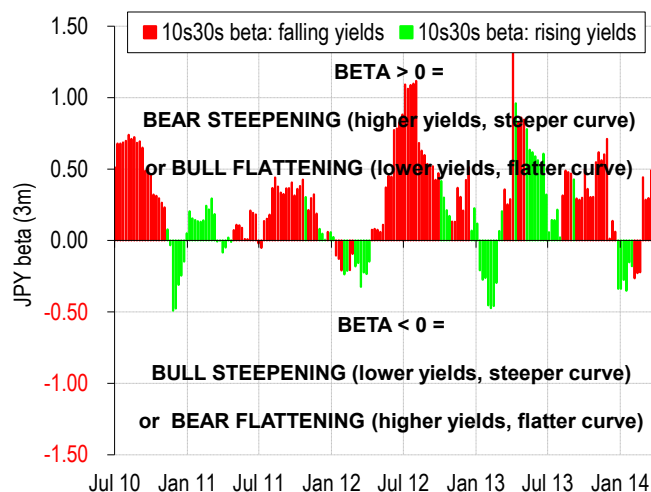
Of all the four currencies, 10s30s in GBP bull steepens/bear flattens the most consistently and reliably (Figure 7 below left). And this dynamic holds in both bull and bear moves. Episodes of bear steepening/bull flattening are rare in GBP, but the norm in JPY (Figure 8 below right).

Figure 7. Sensitivity of GBP 10s30s to the average yield level across the curve in bull and bear moves - consistently strong and negative



Source: Citi Research

Figure 8. Sensitivity of JPY 10s30s to the average yield level across the curve in bull and bear moves – generally positive



Source: Citi Research

The most consistent behaviour exhibited by both the USD and EUR curves is flattening in sell-offs

General rules of thumb about the directionality of 10s30s in USD are unreliable

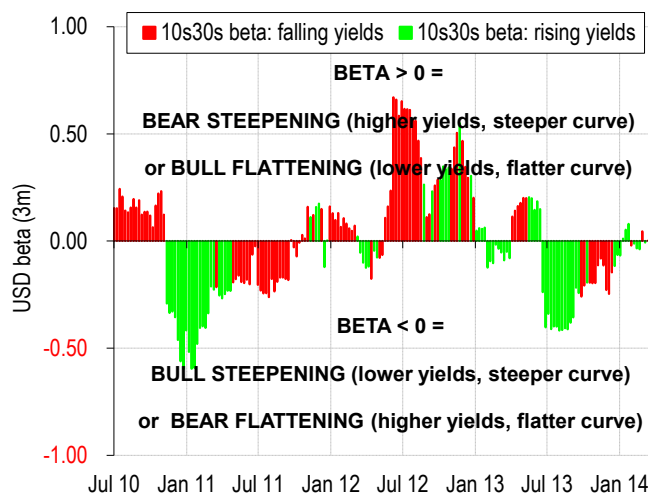
The directionality of 10s30s in EUR has been the weakest of all four currencies

In USD (Figure 9 below left) you can see that the directionality of 10s30s has gone through both positive and negative phases. Figure 9 also shows that in sell-offs 10s30s in USD has been far more likely to flatten (green bars below the axis), while it has happily both steepened and flattened in rallies.

Turning to EUR, Figure 10 (below right) shows that the directionality of 10s30s in EUR has generally been the weakest of all four currencies, but like USD it has been far more likely to flatten in sell-offs/struggled to steepen in sell-offs. Over the last year, EUR 10s30s has maintained a low average negative beta, i.e., bull steepening/bear flattening, and the dynamic has been more consistent than USD over that period.

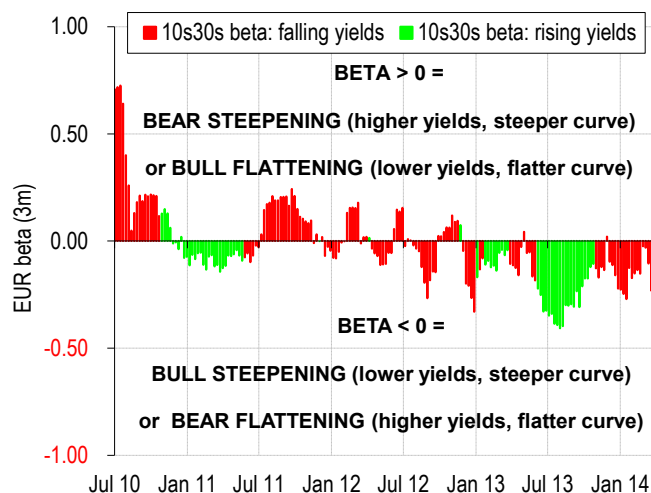
<sup>4</sup> As elsewhere the betas as calculated on changes, but here we use weekly data due to the longer history - Figure 3-Figure 5 use daily changes – and fewer curve points for the average yield level across the curve (2s, 5s, 10s and 30s). This is the source of any apparent discrepancies between the betas in Figure 3 - Figure 6 and Figure 7 - Figure 10.

Figure 9. Sensitivity of USD 10s30s to the average yield level across the curve in bull and bear moves - variable



Source: Citi Research

Figure 10. Sensitivity of EUR 10s30s to the average yield level across the curve in bull and bear moves – negative recently but weak



Source: Citi Research

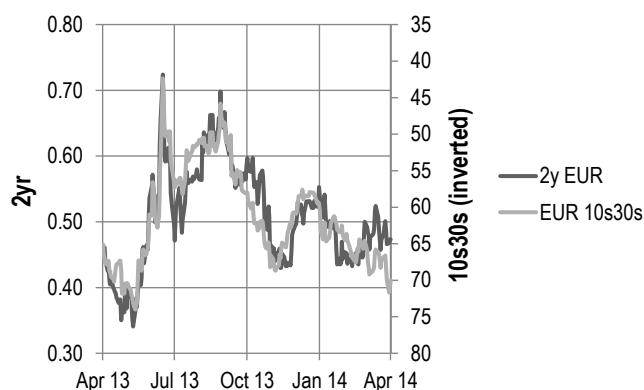
## 10s30s curves are moving closely with front ends

**EUR 10s30s is at its steepest levels relative to 2s**

While the quality of the relationship of 10s30s to the general level of yields may vary over time, the relationship of 10s30s to the front end has been consistently strong recently - but only in EUR and USD.

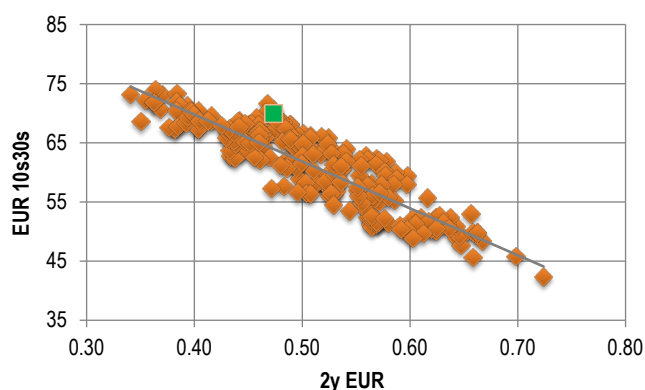
Figure 11 (below left) shows 2yr EUR vs 10s30s (on an inverted scale). The regression of the same data, shown in Figure 12 (below right) suggests that 10s30s is at its steepest levels relative to 2s.

Figure 11. EUR 10s30s has tracked 2yr EUR closely



Source: Citi Research

Figure 12. 10s30s in EUR looks steep relative to 2s

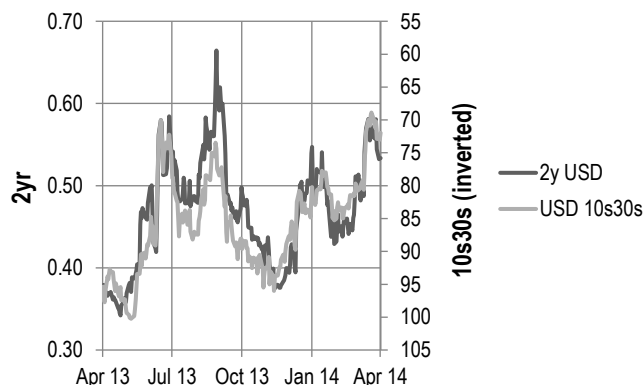


Source: Citi Research

**USD 10s30s looks flat relative to 2s**

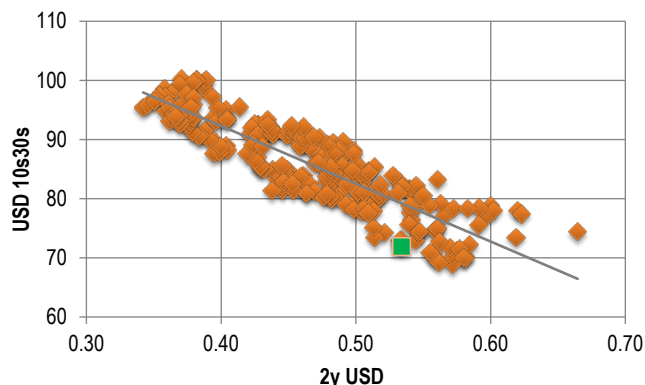
By contrast, 10s30s in USD looks flat relative to its short end (Figure 14), something not obvious from the yield/curve histories in Figure 13.

Figure 13. USD 10s30s vs 2yr USD



Source: Citi Research

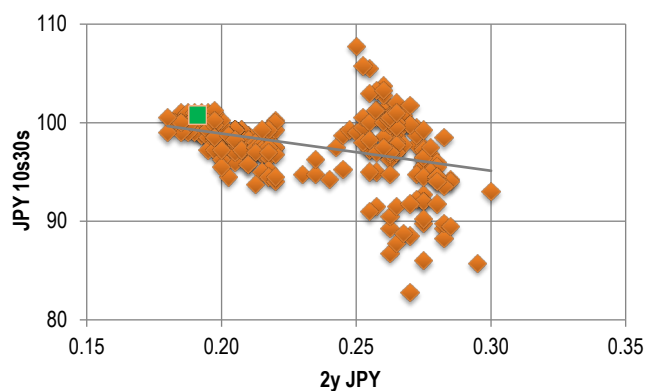
Figure 14. 10s30s in EUR looks flat relative to 2s



Source: Citi Research

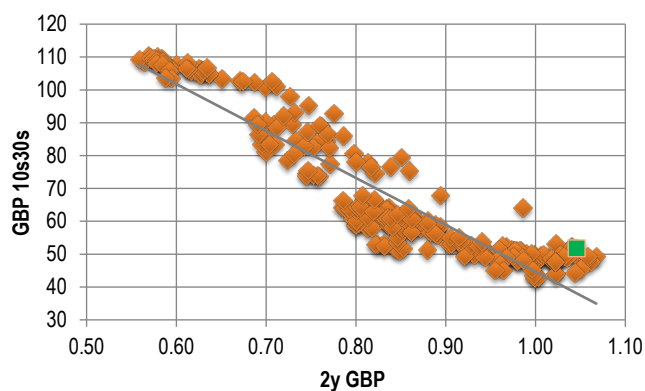
In JPY, unsurprisingly, there is no relationship between the front end and 10s30s (Figure 15). And in GBP the relationship is unreliably variable (Figure 16).

Figure 15. No relationship between 10s30s in JPY and 2yr JPY



Source: Citi Research

Figure 16. Unreliably variable relationship between 10s30s in GBP and 2yr GBP



Source: Citi Research

**The above relationships of 10s30s to short ends, together with the comparison of carry in the different currencies in the first section point to steepeners in USD as the most attractive 10s30s carry trade**

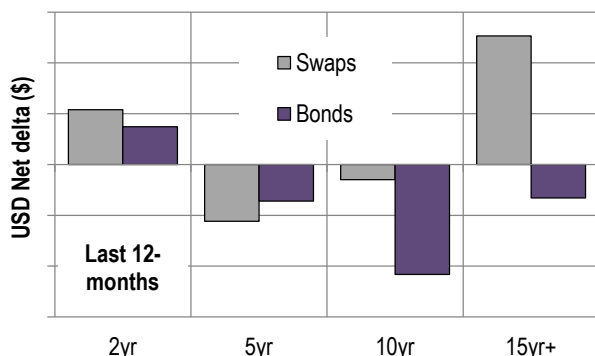
The above relationships of 10s30s to short ends, together with the comparison of carry in the different currencies in the first section point to steepeners in USD as the most attractive 10s30s carry trade (while GBP steepeners are largely a bullish directional trade). Below we examine whether the market is already positioned for steepening, and if so, whether this is in bonds or swaps.

## Is the market positioned for long end steepening?

**Our net flows over the last 12m indicate that the market is short 10s and long 30s in USD and EUR**

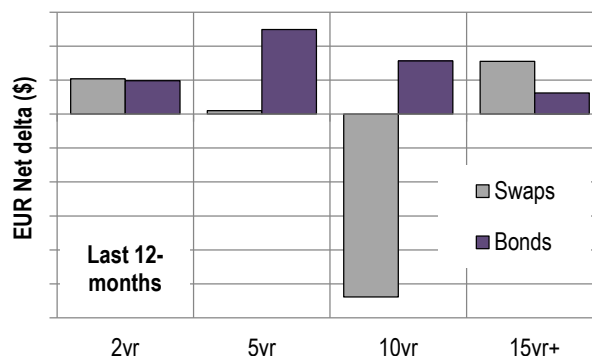
Analysis of our flow data<sup>5</sup> suggests not. Figure 17 - Figure 25 show net flows in bonds and swaps in four maturity buckets across the curve. Only in JPY have we not seen good net buying of the long end over the last year. We have seen net selling in 10s in USD and EUR over the last year (expressed in cash in USD and swaps in EUR). While most of this will be an expression of a directional view, the overall net positioning points to 10s30s steepening being a potential pain trade.

Figure 17. Net demand USD fixed income by maturity over the last 12m



Source: Citi Research

Figure 18. Net demand EUR fixed income by maturity over the last 12m



Source: Citi Research

**Net flows in long end swaps have dominated net flows in bonds in both USD and EUR**

What is not clear from the 12-month net flows in Figure 18 is the extent to which swaps have been driving net flows in the long end. Below we use EUR as an example, but the same holds for USD

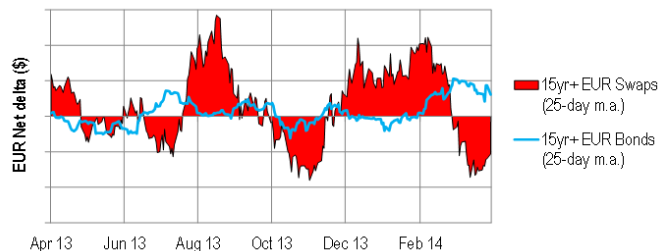
While the buying of the long end in Europe has outweighed the selling over the last year (Figure 19 below left), both buying and selling has gone in waves. When you split this down into bonds and swaps (Figure 20, below right) it is clear that swaps have driven the overall net flow, but recently buying of long end cash has been consistently strong (and largely offsetting the paying).

Figure 19. Net demand for long end bonds + swaps in USD



Source: Citi Research

Figure 20. Net demand for long end bonds and swaps in USD



Source: Citi Research

**We have seen improving appetite for long end EUR cash and declining demand for long end swaps**

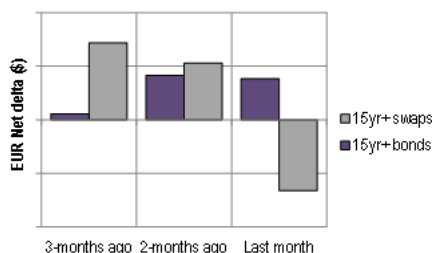
You can clearly see the improving appetite for long end EUR cash and declining demand for long end swaps in Figure 21. In the 10yr sector we have seen selling of both cash and swaps in the last month (Figure 22). In other words, selling of 10yrs has been the dominant net flow in 10s30s<sup>6</sup>, as you can see in Figure 23 which combines net flows in bonds and swaps.

<sup>5</sup> This includes both voice and electronic trades, across bonds and swaps, executed by Citi with its customers globally.

<sup>6</sup> In 10s paying has largely offset bond buying - Figure 21

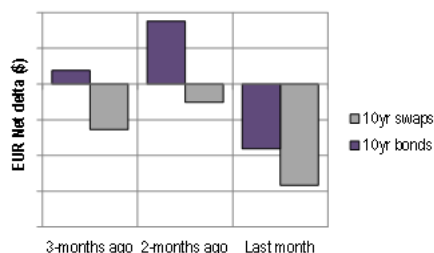


Figure 21. Net demand 15yr+ EUR bonds and swaps over the last 3 months



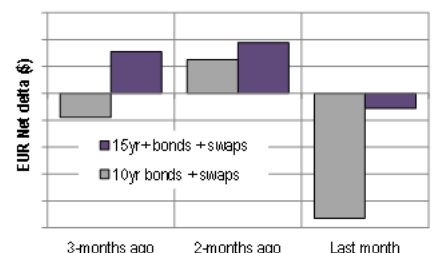
Source: Citi Research

Figure 22. Net demand 10yr EUR bonds and swaps over the last 3 months



Source: Citi Research

Figure 23. Net demand 10yr and 15yr+ EUR bonds + swaps over the last 3 months

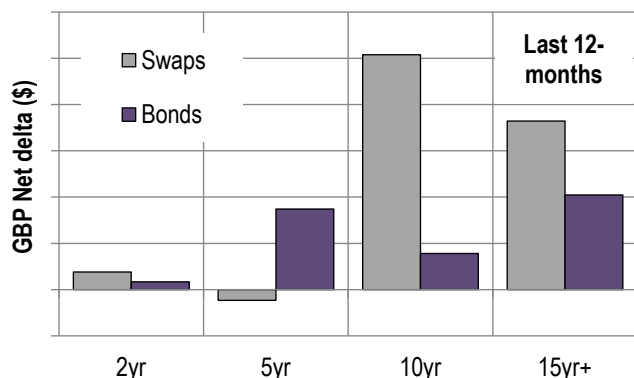


Source: Citi Research

**Positioning suggests that bear steepening in 10s30s in both GBP and JPY would be very unwelcome**

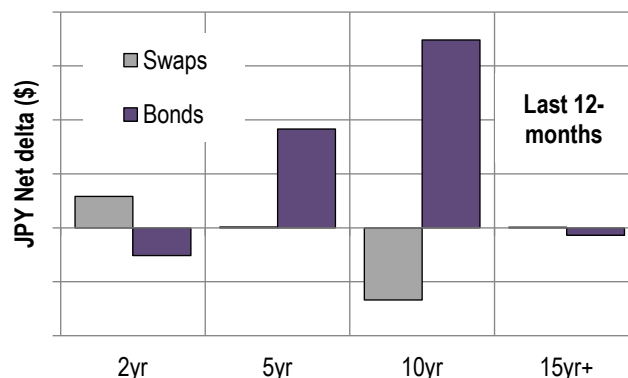
Turning back to net positioning in the remaining two currencies, GBP and JPY, we can see from Figure 24 below that investors' appetite for 10s and 30s in GBP has been broadly similar (suggesting that a sell-off we envisage would be very unwelcome – see [Global Rates Strategy - What's priced in and where it looks wrong](#)), while in JPY (Figure 25) the predominant flow has been buying of 10yr cash (likely reflecting scepticism about the efficacy of the current level of net stimulus).

Figure 24. Net demand GBP fixed income by maturity over the last 12m



Source: Citi Research

Figure 25. Net demand JPY fixed income by maturity over the last 12m



Source: Citi Research

**The market seems to be far longer carry trades at the short end than 10s30s steepeners**

So overall, our data suggests that 10s30s steepening (especially bull steepening) would be painful for the market in USD and EUR, as would higher yields in GBP and bear steepening in 10s30s in JPY. Put another way, the market seems to be far longer short end carry trades (see [Global Rates Strategy - How crowded are carry trades?](#)) than 10s30s steepeners.

## Conclusions

**What does this all add up to?**

The three questions we posed out the outset were:

1. In which currency is carry the best?
2. Which are just directional trades in disguise?
3. Is the steepening trade crowded and in which currencies? (And is the trade on in bonds or in swaps?<sup>7</sup>).

<sup>7</sup> If it is on predominantly in bonds, for example, you would expect cash to lead swaps in any unwinding of the trade, creating an opportunity in swap spreads.



**In which currency is carry the best for 10s30s steepeners?**

**Answers to Question 1**

- 10s30s carry is highest in USD, roll is highest in EUR
- 10s30s spot or 1yf looks most attractive in terms of total carry in USD, EUR and GBP (but not in JPY)
- Carry is at its highest for spot-starting and 1yr forward swaps in USD and GBP. For EUR the forward start doesn't make much difference.
- Carry decreases as the swap start increases in USD and GBP, but increases in JPY.
- For all forward starts there is less than 2bps difference between carry in USD, EUR and GBP. 3yrs forward the level of carry for 10s30s steepeners in USD, GBP, EUR and JPY is very similar.

**Answers to Question 2**

**Which 10s30s steepeners are just directional trades in disguise?**

- 10s30s in GBP is the most directional and consistently bull steepens and bear flattens. Similar rules of thumb about the directionality of 10s30s in other currencies are unreliable, and need to be monitored closely.
- 10s30s in USD and EUR are broadly similar in their sensitivity to the overall yield level.
- The most consistent behaviour exhibited by both the USD and EUR curves is flattening in sell-offs
- While the quality of the relationship of 10s30s to the general level of yields varies over time, 10s30s has had a consistently strong relationship to the front end recently in EUR and USD. While EUR 10s30s is currently at its steepest levels relative to the front end, USD 10s30s looks flat vs 2s.
- A comparison of vol ratios and betas fails to yield a compelling conditional 10s30s trade in any of the four currencies.

**Answers to Question 3**

**Is the market positioned for long end steepening?**

- Analysis of our flow data suggests not. The market seems to be far longer carry trades at the short end than 10s30s steepeners
- Our net flows over the last 12m indicate that the market is short 10s and long 30s in USD and EUR. While a lot of the net flow in 10yrs will be an expression of a bearish view, the overall net positioning still points to 10s30s steepening being a potential pain trade.
- Net flows in long end swaps have dominated net flows in bonds in both USD and EUR.
- We have seen improving appetite for long end EUR cash and declining demand for long end swaps
- Positioning suggests that bear steepening in 10s30s in both GBP and JPY would be very unwelcome

**In a nutshell**

**Summary**

Our analysis suggests that 10s30s carry trades are not crowded. Carry is highest in USD, followed by EUR, spot or 1yf. But while EUR 10s30s is currently at its steepest levels relative to the front end, USD 10s30s looks flat relative to 2s. Don't rely on the directionality of 10s30s curves in currencies other than GBP. Instead monitor for when swaptions price more directionality than actually exists, be wary of holding 10s30s trades in GBP when your directional view is opposed (or temporarily turn them into butterflies) and if you like flatteners in EUR and USD wait for a bearish move.

## Appendix A-1

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