



What can the ECB do?

- **Eurozone Strategy:** The market focus should be on next week's ECB meeting, in particular on possible extension of QE and any changes in the QE policy to address the issue of bond availability. We do not expect a change in the QE terms at the September meeting, but the ECB is likely to lay the groundwork for upcoming changes.
- In terms of the restrictions the ECB imposes on its bond purchase programme, we think the easiest measure to implement would be an increase in the single-issuer limit (33% for most bonds) and an extension of the maturity of eligible bonds. However, increasing the single-issuer limit would fail to address the scarcity of German bonds, given that a large portion of bonds are trading below the deposit floor. We think removing the floor of the deposit rate would be the most effective measure and could release up to EUR150bn of German bonds for purchases.
- **Eurozone Relative Value:** Cash flow volumes will pick up this month, with about EUR73bn of gross EGB issuance expected from EUR40bn in August. We estimate net positive liquidity of EUR60bn coming to the market. The main beneficiaries should be Italian, Austrian, Belgian and German bonds. In terms of RV, we think the RFGB belly trades too tight to DSL and that the revival of BTPs versus SPGBs should be tempered due to upcoming risks.
- **EUR Interest Rates Derivatives:** Case for a tactical underweight on long end of EUR curve: (1) Valuation (2) Anticipation of the ECB action to enlarge the pool of eligible bonds for PSPP. We maintain paying 4Y1Y and 1Y1Y vs 8Y1Y and paying 10Y in the 5Y/10Y/15Y 50:50 fly. We also remain constructive on Buxl ASW compression and its outperformance vs Bund ASW.
- **EUR Inflation-Linked Strategy:** Next week, the ECB will release its updated 'staff forecasts'. We suspect they will cut their core inflation profile by 10bp. We stick with the low-inflation trades, typically buying OATei 20 breakeven and selling the 5Y5Y forward inflation swap. We also still recommend buying the BTPei 19 breakeven against BUNDei 20.
- **US Macro View:** There are three weeks to the September FOMC and Fed speakers have become more threatening. 2Y OIS sits at 0.65%, yet if the Fed hikes, the fed effective will move to that level. The potential storm for the front end of the curve requires portfolio adjustment now, in our view. We would not jump into flattener trades, because historical experience of large 2Y yield moves that are influenced by potential Fed action is that the yield curve has steepened, not flattened.
- We would prepare for a bearish steepening of the curve, or at least take off any bullish bets, because the rally from a three-month Fed delay would be a fraction of the size of a sell-off.
- **US Interest Rates Derivatives:** The Fed remained fairly tight-lipped in terms of its policy decision for September, suggesting further steps away from forward guidance. With our general bias for higher rates and less certainty in Fed policy, we like being long payers on risk reversals in the belly of the curve to position for a market repricing, particularly on a surprise.



Mohit Kumar

Global Head of Rates Strategy
+44 20 7214 6651
mohit.kumar@ca-cib.com



David Keeble

Head of US Rates Strategy
+1 212 261 3274
david.keeble@ca-cib.com



Orlando Green, CFA

Senior IRD Strategist
+44 20 7214 7467
orlando.green@ca-cib.com



Afsaneh Mastouri

Interest Rates Strategist
+44 20 7214 6737
afsaneh.mastouri@ca-cib.com



Jean-François Perrin

Inflation Strategist
+33 1 41 89 94 22
jean-françois.perrin@ca-cib.com



Jonathan Rick

IRD Strategist
+1 212 261 4096
jonathan.rick@ca-cib.com



Yoshiro Sato

Economist / Strategist - Japan
+81 3 4580 5337
yoshiro.sato@ca-cib.com

Contents

| | |
|--------------------------------------|----|
| Summary of views and trades | 2 |
| Eurozone Strategy | 3 |
| Eurozone Relative Value | 6 |
| EUR Interest Rates Derivatives | 8 |
| EUR Inflation-Linked Strategy | 10 |
| US Macro View | 13 |
| US Interest Rates Derivatives | 16 |
| Interest rate forecasts | 18 |

Summary of views and trades

| Interest Rate Markets | | | | | 2-4 week view |
|----------------------------|--------|-------|--------|-----------|---|
| | Last | -1 wk | -1 mth | - Trend + | |
| Bund contract (continuous) | 167.28 | -0.42 | -0.31 | | Short bias Market pricing in too much risk aversion |
| Ger curve 2-10Y | 56 | 0.50 | 1.80 | | Steeper Valuations suggest the curve is too flat |
| Ger curve 2-5Y | 12 | 0.00 | 0.00 | | Moderately flatter Front end still pricing in small chance of an ECB rate cut |
| Ger curve 5-10Y | 45 | 0.50 | 1.80 | | Steeper Valuations suggest the curve is too flat |
| Ger curve 10-30Y | 55 | 0.60 | 2.40 | | Moderately steeper Valuations suggest the curve is too flat |
| 2Y EUR swap rate | -0.21 | -1.46 | -1.46 | | Short Front end looks rich |
| EUR curve 2*5Y-(2Y+10Y) | -16.6 | -0.25 | -0.90 | | Neutral Likely to be a directional trade |
| 10Y German swap spread | 35.6 | -2.0 | -1.4 | | Tighter, particularly 30Y Valuations too wide, Structural tightening bias for ASW |
| 10Y Italy - Germany | 123.7 | -0.10 | 3.10 | | Moderately wider Headline risk and supply is beginning to pick up |
| 10Y France - Germany | 23.8 | -0.60 | -0.30 | | Wider France looks expensive in the 10Y sector |
| Euro 10Y breakeven (Ger) | 0.85 | -1.0 | 4.0 | | Medium term wider Valuations look too low, near term volatile |
| EUR 3m10Y normalised vol | 57.6 | 1.25 | -4.37 | | Higher Uncertainty levels to remain elevated |
| Bund-Tsy spread | 165.3 | -4.85 | 5.73 | | Wider Upward pressure on UST yields |
| 10Y UST | 1.59 | -4 | 9 | | Higher US economy is robust enough for rate hikes |
| USD IRS 2-10Y | 42.5 | 1 | -5 | | Steeper 2-5Y and 5-10Y close to 9 year lows |
| USD curve 2*5Y-(2Y+10Y) | -5.7 | 1.2 | 9.6 | | Neutral Some loss in directionality in 2-5-10Y |
| UST 10Y swap spread | -13.0 | 1.6 | -2.3 | | Wider Levels appear attractive |
| BEI 10Y US (bp) | 1.47 | -2 | 3 | | Volatile, slightly higher Risk-aversion dependant, but helped by US macro |
| USD 3m10Y normalised vol | 73.0 | 3.80 | -0.99 | | Slightly higher Uncertainty to remain in the near term |

Source: Bloomberg, Crédit Agricole CIB

Conviction trades

- Duration: short bias at the front end
- Peripherals: short bias as supply picks up and event risks draw closer
- EUR rates: tactical steepening bias on 3s30s on EUR swap curve near-term
- EGB RV: long DSL Jul-24 against RFGB Apr-24; short view on RAGB Oct-23
- EUR ASW: 30Y ASW tighteners
- EUR derivatives: long ATM Rec on 8Y1Y and 1Y1Y vs 4Y1Y; pay the body in 5Y/10Y/15Y
- EUR inflation: buy OATei 20 breakeven, sell 5Y5Y forward inflation swap
- US rates: 7-10Y steepener offers good risk/return profile
- USD derivatives: long the payer on 6M5Y ATMF+10 vs. ATMF-9 receiver for approximately zero cost, unhedged

Eurozone Strategy

What can the ECB do?

- The market focus should be on next week's ECB meeting, in particular on extension of QE and any changes in the QE policy to address the issue of bond availability.
- Based on our calculations, the ECB might run out of German bonds to buy before year end. Even without a QE extension, therefore, the ECB will need to address the issue of bond availability in the coming months.
- In terms of the restrictions the ECB imposes on its bond purchase programme, we think the easiest measure to implement would be an increase in the single-issuer limit (33% for most bonds) and an extension of the maturity of eligible bonds. However, increasing the single-issuer limit would fail to address the scarcity of German bonds, given that a large portion of bonds are trading below the deposit floor.
- In terms of the other two restrictions on purchases, we think removing the floor of the deposit rate would be the most effective measure and could release up to EUR150bn of German bonds for purchases. Changing capital keys as a policy measure would, in our view, be too politically contentious.
- We do not expect a change in the QE terms at the September meeting, but the ECB is likely to lay the groundwork for the upcoming changes. Any changes to the QE policy are likely to result in a steeper curve and we maintain our 5Y30Y steepener recommendation.
- Peripherals could come under pressure over the coming weeks over political concerns in Spain. Last week, we had moved to a neutral position in peripheral duration and Spain vs Italy position. We continue to favour Spain over the medium term; but in view of near-term risks, we would wait for better entry levels to initiate a long position.

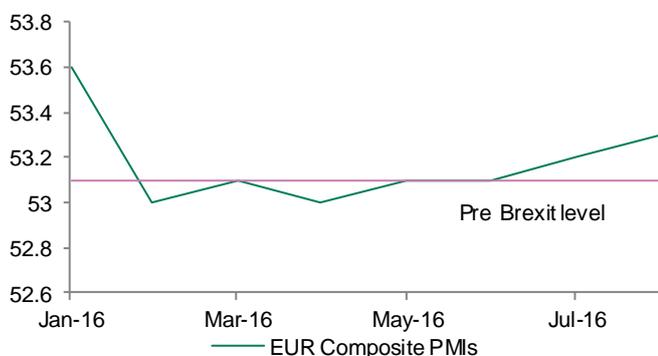
ECB in focus

The market focus should be on the upcoming ECB meeting, where the board will be able to assess more data on any Brexit impact on the Eurozone outlook as well as the staff forecasts for medium-term growth and inflation.

Data since Brexit does not indicate any urgency for an ECB action

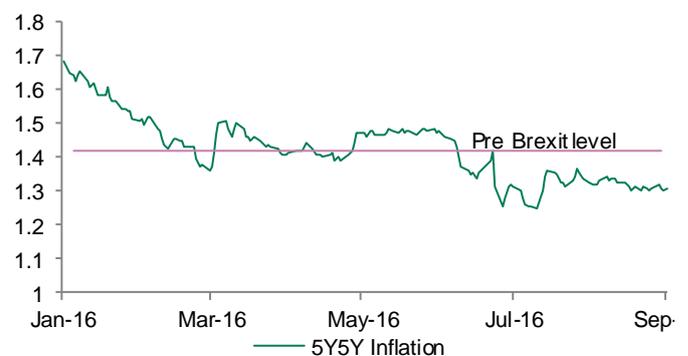
Since the UK referendum, both survey measures and hard data in Europe **have been resilient**, with little signs of a significant negative impact from Brexit. **Inflation expectations have stabilised**, as measured by the 5Y5Y forward, albeit at historically low levels. Thus, from a macro perspective, there is no urgency for the ECB to announce any new measures with respect to either conventional or unconventional monetary policy.

Fig 1. European PMIs show no significant Brexit impact



Source: Bloomberg

Fig 2. Inflation expectations stabilised, but at low levels



Source: Bloomberg

Our base case – in line with the market consensus – is that **the ECB will need to extend its current QE policy beyond March 2017**, given the low and subdued inflation outlook. The only question, to our mind, is when will announce it.

A bigger issue is to address the question of bond availability. At the pace of the current PSPP, the ECB will start to face bond availability constraints, in particular for German bonds, **as early as end of this year**.

The current PSPP imposes the following restrictions on which bonds the ECB could buy:

- **Single-issuer limit:** 33% on most bonds and 25% on some bonds with collective action clauses (CACs).
- **Yield floor:** the ECB will buy bonds only where the yield is above the deposit rate.
- **Maturity:** bonds between 2Y and 31Y maturity are eligible for purchase.
- **Capital keys:** bonds are bought in the ratio of capital keys of the respective countries.

Under current constraints, the ECB would run out of German bonds to buy before year end

The 33% limit on single issues is purely a self-imposed constraint and the ECB **retains full flexibility to change the single-issuer limit**. The 25% limit on the CAC bonds stems from the ECBs desire to maintain neutrality in the event of a restructuring, as the embedded CAC clauses stipulate that any holder of 25% or more of the bond issue would have a veto right in any restructuring.

The ECB is likely to increase the single-issuer limit on bond purchases

The ECB could theoretically increase the single-issuer limit even for CAC bonds to 40%. To preserve neutrality, it could explicitly state that it would not be involved in any restructuring (given a required quorum of 60% of the bondholders). We outline below the impact of increasing the single-issuer limit to 40% and 50%.

Fig 3. Potential options for ECB to increase issuer limit

| | Eligible at current issuer limit | | Eligible at 40% issuer limit | | Eligible at 50% issuer limit | | Total (EURbn) |
|--------------|----------------------------------|--------------|------------------------------|--------------|------------------------------|--------------|---------------|
| | (% of total) | (EURbn) | (% of total) | (EURbn) | (% of total) | (EURbn) | |
| AS | 16% | 26 | 20% | 32 | 25% | 40 | 161 |
| BE | 21% | 54 | 26% | 66 | 32% | 82 | 257 |
| FI | 18% | 13 | 21% | 15 | 27% | 19 | 72 |
| FR | 20% | 242 | 25% | 293 | 33% | 386 | 1,185 |
| GE | 14% | 113 | 17% | 137 | 22% | 180 | 801 |
| IR | 21% | 19 | 25% | 23 | 31% | 29 | 93 |
| IT | 33% | 399 | 40% | 484 | 50% | 604 | 1,209 |
| NE | 17% | 41 | 21% | 49 | 26% | 62 | 232 |
| PO | 33% | 31 | 40% | 38 | 50% | 47 | 95 |
| SP | 33% | 199 | 40% | 242 | 50% | 302 | 604 |
| GR | 33% | 35 | 40% | 43 | 50% | 54 | 108 |
| Others | 29% | 20 | 35% | 24 | 45% | 31 | 69 |
| Total | 24% | 1,193 | 30% | 1,446 | 38% | 1,837 | 4,833 |

Source: Bloomberg

On the positive side, increasing the single issue limit would in practice be easy to implement. However, although it would increase the amount of EGBs that the ECB could buy, **it fails to address the issue of scarcity of German bonds** amid the current low level of yields.

Modifying capital keys or removing the floor would more directly address the constraint for German bonds. In our view, lowering the deposit floor would have a limited impact, as the bonds would just rally to the new floor. Hence the ECB would need to completely eliminate the floor on bond purchases. Figure 4 outlines the impact of removing the deposit rate floor on bond purchases.

Removing the floor would add EUR420bn of EGBs and EUR150bn of German bonds for QE purchases

One caveat is in order. As the ECB does not provide a detailed breakdown of the bonds it has bought, Figure 4 is based on the snapshot of current yields and, therefore, does not capture bonds whose yields were above the deposit floor when they were bought but have since rallied below the floor.

Fig 4. Removing deposit floor adds almost EUR420bn available for PSPP

| | Eligible (%) | Eligible (EURbn) | Total (EURbn) |
|--------------|--------------|------------------|---------------|
| AS | 33% | 53 | 161 |
| BE | 33% | 85 | 257 |
| FI | 33% | 24 | 72 |
| FR | 33% | 391 | 1,185 |
| GE | 33% | 264 | 801 |
| IR | 33% | 31 | 93 |
| IT | 33% | 399 | 1,209 |
| NE | 33% | 77 | 232 |
| PO | 33% | 31 | 95 |
| SP | 33% | 199 | 604 |
| GR | 33% | 35 | 108 |
| Others | 33% | 23 | 69 |
| Total | 33% | 1,612 | 4,833 |

Source: Bloomberg

By buying bonds with yields below the deposit rate, ECB would be making a loss on any bonds purchased, as its funding rate can be assumed to be at the deposit rate. However, even if the ECB purchases some bonds below the deposit rate, the overall purchases can still effectively be above the rate on a portfolio level.

Relaxing capital keys would be another way to ease pressure on the German bonds. However, in our view, **changing capital keys as a policy would be politically contentious**. The ECB could use a change of capital keys as a temporary measure to smooth out peripheral yields if market stresses emerge, but is unlikely to deviate permanently from the capital keys as a policy measure.

In terms of timing, we do not expect the ECB to announce any change in its QE policy at the September meeting. However, the ECB would need to address the issue before year end and as such could provide hints at the possible measures it could take over the coming months.

Any of the above measures would ease the pressure on the long-dated German bonds and **would thus be a steepener**. We maintain our **5Y30Y steepener trade** recommendation as a positive carry way to position for long-dated yields moving higher.

Peripherals: near-term neutral, medium-term positive

The current caretaker Spanish government of Mariano Rajoy lost the vote to form a government, raising concerns over political developments in the country. Recall that Spain went through a second general election in June, as no political party was able to form the government after the December 2015 elections.

The preliminary defeat has raised the prospect of a third election in Spain. However, there would be doubts as to its usefulness, considering that the December and June elections produced similar results and that the country's political landscape has not altered significantly since that time.

Our base case is a minority government rather than a third general election. Near-term political uncertainty is likely to put pressure on peripheral yields. The **upcoming Italian constitutional referendum** and ongoing issues in the **Italian banking sector** should also weigh on the peripheral yields in the near term.

Last week, **we moved to a neutral stance on peripherals** as well as our long Spain vs Italy trade. We like both the positions over the medium term; however, given the near-term risk/reward, we would prefer to wait for better entry levels.

Removing the deposit floor would be the most effective way ease constraint on German bonds

We do not expect the ECB to announce any change in its QE terms at the September meeting

mohit.kumar@ca-cib.com

Eurozone Relative Value

Supply/demand dynamics assessed

- Cash flow volumes will pick up this month, with about EUR73bn of gross EGB issuance expected from EUR40bn in August.
- We estimate net positive liquidity of EUR60bn coming to the market. The main beneficiaries should be Italian, Austrian, Belgian and German bonds.
- In terms of RV, we think the RFGB belly trades too tight to DSL and that the revival of BTPs versus SPGBs should be tempered due to upcoming risks.

Two-way flows pick up in September

A new month has already seen a decent amount of Euro government bond (EGB) issuance, with France and Spain issuing just over EUR13bn in total yesterday. Looking ahead to the rest of the month, there will be a pickup in cash flows in both directions compared with last month. **We estimate gross EGB issuance of EUR73bn in September** compared with EUR40bn last month; the respective figures for September and August 2015 are EUR86bn and EUR40bn.

In terms of cash flows going in the opposite direction, **redemptions and coupons** will total EUR64bn and EUR16bn, respectively, this month. This suggests net supply of EUR9bn; but taking account of coupons, the figure turns negative or cash positive for the market at about EUR7bn. A more comprehensive cash flow assessment should include **QE** flows. An official breakdown of sovereign/agency purchases is not available, but we estimate the ECB purchases in the region of EUR50-55bn a month. Hence, accounting for QE, **we estimate net liquidity of about EUR60bn** (Figure 5). This would be similar to last month, though supply and redemption flows were smaller.

The greater the net positive cash flow is, the more significant the support is for EGBs. Hence, when breaking down the net positive cash flows per EGB issuer for this month, **net flows should be most beneficial for Italian, Belgian, Austrian and German bonds** (Figure 6). In theory, cash flows should help to counter some of the downward pressure that upcoming event risks will put on BTPs. RAGBs and OLOs were among the strongest performers relative to their core and semi-core counterparts, respectively, and while both have experienced some recent cheapening, further moves could be limited from a flow perspective.

As well as **assessing flows** in nominal terms, it is useful to put net liquidity flows into **perspective of market size** when comparing various EGBs. In this respect, RAGBs and OLOs should clearly benefit from flows in coming weeks (Figure 7).

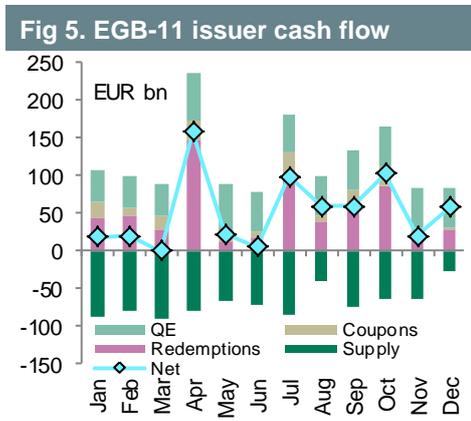
Other factors are likely to play a bigger role than liquidity flows in driving relative EGB moves this month, especially policy decisions and political developments. However, **flows could serve to counter or reinforce relative moves** during a time that should see an increase in volatility.

Cash flow volumes pick up this month: gross EGB issuance to rise to about EUR73bn from EUR40bn in August

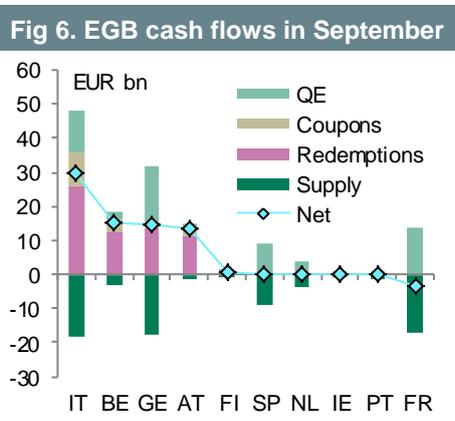
Accounting for redemptions, coupons and QE flows, we estimate EUR60bn of net liquidity to market this month

Cash flows should be especially beneficial for Italian, Austrian, Belgian and German bonds

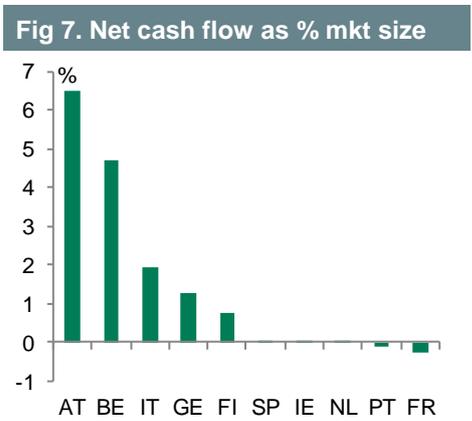
With respect to market size, flows benefit Austria and Belgium most



Source: Crédit Agricole CIB, debt agencies



Source: Crédit Agricole CIB, debt agencies



Source: Crédit Agricole CIB, debt agencies

EGB RV views/themes

Long DSL Jul-24 versus RFGB Apr-24

We highlighted in yesterday's Rates Focus (see [EGB RV: from summer breeze to autumn winds?](#)) that RFGB or RAGB bonds from the belly of the curve that trade within 5bp of DSLs would probably be an opportunity for a re-widening trade. This is because we see Dutch bonds as clearly the 'best of the rest' after their German counterparts from a risk/reward perspective. In this respect, **we recommend buying the DSL 2% Jul-24 against the RFGB 2% Apr-24 at 2bp** (Figure 8), targeting a move back to 9bp. We have placed a stop at -1bp (ie, the RFGB 1bp at a premium).

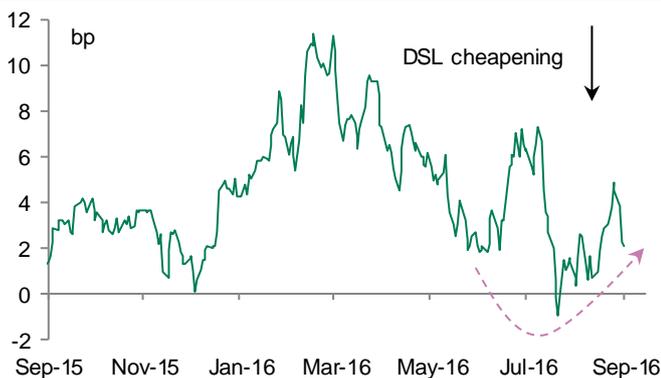
We think RFGB Apr-24 trades too tight to DSL Jul-24 and we are positioned for a re-widening

Sharp re-tightening of SPGB-BTP spreads has limitations

We took profit on our long SPGB versus BTP view last week, as we thought the cheapening of the latter had gone far enough considering their respective risks. Over the past week, **BTPs have outperformed significantly by up to 10bp** (Figure 9), which may have initially been driven by profit-taking before morphing into selling of SPGBs due to domestic political uncertainty and supply indigestion. Weighing up their risks going forward, **we think the Italy's concerns still outweigh that of Spain's** with the referendum on constitutional reforms and the yet unresolved issue of bad debt held by banks. Hence, we still in favour SPGBs over BTPs, with a move back towards 20–25bp in the 10Y tenor expected over the coming months.

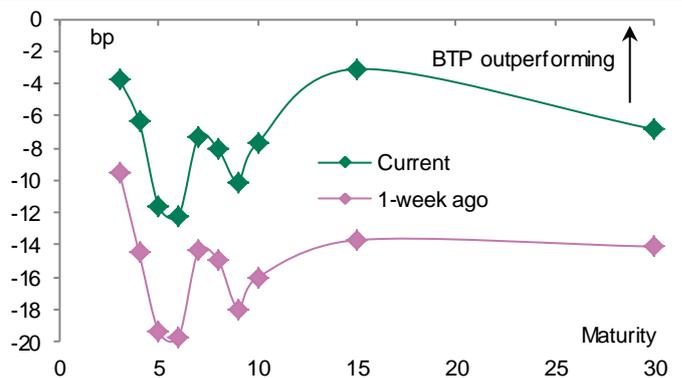
BTPs have re-tightened sharply relative to SPGBs this week, but the latter is still favoured in the medium term

Fig 8. DSL Jul-24 vs RFGB Apr-24



Source: Crédit Agricole CIB, Bloomberg

Fig 9. SPGB-BTP spread term structure



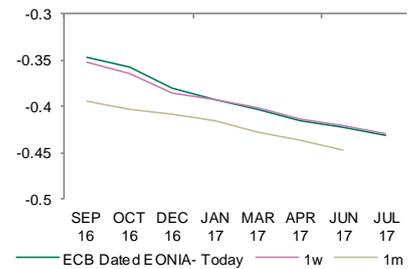
Source: Crédit Agricole CIB, Bloomberg

orlando.green@ca-cib.com

EUR Interest Rates Derivatives

- Case for a tactical underweight on long end of EUR curve: (1) Valuation: the curve is not too flat, but it is flat. (2) The potential ECB action to enlarge the pool of eligible bonds for PSPP reduces the pressure on the long end of the curve.
- Combining carry and roll down on the rate curve and EUR volatility grid, we conclude that conditional steepeners on 7s30s capture most of the upside assuming our case for steepening materialises.
- Given the (1) negative carry of outright shorts, (2) uncertainty regarding the nature of the changes to the PSPP, and (3) increasing downside risk for the equity market and other high-beta assets, we suggest positioning for potential underperformance of the long end through a conditional steepening structure.
- 10Y Bunds are now fairly priced vs their fundamental factors. Expect them to range-trade.
- We maintain paying 4Y1Y and 1Y1Y vs 8Y1Y to position for the improvement in the convexity, and paying 10Y in the 5Y/10Y/15Y 50:50 fly. They target a correction of the convexity of the EUR rate curve, with a focus on the 10Y area.
- The change in sentiment and return of risk-aversion (in summer) is an ASW curve flattener. We remain constructive on Buxl ASW compression and its outperformance vs Bund ASW.

Fig 10. Short-term future stripes are gradually eliminating depo rate cut expectations



Source: Bloomberg

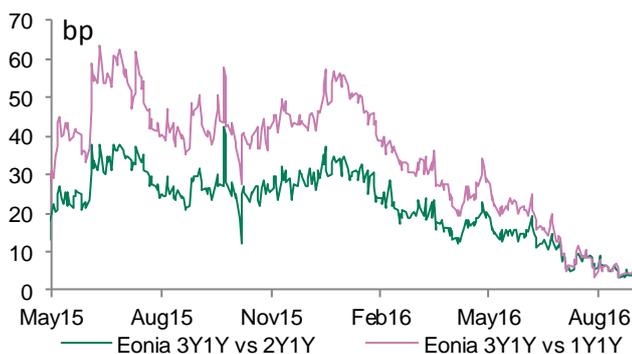
Steepening bias

While the short-term future stripes are gradually eliminating the deposit rate cut expectations (Figure 10), the front end of the curve in the sub-5Y area remains stable and close to historically flat levels. The persistence of flattening at the front end has been in contrast to our expectations expressed by paying 3Y1Y vs 2Y1Y or 3Y1Y vs 1Y1Y.

As we wrote in [When will the ECB run out of bonds to buy?](#), removing the floor on the PSPP, as a standalone policy or in combination with an increase in the single-issuer limit by the ECB, could see normalisation in the term structure of the curve at the front end – sub-5Y area – and bull-steepening of the curve.

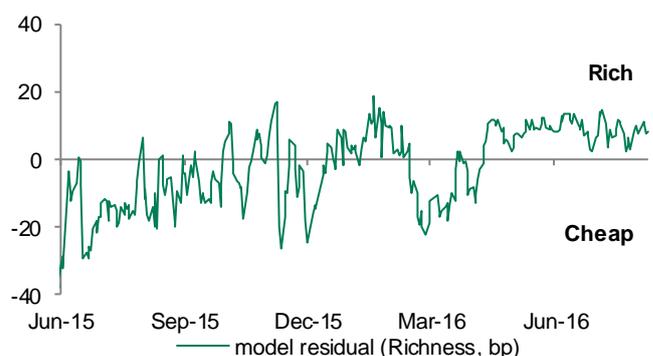
Given the prevailed risk sentiment and in anticipation of a move from Fed to hike rates (our central scenario favours a 25bp hike in December, with slim but non-negligible chance of strong hint in September), we see little reason for the ECB to announce any change in its policy stance in September. The ECB is likely, in our view, to follow its recent mode of communication with the market by acknowledging the limits on the PSPP and pledging to address the issue when/if necessary, keeping the door open for future policy action.

Fig 11. 3Y1Y vs 2Y1Y or 3Y1Y vs 1Y1Y remain excessively flat



Source: Crédit Agricole CIB, Bloomberg

Fig 12. The 10Y Bund risk premium is close to flat, with slight bias towards being rich

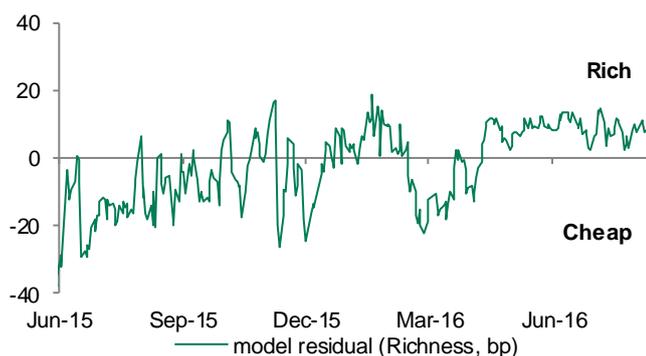


Source: Crédit Agricole CIB, Bloomberg

In our central scenario – namely, no change in the terms of the PSPP in September – the front end of the curve is likely to remain supported. As such, we postpone reviewing our steepening in front end to the next meeting, in October.

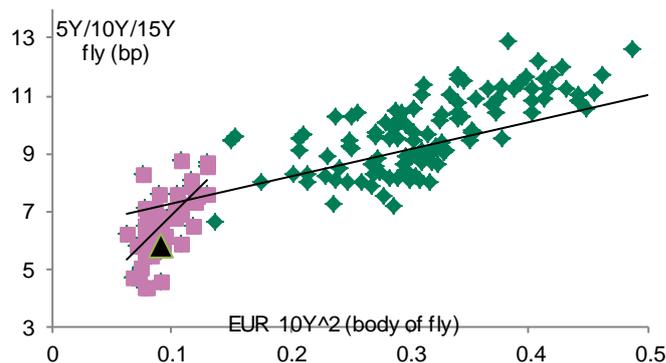
Despite approaching its fair value (as indicated by our fair-value model¹ (Figure 13), the 10Y remains rich vs and convexity remains close to its lows (most negative as defined by 5Y/10Y/15Y rate fly). We maintain our trade **in favour of a trade in paying the body of the fly 1Y1Y/4Y1Y/8Y1Y vs wings 50:50**. The fly is fluctuating between -35bp to -39bp (moved against us from -35bp to -38bp since we wrote about it), but with the small negative carry of the trade (1.2bp for 3M), we hold the trade, targeting -20bp with stop of -45bp.

Fig 13. The 10Y Bund risk premium is close to flat, with slight bias towards being rich



Source: Crédit Agricole CIB, Bloomberg

Fig 14. We expect the convexity of the curve to correct in the 10Y area, forcing a lower level of 5Y/10Y/15Y fly in a rally and strong directionality in the event of a sell-off



Source: Crédit Agricole CIB, Bloomberg

Cautious on long-dated rates

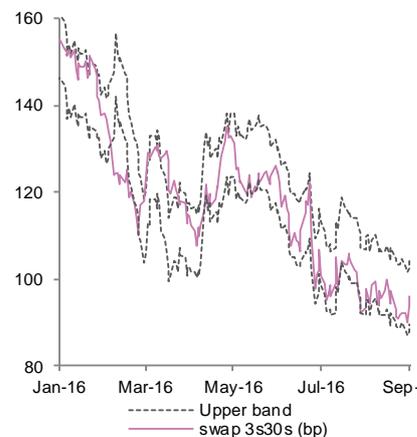
After a long stretch of outperformance from long-dated swaps for more than 100bp and 80bp in 30Y bonds and rates, the long end of the curve has stabilised above 40bp for 30Y Bunds and above 70bp in 30Y swap rates with (distinctive) cheapening trend forming in last week (EUR 3Y30Y moved from 90bp to 95bp at the time of writing).

Case for a tactical underweight on the long end of the EUR curve

- Valuation:** Despite the improvement in risk sentiment and outperformance of competitive assets (in this case equities), **the long end of the curve remains fairly unchanged with slight re-adjustment in the 30Y area, which resulted in only 5bp steepening of the curve as measured by 3Y30Y spread.** Figure 15 shows that, despite the recent steepening, the slope is still close to the lower bound of the fair value model. Note that the bounds take into account risk appetite, the performance of competitive assets and directionality of the slope.
- Anticipation of the ECB action:** the expectations that the ECB will act to enlarge the pool of bonds eligible for the PSPP reduces the pressure on the long end of the curve. With the availability of eligible bonds for the PSPP impacting the performance of the programme and imposing limits on its duration, we expect the ECB to act and modify the terms of the PSPP to enlarge the size of the eligible pool, **but not necessarily in September.**

In conclusion, we suspect that the balance of the risk at the long end of the EUR rate curve is moving in favour of steepeners. An outright 5Y30Y steepening position or conditional steepener trade on 7Y30Y captures most of the curve movement while benefiting from vol surface adjustments.

Fig 15. Despite recent steepening, the slope of EUR 3s30s curve is close to its lower bound



Source: Crédit Agricole CIB

afsaneh.mastouri@ca-cib.com

¹ When modelling 10Y Bund futures risk premium (the residual vs growth and inflation expectations) vs competitive assets and market risk (Dax, Euro Stoxx vol, FTSE100 and QE nonlinear dummy variable) and a proxy for the risk factor (GBP/USD), it appears that the Bunds (10Y) are slightly rich – still within tolerance of the model – vs expected levels.

EUR Inflation-Linked Strategy

This section is an excerpt from the inflation-linked weekly '[Low-flation confirmed](#)', released on 1 September.

- August preliminary inflation slightly surprised to the downside, at 0.2% YoY. The core component was in line with our take, though, at 0.8%, with a slight set-back likely due to a few mini one-offs.
- Next week, the ECB will release its updated 'staff forecasts'. We suspect they will cut their core inflation profile by 10bp, even if forecasting someone else's forecast is always a tricky exercise. That may not help long-maturity inflation forwards, all else being equal.
- We stick with the low-flation trades, typically buying OATei 20 breakeven (currently below core HICP) and selling the 5Y5Y forward inflation swap.
- We also still recommend buying the BTPei 19 breakeven against BUNDei 20, as the spread is unusually large and tends to tighten when risk aversion rises. The seasonally adjusted breakeven of the BTPei 19 is only 0.4%.

Eurozone HICP: still our 'low-flation' take

Eurozone inflation surprised marginally to the downside in August, coming out at 0.23% YoY vs the Bloomberg median consensus (and our take) at 0.3%. Core inflation came out in line with our 0.8% take, but 10bp below Bloomberg consensus. The 5bp decline in core inflation vs the last-three months average looks to have been related to small one-offs² combined.

So what? **Eurozone core inflation has been stagnating near 0.8-0.9% for more than a year now, with tailwinds (decreasing unemployment rate) offset by headwinds (second-round effects from low reported inflation numbers).** There is no upward (nor downward) trend yet, with the mini-swings in core inflation all related to the volatile sub-components.

We stick to our long-held call of 'low-flation', ie, Eurozone core inflation rising very, very gradually over the coming two years. We still expect core inflation near 0.8% on average in 2016 and near 1.0% next year, that is to say 20bp below the ECB's most recent staff forecasts.

Next week: ECB forecasts

Next week, any ECB adjustment on its QE programme will be a function of many variables, among which the updated inflation 'staff forecasts' will be especially important as usual. The market inputs used by the ECB will be almost unchanged from the 2 June 'staff forecasts' exercise, in our view, given their cut-off dates and methodology. In particular, the oil, soft commodity and trade weighted EUR inputs were broadly the same as in June in our view.

In contrast, the **ECB's assessment of the Eurozone macro picture may have been revised down very slightly as a result of the 'Brexit' vote in the UK** (justifying a few basis point cut in core HICP in 2017-2018), while reported inflation data during the summer should also show evidence of **the absence of any pick-up in core inflation** (justifying a few more basis point cut in core HICP, especially in 2016-2017). In particular, it now looks very unlikely that core HICP will reach 1.0% YoY on average in 2016.

All in all, we suspect that the ECB staff forecasts will show core HICP projections cut by 10bp for 2016, 2017, and 2018, with the 2018 headline HICP cut by 10bp as well.

All in all, and in our view, 'Brexit' provided a good reason for a slight downward adjustment, which would have been needed anyway. Back in June³, and even before the UK vote, we considered a (slight) downward revision in ECB's forecasts as likely.

² The 2% VAT hike in Greece left the YoY calculation, and volatile components of German inflation (Clothes, 'package holidays') undershot in August in YoY terms.

³ Please read '[Taking profit ahead of the UK vote](#)', page 3

Fig 16. Eurozone Inflation forecasts, ECB and Crédit Agricole CIB (%)

| Source | Date | Item | 2016 | 2017 | 2018 | Cut-off date for oil and EUR*** |
|-------------|-------------------------|------------------------------|------------|------------|------------|---------------------------------|
| ECB | 2 June 2016 | HICP | 0.2 | 1.3 | 1.6 | 10 May 2016 |
| ECB | 2 June 2016 | Core HICP** | 1.0 | 1.2 | 1.5 | 10 May 2016 |
| ECB* | 8 September 2016 | HICP | 0.2 | 1.3 | 1.5 | 16 August 2016 (e) |
| ECB* | 8 September 2016 | Core HICP | 0.9 | 1.1 | 1.4 | 16 August 2016 (e) |
| ECB* | 8 September 2016 | HICP (change vs 2 June) | +0.0 | +0.0 | -0.1 | 16 August 2016 (e) |
| ECB* | 8 September 2016 | Core HICP (change vs 2 June) | -0.1 | -0.1 | -0.1 | 16 August 2016 (e) |
| CACIB | 1 September 2016 | HICP | 0.2 | 1.3 | 1.3 | - |
| CACIB | 1 September 2016 | Core HICP | 0.9 | 1.0 | 1.2 | - |

*Our estimate of the ECB's projections; ** The ECB's 'HICP excluding energy and food' measure; *** The ECB's input for oil is the two-week average of Brent futures at a cut-off date, while its input for the euro is the two-week average of spot levels as at a cut-off date

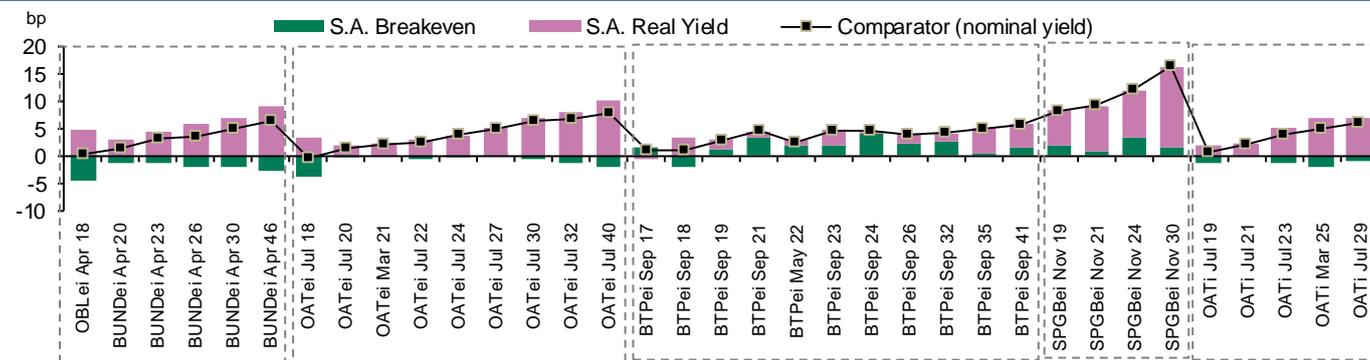
Source: Crédit Agricole CIB, ECB

Strategy and trades update

Breakeven direction

Despite the slight negative surprise in August preliminary inflation and the 5% week-on-week decline in crude oil prices, Eurozone breakevens overall stabilised last week (Figure 17). This relative resilience was related in our view to (1) the absence of linker supply since early August, (2) PSCP-related buying continuing and (3) the perspective of EUR inflation rebounding soon (in Q416) becoming more tangible. **We overall expect EUR breakevens to rise gradually until year end, with short-term swings mostly dependant on risk sentiment and oil prices, as usual.** Resuming supply – namely the possibility of a new 30Y OATei – will keep on weighting on the longer end of the breakeven curves in the near term.

Fig 17. Weekly breakeven performance of Eurozone linkers (starting point: Thursday, 25 August COB)



Source: Crédit Agricole CIB

Curve

We remain a bit more cautious on the 30Y area of breakeven curves (vs 5Y or 10Y) because of (1) the possible launch of a new 30Y OATei benchmark and (2) the fact that the likely recovery of Eurozone inflation in Q416 is more likely to widen a 5Y breakeven (now at 0.7%) than a 30Y breakeven (now already at 1.2%). If the ECB cuts its core HICP profile by 10bp – as we suspect – long inflation forwards like 5Y5Y or 10Y10Y may also face some pressure as well.

Core vs peripherals

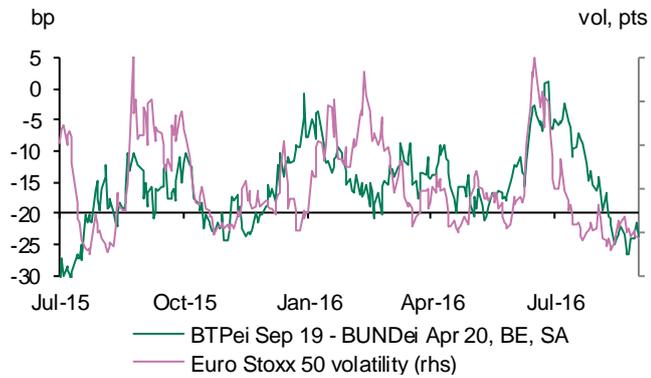
'Peripheral' breakevens (SPGBei, BTPei) have been cheaper than 'core' ones (BUNDei, OATei, OATi) for several years, mostly because of the credit risk (stronger in linkers than in nominal bonds) and of more technical aspects (peripherals out of key linker indices at some point).

Since mid-2015, the pattern of the spread between core and peripheral breakevens has been range-bound, with peripherals breakevens getting richer (vs core) when risk aversion increases (Figures 18 and 19). That may look counter-intuitive at first sight. However, this actually makes sense, when keeping in mind that a 'long BTPei breakeven short BUNDei breakeven' trade has four legs, **one of which is being a long in BUND yield.**

Last week, we recommended buying BTPei 19 breakeven vs BUNDei 20, on the back of:

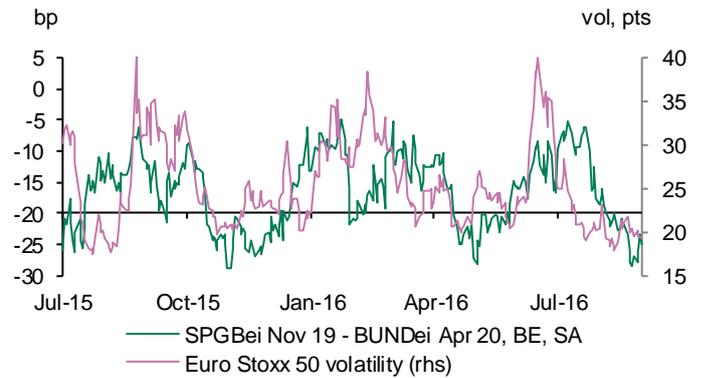
- Stretched level between the two breakevens while there is historical evidence of a mean-reverting pattern.
- Downside in risk sentiment at the current juncture (think about the elections/referendums/ Brexit-noise to come).
- Coming linker supply and PPSP technical matters.

Fig 18. BTPei 5Y breakeven vs BUNDei



Source: *Crédit Agricole CIB, Bloomberg*

Fig 19. SPGBei 5Y breakeven vs BUNDei



Source: *Crédit Agricole CIB, Bloomberg*

We still recommend the trade, which currently posts a 5bp profit.

jean-francois.perrin@ca-cib.com

US Macro View

The 30Y Bond sector and life insurance buying

- There are three weeks to the September FOMC and Fed speakers have become more threatening. 2Y OIS sits at 0.65%, yet if the Fed hikes, the fed effective will move to that level.
- The potential storm for the front end of the curve requires portfolio adjustment now, in our view. We would not jump into flattener trades, because historical experience of large 2Y yield moves that are influenced by potential Fed action is that the yield curve has steepened, not flattened.
- We would prepare for a bearish steepening of the curve, or at least take off any bullish bets, because the rally from a three-month Fed delay would be a fraction of the size of a sell-off.

When two tribes go to war

August was the worst month for the Treasury market since 2015. **Federal Reserve rate hike rhetoric has moved to amber, if not quite switching to red.** The OIS curve has reacted only marginally to the veiled Fed threats, and even though the 21 September meeting is in play, **probabilities implied by the market languish in the low 30% area.** More worrying is that it takes until June next year before the next Fed hike is actually priced in.

In her Jackson Hole speech, Fed Chair Janet Yellen claimed that the rate hike case had 'strengthened in recent months'. Stanley Fischer announced that 'the big numbers are better than they had been' and sort of suggested that Ms Yellen's comments could be consistent with one or two hikes this year. Bill Dudley has been busy warning markets that they are underestimating the pace of rate hikes and openly said that a September rate hike was possible. Another voter, Eric Rosengren, echoed that the US is near to full employment and that the Fed was likely to achieve both its goals relatively soon.

There are doves out there, with Jerome Powell recently saying that he is in no hurry to raise rate, but still sees a 'very gradual' path upwards; Charles Evans said roughly the same. There were also ambiguous comments from voter James Bullard about a 'one and done' approach to rates. Yet, the doves are not ruling out hikes, just pushing the patience and slow-hike rhetoric.

With the polls diverging between Hillary Clinton and Donald Trump, any rate hike is also safer from any accusations of influencing the outcome. The money fund reforms scheduled to bite on 14 October are making funding markets sticky, but they are functioning. **The strong economic data, international concerns and domestic politics do appear to have opened a window for the Fed to act.**

We write this before the all-important August employment report. Our house view is still that the Fed waits until December to hike rates; but clearly, September's FOMC meeting is more than just a curiosity.

Look for at least 13bp rise in 2Y yield on a hike, likely more

So what happens if the Fed does hike rates, particularly if the surprise takes place in September?

To answer this question, we looked at what the Fed funds rates are forecasting so that we can adjust the path of the Fed effective rate and see what this does to the 2Y OIS rate. According to the futures markets, the Fed funds effective rate does not rise a full 25bp until June next year.

We have made two bumps to the path of the Fed funds implied by the futures. The first is to assume that the Fed effective rises to 0.65% and is discounted to stay there until the middle of next year. Thereafter, we assume that the Fed effective prices in the same path for the Fed funds effective rate as is currently discounted by the market. We call this 'bump 1' in Figure 20. We view this path as the absolute minimum, because it is near inconceivable to us that the market would price in absolutely no chance of a second rate hike for about nine months after the September hike.

Fed speakers appear to have raised the hike-threat

If Fed hikes in September, 2Y rates should rise by at least 7bp, assuming no subsequent rate cut priced in

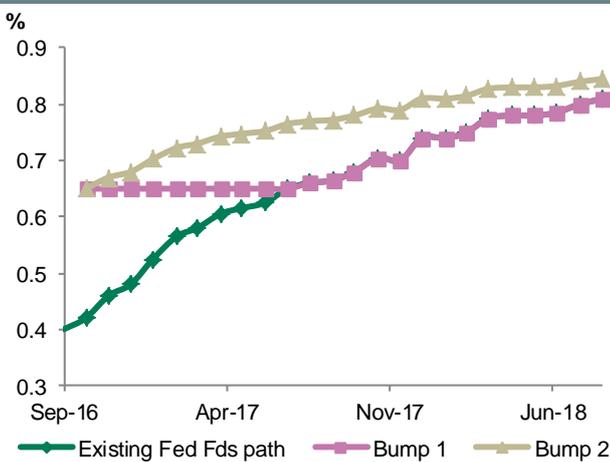
What this path implies is that the 2Y OIS rate will be about 7bp higher just after a September Fed hike than it is today: this incorporates a small bump up the forward curve but is mostly a reaction to the rate hike. Bear in mind that **the 2Y OIS rate is currently 0.65%, so if the Fed funds effective moves to 0.65%, the curve would need to price in rate cuts to see the 2Y OIS rate decline.**

The second adjustment we make is to move the Fed effective to 0.65%, and then the Fed rate rises at half the pace of what is currently priced in. We call this 'bump 2' in Figure 20 and it **leaves the 2Y yield 13bp higher than today.**

We stress that if the Fed hikes in September, we'd still expect to see a slightly larger change in the 2Y; but this is a good first guess. Figure 21 shows how the 2Y yield reacted leading into the December 2015 rate hike. By the start of November, the market was more convinced of a rate hike, with 68% priced in and 85% by the evening before the hike itself. **The big reassessment of the Fed came in the last week of October, as the market pushed the December probability up from about 36% to 68% and the 2Y yield rose by about 30bp.**

Notice that we have similar probabilities of a hike at the next FOMC meeting today as existed a couple of months before the December 2015 FOMC. In other words, the Fed might want to start changing the market's mind if it really is going to hike, or face a heavily concentrated market reaction.

Fig 20. Fed Funds future paths



Source: Bloomberg, Crédit Agricole CIB

Fig 21. UST 2Y leading into December 2015 rate hike



Source: Bloomberg

Statistically, large 2Y rises steepen the curve

The 2Y yield will need to move pretty rapidly if the Fed actually hikes in September and also if the strongly hint at December. But what about the rest of the yield curve?

The 2-10Y spread is only 77bp and almost the flattest since 2007, and with such a lack of slope, perhaps the 10Y yield becomes more sensitive to 2Y movements than when the 2-10Y spread was say 250bp. This is a difficult question to answer based on the experience of the past 10 years, for the simple reason that the 10Y has largely determined the slope of the yield curve: stable Fed expectations have confined the 2Y to a much narrower range than the 10Y.

Figure 22 (green line) calculates the yield beta between the 2Y and 10Y yield based on weekly yield changes and a six-month rolling regression. If the 2Y yield rises but the 10Y consistently moves by less, then the yield beta would be below one, which we can see is rarely the case. **There does not appear to be much relationship between the slope of the curve and the yield beta.**

Instead, the curve has steepened when yields rise and has flattened in a bull market. In other words, the Fed does not control the slope of the curve. So, in Figure 23, we restricted our attention to periods when the Fed was influencing the curve and we show only the weeks when the change in the 2Y yield was in excess of 10bp, plotting what the 10Y yield did in the same week.

For far too long, the 10Y has dominated the curve slope

Looking at the period after October 2014, which is a time when the yield curve was flatter than average, there has been a tendency for large 2Y moves to be at least matched by the change in the 10Y yield; much more often than not, the 10Y move is considerably more than the 2Y yield. This is true whether the UST market moved bullishly or bearishly. Put another way, when the market suddenly changes its mind on the Fed, the shock is amplified at higher maturities, not dampened.

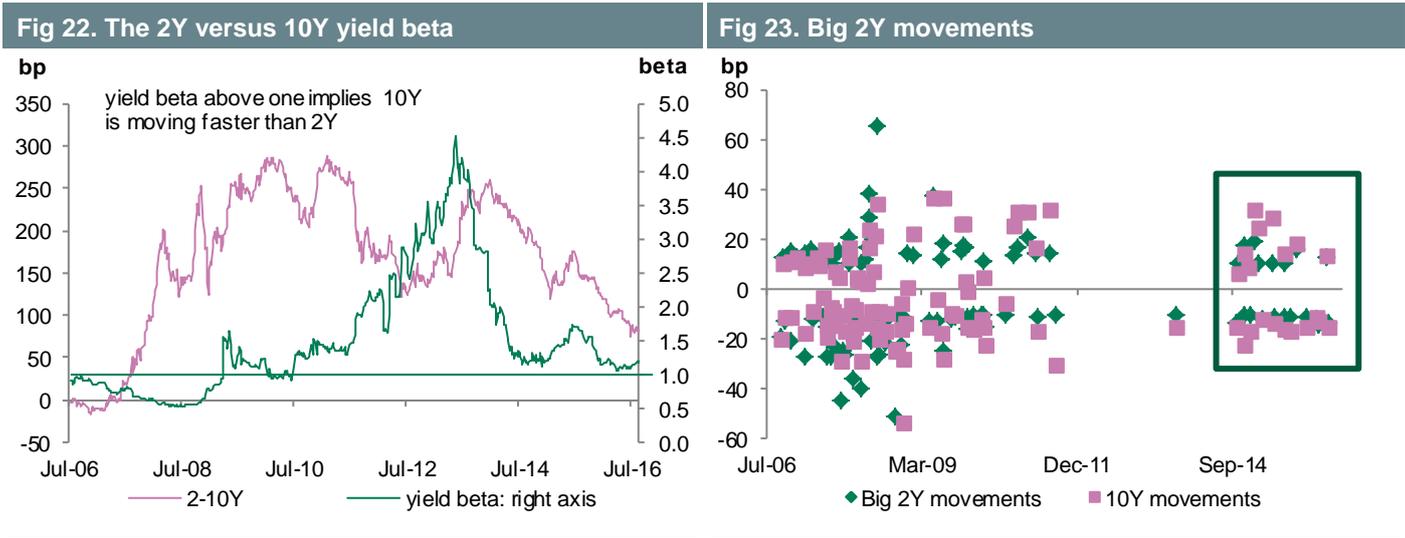
It is important to look at market reactions to when the Fed is moving the yield curve

Since October 2014, there have only been three weeks when there was a large upward 2Y yield movement but the 2Y yield moved up faster than the 10Y yield. Each example occurred in Q4 2014, just as the Fed was beginning the QE taper, and each example only subtly flattened the yield curve. We cannot avoid pointing out that the yield curve was much steeper in 2014 than it is today.

We understand that **conventional wisdom suggests that when the Fed hikes rates while the rest of the world is easing monetary policy, then the curve should flatten, but that is not what happens when it is the Fed shaking the curve**, and less so when the US yield curve is so flat.

Beware of conventional wisdom that says the yield curve must flatten when the Fed hikes

We would **prepare portfolios for a bearish upward movement in rates**. If the Fed defers September, the rally in Treasuries will be a fraction of the size of the sell-off. At the very least, take long Treasury bets off and go neutral or play the steeper. The potential lost roll and carry is tiny and if the Fed is serious about hiking rates in September, the **remaining three weeks to the meeting will require Fed speakers do more to prepare the market, if the payroll report does not do the job for it**.



Source: Bloomberg, Crédit Agricole CIB

Source: Bloomberg, Crédit Agricole CIB

david.keeble@ca-cib.com

US Interest Rates Derivatives

The risk of higher yields

- The Fed has continued to move away from providing forward guidance since their first hike in December, offering less clarity of the path of rates.
- Despite this greater uncertainty of the future path of rates, both term premia and implied volatility remain extremely low.
- The risk towards higher yield, accompanied with higher volatility, continues to look undervalued in the market; in particular, we see a risk of surprise September hike potentially leading to a significant reprising of both the yield curve and the vol surface.
- We like being long the payer on 6M5Y ATMF+10 vs. ATMF-9 receiver for approximately zero cost, unhedged, to position for such a risk.

With the risk of a hike in September, risk reversal look attractive

In recent weeks, the Fed speak has seemed to lack its usually dovish tone and has been surprisingly less cacophonous than in the past. With the next FOMC meeting now just a couple weeks away, this seems particularly surprising, as comments from Fed officials have varied mainly from coy to hawkish and notably avoided making any sort of conviction, one way or the other for September. The current dialogue would seem in stark contrast with the December hike, when they stated explicitly in the October FOMC that a move at the end of the year seemed likely, as well as the May false-start, in which they alluded to a likely Fed hike in June, before deciding against it following a weak NFP and the pending Brexit vote.

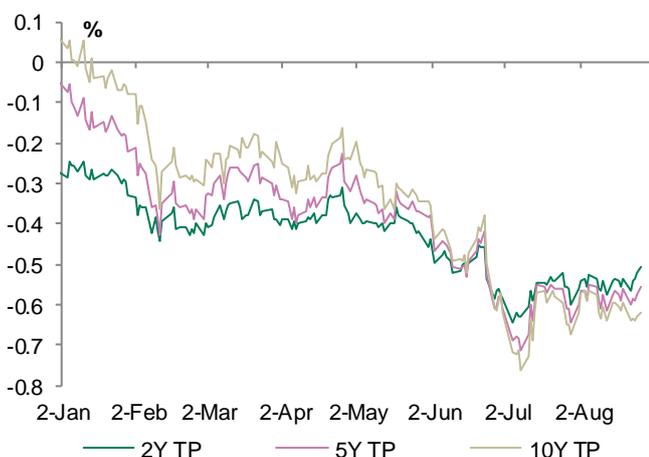
The Fed has avoided providing clarity of their plan for September.

However, we would argue that this is not so much a revolution in its *modus operandi* as it is a natural evolution. Recent Fed policy seems to be taking further steps away from providing the market forward guidance, which seems to fit fairly well with Vice Chair Stanley Fischer's general dislike of the policy. Moreover, completely moving away from forward guidance provides the FOMC with a couple of benefits that it has not had in the past.

It is possible they are trying to move further away from forward guidance.

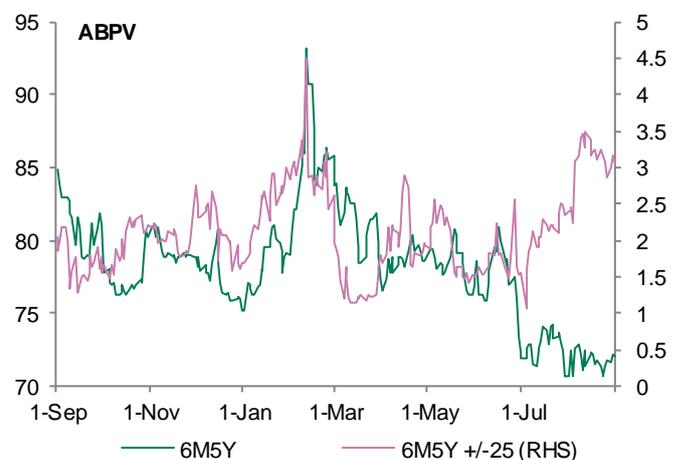
First, it will add term premia back into the curve; this should benefit yields in the belly of the curve the most, as the front end has already seen some rise in term premia and at the moment the TP curve itself is inverted (according to the Adrian Crump & Moench model), which suggests that **a Fed 'surprise' could have amplified impact on yields beyond the front end** (Figure 24). However, we would be hesitant to extrapolate this too far out on the curve, as the influences of foreign demand (as well as some recent domestic demand) for long-term risk-free assets remains high and continues to weigh heavily on that sector.

Fig 24. The term premium curve is inverted



Source: Bloomberg, FRBNY

Fig 25. Vols stay low but skew recovered from Brexit



Source: Bloomberg

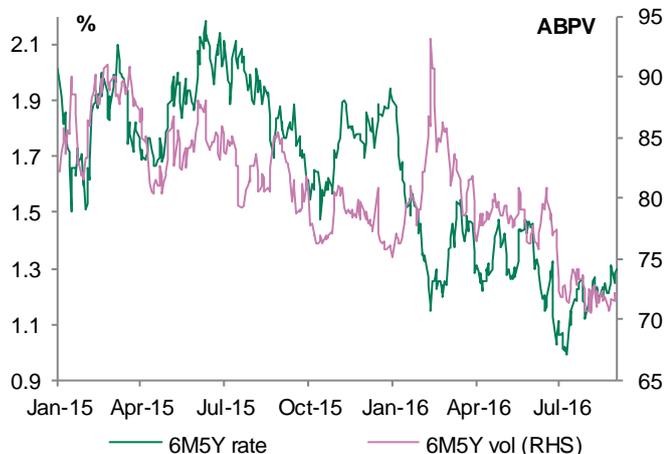
Second, such a September “surprise” would also drive volatility higher, particularly for payers. Aside from there being a positive correlation between term premium and implied rates volatility, **the removal of forward guidance creates increased uncertainty of the path of rates, which should drive up implied volatility**, particularly as it adds credence to the Fed expected path. Finally, assuming that yields do not immediately rise to levels aligned with the dotplots, the risk to upside yield should continue to rise, from its fairly low levels, resulting in further appreciation of payer skew from recent lows (Figure 25).

Moreover, the September FOMC meeting comes about a week after the deadline for the money market reforms enters the 30-day window of markets. Although we expect only limited market stress around this date, it is still a fairly significant date to watch. As we approach 14 September, the percentage of liabilities that qualify for LCR but mature prior to the reform deadline will converge to zero. This could lead to an extreme maturity mismatch between where banks want to borrow and where money funds want to lend, which would be exacerbated if a Fed hike seems a strong possibility; such an event would bias yields higher in the front end and belly, as we saw earlier this month. If the stress is too large, spooking the Fed and dissuading it from hiking, then yields should still be relatively supported, given the low current expectations and the likely widening of swap spreads.

In general, **the risk in yields seems largely biased towards higher levels**, while implied vols and term premia in the belly of the curve remain fairly low. A more hawkish Fed and the potential for a September hike make owning payers in the front end and the belly of the curve fairly attractive.

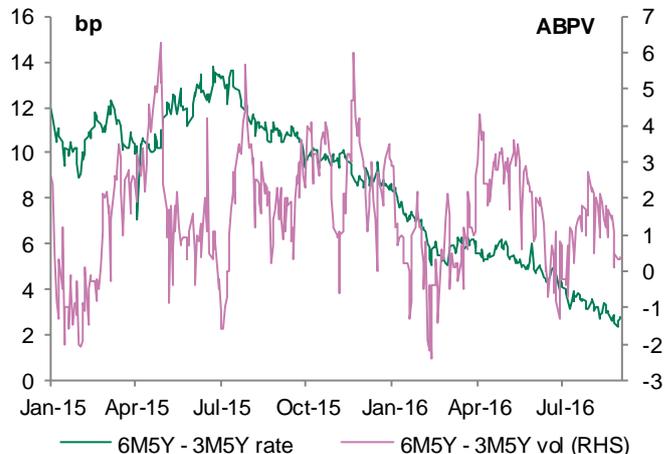
Meanwhile, absent an extremely weak NFP, **the downside risk in yields in those sectors, particularly for swaps seems fairly limited**. The main reason to expect yields in these sectors to fall would seem to be driven by concerns of further stress due to money market reforms, which would likely be met with rising swap spreads, helping to dampen and decline in yields. This makes selling receivers to finance payer longs as reasonable.

Fig 26. Vols and yields remain low ...



Source: Bloomberg, Crédit Agricole CIB

Fig 27. ...and carry cheaply



Source: Bloomberg, Crédit Agricole CIB

We like buying 6M5Y ATMF+10 payer against 6M5Y ATMF-9 receiver for zero cost, and unhedged, to position for a potential Fed hike in September, as the continued positive trend in the US should continue to bias yields higher and the curve steepen from these recent lows in the medium term. Furthermore, with summer over, we would expect vols to rise generally, as they have been, especially if the Fed continues to reduce its dependence on forward guidance. We prefer the 5Y sector over shorter maturities, as we generally expect the curve to steepen as yields rise (see the previous section), while we like slightly longer expiries, as the generally low cost of carry provides more optionality for about the same cost. (The 1 month carry of a 6M5Y risk reversal is marginally lower than that for the 3M5Y with equally OTM strikes.) The largest risk to the trade would be a sudden rally in rates accompanied by a rise in implied volatility, which seems unlikely, absent expectations of a significant reversal of Fed policy.

jonathan.rick@ca-cib.com

Interest rate forecasts

| | 01-Sep | Sep-16 | Dec-16 | Mar-17 | Jun-17 | Sep-17 | Dec-17 |
|------------------|--------|--------|--------|--------|--------|--------|--------|
| EUR | | | | | | | |
| Refi rate | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Depo rate | -0.40 | -0.40 | -0.40 | -0.40 | -0.40 | -0.40 | -0.40 |
| Eonia | -0.33 | -0.35 | -0.35 | -0.35 | -0.35 | -0.35 | -0.35 |
| 3M Euribor | -0.30 | -0.25 | -0.25 | -0.25 | -0.25 | -0.25 | -0.25 |
| Germany | | | | | | | |
| 2Y | -0.63 | -0.55 | -0.50 | -0.45 | -0.40 | -0.35 | -0.30 |
| 5Y | -0.51 | -0.40 | -0.30 | -0.25 | -0.20 | -0.15 | -0.10 |
| 10Y | -0.06 | 0.10 | 0.25 | 0.35 | 0.45 | 0.50 | 0.60 |
| 30Y | 0.48 | 0.60 | 0.80 | 1.00 | 1.10 | 1.20 | 1.30 |
| France | | | | | | | |
| 2Y | -0.57 | -0.45 | -0.45 | -0.40 | -0.35 | -0.30 | -0.25 |
| 5Y | -0.37 | -0.20 | -0.15 | -0.10 | -0.05 | 0.00 | 0.05 |
| 10Y | 0.18 | 0.40 | 0.55 | 0.65 | 0.75 | 0.80 | 0.90 |
| 30Y | 1.00 | 1.10 | 1.20 | 1.35 | 1.45 | 1.55 | 1.65 |
| Italy | | | | | | | |
| 2Y | -0.04 | -0.05 | -0.10 | -0.05 | 0.00 | 0.05 | 0.15 |
| 5Y | 0.28 | 0.40 | 0.40 | 0.45 | 0.50 | 0.55 | 0.70 |
| 10Y | 1.18 | 1.40 | 1.50 | 1.55 | 1.65 | 1.75 | 1.90 |
| 30Y | 2.21 | 2.35 | 2.30 | 2.40 | 2.40 | 2.60 | 2.80 |
| Spain | | | | | | | |
| 2Y | -0.13 | -0.15 | -0.15 | -0.10 | -0.05 | 0.05 | 0.15 |
| 5Y | 0.19 | 0.30 | 0.35 | 0.40 | 0.45 | 0.55 | 0.70 |
| 10Y | 1.06 | 1.20 | 1.25 | 1.25 | 1.35 | 1.60 | 1.90 |
| 30Y | 2.18 | 2.20 | 2.30 | 2.40 | 2.40 | 2.60 | 2.80 |
| Ireland | | | | | | | |
| 10Y | 0.46 | 0.75 | 0.90 | 0.95 | 1.05 | 1.15 | 1.30 |
| Portugal | | | | | | | |
| 10Y | 3.06 | 2.60 | 2.50 | 2.55 | 2.55 | 2.60 | 2.70 |
| Greece | | | | | | | |
| 10Y | 8.11 | 7.65 | 7.35 | 6.95 | 6.75 | 6.60 | 6.70 |
| Sweden | | | | | | | |
| Repo | -0.50 | -0.50 | -0.50 | -0.50 | -0.50 | -0.50 | -0.25 |
| Norway | | | | | | | |
| Deposit | 0.50 | 0.50 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 |
| EUR swaps | | | | | | | |
| 2Y | -0.21 | -0.25 | -0.20 | -0.15 | -0.10 | -0.05 | 0.00 |
| 5Y | -0.13 | -0.10 | 0.00 | 0.00 | 0.05 | 0.10 | 0.15 |
| 10Y | 0.29 | 0.40 | 0.55 | 0.60 | 0.70 | 0.75 | 0.85 |
| 30Y | 0.74 | 0.90 | 1.10 | 1.25 | 1.35 | 1.45 | 1.55 |
| GBP | | | | | | | |
| Bank Rate | 0.25 | 0.25 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 |
| Sonia | 0.20 | 0.22 | -0.05 | -0.05 | -0.05 | -0.05 | -0.05 |
| 3M £ Libor | 0.38 | 0.27 | 0.00 | 0.05 | 0.05 | 0.05 | 0.05 |
| UK Gilts | | | | | | | |
| 2Y | 0.13 | 0.10 | 0.00 | 0.10 | 0.20 | 0.30 | 0.40 |
| 5Y | 0.22 | 0.30 | 0.30 | 0.45 | 0.60 | 0.75 | 0.90 |
| 10Y | 0.68 | 0.80 | 0.80 | 1.00 | 1.20 | 1.40 | 1.60 |
| 30Y | 1.28 | 1.60 | 1.70 | 1.90 | 2.10 | 2.30 | 2.50 |
| GBP swaps | | | | | | | |
| 2Y | 0.44 | 0.45 | 0.35 | 0.45 | 0.55 | 0.65 | 0.75 |
| 5Y | 0.50 | 0.50 | 0.50 | 0.65 | 0.80 | 0.95 | 1.10 |
| 10Y | 0.73 | 0.85 | 0.85 | 1.05 | 1.25 | 1.45 | 1.65 |
| 30Y | 0.88 | 1.10 | 1.20 | 1.40 | 1.60 | 1.80 | 2.00 |

Source: Crédit Agricole CIB

Interest rate forecasts (cont.)

| | 01-Sep | Sep-16 | Dec-16 | Mar-17 | Jun-17 | Sep-17 | Dec-17 |
|------------------|--------|--------|--------|--------|--------|--------|--------|
| USD | | | | | | | |
| FF target | 0.50 | 0.50 | 0.75 | 0.75 | 1.00 | 1.00 | 1.25 |
| FF effective | 0.30 | 0.41 | 0.65 | 0.65 | 0.92 | 0.93 | 1.20 |
| 3M \$ Libor | 0.84 | 0.90 | 0.95 | 1.00 | 1.17 | 1.25 | 1.60 |
| USTs | | | | | | | |
| 2Y | 0.79 | 0.80 | 0.90 | 1.10 | 1.40 | 1.75 | 2.00 |
| 5Y | 1.18 | 1.30 | 1.55 | 1.85 | 2.00 | 2.25 | 2.50 |
| 10Y | 1.57 | 1.75 | 1.95 | 2.15 | 2.25 | 2.50 | 2.70 |
| 30Y | 2.24 | 2.50 | 2.75 | 2.95 | 3.00 | 3.20 | 3.35 |
| USD swaps | | | | | | | |
| 2Y | 1.03 | 1.05 | 1.15 | 1.30 | 1.55 | 1.90 | 2.15 |
| 5Y | 1.20 | 1.30 | 1.57 | 1.87 | 2.04 | 2.30 | 2.58 |
| 10Y | 1.42 | 1.65 | 1.90 | 2.11 | 2.21 | 2.47 | 2.70 |
| 30Y | 1.69 | 2.05 | 2.35 | 2.55 | 2.65 | 2.90 | 3.05 |
| JPY | | | | | | | |
| Call rate | -0.05 | -0.05 | -0.05 | -0.05 | -0.15 | -0.15 | -0.15 |
| 3M ¥ Libor | -0.03 | -0.05 | -0.05 | -0.05 | -0.15 | -0.15 | -0.15 |
| JGBs | | | | | | | |
| 2Y | -0.18 | -0.30 | -0.30 | -0.30 | -0.25 | -0.25 | -0.20 |
| 5Y | -0.16 | -0.25 | -0.25 | -0.25 | -0.20 | -0.20 | -0.15 |
| 10Y | -0.03 | -0.15 | -0.15 | -0.15 | -0.05 | -0.05 | 0.05 |
| 30Y | 0.45 | 0.35 | 0.35 | 0.35 | 0.55 | 0.55 | 0.75 |
| JPY swaps | | | | | | | |
| 2Y | -0.06 | -0.15 | -0.15 | -0.15 | -0.10 | -0.10 | -0.05 |
| 5Y | -0.06 | -0.05 | -0.05 | -0.05 | 0.00 | 0.00 | 0.05 |
| 10Y | 0.09 | 0.05 | 0.05 | 0.05 | 0.15 | 0.15 | 0.25 |
| 30Y | 0.47 | 0.50 | 0.50 | 0.50 | 0.70 | 0.70 | 0.90 |
| Canada | | | | | | | |
| Overnight | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | 0.75 | 1.00 |

Source: Crédit Agricole CIB

Global Markets Research contact details
Jean-François Perrin Head of Global Markets Research +33 1 41 89 33 95

| | Asia (Hong Kong & Tokyo) | Europe (London & Paris) | Americas (New York) |
|-------------------------|--|---|--|
| Macro Strategy | Kazuhiko Ogata Chief Economist Japan +81 3 4580 5360 | Louis Harreau ECB Strategist +33 1 41 89 98 95 Xavier Chopard Global Macro Strategist +33 1 41 89 13 45 | Michael P. Carey ** Chief Economist US +1 212 261 7134 Evan Carmean** US Associate +1 212 261 2686 |
| Interest Rates | Yoshiro Sato Economist / Strategist - Japan +81 3 4580 5337 | Mohit Kumar Global Head of Rates Strategy +44 20 7214 6651 Romain Blanchet IRD Strategist +33 1 41 89 00 64 Orlando Green CFA Senior IRD Strategist +44 20 7214 7467 Afsaneh Mastouri Interest Rates Strategist +44 20 7214 6737 Jean-François Perrin Inflation Strategist +33 1 41 89 94 22 | David Keeble ** Head of US Rates Strategy +1 212 261 3274 Jonathan Rick ** IRD Strategist +1 212 261 4096 |
| Emerging Markets | Dariusz Kowalczyk Senior Emerging Market Strategist +852 2826 1519 Gary Yau Emerging Market Strategist +852 2826 1553 | Sébastien Barbé Head of Emerging Market Research & Strategy +33 1 41 89 15 97 Jakub Borowski Chief Economist - Crédit Agricole Bank Polska SA +48 22 573 18 40 Alexander Pecherytsyn Chief Economist – Crédit Agricole Bank Ukraine +38 44 493-9014 Guillaume Tresca Senior Emerging Market Strategist +33 1 41 89 18 47 | |
| Foreign Exchange | David Forrester FX Strategist +852 2826 1529 | Valentin Marinov Head of G10 FX Research & Strategy +44 20 7214 5289 Jennifer Hau FX Strategist +44 20 7214 7468 Manuel Oliveri FX Strategist +44 20 7214 7469 | Vassili Serebriakov FX Strategist +1 212 261 3309 |

** employee(s) of Crédit Agricole Securities (USA), Inc.

Certification

The views expressed in this report accurately reflect the personal views of the undersigned analyst(s). In addition, the undersigned analyst(s) has not and will not receive any compensation for providing a specific recommendation or view in this report.

Mohit Kumar, David Keeble, Orlando Green CFA, Afsaneh Mastouri, Jean-François Perrin, Jonathan Rick, Yoshiro Sato

Important: Please note that in the United States, this fixed income research report is considered to be fixed income commentary and not fixed income research. Notwithstanding this, the Crédit Agricole CIB Research Disclaimer that can be found at the end of this report applies to this report in the United States as if references to research report were to fixed income commentary. Products and services are provided in the United States through Crédit Agricole Securities (USA), Inc.

Foreign exchange disclosure statement to clients of CACIB
<http://mediacommun.ca-cib.com/sitegenic/medias/DOC/85478/2015-12-08-foreign-exchange-disclosure-statement-to-clients-of-cacib.pdf>

Disclaimer

© 2016, CRÉDIT AGRICOLE CORPORATE AND INVESTMENT BANK All rights reserved.

This research report or summary has been prepared by Crédit Agricole Corporate and Investment Bank or one of its affiliates (collectively "Crédit Agricole CIB") from information believed to be reliable. Such information has not been independently verified and no guarantee, representation or warranty, express or implied, is made as to its accuracy, completeness or correctness.

This report is provided for information purposes only. Nothing in this report should be considered to constitute investment, legal, accounting or taxation advice and you are advised to contact independent advisors in order to evaluate this report. It is not intended, and should not be considered, as an offer, invitation, solicitation or personal recommendation to buy, subscribe for or sell any of the financial instruments described herein, nor is it intended to form the basis for any credit, advice, personal recommendation or other evaluation with respect to such financial instruments and is intended for use only by those professional investors to whom it is made available by Crédit Agricole CIB. Crédit Agricole CIB does not act in a fiduciary capacity to you in respect of this report.

Crédit Agricole CIB may at any time stop producing or updating this report. Not all strategies are appropriate at all times. Past performance is not necessarily a guide to future performance. The price, value of and income from any of the financial instruments mentioned in this report can fall as well as rise and you may make losses if you invest in them. Independent advice should be sought. In any case, investors are invited to make their own independent decision as to whether a financial instrument or whether investment in the financial instruments described herein is proper, suitable or appropriate based on their own judgement and upon the advice of any relevant advisors they have consulted. Crédit Agricole CIB has not taken any steps to ensure that any financial instruments referred to in this report are suitable for any investor. Crédit Agricole CIB will not treat recipients of this report as its customers by virtue of their receiving this report.

Crédit Agricole CIB, its directors, officers and employees may effect transactions (whether long or short) in the financial instruments described herein for their own accounts or for the account of others, may have positions relating to other financial instruments of the issuer thereof, or any of its affiliates, or may perform or seek to perform securities, investment banking or other services for such issuer or its affiliates. Crédit Agricole CIB may have issued, and may in the future issue, other reports that are inconsistent with, and reach different conclusions from, the information presented in this report. Crédit Agricole CIB is under no obligation to ensure that such other reports are brought to the attention of any recipient of this report. Crédit Agricole CIB has established a "Policy for Managing Conflicts of Interest in relation to Investment Research" which is available upon request. A summary of this Policy is published on the Crédit Agricole CIB website: <http://www.ca-cib.com/sitegenic/medias/DOC/91928/2011-politique-gestion-conflits-interets-ca-cib-va.pdf>. This Policy applies to its investment research activity.

None of the material, nor its content, nor any copy of it, may be altered in any way, transmitted to, copied or distributed to any other party without the prior express written permission of Crédit Agricole CIB. To the extent permitted by applicable securities laws and regulations, Crédit Agricole CIB accepts no liability whatsoever for any direct or consequential loss arising from the use of this document or its contents.

France: Crédit Agricole Corporate and Investment Bank is authorised by the Autorité de Contrôle Prudentiel et de Résolution ("ACPR") and supervised by the European Central Bank ("ECB"), the ACPR and the Autorité des Marchés Financiers ("AMF"). Crédit Agricole Corporate and Investment Bank is incorporated in France with limited liability. Registered office: 12, Place des Etats-Unis, CS 70052, 92 547 Montrouge Cedex (France). Companies Register: SIREN 304 187 701 with Registre du Commerce et des Sociétés de Nanterre. **United Kingdom:** Approved and/or distributed by Crédit Agricole Corporate and Investment Bank, London branch. Crédit Agricole Corporate and Investment Bank is authorised by the ACPR and supervised by the European Central Bank ("ECB"), the ACPR and the AMF in France and subject to limited regulation by the Financial Conduct Authority and the Prudential Regulation Authority. Details about the extent of our regulation by the Financial Conduct Authority and the Prudential Regulation Authority are available from us on request. Crédit Agricole Corporate and Investment Bank is incorporated in France with limited liability and registered in England and Wales. Registered number: FC008194. UK establishment number: BR001975. Registered office: Broadwalk House, 5 Appold Street, London, EC2A 2DA. **United States of America:** This research report is distributed solely to persons who qualify as "Major U.S. Institutional Investors" as defined in Rule 15a-6 under the Securities and Exchange Act of 1934 and who deal with Crédit Agricole Corporate and Investment Bank. This report does not carry all of the independence and disclosure standards of a retail debt research report. Recipients of this research in the United States wishing to effect a transaction in any security mentioned herein should do so by contacting Crédit Agricole Securities (USA), Inc. (a broker-dealer registered with the Securities and Exchange Commission ("SEC") and the Financial Industry Regulatory Authority ("FINRA")). The delivery of this research report to any person in the United States shall not be deemed a recommendation of Crédit Agricole Securities (USA), Inc. to effect any transactions in the securities discussed herein or an endorsement of any opinion expressed herein. This report shall not be re-distributed in the United States without the consent of Crédit Agricole Securities (USA), Inc. **Italy:** This research report can only be distributed to, and circulated among, professional investors (*operatori qualificati*), as defined by the relevant Italian securities legislation. **Spain:** Distributed by Crédit Agricole Corporate and Investment Bank, Madrid branch and may only be distributed to institutional investors (as defined in article 7.1 of Royal Decree 291/1992 on Issues and Public Offers of Securities) and cannot be distributed to other investors that do not fall within the category of institutional investors. **Hong Kong:** Distributed by Crédit Agricole Corporate and Investment Bank, Hong Kong branch. This research report can only be distributed to professional investors within the meaning of the Securities and Futures Ordinance (Cap.571) and any rule made there under. **Japan:** Distributed by Crédit Agricole Securities Asia B.V. which is registered for financial instruments business in Japan pursuant to the Financial Instruments and Exchange Act (Act No. 25 of 1948), and is not intended, and should not be considered, as an offer, invitation, solicitation or recommendation to buy or sell any of the financial instruments described herein. This report is not intended, and should not be considered, as advice on investments in securities which is subject to the Financial Instruments and Exchange Act (Act No. 25 of 1948). **Luxembourg:** Distributed by Crédit Agricole Corporate and Investment Bank, Luxembourg branch. It is only intended for circulation and/or distribution to institutional investors and investments mentioned in this report will not be available to the public but only to institutional investors. **Singapore:** Distributed by Crédit Agricole Corporate and Investment Bank, Singapore branch. It is not intended for distribution to any persons other than accredited investors, as defined in the Securities and Futures Act (Chapter 289 of Singapore), and persons whose business involves the acquisition or disposal of, or the holding of capital markets products (as defined in the Securities and Futures Act (Chapter 289 of Singapore)). **Switzerland:** Distributed by Crédit Agricole (Suisse) S.A. This report is not subject to the SBA Directive of January 24, 2003 as they are produced by a non-Swiss entity. **Germany:** Distributed by Crédit Agricole Corporate and Investment Bank, Frankfurt branch and may only be distributed to institutional investors. **Australia:** Distributed to wholesale investors only. This research, and any access to it, is intended only for "wholesale clients" within the meaning of the Australian Corporations Act.

THE DISTRIBUTION OF THIS DOCUMENT IN OTHER JURISDICTIONS MAY BE RESTRICTED BY LAW, AND PERSONS INTO WHOSE POSSESSION THIS DOCUMENT COMES SHOULD INFORM THEMSELVES ABOUT, AND OBSERVE, ANY SUCH RESTRICTIONS. BY ACCEPTING THIS REPORT YOU AGREE TO BE BOUND BY THE FOREGOING.

05/08/16