

European Rates Weekly

What if excess liquidity goes to zero?

- **Euro money markets:** At the current average repayment speed of €6.2bn, we should expect excess liquidity to drop below €100bn around mid-February 2014. Our preferred trade is to receive Mar-14 ECB (at 15.5bp), which blends in nicely with our views on a new LTRO.
- **Trades for upcoming EMU cash flows:** Over the next two weeks there will be sizeable cash flows (€82bn) from France, Spain and Italy. We expect these cash flows to be supportive for front-end Spain, 15yr Italy and 10yr France. Our favourite trade is to be long Bono Apr15s.
- **Refinements in Moody's rating methodology:** We believe recent enhancements to Moody's sovereign bond rating methodology increase transparency and analytical granularity.
- **Dissecting the GBP curve:** The directionality of 10s30s has been surprising well behaved recently, despite lumpy supply and demand. We dissect daily curve moves and show that the beta in bull steepening and bear flattening has been very similar. The lack of a directional bias suggests that where 5s go, 10s30s will follow.
- **EUR volatility - a look at the 20y implied volatility term structure:** 1y20y/3y20y calendar spread looks cheap.
- **SSA strategy – inspecting RV in EIB:** We take a tour of relative value in EIB, comparing the issuer to EMU governments, other supranationals and hunt out dislocations on its curve. Going forward, we expect spreads to remain firm, especially given waning supply pressures in Q4.
- **Technical outlook:** Bunds continue to trade within the downward channel on a weekly chart. A 'Bollinger Squeeze' might potentially take Bunds further down before a reversal. In gilts, oscillators are in the oversold territory but we would wait for it to cross the trigger line before initiating longs, from a technical perspective.
- **Relative value trades:** We highlight a number of relative value opportunities in the 2-10yr sector of the French, Austrian, Dutch, Finnish and gilt yield curves.
- **Supply:** Within Europe, all of next week's bond supply comes from Germany (€2bn). The US Treasury will issue around \$7bn of 30-year TIPS next Thursday. The UK DMO will issue around £4bn of a conventional gilt (3.5% 2068) next week.

Alessandro Tentori

+44-20-7986-9224

alessandro.tentori@citi.com

Jamie Searle

+44-20-7986-9493

jamie.searle@citi.com

Matteo Regesta

+44-20-7986-9101

matteo.regesta@citi.com

Peter Goves

+44-20-7986-3215

peter.goves@citi.com

Nishay Patel

+44-20-7986-1007

nishay.patel@citi.com

Michael Spies

+49-69-1366-8403

michael.spies@citi.com

Aman Bansal, CFA

+91-22-4277-5021

aman1.bansal@citi.com

Mohit Aggarwal

+91-22-4277-5022

mohit1.aggarwal@citi.com

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Figure 1. Strategy Summary Table

Europe	View	Strategies
Direction	Our duration scorecard for the week ahead is slightly bearish.	Short
Money Market	We expect EONIA 1y/1y1y flatteners to profit from a collapse in excess liquidity and the disproportionate impact that higher O/N fixings would have on the very front-end of the curve. We also like receiving ECB Mar14 EONIA which is likely to benefit from a new LTRO and the small chance of a rate cut. In the UK, the very front-end is lacking direction and may stay that way until the Inflation Report on 13 November.	EONIA 1y/1y1yF flatteners Long ECB Mar14 EONIA Hold long ERZ3 1x2 call spread
Yield Curve	We expect EUR 10s30s to trade firmly above 60bp over the coming weeks. Over the longer term, we expect BTP 2s10s to steepen given the prospect of new elections before 2015 and next year's increase in gross issuance. 10s30s in the UK is highly directional and is particularly sensitive to 5yr yields.	Receive EUR 5y5yF vs 15y15yF UKT 2s10s steepeners Sell 10yr OATs vs 5yr and 30yr BTP 2s10s steepener
Cross-market	Over the longer-term, we would still expect Bunds to outperform given diverging economic fundamentals. The gilt-Bund spread continues to be driven by broader market direction (especially Treasuries). We expect it to widen further over the medium-term. Gilt-USTs are likely to remain highly correlated.	Sell EUR 2y cross-ccy basis Long Bunds vs both UST and gilts over the medium-term (add on corrections)
EMU Spreads	We expect the front-end of Spain to continue rallying due to large cash flows, new LTRO and duration extensions in the front-end of the curve. Upcoming cash flows in France and Italy should be supportive for 10yr OATs and 15yr BTPs in the near-term. Separately, we continue to like Belgium vs France and 2yr DSL-RAGB spreads appear too tight and are at attractive levels to initiate wideners	Buy 2yr Spain outright (or vs Germany) Buy 5yr Belgium vs France Buy 2yr Netherlands vs Austria
Swap Spreads	We are not tempted to reload on 10yr Bund spread wideners after taking profits last week. We are neutral on 10yr RX ASW for now. 30yr Bund spreads remains our preferred segment to express wideners. In the UK, we like 5yr (Jul18) swap spreads following recent underperformance.	Buy 5yr gilt (Jul18) ASW Hold long 30yr Bunds vs swaps (Euribor)
Inflation	BTPei break-evens continue to look rich vs both Boblei and OATei. We find OATei24 rich, especially vs OATi21. In the UK, front-end break-evens have moved sharply higher in response to hikes in energy prices. We expect this could have further to run given the lack of risk premium in break-evens vs our inflation forecasts.	Sell Bunde16 vs Boblei18 break-evens Sell BTPei23 vs Bunde23 break-evens Long 5yr UK break-evens Buy Boblei18 break-even vs inflation swap
Volatility	We expect the forward EUR 2s10s curve to move up to spot based on our expectation that bund yields will be stable over the next year and more LTROs will pin the front-end. The current level of EUR 2y2y & 5y5y implied skews are too steep when compared to previous levels of implied volatility for a range of underlying rates. We prefer short EUR collar positions hedged with USD longs, instead of outright shorts.	Long 2yr EUR single look CMS 2s10s ATM cap EUR 2y 10s30s conditional bear-steepener Short EUR 5y5y 100bp wide collar vs USD 5y5y 100bp wide collar
SSA	Supply pressures likely to wane and have less of an impact on the secondary market in Q4.	Maintain front-end KfW vs France over the medium term Prefer EU vs other supras in the sub 5yr sectors
For a list of outstanding trade strategies please see the Tradesheet section of this report		

Source: Citi Research Please note: Futures trading involves a significant risk of loss

Duration Scorecard

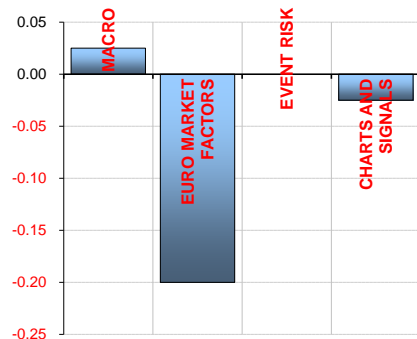
Figure 2. Bund Weekly Cheat Sheet: 18th-24th October

Bund Directional Scorecard (1wk horizon)

RECOMMENDATION		Short	RXZ3 (EOD Thurs) = 139.63	
Conviction level		10%	CTD yield = 1.62% 10day del vol = 4.79%	
SIGNAL STRENGTH (+/-2)				
MACRO		0.0	Weight = 33%	
ECB	1	Monetary policy to be accommodative for as long as needed	7.5%	
Fed, BoE and BOJ	0	Upcoming data will decide the pace of QE tapering	5.0%	
Inflation	1	Inflation likely to remain low for months	5.0%	
Growth related data	-1	October Euro Area PMI likely to confirm nascent recovery	5.0%	
Citi surprise	-1	Citi Economic Surprise Index remains elevated	5.0%	
Middle East / Oil	0	Oil prices have stabilised	5.0%	
EURO MARKET FACTORS		-0.2	Weight = 30%	
Supply	0	30yr supply from Germany. Heavy cash flows from France.	7.5%	
Risk appetite	-1	GRAMI indicates very low levels of risk aversion	7.5%	
Positioning	0	Positioning is cleaner	2.5%	
Equity	-1	Eurostoxx50 at 2 year high	5.0%	
Sovereign credit	-1	Peripheral spreads near tightest level in a year	5.0%	
FX	-1	EUR effective exchange rate near 1 year high	2.5%	
EVENT RISK		0.0	Weight = 18%	
Politics	0	No political event likely to impact the market in near-term	7.5%	
3yr LTRO	0	We expect a new 2yr LTRO by early 2014	7.5%	
Stability mechanisms	0	Nothing on the agenda in the near-term	2.5%	
CHARTS AND SIGNALS		0.0	Weight = 20%	
Technicals	-1	Bunds firmly in a downward channel	7.5%	
T-Note	1	Bias towards lower Treasury yields	5.0%	
CFTC	0	Positioning largely neutral	2.5%	
ARTS	0	Neutral	5.0%	

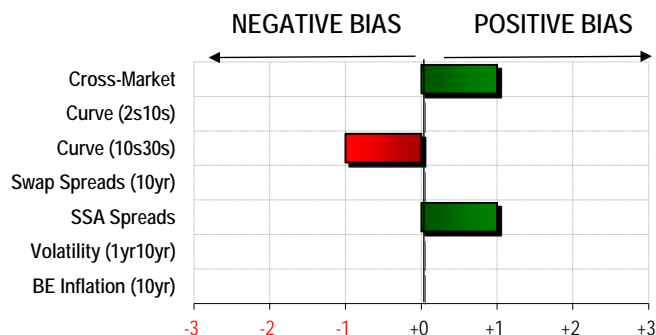
Source: Citi Research Please note: Futures trading involves a significant risk of loss

Figure 3. Contribution to Bund Signals



Source: Citi Research

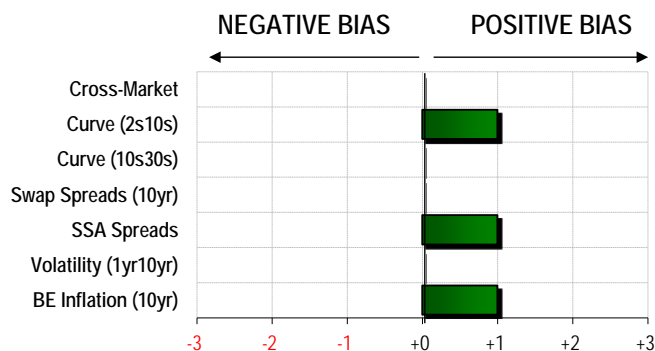
Figure 4. EURO AREA (Near-term Bias)



Source: Citi Research

POSITIVE bias = bullish vs UST, flatter curve, wider swap spreads, tighter SSA spreads, higher implied vol, wider BE inflation

Figure 5. UK (Near-term Bias)



Source: Citi Research

POSITIVE bias = bullish vs Bunds, flatter curve, wider swap spreads, tighter SSA spreads, higher implied vol, wider BE inflation

Tradesheet

New Trade

Please see page 12 for the details

1. Buy Spain 3% Apr15

Buy Spain 3% Apr15 at 1.43%

Open 1.43%. Current 1.43%. Target 1%. Stop 1.65%.

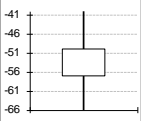
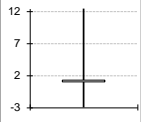
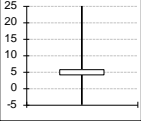
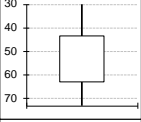
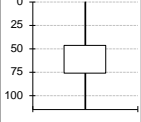
Record of Our Open Trades

Figure 6. Record of our Open Trades

Region	Trade	Levels	Rationale + Publication Date	
EUR	Buy Spain 3% Apr15	Open 1.43%	Cash flows, yield-grab, new LTRO, reduced supply to year-end & high carry European Rates Weekly, 17 October 2013.	
		Current 1.43%		
		P&L 0%		
		Target 1% Stop 1.65%		
EUR	BTP 2s10s steepener	Open 220bp	Redemptions to support 2s in 2014. Political uncertainty & long-end issuance to weigh on 10s. European Rates Weekly, 10 October 2013.	
		Current 225bp		
		P&L 5bp		
		Target 250bp Stop 205bp		
EUR	Sell BTPei23 break-even vs Bundeiz3	Open 3bp	Richness of 10yr BTPei break-evens on various metrics and upcoming supply. European Rates Weekly, 10 October 2013.	
		Current 5.48bp		
		P&L 2.5bp		
		Target 18bp Stop -5bp		
EUR	Buy Boblei18 break-even vs Bundeiz16	Open 8.6bp	Relatively cheap valuations on the curve favour a tactical break-even steepener. The Morning Call, 8 October 2013. Updated Target: European Rates Weekly, 10 October 2013.	
		Current 17bp		
		P&L 8.4bp		
		Updated Target 20bp Original Target 15bp Stop 5bp		
EUR	Buy 30yr Bund vs swaps (YYS)	Open -1.5bp	Technical levels, supply projections and upcoming cash flows European Rates Weekly, 19 September 2013 Revised Stop: The Morning Call, 3 October 2013	
		Current -2.8bp		
		P&L 1.3bp		
		Target -10bp Stop 3bp Revised Stop -1.5bp		
UK	Buy IL gilt Mar24 vs Nov22 and Nov27	Open 19bp	Speed of recent cheapening looks overdone, equivalent nominal fly has turned and no further supply in 2013 UK Inflation Strategy, 2 September 2013	
		Current 14bp		
		P&L 5bp		
		Target 12bp Stop 23bp		
UK	Sell 30yr gilt swap spreads vs 10yr	Open 20bp	Fiscal risks, supply pressures and the absence of QE to put steepening pressure on the gilt curve. UK Rates Strategy, 30 July 2013	
		Current 24bp		
		P&L 4bp		
		Target 50bp Stop 10bp		
Europe	Sell OATei24 break-even vs Bundeiz3	Open 38bp	Relative outperformance of 10yr OATei break-evens is overdone, especially now that the 25 July coupons have been paid. European Rates Weekly, 25 July 2013	
		Current 36bp		
		P&L 2bp		
		Target 25bp Stop 45bp		
Europe	Buy 5yr Belgium vs France	Open 19.5bp	Tactical long supported by upcoming cash flows. Euro Rates Strategy, 24 July 2013	
		Current 13bp		
		P&L 7bp		
		Target 10bp Stop 25bp		
Europe	Buy 2yr Netherlands vs Austria	Open 1bp	Attractive entry level to move up the credit curve. Relative value is also supportive. The Morning Call, 17 July 2013	
		Current 1bp		
		P&L 0bp		
		Target 10bp Stop -3bp		

Source: Citi Research

Figure 7. Record of our Open Trades (Continued)

Europe	Buy Boblei18 break-even vs 5yr HICPxT swap	Open -57bp Current -50bp	P&L 7bp Target -40bp Stop -66bp	Euro break-evens should be supported by rally in oil and upcoming coupon payments. The Morning Call, 16 July 2013	
Inflation	Buy Boblei18 break-even at 98bp Sell 5yr HICPxT swap at 155bp				
Europe	Buy ERZ3 1x2 call spread	Open 1c Current 1.3c	P&L 0.3c Target 12.5c Stop -3c	Dec Euribor has cheapened 30/35c since May ECB rate cut. However, a cut to the deposit rate would be required for a significant rally. Euribor, 24 June 2013	
Money Market	Buy ERZ3 99.750/.875 1x2 call spread at 1c				
Europe	Receive EUR 10y2y vs 12y3y	Open 4bp Current 6bp	P&L 2bp Target 25bp Stop -5bp	Cheapness of the sector due to legacy ASW positions. The trade offers a positive roll-down for relatively low volatility. The Morning Call, 23 January 2013	
Curve	Receive EUR 10y2y at 3.1% Pay EUR 12y3y at 3.14%				
Europe	Sell EUR 1y3yF ATM straddle and buy ATM/-25 receiver	Open 63bp Current 43bp	P&L 20bp Target 30bp Stop 73bp	Fwd levels in front-end EUR swaps are too high when additional policy measures by the ECB are likely to be undertaken IIRS 9 August 2012	
Volatility	Sell EUR 1y3yF ATM (≈1.36%) straddle for 98bp Buy EUR 1y3yF ATM/-25 receiver for 35bp				
UK	Sell GBP 2y2y ATM straddle	Open 76bp Current 46bp	P&L 30bp Target 0bp Stop 114bp	The fundamental backdrop in the UK supports selling GBP 2y2y vol IIRS 12 July 2012	
Volatility	Sell GBP 2y2y ATM (1.04%) straddle at 76bps				

Source: Citi Research Please note: Futures trading involves a significant risk of loss

ECB: What if excess liquidity goes to zero?

Alessandro Tentori
+44-20-7986-9224
alessandro.tentori@citi.com

Is a scenario of near-zero excess liquidity a likely scenario? Does it make sense for the ECB to allow the liquidity option to dry out against the back of a tentative and uncertain recovery? Can we use the 2010 experience as a guide for trading money market risk? Why do we still like Mar-14 ECB – and more generally – curve flatteners?

LTRO repayment details

Until 16 October, European banks have repaid EUR 350bn of the original EUR 1019bn allotted at the two 3y tenders. Together with other factors¹, the repayment has reduced excess liquidity from EUR 621bn to a current level of EUR 206bn. Details about repayment at regional level are not available, but we can estimate them from monthly changes in outstanding LTROs published by NCBs (Figure 8).

Core vs non-core and Italy vs Spain

Two observations at this stage:

- Core banks seem to have repaid approximately 66% by the end of September, with a peak of 93% reached by German banks. Non-core banks, on the other hand, are lagging with a repaid of 25%.
- Within non-core, the behavior of Italian banks (14% repaid) seems to differ somewhat from the repayment profile of Spanish banks (32%).

Figure 8. LTRO repayment statistics

ECB Repayment Analysis (EUR bn)															
Country	Nov-11			Dec-12					Change		Sep-13			Repayment	
	MRO	LTRO	DF	MRO	LTRO	DF	%EMU	3y	MRO	LTRO	MRO	LTRO	DF	EUR bn	%
Belgium	16	6	10	0	40	11	4%	36	-16	34	0	14	3	26	70%
France	36	65	27	5	174	74	16%	158	-31	110	0	89	26	85	54%
Germany	4	18	58	3	70	40	6%	63	-1	52	0	11	15	59	93%
Greece	13	61	0	17	2	0	0%	2	5	-59	62	1	0	0	26%
Ireland	32	71	1	8	63	2	6%	57	-24	-8	7	35	2	28	48%
Italy	83	68	1	3	268	3	24%	243	-80	200	1	234	0	34	14%
Netherlands	63	94	169	7	140	158	12%	127	-55	46	3	65	87	4	3%
Portugal	12	34	1	4	49	4	4%	45	-8	15	7	45	2	4	9%
Spain	54	52	8	41	316	44	28%	287	-13	264	19	226	3	90	32%
Eurosystem	247	392	256	90	1036	262		1019	-158	643	97	670	53	366	36%
Core		151			291		26%	264		140		118		174	66%
Non-core		286			699		62%	634		413		542		157	25%
Total LTRO repayment (End September 2013)														341	

Source: ECB, Citi Research

Banks' repayment behavior more in detail

Understanding the different repayment profiles is of paramount importance in forecasting the future level of excess liquidity. While it is relatively easy to reconcile the behavior of core banks with the improved fundamental outlook and the reduction in sovereign risk premium, the divergence between Italy and Spain is less obvious. From our perspective, Spanish banks have repaid a large amount of 3y LTROs (EUR 90bn at the end of September) as a result of unnecessarily large liquidity demand at the original tenders, net interest income from overblown mortgage books (or transfer of NPLs to SAREB) as well as some degree of "marketing value" in selectively repaying LTROs.

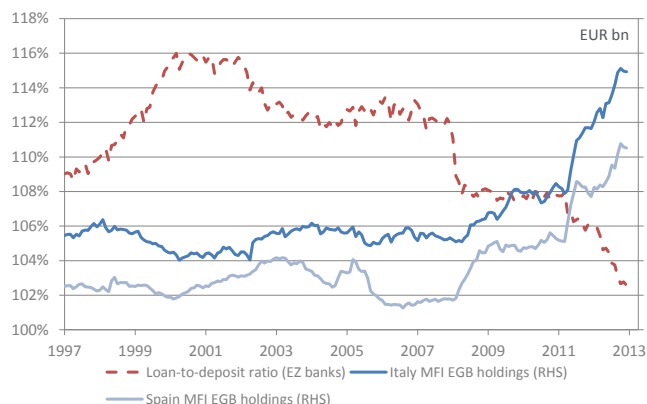
From lending to the private sector to lending to the public sector

Italian banks, on the contrary, have repaid less than Spanish banks not only because of increased political uncertainty, but also because of the sizeable reduction in "traditional income" (i.e. income from lending to households and SMEs). The practice of substituting lending to the non-financial sector with lending to the

¹ Autonomous factors increased by EUR 43bn, while use of the deposit facility has dropped by EUR 231bn during the course of 2013.

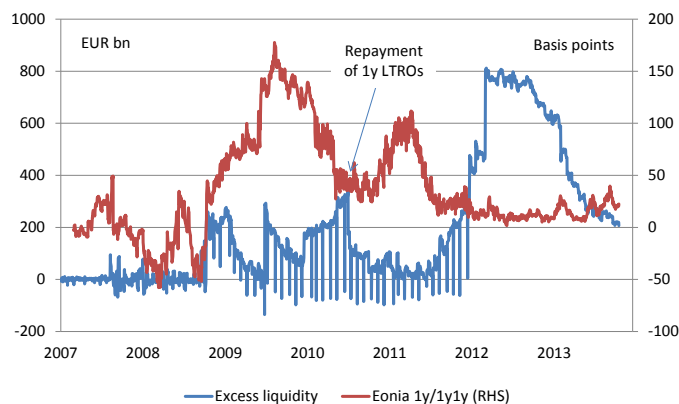
public sector (Figure 9) could eventually become the standard tool that European officials chose in order to address the composite scenario of low growth, low inflation and private balance-sheet deleveraging² that we can observe in several Euro zone member countries.

Figure 9. EGB holdings by Italy and Spain vs LTD ratio of EZ banks



Source: ECB, Citi Research

Figure 10. ECB excess liquidity and EONIA 1y/1y1y



Source: Citi Research

What could trigger a faster repayment of existing LTROs?

At the current average repayment speed of EUR 6.2bn, we should expect excess liquidity to drop below EUR 100bn³ around mid-February 2014. An even faster repayment may result from:

- **Repayment:** Unanticipated improvement in Eurozone lending conditions (which would reverse the trend towards lending to governments) or – somewhat perversely – in response to a new, more profitable LTRO and the associated repayment of less favorable “old 3y LTROs”.
- **Liquidity needs:** Further pick up in autonomous factors as a result of improved economic activity.

The scenarios described above do not seem to be too realistic to us, except perhaps the scenario of a new LTRO, which we have discussed at length in previous research⁴.

Implications for the money market

It's not easy to model the shape of the Eonia curve in the distinct event of a collapse in excess liquidity. While an instantaneous jump in O/N fixings from 0.08% to 0.58% (i.e. ECB refi plus spread) would probably propagate across 0-2y maturities in a bear flattening fashion, historical evidence from 2010 cannot be used to model this specific scenario.

As we can see in Figure 10, 1y/1y1y Eonia managed to steepen from a 25/50bp range in Q3 2010 to a 80/100bp range in Q1 2011 at the same time as ECB excess liquidity dropped below EUR 100bn in October 2010 (reaching single digit levels in Q1). However, the ECB hiked interest rates from 1% to 1.5% between April and July

Jump in fixings? Probably a bear flattener...

...but don't look at 2010/2011, which was biased by rate hike expectations

² MFIs continue trimming international inter-bank net borrowing.

³ We identify this level with the level at which Eonia fixings started to deviate from the deposit rate back in 2010 when the original 1y LTRO was repaid in full.

⁴ “Some thoughts on a new LTRO” (European Rates Weekly, 26 September 2013)
<https://ir.citi.com/FVMxO4s6ZaZv7yv%2BWvVx1ELnEO2RhkA9CVwbXc9OSY5pOOU2ln2w%3D%3D>

2011, which gauged by the amount of steepening could be attributed almost entirely to rate hike expectations⁵.

We like flatteners in general

In the current market environment, we think that Eonia 1y/1y1y (at 21bp) steepeners have a chance of performing only in a scenario of improved economic fundamentals, thus reflecting almost exclusively interest rate hike expectations (heavy delta component). On the other hand, flatteners would probably profit from a collapse in excess liquidity and the disproportionate impact that higher O/N fixings would have on the very front-end of the curve. Receiving Eonia 1y1y vs paying 1y generates 7-8bp of positive roll-down in six months.

Receive Mar-14 ECB

Our preferred trade is to receive Mar-14 ECB (at 15.5bp), which blends in nicely with our views on a new LTRO and the minor chance of another rate cut (not our baseline scenario).

⁵ The front Euribor curve also steepened by 40-50bp, before eventually inverting on the back of cut expectations and FRA/OIS widening.

EMU: Trades for upcoming cash flows

Nishay Patel
+44-20-7986-1007
nishay.patel@citi.com

Large payments in a short window

-ve net supply for FRA & ESP

-ve NCR for all three issuers

Over the next 2 weeks there will be sizeable cash flows from France, Spain and Italy. We examine the implications that these payments could have on their respective curves.

Sizeable cash flows from France, Spain and Italy are coming soon

- Between Friday 25 October and 1 November there will be €82bn of cash flows (€27bn coupons & €55bn redemptions) from France, Spain and Italy (Figure 11). To put this into context, these represent approximately 20% of total 2013 coupons and redemptions in these three countries.
- As shown in Figure 11 below, net supply (gross supply – coupons) is negative for France and Spain over the next three weeks and the net cash requirement (NCR) is negative for all three issuers.
- Upcoming coupons for France (€16bn) accounts for 37% of total 2013 coupons, the highest percentage for any of the three issuers (Figure 11). Spanish redemptions of €16bn represents 27% of total 2013 redemptions, this is 7ppt higher than France and 15ppt higher than Italy.

Figure 11. 21 Oct – 10 Nov: Gross supply, coupons & redemptions for FRA, ESP and ITA (€bn)

	A	B	A-B	C	A-B-C		
	Gross Supply	Coupons	Net Supply	Redemptions	NCR	Coupon (% of 2013 total)	Redemption (% of 2013 total)
France	7.0	16.3	-9.3	21.1	-30.3	37%	20%
Spain	3.0	5.5	-2.5	16.2	-18.7	20%	27%
Italy	8.5	5.5	3.0	17.8	-14.8	10%	12%
Total	18.5	27.3	-8.8	55.1	-63.9	Avg. 22%	19%

Source: Citi Research, DMOs, Bloomberg

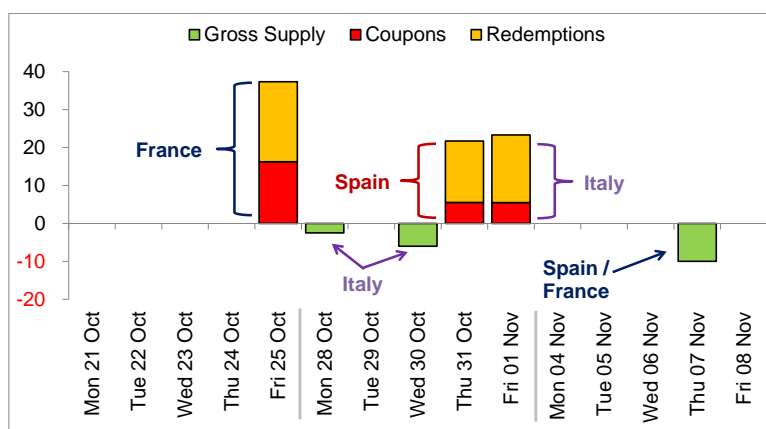
Timing of cash flows and supply

- As mentioned earlier, there will be a significant amount of cash flows within a short period (6 business days). Comparing this to gross supply over the next three weeks highlights a number of observations (Figure 12):
 - France:** there is large gap between cash flows (25 Oct) and supply (7 Nov).
 - Spain:** Spanish and Italian cash flows fall within 1 day of each other. Cash flows in Spain will be paid a week before the next auction.
 - Italy:** The Italian auctions in w/c 28 October occurs in the same week as coupons and redemptions.

Large gap between French cash flows and supply

Italian and Spanish cash flows fall within a day of each other

Figure 12. 21 Oct – 10 Nov: daily breakdown of gross supply and cash flows by country (€bn)



Source: Citi Research, DMOs, Bloomberg

Spain: Trading Strategies

Cash flows are strongly supportive for front-end Spain

- As shown in Figure 11, upcoming coupons and redemptions in Spain account for a sizeable portion of total 2013 cash flows. These cash flows easily outweigh gross supply over the next three weeks (by €19bn).
- The split of coupon payments shows that the 5yr sector (€1.2million/bp) accounts for 50% of total coupons (Figure 13). With this in mind and taking into account sizeable redemptions due to be paid on the same day (31 October) we would expect the front-end of the Spanish curve to remain well supported in the near-term.

Trade idea: Buy Spain Apr15s outright

We recommend buying Bono Apr15s outright due to the following reasons

Reasons why we recommend buying Apr15s outright:

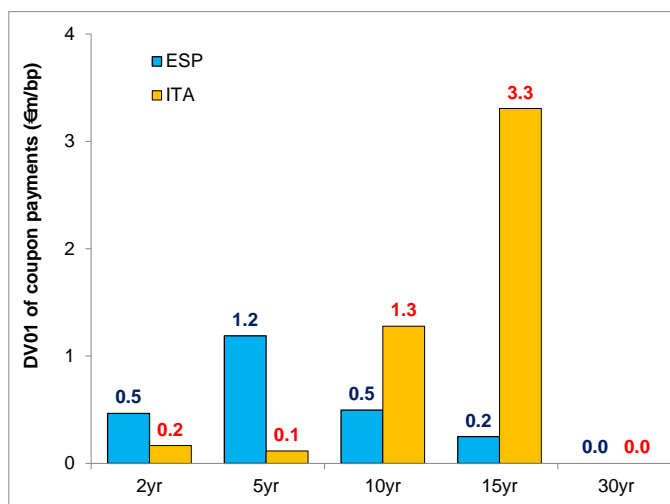
- cash flow support
- duration extension likely to occur
- new LTRO in the coming months
- reduced Bono supply to year-end
- high carry (48bp every 3months)

- **Duration extension:** Taking into account the recent outperformance of 1-2yr Spain vs both Germany and 5yr Spain coupled with the outright level of 1-2yr yields (Bono Jan15s yield only 1.10%) we would expect investors to move further along the credit curve ("yield grab").
- **Carry:** The high level of carry in this segment of the curve (48bp every 3months)
- **New 2yr LTRO:** Our economics team expects the ECB to announce a new 2yr LTRO in the next 3-6months. We would expect the market to start pricing in a new LTRO before year-end. This is likely to be supportive for the front-end of peripheral curves.
- **Reduced supply to year-end:** We expect remaining Bono auctions in 2013 to be smaller than the average auction size in its 2013.

Trade details:

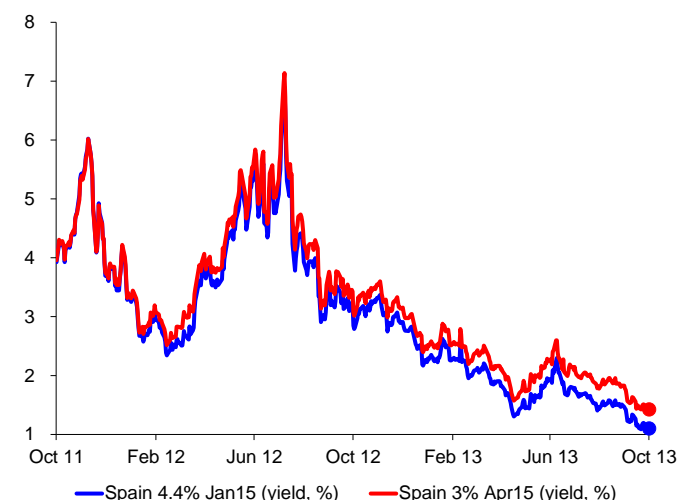
- Buy Bono 3% Apr15 at 1.43% (Target 1%. Stop 1.65%)

Figure 13. DV01 of Spanish & Italian coupons by tenor (€million/bp). The majority of cash flows in Spain fall in 5yrs. For Italy it is the 15yr sector.



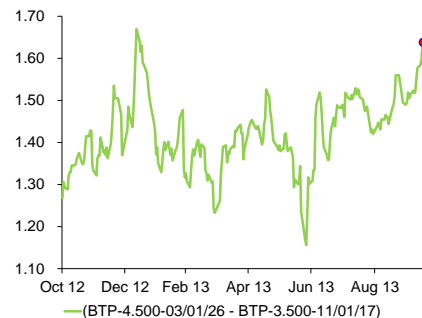
Source: Citi Research, Bloomberg

Figure 14. Front-end Spain continues to make new lows. With Jan15s close to 1% we would expect Apr15s to outperform soon as investors move further along the curve.



Source: Citi Research

Figure 15. BTP 5s15s have bull-steepened sharply in recent weeks



Source: Citi Research

Italy: Trading Strategies

- We would expect the Italian auctions on 28 October (CTZ) and 30 October (BTP 5yr & 10yr) to be supported by the reinvestment of cash flows that will occur later that week (1 November).
- **Front-end BTPs:** The front-end of the BTP curve is likely to be supported in the coming weeks by Italian and Spanish cash flows (paid within one day of each other).
- Over the long-term, we expect the front-end of the BTP curve to be supported by reinvestment flows from domestic holders of BTPs (see [Impact of 2014 BTP Supply on the Curve](#) for a full write up).
- **Long-end BTPs:** The breakdown of Italian coupon payments shows that the majority of these payments fall in the 15yr sector (€3.3million/bp). Taking into account that there will be no 15yr+ BTP issuance until 13 November we could see some support for 15yr BTPs. However, rather than fading the recent steepening of BTP 5s15s (Figure 15) we see better value in front-end longs.

France: Trading strategies

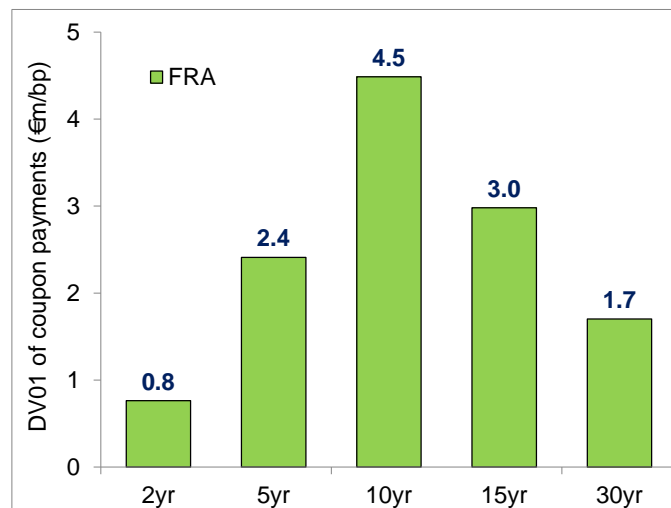
The 10yr sector has the largest DV01 of coupons (€4.5million/bp)

Not tempted to fade the recent tightening of OAT-Bunds. Could see the 50bp OAT-Bund spread level being broken in the near-term

Expect OAT-Bunds to widen to 70bp in the next 6months.

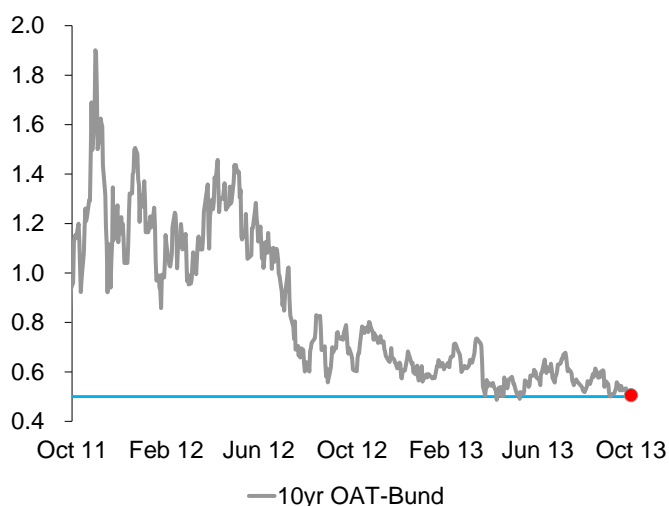
- **OAT coupons by tenor:** Breaking down next week's French coupon payments by maturities shows that the 10yr and 15yr sectors will have the highest DV01 of payments at €4.5million/bp and €3million/bp respectively (Figure 16).
- **10yr OAT-Bunds:** Whilst it is tempting to initiate 10yr OAT-Bund spread wideners at 50bp (technical support level) we suggest waiting at least a week (w/c 28 Oct) before expressing 10yr OAT-Bund spread wideners (Figure 17). We think there is a decent chance that the 50bp level in OAT-Bunds is broken in the near-term given the imbalance between cash flows and supply in France.
- Beyond the next few weeks, we expect 10yr OAT-Bund spreads to widen to 70bp by the middle of next year ([Global Economic Outlook and Strategy](#)).

Figure 16. DV01 of 25 Oct French coupons by tenor (€million/bp)



Source: Citi Research, Bloomberg

Figure 17. 10yr OAT-Bunds testing 50bps (yield, %)



Source: Citi Research

Sovereign bond rating methodology

Welcome changes & enhancements to Moody's framework

Peter Goves

+44-20-7986-3215

peter.goves@citi.com

In this note we comment on and detail recent changes Moody's has made to its 2008 sovereign bond rating methodology after it requested feedback in December last year. Specifically, there is increased focus on growth prospects in determining economic strength and greater prominence for event risk as a factor. This potentially bodes well in support of current ratings given the current European environment. On balance, we view the improving macro tone as a positive in assessing sovereign credit quality (and our economists' upgrades to various forecasts are testament to this).

Although many risks remain regarding the economic outlook, the ECB has effectively changed the EMU landscape. Initiatives such as the OMT and the LTROs have proved to be credible backstops in confronting various tail risks. Furthermore, the nascent EMU recovery should mean a return to positive growth next year for many sovereigns mired by quarters of economic contraction. Separately, we also view the increased granularity in Moody's "scorecard" approach as a welcome improvement in transparency, to the benefit of investors and the market more broadly.

Sovereign bond ratings – strengths and limitations

Ratings must be viewed in context and not in isolation

First we would like to make some general observations before delving into some of the methodological detail. Sovereign credit ratings have grown in significance, both in terms of the number of EMU rating migrations and because some ratings are now nearing the Investment Grade threshold of BBB. Yet, there is a persistent investor theme concerning how ratings are commonly viewed. Specifically, ratings are often described as "backward looking" and seen to do a poor job of anticipating spread movements in the market. We believe that in some sense this misses the point for various reasons and that ratings continue to play a central role in defining risk for investment decisions. The key point we would emphasize is that ratings must be used in context with methodologies and their principal aims in mind.

In the case of Moody's, recent enhancements help to augment their framework and the provision of extra granularity in factor analysis and scoring techniques (15 ranking categories now instead of 5 previously) is beneficial in improving clarity and transparency, in our view. Understanding such characteristics and how methodologies are adapting to the changing economic context is important in assessing what ratings are attempting to do.

Moody's ratings reflect expected loss, not expected market moves

Moody's ratings form an ordinal ranking of credit quality in terms of expected loss

Sovereign bond ratings, to some extent, operate within a different context to that of the secondary fixed income market. Anticipating yield and spread movements (which can be driven by a variety of fundamental and technical factors other than credit risk) isn't really their job. As Moody's states⁶, "*long-term debt ratings provide ordinal rankings of credit, both within and across sectors, industries, asset classes and geographies. They are relative rankings of credit risk that have, over time, become associated with approximate levels of expected loss*". To stress, Moody's ratings exist to reflect expected loss – traditionally defined as a probability of default multiplied by the loss given default or $(1 - \text{recovery})$.

⁶ Moody's Investor Service: "Refinements to the Sovereign Bond Rating Methodology" 12th Sept 2013

An event of default does not necessarily mean the assignment of the lowest Moody's rating

This is an important concept to grasp and made very clear in a note recently put out regarding the US debt ceiling⁷. It is also crucial to appreciate the difference in definitions and methodology among the rating agencies (which can explain, in part, various rating differentials for the same issuer). Specifically, Moody's has indicated that a missed interest payment on US government debt would be viewed as an event of default. However, this does not necessarily mean the US would be assigned the lowest rating (and note Moody's does not have a "default" or "D" rating).

Applying the notion of expected loss, it notes that *"Based on studies of past sovereign defaults, defaulted instruments typically lose approximately 50% of par and are often rated Ca. In this case, however, we would expect any default to be short lived and to be cured with 100% recovery. So most likely, the rating for all treasury bonds would be downgraded into the Aa rating category and would be maintained on review for possible downgrade until the default is cured."*⁸.

Anticipating spread movements is not the job of rating agencies and hence they should not be judged on such criteria in our view

Within EMU, given the volatility witnessed over recent years, which has been driven by a variety of fundamental and technical factors, rating changes "not anticipating" spread movements is perhaps unsurprising, given that this is not what they are intrinsically designed to do. In addition, we would point to the following:

- Rating agencies rate "through the business cycle" and are not supposed to vary with regular business fluctuations and economic upturns and downturns.
- Rating agencies have tools such as "outlooks" and "watch" or "review" periods which are usually (but not always) a precursor to a formal rating action. For example, Portugal is currently on "negative watch" by S&P at present, and hence, prospects of a downgrade have been clearly flagged to the market.
- Ratings do exhibit a meaningful relationship with empirics regarding their predictive power. Empirically, under Moody's definition and criteria, there has been no default by a government rated Aaa within a 10-year period of holding the Aaa rating. In general, the lower the rating, the higher the realized level of default: the historical manifestation of defaults is broadly consistent with the ordinal ranking.

Qualitative and quantitative considerations: Therefore, in our view, ratings should not necessarily be equated to default probabilities such as those implied by the CDS market or even by more quantitative corporate structural models such as KMV. Moody's ratings, specifically, are based on fundamental analysis and a methodology to reflect credit quality in terms of expected loss. We detail the various enhancements to their framework below. To the charge that ratings can be seen as somewhat "backward looking", we would note Moody's inclusion of "forward looking" expectations regarding debt dynamics when making final assessments. Such aspects are perhaps best not captured by formal algorithms and this is one reason why their scorecard should be treated as a representation and guide and not something to be taken out of context.

⁷ Moody's Investor Service: "United States: Frequently Asked Questions Regarding the Ongoing Budget Stalemate and Sovereign Credit Quality" 15th October 2013

⁸ Moody's Investor Service: "United States: Frequently Asked Questions Regarding the Ongoing Budget Stalemate and Sovereign Credit Quality" 15th October 2013

Moody's scorecard and rating transparency

Moody's four factor framework and its recent refinements

As stated, it is not our intention to specify Moody's model in all its detail, but to provide an overview to better understand their approach, recent refinements and implications. In short, Moody's operates within a four factor framework and has a scorecard to represent what it sees as the pertinent drivers to assess sovereign creditworthiness. The four factors are defined as:

- **Economic Strength (F1)**
- **Institutional Strength (F2)**
- **Fiscal Strength (F3)**
- **Susceptibility to Event Risk (F4)**

Three items we would note. First, each broad factor has various sub-factors. For example, Economic Strength incorporates notions of growth dynamics and national income and Institutional Strength takes into account policy effectiveness and the institutional framework. Importantly, the four factors no longer "add up" to a rating outcome in the usual way. Rather:

- F1 + F2 define Economic Resilience
- Economic Resilience + F3 define Government Financial Strength

Once Government Financial Strength is assessed, the incorporation of Susceptibility to Event Risk helps derive Moody's final rating range.

Enhanced scoring of sub-factors

Factor scoring: Second, each sub-factor is now assigned one of 15 "scores". These include: Very High, High, Medium, Low and Very Low and now each category has an extra degree of granularity, allowing for a "plus", "neutral" or "minus" state (taking the total to 15 possible assignments).

Matrix to map factor score to derive a guide as the final rating range

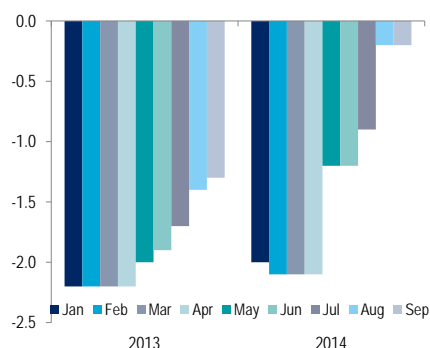
Example: To put into context, given the various factor scorings for Spain, Moody's assess Spain's Government Financial Strength as H- (High minus). This is a combination of the factor scorings of F1, F2 and F3 as discussed above. Moody's judges Spain's Susceptibility to Event Risk as M+ (medium plus). There is a matrix mapping to be used as a guide which aligns all possible scores of Government Financial Strength to all possible scores of Event Risk Susceptibility, which in the case of Spain points to the rating range of Baa1-Baa3. Taking into account final adjustments, forward looking expectations and considerations, Moody's has assigned the rating of Baa3 to Spain (negative outlook).

The refinements: Third, we would point to the key aspects of the refinements that have recently been incorporated:

- More focus on growth and potential economic performance as a component of Economic Strength
- More focus on the effect of external vulnerabilities (in terms of both event risk and contingent liabilities)

Given the increased focus on such factors, we comment on them individually below in the current context of the nascent EMU recovery.

Figure 18. Monthly Citi Forecasts for Spain's GDP growth (%)



Source: Citi Research (Monthly GEOS forecasts)

The improving economic outlook is a credit positive

Moody's various "negative outlooks" on its ratings tend to relate to downside risks to the growth outlook. We would agree that downside risks remain ([Global Economic Outlook and Strategy](#)). However, should the EMU recovery grow firmer, prospects for such downside risks should, to some extent, reduce. Also note that various forecasters have been in the process of revising growth forecasts upwards over recent months.

To continue with the example of Spain, Citi economists have progressively upgraded their Spanish growth forecasts for 2013 and 2014 (Figure 18) throughout this year. Our economists now expect flat growth for Spain next year (-0.1% to be precise) compared with original estimates earlier in Q1 of over -2%. Of course, what matters for Moody's is how economies perform relative to their own expectations – and data have tended to be broadly in line with their base case. However, although downside risks remain, a focus on growth amid a backdrop of upgrades by forecasters is likely to be supportive for current assessments of sovereign credit quality.

The greater scope "event risk" can have on creditworthiness

Separately, we would agree that external factors remain important for creditworthiness and that, as a driver of sovereign credit, this factor has increased in its significance over recent years. For example, event risk can (but does not always) cause market volatility, which in turn can adversely affect funding costs and hence ultimately affect debt affordability. In the current environment, the context of event risk has changed. When we think back to 2011, when themes of "Grexit" and the integrity of the euro as a currency area were being debated, the macro environment is simply not what it once was.

We continue to place weight on actions by the ECB for this change, as well as actions by euro area authorities in establishing stability mechanisms and governments in implementing structural reforms and austerity measures. The OMT needs little introduction and there has been regular analysis of the LTROs and liquidity conditions. We would conclude that by acting as an effective backstop and fostering the recovery in sentiment and confidence, central bank policy has been instrumental in alleviating some systemic fears.

Various concerns remain muted (and have changed in their nature) and so we are not inferring that event risk has been eliminated – one need only to look at recent political history in Italy to see this (and the S&P downgrade in July). However, with a credible ECB backstop, the landscape has been altered, with adverse effects from some event risk seemingly lessened.

Investor confidence and market conditions remain very important, especially for indebted sovereigns to service their funding requirements. However, to the extent that event risk is given focus by rating agencies, improvements in the macro tone are likely to be viewed favourably.

Sovereign rating stability and characteristics

Moody's argues that the improvements to its methodology bring ratings more in line with current drivers of sovereign credit in response to changes in the macro environment and financial markets over recent years. To quantify, Moody's states that 88% of its current ratings fall within the scorecard-implied rating range. We would also make the following observations for sovereign credit ratings that we take into account when assessing their relationship to bond markets.

Stability: Rating transmission matrices are one way of assessing rating stability. One aspect to note here, in the context of sovereign ratings, is that sovereign ratings tend to be more stable than corporate ratings, especially in the IG space. For example, using Moody's data over the period 1983-2012, the probability of remaining Aaa for a corporate is 85.94%, whereas for a sovereign, this probability is 97.1%. Furthermore, Moody's also notes that its rating changes are hardly ever reversed within a one-year time horizon (citing an incidence of just 1%).

Sovereign characteristics: It is important not to forget the somewhat unique characteristics sovereigns possess when compared with traditional rating analysis of corporates. These include the ability to print money, increase revenue (setting tax rates) and cut expenditure as well as a very high probability of survival post default.

Conclusion – ratings must be viewed in context and not in isolation

We welcome improvements to increase granularity within the Moody's framework as well as refinements to assess credit drivers amid the changing economic context. Specifically, we would agree with the greater focus on event risk and the wider growth environment when assessing credit quality. In addition, our main conclusion is that ratings remain a very important investment tool in evaluating relative sovereign credit quality. Their effectiveness is increased when viewed in context and with their key aims and principles in mind. We would caution against over-reliance on specific models or frameworks in isolation and believe qualitative considerations have an important role to play when assessing overall sovereign credit quality.

UK Rates: 10s30s surprisingly well behaved

Jamie Searle
+44-20-7986-9493
jamie.searle@citi.com

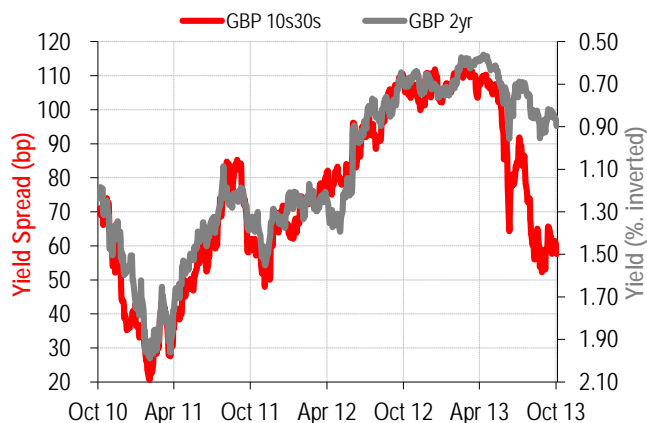
To say that the 10s30s curve in the UK is directional is hardly news. However, what is more surprising is just how well behaved the curve directionality has been over the last six months. This is despite heavy long-end issuance – including an extension of both the nominal and real yield curves to the 2068 maturity – and despite a strong pick-up in LDI activity in response to higher outright yields. One possible conclusion is that lumpy supply and demand has offset each other to the extent that curve dislocations have been few and far between. To illustrate this, we have looked into which tenor has been driving the 10s30s GBP swap curve and dissected daily changes to better understand the directional dynamic.

What's driving 10s30s?

The most influential driver of 10s30s has shifted from 2s to 5s

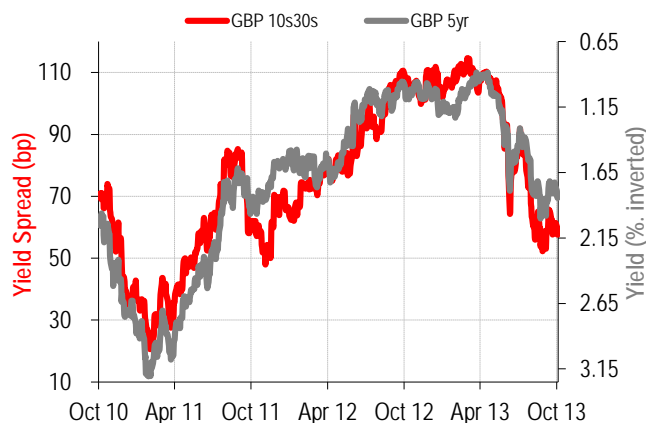
The first observation to make is that the beta between the curve and the very front-end has changed. In recent years, the 2yr sector has been the primary determinant of the slope of 10s30s. However, the flattening that has occurred since March looks aggressive relative to the rise in 2yr yields (Figure 19). The level of 10s30s is now more influenced by yields further out (Figure 20). This makes sense as the market starts to price in policy normalization while still recognizing that the first rate hike is a considerable time away.

Figure 19. The beta between 10s30s and 2s has changed



Source: Citi Research, Bloomberg.

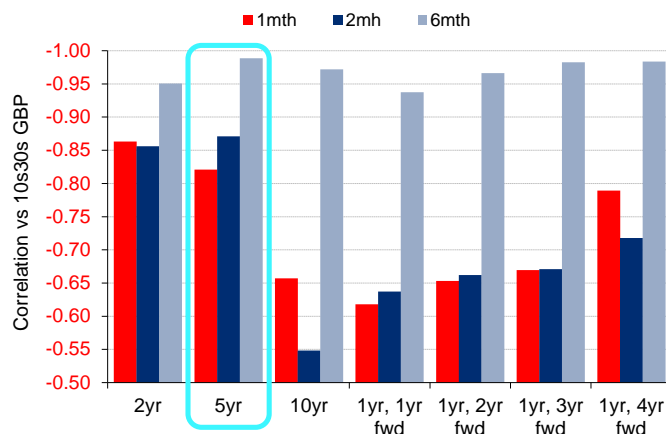
Figure 20. The flattening has been driven by yields further out



Source: Citi Research, Bloomberg.

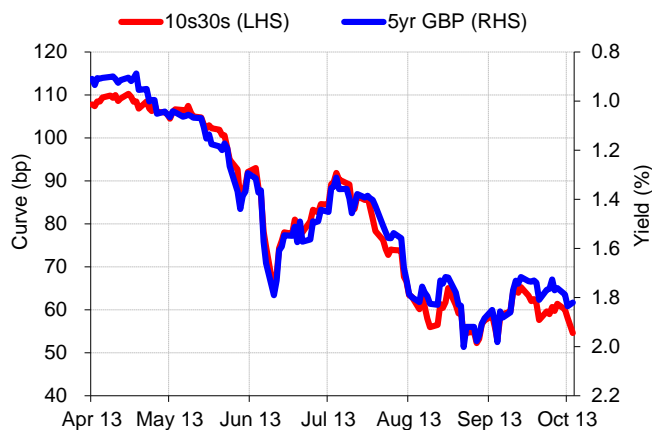
To dig a bit deeper into what has been driving 10s30s more recently, we have looked at one-, two- and six-month correlations of various rates vs 10s30s.

Figure 21. Correlations of various rates vs 10s30s



Source: Citi Research, Bloomberg.

Figure 22. High correlation between GBP 10s30s and 5s



Source: Citi Research, Bloomberg.

5s are the new 2s

The 5yr rate exhibits the highest correlation with the curve over both shorter and longer periods

As Figure 21 illustrates, the correlation of all front-end rates to the curve is very high over the last six months, but the 5yr rate and the 3yr1yr edge it by having the highest correlation of -0.99 (1yr1yr has the lowest). Over the shorter periods of the last one- and two-months, the correlations are lower. However, the 5yr rate, along with the 2yr rate, stand out as having the greatest influence. Putting the longer and shorter periods together, we conclude that the 5yr area is now the most important in shaping 10s30s. The closeness of the relationship is clearly apparent in Figure 22.

Dissecting the curve

Curve dynamics over the last 6mths:
bear steepening 6%, bull flattening 10%,
bear flattening 50%, bull steepening 34%.

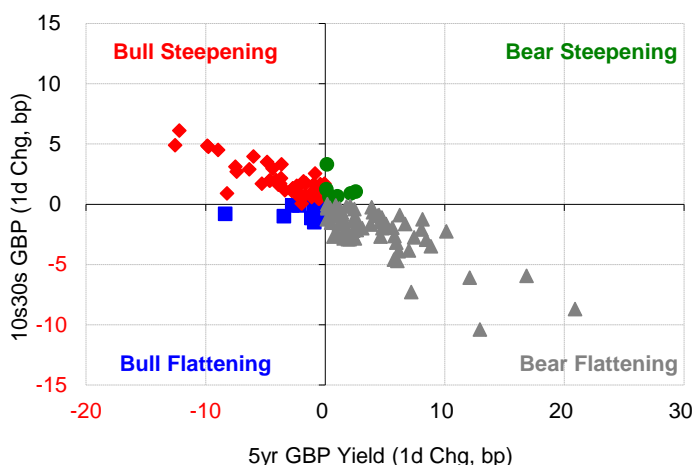
Looking at daily changes in 10s30s and 5s highlights just how well behaved the curve has been over the last six months. Both bear steepening and bull flattening have been rare, occurring in just 6% and 10% of observations respectively. The bearish trend over the last six months has ensured that bear flattening has been the dominant dynamic (50% of the observations) although there have also been many days of bull steepening (34%).

The beta in bull steepening and bear flattening moves has been very similar.

In addition to being more frequent, the bearish daily moves have also - on average - been larger than the bullish moves, helping the curve to flatten. But it is interesting to note that the beta has been fairly symmetric. In fact, the change in 10s30s per bp of 5yr yield change has been +0.53bp for bull steepening and a slightly lower number of -0.51bp for bear flattening. The conclusion from this is that the directional behavior of 10s30s GBP has been very symmetric with no obvious bias.

In other words, there is no obvious bias.

Figure 23. Dissecting the curve: daily changes in 5yr yields vs 10s30s



Source: Citi Research, Bloomberg.

Conclusion – where 5s go, 10s30s will follow

The consistency of the directional nature of 10s30s is somewhat surprising given lumpy supply/demand.

The analysis above has all been conducted using swaps, but similar observations can also be made for gilts. What is surprising is that, over the last six months, there has been little distortion in 10s30s from heavy issuance into the long-end (most notably the new 2068 maturity gilt and linker) or from a pick-up in LDI activity. The lack of a steepening bias into next week's 2068 syndication further reinforces this observation. The simple, and somewhat obvious, conclusion is that 10s30s remains very much a proxy for directional trades. In short, where 5s go, 10s30s will follow.

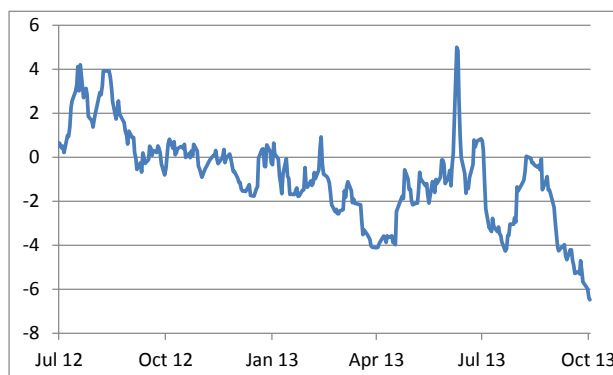
10s30s remains very much a proxy for directional trades.

Matteo Regesta
+44-20-7986-9101
matteo.regesta@citi.com

EUR Vol: A Look at the 20y Vol Term Structure

Our routine scans on the volatility surface have recently picked up the following fact on the 20y implied volatility term structure: as shown in Figure 24 the 1y20y/1y30y normal implied volatility spread has dropped to historically cheap levels. The spread was hovering around zero a year ago and it currently below -6bp.

Figure 24. EUR 1y20y/3y20y implied volatility spread



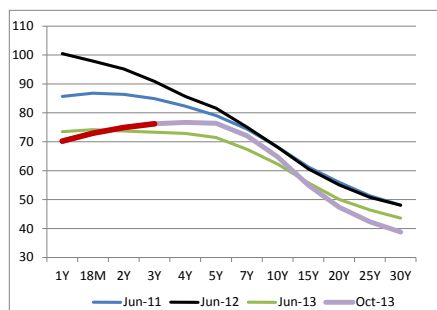
Source: Citi Research

More generally, the current shape of the 20y implied volatility term structure is not in line with past structures across different levels of volatility (Figure 25). A position that plays the reversal of the 1y20y/3y20y implied volatility spread could potentially generate 5 norms profit.

More in details, the trade can be set up in three main ways: 1) Vega Neutral, 2) Equal Notional and 3) Gamma Neutral. The first two trade constructions suffer from negative carry: Assuming EUR 100m on 3y20y swaption straddle, the negative carry for the vega neutral position is roughly – EUR 420k in the first month. It is roughly –EUR 171k if the position is established with equal notionals.

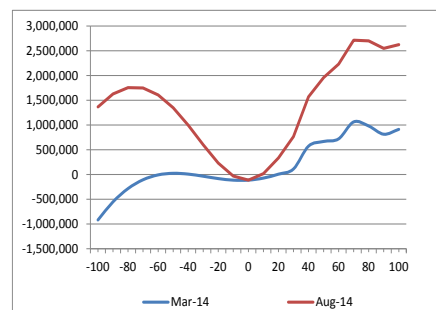
In contrast, assuming EUR 100m on the 1y20y swaption Straddle, the carry over the first month is roughly flat, if the trade is designed gamma neutral. The vega spread is around EUR 125k whilst the outright vega position is roughly – EUR215k. Given its bearish delta profile, it is best if the trade is delta hedged via 35k DV01 receiving 20y swap position (itself a positive carry trade). Assuming unchanged vol, the interest rate scenario for the delta hedged calendar is shown in Figure 26 below.

Figure 25. Present and past 20y vol implied volatility term structures



Source: Citi Research

Figure 26. Interest rates scenario analysis for rate shifts for the gamma neutral calendar, delta hedged at inception.



Source: Citi Research

For the gamma neutral construction above, the investor receives around EUR 18m upfront. More detailed risk and sensitivity analysis is available upon request.

Peter Goves
+44-20-7986-3215
peter.goves@citi.com

SSA Strategy – EIB RV inspection

Market outlook: The primary market remains relatively buoyant with issuance being readily absorbed. Supply has some from supranationals, sub-sovereigns (a new €1bn 10yr Laender bond) and agencies (RENTEN and FMS taps). We are not detecting a significant negative impact on spreads and the extent to which certain transactions are oversubscribed is testament to a supportive technical backdrop. Given the completion rates of many SSAs in terms of their funding programmes, left to their own devices, we expect ASW levels to remain at their relatively low levels, and probably even tighten further in over Q4.

Where's the value on EIB's curve...

As a reliable, relatively liquid and benchmark issuer, EIB continues to offer a representative picture of secondary market behavior in European supranationals. Performance remains firm, with 10yr EIB trading around 16bp vs swaps and having rallied over the year (Figure 27). Although we expect appetite for core AAA credits to remain healthy, value in an absolute sense isn't necessarily obvious when looking at such ASW histories. We continue believe that being creative in *relative* value analysis can unearth various opportunities. With yields and spreads increasingly compressed, this will likely grow in importance – with value still present, but much dependent on where you look and how you assess the market. We believe the following themes serve to illustrate this point.

(1) Relative value vs France – look at the 8yr/9yr sector

One classic differential to monitor remains EIB's yield curve to France. Although fundamentals are clearly significantly different, persistently high correlation and range bound spreads can prompt interest to move into the AAA/Aaa supras when entry levels and liquidity permit. The yield curves of EIB and France are shown in Figure 28 and more revealingly, the spreads between the two are depicted in Figure 29. The spread curve has slightly steepened recently: spreads in the 3yr-7yr sector have nudged tighter, whereas spreads further out the curve are slightly wider.

Figure 27. EIB ASW Histories (bp)

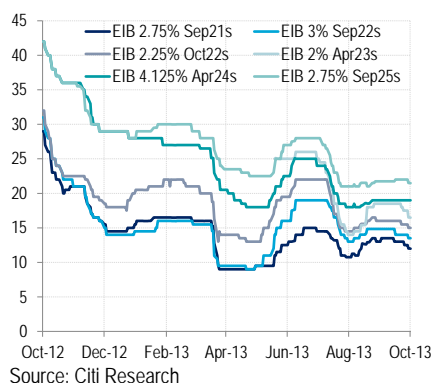


Figure 28. EIB and France Yield Curves (%)

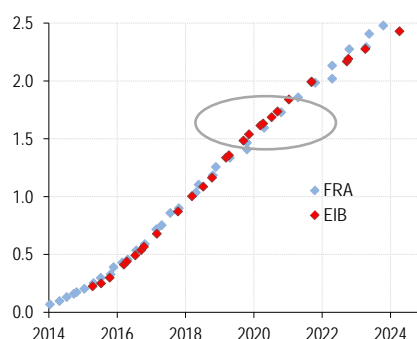
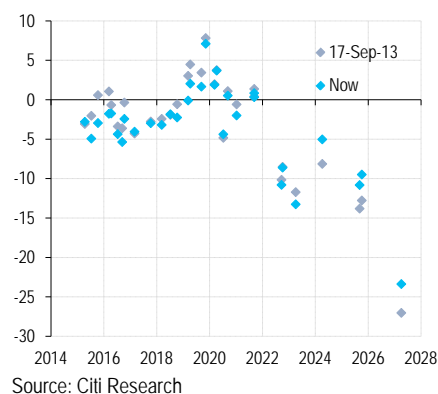


Figure 29. EIB spreads to France (bp)



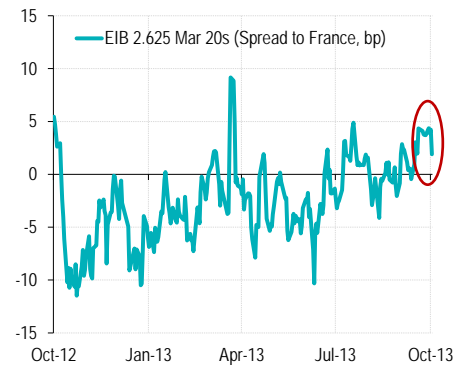
We continue to see value in the belly of the spread curve between EIB and France. Specifically in the 7yr-9yr sector (where EIB has been a frequent issuer recently), it is still possible to move at a flat (or sometimes small positive) spread from France into the AAA/Aaa supranational. One example where the spread is slightly positive, and has traditionally been range-bound in character, is between EIB 2.625% Mar20 and OAT 3.5% Apr20 (Figure 30). Spreads have been wider but are still near the extremes of the recent range (Figure 31). Alternatively, moving further out to the 8yr sector, EIB has progressively cheapened throughout the year to levels where pick-ups are positive or, in the current context, flat (Figure 32).

Figure 30. 7yr EIB and 7yr France (Yield, %)



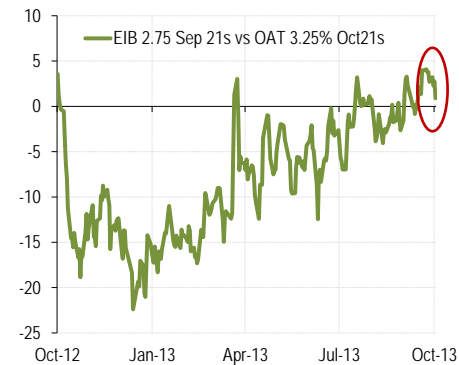
Source: Citi Research

Figure 31. 7yr EIB vs 7yr France (Spread, bp)



Source: Citi Research

Figure 32. 8yr EIB vs 8yr France (bp)



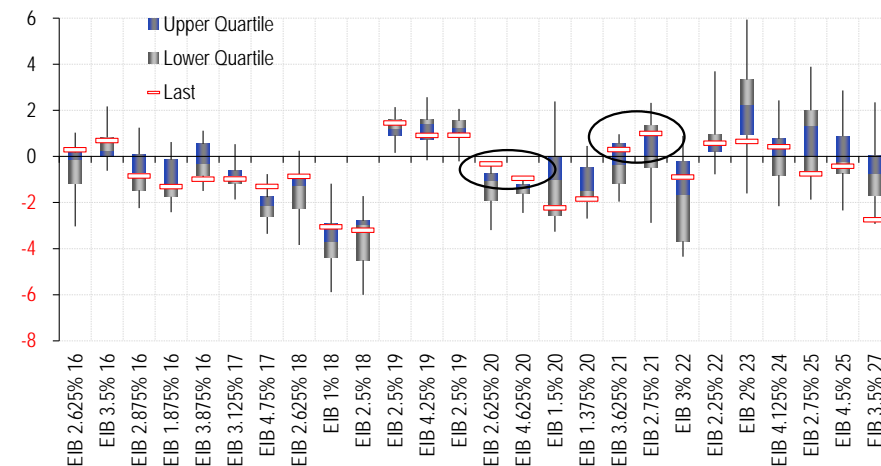
Source: Citi Research

Supply has almost certainly played its part when assessing such relative value as EIB has been a frequent taper in this particular sector. However, in terms of the relative supply pipelines going forward, we would note that although neither EIB nor France has any significance redemptions in the remainder of year, EIB is around 95% the way through its €70bn 2013 pipeline (all currencies). In absolute terms, EIB's euro supply is likely to be minimal over Q4 (the average for November has been around €1bn in recent years) whereas we expect around €20bn in gross issuance from France across November and December ([Weekly Supply Monitor](#)). Tactically, this is supportive for EIB spreads to France, at least for the time being.

(2) Relative value vs a fitted EIB cash curve

Another metric indicating the relative cheapness of the 8yr-9yr sector on the curve is by analyzing how bonds have performed versus a fitted EIB cash curve. We can then understand whether certain bonds tend to trade rich or cheap on the curve, and more importantly track the performance vs the fitted curve. Figure 33 depicts the box whisker chart based on 6 months of history. Each line indicates the trading range of the bond relative to the fitted EIB curve (zero meaning the bond is precisely in line) with the read bar showing the current position of the bond. This also points to the relative cheapness of certain bonds in the 8yr and 9yr sector as highlighted.

Figure 33. Box whisker charts of EIB yields vs a fitted EIB cash curve; each line represents the trading history to the fitted curve over a 6m period (bp)

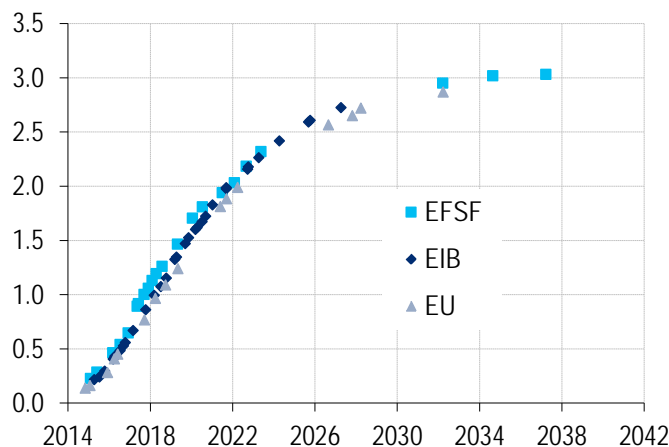


Source: Citi Research

(3) Relative value vs supranationals – fundamentals & technicals

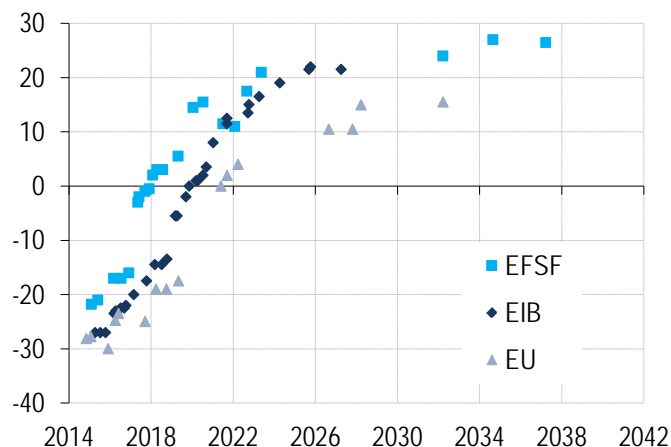
EIB has traditionally traded tighter than the EFSF (AA+/Aa1) but slightly wider than the EU (Figure 34). We think this is justified on fundamental grounds. The EIB has a strong presence in the market, with established traditions of market access, high asset quality, paid-in capital to total subscribed capital of 8.7% and strong shareholder support from the 28 EU member states. We still consider the EFSF a core market issuer within the SSA space, but its one notch lower rating and specific mandate to provide financial support to distressed sovereigns helps in part to understand the spread to EIB.

Figure 34. European Supranational Yield Curves (%)



Source: Citi Research

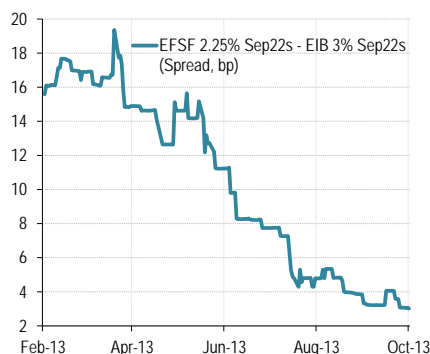
Figure 35. European Supranational ASW Curves (bp)



Source: Citi Research

Relative to the EU on the other hand, the EU simply has much less debt than EIB or the EFSF (a total of under €55.8bn in bonds outstanding). Lending has recently been carried out via its EFSM facility to Portugal (€22.1 disbursed) and Ireland (€4.7bn). Under Article 310 of the Lisbon Treaty “the budget shall be in balance” meaning that the EU cannot raise funds in capital markets to finance a deficit. Article 310 and Article 323 details how Member States are legally obliged to ensure the integrity of the budget (ie meet its requirements).

Figure 36. EFSF converging to EIB in some sectors (Yield spread, bp)

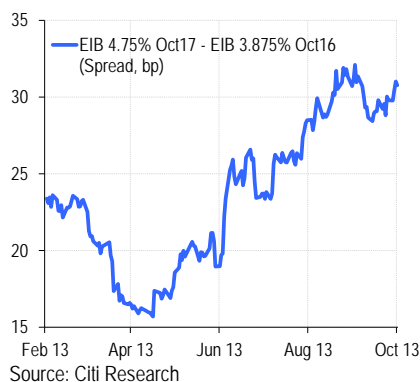


Source: Citi Research

However, it's not just fundamentals that help assess such relative value. Technicals are increasingly playing their part. The smaller amount of EU debt and its higher weighted average maturity (8.75yrs) mean that bond supply is much less frequent – in fact there has been and will not be any EU benchmark issuance this year. This means EU bonds (which tend to be tightly held) benefit from a “scarcity” premium, which is unlikely to change anytime soon. Relative to EIB, we would therefore expect the current secondary market dynamic to persist.

Relative value between EIB and EFSF is also affected by technicals, which mean that switches out of the latter into the former may not always be obvious. Crucially, due to the structure of the EFSF, various bonds can no longer be tapped. This is essentially due to changes in the configuration of the underlying guarantees, especially since Cyprus stepped out of the structure. Since Cyprus, the EFSF has successfully issued five bonds and the squeezed nature of older bonds can be clearly seen in the ASW curve (Figure 35). Note this technical is particularly acute in the 8yr-9yr sector, which, by little surprise, is where spreads with EIB are the tightest (Figure 36). We believe this dynamic is also likely to persist and it perhaps wouldn't be surprising if the EFSF traded slightly inside EIB in some cases.

Figure 37. EIB 4yr – 3yr Spread (bp)



(4) Extensions on the curve

Trading dislocations on core curves can also be a popular way of enhancing alpha in an otherwise generally low yield environment. Using Citi's fitted cash curves as detailed above can be an effective way of hunting out such differentials. In the current context, for investors with flattening views, there are various examples of such spreads between EIB bonds.

One such instance is in the 3yr – 4yr sector where the spread pick up is around 30bp for a 1 year extension on the curve (Figure 37). The directionality of the curve in this sector has tended to be characteristic of broader market themes – bear-steepening and bull flattening. With a subdued pipeline going into Q4, in the absence of negative catalysts as spreads grind in, a bull flattening tone would be a consistent secondary market dynamic.

Conclusion – supports for supranationals remain

Supranationals continue to perform well and we expect spreads to grind tighter going in the months ahead. With supply volumes likely to fall in November and December, tracking and hunting out pockets of relative value in secondary curves is likely to remain in focus. Although in some cases, there are fundamental and technical justifications for current spread levels among supras themselves, we still think interest in spreads between EIB and France will emerge when switches can be achieved at a positive spread pick-up.

Technical update ⁹

Aman Bansal, CFA

+91-22-4277-5021

aman1.bansal@citi.com

Downward channel guiding Bunds

Figure 38 shows a daily candlestick chart of continuous 10yr Bund futures. A white candle indicates that the closing level is above the opening level, and a blue candle indicates that the closing level is below the opening level. Wicks (or shadows) on both ends indicate the intraday range.

Bunds continue to trade within the downward channel formed in May on a weekly chart (Figure 39). They have also broken the key support at 139.8 on a weekly basis. On a daily chart, Bunds are now approaching the lower Bollinger band. However the pace of the move and the fall in Bandwidth suggests a potential 'Bollinger Squeeze' which, if it occurs, might take Bunds further down before a reversal.

Figure 38. 10yr continuous Bund futures with Fibonacci levels and 20 day Bollinger Bands

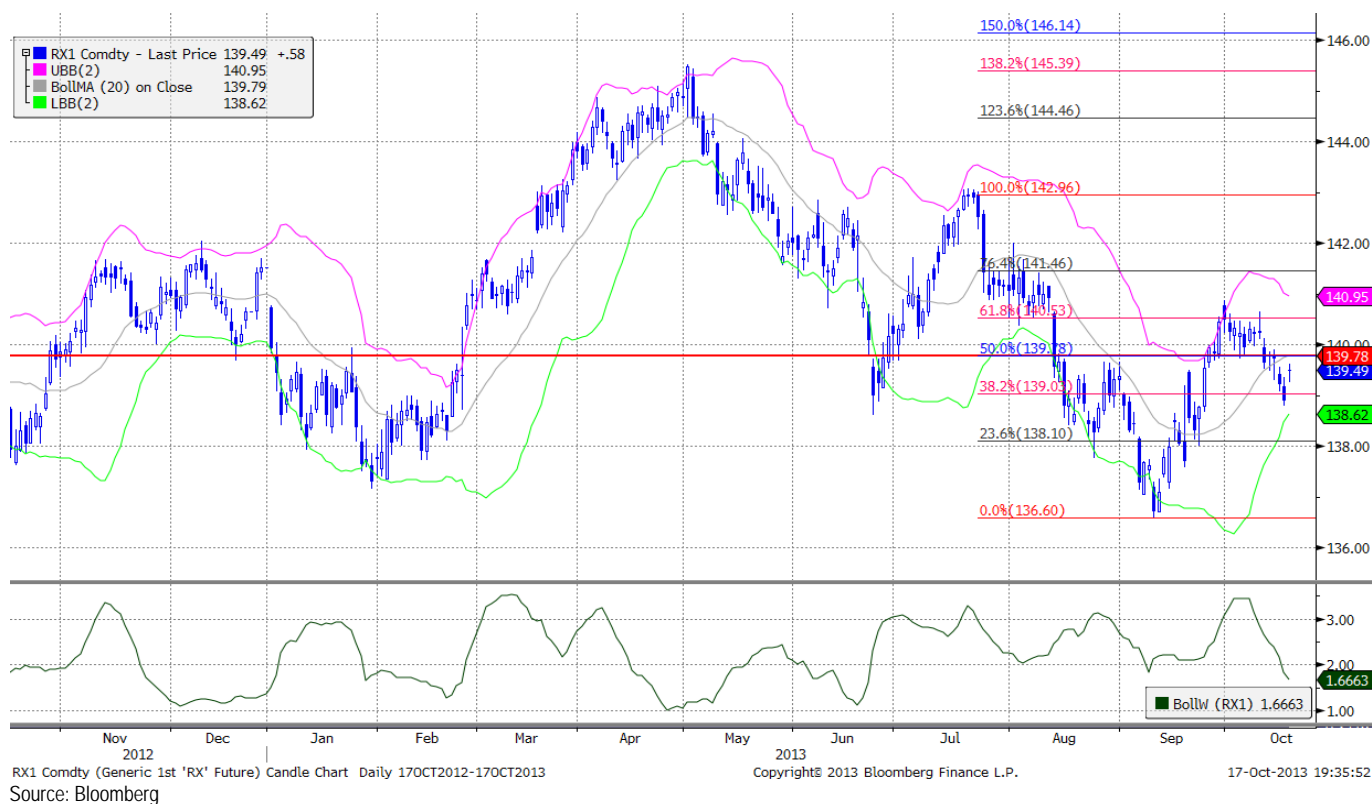


Figure 39. 10yr continuous Bund futures (weekly chart)



Support: We see the first support in the 138.1 region, which is the 23.6% retracement of the July-September sell-off and has acted as a support in the past. If it is broken, the next support will be around 136.6, which is the lowest level in a year on a roll-adjusted basis and coincides with the lower band of the weekly channel for the next week.

Resistance: The first resistance is in the 140.5 region, which is the 61.8% Fibonacci retracement level. RX1 failed to breach this level in the recent uptrend. The next resistance is around 141.5, which is the 76.4% retracement level and has acted as a resistance in the past.

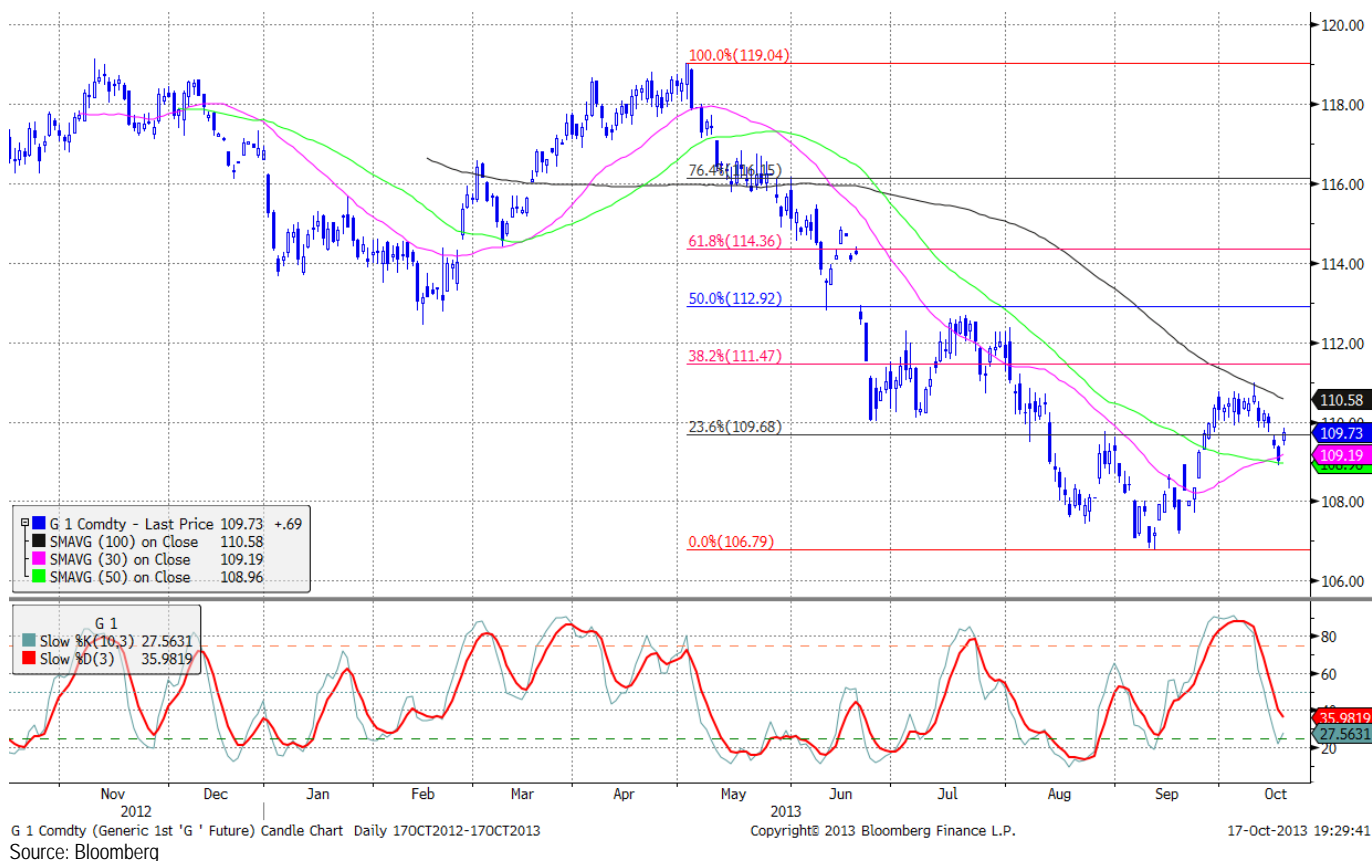
This hypothesis will be invalidated if Bunds break upwards from the downward channel on the weekly chart which would be a very bullish signal. The channel upper for the next week is 140.91.

⁹ Please note: Futures trading involves a significant risk of loss

Gilt oscillators in oversold territory

Gilts have sold off recently and are now trading at the support level of 109.7 (Figure 40). There are no signs of a trend yet and the slow stochastic oscillator has gone into the oversold region. However, we would wait for it to cross the trigger line before taking any long position.

Figure 40. 10yr continuous gilt futures with Fibonacci levels, 30-day, 50-day and 100-day moving averages and slow stochastic oscillator



Resistance: The first resistance level is the 38.2% retracement of the May-August sell-off at 111.4. The next resistance is given by the weekly chart around 112.2. If this level is broken, the next major resistance is seen in the 112.7-112.9 region, which is also the 50% retracement level.

Support: We see the first support around 109, where 30day and 50 day moving averages converge. The next support is in the 107.9 area, which is the lowest closing level on a weekly basis, and has acted as a strong support in the past.

Relative value trades

Mohit Aggarwal
+91-22-4277-5022
mohit1.aggarwal@citi.com

We highlight a number of relative value opportunities in the 2-10yr sector of the French, Austrian, Dutch, Finnish and gilt yield curves.

France: take advantage of cheapness of Apr19s

Buy Apr19s vs surrounding issues

■ Buy 4.25% Apr19 vs 1% May18 and 3.5% Apr20 (3m carry: 0.6bp) - Figure 41

Switch into Sep21s

Austria: 6s8s, 6s9s flatteners

■ Switch from 4.35% Mar19 to 3.5% Sep21 for 61bp (3m carry: -1bp) - Figure 42

Switch into Apr22s

■ Switch from 1.95% Jun19 to 3.65% Apr22 for 68bp (3m carry: -1.1bp) - Figure 43

Figure 41. France: 1% May18, 4.25% Apr19, 3.5% Apr20 microfly (bp)



Source: Citi Research

Figure 42. Austria: 3.5% Sep21 – 4.35% Mar19 yield spread (bp)



Source: Citi Research

Figure 43. Austria: 3.65% Apr22 – 1.95% Jun19 yield spread (bp)



Source: Citi Research

Netherlands: fade the richness of Jul17s

Sell Jul17s vs surrounding issues

■ Sell 4.5% Jul17 vs 0% Apr16 and 3.5% Jul20 (3m carry: -2bp) - Figure 44

Switch into Apr20s

Finland: 6s7s flattener

■ Switch from 4.375% Jul19 to 3.375% Apr20 (3m carry: -0.4bp) - Figure 45

UK: take advantage of cheapness of Mar20s

Buy Mar20s vs surrounding issues

■ Buy 4.75% Mar20 vs 1.25% Jul18 and 4% Mar22 (3m carry: 0bp) - Figure 46

Figure 44. Netherlands: 0% Apr16, 4.5% Jul17, 3.5% Jul20 microfly (bp)



Source: Citi Research

Figure 45. Finland: 3.375% Apr20 – 4.375% Jul19 yield spread (bp)



Source: Citi Research

Figure 46. UK: 1.25% Jul18, 4.75% Mar20, 4% Mar22 microfly (bp)



Source: Citi Research

Relative value tables

Regular readers will be familiar with the Relative Value Appendix showing individual bonds from the major EMU/UK markets in the context of their 6-month trading range relative to our fitted curve. We have expanded this approach and summarized the results below.

For example, Figure 47 shows the five cheapest and richest bonds in Germany relative to a fitted yield curve (shown on the left half of the page) and to the euro swap curve (right half of page). The table identifies benchmarks and CTDs and also gives the amount outstanding and initial issue date.

Figure 47. Yield Spread and CAS to Fitted Relative Value Curve (6m History)

GERMANY

Versus Govt Curve (CAS)						Versus Swap Curve (CAS)					
	Rank		ZScore	Issued	Size (€bn)		Rank		ZScore	Issued	Size (€bn)
Richest ↑	1	4.25 Jul17	-2.16	May07	19	Richest ↑	1	1.50 Sep22	-0.75	Sep12	18
	2	1.50 Feb23	-2.13	Jan13	18		2	1.75 Jul22 (RX)	-0.74	Apr12	24
	3	1.75 Jul22 (RX)	-2.05	Apr12	24		3	1.50 Feb23	-0.59	Jan13	18
	4	1.50 Sep22	-2.04	Sep12	18		4	4.25 Jul18 (OE)	-0.58	May08	21
	5	4.25 Jul18 (OE)	-1.80	May08	21		5	4.00 Jan18	-0.52	Nov07	20
Cheapest ↓	5	4.00 Jan37	0.60	Jan05	23	Cheapest ↓	5	3.25 Jul42	1.22	Jul10	15
	4	4.75 Jul40	0.83	Jul08	16		4	4.75 Jul34	1.26	Jan03	20
	3	3.00 Jul20	1.08	Apr10	22		3	4.75 Jul40	1.59	Jul08	16
	2	2.25 Sep20	1.84	Aug10	16		2	4.25 Jul39 (UB)	1.60	Jan07	14
	1	2.50 Jan21	2.71	Nov10	19		1	4.00 Jan37	1.74	Jan05	23

Source: Citi Research

Figure 48 (overleaf) looks at bonds of all maturities. For investors with maturity restrictions we have also provided another set of summary tables (Figure 49 and Figure 50) which looks at bonds shorter than 12 years and longer than 8 years, and uses the same criteria as Figure 48 to highlight the richest and cheapest bonds in these narrower maturity spectrums.

These summary tables should help facilitate efficient screening of bonds and, among other things, provide a selection of starting points when considering switches.

EMU relative value table – all maturities

Figure 48. Coupon Adjusted Spread to Fitted Curve and Swap Curve by Country (6m History); All bonds on each curve

		Versus Govt Curve (CAS)					Versus Swap Curve (CAS)				
		Rank		ZScore	Issued	Size (€bn)	Rank		ZScore	Issued	Size (€bn)
GERMANY	Richest	1	4.25 Jul17	-2.16	May07	19	1	1.50 Sep22	-0.75	Sep12	18
		2	1.50 Feb23	-2.13	Jan13	18	2	1.75 Jul22 (RX)	-0.74	Apr12	24
		3	1.75 Jul22 (RX)	-2.05	Apr12	24	3	1.50 Feb23	-0.59	Jan13	18
		4	1.50 Sep22	-2.04	Sep12	18	4	4.25 Jul18 (OE)	-0.58	May08	21
		5	4.25 Jul18 (OE)	-1.80	May08	21	5	4.00 Jan18	-0.52	Nov07	20
	Cheapest	5	4.00 Jan37	0.60	Jan05	23	5	3.25 Jul42	1.22	Jul10	15
		4	4.75 Jul40	0.83	Jul08	16	4	4.75 Jul34	1.26	Jan03	20
		3	3.00 Jul20	1.08	Apr10	22	3	4.75 Jul40	1.59	Jul08	16
		2	2.25 Sep20	1.84	Aug10	16	2	4.25 Jul39 (UB)	1.60	Jan07	14
		1	2.50 Jan21	2.71	Nov10	19	1	4.00 Jan37	1.74	Jan05	23
FRANCE	Richest	1	1.75 Feb17	-2.47	Feb11	20	1	4.75 Apr35	-1.37	Apr03	21
		2	3.75 Apr17	-2.41	Apr06	35	2	3.00 Apr22	-1.35	Feb12	33
		3	4.25 Oct17	-1.94	Oct06	28	3	3.25 Oct21	-1.33	Oct10	35
		4	1.00 Jul17	-1.86	Jul11	18	4	4.00 Oct38	-1.28	Oct05	24
		5	2.25 Oct22	-1.55	Oct11	24	5	2.25 Oct22	-1.26	Oct11	24
	Cheapest	5	1.00 May18	1.34	May12	21	5	4.25 Apr19	-0.38	Apr03	31
		4	0.25 Nov15 (2y)	1.58	Nov12	21	4	3.25 Apr16	-0.36	Apr05	29
		3	4.25 Oct18 (BTA)	1.61	Oct07	28	3	2.25 Feb16	0.31	Feb10	26
		2	4.25 Apr19	2.18	Apr03	31	2	3.00 Oct15	0.58	Oct04	33
		1	3.75 Oct19	2.39	Oct08	32	1	0.25 Nov15 (2y)	0.71	Nov12	21
ITALY	Richest	1	5.00 Sep40	-1.89	Sep09	21	1	3.00 Nov15 (2y)	-2.53	Nov10	17
		2	5.00 Aug39	-1.52	Aug07	19	2	2.75 Dec15	-2.53	Dec12	16
		3	5.00 Aug34	-1.33	Aug03	21	3	4.75 Sep16	-2.42	Sep11	16
		4	4.75 Sep28	-1.28	Jan13	14	4	2.25 May16	-2.37	Apr13	15
		5	3.00 Nov15 (2y)	-0.92	Nov10	17	5	3.75 Aug16	-2.33	Feb06	27
	Cheapest	5	4.50 Aug18 (MFB)	2.03	Feb08	25	5	3.75 Aug21	-1.84	Feb06	28
		4	4.50 Feb18	2.08	Aug07	25	4	4.00 Feb37	-1.74	Aug05	25
		3	3.75 Apr16 (BTS)	2.36	Apr11	16	3	2.75 Nov16	-1.70	Sep13	9
		2	4.75 Sep21	3.08	Mar11	25	2	5.75 Feb33	-1.67	Feb02	15
		1	5.00 Mar22	3.67	Sep11	18	1	3.75 May21	-1.01	Oct13	5
N'LANDS	Richest	1	2.50 Jan33	-1.54	Mar12	10	1	4.00 Jan37	-0.93	Apr05	13
		2	1.25 Jan19 (5y)	-0.76	Jun13	8	2	3.75 Jan42 (30y)	-0.90	May10	14
		3	2.50 Jan17	-0.76	Jun11	16	3	2.50 Jan33	-0.83	Mar12	10
		4	2.25 Jul22	-0.59	Feb12	15	4	1.25 Jan19 (5y)	-0.32	Jun13	8
		5	0.00 Apr16	-0.23	Jan13	13	5	4.00 Jul18	-0.04	Feb08	15
	Cheapest	5	4.00 Jul18	0.42	Feb08	15	5	3.50 Jul20	0.48	Feb10	15
		4	1.75 Jul23 (10y)	0.44	Mar13	14	4	4.00 Jul16	0.58	Jul06	13
		3	4.00 Jan37	0.56	Apr05	13	3	1.75 Jul23 (10y)	0.61	Mar13	14
		2	3.75 Jan42 (30y)	0.95	May10	14	2	2.25 Jul22	0.63	Feb12	15
		1	3.50 Jul20	1.05	Feb10	15	1	3.75 Jan23	0.65	Jan06	11
SPAIN	Richest	1	4.50 Jan18	-3.48	Nov12	19	1	3.75 Oct15	-1.96	Sep12	15
		2	4.10 Jul18	-3.29	Feb08	19	2	3.15 Jan16	-1.93	Sep05	21
		3	3.75 Oct18 (5y)	-3.28	Jul13	11	3	3.25 Apr16	-1.92	Nov10	21
		4	4.25 Oct16	-2.32	Sep11	21	4	4.25 Oct16	-1.81	Sep11	21
		5	3.80 Jan17	-2.13	Oct06	21	5	3.80 Jan17	-1.81	Oct06	21
	Cheapest	5	4.00 Apr20	2.69	Jan10	20	5	5.75 Jul32	-1.33	Jan01	15
		4	4.90 Jul40	2.79	Jun07	13	4	4.20 Jan37	-1.20	Jan05	16
		3	4.85 Oct20	3.02	Jul10	18	3	4.90 Jul40	-1.19	Jun07	13
		2	5.50 Apr21	3.79	Jan11	24	2	4.70 Jul41 (30y)	-1.19	Sep09	12
		1	4.70 Jul41 (30y)	4.68	Sep09	12	1	5.15 Oct28	-0.82	Jul13	5
BELGIUM	Richest	1	4.25 Mar41	-2.57	Apr10	12	1	3.75 Jun45 (30y)	-1.24	Sep13	4
		2	1.25 Jun18 (5y)	-2.22	Feb13	12	2	1.25 Jun18 (5y)	-0.73	Feb13	12
		3	2.25 Jun23 (10y)	-1.37	Jan13	12	3	4.00 Mar18	-0.63	Jan08	11
		4	4.00 Mar18	-1.03	Jan08	11	4	2.25 Jun23 (10y)	-0.55	Jan13	12
		5	4.25 Sep21	-0.80	Jan11	15	5	5.50 Sep17	-0.50	Jan02	8
	Cheapest	5	2.75 Mar16	0.82	Mar10	10	5	3.00 Sep19	-0.19	Apr12	9
		4	3.50 Jun17	1.04	Mar11	13	4	4.00 Mar32	-0.17	Mar12	8
		3	5.00 Mar35	1.07	May04	18	3	5.00 Mar35	-0.12	May04	18
		2	4.00 Mar19	1.16	Jan09	11	2	3.25 Sep16	0.01	Jan06	13
		1	3.00 Sep19	1.94	Apr12	9	1	2.75 Mar16	0.34	Mar10	10

Source: Citi Research

EMU relative value table – max 12yr maturity

Figure 49. Coupon Adjusted Spread to Fitted Curve and Swap Curve by Country (6m History); Bonds with a Maximum Maturity of 12yrs

	Versus Govt Curve (CAS)						Versus Swap Curve (CAS)					
	Rank		ZScore	Issued	Size (€bn)		Rank		ZScore	Issued	Size (€bn)	
GERMANY		Richest						Richest				
	1	4.25 Jul17	-2.16	May07	19		1	1.50 Sep22	-0.75	Sep12	18	
	2	1.50 Feb23	-2.13	Jan13	18		2	1.75 Jul22 (RX)	-0.74	Apr12	24	
	3	1.75 Jul22 (RX)	-2.05	Apr12	24		3	1.50 Feb23	-0.59	Jan13	18	
	4	1.50 Sep22	-2.04	Sep12	18		4	4.25 Jul18 (OE)	-0.58	May08	21	
	5	4.25 Jul18 (OE)	-1.80	May08	21		5	4.00 Jan18	-0.52	Nov07	20	
	5	1.50 May23	-0.06	May13	18		5	1.25 Oct16	0.45	Sep11	16	
	4	2.00 Feb16	-0.02	Jan11	16		4	4.00 Jul16	0.67	May06	23	
	3	3.00 Jul20	1.08	Apr10	22		3	3.50 Jan16	0.79	Nov05	23	
	2	2.25 Sep20	1.84	Aug10	16		2	2.75 Apr16	1.16	Apr11	18	
	1	2.50 Jan21	2.71	Nov10	19		1	2.00 Feb16	1.16	Jan11	16	
		Cheapest						Cheapest				
FRANCE		Richest						Richest				
	1	1.75 Feb17	-2.47	Feb11	20		1	3.00 Apr22	-1.35	Feb12	33	
	2	3.75 Apr17	-2.41	Apr06	35		2	3.25 Oct21	-1.33	Oct10	35	
	3	4.25 Oct17	-1.94	Oct06	28		3	2.25 Oct22	-1.26	Oct11	24	
	4	1.00 Jul17	-1.86	Jul11	18		4	2.50 Oct20	-1.25	Oct09	33	
	5	2.25 Oct22	-1.55	Oct11	24		5	3.75 Apr21	-1.21	Apr05	34	
	5	1.00 May18	1.34	May12	21		5	4.25 Apr19	-0.38	Apr03	31	
	4	0.25 Nov15 (2y)	1.58	Nov12	21		4	3.25 Apr16	-0.36	Apr05	29	
	3	4.25 Oct18 (BTA)	1.61	Oct07	28		3	2.25 Feb16	0.31	Feb10	26	
	2	4.25 Apr19	2.18	Apr03	31		2	3.00 Oct15	0.58	Oct04	33	
	1	3.75 Oct19	2.39	Oct08	32		1	0.25 Nov15 (2y)	0.71	Nov12	21	
		Cheapest						Cheapest				
ITALY		Richest						Richest				
	1	3.00 Nov15 (2y)	-0.92	Nov10	17		1	3.00 Nov15 (2y)	-2.53	Nov10	17	
	2	4.75 Sep16	-0.91	Sep11	16		2	2.75 Dec15	-2.53	Dec12	16	
	3	4.50 May23 (10y)	-0.51	Mar13	18		3	4.75 Sep16	-2.42	Sep11	16	
	4	2.75 Dec15	-0.43	Dec12	16		4	2.25 May16	-2.37	Apr13	15	
	5	4.75 Aug23	-0.28	Feb08	25		5	3.75 Aug16	-2.33	Feb06	27	
	5	4.50 Aug18 (MFB)	2.03	Feb08	25		5	4.50 Mar24	-2.04	Aug13	11	
	4	4.50 Feb18	2.08	Aug07	25		4	3.75 Mar21	-1.99	Sep10	24	
	3	3.75 Apr16 (BTS)	2.36	Apr11	16		3	3.75 Aug21	-1.84	Feb06	28	
	2	4.75 Sep21	3.08	Mar11	25		2	2.75 Nov16	-1.70	Sep13	9	
	1	5.00 Mar22	3.67	Sep11	18		1	3.75 May21	-1.01	Oct13	5	
		Cheapest						Cheapest				
N'LANDS		Richest						Richest				
	1	1.25 Jan19 (5y)	-0.76	Jun13	8		1	1.25 Jan19 (5y)	-0.32	Jun13	8	
	2	2.50 Jan17	-0.76	Jun11	16		2	4.00 Jul18	-0.04	Feb08	15	
	3	2.25 Jan22	-0.59	Feb12	15		3	1.25 Jan18	-0.02	Jul12	15	
	4	0.00 Apr16	-0.23	Jan13	13		4	4.00 Jul19	0.02	Feb09	14	
	5	3.75 Jan23	-0.21	Jan06	11		5	2.50 Jan17	0.21	Jun11	16	
	5	4.00 Jul16	0.28	Jul06	13		5	3.50 Jul20	0.48	Feb10	15	
	4	4.50 Jul17	0.30	Jul07	15		4	4.00 Jul16	0.58	Jul06	13	
	3	4.00 Jul18	0.42	Feb08	15		3	1.75 Jul23 (10y)	0.61	Mar13	14	
	2	1.75 Jul23 (10y)	0.44	Mar13	14		2	2.25 Jul22	0.63	Feb12	15	
	1	3.50 Jul20	1.05	Feb10	15		1	3.75 Jan23	0.65	Jan06	11	
		Cheapest						Cheapest				
SPAIN		Richest						Richest				
	1	4.50 Jan18	-3.47	Nov12	19		1	3.75 Oct15	-1.96	Sep12	15	
	2	4.10 Jul18	-3.29	Feb08	19		2	3.15 Jan16	-1.93	Sep05	21	
	3	3.75 Oct18 (5y)	-3.28	Jul13	11		3	3.25 Apr16	-1.92	Nov10	21	
	4	4.25 Oct16	-2.31	Sep11	21		4	4.25 Oct16	-1.81	Sep11	21	
	5	3.80 Jan17	-2.12	Oct06	21		5	3.80 Jan17	-1.81	Oct06	21	
	5	5.85 Jan22 (FBB)	1.72	Nov11	19		5	4.00 Apr20	-1.53	Jan10	20	
	4	5.40 Jan23	1.92	Jan13	17		4	5.50 Apr21	-1.50	Jan11	24	
	3	4.00 Apr20	2.69	Jan10	20		3	4.65 Jul25	-1.45	Feb10	14	
	2	4.85 Oct20	3.01	Jul10	18		2	4.40 Oct23 (10y)	-1.38	May13	15	
	1	5.50 Apr21	3.79	Jan11	24		1	3.75 Oct18 (5y)	-1.38	Jul13	11	
		Cheapest						Cheapest				
BELGIUM		Richest						Richest				
	1	1.25 Jun18 (5y)	-2.07	Feb13	12		1	1.25 Jun18 (5y)	-0.72	Feb13	12	
	2	2.25 Jun23 (10y)	-1.12	Jan13	12		2	4.00 Mar18	-0.62	Jan08	11	
	3	4.00 Mar18	-0.93	Jan08	11		3	2.25 Jun23 (10y)	-0.54	Jan13	12	
	4	4.25 Sep21	-0.62	Jan11	15		4	5.50 Sep17	-0.48	Jun02	8	
	5	5.50 Sep17	-0.31	Jun02	8		5	4.25 Sep22	-0.37	Jan12	15	
	5	4.25 Sep22	0.65	Jan12	15		5	4.00 Mar17	-0.26	Jan07	11	
	4	2.75 Mar16	0.92	Mar10	10		4	3.75 Sep20	-0.25	Jan10	18	
	3	3.50 Jun17	1.17	Mar11	13		3	3.00 Sep19	-0.18	Apr12	9	
	2	4.00 Mar19	1.28	Jan09	11		2	3.25 Sep16	0.03	Jan06	13	
	1	3.00 Sep19	2.12	Apr12	9		1	2.75 Mar16	0.36	Mar10	10	
		Cheapest						Cheapest				

Source: Citi Research

UK relative value table

Figure 50. Coupon Adjusted Spread to Fitted Curve and Swap Curve by Country (6m History)

		Versus Govt Curve (CAS)					Versus Swap Curve (CAS)				
		Rank		ZScore	Issued	Size (€bn)	Rank		ZScore	Issued	Size (€bn)
ALL	Richest	1	2.25 Mar14	-3.43	Mar09	35	1	4.00 Sep16	-1.71	Mar06	35
		2	4.25 Jun32	-1.65	May00	35	2	1.00 Sep17	-1.65	Mar12	31
		3	4.25 Dec49	-1.60	Sep08	19	3	1.75 Jan17	-1.62	Aug11	27
		4	4.25 Dec40	-1.43	Jun10	24	4	1.25 Jul18 (5y)	-1.34	Feb13	29
		5	4.25 Dec46	-1.40	May06	21	5	5.00 Mar18 (WX)	-1.13	May07	34
	Cheapest	5	4.25 Mar36	1.41	Feb03	23	5	4.75 Dec30	0.84	Oct07	29
		4	5.00 Sep14	1.60	Jul02	41	4	4.25 Dec27	0.97	Sep06	29
		3	5.00 Mar25 (G)	1.82	Sep01	33	3	2.75 Jan15	1.08	Nov09	29
		2	3.75 Jul52	2.30	Sep11	20	2	5.00 Mar25 (G)	1.12	Sep01	33
		1	2.75 Jan15	2.63	Nov09	29	1	5.00 Sep14	1.13	Jul02	41
2yr - 7yr	Richest	1	4.00 Sep16	-1.03	Mar06	35	1	4.00 Sep16	-1.70	Mar06	35
		2	2.00 Jan16	-0.72	Nov10	32	2	1.00 Sep17	-1.64	Mar12	31
		3	1.00 Sep17	-0.43	Mar12	31	3	1.75 Jan17	-1.60	Aug11	27
		4	3.75 Sep20	-0.36	Jun10	24	4	1.25 Jul18 (5y)	-1.33	Feb13	29
		5	1.75 Jan17	-0.22	Aug11	27	5	5.00 Mar18 (WX)	-1.11	May07	34
	Cheapest	5	1.25 Jul18 (5y)	0.01	Feb13	29	5	2.00 Jan16	-1.06	Nov10	32
		4	4.75 Mar20	0.24	Mar05	33	4	4.50 Mar19	-0.14	Sep08	35
		3	3.75 Sep19	0.75	Jul09	28	3	3.75 Sep19	0.00	Jul09	28
		2	4.50 Mar19	0.90	Sep08	35	2	4.75 Mar20	0.05	Mar05	33
		1	5.00 Mar18 (WX)	1.37	May07	34	1	3.75 Sep20	0.08	Jun10	24
7yr - 15yr	Richest	1	2.25 Sep23 (10y)	-0.83	Jun13	16	1	2.25 Sep23 (10y)	0.01	Jun13	16
		2	4.00 Mar22	-0.79	Feb09	37	2	4.00 Mar22	0.09	Feb09	37
		3	3.75 Sep21	-0.27	Mar11	28	3	3.75 Sep21	0.21	Mar11	28
		4					4				
		5					5				
	Cheapest	5					5				
		4					4				
		3	4.25 Dec27	0.31	Sep06	29	3	1.75 Sep22	0.56	Jun12	28
		2	1.75 Sep22	0.53	Jun12	28	2	4.25 Dec27	0.97	Sep06	29
		1	5.00 Mar25 (G)	1.83	Sep01	33	1	5.00 Mar25 (G)	1.12	Sep01	33
>15yr	Richest	1	4.25 Jun32	-1.61	May00	35	1	3.50 Jul68	-0.16	Jun13	5
		2	4.25 Dec49	-1.58	Sep08	19	2	4.25 Dec49	-0.04	Sep08	19
		3	4.25 Dec40	-1.39	Jun10	24	3	4.25 Dec55	0.01	May05	23
		4	4.25 Dec46	-1.35	May06	21	4	3.75 Jul52	0.18	Sep11	20
		5	4.50 Dec42	-0.96	Jun07	26	5	4.25 Dec46	0.19	May06	21
	Cheapest	5	4.50 Sep34	0.61	Jun09	26	5	4.75 Dec38	0.48	Apr04	25
		4	3.50 Jul68	1.01	Jun13	5	4	4.25 Jun32	0.71	May00	35
		3	3.25 Jan44 (30y)	1.11	Oct12	19	3	4.50 Sep34	0.77	Jun09	26
		2	4.25 Mar36	1.46	Feb03	23	2	4.25 Mar36	0.80	Feb03	23
		1	3.75 Jul52	2.46	Sep11	20	1	4.75 Dec30	0.84	Oct07	29

Source: Citi Research

4 Week Auction Calendar: US, EMU-10, UK

Mohit Aggarwal

This is an excerpt from our latest [Weekly Supply Monitor](#) published today. For further details (upcoming coupon payments, redemptions and longer term supply forecasts) please see the original note.

Nishay Patel

Figure 51. Provisional Auction Calendar for the Next Four Weeks, Gross Issuance (Billions), DV01 (USD Millions)

Date	Country	Nominal Size (Local Ccy, bn)	Issue Details	DV01 \$million/bp	Approx. Number 10yr Futures TYZ3 (UST) G Z3 (Gilt) RXZ3 (Bund)
21 Oct (Mon)	US	3 - 4	Outright Treasury Coupon Purchases: 31/7/2019 - 30/9/2020		-23k
22 Oct (Tue)	UK	3.8	Syndicated re-opening of 3½% Treasury Gilt 2068 (week commencing 21 October, estimated size)		94k
22 Oct (Tue)	US	1.25 - 1.75	Outright Treasury Coupon Purchases: 15/2/2036 - 15/8/2043		-32k
23 Oct (Wed)	Germany	2.0	Bund 2.5% Jul44 reopening (issue and size confirmed)		43k
23 Oct (Wed)	US	2.75 - 3.5	Outright Treasury Coupon Purchases: 15/11/2020 - 15/8/2023		-27k
24 Oct (Thu)	US	7.0	30-year TIPS (re-opening)		190k
24 Oct (Thu)	US	1.25 - 1.75	Outright Treasury Coupon Purchases: 15/2/2036 - 15/8/2043		-32k
Weekly \$DV01 of Issuance				27.7	
Total Number of Futures Contracts					76k 94k 43k

Date	Country	Nominal Size (Local Ccy, bn)	Issue Details	DV01 \$million/bp	Approx. Number 10yr Futures TYZ3 (UST) G Z3 (Gilt) RXZ3 (Bund)
28 Oct (Mon)	Belgium	4.0	OLO 5yr, 10yr and 15yr (estimated size and tenors)		36k
28 Oct (Mon)	Italy	2.5	CTZ (estimated size)		4k
28 Oct (Mon)	Italy	0.8	BTPei (estimated size)		6k
28 Oct (Mon)	US	32.0	2-Year		79k
28 Oct (Mon)	US	4.25 - 5.25	Outright Treasury Coupon Purchases: 31/10/2017 - 30/6/2018		-22k
29 Oct (Tue)	UK	1.5	Minit tender (estimated date and size)		0k 0k 0k
29 Oct (Tue)	US	35.0	5-Year		207k
29 Oct (Tue)	US	1.25 - 1.75	Outright Treasury Coupon Purchases: 15/2/2036 - 15/8/2043		-32k
30 Oct (Wed)	Italy	6.0	BTP 5yr and 10yr (estimated tenor and size)		37k
30 Oct (Wed)	Germany	4.0	Bund 2% Aug23 reopening (issue and size confirmed)		32k
30 Oct (Wed)	US	29.0	7-Year		236k
31 Oct (Thu)	US	0.75 - 1	Outright Treasury Coupon Purchases : 15/11/2024 - 15/2/2031		-14k
Weekly \$DV01 of Issuance				54.7	
Total Number of Futures Contracts					455k 0k 117k

Date	Country	Nominal Size (Local Ccy, bn)	Issue Details	DV01 \$million/bp	Approx. Number 10yr Futures TYZ3 (UST) G Z3 (Gilt) RXZ3 (Bund)
05 Nov (Tue)	Austria	1.3	RAGB 5yr and 10yr (estimated size and tenors)		8k
05 Nov (Tue)	UK	1.5	0¼% Index-linked Treasury Gilt 2052 (issue confirmed, estimated size)		62k
06 Nov (Wed)	Germany	4.0	Bobl 167-Oct18 reopening (issue and size confirmed)		17k
07 Nov (Thu)	Spain	3.0	Bono 2yr, 5yr and 15yr (estimated tenors and size)		18k
07 Nov (Thu)	France	7.0	OAT 5yr, 10yr and 15yr (estimated tenors and size)		61k
Weekly \$DV01 of Issuance				26.0	
Total Number of Futures Contracts					0k 62k 105k

Date	Country	Nominal Size (Local Ccy, bn)	Issue Details	DV01 \$million/bp	Approx. Number 10yr Futures TYZ3 (UST) G Z3 (Gilt) RXZ3 (Bund)
12 Nov (Tue)	Germany	1.0	Bundei '23 (estimated issue and date)		8k
12 Nov (Tue)	Netherlands	2.0	DSL 1.75% Jul23 reopening (issue confirmed, size €1.5-2.5bn)		16k
12 Nov (Tue)	US	30.0	3-Year		74k
13 Nov (Wed)	Italy	4.5	BTP 5yr and 15yr (estimated tenors and size)		21k
13 Nov (Wed)	Italy	1.5	CCTeu (estimated size)		6k
13 Nov (Wed)	Germany	5.0	New Schatz Dec15 (issue and size confirmed)		9k
13 Nov (Wed)	US	24.0	10-Year		264k
14 Nov (Thu)	UK	2.2	4¼% Treasury Stock 2036 (issue confirmed, estimated size)		48k
14 Nov (Thu)	US	16.0	30-Year		367k
Weekly \$DV01 of Issuance				74.2	
Total Number of Futures Contracts					705k 48k 61k

The next release of the tentative outright Treasury operation schedule will be at 3 p.m. on October 31, 2013. Therefore we have only provided details of Fed buybacks upto 31 October. Additional issues expected in November: Finland 5yr (€1bn). This is not included in the cash flow tables and gross supply charts of this report as the timing of this supply event has not been announced.

Source: DMOs, Citi estimates

EUR: Coupons & Redemptions (next 3 mths)

Figure 52. EMU-10 Redemptions over the next three months (€bn)

Redemptions = €173bn											
Redemptions	DEU 39	FRA 43	NLD 16	ITA 38	ESP 16	BEL 0	AUT 14	FIN 0	PRT 0	GRC 0	IRL 7
(Sun) 20-Oct-13							13.1				
(Fri) 25-Oct-13		21.1									
(Thu) 31-Oct-13					16.2						
(Fri) 01-Nov-13				17.8							
(Fri) 13-Dec-13	15.0										
(Sun) 15-Dec-13				20.0							
(Sat) 04-Jan-14	24.0										
(Sun) 12-Jan-14		21.7									
(Wed) 15-Jan-14			15.7				1.3				6.8

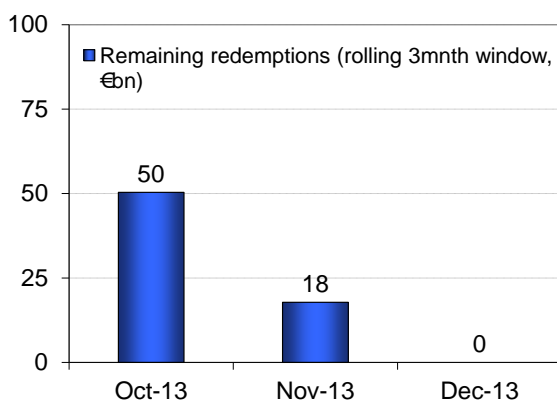
Source: DMOs, Bloomberg, Citi Research

Figure 53. EMU-10 Coupon Payments over the next three months (€bn)

Coupons = €51bn											
Coupons	DEU 11	FRA 17	NLD 4	ITA 9	ESP 6	BEL 0	AUT 2	FIN 0	PRT 0	GRC 0	IRL 2
(Fri) 18-Oct-13											1.6
(Sun) 20-Oct-13							1.0				
(Fri) 25-Oct-13		16.3							0.4		
(Thu) 31-Oct-13					5.5						
(Fri) 01-Nov-13				5.5							
(Fri) 15-Nov-13				0.7							
(Fri) 22-Nov-13							0.3				
(Mon) 25-Nov-13		0.2									
(Sun) 01-Dec-13				1.4							
(Fri) 13-Dec-13	0.0			0.9							
(Sun) 15-Dec-13				0.4							
(Wed) 01-Jan-14											
(Sat) 04-Jan-14	10.6										
(Sun) 12-Jan-14		0.5									
(Wed) 15-Jan-14		0.5	3.9	0.4			0.6				0.3

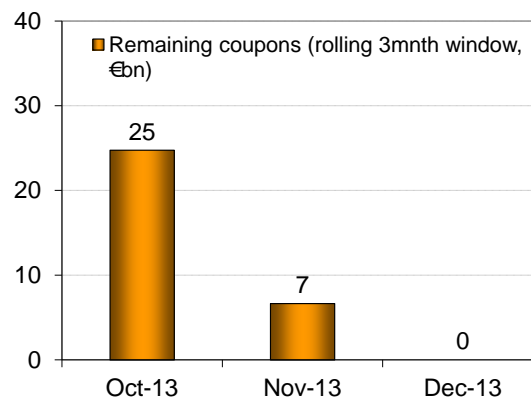
Source: DMOs, Bloomberg, Citi Research

Figure 54. EMU-10 remaining redemptions over the next 3 months (€bn)



Source: DMOs, Bloomberg, Citi Research

Figure 55. EMU-10 remaining coupons over the next 3 months (€bn)



Source: DMOs, Bloomberg, Citi Research

ESP and ITA Bill Issuance Projections

This page contains our projections for Spanish and Italian bill supply in 2013.

Auction calendar for the next four weeks

Figure 56. Provisional Bill Auction Calendar for the Next Four Weeks, Gross Issuance (Billions), DV01 (EUR Million/bp)

Week	Date	Country	Issue Details	Total Size (€bn)
Week 1	22 Oct (Tue)	Spain	3month (24 January 2014) and 9 month (18 July 2014) - tenors confirmed, estimated size	3.6
Total Size in Week 1				3.6
Week 2	29 Oct (Tue)	Italy	6 month (30 April 2014; issue confirmed, estimated size)	9.75
Total Size in Week 2				9.75
Week 4	12 Nov (Tue)	Italy	12 month (14 November 2014; issue confirmed, estimated size)	8.5
Total Size in Week 4				8.5

Italy announces issue size 3 business days before the auction

Spain announces issue details 1 business day before the auction

Source: DMOs, Citi Research

2013 projections for bill supply

Figure 57. 2013 Italy and Spain Bill Supply – Citi Forecast (Euro Billion)

SPAIN	3m	6m	9m	12m	18m	Gross Supply	Redemptions	NCR
Jan	1.3	1.8		3.2	2.5	9	5	3
Feb	1.0	2.9	3.7	3.6		11	9	2
Mar	1.8	2.3	2.6	4.0		11	12	-2
Apr	0.9	1.3	2.2	4.6		9	8	1
May	0.9	1.2	2.6	3.3		8	6	2
Jun	1.1	1.1	2.6	4.0		9	10	-1
Jul	0.9	1.9	3.0	2.9		9	5	3
Aug	1.1	1.4	3.1	3.0		9	11	-3
Sep	0.8	1.7	2.8	3.8		9	8	1
Oct	1.0	0.8	2.6	3.8		8	8	
Nov	1.0	1.4	2.6	3.8		9	11	-2
Dec	1.0	1.4	2.6	3.8		9	9	
Total	12.8	19.2	30.3	43.6	2.5	108	102	6

ITALY	3m*	6m	9m	12m	Flexible BOT	Gross Supply	Redemptions	NCR
Jan		9.8		9.8		20	21	-2
Feb		10.1		9.7		20	19	
Mar		9.4		7.8		17	19	-2
Apr	3.0	9.2		8.9		21	18	3
May		9.2		7.0	3.0	19	16	4
Jun		9.2		7.0		16	16	
Jul		9.8		7.0	2.5	19	11	9
Aug		9.8		8.6		18	18	
Sep		8.6		9.8	3.0	21	20	2
Oct		9.8		9.0		19	18	
Nov		9.8		8.5		18	16	3
Dec		10.0		8.5		19	25	-7
Total	3.0	114.5		101.5	8.5	227	218	10

*3month bills will be issued only for specific cash needs. In this case, auctions shall be held on the 12 month BOT auction dates

Source: DMOs, Bloomberg, Citi estimates

Inflation Forecasts, Carry & Weekly Changes

Figure 58. Citi Inflation Forecasts

Month	EUR HICPXT			France CPIXT			UK RPI			US CPURNSA		
	Index	MoM	YoY	Index	MoM	YoY	Index	MoM	YoY	Index	MoM	YoY
	Forecast	Change	Change	Forecast	Change	Change	Forecast	Change	Change	Forecast	Change	Change
Aug 13	116.53	0.1	1.2	125.90	0.4	0.7	251.00	0.5	3.3	233.88	0.1	1.5
Sep 13	117.11	0.5	1.0	125.60	-0.2	0.7	251.90	0.4	3.2	234.00	0.1	1.1
Oct 13	117.44	0.3	1.1	125.93	0.3	0.9	252.80	0.4	2.9	234.00	0.0	1.2
Nov 13	117.38	-0.0	1.2	125.83	-0.1	1.0	253.00	0.1	3.0	233.70	-0.1	1.5
Dec 13	117.77	0.3	1.2	126.27	0.4	1.0	254.10	0.4	3.0	233.30	-0.2	1.6
Jan 14	116.43	-1.1	1.1	126.12	-0.1	1.4	252.60	-0.6	2.8	235.20	0.8	2.1

Source: Citi Research, Bloomberg

Shaded = Already released

Figure 59. US TIPS Inflation-linked Carry (based on forecasts above) – One week changes

Bond	RY (%)	Chg (bp)	Carry-adj chg	Carry: RY (bp)			Ref	BE (bp)	Chg (bp)	Carry-adj chg	Carry: BE (bp)			ZC Swap - BE Spread (bp)	Chg (bp)
				1 Nov	1 Dec	1 Jan					###	1 Dec	1 Jan		
Repo (%)				0.10	0.10	0.10									
TIPS 1/15	-1.15	-10	-10	1	-4	-14	US-2.250-01/31/15	135	6	6	0	-5	-16	10	-8
TIPS 4/15	-1.13	-14	-14	1	-3	-11	US-2.500-04/30/15	137	9	9	0	-4	-14	-1	-11
TIPS 7/15	-1.39	-14	-14	0	-4	-13	US-4.250-08/15/15	167	8	8	-1	-6	-15	12	-11
TIPS 1/16	-1.18	-13	-13	0	-2	-8	US-2.625-02/29/16	158	4	4	0	-4	-11	14	-7
TIPS 4/16	-1.08	-25	-26	0	-2	-6	US-2.000-04/30/16	154	17	17	0	-3	-9	13	-20
TIPS 7/16	-1.33	-32	-32	0	-3	-8	US-4.875-08/15/16	187	22	22	-1	-5	-11	7	-25
TIPS 1/17	-1.06	-11	-11	0	-1	-4	US-3.125-01/31/17	179	2	1	0	-4	-9	12	-4
TIPS 4/17	-0.91	-12	-12	0	0	-3	US-0.875-04/30/17	175	1	1	0	-3	-8	13	-4
TIPS 7/17	-1.04	-16	-16	0	-1	-4	US-4.750-08/15/17	195	5	5	-1	-4	-9	12	-9
TIPS 1/18	-0.80	-11	-11	1	0	-2	US-3.500-02/15/18	192	0	0	0	-3	-7	13	-5
TIPS 4/18	-0.66	-10	-10	1	0	-1	US-0.625-04/30/18	185	-1	-1	0	-3	-6	16	-4
TIPS 7/18	-0.77	-20	-21	0	0	-2	US-4.000-08/15/18	200	9	9	-1	-3	-7	18	-15
TIPS 1/19	-0.52	-9	-9	1	1	0	US-2.750-02/15/19	197	-2	-3	0	-3	-6	19	-3
TIPS 7/19	-0.50	-9	-9	1	1	0	US-3.625-08/15/19	209	-2	-2	0	-3	-6	17	-4
TIPS 1/20	-0.23	-9	-9	1	1	1	US-3.625-02/15/20	195	-2	-2	0	-2	-5	30	-3
TIPS 7/20	-0.19	-9	-9	1	1	1	US-2.625-08/15/20	209	-2	-2	0	-2	-5	25	-3
TIPS 1/21	0.02	-8	-8	1	1	1	US-3.625-02/15/21	200	-3	-3	0	-2	-5	33	-3
TIPS 7/21	0.07	-6	-6	1	1	1	US-2.125-08/15/21	214	-4	-5	0	-2	-5	27	-1
TIPS 1/22	0.26	-6	-7	1	2	2	US-2.000-02/15/22	207	-4	-5	0	-2	-4	32	-1
TIPS 7/22	0.28	-6	-7	1	1	2	US-1.625-08/15/22	218	-3	-4	0	-2	-4	28	-2
TIPS 1/23	0.42	-4	-4	1	2	2	US-2.000-02/15/23	212	-6	-6	0	-2	-4	32	0
TIPS 7/23	0.42	-6	-7	1	2	2	US-2.500-08/15/23	218	-2	-3	0	-2	-4	32	-3
TIPS 1/25	0.59	-5	-6	1	2	2	US-7.625-02/15/25	210	-4	-4	0	-2	-4	43	-2
TIPS 1/26	0.69	-3	-3	1	2	2	US-6.000-02/15/26	216	-6	-6	0	-2	-4	40	-0
TIPS 1/27	0.77	-8	-8	1	2	2	US-6.625-02/15/27	217	-1	-1	0	-2	-4	41	-6
TIPS 1/28	0.86	-4	-4	1	2	2	US-6.125-11/15/27	217	-5	-5	0	-2	-4	43	-2
TIPS 4/28	0.83	-4	-4	1	2	2	US-5.500-08/15/28	228	-4	-4	0	-2	-4	31	-3
TIPS 1/29	0.90	-4	-4	1	2	2	US-5.250-02/15/29	226	-4	-5	0	-2	-4	37	-3
TIPS 4/29	0.88	-4	-4	1	2	2	US-5.250-02/15/29	227	-4	-5	0	-2	-4	34	-3
TIPS 4/32	1.01	-6	-7	1	1	2	US-5.375-02/15/31	224	-2	-2	0	-2	-3	43	-6
TIPS 2/40	1.31	-2	-2	0	1	2	US-4.625-02/15/40	225	-6	-6	0	-1	-3	48	-1
TIPS 2/41	1.33	-5	-5	0	1	2	US-4.750-02/15/41	225	-3	-3	0	-1	-3	49	-4
TIPS 2/42	1.37	-4	-4	0	1	1	US-3.125-02/15/42	230	-4	-4	0	-1	-3	43	-3
TIPS 2/43	1.38	-4	-4	0	1	1	US-3.125-02/15/43	231	-4	-4	0	-1	-3	43	-3

Source: Citi Research, Bloomberg

Figure 60. EUR Inflation-linked Carry (based on forecasts above) – One week changes

Bond	RY (%)	Chg (bp)	Carry-adj chg	Carry: RY (bp)			Ref	BE (bp)	Chg (bp)	Carry-adj chg	Carry: BE (bp)			ZC Swap - BE Spread (bp)	Chg (bp)
				1 Dec	1 Jan	1 Feb					1 Dec	1 Jan	1 Feb		
<i>Repo (%)</i>				<i>0.09</i>	<i>0.10</i>	<i>0.11</i>									
OATei15	-1.23	1	0	24	35	27	FFRG 4/15	148	-2	-3	22	33	23	19	-1
BUNDei16	-0.65	6	5	19	30	26	BUND 1/16	84	-7	-6	19	29	24	25	4
BTANI16	-0.82	11	8	-7	-1	-7	FFRG 4/16	126	-11	-9	-9	-4	-11	36	5
BTPei16	1.18	-9	-11	24	39	43	BTP 8/16	79	-10	-9	16	25	96	65	7
OATi17	-0.61	5	3	-5	1	-3	FFRG 4/17	135	-7	-6	-7	-3	-9	34	1
BTPei17	1.60	-12	-13	20	32	35	BTP 8/17	95	-6	-5	11	17	88	51	2
BOBLEi18	-0.44	4	4	11	17	15	BUND 1/18	100	-6	-6	10	14	11	32	3
OATei18	-0.23	3	3	11	16	15	FFRG 4/18	124	-7	-7	8	12	9	36	3
BTPei18	1.91	-11	-13	16	26	29	BTP 8/18	96	-4	-4	9	13	62	57	1
OATi19	-0.20	2	-0	-2	2	0	FFRG 4/19	151	-4	-3	-5	-3	-7	34	-0
BTPei19	2.00	-7	-9	14	23	25	BTP 9/19	119	-8	-8	7	10	7	39	5
BUNDei20	-0.18	5	5	8	13	12	BUND 1/20	122	-6	-6	6	9	7	26	4
OATei20	0.09	1	1	9	13	13	FFRG 4/20	147	-4	-4	6	8	5	23	2
OATi21	0.27	5	3	-1	3	2	FFRG 4/21	156	-7	-6	-4	-3	-6	43	4
BTPei21	2.48	-9	-10	11	18	21	BTP 9/21	121	-6	-7	5	7	5	52	4
OATei22	0.48	6	5	7	11	11	FFRG 4/21	135	-8	-8	4	6	3	50	5
BUNDei23	0.19	5	5	6	9	9	BUND 1/22	132	-5	-5	4	5	3	45	3
OATi23	0.58	7	6	-1	3	2	FFRG 10/23	188	-8	-8	-4	-3	-6	25	6
BTPei23	2.70	-6	-7	10	16	18	BTP 8/23	127	-6	-6	4	6	33	62	4
OATei24	0.78	4	3	6	9	9	FFRG 10/23	168	-5	-5	3	4	1	30	2
BTPei26	2.94	-2	-3	8	13	15	BTP 3/26	135	-7	-7	3	4	2	68	5
OATei27	0.97	7	7	5	8	8	FFRG 4/26	182	-8	-8	2	3	1	26	6
OATi29	0.92	6	5	0	3	2	FFRG 4/29	209	-6	-6	-3	-3	-5	21	4
OATei32	1.13	6	5	4	7	7	FFRG 10/32	202	-6	-6	2	2	0	12	5
BTPei35	2.97	-4	-5	5	8	10	BTP 8/34	187	-2	-2	1	1	19	28	0
OATei40	1.26	6	6	3	5	5	FFRG 4/41	216	-7	-7	1	1	0	6	5
BTPei41	3.31	-4	-5	5	8	9	BTP 9/40	164	-0	-1	1	1	-1	57	-2

Source: Citi Research

Figure 61. UK Gilts Inflation-linked Carry (based on forecasts above) – One week changes

Bond	RY (%)	Chg (bp)	Carry-adj chg	Carry: RY (bp)			Ref	BE (bp)	Chg (bp)	Carry-adj chg	Carry: BE (bp)			ZC Swap - BE Spread (bp)	Chg (bp)
				1 Dec	1 Jan	1 Feb					1 Dec	1 Jan	1 Feb		
<i>Repo (%)</i>				<i>0.43</i>	<i>0.43</i>	<i>0.42</i>									
UKTi Jul16	-2.05	7	6	2	4	6	UKT 9/16	283	-3	-3	1	1	1	46	11
UKTi Nov17	-1.70	3	1	9	13	11	UKT 3/18	306	-1	0	6	8	3	15	-14
UKTi Nov19	-1.09	3	2	7	11	10	UKT 9/19	293	-2	-1	4	5	2	32	-1
UKTi Apr20	-0.88	3	2	3	6	8	UKT 3/20	283	-2	-2	0	0	0	37	0
UKTi Nov22	-0.54	2	1	6	9	9	UKT 3/22	295	0	1	2	3	1	39	-3
UKTi Mar24	-0.25	1	0	5	8	8	UKT 3/25	311	1	1	2	2	0	22	-4
UKTi Jul24	-0.24	3	3	3	5	7	UKT 3/25	310	-1	-1	0	-1	-1	30	-2
UKTi Nov27	-0.10	2	2	4	7	7	UKT 12/27	321	0	0	1	1	-1	30	-3
UKTi Mar29	0.01	4	3	4	6	6	UKT 12/30	325	-1	-0	1	1	-1	26	-3
UKTi Jul30	-0.04	5	5	2	4	5	UKT 6/32	335	-2	-2	0	-1	-1	24	-8
UKTi Nov32	-0.01	5	5	3	5	5	UKT 6/32	332	-2	-2	0	0	-1	31	-2
UKTi Mar34	0.03	5	5	3	5	5	UKT 9/34	336	-2	-2	0	0	-1	27	-2
UKTi Jan35	0.05	6	6	2	3	4	UKT 3/36	337	-3	-3	-1	-1	-2	30	0
UKTi Nov37	0.03	5	5	3	4	4	UKT 12/38	341	-2	-2	0	0	-1	28	-1
UKTi Mar40	0.04	5	5	2	4	4	UKT 9/39	343	-2	-2	0	0	-2	26	0
UKTi Nov42	0.01	5	5	2	3	3	UKT 12/42	349	-2	-2	0	0	-2	24	-1
UKTi Mar44	0.06	5	5	2	3	3	UKT 1/44	351	-2	-2	0	0	-2	20	-1
UKTi Nov47	0.02	5	4	2	3	3	UKT 12/46	351	-2	-2	0	-1	-2	22	-2
UKTi Mar50	0.02	5	5	2	3	3	UKT 12/49	350	-2	-2	0	-1	-2	21	-1
UKTi Mar52	0.04	5	5	1	2	3	UKT 7/52	350	-2	-2	0	-1	-2	21	-1
UKTi Nov55	0.01	5	5	2	2	3	UKT 12/55	350	-2	-2	0	-1	-2	22	-2
UKTi Mar62	0.00	5	5	1	2	2	UKT 1/60	351	-2	-2	0	-1	-2	20	-2
UKTi Mar68	0.00	5	5	1	2	2	UKT 7/68	353	-2	-2	-1	-1	-2	17	-2

Source: Citi Research

Summary of Recent Publications

Summary of Recent Publications

Date	Publication	Topic	Page	Region
16-Oct-13	NOTE	Rates Strategy: Refinements to Moody's methodology enhances transparency	-	EUR
14-Oct-13	NOTE	European Flow Monitor: Growing demand for Finland	-	EUR
3-Oct-13	European Weekly	UFR: Missing the Point	8	EUR
		Impact of 2014 BTP supply on the curve	11	EUR
		Euro Rates – falling realised volatility	14	EUR
		UK Rates – Outlook & the Gilt Remit	15	UK
		Inflation: more on BTPei vs Bunde	18	EUR
		EUR: Euribor Option Wedges Looking Dear	20	EUR
		SSA Strategy – RV and the spread outlook	22	EUR
10-Oct-13	NOTE	Weekly Supply Monitor: Euro, UK and US Supply Outlook	-	Global
7-Oct-13	NOTE	Flow Monitor: Divergence in the core: Germany losing out to the rest of the core	-	EUR
3-Oct-13	European Weekly	Bunds: When Does Inflation Matter?	8	EUR
		Euro Rates – Periphery resilience	10	EUR
		UK Rates – Treading water	12	UK
		Inflation: fade the rally in BTPei break-evens	15	EUR
		EUR Vol: Optimal points for bearish trades	16	EUR
		SSA Strategy – RV & upcoming ESM supply	19	EUR
		Technical update: Bund uptrend weakening	22	EUR
		Overview of 2014 EMU issuance forecasts	30	EUR
3-Oct-13	NOTE	Weekly Supply Monitor: Euro, UK and US Supply Outlook	-	Global
2-Oct-13	NOTE	Euro Rates Strategy: EMU 2014 Supply Projections	-	EUR
30-Sep-13	NOTE	European Flow Monitor: More selling of the core	-	EUR
30-Sep-13	NOTE	EMU October Supply: cash flow profile is supportive for bonds	-	EUR
30-Sep-13	NOTE	Euro Rates Strategy: Where next for BTPs amid ongoing political uncertainty	-	EUR
27-Sep-13	NOTE	Euro SSA and Covered Bond Monthly	-	EUR
27-Sep-13	NOTE	European Rates Strategy: The Month-end RV Pack	-	EUR
26-Sep-13	European Weekly	European Rates Strategy Yield Outlook	8	Global
		ECB: Some Thoughts on a New LTRO	9	EUR
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		Ireland – the road back to Investment Grade?	17	EUR
		Technical update: potential reversal signals	19	EUR
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		Covered Bond Strategy	22	EUR

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Notes

Appendix A-1

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