20 September 2012 │ 60 pages

Global

International Interest Rate Strategist

Eurozone's lost decade

- **Euro Money Markets:** The experience of BOJ's monetary policy proves to be a valuable anchor in guiding investors in euro assets. We look at the structure of the Eurosystem, drawing likely scenarios for asset prices. The front-end of the EUR curve is still attractive when benchmarked against a "lost decade" scenario.

- **UK Inflation Strategy:** CPAC have announced a consultation on changes to the RPI calculation and in doing so have taken another step closer towards eradicating the 'formula effect'. We see downside risks to UK break-evens in the near-term and target 2.2% in the 10yr sector.

- **EUR Volatility:** The 5y point of the curve is pivotal in capturing directional expectations. We tackle the valuation question from a relative value point of view. The analysis supports the view that EUR 5y is approaching exceptionally rich valuations. We look into the details of expressing bearish views on EUR 5y both in linear and non-linear rates space.

- **SSA Issuer Focus: EFSF/ESM:** Following our recent SSA Issuer Focus pieces on the EIB, Germany's KfW and the EU/EFSM, we outline some key characteristics of another core European SSA issuer, the EFSF/ESM.

- **WGBI:** The US index is projected to extend by only 0.03, due to the offsetting effect of *Operation Twist.* The month-end changes should put steepening pressure on UST 10s30s, ceteris paribus.

- **EGBI:** This month's changes should be most supportive for France and Italy. On their respective domestic curves 10yr Belgium and Finland, and also the long end of Belgium, should also benefit from the projected index changes.

- **Algorithmic Trading Signals:** We maintain core long duration view but take profits on the recent down tick in yields.

- **4 EMU RV Trades:** The cheapness of Jul15s and richness of Apr17s in France presents two attractive opportunities. Investors can also take advantage of the richness of Apr15s and Jan17s in the Netherlands.

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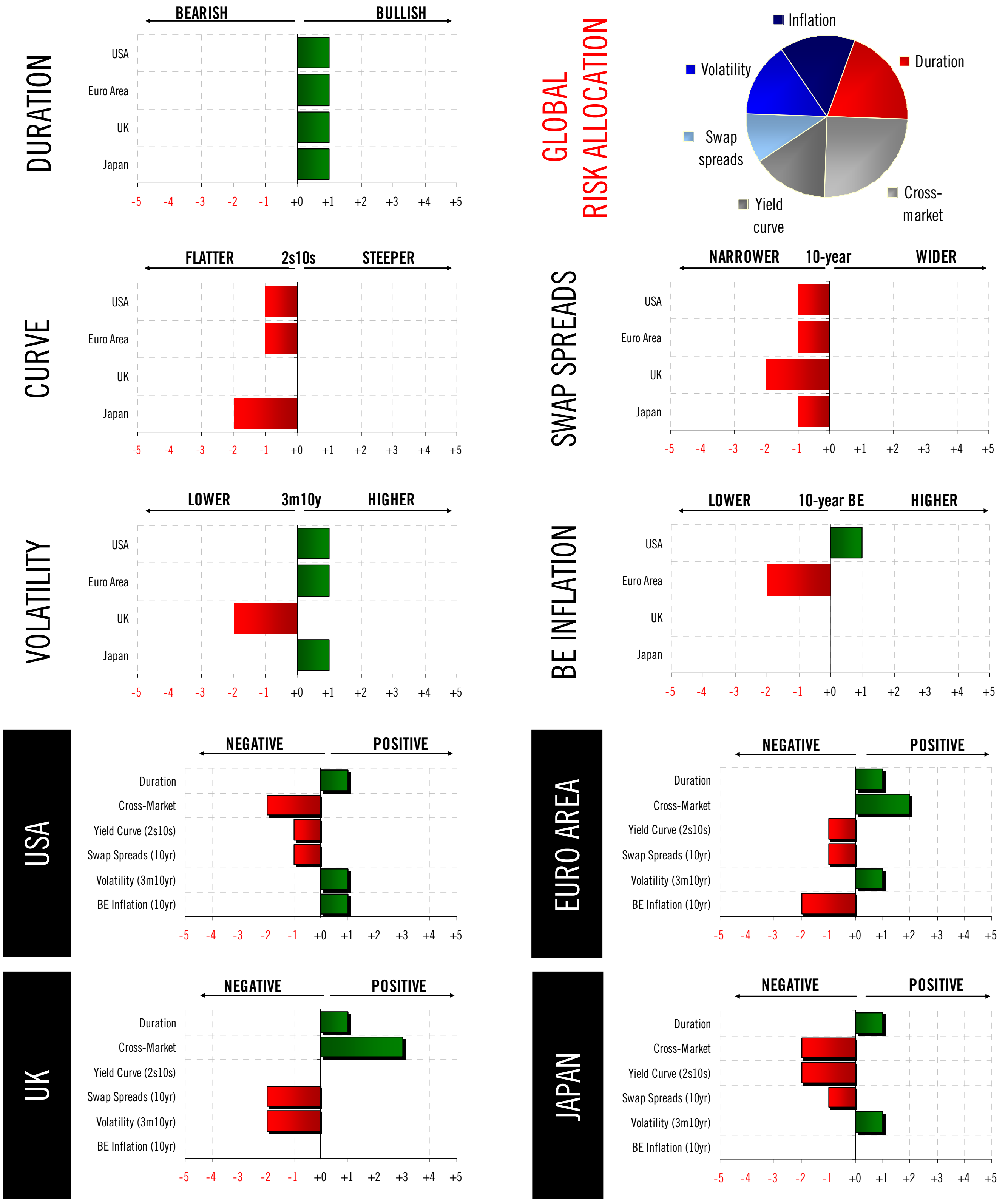
Figure 1. Strategy Summary Table

GLOBAL	View	Strategies
Direction	Bunds are rallying again as the risk-on enthusiasm wanes. Recent measures have bought time but fundamental and implementation/political risks remain. On any medium term horizon we would still rather be long than short, especially given our economists warning that Grexit remains a possibility over the coming months.	Buy core market duration on dips.
Money Market	We like receiving longer-dated 1y forwards. This trade profits - of course - from a rate cut scenario as well in a situation of long-term unchanged rates, in which the market is desperate to grab the additional yield in forward space. This strategy rolls down by a cumulative 80bp in 24 months. Looking at Japan, the JPY 1y1y rate dropped to a low of 0.08% in June 2003.	Receive EUR 3y1y
Yield Curve	There has been interest in 5s10s Bund flatteners around the 12m highs. We see scope for further flattening, especially given our bullish duration bias.	10s30s steepeners in Germany as a long-term trade (or boxed with Gilts).
Cross-market	We continue to prefer Bunds to Treasuries over the longer-term and expect the reversal of the most recent tightening to continue.	Long 2x5 ATMF/+100 payer spread in USD versus EUR Long 30yr gilts vs USTs
EMU Spreads	With so much priced in the aftermath of the OMT the risks are skewed to flatter periphery curves. We would not dismiss the wider and challenging fundamental backdrop as a governor of EMU spreads in the longer term. The risk-reward of semi-core vs core wideners also looks appealing here.	Sell 5yr Austria/France vs Germany 2s10s flatteners in Spain and Italy
Swap Spreads	Bund spreads have tightened significantly in the last two months. 30yr spreads are at levels which are likely to attract real money interest and we favour wideners here. Schatz spreads look historically cheap, both outright and vs Bobl spreads. Gilt spreads continue to cheapen, influenced by the core market sell-off and corporate issuance.	Long 30yr Bund swap spreads
Inflation	Euro break-evens have narrowed this week, but with 10s still close to 2% there is little medium-term value, in our view. in the UK, following the CPAC meeting we see moderate near-term downside risks to UK break-evens.	Sell OATei22 vs Bundei23 real yield spread Sell OATei40 break-even outright or boxed vs UKTI 2040 10s30s TIPS break-evens steepeners as a LT structural trade.
Volatility	Event risk over the next 6months should provide upward pressure on EUR 3m10y bpv. We recommend bullish positions in EUR front-end fwds which are considerably elevated vs spot and do not reflect further ECB action. GBP 2y2y vol is too rich vs fundamentals, we suggest selling straddles.	Sell EUR 3y1y ATMF straddles and buy EUR 3y1y ATMF-25 receivers. Alternatively, sell EUR 3y1y ATMF payers Sell GBP 2y2y ATMF straddles
European SSA	Like other fixed income markets, SSA primary markets have been relatively active amid the improved market one. We continue to believe this sector can provide a degree of insulation from the wider EMU debt crisis and believe new issues can provide a liquid way of gaining yield in a high quality credits.	Long KfW vs France in the 4yr sector Micro extension trades in core issuers
Risk Allocation	Keep overall risk light but continue to trade opportunistically rather than strategically. Don't let profits evaporate in volatile markets.	

Source: Citi Research

Figure 2. Global Summary

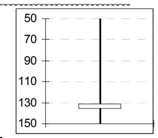
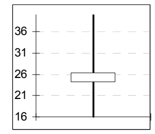
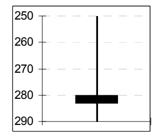
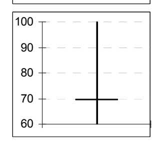
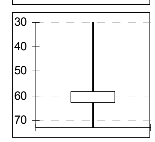
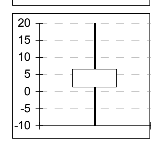
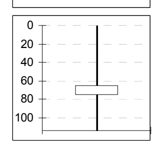
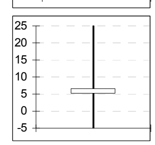
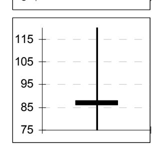
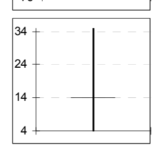
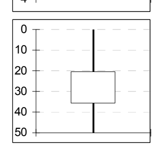


Source: Citi Research

Tradesheet

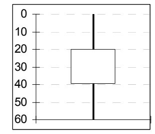
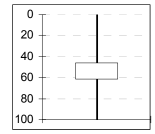
Record of Our Open Trades

Figure 3. Record of our Open Trades

Region	Trade	Levels		Rationale + Publication Date	
Europe *Duration*	**Receive EUR 1y3yF** Receive EUR 1y3yF at 1.36%	Open Current **P&L** Target Stop	136bp 131bp **5bp** 50bp 150bp	ECB rate cut and very high carry should be supportive for this trade *IIRS 13 September 2012*	
Europe *EMU Spreads*	**Sell 5yr Austria vs 5yr Germany** Sell RAGB 4% Sep16 at 0.59% Buy Bobl 1.25% Oct16 at 0.35%	Open Current **P&L** Target Stop	24bp 26bp **2bp** 40bp 16bp	Risk of delay to the ECB's OMT programme and attractive entry levels *IIRS 13 September 2012*	
Europe *Curve*	**Italy 2s10s flattener** Sell BTP 4.25% Jul14 at 2.20% Buy BTP 5.5% Sep22 at 5.00%	Open Current **P&L** Target Stop	280bp 284bp **-4bp** 250bp 290bp	We expect this strategy to work in both a risk-on environment (duration extension across front-end BTPs) & risk-off environment (increase in credit risk would bear-flatten the curve) *Assessing the Impact of a Theoretical OMT... 12 August 2012*	
Europe *Curve*	**France 2s5s Steepener** Buy BTAN 3% Jul14 at 0.14% Sell OAT 3.75% Apr17 at 0.86%	Open Current **P&L** Target Stop	70bp 69bp **-1bp** 100bp 60bp	Proxy for shorting France vs Germany *IIRS 16 August 2012*	
Europe *Volatility*	**Sell EUR 1y3yF ATMF straddle and buy ATMF-25 receiver** Sell EUR 1y3yF ATMF (=1.36%) straddle for 98bp Buy EUR 1y3yF ATMF-25 receiver for 35bp	Open Current **P&L** Target Stop	63bp 58bp **5bp** 30bp 73bp	Fwd levels in front-end EUR swaps are too high in an environment where additional policy measures by the ECB are likely to be undertaken *IIRS 9 August 2012*	
Europe *Cross Market*	**Long KfW 1.375% Feb17s vs OAT 5% Oct16s** Buy KfW 1.375% Feb17 at 0.62% Sell OAT 5% Oct16s at 0.63%	Open Current **P&L** Target Stop	1bp 6bp **5bp** 20bp -10bp	Spread compression looking overdone and we look for KfW to outperform should the EMU crisis intensify *IIRS 2 August 2012*	
UK *Volatility*	**Sell GBP 2y2y ATMF straddle** Sell GBP 2y2y ATMF (1.04%) straddle at 76bps	Open Current **P&L** Target Stop	76bp 65bp **11bp** 0bp 114bp	The fundamental backdrop in the UK supports selling GBP 2y2y vol *IIRS 12 July 2012*	
Europe / US *Duration*	**Buy USD Payer Spread vs EUR (delta-weighted and fx-adjusted)** Buy 108 units USD 2yr5yr ATMF payer at 2.1% Sell 108 units USD 2yr5yr ATMF+100 payer at 0.8% Sell 100 units EUR 2yr5yr ATMF payer at 1.9% Buy 100 units EUR 2yr5yr ATMF+100 payer at 0.64%	Open Current **P&L** Target Stop	5bp 7bp **2bp** 25bp -5bp	Range-bound short rates with short term cash-flow support for Europe *IIRS 12 July 2012*	
Germany *Curve*	**Germany 10s30s steepener** Buy DBR 1.75% Jul22 at 1.24% Sell DBR 2.5% Jan44 at 2.12%	Open Current **P&L** Target Stop	88bp 86bp **-2bp** 120bp 75bp	Replaces 5s30s steepener. Regulatory pressures expected to weigh on long end. *IIRS 12 July 2012*	
US / Europe *Cross Market*	**Long 10yr Bund vs UST** Sell UST 1.75% May22 at 1.62% Buy Bund 1.75% Jul22 at 1.48%	Open Current **P&L** Target Stop	14bp 14bp **0bp** 35bp 4bp	The recent weakness in equities, the upcoming NCR profile & our ARTS weekly trading signal suggests buying 10yr Bunds vs USTs *Interest Rate Strategy Update 25 June 2012*	
US / UK *Cross Market*	**Long 30yr Gilt vs UST** Buy UKT 4.5% Dec42 at 3.09% Sell UST 3% May42 at 2.74%	Open Current **P&L** Target Stop	36bp 21bp **15bp** 0bp 50bp	With Operation Twist extension largely priced in, QE resumption should help gilts outperform treasuries *UK Rates Strategy 20 June 2012*	

Source: Citi Research

Figure 4. Record of our Open Trades (continued)

US / Europe	**Pay USD 2y 2y fwd vs EUR**	Open	40bp		
		Current	20bp	We expect divergence between UST and core EMU yields	
Cross Market	Pay USD 2y 2y fwd at 1.27%	**P&L**	**20bp**		
	Receive EUR 2y 2y fwd at 1.67%	Target	0bp		
		Stop	60bp	*IIRS 23 February 2012*	
UK / Europe	**Bund 5s30s steepener vs gilts flattener**	Open	62bp		
		Current	46bp	Free-float profile suggests support to UK long end by QE, hedged by EUR steepener against EUR driven risk of mid-curve repricing	
Cross Market	UKT 5s30s flattener at 234bp	**P&L**	**16bp**		
	DBR 5s30s steepener at 172bp	Target	0bp		
		Stop	100bp	*Interest Rate Strategy Focus on QE 14 Sep2011*	

Source: Citi Research

Global Economic Outlook and Strategy

Following the latest *Global Economic Outlook and Strategy* *September 2012* publication from our global economists and market strategists, we highlight Citi's key views.

Global

GDP (YoY) 2012F 2.5%
CPI 2012F 2.8%

Overall, Citi economists are leaving the 2012 global growth forecast (at current exchange rates) at 2.5%, while cutting the 2013 forecast to 2.6% from 2.8% last month, with notable downgrades to forecasts for China and Japan.

US

GDP (YoY) 2012F 2.2%
CPI 2012F 1.9%
Rates on hold at 0.25% in 2012

The Fed's impatience with subpar job growth has prompted a new easing campaign that appears likely to persist well into next year. Barring a fiscal policy calamity, the recovery's micro-foundations suggest a gradual improvement in the growth outlook.

Euro Area

GDP (YoY) 2012F -0.6%
CPI 2012F 2.4%
Policy rate 4Q 2012F: 0.5%

With its OMT Programme, the ECB has reduced the risk of a near-term break-up of the euro area. However, it is now up to euro area governments to set up support packages in order to benefit from ECB support. Our economists expect the ECB to cut the refi rate further to 0.25% in early 2013 and set a negative deposit rate.

UK

GDP (YoY) 2012F -0.5%
CPI 2012F 2.6%
Rates on hold at 0.5% in 2012

The UK economy is likely to show a technical rebound in Q3 but the underlying path remains flat. The MPC remains likely to expand QE further, most likely soon after the current programme expires at end-October.

Japan

GDP (YoY) 2012F 2.1%
CPI 2012F 0.2%
Rates on hold at 0.1% in 2012

Citi expects a technical recession in H2 this year. Significant downside surprises to the July economic data prompted our economists to expect negative growth in Q3. Moreover, as an economic slowdown in the major trading partners continues longer than generally anticipated, negative growth appears likely to persist into Q4, driven by continued declines in exports.

China

GDP (YoY) 2012F 7.9%
CPI 2012F 2.9%
Deposit rate on hold at 3% 2012

Our economists are keeping the China growth forecast of 7.9% for 2012, but are cutting the 2013 growth forecast to 7.6% from 8% previously. Citi assumes the new government will tolerate sub-potential growth to facilitate rebalancing and contain inflation of goods and asset prices. Our economists no longer expect a rate cut this year.

Australia

GDP (YoY) 2012F 3.7%
CPI 2012F 1.8%
Rate on hold at 3.5% in 2012

Citi has trimmed its 2013 GDP forecast for Australia given slower growth in Asia and the fall-out for key commodity prices. Our economists do not expect a near-term rate cut, but if the outperformance of the AUD against commodity prices widens further this may force the RBA to cut.

Figure 5. Interest Rate and Bond Market Forecasts as of 19 Sep 2012

	Current	Quarterly Average					
		4Q 12	1Q 13	2Q 13	3Q 13	4Q 13	1Q 14
US							
Policy Rate (Fed Funds) End Quarter	0.25	0.25	0.25	0.25	0.25	0.25	0.25
3-Month Libor	0.38	0.35	0.40	0.50	0.60	0.70	0.80
2 Year Treasury Yield	0.25	0.21	0.30	0.50	0.60	0.75	0.90
5 Year Treasury Yield	0.69	0.65	0.75	0.95	1.10	1.35	1.60
10 Year Treasury Yield	1.83	1.65	1.75	2.00	2.25	2.55	2.75
30 Year Treasury Yield	2.99	2.85	2.95	3.20	3.45	3.80	3.95
2-10 Year Treasury Curve	158	144	145	150	165	180	185
2 Year Swap Spread (Swap Less Govt.), bp	13	20	25	30	35	35	35
10 Year Swap Spread (Swap Less Govt.), bp	4	10	15	25	25	25	25
30 Year Swap Spread (Swap Less Govt.), bp	-25	-30	-35	-40	-45	-50	-50
30 Year Mortgage Yield	3.52	3.45	3.55	3.80	4.00	4.20	4.40
10 Year Breakeven Inflation	256	260	260	250	245	240	240
Euro Area							
Policy Rate	0.75	0.50	0.25	0.25	0.25	0.25	0.25
Overnight Rate (EONIA)	0.08	0.08	-0.15	-0.15	-0.15	-0.15	-0.15
3-Month Libor	0.24	0.15	0.05	0.00	0.00	0.00	0.00
2 Year Treasury Yield	0.06	0.00	-0.05	0.00	0.05	0.10	0.10
5 Year Treasury Yield	0.62	0.50	0.55	0.60	0.75	1.00	1.00
10 Year Treasury Yield	1.67	1.50	1.55	1.60	1.75	2.00	2.00
30 Year Treasury Yield	2.43	2.30	2.35	2.40	2.50	2.60	2.60
2-10 Year Treasury Curve	161	150	160	160	170	190	190
10 Year BTP-Bund Spread	340	400	300	325	325	300	275
10 Year Bono-Bund Spread	427	525	375	400	375	350	325
2 Year BTP-Schatz Spread	239	325	345	300	280	260	235
2 Year Bono Schatz Spread	341	450	325	300	280	260	235
10 Year Swap Spread (Swap Less Govt.), bp	23	40	25	20	15	10	10
10 Year Breakeven Inflation	201	170	180	185	195	200	200
Japan							
Policy Rate	0.10	0.10	0.10	0.10	0.10	0.10	0.10
3-Month Libor	0.19	0.20	0.20	0.20	0.20	0.20	0.20
2 Year Treasury Yield	0.10	0.10	0.10	0.15	0.10	0.15	0.15
5 Year Treasury Yield	0.21	0.25	0.35	0.40	0.35	0.50	0.50
10 Year Treasury Yield	0.80	0.95	1.10	1.20	1.10	1.30	1.30
30 Year Treasury Yield	1.90	2.00	2.10	2.20	2.10	2.25	2.25
2-10 Year Treasury Curve	70	85	100	105	100	115	115
2 Year Swap Spread (Swap Less Govt.), bp	20	21	23	25	23	27	27
10 Year Swap Spread (Swap Less Govt.), bp	0	3	4	6	4	8	8
UK							
Policy Rate	0.50	0.50	0.50	0.50	0.50	0.50	0.50
3-Month Libor	0.65	0.75	0.75	0.75	0.75	0.75	0.75
2 Year Treasury Yield	0.22	0.30	0.25	0.40	0.65	0.80	0.85
5 Year Treasury Yield	0.82	0.75	0.70	0.80	0.85	1.15	1.25
10 Year Treasury Yield	1.90	1.70	1.60	1.80	2.00	2.25	2.35
30 Year Treasury Yield	3.15	2.60	2.65	2.70	2.80	2.90	3.00
2-10 Year Treasury Curve	168	140	135	140	135	145	150
10 Year Swap Spread (Swap Less Govt.), bp	11	45	45	40	35	30	30
Australia							
Policy Rate	3.50	3.50	3.50	3.50	3.50	3.50	3.75
3-Month Libor	3.58	3.60	3.60	3.60	3.60	3.70	3.90
2 Year Treasury Yield	2.83	2.80	2.70	2.70	2.90	3.00	3.30
5 Year Treasury Yield	2.77	2.80	2.75	2.75	2.90	3.10	3.40
10 Year Treasury Yield	3.26	3.10	3.30	3.60	3.80	4.00	4.10
2-10 Year Treasury Curve	43	30	60	90	90	100	80
10 Year Swap Spread (Swap Less Govt.), bp	69	75	70	65	60	60	60

Source: Citi Research

Euro Money Markets

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The experience with BOJ's monetary policy proves to be a valuable anchor in guiding investors in EUR assets. We look at the current structure of the Eurosystem and draw likely scenarios for asset prices. Specifically, the front-end of the EUR curve is still attractive when benchmarked against the "lost decade" scenario.

Figure 6. ECB expectations curve

Meeting	Reserve Period		Eonia
04-Oct-12	10-Oct-12	13-Nov-12	0.09
08-Nov-12	14-Nov-12	11-Dec-12	0.07
06-Dec-12	12-Dec-12	15-Jan-13	0.06
10-Jan-13	16-Jan-13	12-Feb-13	0.05
07-Feb-13	13-Feb-13	12-Mar-13	0.04
07-Mar-13	13-Mar-13	09-Apr-13	0.05
04-Apr-13	10-Apr-13	07-May-13	0.06
02-May-13	08-May-13	11-Jun-13	0.06
06-Jun-13	12-Jun-13	09-Jul-13	0.07
04-Jul-13	10-Jul-13	06-Aug-13	0.08
01-Aug-13	07-Aug-13	10-Sep-13	0.09
05-Sep-13	11-Sep-13	08-Oct-13	0.10
02-Oct-13	09-Oct-13	12-Nov-13	0.11

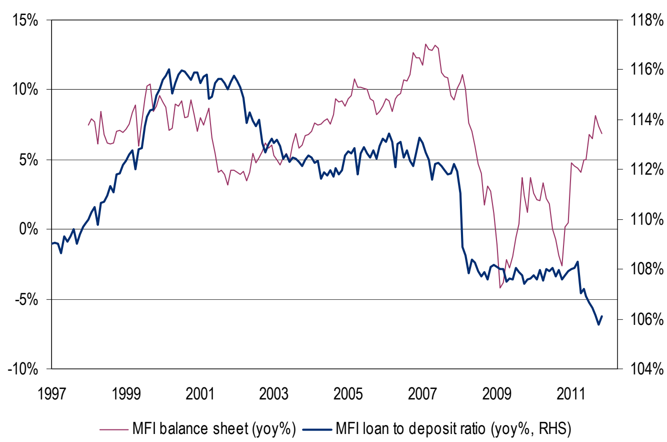
Source: Citi Research

Eurozone's Lost Decade

As in Japan, the expansion of central bank's balance sheet and the creation of a super-easy monetary conditions environment results mainly in a shutdown of interbank and bank to household & non-financial corporate lending. Moreover, the deleveraging process in the banking sector is slow at best. MFI balance sheets have increased by 7.1% in the 12 months ending July 2012 (EUR 34.4 trillion, Figure 2). At the same time, the loan-to-deposit ratio has dropped to an all time low. Evidence from Eurozone's periphery (esp. Spain) suggests a continued increase in NPL coupled with a reduction in lending to the non-financial sector of the economy.

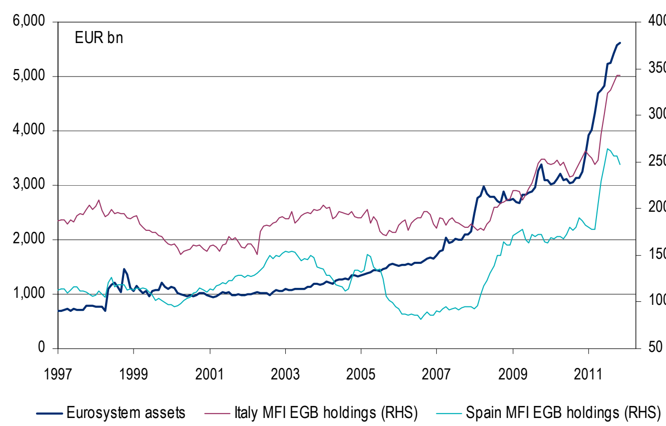
With full-allotment tenders providing ultra-cheap money against virtually any collateral, Eurosystem banks are enjoying the party. And regulation is actually playing to the tune. Balance sheet analysis suggests that a grand-scale process of Basel-arbitrage is in place. Accordingly, banks are boosting their holdings of EGB (0% RW) and reducing their holdings of RWA. Over the past 12 months, Italian banks have increased their EGB holdings by EUR 87bn and Spanish banks by EUR 61bn (Figure 3), thus cementing the link between sovereign and financial risk.

Figure 7. Are banks really deleveraging?



Source: ECB

Figure 8. Regulation and bond market structure



Source: ECB

Recall that Japanese banks have done and are still doing the same, i.e. borrow money from the BOJ at 0% and invest in JGB for carry. This process has two main advantages for banks and the government:

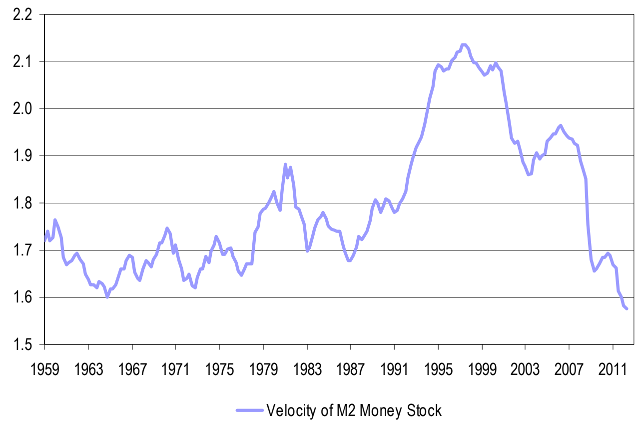
- Banks enjoy a carry trade with a free moral hazard option attached to it, and
- The government enjoys a stable funding curve for its ambitious fiscal plans.

The disadvantages are obvious: Depletion of accumulated household savings and anemic bank lending conditions. The result? Zero potential growth for decades.

The velocity of money has collapsed in the developed world (Figure 4). Central bankers are confident with their dogmatic inflation targets and a jump in consumer prices can actually be almost always attributed to external factors. We believe the

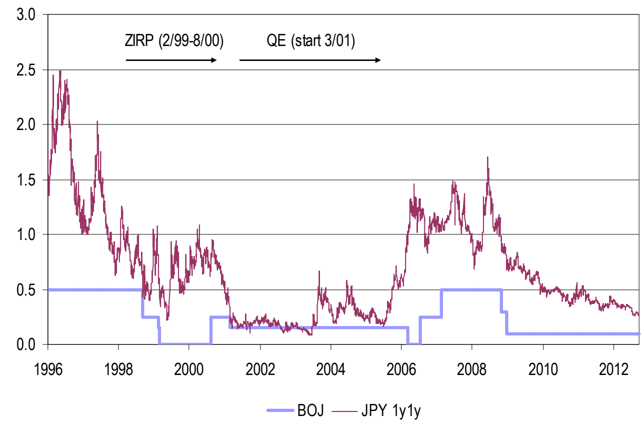
ECB thinks the transmission mechanism is not a target, but price stability is. Plus, the ECB is more patient than markets and they believe transmission will eventually be restored.

Figure 9. Plenty of money, but does it flow into the economy?



Source: St. Louis FED

Figure 10. Impact of BOJ policy on the short-end of the curve



Source: Citi Research

The beauty of the current market environment is that we've been here before and we can draw valuable lessons in order to guide our investment strategy. For example, we can say that during ZIRP/QE, JGB swap spreads compressed significantly and bonds even traded above the swap curve for some time. Also, short-term rates converged all to the policy rate (e.g. JPY 1y1y 8-10bp at the lowest, Figure 5). As mentioned in last week's "*Euro Money Markets*" section, we like receiving EUR 3y1y (live 1.32% vs 2y1y at 0.84%).

What we can't draw is, at first glance, a lesson for Eurozone's periphery. What we can say however, is that the process of endogenizing public debt is ongoing in the Euro area. Having a significant proportion of resident investors (>75%) makes a big difference, because regulators can have then a free hand in changing the rules of the game. Tapping the vast reservoir of household savings is the name of the game for those countries that struggle to generate growth and reduce deficits. For example, Italy has roughly five times GDP in privately owned assets (EUR 8 trn), of which some 120% of GDP of financial assets. A policy mix of increased real-estate taxes coupled with stricter pension fund regulation (e.g. invest exclusively in domestic debt) and central bank buying of government debt, would ensure that a) the percentage of non-resident holders drops to insignificant levels and b) savings are used to finance the existing stock of debt.

There is one major caveat: Looking back in history, achieving multi-objective optimization of growth and public debt is indeed a desperate enterprise. According to IMF studies, simultaneous economic weakness and financial deleveraging are resolved with devaluation and/or haircuts on public debt in around 72% of the cases (32 observations in the sample).

UK Inflation Strategy

CPAC presents downside risks to break-evens

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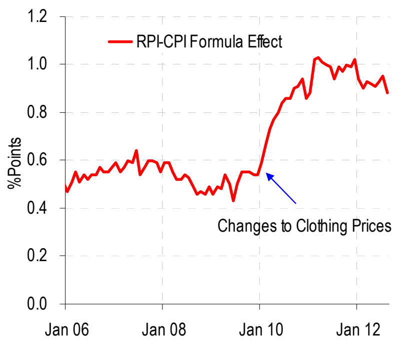
The Consumer Price Advisory Committee (CPAC) took a further step this week towards removing the 'formula effect' between RPI and CPI (currently worth 0.88%, Figure 11). No decision has been made yet. Rather, CPAC announced a consultation (running from 8 October to 30 November) which will consider four options ranging from no change to a full eradication of the formula effect (see *Inflation Data and CP-AC, 18 September 2012*). As our economists point out, the CPAC report hints that it favours either reducing the formula effect to a minimum or removing it completely.

Figure 11. Formula Effect (% Points)



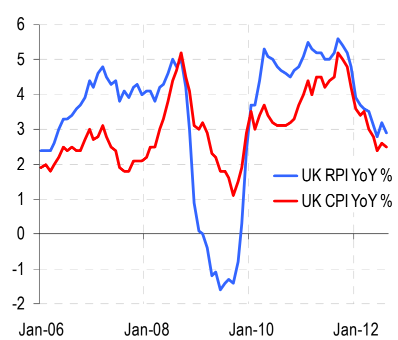
Source: Citi Research, ONS.

Such a conclusion has looked likely for some time. As discussed at length in *UK Inflation Strategy - A formula for lower UK break-evens? 29th May*, CPAC have been showing intent to remove the formula effect since at least November 2011. However, the speed of implementation, assuming it goes ahead, is more surprising. While the market was likely prepared for changes to the calculation of clothing prices, it probably wasn't fully anticipating changes to the wider RPI basket as soon as the release in March 2013, which now looks more likely. Uncertainty will remain until the final recommendation is made, but the risks to break-evens look skewed to the downside following CPAC in our view.

The final decision may rest with Chancellor

Before any final decision is made regarding the RPI calculation, the Bank of England will first be consulted on "*whether any proposal would be a fundamental change to basic calculation of the RPI that would be materially detrimental to the interests of holders of relevant index-linked gilts"* (the relevant IL gilts being the older 8-month lag issues which include this redemption clause in bond documentation). Assuming the proposal will be to remove the formula effect in its entirety, or near entirety, it is conceivable, in our view, that the Bank will judge the changes to be "fundamental" and "detrimental".

Figure 12. UK Realised Inflation (%)



Source: Citi Research

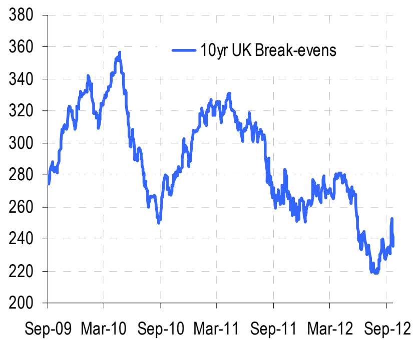
The final decision on whether the proposed changes to RPI can be implemented will then rest with the Chancellor. It could be argued that such changes would send a poor signal to investors in gilts more broadly, but we doubt that this will be of sufficient concern to prevent the changes from going ahead. Protests from holders of IL gilts are likely to be muted by the fact that the dominant investor group, LDI accounts, will receive an offsetting benefit from the change to RPI on the liability side. Furthermore, the Chancellor is struggling to meet his fiscal targets. As our economics point out, the OBR estimate that a 1% drop in RPI inflation would cut debt service payments by about £3bn for 2013/14, rising to about £6bn for 2016/17 (*UK Economics Weekly - The UK's Looming Fiscal Dilemma 7 September*). In the scenario where the decisions rests with the Chancellor and he gives the go ahead, the Treasury will then offer to buy back the relevant IL gilts at the inflation-adjusted par value. However, given the prevailing level of real yields, the redemption clause has very little value to holders at this moment in time and is unlikely to be exercised.

Where should break-evens trade?

Even if the final proposal is to remove the formula effect completely, there may still be a wedge between RPI and CPI due to differences in coverage and weights. One of the major differences is the inclusion in the RPI of mortgage interest payments. Consequently, the wedge will still be particularly wide and volatile when policy rates are moving, although this is unlikely to be an issue for quite a few years. Furthermore, over periods of sharply rising house prices such as Jan 2005 – early 2007 (and the consequent impact from the house price depreciation index), the wedge averaged around 0.4% even after removing the influence of the formula

effect. Over more recent history, the various economic influences on the wedge have evolved. In the current context of stable mortgage rates and negligible house price growth, the underlying wedge could be smaller still.

Figure 13. 10yr UK Break-evens (bp)



Source: Citi Research

The Bank of England target CPI of 2%, so assuming the central bank has credibility it is not unreasonable to assume that long-term break-evens should be anchored close to 2%-2.2%. Of course, supply-demand dynamics and other factors will always be capable of driving break-evens away from fundamental anchors, not least the degree of inflation risk premium, but this does at least provide a rough guide. The current level of the 10yr break-even is around 2.36% and hence the market appears to be near the right ballpark area versus long-term fundamental anchors.

Conclusion – moderate downside risks to UK break-evens

Following the release of the CPAC minutes this week, there remains uncertainty over what the final proposal will be. However, it seems to us even more likely now that the RPI calculation will be changed to either remove the formula effect entirely or reduce it to a minimum. This presents downside risks to break-evens in the near-term, especially in the short-end which will be most affected by revisions to the RPI outlook for the next few years. Further out, narrowing pressure on break-evens is likely to be partially offset by the fact that 10yr break-evens have arguably already fallen to a level approaching a new, lower, RPI-CPI wedge. Moreover, LDI accounts are unlikely to be sellers of IL gilts given the nature of their demand and the offsetting benefit on the liability side. In the near-term, we see scope for 10yr break-evens to retreat to around 2.2%, around 16bp lower than current levels.

Swaps & Swaptions

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The 5y point of the curve is pivotal in capturing directional expectations. We tackle the valuation question from a relative value point of view. The analysis supports the view that EUR 5y is approaching exceptionally rich valuations. We look into the details of expressing bearish views on EUR 5y both in linear and non-linear rates space.

A Closer Look at the EUR 5y Point

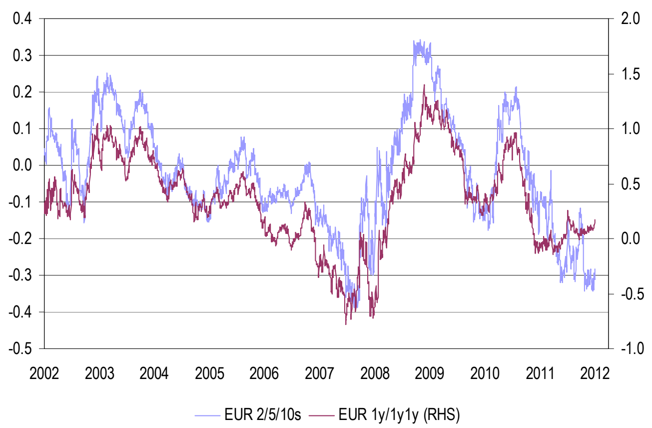
The 5y point on the EUR curve is rich. That is no news given:

- Flow evidence supporting protracted and heavy receiving in the 5y bucket of the swap curve (both spot and forward), and
- Curvature in USD, GBP and CHF swaps is optically very cheap.

In this note, we try to quantify how rich the EUR 5y point is.

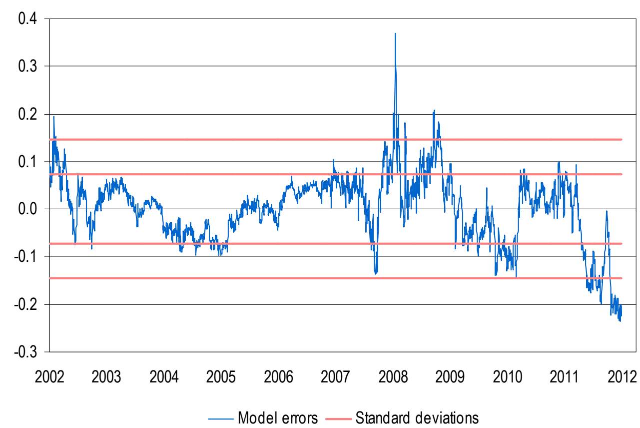
We can model the EUR 2/5/10s fly using the slope of the money market curve as an indication of curvature. Looking at the data, we note that the relationship is very reliable also ion the long-run (Figure 1). At current levels (-32bp spot), the fly looks to be approximately 3 standard deviations too low (i.e. 5y expensive, see figure 2).

Figure 14. Rate expectations and curvature



Source: Citi Research

Figure 15. A simple RV framework for curvature



Source: Citi Research

One way to exploit this long-term stable relationship in a market neutral way is to enter the following trades:

- Receive EUR 1y/1y1y (or sell reds/greens Euribor spread), and
- Pay EUR 2/5/10s

Because of the mismatch in realized volatility, the two strategies should be entered as a ratio of 3:1, i.e. for 100k/01 of Euribor flatteners we should pay 300k/01 of EUR 2/5/10s butterflies. One issue with paying the fly is the negative rolldown (1y fwd 2/5/10s is approximately 25bp higher). On the other hand, the EUR fly seems to be related to the general tone in the market and paying the fly provides some degree of optionality with regards to a jump in gamma.

Bearish 5y? Check the EUR Payer Skew.

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Below we highlight an option strategy that takes advantage of the steepness of payer skew in EUR 1y5y and can be used to position for a sell-off during the course of the next 12months. In the adverse scenario of lower yields, this strategy offers a net pay out of approximately 5bps.

The Vol Angle

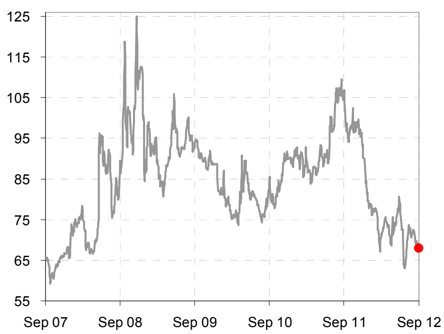
EUR 1y5y ATMF bpv is historically low

EUR 1y5y bpvol has fallen sharply in the last year as the underlying swap rate has rallied on the back of expectations that the ECB will keep policy rates low for an extended period (Figure 16). In addition, the introduction of liquidity measures by the ECB in the last year has put further downward pressure on rates.

Payer skew is elevated

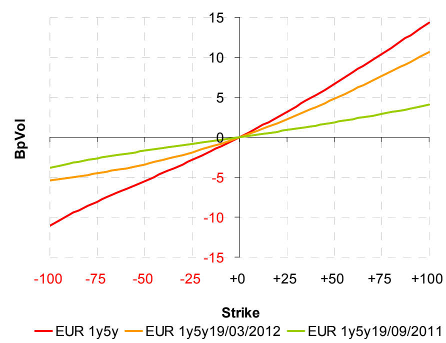
As can be shown in Figure 17 and Figure 18 below, the current level of payer skew is still high relative to 6 and 12months ago.

Figure 16. EUR 1y5y bpvol



Source: Citi Research

Figure 17. EUR 1y5y skew vs 6- & 12-months ago



Source: Citi Research

Figure 18. EUR 1y5y ATMF+100 bpv - ATMF bpv

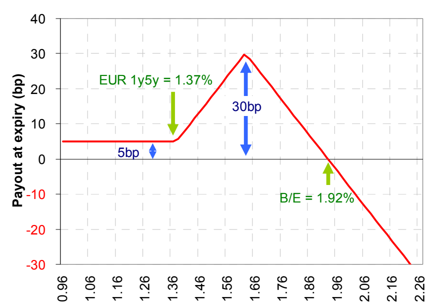
Source: Citi Research

The Vol Angle + Duration View

Capturing a sell off and taking advantage of payer skew

Given our preference long duration positions in the front-end of the euro swap curve[1] we prefer to avoid buying EUR 1y5y ATMF payers or ATMF/ATMF+25bp payer spreads as the risk-reward is unattractive, in our view. We see better value in 1x2 payer spreads which enables investors to take advantage of the steepness of payer skew, retain a bullish view on the front-end of the EUR curve and capture a potential sell-off (of up to 50bps on the forward rate and 90bps in the spot 5yr rate).

Figure 19. Payoff diagram on expiry



Source: Citi Research

Trade: Buy 1 x EUR 1y5y ATMF payer and Sell 2 x EUR 1y5y ATMF+25

Trade details: Buy 1 x EUR 1y5y ATMF payer (ATMF = 1.37%) and sell 2 x EUR 1y5y ATMF+25 payers for a total net premium take in of approximately 5bp.

As can be seen in pay-off diagram in Figure 19 if the EUR 5yr swap rate is below 1.37% in a years time the payout on this trade would be approximately 5bp. The maximum payout of 30bps would occur if EUR 5yr swaps are 1.62% at expiry.

Risk: An investor would lose money on expiry if the EUR 5yr swap rate is above 1.92%. This could be a result of a large increase in consensus expectations for EMU growth, a situation we do not envisage to happen for some time. Furthermore, as we have seen in the Japanese experience of ultra-low policy rates the last time the 5yr swap rate closed above 1.90% was over 10years ago.

[1] International Interest Rate Strategist - Can The Positive Mood In EMU Last?

SSA Issuer Focus: EFSF/ESM

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Following our recent SSA Issuer Focus pieces on *the EIB*, Germany's *KfW and the EU/EFSM*, we outline some key characteristics of another core European SSA issuer, the EFSF/ESM. It is not our intention to give accountancy style credit analysis, but rather to provide a brief overview of the issuer(s) for the purpose of market analysis within the European SSA sector.

The EFSF has established itself as a core SSA issuer with relatively liquid secondary market curves. To date, the EFSF has €192bn in committed resources to various agreed programmes which leaves €248bn left in deployable funds out of its €440bn Aaa lending capacity. Bond yields have generally performed well and spreads to Germany have tightened over recent months despite the various gyrations Bunds. We also provide a brief overview of the EFSF's successor, the European Stability Mechanism (ESM) which will have a lending capacity of €500bn. This will assume responsibility for providing financial support to sovereigns requesting aid as the permanent bailout facility within the wider policy toolkit of the euro area.

Figure 20. EFSF Guarantees, countries rated Aaa/AAA by either Moody's or S&P shaded

	EFSF Contribution Key (%)	EFSF Guarantee Commitments (€bn)
Austria	2.99%	€22 bn
Belgium	3.72%	€27 bn
Cyprus	0.21%	€2 bn
Estonia	0.27%	€2 bn
Finland	1.92%	€14 bn
France	21.83%	€158 bn
Germany	29.07%	€211 bn
Greece*	0%	€0 bn
Ireland*	0%	€0 bn
Italy	19.18%	€139 bn
Luxembourg	0.27%	€2 bn
Malta	0.1%	€1 bn
Netherlands	6.12%	€44 bn
Portugal*	0%	€0 bn
Slovakia	1.06%	€8 bn
Slovenia	0.51%	€4 bn
Spain	12.75%	€93 bn

Source: EFSF *Stepped out guarantors (Troika programmes)

The EFSF – key fundamentals for SSA markets

Overview: The European Financial Stability Facility (EFSF) was founded on 7th June 2010 by euro area member states and was part of a wider crisis management framework together with the EU's EFSM program and the IMF. It is highly integrated into the wider European project, with a Board of Governors comprising of senior financial officials from the euro area member states. For SSA market purposes, the EFSF is a Aaa/AA+ supranational based in Luxembourg which has an effective lending capacity of €440bn, corresponding to the guarantee commitments of its Aaa euro area members. Its purpose is to safeguard financial stability in the euro area and the facility can raise debt in the capital markets to provide funds to sovereigns seeking financial assistance under appropriate conditions.

Capital Structure: The EFSF operates under a structure of irrevocable and unconditional guarantee commitments of euro are member states. Each member state has a contribution key originally based on ECB capital contributions. This has since been slightly modified due to the "stepping out" of guarantors that are under formal Troika progammes (Figure 20). Of the total €780bn in guarantee commitments, Aaa guarantees enable an effective lending capacity of €440bn.

Key Features: The EFSF was always designed as a temporary structure and will cease entering new programs after 30th June 2013 (after which the ESM assumes full and permanent responsibility for financial assistance packages). Since the EFSF was founded, key amendments include the provision to buy bonds both in the primary and secondary market and the provision for precautionary programs by way of credit lines to countries requesting aid.

Current Programs: The EFSF was not involved in the first Greek package of May 2010. The first program the EFSF contributed towards was Ireland in November 2010 with €17.7bn committed in terms of disbursements. The EFSF then committed €26bn towards the Portuguese program of May 2011. In terms of Greece, the EFSF provided €35.5bn under the PSI settlement and €109.1bn for the 2nd Greek bailout in October 2011 (€48bn of which is committed to bank recapitalizations). Total EFSF commitments currently total €192bn making the effective lending capacity now €248bn (Figure 21). Pending programmes include Spain's request for aid (June 2012) for up to €100bn for bank recapitalizations and Cyprus' request for aid also in June 2012.

Figure 21. EFSF Commitment History (€bn)

Approval Date	Programme	EFSF Commitments	Details
Nov-10	Ireland	**17.7**	EFSF commitments to the total €85bn Troika programme
May-11	Portugal	**26**	EFSF commitments to the total €78bn Troika programme
Mar-12	Greece PSI	35.5	PSI bonds
	2nd Greek Bailout	48	Bank recaps
		24.4	Funds carried over from 1st Greek bailout
		36.7	2nd Greek bailout funds
		144.6	
Total Agreed Commitments		**192**	Includes €3.7bn cash buffer
Remaining Lending Capacity		248	

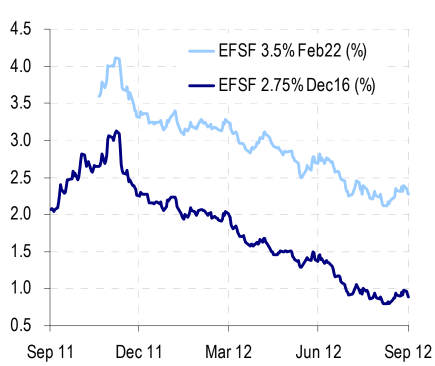
Source: EFSF, Citi.

Bond issuance and demand: The EFSF issues debt for such programmes, pooling the funds raised and disbursing them as and when required. Bonds have been denominated in euros although there is no formal currency restriction. Size and maturity are at the discretion of the issuer to best suit investor preferences. Bond supply in 2011 was €16bn and in 2012 is set to be €44.7bn[2]. Demand is generally well diversified by investor type (largely central banks, fund managers, banks and pension/insurance funds) and by geography (mostly from the euro area, the UK and Asia). Secondary market curves are relatively liquid and the EFSF has established itself as a core issuer within the European SSA market.

Credit drivers – high credit quality at Aaa/AA+ and good performance

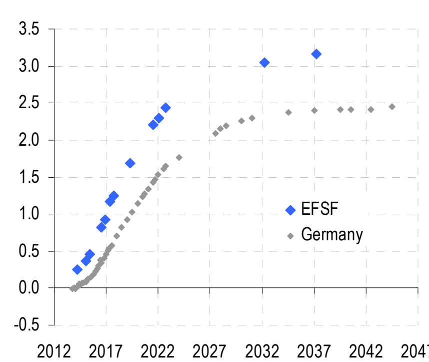
The EFSF is rated Aaa/AA+ by Moody's and S&P respectively. Understanding the credit drivers behind such an issuer can, in part, help explain secondary market performance. EFSF bonds have generally performed well in 2012 and have benefited from the hunt for yield in a low interest rate environment over recent months. This has been a key feature of core European SSA issuers due to the reasonable market liquidity and general high credit quality. EFSF 10yr bonds rallied from over 4% late last year to below 2.5% at the time of writing (Figure 22). Spreads to Germany (and to swaps) across the curve have also tightened over 2012 and the current yield curves for the EFSF and Germany are shown in Figure 23.

Figure 22. EFSF Feb22s and Dec16s Yield (%)



Source: Citi Research

Figure 23. EFSF vs Germany Yield Curves (%)



Source: Citi Research

[2] EFSF Investor Presentation, September 2012. Preliminary EFSF funding programme

We highlight some key considerations taken into account by the rating agencies below which help underpin the credit quality of this SSA issuer:

- **Explicit Guarantees:** Both Moody's and S&P point to the explicit, unconditional and irrevocable guarantee structure of the EFSF as a core credit strength. In addition, the "over collateralization" of €780bn of guarantees compared with €440bn effective lending capacity is also a credit positive.

- **Integration with European crisis management framework:** The EFSF was originally formed as part of a wider crisis management framework together with the EU (EFSM) and IMF. In this way, it forms part of the wider European project and is integral to supporting the financial health of select euro area sovereigns. This is further indicated by the strict conditionality associated with activation of support and more recently by the ECB's OMT programme which first requires a formal request to the EFSF/ESM before central bank bond purchases can begin. This serves to illustrate the support euro area governments and officials place in the structure as a feature of the wider crisis management framework.

As with other European supranationals (such as the EIB and EU), a key credit challenge at the moment is the underlying creditworthiness of the EU sovereigns. As the structure of the EFSF is based mainly on (explicit) guarantees, the EFSF rating can be understood to some extent by the underlying creditworthiness of the guarantors as judged by the rating agencies. Moody's highlights[3] "*the EFSF's rating is sensitive to changes in the ratings of Aaa countries with large EFSF contribution keys, i.e. Germany, France and the Netherlands*". Furthermore, S&P states[4] "*our rating … depends directly on the creditworthiness of its guarantors*". Hence the overall rating of the EFSF as detailed by Moody's and S&P will depend in part on how rating agencies view the various underlying sovereigns. For example, S&P rates the EFSF AA+ in part because it rates France and Austria AA+ unlike Moody's which rates the EFSF Aaa and Germany, France, Austria and the Netherlands Aaa.

As noted, the EFSF is a temporary structure. It will not enter new commitments after June 2013 (although it has funding commitments beyond this date). Its successor is the European Stability Mechanism (ESM). This will be the *permanent* feature of Europe's wider crisis management framework and we highlight key features below. Depending on how, if and when ESM resources are used, ESM bonds would form part of the wider and evolving European SSA universe.

The ESM – distinguishing features and fundamentals

Purpose: The European Stability Mechanism (ESM) is the permanent rescue facility of the eurozone. It shall mobiles funds to provide financial stability support within the euro area. It was agreed in March 2012 that the ESM will run in parallel with the EFSF until June 2013.

Capital structure broadly similar to multinational lending institutions

Capital Structure: The ESM is similar to the EFSF but with one key difference: it has paid-in capital. Total subscribed capital will be €700bn of which €80bn is paid-in and €620bn is callable. ESM shareholder contribution keys are again based on the ECB capital contributions. Lending capacity is €500bn and the ratio of paid-in capital to outstanding ESM issuance shall be a minimum 15%. Up until June 2013, the combined lending capacity of the EFSF and ESM is capped at €500bn (Article 39). In March 2012, it was agreed that two capital tranches are to be paid in 2012, two in 2013 and a final one in 2014 to complete the €80bn of paid-in capital.

[3] Moody's Credit Opinion "*EFSF (European Financial Stability Facility)*" 16th Sept 2012

[4] S&P Ratings Direct "*European Financial Stability Facility"* 7th Sept 2012

The ESM Treaty – a quick guide for SSA markets

We highlight further key features of the ESM below in a quick "ESM Treaty guide" for SSA markets. This is an abbreviated version of the ESM Treaty which forms the legal basis for ESM operations as ratified by the euro area member states[5]:

To safeguard financial stability by raising funds and entering into financial arrangements

Article 3 – Purpose: "*The purpose of the ESM shall be to mobilise funding and provide stability support under strict conditionality, appropriate to the financial assistance instrument chosen, to the benefit of ESM Members which are experiencing, or are threatened by, severe financing problems, if indispensable to safeguard the financial stability of the euro area as a whole and of its Member States. For this purpose, the ESM shall be entitled to raise funds by issuing financial instruments or by entering into financial or other agreements or arrangements with ESM Members, financial institutions or other third parties*".

Guarantees are irrevocable and unconditional

Article 8(4) – Explicit Guarantee: "*ESM Members hereby irrevocably and unconditionally undertake to provide their contribution to the authorised capital stock, in accordance with their contribution key in Annex I. They shall meet all capital calls on a timely basis in accordance with the terms set out in this Treaty.*"

Article 9(1) – Capital Calls: "*The Board of Governors may call in authorised unpaid capital at any time and set an appropriate period of time for its payment by the ESM Members.*"

ESM aid is conditional

Article 12(1) – Conditionality: "*If indispensable to safeguard the financial stability of the euro area as a whole and of its Member States, the ESM may provide stability support to an ESM Member subject to strict conditionality, appropriate to the financial assistance instrument chosen. Such conditionality may range from a macro-economic adjustment programme to continuous respect of pre-established eligibility conditions*".

Article 14(1) – Precautionary Programmes: "*The Board of Governors may decide to grant precautionary financial assistance in the form of a precautionary conditioned credit line or in the form of an enhanced conditions credit line in accordance with Article 12(1).*"

ESM can buy bonds in the primary and secondary markets

Article 17(1) – Primary Market Purchases: "*The Board of Governors may decide to arrange for the purchase of bonds of an ESM Member on the primary market, in accordance with Article 12 and with the objective of maximising the cost efficiency of the financial assistance.*"

Article 18(1) – Secondary Market Purchases: "*The Board of Governors may decide to arrange for operations on the secondary market in relation to the bonds of an ESM Member in accordance with Article 12(1).*"

Article 21(1) – Borrowing: "*The ESM shall be empowered to borrow on the capital markets from banks, financial institutions or other persons or institutions for the performance of its purpose.*"

Article 25(1) – Loss Charges: "*Losses arising in the ESM operations shall be charged: (a) firstly, against the reserve fund; (b) secondly, against the paid-in capital; and (c) lastly, against an appropriate amount of the authorised unpaid capital, which shall be called in accordance with Article 9*"

Further *Issuer Overviews* for other core European SSA credits can be found in recent editions of the International Interest Rate Strategist.

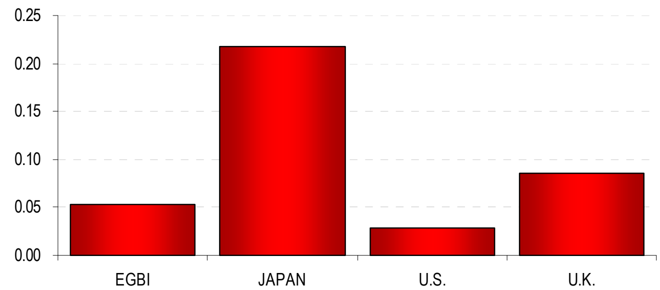
[5] Details and quotes are directly from the ESM Treaty text.

End-September WGBI Projections

Figure 24 shows the projected end-September index changes for the Europe (EGBI), Japan, UK and US components of the WGBI, including the central bank operations in the US, UK and Japan[6].

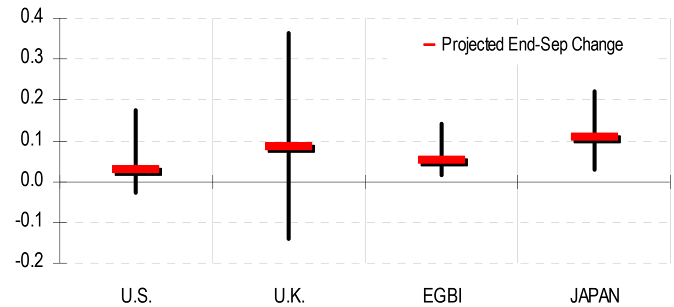
Figure 25 places the projected month-end changes in the context of their respective 12-month ranges.

Figure 24. Projected End-September Duration Changes for WGBI Components



Source: Citi Research

Figure 25. Projected Duration Changes vs 12-Month Range



Source: Citi Research

Bonds dropping out of WGBI
US: $93bn across 3.125% Aug13, 0.125% Aug13 and 0.75% Sep13

UK: £7bn of the Gilt 8% Sep13s

Figure 26 shows the detailed breakdown of the projected changes, both with and without central bank operations[7]. The US index is projected to extend by only 0.03, due to the offsetting effect of *Operation Twist.*

The APF program by the BoE is expected to be duration neutral this month. Consequently, the Gilt index is projected to extend by its largest in 4 months.

Figure 26. End-September Projected Duration Changes for the Main Components of the WGBI

18-Sep-12	End of Aug - Actual		End of Sep - Projected		Projected Change: Overall		Projected Change: due to compositional change		Projected Change: due to Central Bank Operations		Duration change range over last year (unweighted)		
	% weight in WGBI	Duration	% weight in WGBI	Duration	Weight Change	Duration Change	Weight Change	Duration Change	Weight Change	Duration Change	-ve	+ve	Average Absolute Change
EGBI	27.7	6.440	27.9	6.493	0.18	0.05	0.09	0.05	0.09	0.00	0.01	0.14	0.07
JAPAN	32.5	8.086	32.1	8.303	(0.36)	0.22	(0.31)	0.19	(0.05)	0.02	0.03	0.22	0.11
U.S.	27.9	5.374	28.2	5.402	0.28	0.03	0.27	0.09	0.01	(0.06)	(0.03)	0.18	0.05
U.K.	5.6	9.940	5.5	10.026	(0.06)	0.09	0.01	0.09	(0.07)	0.00	(0.14)	0.37	0.11

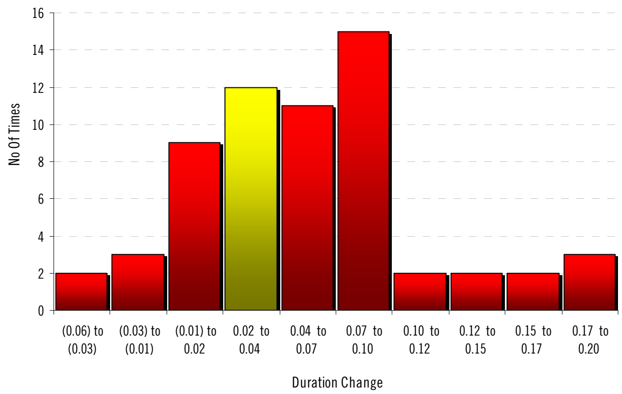
Source: Citi Research

Figure 27 to Figure 32 below put the changes in various components in the WGBI in historical perspective, and show the weighted duration changes on the curve. The month-end changes should put steepening pressure on UST 10s30s, *ceteris paribus*. The changes should be supportive for long-end gilts.

[6] BoJ buyback numbers are an estimate, so the actual index change may vary from the projections. Future operations by the Fed and the BoE are quantified assuming that their impact will be similar to that of similar past operations.

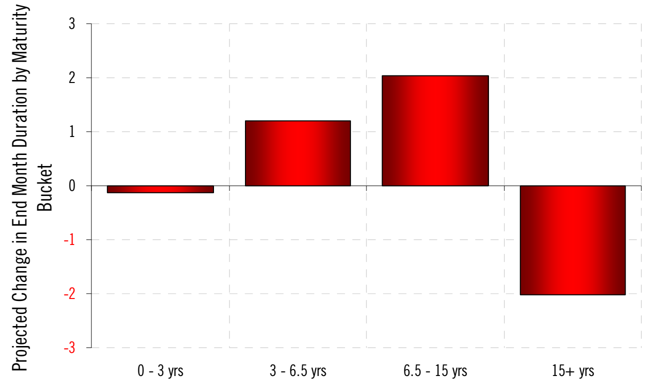
[7] Operation Twist by the Fed, APF by the BoE and APP program by the BoJ. QE3 will not have any impact since they are only purchasing MBS under that.

Figure 27. US: Distribution of Month-End Duration Changes Over The Last Five Years



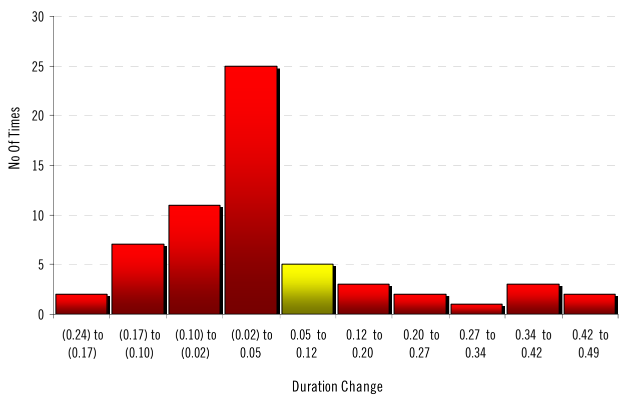
Source: Citi Research

Figure 28. US: Maturity split of projected index changes shows potential steepening pressure on 10-30yr part of the Treasury curve



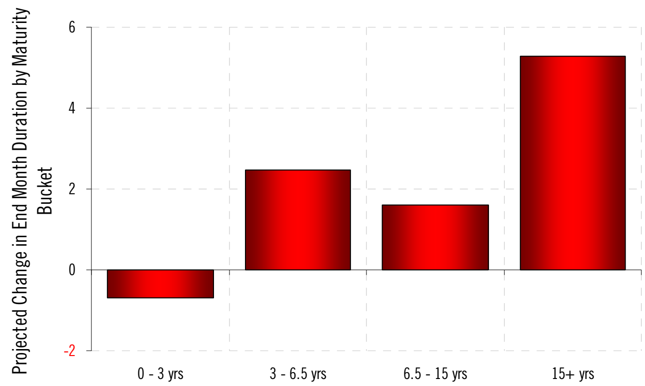
Source: Citi Research

Figure 29. UK: Distribution of Month-End Duration Changes Over The Last Five Years



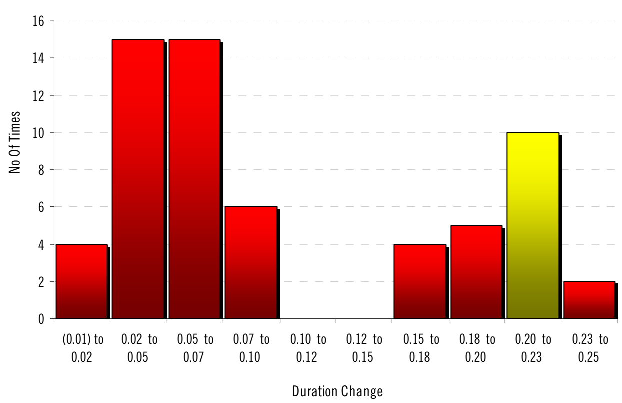
Source: Citi Research

Figure 30. UK: End-September Projected Index Change by Maturity (Weighted Duration)



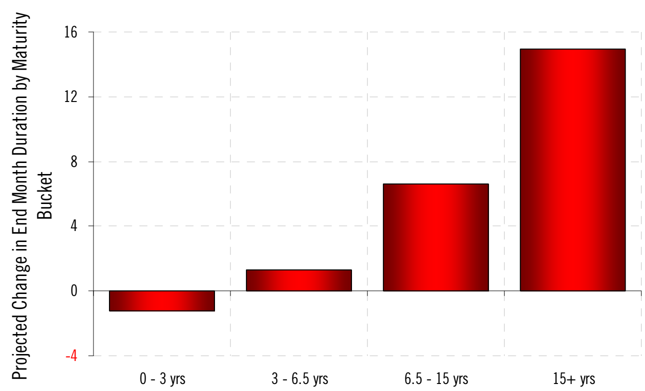
Source: Citi Research

Figure 31. Japan: Distribution of Month-End Duration Changes Over The Last Five Years



Source: Citi Research

Figure 32. Japan: End-September Projected Index Change by Maturity (Weighted Duration)



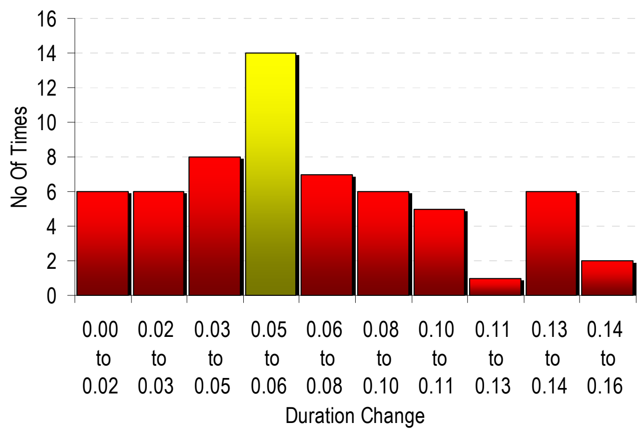
Source: Citi Research

End-September EGBI Projections

Aman Bansal, CFA
Robert Crossley

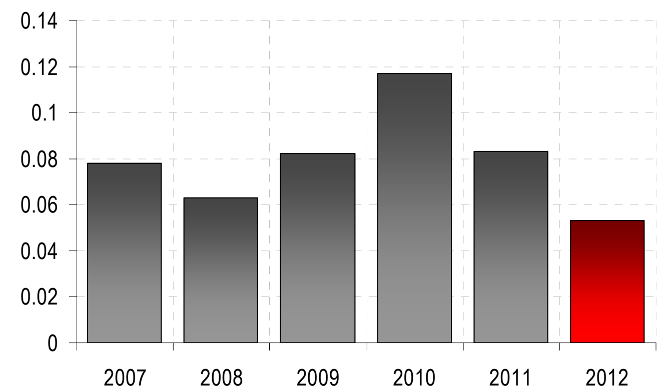
We expect the EGBI to extend by 0.05 at the end of September[8]. As a five year frequency distribution shows, this change will lie in the modal bucket (Figure 33).

Figure 33. Five year distribution of month-end EGBI duration changes shows the small projected increase is relatively common



Source: Citi Research

Figure 34. Projected end-September change in context of September changes since 2007



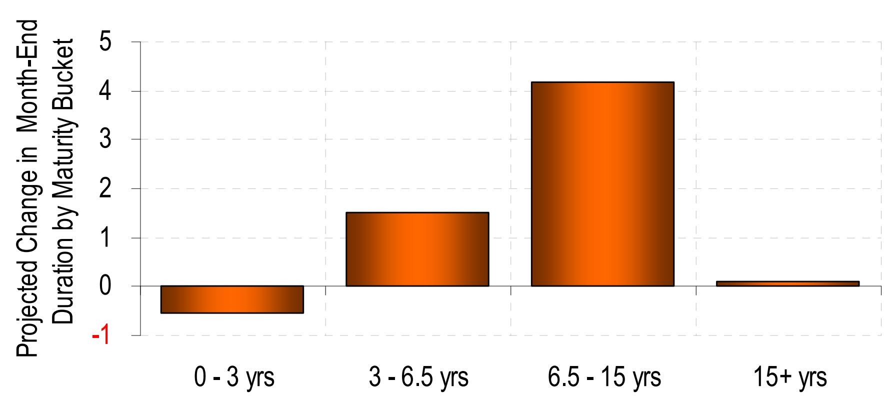
Source: Citi Research

Projected curve breakdown of end-September changes

Support for the 10yr sector

The curve breakdown of the projected weighted duration changes in the EGBI points to support for the 10yr sector (Figure 35).

Figure 35. End-September Projected Index Changes by Curve Sector (Weighted Duration)



Source: Citi Research

Figure 36. Bonds dropping out of EGBI

Country	Bond	Notional Amount (€bn)
Germany	Schatz 0.25% Sep13	17
France	BTAN 2% Sep13	12.28
Belgium	OLO 4.25% Sep13	15.55

Source: Citi Research

Bonds dropping out of the EGBI at the end of September

€45bn of bonds will drop out of the EGBI across Germany, France and Belgium at the end of the month[9] (when bonds with a residual maturity of less than 1 year on the last calendar day of the month will be removed from the index) See Figure 36.

[8] Based on Citi supply estimates. Supply is the main driver of duration projections but other factors, e.g., yield level and curve shape, also affect the calculations and are subject to change.

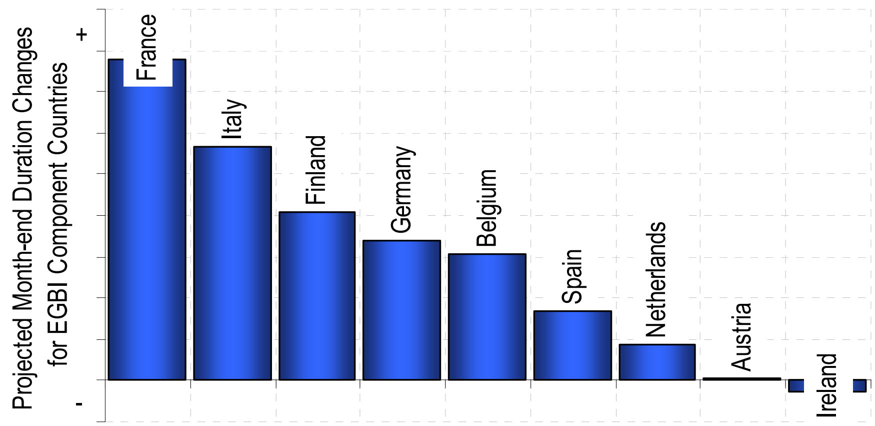
[9] For inclusion, new issues within the fixing period, 28 August 2012 to 24 September 2012, will be considered.

Country breakdown of end-September EGBI projection

Changes most positive for France and Italy

Figure 37 shows that most of the EMU country indices should register an extension. However, France and Italy should benefit the most from the projected changes, followed by Finland, Germany and Belgium. There are no significantly negative absolute changes.

Figure 37. End-September projected index changes (weighted duration) most positive for France and Italy, followed by Finland, Germany and Belgium



Source: Citi Research

Detailed breakdown of end-September EGBI projections

Significant projected duration extension in Belgium

On an unweighted duration basis, Belgium's projected duration extension is its second-largest this year[10], though its weight in the EGBI falls due to a bond falling out of the index (Figure 38). The net effect should still be supportive however.

Figure 38. Breakdown of end-September EGBI projections including weight and duration changes and 1-year ranges of duration changes

18-Sep-12	End of Aug - Actual		End of Sep - Projected		Projected Change			Duration change range over last year (unweighted)		
	% weight in EGBI	Duration	% weight in Index	Duration	Weighted Dur Change X 100	Weight Change	Duration Change	-ve	+ve	Average Absolute Change
Germany	22.3	6.77	22.1	6.86	0.68	(0.17)	0.08	(0.05)	0.21	0.09
Italy	22.1	6.15	22.3	6.14	**1.13**	0.22	(0.01)	(0.02)	0.18	0.08
France	24.5	6.80	24.5	6.87	**1.55**	(0.01)	0.07	(0.03)	0.16	0.07
Spain	10.2	5.37	10.3	5.33	0.34	0.13	(0.04)	(0.08)	0.28	0.08
Belgium	6.6	6.69	6.4	7.06	0.61	(0.26)	**0.37**	(0.01)	0.44	0.11
Netherlands	6.6	6.90	6.6	6.91	0.18	0.01	0.01	(0.07)	0.36	0.09
Ireland	1.9	5.35	1.9	5.35	(0.06)	(0.01)	0.00	(0.02)	0.51	0.05
Austria	4.4	6.28	4.4	6.28	0.02	0.01	(0.00)	(0.05)	0.07	0.03
Finland	1.4	5.88	1.5	6.11	0.82	0.08	**0.22**	(0.02)	0.45	0.11

Source: Citi Research

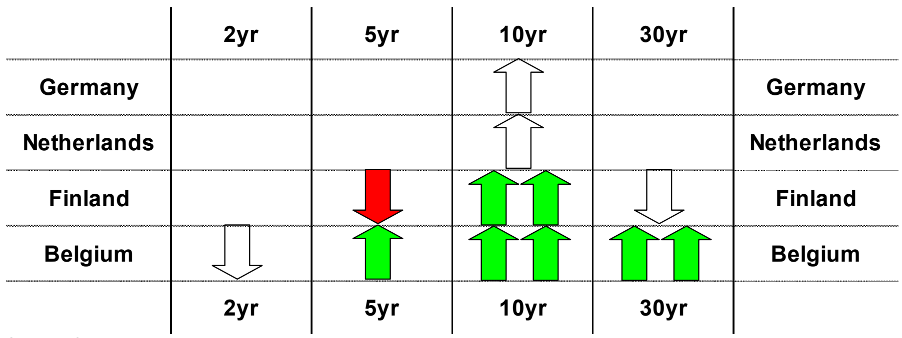
10 EGBI changes are a function of weighted-duration changes. Belgium's duration increase is offset by a fall in its relative weight in the index due to €15.6bn of OLOs dropping out.

Summary of pressures on individual country curves[11]

Summary of pressures on individual country curves from the projected index changes

Figure 39 summarises the pressures on individual country curves from the projected index changes. Green arrows indicate support for prices (and red arrows downward pressure) relative to other points on the domestic curve. White/transparent arrows indicate weaker, but still significant, price pressures and double arrows indicate particularly strong pressure on that part of the domestic curve. The underlying detail is shown below in Figure 40 to Figure 55.

Figure 39. Summary of price pressures individual domestic curves showing support for the 10yr sectors of Belgium and Italy, and the long end of Belgium.



Source: Citi Research

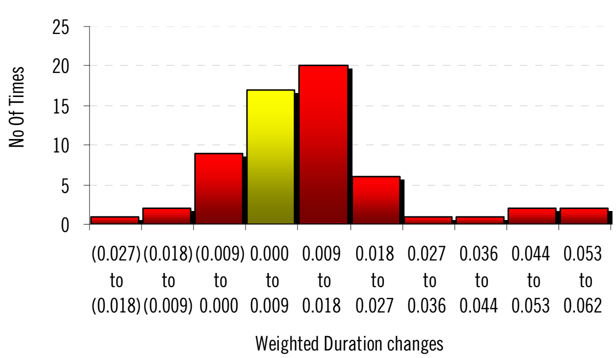
Support for 10yr Finland and Belgium, and the long end Belgium

These projected changes point to significant support for 10yr Belgium and Finland, and also the long end of Belgium.

Putting projected country changes in perspective

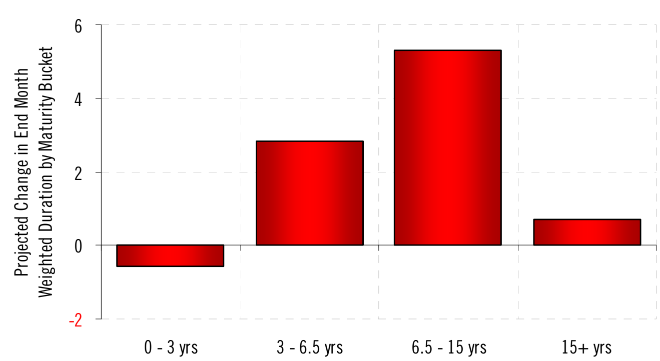
Below we show the distributions of weighted duration changes and the curve splits of the projected changes. The 5-year distributions of month-end changes show that the most statistically significant extension is projected in Finland (Figure 54).

Figure 40. Germany: Distribution of Month-End Duration Changes Over The Last Five Years (Weighted Duration)



Source: Citi Research

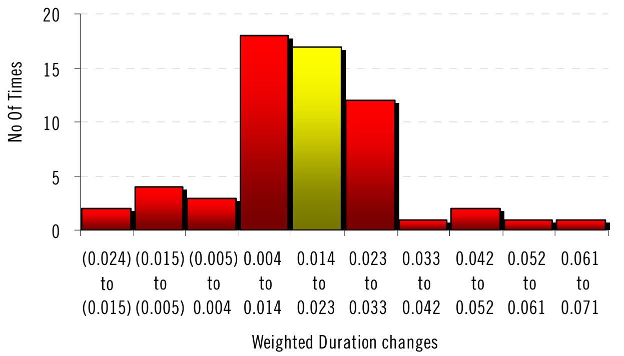
Figure 41. Germany: Maturity split of projected index changes (weighted duration) shows some downward pressure on 10yr yields



Source: Citi Research

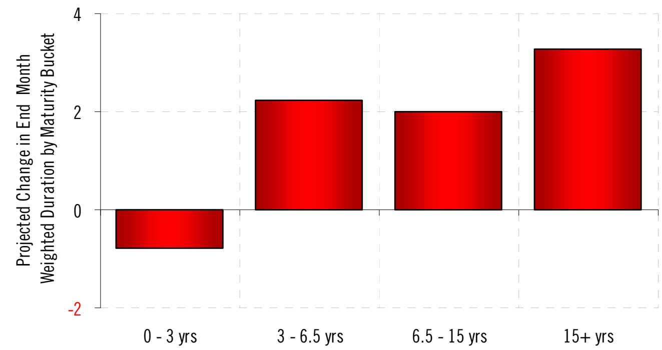
[11] Note that all these changes are on the domestic curve only and should not be viewed as necessarily indicating cross-market opportunities.

Figure 42. France: Distribution of Month-End Duration Changes Over The Last Five Years (Weighted Duration)



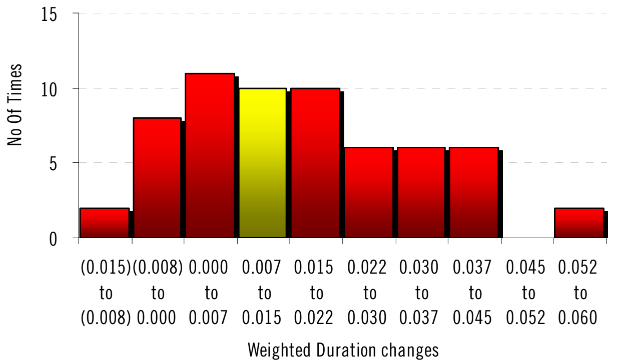
Source: Citi Research

Figure 43. France: Maturity split of projected index changes (weighted duration)



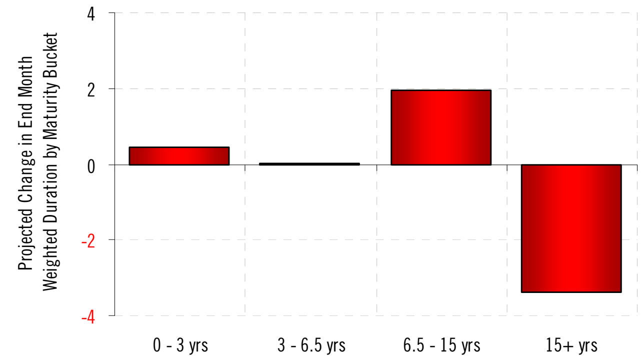
Source: Citi Research

Figure 44. Italy: Distribution of Month-End Duration Changes Over The Last Five Years (Weighted Duration)



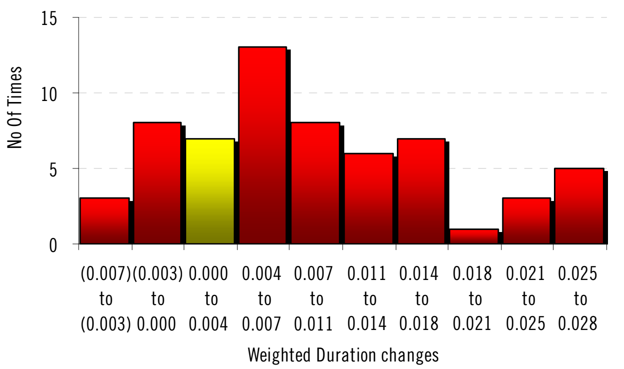
Source: Citi Research

Figure 45. Italy: Maturity split of projected index changes (weighted duration) points to some upward pressure on 30yr BTP yields



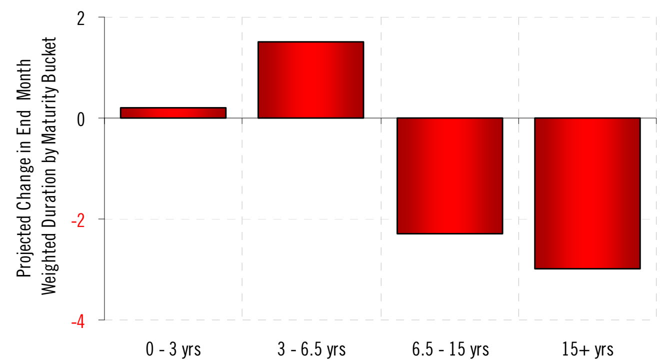
Source: Citi Research

Figure 46. Spain: Distribution of Month-End Duration Changes Over The Last Five Years (Weighted Duration)



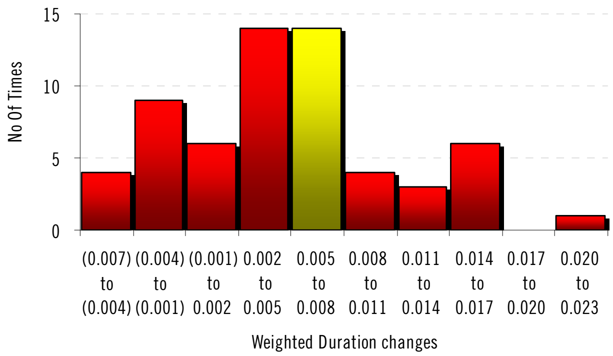
Source: Citi Research

Figure 47. Spain: End-September Projected Index Change by Maturity (Weighted Duration) – negative for 10 and 30yrs



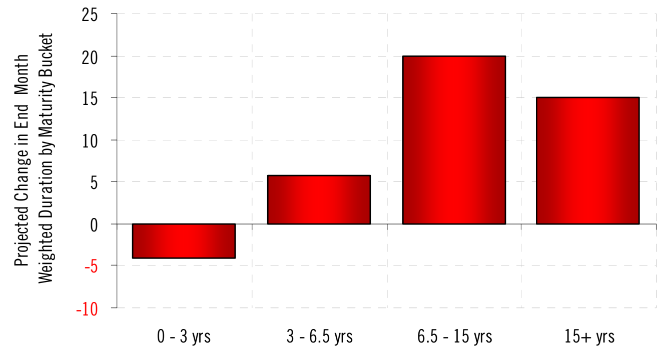
Source: Citi Research

Figure 48. Belgium: Distribution of Month-End Duration Changes Over The Last Five Years (Weighted Duration)



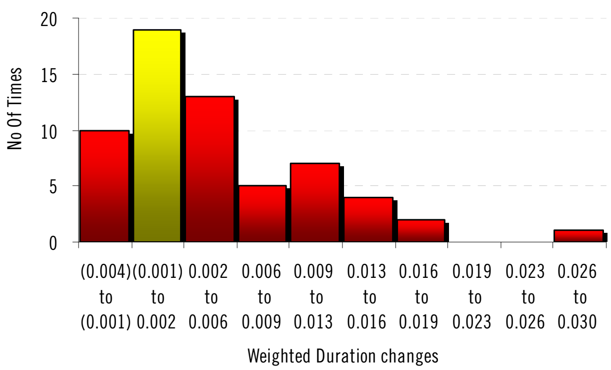
Source: Citi Research

Figure 49. Belgium: Maturity split of projected index changes (weighted duration) indicates downward pressure on 10-30yr OLO yields



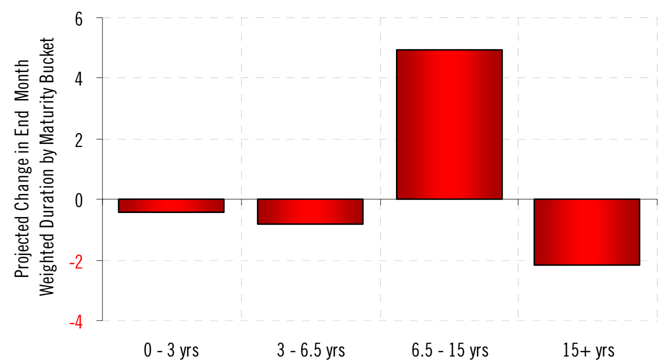
Source: Citi Research

Figure 50. Netherlands: Distribution of Month-End Duration Changes Over The Last Five Years (Weighted Duration)



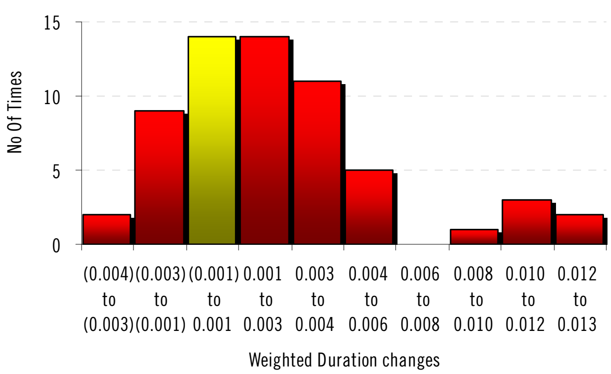
Source: Citi Research

Figure 51. Netherlands: Maturity split of projected index changes (weighted duration) – supportive of 10yrs



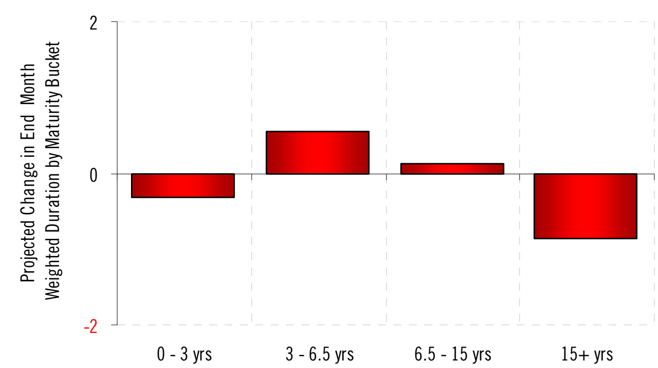
Source: Citi Research

Figure 52. Austria: Distribution of Month-End Duration Changes Over The Last Five Years (Weighted Duration)



Source: Citi Research

Figure 53. Austria: End-September Projected Index Change by Maturity (Weighted Duration)



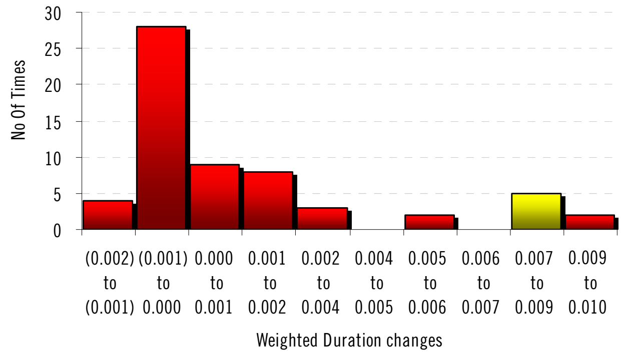
Source: Citi Research

Positioning for projected changes

Switch out of 5 and 30yr Finland into 10s

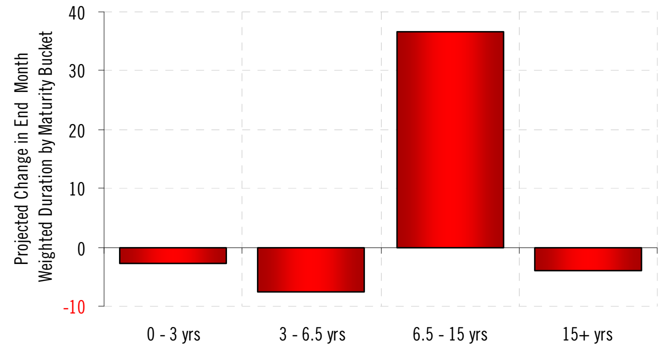
We expect the Finland component of the EGBI to extend significantly this month (Figure 54) and the change to support its 10yr sector (Figure 55) at the expense of other maturities.

Figure 54. Finland: Distribution of Month-End Duration Changes Over The Last Five Years (Weighted Duration) – big extension



Source: Citi Research

Figure 55. Finland: End-September Projected Index Change by Maturity (Weighted Duration) – supportive of 10s



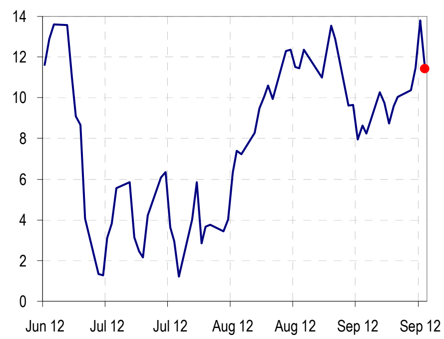
Source: Citi Research

The 5s10s30s fly is trading near its cheapest level since the new 30yr issuance in June (Figure 56). Over this period, 30yr Finland has outperformed its German and Dutch counterparts, bringing 10s30s to its flattest level (both outright and cross-market, Figure 57 and Figure 58). In terms of issuance, we only expect a 5yr reopening in Nov during 2012.

Figure 56. Finland 5s10s30s (YYS, bps)

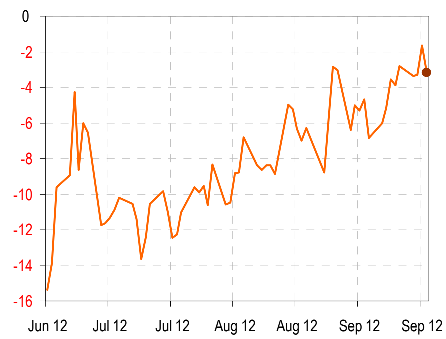
Source: Citi Research

Figure 57. Finland 10s30s YYS flat vs Germany…



Source: Citi Research

Figure 58. …and the Netherlands



Source: Citi Research

We would recommend switching out of 5 and 30yr Finland into 10s.

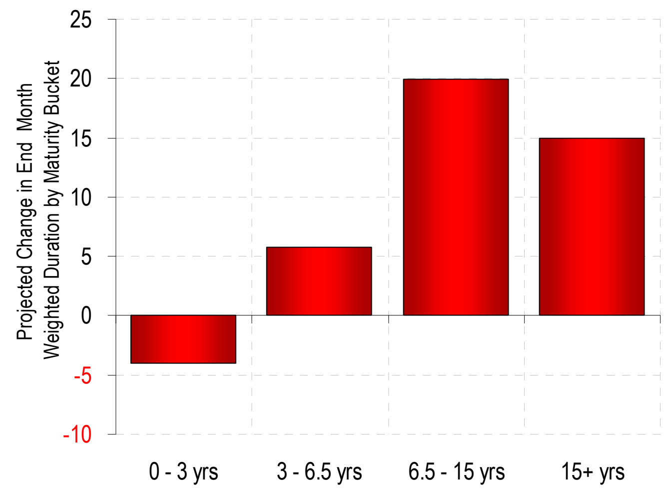
Lengthen exposure in Belgium

With the Belgian curve as steep as it has only been once before in the last decade (Figure 59) and index changes pointing to good support for duration in Belgium (Figure 60), it may be time to position for some flattening pressure, or at least reduce any steepening exposure.

Figure 59. Belgium 5s10s as steep as it has ever been in the last 10yrs

Source: Citi Research, Bloomberg

Figure 60. Maturity split of projected index changes in Belgium indicates downward yield pressure on longer maturities



Source: Citi Research

Current ARTS Trading Signals

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Short and long term signals have converged…

… They are both supportive of duration broadly across all assets …

… Which is driven by a move in short term technical's of momentum and risk aversion.

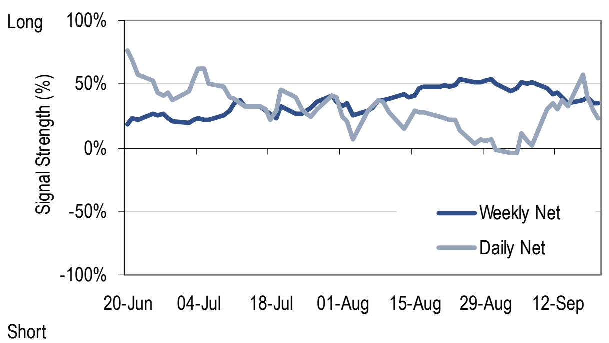
Duration risk/reward remains attractive in both short and long term signals – however the signals are taking profits on the recent move downwards in yields.

This week the daily and weekly algorithmic rates trading signals[12] have reduced exposure to 34% / 22% for the short / long term models respectively (see Figure 61).

This reduction in duration exposure has been mainly driven by a weaker (upward priced) momentum and lower risk aversion dynamics. Despite these changes the overall themes have not changed significantly from last week. Fundamentals remain fairly priced while momentum and risk aversion continue to be supportive of duration. At an asset level there is broad agreement of the long duration positions with all signals supportive of a further move downwards in yields (see Figure 62).

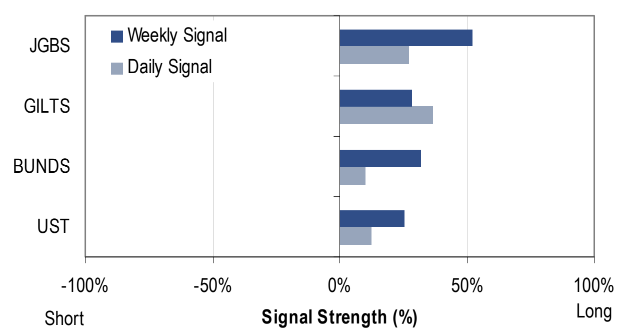
The signals suggest duration that risk/reward remain attractive. Hence signals are maintaining the overall long duration position.

Figure 61. Evolution history of the daily / weekly 10y net signal



Source: Citi Investment Research and Analysis

Figure 62. Breakdown of current daily and weekly net signals

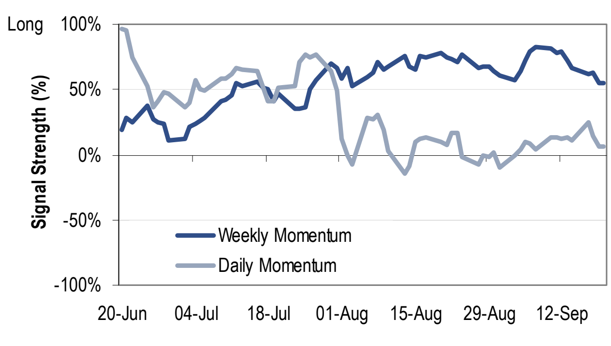


Source: Citi Investment Research and Analysis

Momentum signal has broadly weakened given the recent sharp sell-off in yields …

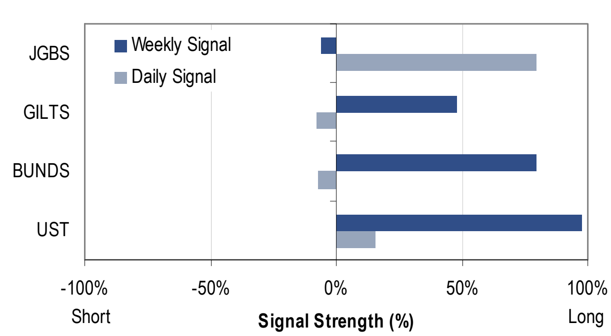
The momentum signal has weakened this week in both the longer and shorter term signals. This reduction in strength is a result of the strong sell-off in rates that occurred at the end of last week. However the long and short term signals are being driven by different dynamics. The long term signals have broadly weakened in response to this sell-off. In contrast the short term models have increased duration exposure after the sell-off (driven by mean reversion dynamics) but have recently been taking profits (see Figure 63 and Figure 64).

Figure 63. Evolution history of the daily / weekly 10y momentum signal



Source: CIRA, Bloomberg

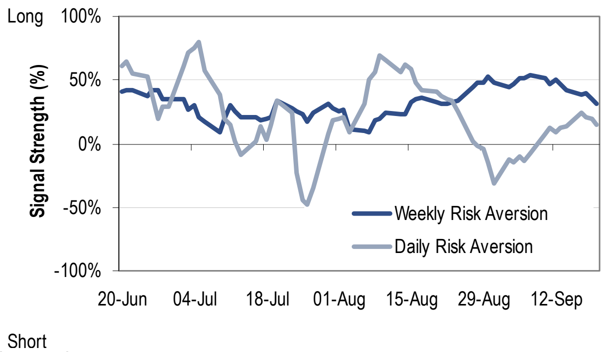
Figure 64. Breakdown of current daily and weekly momentum signals



Source: CIRA, Bloomberg

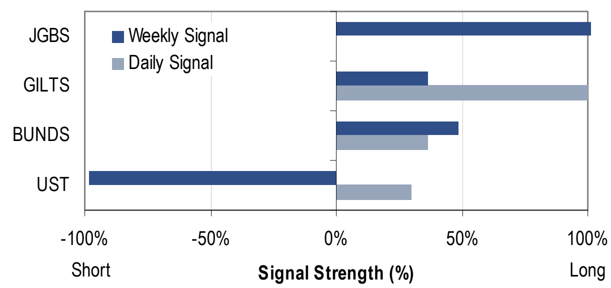
[12] The current signals are calibrated as of market close 19th September 2012.

Figure 65. Evolution history of the daily / weekly 10y risk aversion signal



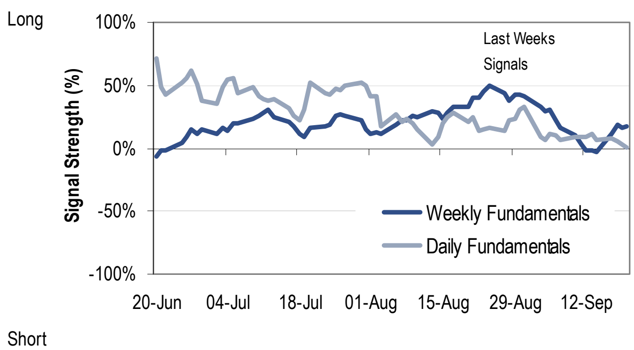
Source: Citi Investment Research and Analysis

Figure 66. Breakdown of current daily and weekly risk aversion signals



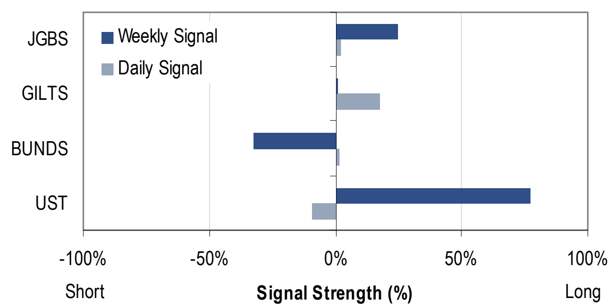
Source: CIRA, Bloomberg

Figure 67. Evolution history of the daily / weekly 10y fundamental signal



Source: CIRA, Bloomberg

Figure 68. Breakdown of current daily and weekly fundamental signals



Source: CIRA, Bloomberg

… Meanwhile risk aversion has decreased as asset correlations weaken.

Meanwhile, risk aversion signal has broadly weakened in both short and long term models although both models remain broadly supportive of duration (see Figure 65). The outlier this week is UST which has a strong "risk on" signals (i.e. short duration) while JGBs which have a strong "risk off" signal (see Figure 66). This is a result of breakdown in correlations between assets given the recent announcement of QE3. Meanwhile in Bund and Gilts risk aversion remains raised in both the short and long term

… Finally fundamentals continue to weaken in the short term due to stagnating economic data.

Finally, fundamentals remain fairly priced in both short and long term signals (see Figure 67). This dynamic is a result of yields becoming more fairly priced as yields move upwards. However at the asset level these dynamics are mixed (Figure 68). For instance it finds that fundamental in UST are broadly weak. In contrast Bund fundamentals are stronger in the longer term (i.e. rich) given the current low level of yields.

The signals suggest that investors should maintain existing longs but use the opportunity to take profits.

In summary, momentum and risk aversion is broadly supportive of long duration but macro signals are more mixed in the shorter term. As a result the risk / reward remains attractive from a technical basis. Hence we are maintaining existing longs position but as yield move lower the signals are taking profits.

European Relative Value Trades

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The cheapness of Jul15s and richness of Apr17s in France present two attractive opportunities. Investors can also take advantage of the richness of Apr15s and Jan17s on the DSL curve.

France: 3s4s steepener, fading the richness of Apr17s

3s4s Steepener

- Switch from 3.25% Apr16 to 2% Jul15 with a 20bps yield give up (Figure 69)[13].

Microfly in rich OAT Apr17

- Sell 3.75% Apr17 vs 5% Oct16 and 4.25% Oct17 (Figure 70).

Figure 69. France: 3.25% Apr16 – 2% Jul15 yield spread (bp)

Source: Citi Research

Figure 70. France: 5% Oct16, 3.75% Apr17, 4.25% Oct17 microfly (bp)

Source: Citi Research

The Netherlands: Fading the richness of Apr15s and Jan17s

Steepening Bias

- Switch from 0.75% Apr15 to 2.75% Jan15 with a 3bps yield give up (Figure 71).

Microfly

- Sell 2.5% Jan17 vs 4% Jul16 and 4% Jul18 (Figure 72).

Figure 71. Netherlands: 0.75% Apr15 – 2.75% Jan15 yield spread (bp)

Source: Citi Research

Figure 72. Netherlands: 4% Jul16, 2.5% Jan17, 4% Jul18 microfly (bp)

Source: Citi Research

[13] For details of our steepening view on 2s5s France, please see 16August *IIRS*.

European Relative Value Tables

Regular readers will be familiar with the Relative Value Appendix showing individual bonds from the major EMU 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 73 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 73. Yield Spread and CAS to Fitted Relative Value Curve (6m History)

GERMANY

Versus Fitted Yield Curve

	Rank		ZScore	Issued	Size (€bn)
Richest	1	**3.25 Jul42**	-1.28	Jul10	15
	2	**2.50 Jul44 (30y)**	-1.20	Apr12	6
	3	**4.25 Jul17 (OE)**	-1.16	May07	19
	4	**6.25 Jan30**	-1.15	Jan00	9
	5	**2.25 Sep21**	-0.95	Aug11	16
	5	**2.75 Apr16**	**1.47**	Apr11	18
	4	**2.00 Feb16**	**1.81**	Jan11	16
	3	**4.00 Jan37 (UB)**	**1.88**	Jan05	23
	2	**4.75 Jul34**	**2.18**	Jan03	20
Cheapest	1	**2.50 Oct14**	**3.12**	Sep09	17

Versus Swap Curve (CAS)

	Rank		ZScore	Issued	Size (€bn)
Richest	1	**2.50 Jul44 (30y)**	1.42	Apr12	6
	2	**1.50 Sep22 (10y)**	1.45	Sep12	5
	3	**3.25 Jul42**	1.50	Jul10	15
	4	**5.50 Jan31**	1.68	Oct00	17
	5	**6.25 Jan30**	1.72	Jan00	9
	5	**2.00 Jan22**	**2.45**	Nov11	16
	4	**2.50 Jan21**	**2.45**	Nov10	19
	3	**3.75 Jan19**	**2.49**	Nov08	24
	2	**3.25 Jan20**	**2.50**	Nov09	22
Cheapest	1	**4.25 Jul18**	**2.50**	May08	21

Source: Citi Research

Figure 74 (overleaf) looks at bonds of all maturities. For investors with maturity restrictions we have also provided another set of summary tables (Figure 75 and Figure 76) which looks at bonds shorter than 12 years and longer than 8 years, and uses the same criteria as Figure 74 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.

Relative Value Tables – All Maturities

Figure 74. Yield Spread and CAS to Fitted Relative Value Curve by Country (6m History); All bonds on each curve

Versus Fitted Yield Curve | Versus Swap Curve (CAS)

GERMANY

	Rank	Bond	ZScore	Issued	Size (€bn)		Rank	Bond	ZScore	Issued	Size (€bn)
Richest	1	3.25 Jul42	-1.28	Jul10	15	Richest	1	2.50 Jul44 (30y)	1.42	Apr12	6
	2	2.50 Jul44 (30y)	-1.20	Apr12	6		2	1.50 Sep22 (10y)	1.45	Sep12	5
	3	4.25 Jul17 (OE)	-1.16	May07	19		3	3.25 Jul42	1.50	Jul10	15
	4	6.25 Jan30	-1.15	Jan00	9		4	5.50 Jan31	1.68	Oct00	17
	5	2.25 Sep21	-0.95	Aug11	16		5	6.25 Jan30	1.72	Jan00	9
	5	2.75 Apr16	1.47	Apr11	18		5	2.00 Jan22	2.45	Nov11	16
	4	2.00 Feb16	1.81	Jan11	16		4	2.50 Jan21	2.45	Nov10	19
	3	4.00 Jan37 (UB)	1.88	Jan05	23		3	3.75 Jan19	2.49	Nov08	24
	2	4.75 Jul34	2.18	Jan03	20		2	3.25 Jan20	2.50	Nov09	22
Cheapest	1	2.50 Oct14	3.12	Sep09	17	Cheapest	1	4.25 Jul18	2.50	May08	21

FRANCE

	Rank	Bond	ZScore	Issued	Size (€bn)		Rank	Bond	ZScore	Issued	Size (€bn)
Richest	1	3.25 Apr16	-2.04	Apr05	28	Richest	1	4.00 Apr60	-1.16	Apr09	8
	2	1.75 Feb17	-1.47	Feb11	5		2	4.00 Apr55	-1.15	Apr04	15
	3	3.50 Apr26	-1.46	Apr10	28		3	4.50 Apr41 (30y)	-1.10	Apr09	15
	4	2.25 Feb16	-1.09	Feb10	19		4	4.00 Oct38	-1.07	Oct05	24
	5	2.50 Oct20	-1.02	Oct09	30		5	4.75 Apr35	-0.98	Apr03	18
	5	1.00 Jul17 (5y)	1.81	Jul11	8		5	3.50 Apr15	0.03	Apr04	22
	4	3.25 Oct21 (OAT)	2.09	Oct10	6		4	2.50 Jan15	0.21	Jan10	20
	3	3.00 Apr22 (10y)	2.18	Feb12	25		3	4.00 Oct14	0.57	Oct03	20
	2	4.25 Oct17	2.70	Oct06	21		2	0.75 Sep14 (2y)	0.91	Sep11	4
Cheapest	1	4.00 Oct14	2.84	Oct03	20	Cheapest	1	1.00 Jul17 (5y)	0.93	Jul11	8

ITALY

	Rank	Bond	ZScore	Issued	Size (€bn)		Rank	Bond	ZScore	Issued	Size (€bn)
Richest	1	5.00 Aug39	-1.44	Aug07	19	Richest	1	4.75 Jun17 (5y)	-2.17	Jun12	3
	2	4.25 Feb19	-1.31	Feb03	23		2	4.25 Feb15 (BTS)	-1.59	Aug04	21
	3	4.50 Mar19	-1.30	Sep08	23		3	2.50 Mar15	-1.58	Mar12	5
	4	4.25 Sep19	-1.29	Mar09	22		4	4.50 Jul15	-1.57	Jul12	4
	5	4.50 Feb18 (MFB)	-1.24	Aug07	25		5	5.50 Sep22 (10y-IK)	-1.55	Mar12	8
	5	4.00 Feb37	1.22	Aug05	25		5	4.50 Mar26	-1.29	Sep10	14
	4	3.75 Aug21	1.84	Feb06	27		4	5.75 Feb33	-1.28	Feb02	15
	3	3.75 Aug16	1.90	Feb06	27		3	5.00 Aug34	-1.27	Aug03	21
	2	3.75 Mar21	1.99	Sep10	23		2	5.00 Mar25	-1.26	Mar09	20
Cheapest	1	3.75 Aug15	2.22	Feb05	26	Cheapest	1	5.50 Nov22	-0.93	May12	4

N'LANDS

	Rank	Bond	ZScore	Issued	Size (€bn)		Rank	Bond	ZScore	Issued	Size (€bn)
Richest	1	4.50 Jul17 (5y)	-2.33	Jul07	15	Richest	1	3.75 Jan42 (30y)	-0.28	May10	10
	2	3.75 Jan42 (30y)	-1.53	May10	10		2	2.50 Jan33	-0.08	Mar12	4
	3	1.25 Jan18	-0.85	Jul12	6		3	4.00 Jan37	0.02	Apr05	12
	4	3.25 Jul15	-0.60	Jun05	14		4	4.50 Jul17 (5y)	0.38	Jul07	15
	5	3.50 Jul20	-0.54	Feb10	15		5	4.00 Jul19	0.53	Feb09	13
	5	2.50 Jan33	0.26	Mar12	4		5	4.00 Jul16	0.96	Jul06	13
	4	2.50 Jan17	0.34	Jun11	8		4	1.25 Jan18	1.07	Jul12	6
	3	4.00 Jul16	0.43	Jul06	13		3	3.25 Jul15	1.35	Jun05	14
	2	4.00 Jan37	0.94	Apr05	12		2	0.75 Apr15	1.66	Jan12	3
Cheapest	1	2.75 Jan15	1.54	Jul09	13	Cheapest	1	2.75 Jan15	2.11	Jul09	13

SPAIN

	Rank	Bond	ZScore	Issued	Size (€bn)		Rank	Bond	ZScore	Issued	Size (€bn)
Richest	1	4.10 Jul18	-1.70	Feb08	16	Richest	1	4.70 Jul41 (30y)	-0.80	Sep09	11
	2	5.75 Jul32	-1.52	Jan01	14		2	4.10 Jul18	-0.77	Feb08	16
	3	4.00 Jul15	-1.40	Jan12	16		3	4.00 Jul15	-0.76	Jan12	16
	4	4.60 Jul19	-1.18	Feb09	13		4	5.50 Jul17	-0.75	Mar02	17
	5	3.00 Apr15	-0.90	Mar10	18		5	3.00 Apr15	-0.74	Mar10	18
	5	4.80 Jan24	1.48	Sep08	15		5	5.50 Apr21	-0.62	Jan11	20
	4	5.90 Jul26	1.49	Mar11	7		4	5.90 Jul26	-0.61	Mar11	7
	3	4.65 Jul25	1.66	Feb10	14		3	4.85 Oct20	-0.60	Jul10	16
	2	4.25 Oct16 (5y)	2.08	Sep11	18		2	4.80 Jan24	-0.55	Sep08	15
Cheapest	1	4.90 Jul40	2.63	Jun07	13	Cheapest	1	4.65 Jul25	-0.54	Feb10	14

BELGIUM

	Rank	Bond	ZScore	Issued	Size (€bn)		Rank	Bond	ZScore	Issued	Size (€bn)
Richest	1	4.00 Mar18	-1.12	Jan08	10	Richest	1	4.25 Mar41 (30y)	-1.46	Apr10	6
	2	4.25 Sep21	-0.49	Jan11	14		2	4.00 Mar32	-1.36	Mar12	5
	3	5.50 Sep17	-0.01	Jun02	8		3	5.00 Mar35	-1.36	May04	14
	4	4.25 Sep22 (10y)	0.09	Jan12	8		4	2.75 Mar16	-1.22	Mar10	10
	5	4.25 Mar41 (30y)	0.09	Apr10	6		5	4.00 Mar18	-1.21	Jan08	10
	5	2.75 Mar16	1.83	Mar10	10		5	4.00 Mar22	-1.09	May06	14
	4	3.50 Jun17 (5y)	1.85	Mar11	10		4	3.75 Sep20	-1.08	Jan10	18
	3	3.00 Sep19	2.11	Apr12	4		3	4.25 Sep22 (10y)	-1.05	Jan12	8
	2	3.25 Sep16	2.34	Jan06	12		2	3.00 Sep19	-1.05	Apr12	4
Cheapest	1	3.75 Sep20	2.57	Jan10	18	Cheapest	1	4.25 Sep14 (2y)	-1.03	Jan04	13

Source: Citi Research

Relative Value Tables – Max 12Yr Maturity

Figure 75. Yield Spread and CAS to Fitted Relative Value Curve by Country (6m History); Bonds with a Maximum Maturity of 12yrs

Versus Fitted Yield Curve | Versus Swap Curve (CAS)

GERMANY

	Rank		ZScore	Issued	Size (€bn)		Rank		ZScore	Issued	Size (€bn)
Richest	1	4.25 Jul17 (OE)	-1.16	May07	19	Richest	1	1.50 Sep22 (10y)	1.45	Sep12	5
	2	2.25 Sep21	-0.95	Aug11	16		2	0.50 Apr17	2.03	Apr12	5
	3	3.50 Jul19	-0.82	May09	24		3	2.50 Oct14	2.15	Sep09	17
	4	0.50 Apr17	-0.67	Apr12	5		4	3.25 Jul15	2.21	May05	21
	5	2.25 Sep20	-0.45	Aug10	16		5	2.25 Apr15	2.21	Apr10	19
	5	3.25 Jul15	1.36	May05	21		5	2.00 Jan22	2.45	Nov11	16
	4	4.00 Jul16	1.44	May06	23		4	2.50 Jan21	2.45	Nov10	19
	3	2.75 Apr16	1.47	Apr11	18		3	3.75 Jan19	2.49	Nov08	24
	2	2.00 Feb16	1.81	Jan11	16		2	3.25 Jan20	2.50	Nov09	22
Cheapest	1	2.50 Oct14	3.12	Sep09	17	Cheapest	1	4.25 Jul18	2.50	May08	21

FRANCE

	Rank		ZScore	Issued	Size (€bn)		Rank		ZScore	Issued	Size (€bn)
Richest	1	3.25 Apr16	-2.04	Apr05	28	Richest	1	4.25 Oct18	-0.88	Oct07	22
	2	1.75 Feb17	-1.47	Feb11	5		2	3.75 Apr21	-0.87	Apr05	31
	3	2.25 Feb16	-1.09	Feb10	19		3	2.50 Oct20	-0.86	Oct09	30
	4	2.50 Oct20	-1.02	Oct09	30		4	1.75 Feb17	-0.84	Feb11	5
	5	4.25 Oct18	-1.01	Oct07	22		5	4.25 Apr19	-0.81	Apr03	28
	5	1.00 Jul17 (5y)	1.81	Jul11	8		5	3.50 Apr15	0.03	Apr04	22
	4	3.25 Oct21 (OAT)	2.09	Oct10	6		4	2.50 Jan15	0.21	Jan10	20
	3	3.00 Apr22 (10y)	2.18	Feb12	25		3	4.00 Oct14	0.57	Oct03	20
	2	4.25 Oct17	2.70	Oct06	21		2	0.75 Sep14 (2y)	0.91	Sep11	4
Cheapest	1	4.00 Oct14	2.84	Oct03	20	Cheapest	1	1.00 Jul17 (5y)	0.93	Jul11	8

ITALY

	Rank		ZScore	Issued	Size (€bn)		Rank		ZScore	Issued	Size (€bn)
Richest	1	4.25 Feb19	-1.31	Feb03	23	Richest	1	4.75 Jun17 (5y)	-2.17	Jun12	3
	2	4.50 Mar19	-1.30	Sep08	23		2	4.25 Feb15 (BTS)	-1.59	Aug04	21
	3	4.25 Sep19	-1.29	Mar09	22		3	2.50 Mar15	-1.58	Mar12	5
	4	4.50 Feb18 (MFB)	-1.24	Aug07	25		4	4.50 Jul15	-1.57	Jul12	4
	5	3.75 Apr16	-1.12	Apr11	12		5	5.50 Sep22 (10y-IK)	-1.55	Mar12	8
	5	4.00 Sep20	1.11	Mar10	22		5	3.75 Mar21	-1.35	Sep10	23
	4	3.75 Aug21	1.84	Feb06	27		4	4.50 Feb20	-1.35	Feb04	21
	3	3.75 Aug16	1.90	Feb06	27		3	3.75 Aug21	-1.33	Feb06	27
	2	3.75 Mar21	1.99	Sep10	23		2	4.25 Mar20	-1.30	Sep09	23
Cheapest	1	3.75 Aug15	2.22	Feb05	26	Cheapest	1	5.50 Nov22	-0.93	May12	4

N'LANDS

	Rank		ZScore	Issued	Size (€bn)		Rank		ZScore	Issued	Size (€bn)
Richest	1	4.50 Jul17 (5y)	-2.33	Jul07	15	Richest	1	4.50 Jul17 (5y)	0.38	Jul07	15
	2	1.25 Jan18	-0.85	Jul12	6		2	4.00 Jul19	0.53	Feb09	13
	3	3.25 Jul15	-0.60	Jun05	14		3	4.00 Jul18	0.54	Feb08	15
	4	3.50 Jul20	-0.54	Feb10	15		4	3.50 Jul20	0.58	Feb10	15
	5	2.25 Jul22 (10y)	-0.34	Feb12	9		5	2.25 Jul22 (10y)	0.67	Feb12	9
	5	3.25 Jul21	0.11	Mar11	11		5	4.00 Jul16	0.96	Jul06	13
	4	4.00 Jul18	0.26	Feb08	15		4	1.25 Jan18	1.07	Jul12	6
	3	2.50 Jan17	0.34	Jun11	8		3	3.25 Jul15	1.35	Jun05	14
	2	4.00 Jul16	0.43	Jul06	13		2	0.75 Apr15	1.66	Jan12	3
Cheapest	1	2.75 Jan15	1.54	Jul09	13	Cheapest	1	2.75 Jan15	2.11	Jul09	13

SPAIN

	Rank		ZScore	Issued	Size (€bn)		Rank		ZScore	Issued	Size (€bn)
Richest	1	4.10 Jul18	-1.70	Feb08	16	Richest	1	4.10 Jul18	-0.77	Feb08	16
	2	4.00 Jul15	-1.40	Jan12	16		2	4.00 Jul15	-0.76	Jan12	16
	3	4.60 Jul19	-1.18	Feb09	13		3	5.50 Jul17	-0.75	Mar02	17
	4	3.00 Apr15	-0.90	Mar10	18		4	3.00 Apr15	-0.74	Mar10	18
	5	4.30 Oct19	-0.87	Jun09	15		5	3.80 Jan17	-0.73	Oct06	18
	5	5.50 Jul17	1.22	Mar02	17		5	4.30 Oct19	-0.66	Jun09	15
	4	4.85 Oct20	1.27	Jul10	16		4	4.00 Apr20	-0.66	Jan10	16
	3	3.80 Jan17	1.42	Oct06	18		3	5.50 Apr21	-0.62	Jan11	20
	2	4.80 Jan24	1.48	Sep08	15		2	4.85 Oct20	-0.60	Jul10	16
Cheapest	1	4.25 Oct16 (5y)	2.08	Sep11	18	Cheapest	1	4.80 Jan24	-0.55	Sep08	15

BELGIUM

	Rank		ZScore	Issued	Size (€bn)		Rank		ZScore	Issued	Size (€bn)
Richest	1	4.00 Mar18	-1.12	Jan08	10	Richest	1	2.75 Mar16	-1.22	Mar10	10
	2	4.25 Sep21	-0.49	Jan11	14		2	4.00 Mar18	-1.21	Jan08	10
	3	5.50 Sep17	-0.01	Jun02	8		3	4.00 Mar17	-1.20	Jan07	11
	4	4.25 Sep22 (10y)	0.09	Jan12	8		4	3.50 Jun17 (5y)	-1.19	Mar11	10
	5	4.00 Mar17	0.38	Jan07	11		5	5.50 Sep17	-1.19	Jun02	8
	5	2.75 Mar16	1.83	Mar10	10		5	4.00 Mar22	-1.09	May06	14
	4	3.50 Jun17 (5y)	1.85	Mar11	10		4	3.75 Sep20	-1.08	Jan10	18
	3	3.00 Sep19	2.11	Apr12	4		3	4.25 Sep22 (10y)	-1.05	Jan12	8
	2	3.25 Sep16	2.34	Jan06	12		2	3.00 Sep19	-1.05	Apr12	4
Cheapest	1	3.75 Sep20	2.57	Jan10	18	Cheapest	1	4.25 Sep14 (2y)	-1.03	Jan04	13

Source: Citi Research

Relative Value Tables – Min 8yr Maturity

Figure 76. Yield Spread and CAS to Fitted Relative Value Curve by Country (6m History); Bonds with a Minimum Maturity of 8yrs

GERMANY

	Versus Fitted Yield Curve: Rank	Bond	ZScore	Issued	Size (€bn)		Versus Swap Curve (CAS): Rank	Bond	ZScore	Issued	Size (€bn)
Richest	1	3.25 Jul42	-1.28	Jul10	15	Richest	1	2.50 Jul44 (30y)	1.42	Apr12	6
	2	2.50 Jul44 (30y)	-1.20	Apr12	6		2	1.50 Sep22 (10y)	1.45	Sep12	5
	3	6.25 Jan30	-1.15	Jan00	9		3	3.25 Jul42	1.50	Jul10	15
	4	2.25 Sep21	-0.95	Aug11	16		4	5.50 Jan31	1.68	Oct00	17
	5	4.75 Jul40	0.09	Jul08	16		5	6.25 Jan30	1.72	Jan00	9
	5	2.00 Jan22	0.99	Nov11	16		5	3.25 Jul21 (RX)	2.39	Apr11	19
	4	4.25 Jul39	1.12	Jan07	14		4	1.75 Jul22	2.40	Apr12	5
	3	2.50 Jan21	1.30	Nov10	19		3	2.25 Sep21	2.44	Aug11	16
	2	4.00 Jan37 (UB)	1.88	Jan05	23		2	2.00 Jan22	2.45	Nov11	16
Cheapest	1	4.75 Jul34	2.18	Jan03	20	Cheapest	1	2.50 Jan21	2.45	Nov10	19

FRANCE

	Versus Fitted Yield Curve: Rank	Bond	ZScore	Issued	Size (€bn)		Versus Swap Curve (CAS): Rank	Bond	ZScore	Issued	Size (€bn)
Richest	1	3.50 Apr26	-1.46	Apr10	28	Richest	1	4.00 Apr60	-1.16	Apr09	8
	2	2.50 Oct20	-1.02	Oct09	30		2	4.00 Apr55	-1.15	Apr04	15
	3	3.75 Apr21	-0.97	Apr05	31		3	4.50 Apr41 (30y)	-1.10	Apr09	15
	4	4.00 Apr60	-0.70	Apr09	8		4	4.00 Oct38	-1.07	Oct05	24
	5	4.00 Apr55	-0.26	Apr04	15		5	4.75 Apr35	-0.98	Apr03	18
	5	4.75 Apr35	0.64	Apr03	18		5	2.50 Oct20	-0.86	Oct09	30
	4	4.00 Oct38	1.38	Oct05	24		4	3.50 Apr26	-0.83	Apr10	28
	3	4.25 Oct23	1.64	Oct06	31		3	3.25 Oct21 (OAT)	-0.71	Oct10	6
	2	3.25 Oct21 (OAT)	2.09	Oct10	6		2	3.00 Apr22 (10y)	-0.71	Feb12	25
Cheapest	1	3.00 Apr22 (10y)	2.18	Feb12	25	Cheapest	1	4.25 Oct23	-0.68	Oct06	31

ITALY

	Versus Fitted Yield Curve: Rank	Bond	ZScore	Issued	Size (€bn)		Versus Swap Curve (CAS): Rank	Bond	ZScore	Issued	Size (€bn)
Richest	1	5.00 Aug39	-1.44	Aug07	19	Richest	1	5.50 Sep22 (10y-IK)	-1.55	Mar12	8
	2	5.50 Nov22	-0.77	May12	4		2	5.00 Sep40 (30y)	-1.49	Sep09	20
	3	5.00 Sep40 (30y)	-0.71	Sep09	20		3	5.00 Aug39	-1.45	Aug07	19
	4	5.50 Sep22 (10y-IK)	-0.52	Mar12	8		4	4.75 Aug23	-1.43	Feb08	21
	5	4.75 Aug23	-0.13	Feb08	21		5	5.00 Mar22	-1.41	Sep11	9
	5	5.00 Mar22	0.95	Sep11	9		5	4.50 Mar26	-1.29	Sep10	14
	4	4.75 Sep21	0.95	Mar11	22		4	5.75 Feb33	-1.28	Feb02	15
	3	4.00 Feb37	1.22	Aug05	25		3	5.00 Aug34	-1.27	Aug03	21
	2	3.75 Aug21	1.84	Feb06	27		2	5.00 Mar25	-1.26	Mar09	20
Cheapest	1	3.75 Mar21	1.99	Sep10	23	Cheapest	1	5.50 Nov22	-0.93	May12	4

N'LANDS

	Versus Fitted Yield Curve: Rank	Bond	ZScore	Issued	Size (€bn)		Versus Swap Curve (CAS): Rank	Bond	ZScore	Issued	Size (€bn)
Richest	1	3.75 Jan42 (30y)	-1.53	May10	10	Richest	1	3.75 Jan42 (30y)	-0.28	May10	10
	2	2.25 Jul22 (10y)	-0.34	Feb12	9		2	2.50 Jan33	-0.08	Mar12	4
	3	3.75 Jan23	0.07	Jan06	10		3	4.00 Jan37	0.02	Apr05	12
	3	3.25 Jul21	0.11	Mar11	11		3	2.25 Jul22 (10y)	0.67	Feb12	9
	2	2.50 Jan33	0.26	Mar12	4		2	3.75 Jan23	0.71	Jan06	10
Cheapest	1	4.00 Jan37	0.94	Apr05	12	Cheapest	1	3.25 Jul21	0.75	Mar11	11

SPAIN

	Versus Fitted Yield Curve: Rank	Bond	ZScore	Issued	Size (€bn)		Versus Swap Curve (CAS): Rank	Bond	ZScore	Issued	Size (€bn)
Richest	1	5.75 Jul32	-1.52	Jan01	14	Richest	1	4.70 Jul41 (30y)	-0.80	Sep09	11
	2	5.85 Jan22 (10y)	-0.84	Nov11	4		2	4.90 Jul40	-0.72	Jun07	13
	3	4.20 Jan37	-0.47	Jan05	16		3	4.20 Jan37	-0.70	Jan05	16
	4	4.70 Jul41 (30y)	0.28	Sep09	11		4	5.75 Jul32	-0.70	Jan01	14
	5	5.50 Apr21	0.30	Jan11	20		5	5.85 Jan22 (10y)	-0.67	Nov11	4
	5	4.85 Oct20	1.27	Jul10	16		5	5.50 Apr21	-0.62	Jan11	20
	4	4.80 Jan24	1.48	Sep08	15		4	5.90 Jul26	-0.61	Mar11	7
	3	5.90 Jul26	1.49	Mar11	7		3	4.85 Oct20	-0.60	Jul10	16
	2	4.65 Jul25	1.66	Feb10	14		2	4.80 Jan24	-0.55	Sep08	15
Cheapest	1	4.90 Jul40	2.63	Jun07	13	Cheapest	1	4.65 Jul25	-0.54	Feb10	14

BELGIUM

	Versus Fitted Yield Curve: Rank	Bond	ZScore	Issued	Size (€bn)		Versus Swap Curve (CAS): Rank	Bond	ZScore	Issued	Size (€bn)
Richest	1	4.25 Sep21	-0.49	Jan11	14	Richest	1	4.25 Mar41 (30y)	-1.46	Apr10	6
	2	4.25 Sep22 (10y)	0.09	Jan12	8		2	4.00 Mar32	-1.36	Mar12	5
	3	4.25 Mar41 (30y)	0.09	Apr10	6		3	5.00 Mar35	-1.36	May04	14
	4	4.00 Mar32	0.11	Mar12	5		4	4.50 Mar26	-1.18	Jun11	4
	4	4.00 Mar22	0.62	May06	14		4	4.25 Sep21	-1.12	Jan11	14
	3	4.50 Mar26	0.76	Jun11	4		3	4.00 Mar22	-1.09	May06	14
	2	5.00 Mar35	1.20	May04	14		2	3.75 Sep20	-1.08	Jan10	18
Cheapest	1	3.75 Sep20	2.57	Jan10	18	Cheapest	1	4.25 Sep22 (10y)	-1.05	Jan12	8

Source: Citi Research

Global Supply Monitor

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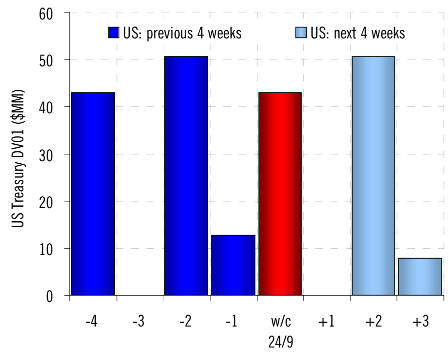
Historical and projected DV01 of USD, EUR and GBP issuance (weekly)

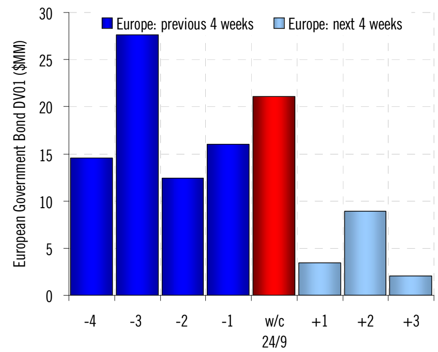
Figure 77 to Figure 79 show the $DV01 of projected issuance over the next four weeks and the previous four weeks. The DV01 of next week's issuance, highlighted in red, is significant in all the three markets.

Figure 77. Estimated $DV01 of US Treasury Issuance (Previous 4 and Next 4 Weeks)



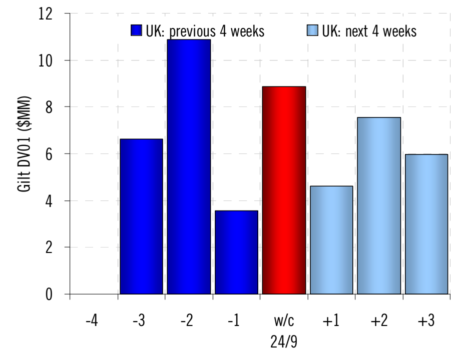
Source: US Treasury, Citi estimates

Figure 78. Estimated $DV01 of Euro Bond Issuance (Previous 4 and Next 4 Weeks)



Source: DMOs, Citi estimates

Figure 79. Estimated $DV01 of UK Gilt Issuance (Previous 4 and Next 4 Weeks)



Source: DMO, Citi estimates

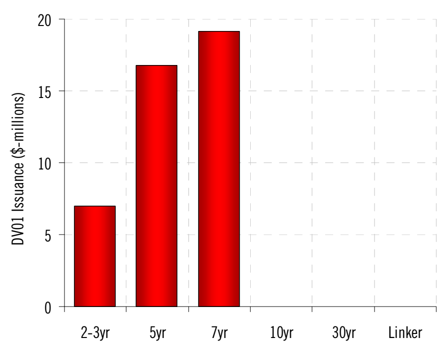
DV01 of expected USD, EUR and GBP issuance split by maturity (week beginning 24 September)

US Treasury supply falls in the 2-, 5- and 7-year sectors at approximately $43 million/bp next week (Figure 80).

In terms of DV01, next week's euro issuance is sizeable at around €16million/bp (Figure 81). Approximately 53% of total issuance (in DV01 terms) is expected to come in the 10-year sector.

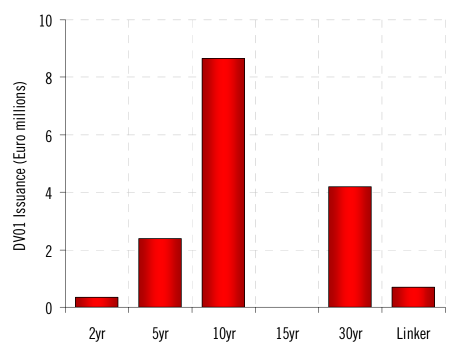
Next week's gilt issuance comes in the form of a long-end linker syndication (new index-linked Gilt 2052) at £5.5 million/bp (Figure 82).

Figure 80. USD DV01: Split by Maturity (24 Sep–28 Sep)



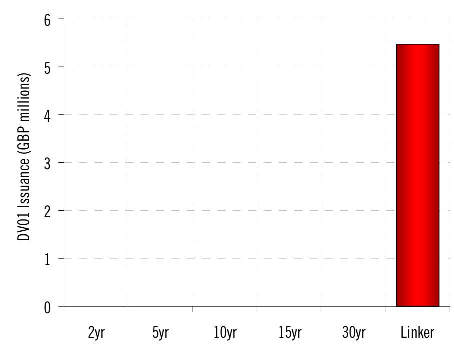
Source: US Treasury, Citi estimates

Figure 81. EUR DV01: Split by Maturity (24 Sep–28 Sep)



Source: DMOs, Citi estimates

Figure 82. GBP DV01 Split by Maturity (24 Sep – 28 Sep)

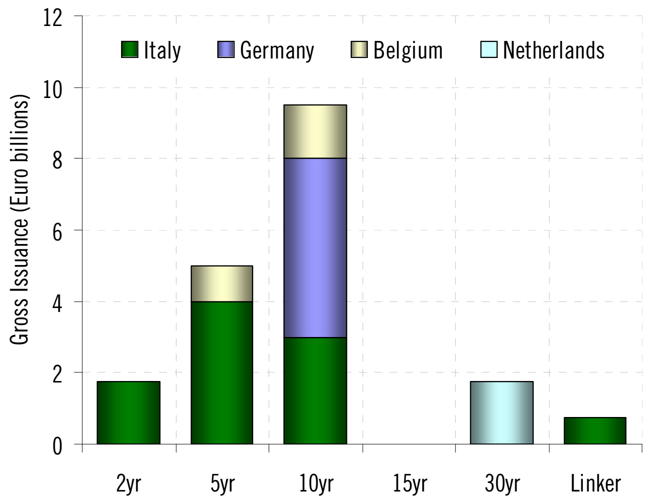


Source: DMO, Citi estimates

Expected euro gross and DV01 split by country and maturity (week beginning 24 September)

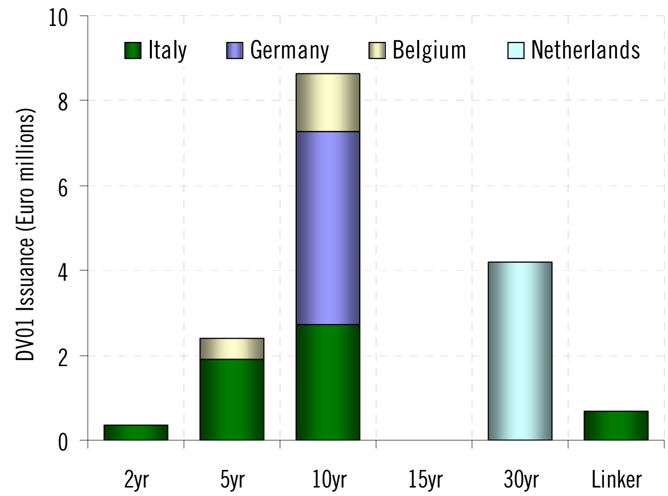
In Europe, supply comes from Belgium (estimated €2.5bn), Italy (estimated €9.5bn), the Netherlands (€1.5-2.5bn) and Germany (€5bn) - Figure 83. In DV01 terms, a third of total issuance is expected to come from Italy (Figure 84).

Figure 83. Euro Gross Issuance next week: Italy is the biggest issuer



Source: DMOs, Citi estimates, Bloomberg

Figure 84. Euro DV01 Issuance next week



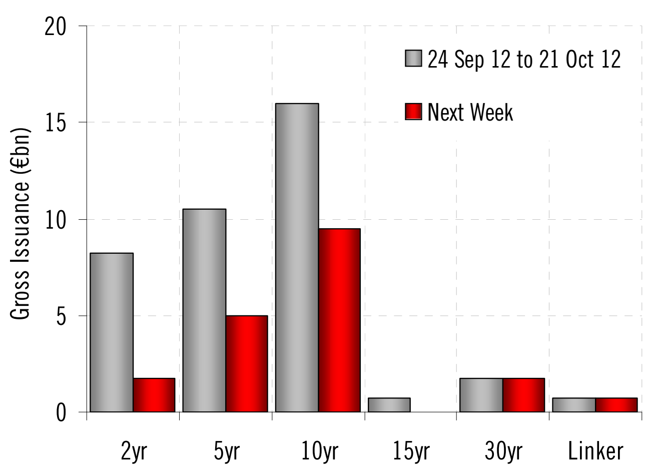
Source: DMOs, Citi estimates, Bloomberg

Expected euro issuance (gross and DV01) by maturity for the next four-weeks (24 September – 21 October)

Over the next four weeks, approximately 42% of total issuance comes in the 10-year sector (Figure 85).

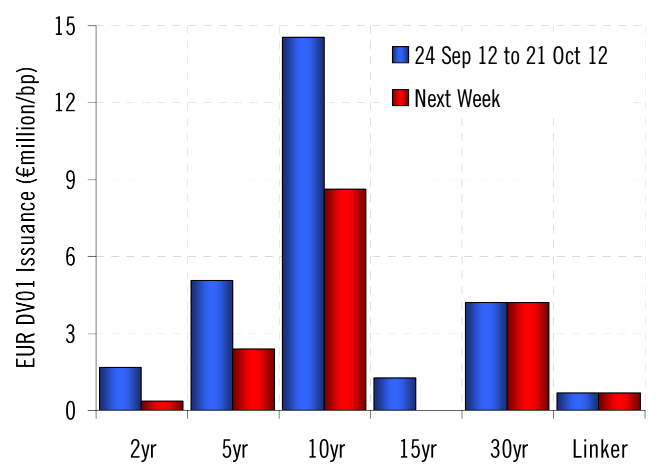
In DV01 terms, the 10yr sector accounts for 53% of total issuance at around €15million/bp (Figure 86).

Figure 85. Euro Gross Issuance over the Next Four Weeks



Source: DMOs, CITI estimates, Bloomberg

Figure 86. Euro DV01 Issuance over the Next Four Weeks



Source: DMOs, CITI estimates, Bloomberg

US coupons for the next four weeks – maturity split

US Treasury coupon payments will be light over the next four weeks (Figure 87).

Figure 87. Maturity Split of UST Coupon Payments over the Next Four Weeks (USD-Billions)*

Week Commencing	2-3yr	5yr	7yr	10yr	30yr	Linker	Total
24 Sep	2.6	2.0	0.5				**5.0**
01 Oct							
08 Oct	1.0					1.3	**2.4**
15 Oct							
Total	**3.6**	**2.0**	**0.5**			**1.3**	**7.4**

Source: Citi Research, Bloomberg **This table is on a trade-date basis*

Euro coupons for the next four weeks – maturity split

Next week sees €5bn of coupon payments and €9bn of redemptions from Belgium (Figure 88 and Figure 90).

Figure 88. Maturity Split of Euro Coupon Payments over the Next Four Weeks (EUR-Billions)*

Week Commencing	2yr	5yr	10yr	15yr	30yr	Linker	Total
24 Sep	1.9	1.3	1.9				**5.1**
01 Oct	0.4	0.3					**0.7**
08 Oct	2.7	1.4					**4.0**
15 Oct	0.9		0.9				**2.4**
Total	**5.8**	**3.6**	**2.7**				**12.2**

Source: Citi Research, Bloomberg **This table is on a trade-date basis*

UK coupons for the next four weeks – maturity split

There are minimal Gilt coupon payments over the next four weeks (Figure 89).

Figure 89. Maturity Split of Gilt Coupon Payments over the Next Four Weeks (GBP-Billions)*

Week Commencing	2yr	5yr	10yr	15yr	30yr	Linker	Total
24 Sep	0.3						**0.3**
01 Oct							
08 Oct							
15 Oct						0.2	**0.2**
Total	**0.3**					**0.2**	**0.6**

Source: Citi Research, Bloomberg **This table is on a trade-date basis*

Euro coupons and redemptions split by maturity and country

Figure 90 below shows a weekly breakdown of euro coupons and redemptions, split by sector and country over the next four weeks.

Figure 90. Euro Coupons and Redemptions by Maturity and Country for the Next 4 weeks (EUR Billions)

WEEK 1

WEEK 1	Week Beginning		Coupons	Redemptions
	24 Sep (Mon)	Austria		
		Belgium	**4.9**	**9.2**
		Germany		
		Finland		
	Coupons	France		
2yr	**1.9**	Greece		
5yr	**1.3**	Ireland		**0.0**
10yr	**1.9**	Italy	**0.2**	
15yr		Netherlands		
30yr		Portugal		
Linker		Spain		
	5.1		5.1	9.2

WEEK 2

WEEK 2	Week Beginning		Coupons	Redemptions
	01 Oct (Mon)	Austria		
		Belgium		
		Germany	**0.7**	
		Finland		
	Coupons	France		
2yr	**0.4**	Greece		
5yr	**0.3**	Ireland		
10yr		Italy		
15yr		Netherlands		
30yr		Portugal		
Linker		Spain		
	0.7		0.7	0.0

WEEK 3

WEEK 3	Week Beginning		Coupons	Redemptions
	08 Oct (Mon)	Austria		
		Belgium		
		Germany	**1.5**	**16.0**
		Finland		
	Coupons	France		
2yr	**2.7**	Greece		
5yr	**1.4**	Ireland		**0.5**
10yr		Italy	**1.4**	**18.4**
15yr		Netherlands		
30yr		Portugal	**1.1**	
Linker		Spain		
	4.0		4.0	34.9

WEEK 4

WEEK 4	Week Beginning		Coupons	Redemptions
	15 Oct (Mon)	Austria	**0.9**	
		Belgium		
		Germany		
		Finland		
	Coupons	France		
2yr	**0.9**	Greece		
5yr	**0.6**	Ireland	**1.5**	
10yr	**0.9**	Italy		
15yr		Netherlands		
30yr		Portugal		
Linker		Spain		
	2.4		2.4	0.0

Source: Citi Research, Bloomberg

**This table is on a trade-date basis*

Provisional auction calendar for the next four weeks

Figure 91. Provisional Auction Calendar for the Next Four Weeks, Gross Issuance (Billions), DV01 (USD Millions)

Date	Country	Estimated Size (Local Ccy)	Issue Details (Estimated)	DV01 $million/bp	Approx. Number 10yr Futures		
					TYz2 (UST)	G z2 (Gilt)	RXZ2 (Bund)
24 Sep (Mon)	Belgium	2.5	OLO 3.5% Jun17, 3% Sep19, 4.25% Sep21, 4.25% Sep22 (issue confirmed, estimated size)				17k
24 Sep (Mon)	US	1.5 - 2	Outright Treasury Coupon Purchases: 15/2/2036 - 15/8/2042		-45k		
24 Sep (Mon)	UK	1.0	Gilt APF Buyback: 3-7yrs			-5k	
25 Sep (Tue)	Italy	1.8	CTZ (estimated size)				3k
25 Sep (Tue)	Italy	0.8	BTPei (estimated size)				6k
25 Sep (Tue)	Netherlands	1.8	DSL Jan33 reopening (issue confirmed, size €1.5-2.5bn)				38k
25 Sep (Tue)	UK	3.8	New 0¼% Index-linked gilt 2052 syndication (week commening 24 September, estimated size)			59k	
25 Sep (Tue)	US	35.0	2-Year		84k		
25 Sep (Tue)	US	4.5 - 5.5	Outright Treasury Coupon Purchases: 15/11/2020 - 15/8/2022		-51k		
25 Sep (Tue)	UK	0.8	Gilt APF Buyback: 15yrs+			-19k	
26 Sep (Wed)	Germany	5.0	Bund Sep22 reopening (issue and size confirmed)				42k
26 Sep (Wed)	US	35.0	5-Year		203k		
26 Sep (Wed)	US	4.25 - 5	Outright Treasury Coupon Purchases: 30/9/2018 - 15/8/2020		-47k		
26 Sep (Wed)	UK	1.0	Gilt APF Buyback: 7-15yrs			-10k	
27 Sep (Thu)	Italy	7.0	BTP 5yr and 10yr (estimated tenors and size)				43k
27 Sep (Thu)	US	29.0	7-Year		231k		
27 Sep (Thu)	US	7 - 8	Outright Treasury Coupon Sales : 30/9/2015 - 30/11/2015		26k		
28 Sep (Fri)	US	1.5 - 2	Outright Treasury Coupon Purchases : 15/2/2036 - 15/8/2042		-45k		
			Weekly $DV01 of Issuance	**54.4**			
			Total Number of Futures Contracts		**356k**	**25k**	**149k**

Date	Country	Estimated Size (Local Ccy)	Issue Details (Estimated)	DV01 $million/bp	Approx. Number 10yr Futures		
					TYz2 (UST)	G z2 (Gilt)	RXZ2 (Bund)
01 Oct (Mon)	UK	1.0	Gilt APF Buyback: 3-7yrs			-5k	
02 Oct (Tue)	Austria	1.5	RAGB 5yr and 15yr (estimated size and tenors)				15k
02 Oct (Tue)	UK	3.2	1¾% Treasury Gilt 2022 (issue confirmed, estimated size)			31k	
02 Oct (Tue)	UK	0.8	Gilt APF Buyback: 15yrs+			-19k	
03 Oct (Wed)	UK	1.0	Gilt APF Buyback: 7-15yrs			-10k	
04 Oct (Thu)	Spain	3.0	Bono 2yr and 5yr (estimated tenors and size)				9k
			Weekly $DV01 of Issuance	**3.0**			
			Total Number of Futures Contracts		**0k**	**-3k**	**24k**

Date	Country	Estimated Size (Local Ccy)	Issue Details (Estimated)	DV01 $million/bp	Approx. Number 10yr Futures		
					TYz2 (UST)	G z2 (Gilt)	RXZ2 (Bund)
08 Oct (Mon)	UK	1.0	Gilt APF Buyback: 3-7yrs			-5k	
09 Oct (Tue)	UK	1.6	4¼% Treasury Gilt 2032 (issue confirmed, estimated size)			29k	
09 Oct (Tue)	US	32.0	3-Year		77k		
09 Oct (Tue)	UK	0.8	Gilt APF Buyback: 15yrs+			-19k	
10 Oct (Wed)	US	21.0	10-Year (re-opening)		225k		
10 Oct (Wed)	UK	1.0	Gilt APF Buyback: 7-15yrs			-10k	
11 Oct (Thu)	Italy	6.0	BTP 3yr, 5yr and 10yr (estimated tenor and size)				20k
11 Oct (Thu)	France	5.8	OAT 5yr and 10yr (estimated tenors and size)				43k
11 Oct (Thu)	UK	1.3	New index-linked Gilt 2024 (issue confirmed, estimated size)			21k	
11 Oct (Thu)	US	13.0	30-year (re-opening)		309k		
			Weekly $DV01 of Issuance	**62.1**			
			Total Number of Futures Contracts		**612k**	**16k**	**63k**

Date	Country	Estimated Size (Local Ccy)	Issue Details (Estimated)	DV01 $million/bp	Approx. Number 10yr Futures		
					TYz2 (UST)	G z2 (Gilt)	RXZ2 (Bund)
15 Oct (Mon)	UK	1.0	Gilt APF Buyback: 3-7yrs			-5k	
16 Oct (Tue)	UK	0.8	Gilt APF Buyback: 15yrs+			-19k	
17 Oct (Wed)	UK	1.0	Gilt APF Buyback: 7-15yrs			-10k	
18 Oct (Thu)	Spain	3.0	Obligaciones 2yr, 5yr and 10yr (estimated tenor and size)				15k
18 Oct (Thu)	UK	0.8	Mini tender (estimated date and size)			12k	
18 Oct (Thu)	UK	3.6	4½% Treasury Gilt 2019 (issue confirmed, estimated size)			27k	
18 Oct (Thu)	US	8.0	30-year TIPS (re-opening)		95k		
			Weekly $DV01 of Issuance	**10.8**			
			Total Number of Futures Contracts		**95k**	**6k**	**15k**

The next release of the approximate purchase and sale amounts and tentative Outright operation schedule will be at 1400 (NY Time) on 28 September 2012

Source: DMOs, Citi estimates

The three figures on this page show the upcoming profile gross and net supply, coupons and redemptions, and the resultant NCR, for each of the next four weeks.

These are calculated on a *settlement date* basis.

US net cash requirements (NCR) over the next four weeks

There is a large amount of issuance settling in week 2 which results in a positive NCR ($36bn) as $99bn of gross supply easily offsets $57bn of coupon payments & redemptions and $5.6bn of buybacks under *Operation Twist* (Figure 92).

Figure 92. US Weekly Cash Flow Profile for Next Four weeks, USD Billions

Settling in Week Commencing	A Gross Supply	B Coupons	A - B Net Supply	C Redemptions	D Buybacks	A - B - C - D NCR
24 Sep	13.0		13.0		-1.9	14.9
01 Oct	99.0	5.0	94.0	52.2	5.6	36.1
08 Oct					0.5	-0.5
15 Oct	66.0	2.4	63.6	39.3	0.5	23.8
Total	**178.0**	**7.4**	**170.6**	**91.5**	**4.8**	**74.4**
Average	44.5	1.9	42.6	22.9	1.2	18.6
YTD Average	42.2	3.1	39.1	25.3	0.5	13.3

Source: US Treasury, Citi estimates, Bloomberg

Euro cash-flow profile over the next four weeks

The euro NCR is slightly negative over the next four weeks (-€1.7bn) as €55bn of gross supply is slightly less than €12bn of coupon payments and €44bn of redemptions (Figure 93).

Figure 93. Estimated Euro Weekly Cash Flow Profile for Next Four weeks, EUR Billions

Settling in Week Commencing	A Gross Supply	B Coupons	A - B Net Supply	C Redemptions	A - B - C NCR
24 Sep	26.3	5.7	20.5	9.2	11.3
01 Oct	13.5	0.2	13.3		13.3
08 Oct	3.0	2.0	1.0	16.0	-15.0
15 Oct	11.8	4.2	7.6	18.9	-11.3
Total	**54.5**	**12.2**	**42.4**	**44.1**	**-1.7**
Average	13.6	3.0	10.6	11.0	-0.4
YTD Average	15.9	4.1	11.9	11.1	0.8

Source: DMOs, Citi estimates, Bloomberg

UK cash-flow profile over the next four weeks

The NCR is slightly positive over the next four weeks (£1.6bn) as £14.3bn of gross supply easily offsets £0.7bn of coupon payments and £12bn of APF buybacks (Figure 94).

Figure 94. Estimated UK Weekly Cash Flow Profile for Next Four weeks, GBP Billions

Settling in Week Commencing	A Gross Supply	B Coupons	A - B Net Supply	C Redemptions	D Buybacks	A - B - C - D NCR
24 Sep	3.8	0.4	3.4		3.0	0.4
01 Oct	3.2		3.2		3.0	0.2
08 Oct	2.9		2.9		3.0	-0.1
15 Oct	4.4	0.2	4.2		3.0	1.2
Total	**14.3**	**0.7**	**13.6**		**12.0**	**1.6**
Average	3.6	0.2	3.4		3.0	0.4
YTD Average	3.2	0.9	2.3	1.4	2.8	-1.9

Source: DMO, Citi estimates, Bloomberg

JGB settlement cash-flow profile over the next four weeks

Figure 95 shows the profile of JGB gross and net supply, coupons and redemptions, and the resultant NCR, for each of the next four weeks. The NCR is positive over the next four weeks (¥3.6trillion) as ¥6.6trillion of gross supply easily offsets ¥3.1trillion of coupon payments and redemptions.

Figure 95. Estimated JGB Weekly Cash Flow Profile for Next Four weeks (JPY-Trillions) *

Settling in week commencing	A Gross Supply	B Coupons	A - B Net Supply	C Redemptions	A - B - C Net Cash Requirement
24 Sep	0.3		0.3		0.3
01 Oct	3.0		3.0		3.0
08 Oct	2.6		2.6		2.6
15 Oct	0.7		0.7	3.0	-2.3
Total	**6.6**	**0.1**	**6.5**	**3.0**	**3.6**
Average	1.7	0.0	1.6	0.7	0.9
YTD Average	2.4	0.2	2.2	1.8	0.4

Source: Citi estimates, Bloomberg, BoJ **This table is on a settlement-date basis*

Explanation of trade-date and settlement-date:

Throughout the *Supply Monitor* section coupons and redemption payments are allocated on a trade date basis *except in the cash flow tables* shown above. In these cash flow tables; gross supply, coupons and redemptions are on a settlement date basis. This is to keep everything in line with US supply settling during the middle or end of the month instead of just T+3 as in Europe for example.

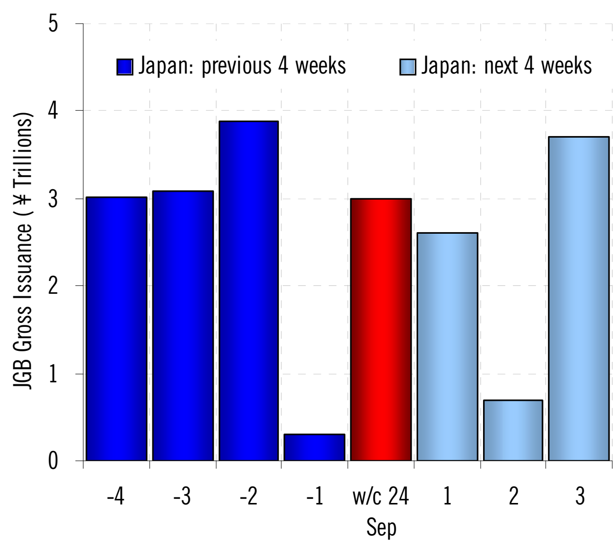
Trade date basis: In Europe if the coupon payment falls on Monday 5th March, for example, it would be allocated to the previous week (the week commencing 27 February) as that would be when you would trade to use the money you know is coming in on Monday 5th March. In other words, you don't wait for the money to hit your account to use it. Since we are trying to account for the impact of those payments we allocate them on a trade date basis, rather than settlement date.

Settlement date basis: The net cash requirement tables (Figure 92, Figure 93, Figure 94 and Figure 95) are on a settlement basis. In the US, conventional supply settles either during the middle of the month or at the end of the month. (If there is a Treasury auction during the last week of the month it will settle in the following week). Consequently, if you participate in the UST 3-year auction on 7 February the money would leave your account during the w/c 15 February. In addition, TIPS often settle during a different week from conventional supply.

Historical and projected DV01 of JGB issuance (weekly)

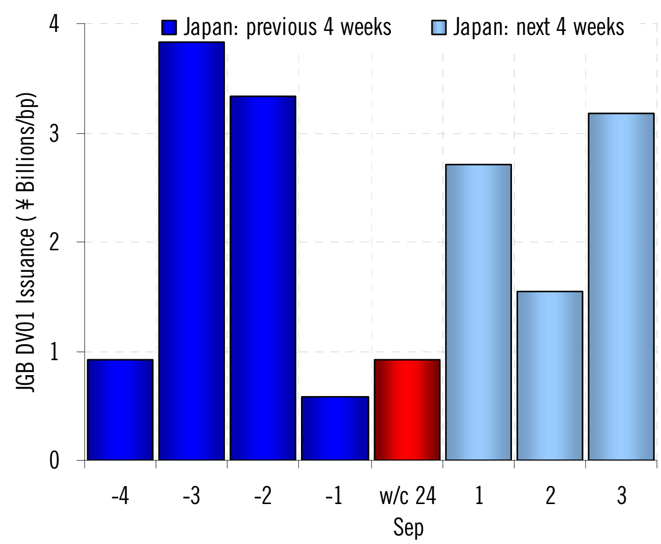
Figure 96 and Figure 97 show projected JGB gross issuance and its ¥DV01 over the next four weeks and the previous four weeks. Next week's JGB issuance comes in the form of a 2-year JGB and an *Auction for Enhanced Liquidity (10-20 years)* at ¥3trillion (Figure 96). In DV01 terms, this is equivalent to around ¥0.9billion/bp (Figure 97).

Figure 96. Estimated Gross JGB Issuance (Previous 4 and Next 4 weeks)



Source: Citi estimates, BoJ, MoF

Figure 97. Estimated ¥DV01 of JGB Issuance (Previous 4 and Next 4 weeks)



Source: Citi estimates, BoJ, MoF

JGB coupons for the next four weeks – maturity split

There are minimal coupon payments over the next four weeks (Figure 98).

Figure 98. Maturity Split of JGB Coupon Payments over the Next Four weeks (JPY-Billions)*

Week commencing	2yr	5yr	10yr	20yr	30yr	TOTAL
24 Sep						
01 Oct						
08 Oct	6					**6**
15 Oct						
Total	**6**					**6**

Source: Citi estimates, Bloomberg *This table is on a trade-date basis

JGB auction calendar for the next four weeks

Figure 99 shows our JGB issuance expectations for the next four weeks and weekly $DV01.

Figure 99. Provisional Auction Calendar for the Next Four Weeks, Gross Issuance (Billions), DV01 (JPY Millions).

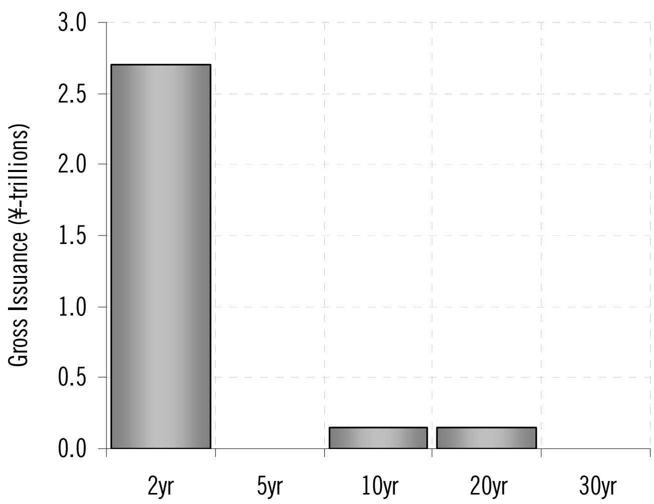
Auction Date	Country Issuing	Estimated Size (Local Ccy)	Issue Details (Estimated)	Weekly DV01 ¥ millions	$ millions
25 Sep (Tue)	JPY	300	AEL (10-20 years)	386	5
27 Sep (Thu)	JPY	2700	2year	535	7
			Weekly DV01 of Issuance	¥920	$12
02 Oct (Tue)	JPY	300	AEL (20-30 years)	576	7
04 Oct (Thu)	JPY	2300	10year	2139	27
			Weekly DV01 of Issuance	¥2715	$35
11 Oct (Thu)	JPY	700	30year	1540	20
			Weekly DV01 of Issuance	¥1540	$20
16 Oct (Tue)	JPY	2500	5year	1213	16
18 Oct (Thu)	JPY	1200	20year	1968	25
			Weekly DV01 of Issuance	¥3180	$41

Source: Citi estimates, BoJ, MoF

Expected JGB gross and DV01 issuance by maturity (week beginning 24 September)

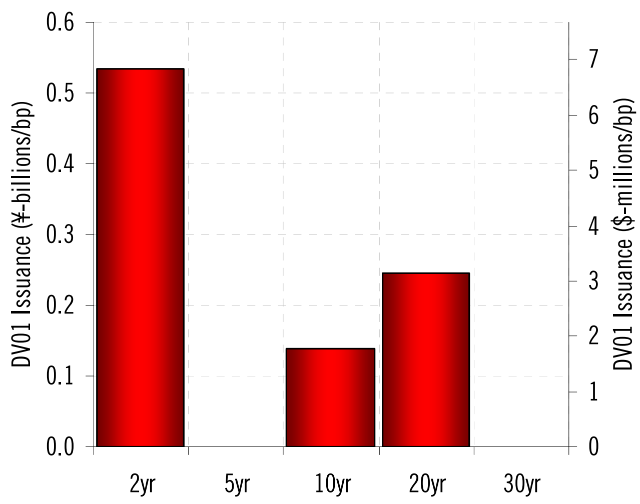
Figure 100 and Figure 101 show a split of next week's JGB issuance by maturity.

Figure 100. JGB Gross Split by Maturity (Week Beginning 24 Sep)



Source: Citi Research, Bloomberg

Figure 101. JGB DV01 Split by Maturity (Week Beginning 24 Sep)



Source: Citi Research, Bloomberg

Appendix – Global Supply Forecasts

Figure 102. UK, US and EMU-11 Gross Supply – Citi forecasts

2012 Cashflow Tables

Gross Supply (£bn cash)

	Auctions				Syndications			A	B	C = A - B	D	E	F = C - D - E
UK	**Shorts**	**Mediums**	**Longs**	**Linkers**	**Long**	**Linker**	**Mini Tender**	**Gross Supply**	Coupons	**Net Supply**	Redemptions	Buybacks	**NCR**
Jan-12	9.0	3.8		1.1	5.4			**19**	2	**17**		19	**-2**
Feb-12	4.1	3.6	2.1	1.3		4.3		**15**	1	**15**		13	**2**
Mar-12	4.0	3.2	2.6	2.4				**12**	12	**1**	27	15	**-42**
Apr-12	4.5	4.1	2.4	1.5	5.1			**18**		**17**		17	
May-12	4.9	3.8	2.7	1.4		4.7	1.7	**19**	1	**19**		3	**16**
Jun-12	4.8	3.5	1.9	1.4				**12**	8	**4**	26		**-21**
Jul-12	4.6	3.9	4.6	1.2		4.0		**18**	2	**16**		11	**5**
Aug-12	5.0		2.1	1.4			1.7	**10**	1	**9**		12	**-3**
Sep-12	4.3	3.1	2.3	1.3		3.6	0.0	**15**	11	**3**	0	12	**-9**
Oct-12	4.3	3.1	1.9	1.3	4.2		0.8	**16**		**15**		15	
Nov-12	4.3	3.1	1.9	1.3		3.6		**14**	1	**13**			**13**
Dec-12		3.1		1.3			0.8	**5**	7	**-2**			**-2**
Total	**53.8**	**38.1**	**24.6**	**17.0**	**14.6**	**20.2**	**4.9**	**173**	**46**	**128**	**53**		**-42**

Gross Supply ($bn nominal)

								A	B	C	D = A - B - C	E	F = D - E
US	**2yr**	**3yr**	**5yr**	**7yr**	**10yr**	**30yr**	**TIPS**	**Gross Supply**	Coupons	Fed Purchases	**Net Supply**	Redemptions	**NCR**
Jan-12	35	32	35	29	21	13	15	**180**	12	-1	**170**	100	**70**
Feb-12	35	32	35	29	24	16	9	**180**	26	1	**153**	120	**33**
Mar-12	35	32	35	29	21	13	13	**178**	9	0	**169**	96	**73**
Apr-12	35	32	35	29	21	13	16	**181**	6	-1	**176**	116	**59**
May-12	35	32	35	29	24	16	13	**184**	27	0	**157**	100	**56**
Jun-12	35	32	35	29	21	13	7	**172**	4	1	**167**	92	**75**
Jul-12	35	32	35	29	21	13	15	**180**	13	5	**162**	120	**42**
Aug-12	35	32	35	29	24	16	14	**185**	27	13	**145**	116	**29**
Sep-12	35	32	35	29	21	13	13	**178**	3	0	**175**	90	**84**
Oct-12	35	32	35	29	21	13	8	**173**	10		**163**	91	**73**
Nov-12	35	32	35	29	24	16	13	**184**	22		**162**	115	**47**
Dec-12	35	32	35	29	21	13	14	**179**	7		**172**	92	**79**
Total	**420**	**384**	**420**	**348**	**264**	**168**	**150**	**2154**	**166**	**18**	**1970**	**1250**	**720**

Gross issuance forecasts for 2012 to 2013

(for fixed rate governmnent bonds and index-linked notes)

Gross Supply	2012	2013
EMU-11 (€bn) - excluding GRC, IRE and PRT	789	750

Gross Supply	2012	2013
US ($bn)	2154	2035

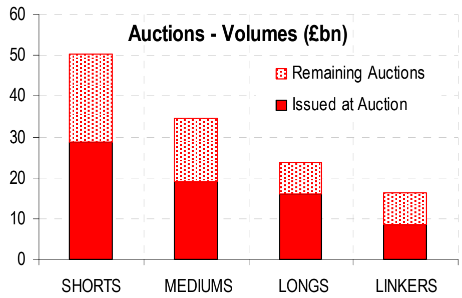
Gross Supply *	11/12	12/13
UK (£bn)	179	164

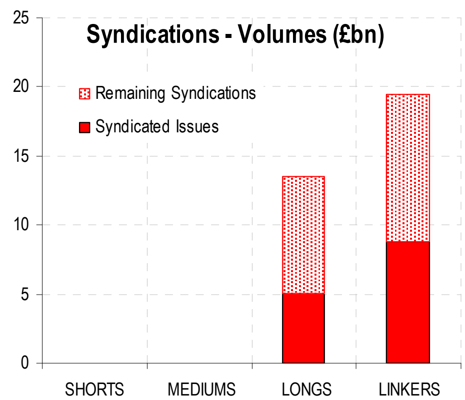
**UK supply forecasts on financial year basis (cash amt)*

Gross Supply (€bn)	2012	2013	Tickers used in our supply estimates
Germany	183	166	Schatz, Bobl, Bund, Bundei, Boblei
France	193	196	OAT,BTAN,BTANi,OATi,OATei
Italy	194	164	BTP, BTPei, CCT, CTZ
Spain	87	92	SPGB
Netherlands	60	59	DSL
Belgium	38	42	OLO
Austria	22	21	RAGB
Finland	11	10	RFGB
Total	**789**	**750**	

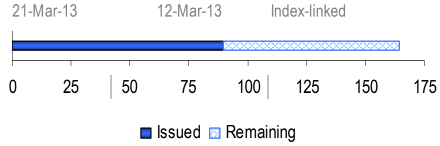
Source: DMOs, Citi estimates, Bloomberg

Figure 103. UK Gilt Remit and Progress for FY2012/13





Operation Date	Details Announced	Gilt	Estimated Nominal (£bn)	Cash Amt Raised (£bn)	Method
03-Apr-12	27-Mar-12	4% Treasury Gilt 2022		4.1	Auction
11-Apr-12	03-Apr-12	1% Treasury Gilt 2017		4.5	Auction
12-Apr-12	03-Apr-12	4¼% Treasury Stock 2032		2.4	Auction
19-Apr-12	10-Apr-12	01/8% Index-linked Treasury Gilt 2029		1.5	Auction
24-Apr-12	17-Apr-12	Syndicated re-opening of 3¾% Gilt 2052		5.1	Syndication
01-May-12	24-Apr-12	4½% Treasury Gilt 2019		4.9	Auction
03-May-12	24-Apr-12	0¾% Index-linked Treasury Gilt 2034		1.4	Auction
09-May-12	01-May-12	4½% Treasury Gilt 2042		2.7	Auction
15-May-12	06-Jun-12	5% Treasury Stock 2025		3.8	Auction
17-May-12	06-Jun-12	Mini tender: 5% Treasury Stock 2014		1.7	Mini Tender
29-May-12	22-May-12	Re-opening of 0⅜% index-linked gilt 2062		4.7	Syndication
12-Jun-12	05-Jun-12	1% Treasury Gilt 2017		4.8	Auction
14-Jun-12	05-Jun-12	4% Treasury Gilt 2060		1.9	Auction
21-Jun-12	12-Jun-12	New 1¾% Treasury Gilt 2022		3.5	Auction
26-Jun-12	19-Jun-12	01/8% Index-linked Treasury Gilt 2029		1.4	Auction
03-Jul-12	26-Jun-12	4¾% Treasury Gilt 2030		2.5	Auction
04-Jul-12	26-Jun-12	1% Treasury Gilt 2017		4.6	Auction
10-Jul-12	03-Jul-12	0½% Index-linked Treasury Gilt 2050		1.2	Auction
12-Jul-12	03-Jul-12	Reopening of new 7 Sep 2022		3.9	Auction
19-Jul-12	10-Jul-12	3¾% Treasury Gilt 2052		2.0	Auction
24-Jul-12	17-Jul-12	New 01/8% Index-linked Gilt 2044 syndication		4.0	Syndication
09-Aug-12	31-Jul-12	Mini tender: 5% Treasury Stock 2014		1.7	Mini Tender
16-Aug-12	07-Aug-12	4½% Treasury Gilt 2034		2.1	Auction
21-Aug-12	14-Aug-12	01/8% Index-linked Treasury Gilt 2029		1.4	Auction
23-Aug-12	14-Aug-12	5% Treasury Gilt 2018		5.0	Auction
05-Sep-12	28-Aug-12	4½% Treasury Gilt 2042		2.3	Auction
11-Sep-12	04-Sep-12	0¾% Index-linked Treasury Gilt 2034		1.6	Auction
13-Sep-12	04-Sep-12	Reopening of 7 Sep 2022		3.8	Auction
20-Sep-12	11-Sep-12	1% Treasury Gilt 2017		5.0	Auction
25-Sep-12	18-Sep-12	New 0¼% Index-linked gilt 2052 syndication (week commencing 24 September)	3.8		Syndication
02-Oct-12	25-Sep-12	1¾% Treasury Gilt 2022	3.2		Auction
09-Oct-12	02-Oct-12	4¼% Treasury Gilt 2032	1.6		Auction
11-Oct-12	02-Oct-12	New index-linked Gilt 2024	1.3		Auction
18-Oct-12	09-Oct-12	Mini tender (estimated date)	0.8		Mini Tender
18-Oct-12	09-Oct-12	4½% Treasury Gilt 2019			Auction
23-Oct-12	16-Oct-12	Syndication of new conventional gilt maturing in the 30-year area (estimated date)	4.2		Syndication
01-Nov-12	23-Oct-12	0¾% Index-linked Treasury Gilt 2047	1.1		Auction
06-Nov-12	30-Oct-12	1¾% Treasury Gilt 2022	3.2		Auction
15-Nov-12	06-Nov-12	3¾% Treasury Gilt 2052	1.8		Auction
20-Nov-12	13-Nov-12	Syndication of an index-linked gilt (estimated date)	3.6		Syndication
20-Nov-12	13-Nov-12	1% Treasury Gilt 2017	3.6		Auction
11-Dec-12	04-Dec-12	1¾% Treasury Gilt 2022	3.2		Auction
13-Dec-12	04-Dec-12	Re-opening of index-linked gilt 2024	1.3		Auction
20-Dec-12	11-Dec-12	Mini Tender (estimated date)	0.8		Mini Tender
03-Jan-13	25-Dec-12	Conventional			
08-Jan-13	01-Jan-13	Conventional			
17-Jan-13	08-Jan-13	Index-linked			
22-Jan-13	15-Jan-13	Conventional			
05-Feb-13	29-Jan-13	Index-linked			
14-Feb-13	05-Feb-13	Conventional			
21-Feb-13	12-Feb-13	Conventional			
05-Mar-13	26-Feb-13	Conventional			
13-Mar-13	05-Mar-13	Conventional			
21-Mar-13	12-Mar-13	Index-linked			



TOTAL ISSUED	89.5
PLANNED ISSUANCE	164.4
% Completed	**54%**

Source: Citi Research

Figure 104. 2012 Euro Government Bond Supply – Citi Forecasts (Euro in Billions)

EMU-11	2yr/3yr	5yr	10yr	15yr	30yr	Linkers	Gross Supply	Coupons	Net Supply	Redemptions	NCR
Jan	22.3	26.9	26.8	3.1	10.5	2.3	92	28	64	54	10
Feb	19.7	25.1	34.9		1.6	3.3	85	12	72	38	34
Mar	24.5	17.8	15.6	2.3	8.2	4.6	73	17	56	56	1
Apr	19.6	16.8	17.3	1.7	5.4	3.6	64	30	34	75	-40
May	22.0	21.1	19.3	3.5		3.6	69	5	65		65
Jun	18.4	20.8	19.1	2.7	6.3	3.1	70	5	66	29	37
Jul	20.2	26.8	22.9	2.2	4.0	2.3	78	39	39	112	-72
Aug	9.7	9.0	13.6			0.8	33	9	24	12	12
Sep	20.6	21.5	24.5	5.5	2.5	3.5	78	16	62	56	6
Oct	18.0	20.5	14.8	3.0	2.0	2.3	61	27	34	70	-36
Nov	16.3	25.0	16.0	2.0		3.0	62	5	57	13	44
Dec	11.5	8.8	8.0	1.5			30	3	27	59	-32
Total	223	240	233	28	40	32	795	195	600	573	27

GERMANY	2yr/3yr	5yr	10yr	15yr	30yr	Linkers	Gross Supply	Coupons	Net Supply	Redemptions	NCR
Jan	4.0	4.0	5.0		3.0		16	13	3	25	-22
Feb	5.0	4.0	9.0				18	1	17		17
Mar	5.0	4.0				2.0	11	0	11	19	-8
Apr	5.0	4.0	5.0		3.0		17	3	14	16	-2
May	5.0	5.0	5.0			1.5	17		17		17
Jun	5.0	5.0	5.0			1.0	16	1	15	19	-4
Jul	5.0	4.0	5.0		3.0	1.0	18	13	5	27	-22
Aug	5.0	4.0	4.0				13		13		13
Sep	5.0	5.0	10.0			1.0	21	1	20	18	2
Oct	5.0	4.0	4.0		2.0		15	2	13	16	-3
Nov	5.0	7.0	4.0			1.5	18		18		18
Dec	4.0						4		4	17	-13
Total	58.0	50.0	56.0		11.0	8.0	183	35	148	157	-9

FRANCE	2yr/3yr	5yr	10yr	15yr	30yr	Linkers	Gross Supply	Coupons	Net Supply	Redemptions	NCR
Jan	4.9	4.3	4.8		3.6	1.7	19	3	16	15	2
Feb	3.4	6.7	8.5			1.8	20	1	20		20
Mar	4.0	5.5	6.1	2.3		1.6	20		20		20
Apr	5.3	4.0	4.7	1.7	1.2	2.5	19	17	2	20	-18
May	4.1	6.6	5.9	1.9		1.4	20		20		20
Jun	4.3	7.5	3.5	2.0	0.7	1.4	19		19		19
Jul	1.8	7.1	9.4			1.3	20	8	12	29	-17
Aug											
Sep	3.2	6.5	3.9	3.8		1.8	19		19	12	6
Oct	4.0	6.0	4.5			1.5	16	15	1	20	-20
Nov	2.5	6.5	2.5	1.0		1.5	14		14		14
Dec		2.5	3.0	1.5			7		7	5	1
Total	37.5	63.2	56.8	14.1	5.5	16.4	194	45	149	102	47

ITALY	CTZ/3yr	5yr/CCT	10yr	15yr	30yr	Linkers	Gross Supply	Coupons	Net Supply	Redemptions	NCR
Jan	9.4	6.4	3.5			0.6	20	1	19		19
Feb	7.6	4.9	4.7			1.5	19	10	9	36	-28
Mar	8.7	4.8	4.4			1.0	19	7	12	27	-16
Apr	5.9	3.6	5.1			1.0	16	2	14	27	-13
May	7.0	4.4	3.9	0.6		0.8	17	5	12		12
Jun	6.4	2.9	5.9			0.6	16	1	15		15
Jul	8.0	2.5	4.1				15	1	14	17	-3
Aug	3.5	3.8	4.5			0.8	13	9	3	12	-8
Sep	6.0	6.0	3.0	1.7		0.8	17	7	10	10	
Oct	5.8	5.0	4.0			0.8	16	2	14	18	-4
Nov	5.3	7.0	4.0				16	5	12	13	-2
Dec	5.3	4.0	3.0				12	2	11	31	-20
Total	78.8	55.2	50.2	2.3		7.8	194	51	144	192	-49

Source: DMOs, Citi estimates, Bloomberg

Figure 105. 2012 Euro Government Bond Supply – Citi Forecasts (Euro in Billions)

SPAIN	2yr/3yr	5yr	10yr	15yr	30yr	Linkers	Gross Supply	Coupons	Net Supply	Redemptions	NCR
Jan		11.5	5.3				17	7	10		10
Feb	3.6	4.6	5.3				14		13	1	12
Mar	4.0	3.5					8		8		8
Apr	2.2	1.0	1.9				5	4	1	12	-11
May	2.6	2.9					5		5		5
Jun	2.6	1.6	0.6				5		5		5
Jul	2.6	2.1	1.3				6	8	-2	13	-15
Aug	1.3	1.2	1.0				4		4		4
Sep	6.5	1.4	0.9				9		9		9
Oct	2.5	2.5	1.0				6	4	2	15	-13
Nov	2.3	2.3	1.0				6		6		6
Dec	2.3	1.5	1.0				5		5		5
Total	32.4	36.0	19.4				88	23	64	41	23

NETHERLANDS	2yr/3yr	5yr	10yr	15yr	30yr	Linkers	Gross Supply	Coupons	Net Supply	Redemptions	NCR
Jan	4.1				1.5		6	4	2	14	-13
Feb		4.0	6.0				10		10		10
Mar	2.8				4.2		7		7		7
Apr	1.1	3.5			1.1		6		6		6
May	3.3		2.9				6		6		6
Jun			2.2		1.7		4		4		4
Jul	3.8	6.0		0.9			11	6	5	15	-11
Aug											
Sep			2.1		1.8		4		4		4
Oct	0.8	1.5		1.3			4		4		4
Nov	1.3		2.3				4		4		4
Dec											
Total	17.1	14.9	15.4	2.1	10.2		60	10	50	30	20

BELGIUM	2yr/3yr	5yr	10yr	15yr	30yr	Linkers	Gross Supply	Coupons	Net Supply	Redemptions	NCR
Jan			4.5				5		5		5
Feb		1.0	1.4		1.6		4		4		4
Mar			4.0		4.0		8	7	1	4	-3
Apr											
May		0.5	1.0	1.0			3		3		3
Jun		0.8	1.3	0.7			3		2		2
Jul		1.3	1.7	1.2			4		4		4
Aug											
Sep		1.0	4.0		0.7		6	5	1	9	-8
Oct		0.8	1.3	1.0			3		3		3
Nov		0.8	1.3	1.0			3		3		3
Dec										6	-6
Total		6.1	20.4	5.1	6.6		38	12	26	19	7

GREECE	2yr/3yr	5yr	10yr	15yr	30yr	Linkers	Gross Supply	Coupons	Net Supply	Redemptions	NCR
Jan											
Feb											
Mar											
Apr											
May											
Jun											
Jul											
Aug											
Sep											
Oct											
Nov											
Dec											
Total								0	0	0	-0

Source: DMOs, Citi estimates, Bloomberg

Figure 106. 2012 Euro Government Bond Supply – Citi Forecasts (Euro in Billions)

AUSTRIA	2yr/3yr	5yr	10yr	15yr	30yr	Linkers	Gross Supply	Coupons	Net Supply	Redemptions	NCR
Jan		0.7	3.7		2.0		6	1	6		6
Feb											
Mar			1.1				1	1			
Apr		0.7	0.6				1		1		1
May		0.7	0.6				1		1		1
Jun		3.0	0.7		2.4		6		6		6
Jul								2	-2	10	-13
Aug											
Sep		0.6	0.7				1	1			
Oct		0.8		0.8			2	1	1		1
Nov		0.8	1.0				2		2		2
Dec		0.8	1.0				2		2		2
Total		**7.9**	**9.3**	**0.8**	**4.4**		**22**	**7**	**15**	**10**	**5**

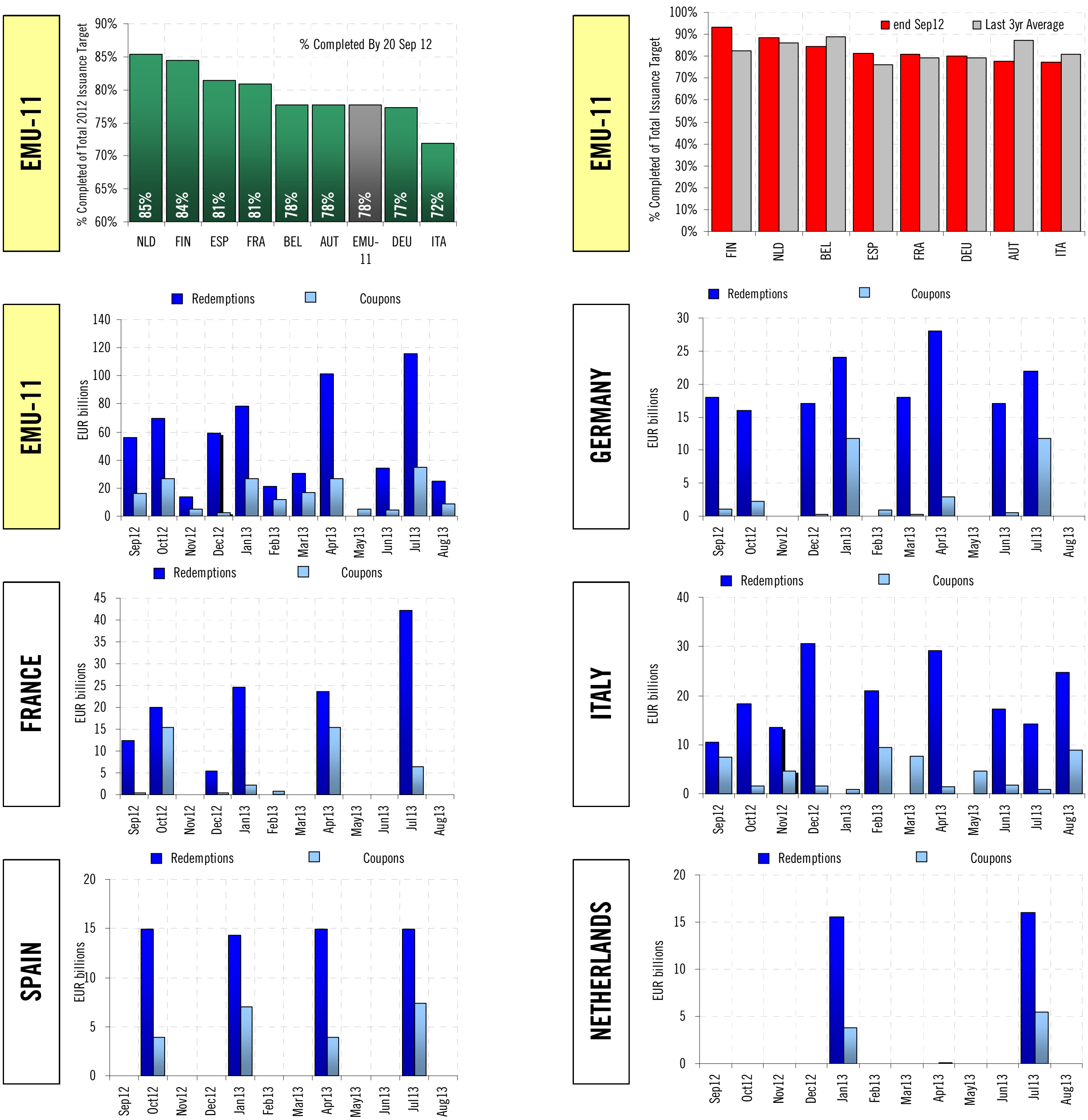
FINLAND	2yr/3yr	5yr	10yr	15yr	30yr	Linkers	Gross Supply	Coupons	Net Supply	Redemptions	NCR
Jan				3.0			3		3		3
Feb											
Mar											
Apr								1	-1		-1
May		1.0					1		1		1
Jun					1.5		2		2		2
Jul								1	-1		-1
Aug			4.0				4		4		4
Sep		1.0					1	1		6	-6
Oct											
Nov		0.8					1		1		1
Dec											
Total		**2.8**	**4.0**	**3.0**	**1.5**		**11**	**2**	**9**	**6**	**3**

PORTUGAL	2yr/3yr	5yr	10yr	15yr	30yr	Linkers	Gross Supply	Coupons	Net Supply	Redemptions	NCR
Jan											
Feb											
Mar											
Apr								1	-1		-1
May											
Jun								2	-2	10	-12
Jul											
Aug											
Sep								1	-1		-1
Oct								1	-1		-1
Nov											
Dec											
Total								**5**	**-5**	**10**	**-15**

IRELAND	2yr/3yr	5yr	10yr	15yr	30yr	Linkers	Gross Supply	Coupons	Net Supply	Redemptions	NCR
Jan											
Feb											
Mar								1	-1	6	-6
Apr								1	-1		-1
May											
Jun											
Jul	-1.0	3.9	1.3		1.0		5		5		5
Aug											
Sep											
Oct								1	-1	1	-2
Nov											
Dec											
Total	**-1.0**	**3.9**	**1.3**	**0.1**	**1.0**		**5**	**4**	**1**	**6**	**-5**

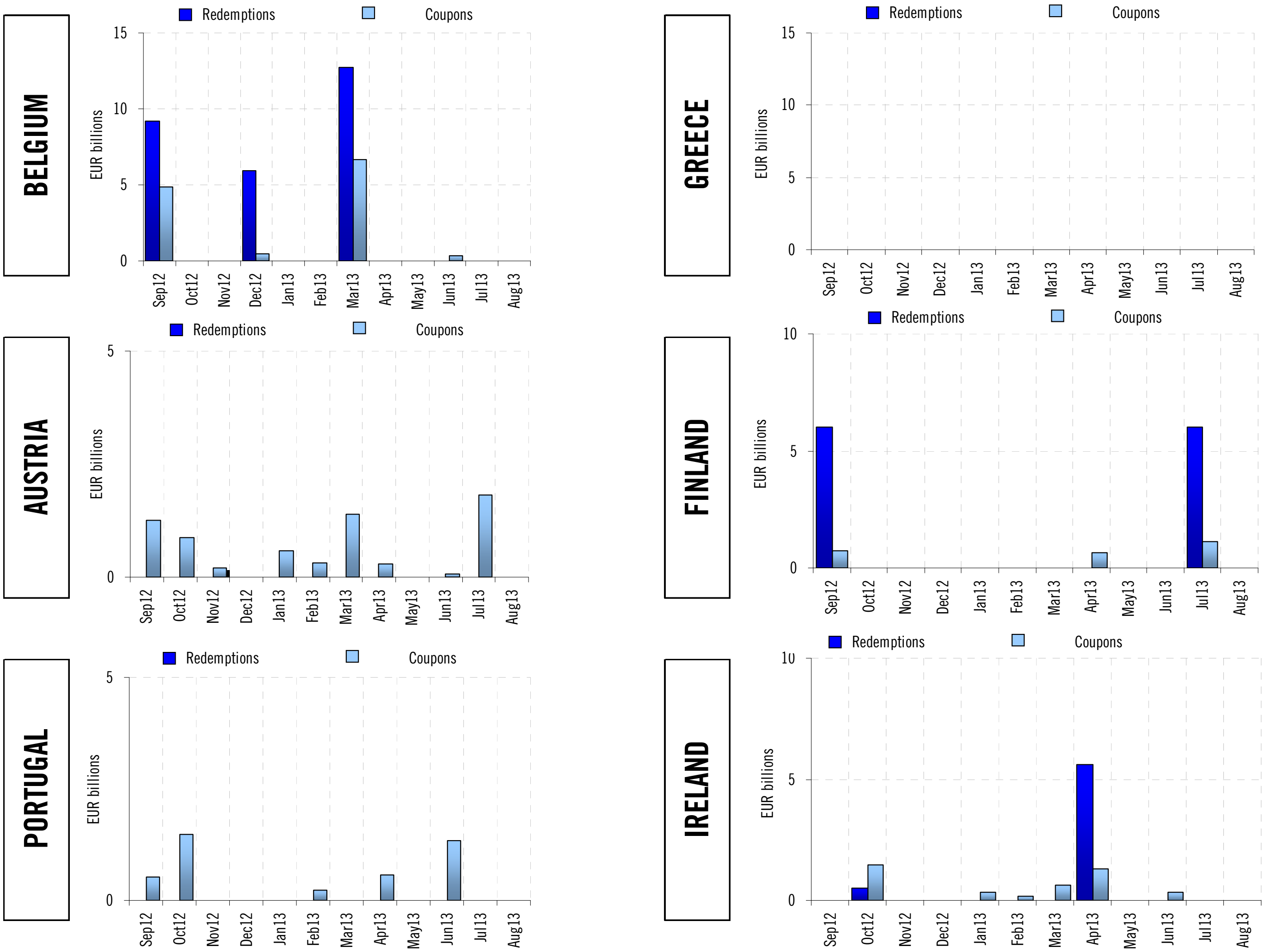
Source: DMOs, Citi estimates, Bloomberg

Figure 107. 2012 EMU Issuance Progress and Cash flow profile – Citi Forecasts (Euro in Billions)



Source: DMOs, Citi estimates, Bloomberg

Figure 108. 2012 EMU Issuance Progress and Cash flow profile – Citi Forecasts (Euro in Billions)



Size of bond market (fixed rate bonds and linkers)

	Sector					
	2yr	5yr	10yr	15yr	30yr	Total
Germany	390	300	188	63	73	1013
France	372	335	274	94	97	1171
Netherlands	106	78	56	13	19	272
Italy	492	376	253	133	113	1367
Spain	194	125	104	53	29	503
Belgium	85	85	62	27	29	287
Austria	48	55	40	15	12	171
Finland	18	23	17	9	0	66
Ireland	17	31	28	12	0	88
Portugal	24	40	23	0	7	94
Greece	0	0	0	0	0	0

Credit Rating (LT local currency)

	S&P		Moody's		Fitch	
	Rating	Outlook	Rating	Outlook	Rating	Outlook
Germany	AAA	Stable	Aaa	-ve	AAA	Stable
France	AA+	-ve	Aaa	-ve	AAA	-ve
Netherlands	AAA	-ve	Aaa	-ve	AAA	Stable
Italy	BBB+	-ve	Baa2	-ve	A-	-ve
Spain	BBB+	-ve	Baa3	-ve watch	BBB	-ve
Belgium	AA	-ve	Aa3	-ve	AA	-ve
Austria	AA+	-ve	Aaa	-ve	AAA	Stable
Finland	AAA	-ve	Aaa	Stable	AAA	Stable
Ireland	BBB+	-ve	Ba1	-ve	BBB+	-ve
Portugal	BB	-ve	Ba3	-ve	WD	-ve
Greece	CCC	-ve	C		CCC	

Source: DMOs, Citi estimates, Bloomberg

EUR: Coupons & Redemptions (next 3mths)

Figure 109. EMU-11 Redemptions over the next three months (€bn)

	Redemptions = €141bn										
Redemptions	DEU 33	FRA 32	NLD 0	ITA 51	ESP 15	BEL 9	AUT 0	FIN 0	PRT 0	GRC 0	IRL 1
(Thu) 20-Sep-12		12.4									
(Fri) 28-Sep-12						9.2					
(Sun) 30-Sep-12											0.0
(Fri) 12-Oct-12	16.0										
(Mon) 15-Oct-12				18.4							0.5
(Thu) 25-Oct-12		20.1									
(Wed) 31-Oct-12					15.0						
(Thu) 01-Nov-12				13.5							
(Fri) 14-Dec-12	17.0										
(Sat) 15-Dec-12				18.7							

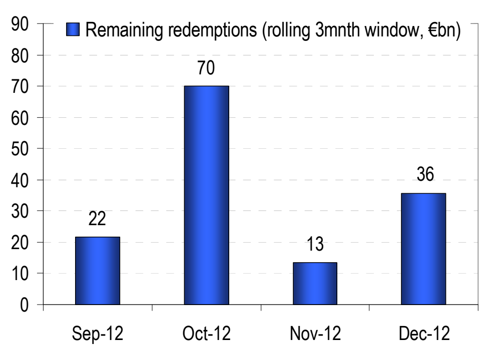
Source: DMOs, Bloomberg, Citi estimates

Figure 110. EMU-11 Coupon Payments over the next three months (€bn)

	Coupons = €39bn										
Coupons	DEU 2	FRA 16	NLD 0	ITA 8	ESP 4	BEL 5	AUT 1	FIN 0	PRT 2	GRC 0	IRL 1
(Thu) 20-Sep-12	0.0	0.1									
(Sun) 23-Sep-12									0.5		
(Tue) 25-Sep-12		0.4									
(Fri) 28-Sep-12						4.9					
(Sun) 30-Sep-12											0.0
(Mon) 01-Oct-12				0.2							
(Tue) 09-Oct-12	0.3										
(Wed) 10-Oct-12	0.4										
(Thu) 11-Oct-12	0.6										
(Fri) 12-Oct-12	0.7										
(Sun) 14-Oct-12	0.2										
(Mon) 15-Oct-12				1.4					0.9		
(Tue) 16-Oct-12									0.3		
(Thu) 18-Oct-12											1.5
(Sat) 20-Oct-12							0.9				
(Thu) 25-Oct-12		15.4							0.4		
(Wed) 31-Oct-12					3.9						
(Thu) 01-Nov-12				4.2							
(Thu) 15-Nov-12				0.4							
(Thu) 22-Nov-12							0.2				
(Sat) 01-Dec-12				0.8							
(Thu) 13-Dec-12	0.0										
(Fri) 14-Dec-12	0.2										
(Sat) 15-Dec-12				0.8							

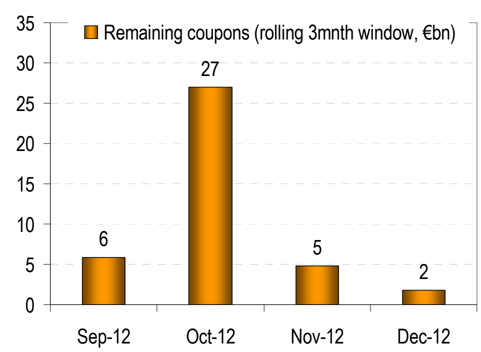
Source: DMOs, Bloomberg, Citi estimates

Figure 111. EMU-11 remaining redemptions over the next 3months (€bn)



Source: DMOs, Bloomberg, Citi estimates

Figure 112. EMU-11 remaining coupons over the next 3months (€bn)



Source: DMOs, Bloomberg, Citi estimates

Inflation Forecasts, Carry & Weekly Changes

Figure 113. Citi Inflation Forecasts

Month	EUR HICPxT Index Forecast	EUR HICPxT MoM Change	EUR HICPxT YoY Change	France CPIxT Index Forecast	France CPIxT MoM Change	France CPIxT YoY Change	UK RPI Index Forecast	UK RPI MoM Change	UK RPI YoY Change	US CPURNSA Index Forecast	US CPURNSA MoM Change	US CPURNSA YoY Change
Aug 12	115.10	0.4	2.6	125.06	0.7	2.0	243.00	0.4	2.9	230.38	0.6	1.7
Sep 12	115.80	0.6	2.4	125.41	0.3	2.4	243.90	0.4	2.5	231.10	0.3	1.9
Oct 12	116.18	0.3	2.4	125.27	-0.1	2.1	244.30	0.2	2.6	231.10	0.0	2.1
Nov 12	116.28	0.1	2.4	125.52	0.2	2.0	244.60	0.1	2.6	231.20	0.0	2.2
Dec 12	116.73	0.4	2.5	126.01	0.4	2.0	245.90	0.5	2.7	231.00	-0.1	2.4
Jan 13	115.71	-0.9	2.4	125.30	-0.6	1.8	244.40	-0.6	2.7	231.90	0.4	2.3

Shaded = Already released

Source: Citi Research, Bloomberg

Figure 114. US TIPS Inflation- Linked Carry (based on forecasts above) – One week changes

Bond	RY (%)	Chg (bp)	Carry-adj chg	Carry: RY (bp) 1 Nov	Carry: RY (bp) 1 Dec	Carry: RY (bp) 1 Jan	Ref	BE (bp)	Chg (bp)	Carry-adj chg	Carry: BE (bp) 1 Nov	Carry: BE (bp) 1 Dec	Carry: BE (bp) 1 Jan	ZC Swap - BE Spread (bp)	Chg (bp)
Repo (%)				*0.14*	*0.14*	*0.14*									
TIPS 1/14	-1.48	19	19	27	45	35	US-4.000-02/15/14	171	-18	-23	26	43	33	6	1
TIPS 4/14	-1.42	10	10	22	37	29	US-1.875-04/30/14	166	-9	-13	22	36	27	3	-6
TIPS 7/14	-1.77	13	13	17	28	19	US-2.625-07/31/14	202	-12	-16	16	26	17	8	-2
TIPS 1/15	-1.56	11	11	14	23	17	US-2.250-01/31/15	186	-10	-13	13	22	15	16	-1
TIPS 4/15	-1.54	11	11	13	20	15	US-2.500-04/30/15	185	-9	-12	12	19	13	11	-1
TIPS 7/15	-1.68	7	7	11	18	12	US-4.250-08/15/15	203	-5	-7	10	16	10	20	-5
TIPS 1/16	-1.64	8	8	10	15	11	US-2.625-02/29/16	204	-6	-8	9	14	8	14	-2
TIPS 4/16	-1.57	5	5	9	14	10	US-2.000-04/30/16	199	-3	-5	8	12	8	15	-5
TIPS 7/16	-1.66	4	4	8	13	9	US-4.875-08/15/16	215	-2	-5	7	11	6	18	-5
TIPS 1/17	-1.57	3	3	8	12	9	US-3.125-01/31/17	213	-2	-4	6	10	6	17	-5
TIPS 4/17	-1.55	5	5	7	11	8	US-0.875-04/30/17	217	-3	-5	6	9	5	11	-3
TIPS 7/17	-1.61	1	1	7	11	8	US-4.750-08/15/17	226	-0	-2	5	8	4	17	-6
TIPS 1/18	-1.49	0	0	6	10	7	US-3.500-02/15/18	226	0	-1	5	7	4	15	-5
TIPS 7/18	-1.50	-2	-2	6	9	7	US-4.000-08/15/18	233	3	1	4	6	3	18	-6
TIPS 1/19	-1.34	-7	-7	6	9	7	US-2.750-02/15/19	231	7	6	4	6	3	19	-10
TIPS 7/19	-1.33	-8	-8	5	8	6	US-3.625-08/15/19	241	9	8	4	5	2	20	-10
TIPS 1/20	-1.20	-7	-7	5	8	7	US-3.625-02/15/20	239	7	6	3	5	2	21	-7
TIPS 7/20	-1.14	-8	-8	5	8	6	US-2.625-08/15/20	246	8	6	3	4	2	22	-7
TIPS 1/21	-0.99	-9	-9	5	8	6	US-3.625-02/15/21	238	7	6	3	4	2	28	-6
TIPS 7/21	-0.95	-9	-9	4	7	6	US-2.125-08/15/21	247	7	6	3	4	1	25	-6
TIPS 1/22	-0.83	-9	-9	4	7	6	US-2.000-02/15/22	246	7	6	2	3	1	24	-5
TIPS 7/22	-0.80	-8	-8	4	7	6	US-1.625-08/15/22	253	6	6	2	3	1	23	-4
TIPS 1/25	-0.48	-13	-13	4	6	6	US-7.625-02/15/25	245	11	10	2	2	0	36	-8
TIPS 1/26	-0.34	-13	-13	4	6	6	US-6.000-02/15/26	247	11	11	2	2	0	35	-8
TIPS 1/27	-0.27	-11	-11	4	6	6	US-6.625-02/15/27	249	10	9	1	2	0	35	-7
TIPS 1/28	-0.19	-10	-10	3	6	5	US-6.125-11/15/27	248	9	9	1	2	0	37	-6
TIPS 4/28	-0.15	-12	-12	4	6	6	US-5.500-08/15/28	251	12	11	2	2	0	33	-9
TIPS 1/29	-0.16	-11	-11	3	5	5	US-5.250-02/15/29	255	10	10	1	2	0	31	-7
TIPS 4/29	-0.13	-11	-11	4	6	6	US-5.250-02/15/29	253	10	10	1	2	0	33	-8
TIPS 4/32	-0.05	-11	-11	3	5	5	US-5.375-02/15/31	252	10	9	1	1	0	36	-8
TIPS 2/40	0.28	-9	-9	2	4	4	US-4.625-02/15/40	249	4	4	1	1	0	39	-4
TIPS 2/41	0.31	-10	-10	2	4	4	US-4.750-02/15/41	249	5	4	1	1	0	40	-4
TIPS 2/42	0.37	-10	-10	2	3	3	US-3.125-02/15/42	252	5	5	0	1	-1	36	-5

Source: Citi Research

Figure 115. EUR Inflation- Linked Carry (based on forecasts above)- One week changes

Bond	RY (%)	Chg (bp)	Carry-adj chg	Carry: RY (bp) 1 Nov	1 Dec	1 Jan	Ref	BE (bp)	Chg (bp)	Carry-adj chg	Carry: BE (bp) 1 Nov	1 Dec	1 Jan	ZC Swap - BE Spread (bp)	Chg (bp)
Repo (%)				0.09	0.08	0.07									
BTPei14	0.65	-31	-31	18	57	83	BTP 8/14	154	13	4	6	33	46	26	-10
OATei15	-1.35	-9	-9	5	24	33	FFRG 4/15	168	13	8	4	22	29	26	-10
BUNDei16	-1.16	-6	-6	4	20	27	BUND 1/16	134	4	-1	4	19	26	30	-0
BTANi16	-1.12	-6	-6	12	17	12	FFRG 4/16	170	11	7	11	15	8	44	-10
BTPei16	2.15	-28	-28	13	35	51	BTP 8/16	112	20	16	4	18	25	74	-17
OATi17	-0.86	-1	-1	10	15	11	FFRG 4/17	175	7	4	8	11	6	43	-5
BTPei17	2.53	-27	-27	12	30	43	BTP 8/17	125	21	17	3	13	18	62	-17
BOBLei18	-0.83	-3	-3	3	13	19	BUND 1/18	146	1	-2	2	11	15	31	2
OATei18	-0.37	2	2	4	14	20	FFRG 4/18	159	4	1	2	10	13	37	-1
OATi19	-0.33	-1	-1	8	12	10	FFRG 4/19	185	8	6	6	8	3	44	-5
BTPei19	3.01	-26	-26	9	23	33	BTP 9/19	128	20	18	2	10	13	68	-17
BUNDei20	-0.55	1	1	3	11	15	BUND 1/20	161	-1	-3	2	8	11	29	4
OATei20	0.00	2	2	4	12	17	FFRG 4/20	181	6	4	1	7	10	25	-3
BTPei21	3.42	-21	-21	8	19	28	BTP 9/20	110	14	11	1	7	9	98	11
OATei22	0.28	3	3	3	10	14	FFRG 4/21	176	5	3	1	5	7	41	-2
BUNDei23	-0.32	0	0	2	8	11	BUND 1/22	178	1	-1	1	5	6	32	2
OATi23	0.27	-0	-0	6	9	8	FFRG 10/23	219	9	7	3	4	1	28	-5
BTPei23	3.63	-18	-18	7	17	24	BTP 8/23	136	9	8	1	6	8	83	-7
BTPei26	3.86	-17	-17	6	15	21	BTP 3/26	144	9	7	1	5	6	85	-6
OATei27	0.64	8	8	3	8	11	FRTR 4/26	211	-0	-2	0	3	4	22	3
OATi29	0.59	7	7	5	7	7	FFRG 4/29	237	1	-1	2	2	0	15	2
OATei32	0.74	6	6	2	6	9	FFRG 10/32	233	1	-0	0	2	3	6	1
BTPei35	3.89	-18	-18	4	10	14	BTP 8/34	184	11	10	0	2	2	55	-9
OATei40	0.81	6	6	2	5	6	FFRG 10/38	242	2	1	0	1	1	5	0
BTPei41	3.87	-15	-15	4	9	12	BTP 9/40	188	9	8	-1	1	1	60	-6

Source: Citi Research

Figure 116. UK Gilts Inflation- Linked Carry (based on forecasts above)- One Week Changes

Bond	RY (%)	Chg (bp)	Carry-adj chg	Carry: RY (bp) 1 Nov	1 Dec	1 Jan	Ref	BE (bp)	Chg (bp)	Carry-adj chg	Carry: BE (bp) 1 Nov	1 Dec	1 Jan	ZC Swap - BE Spread (bp)	Chg (bp)
Repo (%)				0.41	0.40	0.39									
UKTi'16	-1.95	4	4	2	3	5	UKT 9/16	245	-3	-2	1	3	4	29	-12
UKTi'17	-1.62	-1	-1	4	8	8	UKT 3/18	245	2	2	3	6	5	25	-15
UKTi'20	-1.09	2	1	2	4	6	UKT 3/20	232	-3	-3	1	2	2	39	-9
UKTi'22	-0.75	-2	-2	3	6	7	UKT 3/22	236	-0	-1	1	3	2	49	-11
UKTi'24	-0.48	1	0	2	4	6	UKT 3/25	247	-3	-3	0	1	1	44	-8
UKTi'27	-0.19	1	1	2	5	6	UKT 12/27	247	-3	-4	1	2	1	49	-7
UKTi'29	-0.03	1	1	2	4	5	UKT 12/30	256	-3	-3	0	1	1	41	-8
UKTi'30	-0.11	3	3	2	3	5	UKT 6/32	277	-5	-5	0	0	0	27	-6
UKTi'32	0.03	4	3	2	4	5	UKT 6/32	262	-5	-5	0	1	0	45	-6
UKTi'34	0.13	3	3	2	4	4	UKT 9/34	267	-5	-5	0	1	0	39	-6
UKTi'35	0.10	5	5	2	3	4	UKT 3/36	279	-6	-6	0	0	-1	31	-5
UKTi'37	0.17	4	4	2	3	4	UKT 12/38	279	-5	-5	0	0	0	34	-5
UKTi'40	0.21	5	5	2	3	4	UKT 9/39	281	-6	-7	0	0	-1	34	-4
UKTi'42	0.22	5	5	1	3	3	UKT 12/42	287	-6	-7	0	0	-1	34	-4
UKTi'44	0.26	3	3	1	2	3	UKT 12/42	282	-5	-5	0	0	-1	37	-5
UKTi'47	0.25	4	4	1	2	3	UKT 12/46	290	-6	-6	0	0	-1	33	-4
UKTi'50	0.28	3	3	1	2	3	UKT 12/49	291	-7	-7	0	0	-1	32	-3
UKTi'55	0.26	4	4	1	2	3	UKT 12/55	293	-8	-8	0	0	-1	33	-3
UKTi'62	0.26	2	2	1	2	2	UKT 1/60	292	-7	-7	0	-1	-1	34	-4

Source: Citi Research

Summary of Recent Publications

Date	Publication	Topic	Page	Region
20-Sep-12	NOTE	Global Month-End Index Projections: Month-End Support for France and Italy	-	Global
13-Sep-12	IIRS	Euro Money Markets	8	EUR
		Will Draghi's Words Be Enough?	10	EUR
		Assessing the Impact of a Theoretical OMT on the Italian Market	13	EUR
		Moody's Review of Spain's Rating	19	EUR
12-Sep-12	NOTE	Rates Strategy: Assessing the impact of a theoretical OMT on the Italian market	-	EUR
06-Sep-12	IIRS	Draghi Delivers, As Expected	8	EUR
		Fading the steepness of long-end OATs	11	EUR
		Opportunities in Belgian Principal Strips	12	EUR
		SSA Issuer Focus: European Union	13	EUR
04-Sep-12	NOTE	UK Rates Strategy: Attractive value in 30yr gilts ahead of auction	-	Global
30-Aug-12	IIRS	Overview: Exceptional times, exceptional measures?	8	EUR
		EMU-11: September Supply Outlook	11	EUR
		Inflation: risk-off threat to euro break-evens	14	EUR
		Futures calendar spread summary (U2-Z2)	17	Global
30-Aug-12	NOTE	EUREX and LIFFE Calendar Rolls: Schatz, Bobl, Bunds and Gilts	-	Global
29-Aug-12	NOTE	Euro Rates Strategy: EMU-11: September Supply Outlook	-	EUR
24-Aug-12	NOTE	Global Month-End Index-Linked Index Projections	-	Global
23-Aug-12	IIRS	Overview: Risks moving into September	10	EUR
		Falling coupon support for periphery supply	13	EUR
		Periphery front-ends remain vulnerable	14	EUR
		Update on Sovereign Ratings Forecasts	15	Global
		Bund Calendar Roll: RXU2-RXZ2	16	EUR
		Bobl Calendar Roll: OEU2-OEZ2	17	EUR
		Schatz Calendar Roll: DUU2-DUZ2	18	EUR
		End-August EGBI / WGBI Projections	19	Global
23-Aug-12	NOTE	Global Month-End Index Projections: Support for Germany, Belgium and Ireland	-	Global
16-Aug-12	IIRS	Overview	8	EUR
		Two Opportunities in Core Europe	9	EUR
		Liquidity snapshot in euro government debt	12	EUR
		10yr Gilts vs Treasuries	14	Global
		Where is carry most attractive?	15	Global

Global Rates Team

Figure 117. Citi Global Interest Rate Strategy Team, *For informational purposes only*

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