

Developed Market Rates

15 March 2012 | 52 pages

International Interest Rate Strategist

Is this the start of a new bearish trend?

- **Overview:** The price action in the last few days has been brutal with core yields surging higher. Our base case is that this is not the start of a sustained bear market, but is more likely a move to a new, higher, yield range. We maintain our view that Treasuries will underperform Bunds over the longer-term on economic divergence.
- **EMU spreads:** We examine the recent outperformance of Belgium and Italy and conclude that the market is now focusing more on deficits than debt burdens. More generally, we expect EMU spreads to tighten further, albeit at a slower pace.
- **Greek CDS Auction:** On Monday 19th March, a bond auction will occur to establish the final recovery price to be used in settling Greek CDS contracts. We expect the auction to go relatively smoothly and for the final recovery value to be at the lower end of expectations.
- **EMU RV Trades:** We highlight four RV trades to take advantage of upcoming coupon payments in Belgium and the steepness of 2s10s. We also present eight other relative value trades in EMU markets.

Mark Schofield

+44-20-7986-9224

mark.schofield@citi.com

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

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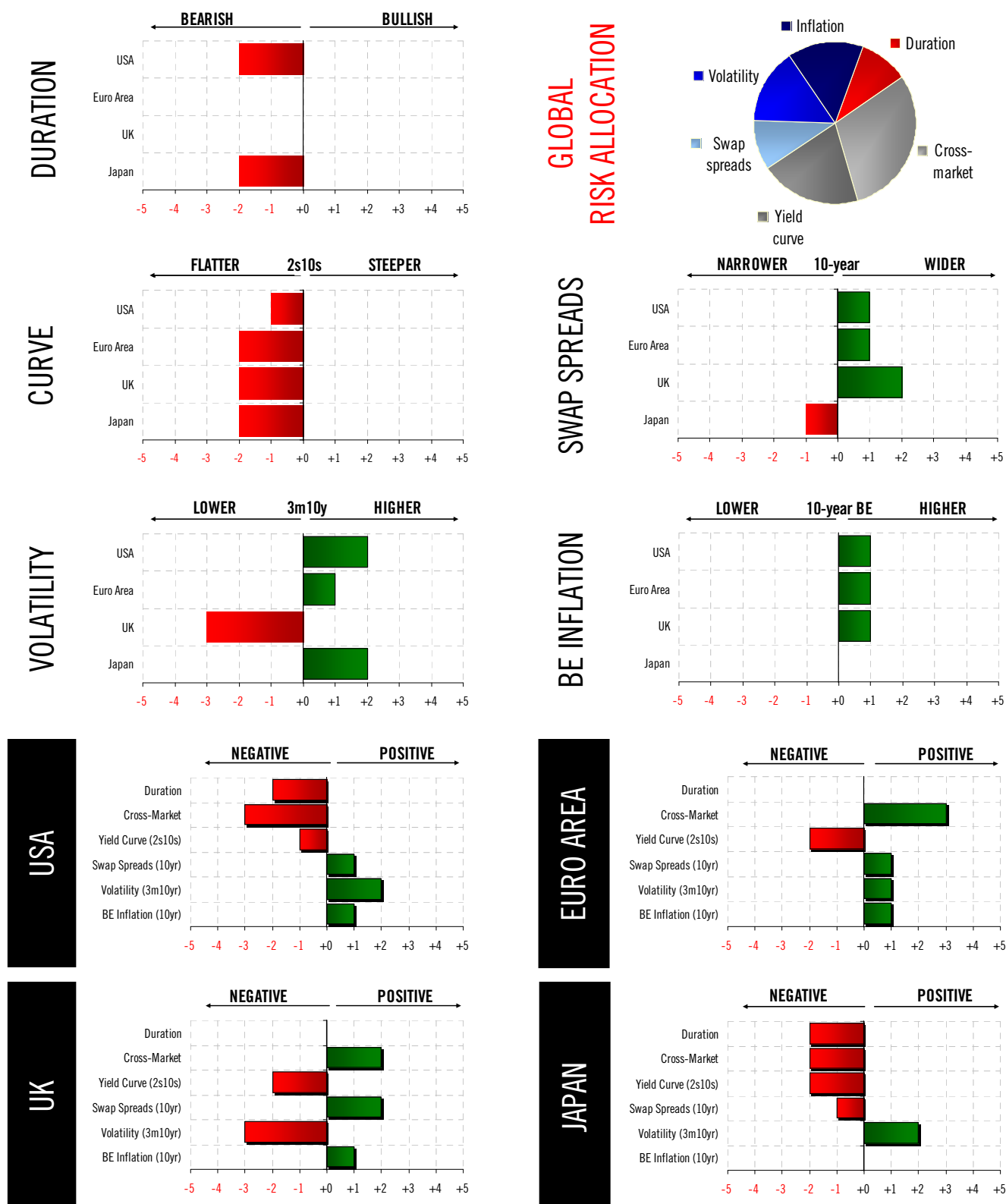
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Figure 1. Strategy Summary Table

GLOBAL	View	Strategies
Direction	Core markets have come under severe pressure with both USTs & gilts breaking recent ranges. Bunds are testing the wide end of ranges and we think the 2% level may provide some resistance. We do not believe this marks the beginning of a sustained bear market, especially given aggressive central bank liquidity provision, but rather a move into a new, higher, range.	Buy on dips.
Yield Curve	We still favour medium term long-end led flattening in Gilts on the back of expanded QE. Diminishing growth expectations in the Euro area should see the middle of the curve outperform over the longer term. Prolonged Fed accommodation also bullish for mid-curve.	5s10s30s Bund fly. DBR 5s30s flattener vs EUR 5s30s steepener. Receive EUR 2s5s15s 2yF. Buy Gilt Sep34 vs Dec27 and Dec42
Cross-market	We continue to believe that economic divergence will lead to Bunds outperforming USTs over the longer term. A stabilisation of growth expectations may provide the necessary platform for longer-term macro fundamentals to drive UST underperformance.	Rec 2y2f EUR vs USD. Buy 5yr DSL vs 5yr UST. Long 30yr UKT vs UST.
EMU Spreads	Significant challenges remain in Europe, but the symptoms of stress are being soothed by the LTRO liquidity, which continues to fuel the rally, aided by positioning. 10yr Italy continues to trade at lower yields to Spain and we expect this to continue in the near term.	Preference for Italy over Spain in the near term. France 5s10s flattener vs Germany, or sell 5yr France vs 2s and 10s. Belgium 5s10s flatteners also look appealing.
Swap Spreads	UST and UKT swap spreads likely to be supported in the long end by QE purchases over the long term. Bund swap spreads remain in thrall to swings in risk appetite and broader uncertainty.	Consider a 5s30s swap spread convergence trade in either US Treasuries or Bunds. Any EMU fiscal transfer would reverse the widening in 5-10yr sector while 30s could benefit if the banking crisis worsens. Long 30yr gilt swap spreads.
Inflation	The sell-off has allowed break-evens to widen with TIPS leading the way. Euro break-evens have lagged and look a little cheap vs risky assets. We favour break-even flatteners in the European markets, but still like 10s30s steepeners in TIPS (especially with 10yr supply approaching).	Maintain long position in 5yr French inflation swap vs euro. BTPei14s16s real yield flattener. 10s30s TIPS break-evens steepeners.
Volatility	Volatility seems to have found a base. In Europe, we see good value in using the cheapness of gamma to initiate long duration trades in the front-end of the curve (where carry & roll is still elevated). GBP volatility still remains too high on a relative basis.	Buy EUR 3y1y Receiver (ATMF).
Risk Allocation	Headline risk remains high and the EMU crisis far from resolved. Huge liquidity injection and aggressive CB accommodation in policy make tail risk scenarios less likely in our view. Cross-market spread trades remain more attractive than duration or curve risk at the moment.	

Source: Citi Investment Research and Analysis

Figure 2. Global Summary



Source: Citi Investment Research and Analysis

Tradesheet

Record of Closed Trades

Figure 3. Record of our Closed Trades

Country	Trade	Levels	Rationale	
UK	Buy 30yr UK Gilt	Open 3.21%		
	Buy UKT 4.5% Dec42 at 3.22%	Current 3.43%	Hit Stop 14 Mar 2012	
<i>Duration</i>		P&L -0.22%		
		Target 3%	Interest Rate Strategy - Trade Ideas: 6 March 12	
		Stop 3.32%		
UK/Germany	Long 10yr UKT vs Bund	Open 35bp		
	Buy UKT 4% Mar22	Current 42bp	Hit Stop 15 Mar 2012	
<i>Cross Market</i>	Sell Bund 2% Jan22	P&L -7bp		
		Target 20bp	Interest Rate Strategy - Trade Ideas: 5 March 12	
		Stop 42bp		
UK	Buy Gilt 3.75% Sep21 vs 4.5% Mar19 and 5% Mar25	Open 24bp		
	Sell Gilt 4.5% Mar19	Current 18bp	Hit Target 13 March 2012	
<i>Curve</i>	Buy Gilt 3.75% Sep21	P&L 6bp		
	Sell Gilt 5% Mar25	Target 18bp	The Morning Call 21 February 2012	
		Stop 27bp		
Europe / US	Buy Dec2014 Euribor vs Eurodollar	Open 0.48%		
	Buy ERZ4 at 98.43	Current 0.1%	Hit Target 13 March 2012	
<i>Cross Market</i>	Sell EDZ4 at 98.91	P&L 0.38%		
		Target 0.1%	Interest Rate Strategist 26 January 20112	
		Stop 0.6%		

Source: Citi Investment Research and Analysis

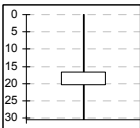
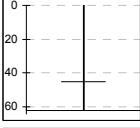
Record of Open Trades

Figure 4. Record of our Open Trades

Country	Trade	Levels	Rationale + Publication Date	
Belgium	Belgium 5s10s flattener	Open 109bp	Belgium 5yr sector is trading rich on the curve, and supply profile supports a flattener	
	Sell OLO 4% Mar17	Current 105bp		
<i>Curve</i>	Buy OLO 4% Mar22	P&L 4bp	Belgium Auction Preview 24 February 2012	
		Target 80bp		
		Stop 125bp		
Europe	Sell EUR 6m15y Strangle and buy OTM receiver	Open 3bp		
	Buy EUR 6m15y receiver (ATMF-10) for 20bps	Current 6bp	Adjustment of GGB swap hedges should put downward pressure on 15yr EUR yields	
<i>Duration</i>	Sell EUR 6m15y receiver (ATMF-35) for 11bps	P&L 3bp		
	Sell EUR 6m15y payer (ATMF+30) for 12bps	Target 25bp	Update on Long Duration Trades, 28 Feb 2012	
		Stop -10bp		
USD/ EUR	Pay USD 2y 2y fwd vs EUR	Open 40bp		
	Pay USD 2y 2y fwd at 1.27%	Current 20.87bp	We expect divergence between UST and core EMU yields	
<i>Cross Market</i>	Receive EUR 2y 2y fwd at 1.67%	P&L 19.13bp	IIRS 23 February 2012	
		Target 0bp		
		Stop 60bp		
US/ Netherlands	Long 5yr DSL vs UST	Open 59bp		
	Buy DSL 2.5% Jan17 at 1.49%	Current 25.25bp	We expect divergence between UST and core EMU yields	
<i>Cross Market</i>	Sell UST 0.875% Feb17 at 0.89%	P&L 33.75bp	IIRS 23 February 2012	
		Target 20bp		
		Stop 75bp		
UK	Buy Gilt 4.5% Sep34 vs 4.25% Dec27 and 4.5% Dec42	Open 26bp		
	Sell Gilt 4.25% Dec27	Current 24bp	RV Trade: 34s will benefit from 7 March coupon payments & the 42s will be re-opened on 15 March	
<i>Curve</i>	Buy Gilt 4.5% Sep34	P&L 2bp		
	Sell Gilt 4.5% Dec42	Target 20bp	UK Rates Strategy 14 February 2012	
		Stop 29bp		
Europe	Buy EUR 3y1y Receiver	Open 56bp		
	Buy EUR 3y1y Receiver (ATMF = 1.88%) at 56bps	Current 60bp	60bps of rolldown on the underlying is very attractive in an extended period of low policy rates & significant additional liquidity measures	
<i>Duration</i>		P&L 4bp	IIRS 9 February 2012	
		Target 100bp		
		Stop 40bp		

Source: Citi Investment Research and Analysis

Figure 5. Record of our Open Trades (continued)

Europe	Buy Germany 5s10s30s	Open 20.5bp Current 17bp	10s30s sector in Bunds has lagged the convergence in core yields. The 5s10s30s butterfly has much better carry and roll than the 2s5s10s alternative <i>Euro Rates Strategy Update 24th January 2012</i>	
<i>Curve</i>	Buy 10yr Bund at 2% Sell 5yr Bobl at 0.95% Sell 30yr Bund at 2.64%	P&L 4bp Target 0bp Stop 30.5bp		
UK / EUR	Receive GBP 20yr 10yr fwd vs EUR	Open 85bp Current 103bp	Steepening of GBP curve relative to USD and EUR looks unsustainable with the BoE likely to increase the size of its QE program <i>Convergence in Rates Markets 9 January 2012</i>	
<i>Cross Market</i>	Receive GBP 20yr 10yr fwd at 3.5% Pay EUR 20yr 10yr fwd at 2.65%	P&L -18bp Target 35bp Stop 115bp		
UK / Germany	Bund 10s30s Steepener vs UK Gilts	Open 45bp Current 46bp	Bund 10s30s should converge with gilt and treasury counterparts as 2s10s have <i>Convergence in Rates Markets 9 January 2012</i>	
<i>Cross Market</i>	Bund 10s30s Steepener at 60bps Gilt 10s30s flattener at 105bps	P&L -1bp Target 0bp Stop 62bp		
UK	UK Real Yield Flatteners	Open 15.5bp Current 20bp	We expect long end supply pressures to provide an opportunity to overweight the very long end of the real yield curve & set up real yield flatteners <i>Morning Call 25 October 2011</i>	
<i>Inflation</i>	Sell UKTI 2027 and buy UKTI 2047 at 15.5bp	P&L -4bp Target -10bp Stop 35bp		
UK	Buy Gilt 4.25% 2039 vs 4.25% 2027 (MMS)	Open 27bp Current 19bp	20yr sector has richened after the APF announcement, but we don't expect this dislocation to persist <i>The Morning Call 12 October 2011</i>	
<i>QE Trade</i>	Buy Gilt 4.25% 2039 vs MMS at +14.5bp Sell Gilt 4.25% 2027 vs MMS at -12.5bp	P&L 8bp Target 10bp Stop 33bp		
UK/Europe	Long 30yr UK vs Germany with a 2y2y hedge	Open 80bp Current 70bp	Different policies in the UK and Eurozone favour buying 30yr UK Gilts vs Bunds. We think it is wise to hedge the risk of a rebound in relative UK growth prospects by paying GBP 2y2y fwd vs EUR <i>IIRS 6 October 2011</i>	
<i>Cross Market</i>	Buy UKT 30yr vs DBR 30yr at +58bp Pay 2yr2fwd GBP vs EUR at +22bp	P&L 10bp Target 20bp Stop 110bp		
UK / Germany	Bund 5s30s steepener vs gilts flattener	Open 62bp Current 48bp	Free-float profile suggests support to UK long end by QE, hedged by EUR steepener against EUR driven risk of mid-curve repricing <i>Interest Rate Strategy Focus on QE 14 Sep2011</i>	
<i>Cross Market</i>	UKT 5s30s flattener at 234bp DBR 5s30s steepener at 172bp	P&L 14bp Target 0bp Stop 100bp		

Source: Citi Investment Research and Analysis

Overview

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

We expect core yields to settle into a new, higher, yield range

Take profits on long ERZ4 vs EDZ4

Is this the start of a new bearish trend?

The price action in the last few days has been brutal with core yields surging higher. Our base case is that this is not the start of a sustained bear market (see below), but is more likely a move to a new, higher, yield range.

In the near-term, the price action has to be respected and we would not fade this move, especially given the risk that a positioning washout triggers a near-term overshoot. However, a further climb in yields is likely to bring out profit-taking and dip buying and we could see sharp pull-backs before we settle into a new range above 2% for 10yr Treasuries.

What triggered the sell-off?

10yr Treasury yields had been confined to a tight 30bp range since November. In the last two days, that range has finally been broken in impressive style (Figure 6). The sell-off was triggered by a combination of the Fed appearing to dampen prospects for QE3 (which has held yields down in recent months) together with the early release of the results of the Fed's bank stress tests. The latter sparked a sharp rally in equities which led Treasury yields over the top. The Fed repeated the expectation that policy rates would be on hold until end-2014, but the market is increasingly calling this into question. Indeed, the sharp front-end re-pricing has taken our [long ERZ4 vs EDZ4](#) recommendation to its target of 10bp (see [Tradesheet](#), page 6).

Figure 6. 10yr Treasuries (%)



Source: Citi Investment Research and Analysis

Figure 7. 10yr Gilts (%)



Source: Citi Investment Research and Analysis

Figure 8. 10yr Bunds (%)



Source: Citi Investment Research and Analysis

Gilt yields have also broken higher, but Bunds are still in the range

While the sell-off was Treasury led, the pain has been felt just as acutely in the Bund and gilt markets. As Figure 7 and Figure 8 show, 10yr gilts have moved decisively above the three month high while 10yr Bunds have moved sharply off the lows but remain within the recent trading range.

The price action is poor, but gilt and Bund yields remain near structural lows.

To put these moves into context, Wednesday was the 10th largest one-day sell-off in 10yr gilts over the last five years where as for 10yr Bunds it was the 12th largest. On the flip side, while bears may be getting excited, it is also worth keeping in mind that 10yr gilts and Bunds are still just 43bp and 30bp respectively above the record lows and, in our view, it is far too early to consider this the start of a structural bear market.

Our long 30yr gilt and long 10yr gilt vs Bunds trades have stopped out

Gilts not helped by expectations of more longer-dated issuance

The gilt market has been hit particularly hard, especially in the long-end of the curve. Our recommendation to be [long 30yr gilts](#) breached its stop of 3.32% on 14 March. The 10s30s curve has barely flattened, despite the severity of the bearish move. The underperformance of 30yr gilts can be explained by positioning, today's 2042 auction (which in the event was very well received) and growing expectations of more long-dated issuance. The latter has been fuelled by the announcement that the DMO will hold a consultation on the possibility of issuing a new 100yr maturity or perpetual gilt. Whether or not this comes to fruition, the announcement suggests that the government is keen to lock-in lower borrowing rates over the longest possible time. The gilt remit for FY2012-13 will be announced alongside next week's Budget (21 March). We expect this to show a greater allocation to Longs (see last week's [International Interest Rate Strategist](#)).

Unlike Treasuries and gilts, 10yr Bunds remain in the range. We expect there to be resistance at the 2% level

Bunds supported by excess liquidity

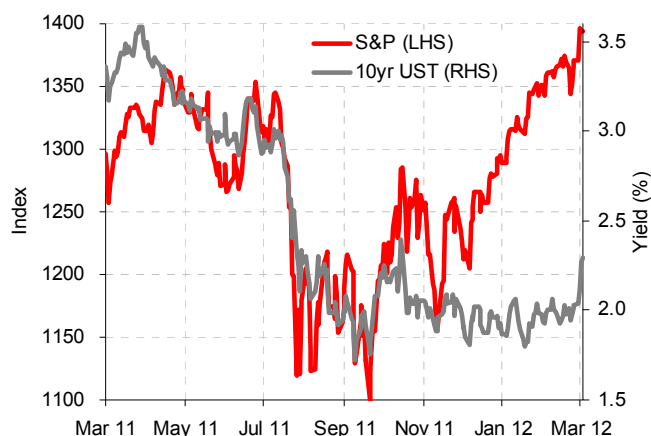
The speed of the sell-off in Bunds has taken us by surprise, but there did seem scope for yields to move higher from the range lows (see [The Morning Call](#) of 13 March). However, the underperformance vs gilts that we envisaged has not materialized and our recommendation to be [long 10yr gilts vs Bunds](#) hit its stop earlier today. Prior to the re-pricing in the last couple of days, Bund yields continued to sit near record lows which seemed incongruous with the 'good news' of the Greek restructuring and the second 3yr LTRO. In the end, it has taken events in the US to take 10yr Bund yields higher, but the range remains intact. Excess liquidity may help to keep Bund yields in the range for now and we expect the 2% level to provide robust resistance. However, much will depend on what happens in Treasuries.

The de-coupling between bonds and equities is likely to persist

Why this is probably *not* the start of a sustained bear market

The severity of the sell-off, and the subtle shift in Fed language, has given encouragement to the bears that the moves over the last few days could be the start of something bigger and that the gap to equities is about to close (Figure 9). We are not convinced that this is the case.

Figure 9. S&P vs 10yr Treasury Yields



Source: Citi Investment Research and Analysis, Bloomberg.

Figure 10. 10yr Treasury, 5yr History



Source: Citi Investment Research and Analysis, Bloomberg.

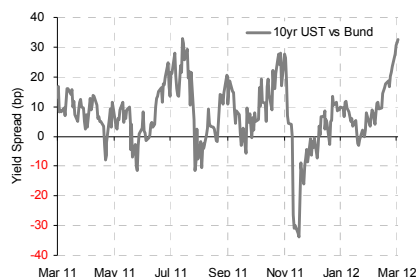
The near-term momentum is for higher yields

We doubt bond yields will trend higher until there are clear signs that central bank policy will reverse

The outside risk is that the sell-off feeds on itself, and Treasury yields gap higher.

This does, however, support our preference for Bunds over Treasuries

Figure 11. 10yr UST vs Bunds



Source: Citi, Bloomberg.

In the near-term, the momentum is certainly for higher yields, but this is likely to be capped by short covering and dip buying. Moreover, we doubt that the fundamental backdrop is as yet conducive to a sustained bearish trend for the simple reason that liquidity remains plentiful and central bank policy is unlikely to reverse soon. Rather, our base case is that yields settle into a new, slightly higher, yield range (or in the case of Bunds, move towards the higher-end of the trading range).

The de-coupling between bonds and equities is likely to persist

Yields are only likely to trend higher, in our view, when there are signs that central banks are much closer to reversing policy. We are still some time away from that in our view. In the meantime, abundant liquidity is likely to continue to support a range of all asset prices. Treasury yields may be pushed higher by rallying equity markets, as in the last few days, but the wide differential between the two asset classes is unlikely to close quickly. Moreover, as we have previously argued, yields are unlikely to move much higher in response to fiscal or inflation risks, except perhaps in the very long-end of the curve (see [IIRS](#) of 9 February). There are also many political risks that could yet scupper a risk rally and if yields were to rise further, this could in turn generate a headwind for the recovery ([IIRS](#) of 8 March). As long as the central banks are on hold, and liquidity is plentiful, we believe that yields will remain at historically depressed levels, despite the impressive gains we have already seen in risky assets.

Risks to our view – could yields gap higher?

A stabilisation of bond yields in a higher yield range and an ongoing de-coupling with risky assets remains our base scenario. However, that is not to say that there is not a risk for significantly higher yields, especially in the Treasury market. Our rates strategy colleagues in New York point out that yields moves between current levels and 3% tend to happen quite quickly (Figure 10). So if another bearish trigger were to be pulled soon, the risk of yields gapping higher would increase. This is especially true given the US team estimate fair value for 10yr Treasuries to be closer to 3%. However, for now, it seems most likely in our opinion that yields will continue to undershoot fundamentally driven scores of value.

Ongoing preference for Bunds vs Treasuries

Risks to higher yields are certainly more acute in the Treasury market than elsewhere. One of our core views for 2012 has been for further divergence between the US and European rates markets. This is primarily based on widening economic prospects. The US economy is showing signs of improvement, but we expect that we will be talking about recession in the euro area for some time to come. The yield spread between 10yr Treasuries and Bunds is already at the one-year wide (Figure 11), but we expect differential to widen further in the quarters ahead.

Strategies

After such large moves, a number of our outstanding recommendations have inevitably hit targets or stops (see the *Tradesheet* on page 6 for full details).

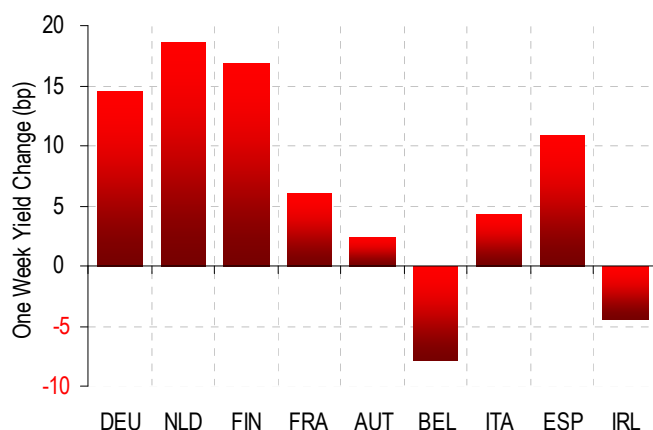
- **What's working?** We continue to like positioning for US underperformance vs euro both in the front-end and long-end. Our long ERZ4 vs EDZ4 trade has hit its target, but paying 2y2y USD vs EUR has further to go (we target 0bp).
- **What's not?** We have stopped out of our long gilt recommendation both outright (in 30s) and vs Bunds (in 10s).

Why are Belgium and Italy outperforming?

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

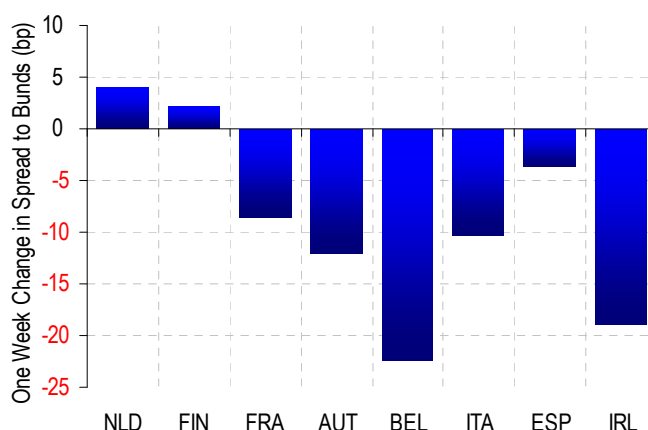
Away from the chaos in the core markets, peripheral yields have enjoyed a relatively stable week (Figure 12). The sell-off in Bunds has allowed spreads to tighten with Belgium a notable outperformer (Figure 13). This week's strong performance of EMU spreads was all the more impressive given the heavy supply burden. Italy, Spain and Belgium all faced issuance, but all were met with healthy demand. This supports our view that EMU spread tightening can continue in the near-term, especially given the wall of cash provided by the LTRO. It is also noteworthy that Italy has continued to outperform Spain. The spread has come a long way, but we see scope for Italy to make further modest gains (see [The Morning Call: Prospects for Italy & Spain](#), 14 March).

Figure 12. One Week 10yr Yield Changes



Source: Citi Investment Research and Analysis

Figure 13. One Week 10yr Spread (vs Bunds) Changes

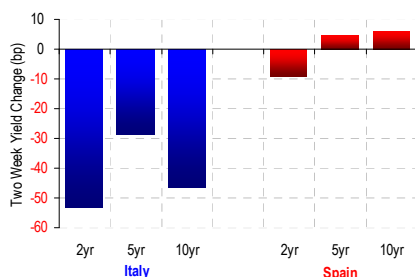


Source: Citi Investment Research and Analysis

The periphery rally is likely to continue, albeit at a slower pace

The easiest part of the periphery rally is probably now behind us. There remain plenty of risks, especially regarding fiscal slippage. Growth assumptions look too optimistic across many countries and ambitious fiscal targets are likely to be missed in our view. However, we believe the rally can continue, albeit at a slower pace.

Figure 14. Yield Changes Since 2nd 3yr LTRO



Source: Citi Investment Research and Analysis

It is already notable that yields in Spain have stabilised in recent weeks (Figure 14). Italian yields continue to surge lower, but we expect the pace of the decline to slow. In the last couple of weeks, 10yr BTP yields have fallen below 5% and are now trading at richer levels than Spain. Both are important landmarks and further gains for BTPs are likely to be harder work.

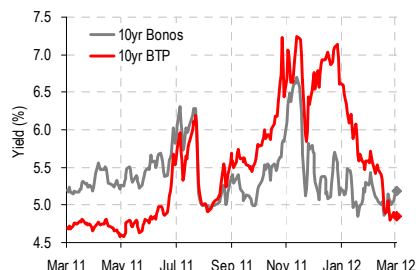
Domestic investors are already showing signs of adopting a more opportunistic approach. There is a lot of money yet to be put to work, but buying is likely to become more discerning from here. Auctions, in particular, are likely to be viewed as an opportunity to buy at a discount and any concessions are likely to be met with strong demand. This week's auctions were all in the front-end, as supply responds to demand, but the months ahead may see Spain and Italy look to tap the longer-end of the curve.

The LTRO wall

For now, the 3yr LTRO is likely to provide a wall against sustained spread widening. The 3yr LTROs have sufficiently altered the risk-reward to make spread wideners unappealing, even at these much tighter levels. However, the longer-term macro risks are likely to continue to deter non-domestic investors from engaging in a meaningful way, suggesting a period of relatively low spread volatility ahead.

Why are Belgium and Italy outperforming?

Figure 15. 10yr Italy vs Spain



Source: Citi Investment Research and Analysis

In the last few weeks and months, both Italy and Belgium have been notable outperformers. Belgium received a boost this week from the announcement of additional budget savings worth €2.5bn for 2012 and from the successful 20yr syndication. The syndication sent an important signal given the perceived difficulties facing non-core countries with regard to long-end issuance. Italy has clearly benefited from the 3yr LTROs which have galvanized the domestic investor base and, perhaps fortunately, from the lack of bad news on the deficit. In contrast, Spain has seen less obvious benefit from the second 3yr LTROs given domestics were already much more active and yields had already fallen a long way (Figure 15). Moreover, Spain has faced negative headlines in recent weeks given the revisions both to last year's deficit and the target for 2012.

The latest deficit news in both Belgium and Spain is pertinent. In the background, the market now appears to be focusing more on deficits than debt burdens. This makes sense in the context of the fall in yields and the implications for debt servicing costs. The four charts below capture this shift in very simple terms. The upper two charts show yields vs debt/GDP ratios (using Citi forecasts for 2012) in late 2011 and now. The relationship has weakened. In contrast, the equivalent regressions for the deficit (lower charts) vs yields show a strengthening relationship.

Figure 16. Yields vs Debt to GDP, Late 2011

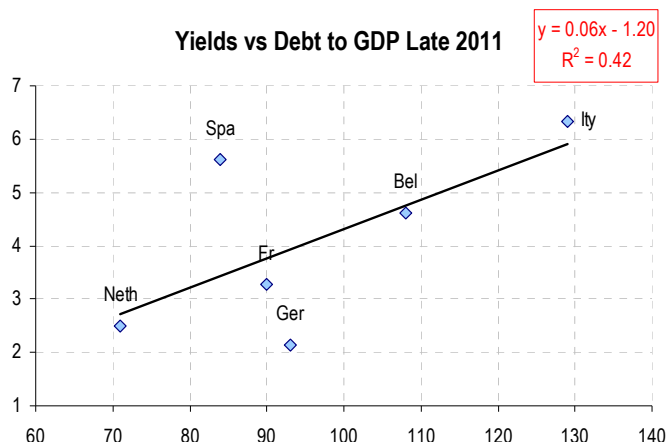


Figure 17. Yields vs Debt to GDP, Now

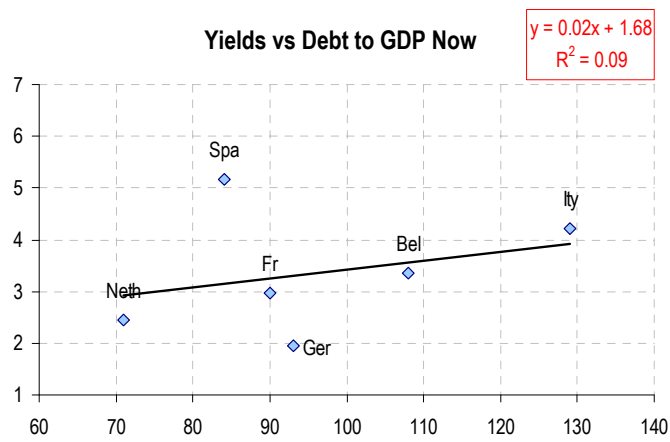


Figure 18. Yields vs Deficit, Late 2011

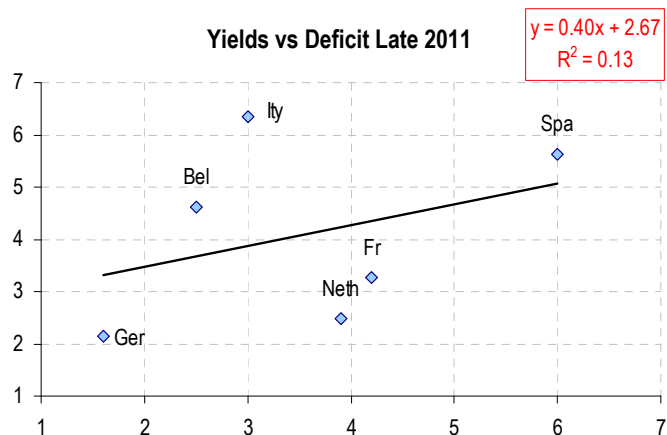
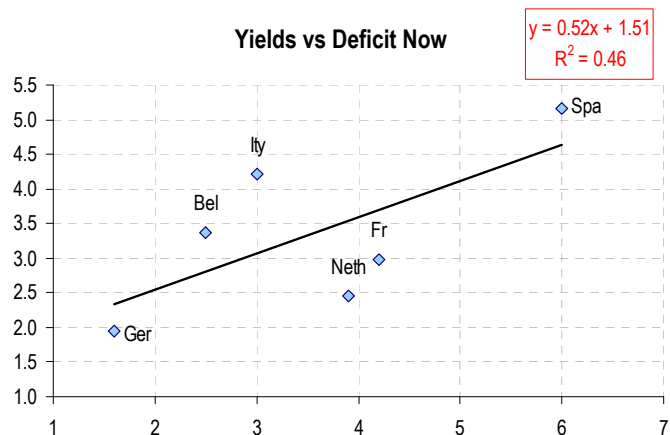


Figure 19. Yields vs Deficit, Now



Source: Citi Investment Research and Analysis, Bloomberg.

Source: Citi Investment Research and Analysis, Bloomberg.

These simple regressions hold no predictive power, but help to illustrate one factor which may have contributed to the strong performance of Belgium and Italy in recent months. Namely that both countries have relatively high debt burdens but relatively low deficits. So while both were previously punished for the high stock of debt, the fall in yields has been particularly beneficial for these countries as debt servicing costs have reduced.

The outperformance of Italy vs Spain is unlikely to reverse

To conclude, we believe that EMU spreads will continue to benefit from the backstop provided by the 3yr LTRO. There is more money to be put to work which should support issuance, as we have seen this week. The market is likely to remain sensitive to any news on deficit targets which are still, in our view, based on far too optimistic growth assumptions. Further falls in BTP yields are likely to be harder work from here, but we expect the outperformance versus Spain to continue as LTRO liquidity continues to drip into government bond markets. This is despite the much greater progress of Spain in meeting its 2012 funding need (we estimate Spain's issuance will be 43% complete following this week's auction vs just 22% for Italy). LTRO-related flows are, for now, likely to outweigh all other factors.

Strategies

- Use auction concessions in Spain/Italy as a short-term buying opportunity
- The LTRO wall supports further EMU spread tightening. We prefer buying 10yr Italy vs Germany (given our preference for Italy over Spain).
- Positioning in the 10yr sector also reflects our view that curve extensions are likely to become more prevalent (which also favours flattening strategies)

Greece CDS Auction

Peter Goves

+44-20-7986-3215

peter.goves@citi.com

Michael Hampden-Turner

+44-20-7986-3445

michael.hampdenturner@citi.com

Final Recovery Price for Greek CDS

On Monday 19th March, an auction will occur to establish the final recovery price to be used in settling Greek CDS contracts. We expect the auction to go relatively smoothly and for recovery to be at the lower end of expectations. Protection buyers will receive the payout $(1-R) \times \text{Notional}$ where “R” is the final recovery value used in settlement. In this article we examine the auction mechanics, put the credit event in context and analyse the price distribution of the deliverables in this highly publicized sovereign CDS trigger.

Why this credit event is not necessarily a market negative

Risks concerning the settlement process of Greek CDS have been previously overstated in our view. There are several factors why we think the Greek CDS trigger (determined by ISDA following the invocation of CACs in Greek domestic bonds) is not a significant moment in credit event history that some market participants might have initially feared.

First, as with many derivatives, the mark-to-market on CDS is margined daily. This means that most of the “payments” have already been acknowledged. Variation margin payments increased as Greek CDS spreads rose throughout the EMU crisis. This helps mitigate “lumpy” payments and counterparty risks throughout the credit event and settlement process (unless the auction delivers a surprise recovery).

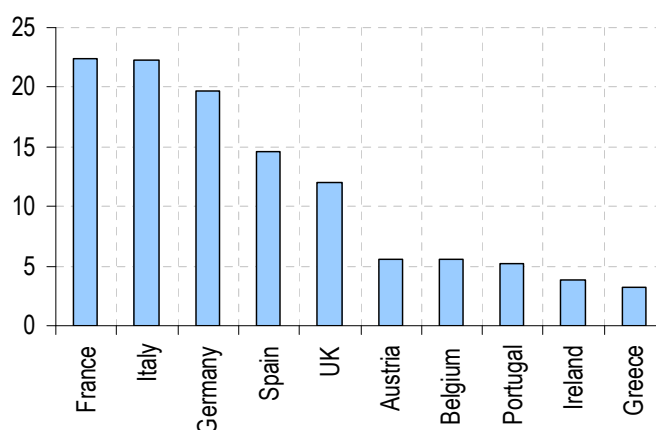
Second, net notional outstandings (the maximum amount of cash that could conceivably change hands assuming a 0% recovery) on Greek CDS have fallen dramatically over recent years. Since late 2009, net notional outstandings have fallen from around \$9bn to just over \$3bn today (Figure 20). This is clearly much smaller than the underlying bond market which, before PSI, stood at over €300bn. As well as falling on an absolute basis, the amount of Greek CDS net outstanding is also small relative to peers in Europe such as France, Italy and Germany (Figure 21).

Figure 20. Greek CDS: Net Notional Outstanding, \$bn



Source: DTCC

Figure 21. Net Notional CDS Outstanding for European Countries, \$bn



Source: DTCC

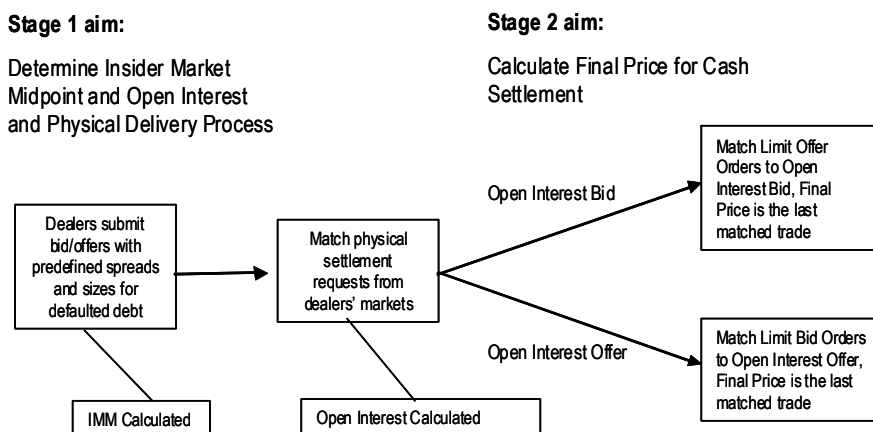
Finally, as argued (*Alphabet Soup: PSI, CACs, CDS, MPC, ECB, OATs and Bunds*), from a market stability perspective, it is a good thing that CDS should trigger and that those who hedged with CDS should get the resultant payment. Failure to trigger CDS in this instance would likely have called into question the whole purpose of CDS as a hedge and undermine the integrity of the broader sovereign credit market. In this sense, a smooth credit event on Monday is a market positive on balance.

How the final recovery price will be determined

The final price to be used in CDS settlement is governed by an established auction tradition. This can be broken down into two stages as illustrated in Figure 22. Here we provide a very brief summary of the auction mechanics and characteristics. An official primer can be found from MarkIt. Further details can also be found in our CDS primer: [Credit derivatives: A primer on CDS, indices and tranches](#).

- **Stage 1:** Dealers make a 2-way market on the assets in question and an “Insider Mid Point” is established which acts a reference price used later in the process. After this initial stage, dealers make bid and offer Physical Settlement Requests to buy and sell the defaulted debt at the same final recovery price.
 - This results in a “net open interest”. Suppose there are \$5bn of requests to sell bonds and \$3bn requests to buy bonds, then the net open interest would be “\$2bn net offer”. These details are typically published 2-3hrs on the Creditex website following the completion of this first stage.
- **Stage 2:** Dealers then submit limit order bids/offers for the open interest. Bids are ranked from highest to lowest when the open interest is “offer” (and vice versa for offers in the contrary case of net open bid interest) and matched with the open interest until the open interest is cleared.

Figure 22. CDS Auction Process, Schematic



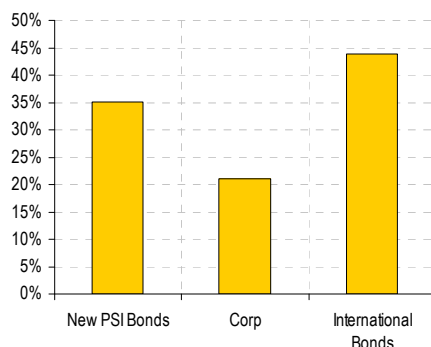
Source: Citi Investment Research and Analysis

The final price is nothing more than the price used in the last matched limit order to the open interest. This is then referenced against the initial market midpoint to ensure prices aren't too divergent (in which case specified rules determine the final price depending on the divergence and the direction of the open interest). This then becomes the price at which CDS settles.

The deliverables

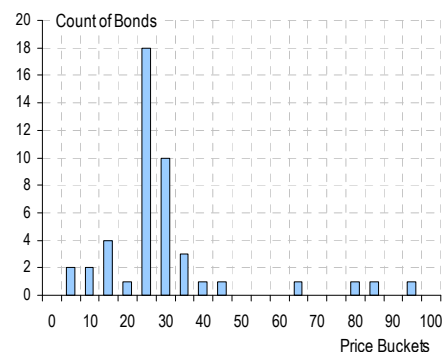
The final list of eligible deliverables was published on 14th March. There are 61 assets available for the auction process mostly including the new PSI bonds, International bonds and corporate bonds. The split can be seen in Figure 23. The price distribution of this deliverable basket is shown in Figure 24. The modal price bucket has bonds trading about 20%-25% of par. The final recovery value will be determined by appetite for the debt amid the auction process as described above.

Figure 23. Deliverables by Type (%)



Source: ISDA, Bloomberg, Citi.

Figure 24. Price Distribution of Deliverables, Count of Bonds per Price Bucket



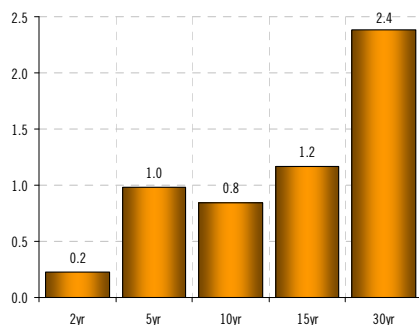
Source: ISDA, Bloomberg, Citi.

In general, we expect the final recovery value to be at the lower end of the current price distribution, partly because it is unlikely that Greek paper will attract particularly strong bids. The final result is due to be published at 3:30pm on Monday 19th March. A smooth credit event is likely to be market positive in terms of broader sentiment and in helping to preserve the integrity of the sovereign CDS market.

As argued above, we do not see significant ramifications stemming from this auction per se. The Greek CDS market is relatively small and the auction process is established with the key intention of determining recovery to reflect losses. Although the auction might therefore end up being something of an anticlimax, it will serve to close one chapter in the seemingly ongoing EMU debt crisis.

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

Figure 25. \$DV01 of OLO Coupons
(€million/bp)



Source: Citi Investment Research and Analysis

RV Trades in Belgium

In this section we display our favourite relative value trades in Belgium that should benefit from two key drivers over the short-term: 1) reinvestment flows from sizeable coupon payments (£6.5bn) from Belgium to be paid on Wednesday 28 March and 2) our 5s10s flattening view in Belgium ([Euro Rates Strategy - EMU Curve Trades & the LTRO](#)).

Coupons and Redemptions

- Coupon payments are spread across all maturities on the OLO curve (Figure 25). For a full breakdown by bond see Figure 33

Butterflies

1. Sell 3.5% Jun17 vs 4% Mar17 and 4% Mar18

Both wings (Mar17s and Mar18s) will pay €0.4bn of coupons each. There are no coupon payments in the belly (Figure 26).

2. Sell 3.75% Sep15 vs 4% Mar14 and 4% Mar18

Both wings (4% Mar14 and 4% Mar18) will pay at least €0.4bn of coupons each. There are no coupons in the belly (Figure 27).

3. Buy 4% Mar18s vs 4% Mar17 and 4% Mar19

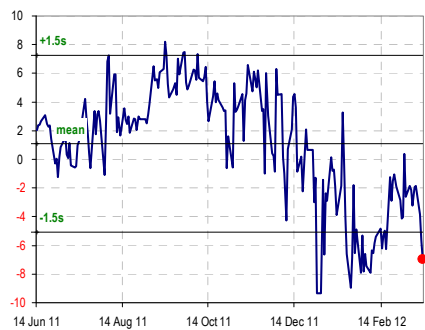
All three bonds will pay €0.4bn of coupons, but the entry level looks attractive.

Figure 26. 3.75% Sep15 vs 4% Mar14 & Mar18



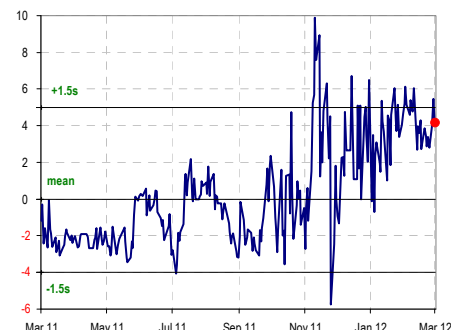
Source: Citi Investment Research and Analysis

Figure 27. 3.5% Jun17 vs 4% Mar17 & 4% Mar18



Source: Citi Investment Research and Analysis

Figure 28. 4% Mar18s vs 4% Mar17 & 4% Mar19



Source: Citi Investment Research and Analysis

Switches that capture a flattening view and upcoming coupons

4. Switch from either 3.5% Jun17 or 5.5% Sep17 and into 4% Mar18 for a yield pick up of at least 10bps (Figure 29 and Figure 30). Mar18s will pay €0.4bn of coupon payments. There are no coupons in Jun17s or Sep17s.

Figure 29. 3.5% Jun17 vs 4% Mar18



Source: Citi Investment Research and Analysis

Figure 30. 5.5% Sep17 vs 4% Mar18



Source: Citi Investment Research and Analysis

Appendix

Relative Value

- Figure 31 shows the five richest & five cheapest bonds versus a fitted yield curve and swaps.

Figure 31. Yield Spread and CAS to Fitted Relative Value Curve (6m History)

Versus Fitted Yield Curve						Versus Swap Curve (CAS)					
	Rank		ZScore	Issued	Size (€bn)		Rank		ZScore	Issued	Size (€bn)
BELGIUM		Richest						Richest			
	1	5.00 Mar35	-1.90	May04	14		1	3.75 Sep15	-1.32	Mar05	11
	2	4.00 Mar17 (5y)	-1.84	Jan07	11		2	4.25 Sep14	-1.31	Jan04	13
	3	3.50 Jun17	-1.32	Mar11	6		3	3.50 Mar15	-1.30	Mar09	10
	4	2.75 Mar16	-0.40	Mar10	10		4	4.00 Mar17 (5y)	-1.28	Jan07	11
	5	3.75 Sep20	-0.38	Jan10	18		5	4.00 Mar14 (2y)	-1.28	Apr08	12
	5	4.00 Mar18	0.90	Jan08	10		5	4.25 Mar41 (30y)	-1.06	Apr10	6
	4	3.50 Mar15	0.90	Mar09	10		4	4.00 Mar22 (10y)	-1.03	May06	14
	3	4.25 Sep22	1.34	Jan12	5		3	5.00 Mar35	-1.01	May04	14
	2	4.25 Sep14	1.54	Jan04	13		2	4.50 Mar26	-0.99	Jun11	4
	1	4.25 Mar41 (30y)	2.33	Apr10	6		1	4.25 Sep22	-0.66	Jan12	5
		Cheapest						Cheapest			

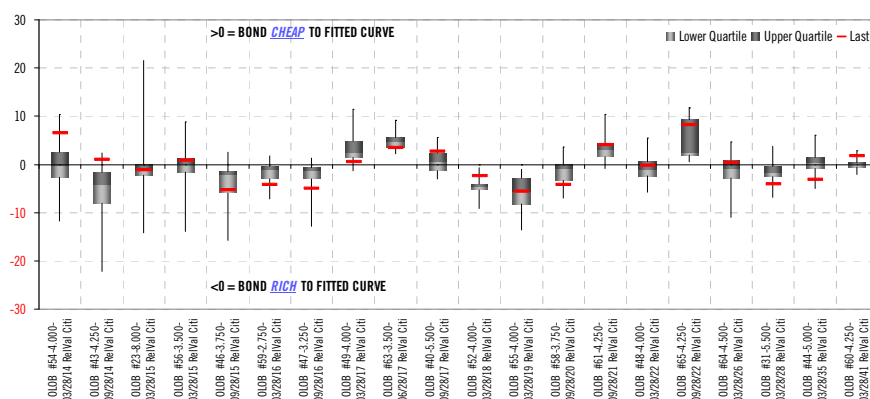
Source: Citi Investment Research and Analysis

- Figure 32 shows the current yield spread between OLOs and a fitted Belgian curve in the context of its 6month history.

Breakdown of Coupon Payments by Bond

- Figure 33 displays all OLOs that will be paying coupons on Wednesday 28 March.

Figure 32. Belgium: Current Bond yield minus Fitted Curve yield (bps), 6m history



Source: Citi Investment Research and Analysis

Figure 33. OLOs paying coupons and redemptions on 28 March

Bond	Size (€bn)
Redeeming: OLOB #57-2.000-03/28/12	3.8
Coupons: OLOB #57-2.000-03/28/12	0.1
Coupons: OLOB #50-4.000-03/28/13	0.5
Coupons: OLOB #54-4.000-03/28/14	0.5
Coupons: OLOB #23-8.000-03/28/15	0.5
Coupons: OLOB #56-3.500-03/28/15	0.3
Coupons: OLOB #59-2.750-03/28/16	0.3
Coupons: OLOB #49-4.000-03/28/17	0.4
Coupons: OLOB #52-4.000-03/28/18	0.4
Coupons: OLOB #55-4.000-03/28/19	0.4
Coupons: OLOB #48-4.000-03/28/22	0.6
Coupons: OLOB #64-4.500-03/28/26	0.2
Coupons: OLOB #31-5.500-03/28/28	0.8
Coupons: OLOB #44-5.000-03/28/35	0.9
Coupons: OLOB #60-4.250-03/28/41	0.5

Source: Citi Investment Research and Analysis

European Relative Value Trades

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

Investors looking to generate returns on a micro level may wish to consider the following relative value trades.

Germany: Taking advantage of the cheapness of 6s, 3s4s switch

Butterfly

1. Buy 4% Jan18 vs 5.625% Sep16 and 3.75% Jan19 (Figure 34)

Flattening Bias

2. Switch from 1.75% Oct15 to 5.625% Sep16 for a 28bps yield pick up (Figure 35)

Figure 34. Germany: 5.625% Sep16, 4% Jan18, 3.75% Jan19 fly (bp)



Source: Citi Investment Research and Analysis

Figure 35. Germany: 5.625% Sep16 – 1.75% Oct15 yield spread (bp)



Source: Citi Investment Research and Analysis

Italy: Taking advantage of the steepness of 2s5s

Flattening Bias

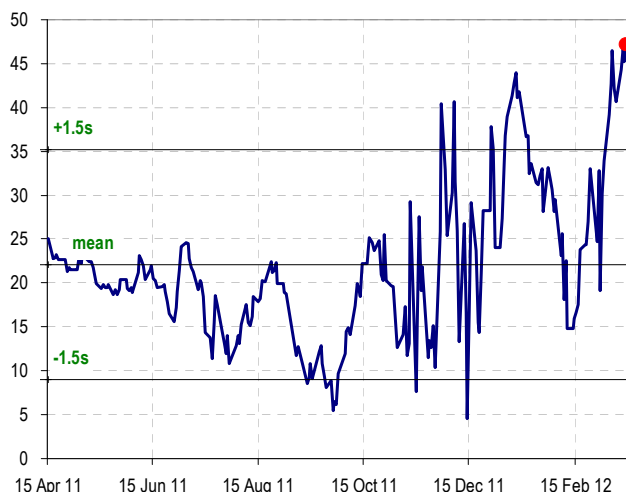
1. Switch from 3% Apr14 to 4.25% Feb15 for a 48bps yield pick up (Figure 36)

Spain: Switch in the 3yr sector

Flattening Bias

1. Switch from 4.4% Jan15 to 3.25% Apr16 for a 90bps yield pick up (Figure 37)

Figure 36. Italy: 4.25% Feb15 - 3% Apr14 yield spread (bp)



Source: Citi Investment Research and Analysis

Figure 37. Spain: 3.25% Apr16 – 4.4% Jan15 yield spread (bp)



Source: Citi Investment Research and Analysis

Netherlands: Taking advantage of the steepness of 2s10s

Flattening Bias

1. Switch from 4.5% Jul17 to 4% Jul18 for a 26bps yield pick up (Figure 38)
2. Switch from 3.25% Jul15 to 4% Jul16 for a 33bps yield pick up (Figure 39)
3. Switch from 2.75% Jan15 to 4% Jul16 for a 50bps yield pick (Figure 40)

Figure 38. Netherlands: 4% Jul18 – 4.5% Jul17 yield spread (bp)



Source: Citi Investment Research and Analysis

Figure 39. Netherlands: 4% Jul16 – 3.25% Jul15 yield spread (bp)



Source: Citi Investment Research and Analysis

Austria: 7s8s switch

Flattening Bias

1. Switch from 4.35% Mar19 to 3.9% Jul20 for a 26bps yield pick up (Figure 41)

Figure 40. Netherlands: 4% Jul16 – 2.75% Jan15 yield spread (bp)



Source: Citi Investment Research and Analysis

Figure 41. Austria: 3.9% Jul20 – 4.35% Mar19 yield spread (bp)



Source: Citi Investment Research and Analysis

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

GERMANY

Versus Fitted Yield Curve						Versus Swap Curve (CAS)						
	Rank		ZScore	Issued	Size (€bn)		Rank		ZScore	Issued	Size (€bn)	
<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>	Richest	1	5.50 Jan31	-1.80	Oct00	17	Richest	1	0.25 Mar14 (2y-DU)	0.70	Feb12	5
		2	3.25 Jan20	-1.47	Nov09	22		2	3.25 Jul42 (30y)	0.90	Jul10	15
		3	2.50 Feb15	-1.47	Jan10	17		3	2.50 Feb15	1.08	Jan10	17
		4	2.25 Sep20	-1.35	Aug10	16		4	2.25 Apr15	1.09	Apr10	19
		5	2.25 Apr15	-1.32	Apr10	19		5	4.25 Jul39	1.09	Jan07	14
		5	2.25 Sep21	1.34	Aug11	16		5	2.25 Apr14	1.61	Mar09	19
		4	0.75 Feb17 (5y)	1.63	Jan12	8		4	3.75 Jan17 (OE)	1.64	Nov06	20
		3	1.25 Oct16	2.16	Sep11	16		3	4.25 Jul18	1.65	May08	21
		2	0.25 Mar14 (2y-DU)	2.17	Feb12	5		2	4.00 Jan18	1.69	Nov07	20
	Cheapest	1	2.25 Apr14	2.42	Mar09	19	Cheapest	1	4.25 Jul17	1.72	May07	19

Source: Citi Investment Research and Analysis

Figure 43 (overleaf) looks at bonds of all maturities. For investors with maturity restrictions we have also provided another set of summary tables (Figure 44 and Figure 45) which looks at bonds shorter than 12 years and longer than 8 years, and uses the same criteria as Figure 43 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 43. 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)				
	Rank		ZScore	Issued	Size (€bn)	Rank		ZScore	Issued	Size (€bn)
GERMANY		Richest					Richest			
	1	5.50 Jan31	-1.80	Oct00	17	1	0.25 Mar14 (2y-DU)	0.70	Feb12	5
	2	3.25 Jan20	-1.47	Nov09	22	2	3.25 Jul42 (30y)	0.90	Jul10	15
	3	2.50 Feb15	-1.47	Jan10	17	3	2.50 Feb15	1.08	Jan10	17
	4	2.25 Sep20	-1.35	Aug10	16	4	2.25 Apr15	1.09	Apr10	19
	5	2.25 Apr15	-1.32	Apr10	19	5	4.25 Jul39	1.09	Jan07	14
	5	2.25 Sep21	1.34	Aug11	16	5	2.25 Apr14	1.61	Mar09	19
	4	0.75 Feb17 (5y)	1.63	Jan12	8	4	3.75 Jan17 (OE)	1.64	Nov06	20
	3	1.25 Oct16	2.16	Sep11	16	3	4.25 Jul18	1.65	May08	21
	2	0.25 Mar14 (2y-DU)	2.17	Feb12	5	2	4.00 Jan18	1.69	Nov07	20
	1	2.25 Apr14	2.42	Mar09	19	1	4.25 Jul17	1.72	May07	19
		Cheapest					Cheapest			
FRANCE		Richest					Richest			
	1	4.25 Oct18	-1.54	Oct07	22	1	3.00 Apr22 (10y)	-1.84	Feb12	6
	2	4.00 Oct14	-1.03	Oct03	20	2	1.75 Feb17 (5y)	-1.48	Feb11	5
	3	3.50 Apr15	-0.99	Apr04	22	3	4.00 Oct14	-0.99	Oct03	20
	4	4.25 Apr19	-0.82	Apr03	28	4	3.50 Apr15	-0.94	Apr04	22
	5	5.75 Oct32	-0.78	Oct00	23	5	4.00 Apr14	-0.93	Apr03	20
	5	2.50 Oct20	0.60	Oct09	29	5	3.75 Apr21	-0.26	Apr05	31
	4	4.25 Oct23	0.61	Oct06	31	4	4.50 Apr41 (30y)	-0.25	Apr09	15
	3	3.75 Oct19	0.85	Oct08	25	3	5.75 Oct32	-0.23	Oct00	23
	2	4.75 Apr35	0.85	Apr03	18	2	4.00 Oct38	-0.22	Oct05	24
	1	3.75 Apr21	1.50	Apr05	31	1	4.75 Apr35	-0.17	Apr03	18
		Cheapest					Cheapest			
ITALY		Richest					Richest			
	1	3.00 Apr14	-2.25	Apr11	15	1	4.00 Feb37	-2.29	Aug05	25
	2	4.50 Mar19	-1.91	Sep08	23	2	5.00 Aug39	-2.23	Aug07	19
	3	5.00 Aug39	-1.74	Aug07	19	3	5.00 Sep40 (30y)	-2.20	Sep09	20
	4	4.75 May17	-1.71	Feb12	4	4	4.50 Mar26	-2.12	Sep10	14
	5	5.75 Feb33	-1.60	Feb02	15	5	5.00 Aug34	-2.10	Aug03	21
	5	3.75 Aug15	1.05	Feb05	26	5	3.00 Apr15	-1.65	Jan10	20
	4	5.00 Sep40 (30y)	1.29	Sep09	20	4	3.75 Aug16	-1.65	Feb06	27
	3	4.75 Sep21	1.46	Mar11	22	3	4.00 Feb17 (5y)	-1.64	Aug06	23
	2	3.75 Aug21	1.56	Feb06	27	2	3.75 Aug15	-1.60	Feb05	26
	1	3.75 Mar21	1.80	Sep10	23	1	4.75 May17	-1.46	Feb12	4
		Cheapest					Cheapest			
N'LANDS		Richest					Richest			
	1	0.75 Apr15	-1.57	Jan12	3	1	0.75 Apr15	-0.60	Jan12	3
	2	4.00 Jan37	-1.40	Apr05	12	2	2.75 Jan15	-0.43	Jul09	13
	3	4.50 Jul17	-1.37	Jul07	15	3	3.75 Jul14	-0.02	Mar04	14
	4	2.75 Jan15	-1.00	Jul09	13	4	3.25 Jul15	0.21	Jun05	14
	5	3.25 Jul21	-0.89	Mar11	11	5	4.00 Jul16	0.76	Jul06	13
	5	4.00 Jul16	0.21	Jul06	13	5	3.50 Jul20	1.37	Feb10	15
	4	3.25 Jul15	0.24	Jun05	14	4	3.25 Jul21	1.43	Mar11	11
	3	4.00 Jul19	0.46	Feb09	13	3	3.75 Jan23	1.52	Jan06	10
	2	3.50 Jul20	0.80	Feb10	15	2	3.75 Jan42 (30y)	1.66	May10	10
	1	3.75 Jan42 (30y)	1.04	May10	10	1	4.00 Jan37	1.93	Apr05	12
		Cheapest					Cheapest			
SPAIN		Richest					Richest			
	1	4.40 Jan15	-2.57	Jun04	18	1	3.40 Apr14	-1.22	Apr11	14
	2	4.10 Jul18	-1.38	Feb08	16	2	4.40 Jan15	-1.17	Jun04	18
	3	5.85 Jan22 (10y)	-1.32	Nov11	4	3	3.30 Oct14	-1.15	Jul09	17
	4	3.30 Oct14	-1.13	Jul09	17	4	3.00 Apr15	-1.05	Mar10	18
	5	3.40 Apr14	-1.11	Apr11	14	5	3.25 Apr16	-0.89	Nov10	14
	5	3.25 Apr16	0.70	Nov10	14	5	4.80 Jan24	-0.44	Sep08	15
	4	4.25 Oct16	0.70	Sep11	7	4	4.30 Oct19	-0.41	Jun09	15
	3	3.00 Apr15	0.78	Mar10	18	3	4.85 Oct20	-0.38	Jul10	16
	2	4.65 Jul25	0.91	Feb10	14	2	4.65 Jul25	-0.38	Feb10	14
	1	3.15 Jan16	1.78	Sep05	16	1	4.00 Apr20	-0.32	Jan10	16
		Cheapest					Cheapest			
BELGIUM		Richest					Richest			
	1	3.50 Jun17	-2.21	Mar11	6	1	4.25 Sep22	-1.83	Jan12	5
	2	5.00 Mar35	-1.66	May04	14	2	3.50 Jun17	-1.54	Mar11	6
	3	4.00 Mar17 (5y)	-1.53	Jan07	11	3	4.00 Mar17 (5y)	-1.50	Jan07	11
	4	2.75 Mar16	-0.51	Mar10	10	4	5.50 Sep17	-1.49	Jun02	8
	5	3.75 Sep20	-0.21	Jan10	18	5	3.75 Sep15	-1.49	Mar05	11
	5	4.25 Sep22	1.05	Jan12	5	5	4.25 Sep14	-1.39	Jan04	13
	4	4.25 Sep14	1.37	Jan04	13	4	4.50 Mar26	-1.34	Jun11	4
	3	4.00 Mar19	1.61	Jan09	10	3	4.25 Mar41 (30y)	-1.32	Apr10	6
	2	4.00 Mar18	1.80	Jan08	10	2	4.00 Mar14 (2y)	-1.29	Apr08	12
	1	4.25 Mar41 (30y)	1.98	Apr10	6	1	5.00 Mar35	-1.29	May04	14
		Cheapest					Cheapest			

Source: Citi Investment Research and Analysis

Relative Value Tables – Max 12Yr Maturity

Figure 44. 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)				
	Rank		ZScore	Issued	Size (€bn)	Rank		ZScore	Issued	Size (€bn)
GERMANY		Richest					Richest			
	1	3.25 Jan20	-1.47	Nov09	22	1	0.25 Mar14 (2y-DU)	0.70	Feb12	5
	2	2.50 Feb15	-1.47	Jan10	17	2	2.50 Feb15	1.08	Jan10	17
	3	2.25 Sep20	-1.35	Aug10	16	3	2.25 Apr15	1.09	Apr10	19
	4	2.25 Apr15	-1.32	Apr10	19	4	3.25 Jul15	1.20	May05	21
	5	3.50 Jul19	-1.20	May09	24	5	1.75 Oct15	1.21	Sep10	16
	5	2.25 Sep21	1.34	Aug11	16	5	2.25 Apr14	1.61	Mar09	19
	4	0.75 Feb17 (5y)	1.63	Jan12	8	4	3.75 Jan17 (OE)	1.64	Nov06	20
	3	1.25 Oct16	2.16	Sep11	16	3	4.25 Jul18	1.65	May08	21
	2	0.25 Mar14 (2y-DU)	2.17	Feb12	5	2	4.00 Jan18	1.69	Nov07	20
	1	2.25 Apr14	2.42	Mar09	19	1	4.25 Jul17	1.72	May07	19
		Cheapest					Cheapest			
FRANCE		Richest					Richest			
	1	4.25 Oct18	-1.54	Oct07	22	1	3.00 Apr22 (10y)	-1.84	Feb12	6
	2	4.00 Oct14	-1.03	Oct03	20	2	1.75 Feb17 (5y)	-1.48	Feb11	5
	3	3.50 Apr15	-0.99	Apr04	22	3	4.00 Oct14	-0.99	Oct03	20
	4	4.25 Apr19	-0.82	Apr03	28	4	3.50 Apr15	-0.94	Apr04	22
	5	3.00 Oct15	-0.77	Oct04	33	5	4.00 Apr14	-0.93	Apr03	20
	5	3.25 Oct21	0.56	Oct10	6	5	3.75 Oct19	-0.35	Oct08	25
	4	2.50 Oct20	0.60	Oct09	29	4	2.50 Oct20	-0.35	Oct09	29
	3	4.25 Oct23	0.61	Oct06	31	3	3.25 Oct21	-0.33	Oct10	6
	2	3.75 Oct19	0.85	Oct08	25	2	4.25 Oct23	-0.27	Oct06	31
	1	3.75 Apr21	1.50	Apr05	31	1	3.75 Apr21	-0.26	Apr05	31
		Cheapest					Cheapest			
ITALY		Richest					Richest			
	1	3.00 Apr14	-2.25	Apr11	15	1	4.75 Aug23	-2.00	Feb08	21
	2	4.50 Mar19	-1.91	Sep08	23	2	4.25 Mar20	-1.91	Sep09	23
	3	4.75 May17	-1.71	Feb12	4	3	4.00 Sep20	-1.90	Mar10	22
	4	4.25 Sep19	-1.19	Mar09	22	4	5.00 Mar22 (10y-IK)	-1.89	Sep11	9
	5	4.75 Aug23	-1.00	Feb08	21	5	3.75 Mar21	-1.89	Sep10	23
	5	4.00 Sep20	0.88	Mar10	22	5	3.00 Apr15	-1.65	Jan10	20
	4	3.75 Aug15	1.05	Feb05	26	4	3.75 Aug16	-1.65	Feb06	27
	3	4.75 Sep21	1.46	Mar11	22	3	4.00 Feb17 (5y)	-1.64	Aug06	23
	2	3.75 Aug21	1.56	Feb06	27	2	3.75 Aug15	-1.60	Feb05	26
	1	3.75 Mar21	1.80	Sep10	23	1	4.75 May17	-1.46	Feb12	4
		Cheapest					Cheapest			
N'LANDS		Richest					Richest			
	1	0.75 Apr15	-1.57	Jan12	3	1	0.75 Apr15	-0.60	Jan12	3
	2	4.50 Jul17	-1.37	Jul07	15	2	2.75 Jan15	-0.43	Jul09	13
	3	2.75 Jan15	-1.00	Jul09	13	3	3.75 Jul14	-0.02	Mar04	14
	4	3.25 Jul21	-0.89	Mar11	11	4	3.25 Jul15	0.21	Jun05	14
	5	2.50 Jan17 (5y)	-0.61	Jun11	8	5	4.00 Jul16	0.76	Jul06	13
	5	4.00 Jul18	0.13	Feb08	15	5	4.00 Jul18	1.02	Feb08	15
	4	4.00 Jul16	0.21	Jul06	13	4	4.00 Jul19	1.22	Feb09	13
	3	3.25 Jul15	0.24	Jun05	14	3	3.50 Jul20	1.37	Feb10	15
	2	4.00 Jul19	0.46	Feb09	13	2	3.25 Jul21	1.43	Mar11	11
	1	3.50 Jul20	0.80	Feb10	15	1	3.75 Jan23	1.52	Jan06	10
		Cheapest					Cheapest			
SPAIN		Richest					Richest			
	1	4.40 Jan15	-2.57	Jun04	18	1	3.40 Apr14	-1.22	Apr11	14
	2	4.10 Jul18	-1.38	Feb08	16	2	4.40 Jan15	-1.17	Jun04	18
	3	5.85 Jan22 (10y)	-1.32	Nov11	4	3	3.30 Oct14	-1.15	Jul09	17
	4	3.30 Oct14	-1.13	Jul09	17	4	3.00 Apr15	-1.05	Mar10	18
	5	3.40 Apr14	-1.11	Apr11	14	5	3.25 Apr16	-0.89	Nov10	14
	5	3.80 Jan17 (5y)	0.65	Oct06	13	5	4.60 Jul19	-0.44	Feb09	13
	4	3.25 Apr16	0.70	Nov10	14	4	4.80 Jan24	-0.44	Sep08	15
	3	4.25 Oct16	0.70	Sep11	7	3	4.30 Oct19	-0.41	Jun09	15
	2	3.00 Apr15	0.78	Mar10	18	2	4.85 Oct20	-0.38	Jul10	16
	1	3.15 Jan16	1.78	Sep05	16	1	4.00 Apr20	-0.32	Jan10	16
		Cheapest					Cheapest			
BELGIUM		Richest					Richest			
	1	3.50 Jun17	-2.21	Mar11	6	1	4.25 Sep22	-1.83	Jan12	5
	2	4.00 Mar17 (5y)	-1.53	Jan07	11	2	3.50 Jun17	-1.54	Mar11	6
	3	2.75 Mar16	-0.51	Mar10	10	3	4.00 Mar17 (5y)	-1.50	Jan07	11
	4	3.75 Sep20	-0.21	Jan10	18	4	5.50 Sep17	-1.49	Jun02	8
	5	5.50 Sep17	-0.14	Jun02	8	5	3.75 Sep15	-1.49	Mar05	11
	5	4.00 Mar14 (2y)	0.96	Apr08	12	5	3.50 Mar15	-1.40	Mar09	10
	4	4.25 Sep22	1.05	Jan12	5	4	4.25 Sep21	-1.40	Jan11	8
	3	4.25 Sep14	1.37	Jan04	13	3	4.00 Mar22 (10y)	-1.39	May06	14
	2	4.00 Mar19	1.61	Jan09	10	2	4.25 Sep14	-1.39	Jan04	13
	1	4.00 Mar18	1.80	Jan08	10	1	4.00 Mar14 (2y)	-1.29	Apr08	12
		Cheapest					Cheapest			

Source: Citi Investment Research and Analysis

Relative Value Tables – Min 8yr Maturity

Figure 45. Yield Spread and CAS to Fitted Relative Value Curve by Country (6m History); Bonds with a Minimum Maturity of 8yrs

	Versus Fitted Yield Curve					Versus Swap Curve (CAS)				
	Rank		ZScore	Issued	Size (€bn)	Rank		ZScore	Issued	Size (€bn)
GERMANY		Richest					Richest			
	1	5.50 Jan31	-1.80	Oct00	17	1	3.25 Jul42 (30y)	0.90	Jul10	15
	2	2.25 Sep20	-1.35	Aug10	16	2	4.25 Jul39	1.09	Jan07	14
	3	4.25 Jul39	-1.28	Jan07	14	3	4.75 Jul40	1.16	Jul08	16
	4	4.75 Jul34	-1.13	Jan03	20	4	2.00 Jan22 (10y)	1.32	Nov11	16
	5	4.00 Jan37 (UB)	-0.68	Jan05	23	5	3.00 Jul20	1.40	Apr10	22
	5	6.25 Jan30	0.06	Jan00	9	5	4.00 Jan37 (UB)	1.42	Jan05	23
	4	4.75 Jul40	0.30	Jul08	16	4	6.25 Jan30	1.45	Jan00	9
	3	2.00 Jan22 (10y)	0.79	Nov11	16	3	4.75 Jul34	1.49	Jan03	20
	2	3.25 Jul42 (30y)	0.87	Jul10	15	2	5.50 Jan31	1.52	Oct00	17
FRANCE		Cheapest					Cheapest			
	1	2.25 Sep21	1.34	Aug11	16	1	2.25 Sep21	1.53	Aug11	16
	1	5.75 Oct32	-0.78	Oct00	23	1	3.00 Apr22 (10y)	-1.84	Feb12	6
	2	4.50 Apr41 (30y)	-0.39	Apr09	15	2	3.50 Apr20	-0.37	Feb10	27
	3	3.00 Apr22 (10y)	0.00	Feb12	6	3	2.50 Oct20	-0.35	Oct09	29
	4	3.50 Apr26	0.01	Apr10	22	4	3.25 Oct21	-0.33	Oct10	6
	5	4.00 Apr55	0.08	Apr04	15	5	4.00 Apr55	-0.31	Apr04	15
	5	3.25 Oct21	0.56	Oct10	6	5	3.75 Apr21	-0.26	Apr05	31
	4	2.50 Oct20	0.60	Oct09	29	4	4.50 Apr41 (30y)	-0.25	Apr09	15
	3	4.25 Oct23	0.61	Oct06	31	3	5.75 Oct32	-0.23	Jan00	23
ITALY		Richest					Richest			
	1	5.00 Aug39	-1.74	Aug07	19	1	4.00 Feb37	-2.29	Aug05	25
	2	5.75 Feb33	-1.60	Feb02	15	2	5.00 Aug39	-2.23	Aug07	19
	3	4.75 Aug23	-1.00	Feb08	21	3	5.00 Sep40 (30y)	-2.20	Sep09	20
	4	5.00 Aug34	-0.99	Aug03	21	4	4.50 Mar26	-2.12	Sep10	14
	5	5.00 Mar22 (10y-IK)	-0.60	Sep11	9	5	5.00 Aug34	-2.10	Aug03	21
	5	4.00 Sep20	0.88	Mar10	22	5	4.00 Sep20	-1.90	Mar10	22
	4	5.00 Sep40 (30y)	1.29	Sep09	20	4	5.00 Mar22 (10y-IK)	-1.89	Sep11	9
	3	4.75 Sep21	1.46	Mar11	22	3	3.75 Mar21	-1.89	Sep10	23
	2	3.75 Aug21	1.56	Feb06	27	2	4.75 Sep21	-1.83	Mar11	22
N'LANDS		Cheapest					Cheapest			
	1	3.75 Mar21	1.80	Sep10	23	1	3.75 Aug21	-1.83	Feb06	27
	1	4.00 Jan37	-1.40	Apr05	12	1	3.50 Jul20	1.37	Feb10	15
	2	3.25 Jul21	-0.89	Mar11	11	2	3.25 Jul21	1.43	Mar11	11
	2	3.50 Jul20	0.80	Feb10	15	2	3.75 Jan42 (30y)	1.66	May10	10
	1	3.75 Jan42 (30y)	1.04	May10	10	1	4.00 Jan37	1.93	Apr05	12
	1	5.85 Jan22 (10y)	-1.32	Nov11	4	1	5.85 Jan22 (10y)	-0.69	Nov11	4
	2	5.50 Apr21	-0.89	Jan11	20	2	4.70 Jul41 (30y)	-0.65	Sep09	11
	3	4.85 Oct20	-0.34	Jul10	16	3	5.75 Jul32	-0.63	Jan01	14
	4	5.75 Jul32	-0.26	Jan01	14	4	4.20 Jan37	-0.62	Jan05	16
SPAIN		Cheapest					Cheapest			
	5	4.20 Jan37	-0.24	Jan05	16	5	4.90 Jul40	-0.62	Jan07	13
	5	4.70 Jul41 (30y)	0.05	Sep09	11	5	5.50 Apr21	-0.44	Jan11	20
	4	4.00 Apr20	0.22	Jan10	16	4	4.80 Jan24	-0.44	Sep08	15
	3	5.90 Jul26	0.29	Mar11	6	3	4.85 Oct20	-0.38	Jul10	16
	2	4.80 Jan24	0.30	Sep08	15	2	4.65 Jul25	-0.38	Feb10	14
	1	4.65 Jul25	0.91	Feb10	14	1	4.00 Apr20	-0.32	Jan10	16
	1	5.00 Mar35	-1.66	May04	14	1	4.25 Sep22	-1.83	Jan12	5
	2	3.75 Sep20	-0.21	Jan10	18	2	3.75 Sep20	-1.46	Jan10	18
	3	4.25 Sep21	-0.05	Jan11	8	3	4.25 Sep21	-1.40	Jan11	8
BELGIUM		Richest					Richest			
	3	4.50 Mar26	0.37	Jun11	4	3	4.50 Mar26	-1.34	Jun11	4
	2	4.25 Sep22	1.05	Jan12	5	2	4.25 Mar41 (30y)	-1.32	Apr10	6
	1	4.25 Mar41 (30y)	1.98	Apr10	6	1	5.00 Mar35	-1.29	May04	14

Source: Citi Investment Research and Analysis

Current ARTS Trading Signal

David Bieber

+44 207 986 4976

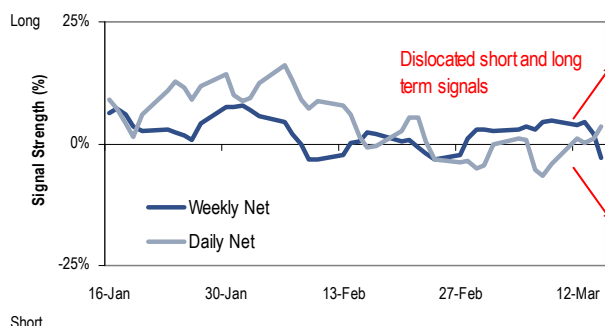
david.bieber@citi.com

The short and long term signals have reverse...

... suggesting a breakout from the current range bound trading environment

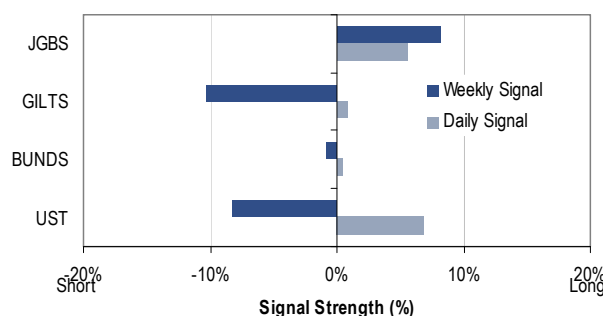
This week, the daily and weekly algorithmic rates trading signals¹ (DARTS / ARTS) have reverse direction – the long term signals have moved to a 3% short duration while the short term signals are switched to a 3% long position (see Figure 46). The major driver this week has been dominated by short term dynamics due to the recent volatile price action. Momentum has weakened across both models but this is being offset by mean reversion dynamics. This pattern points to a change in the trading environment. The models predict a short term correction to lower yields against a longer term drift to higher yield. However the signals continue to remain weak (from a historical perspective) and therefore continue to maintain light positioning. In outright duration the model is long UST in the short term but maintains a short in the longer term. Meanwhile in JGBs, the models are re-establishing longs because both short and long term signals point to lower yields (see Figure 47).

Figure 46. Evolution history of the daily / weekly 10y net signal



Source: Citi Investment Research and Analysis

Figure 47. Breakdown of current daily and weekly net signals

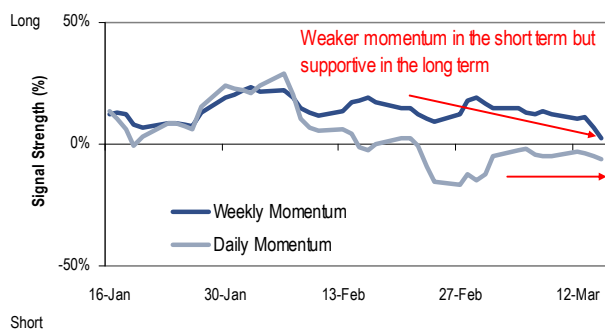


Source: Citi Investment Research and Analysis

Momentum is weak in the short term but predicts lower yield in the long term ...

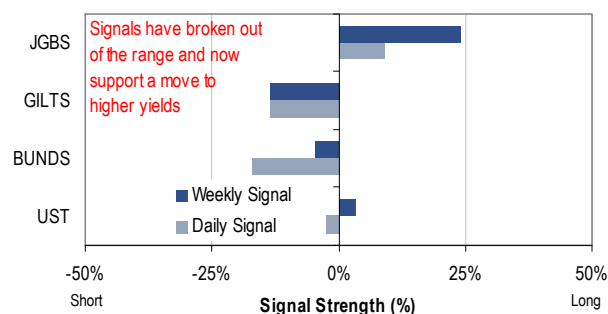
The recent sell-off in rates has weakened both the short and long term momentum signals (see Figure 48). Of course this is not a surprise, the speed and size of the sell-off would be expected to weaken the momentum trend. However the long momentum signal, which historically has been supportive for lower yields, has moved into a neutral duration position. The break down of this longer term trend might suggests the beginning of a regime shift towards higher yield (if this trend continues). However the move to higher yields is not consistent across all assets (see Figure 49).

Figure 48. Evolution history of the daily / weekly 10y momentum signal



Source: CIRA, Bloomberg

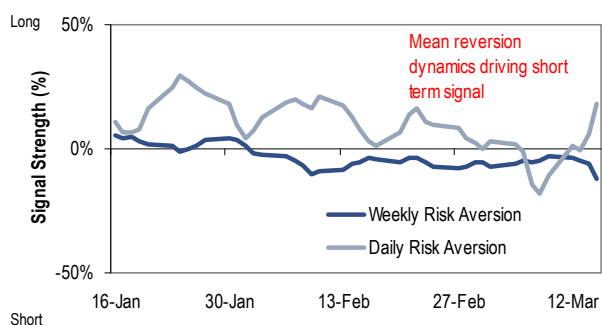
Figure 49. Breakdown of current daily and weekly momentum signals



Source: CIRA, Bloomberg

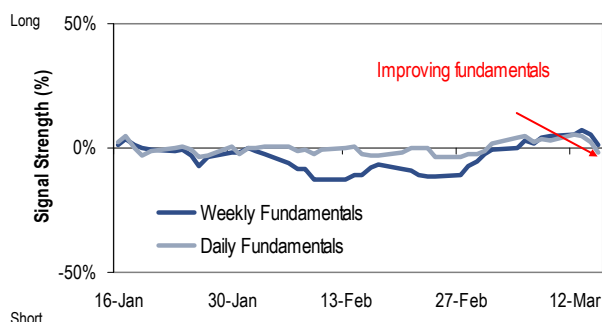
¹ The current signals are calibrated as of market close 14th March 2012.

Figure 50. Evolution history of the daily / weekly 10y risk aversion signal



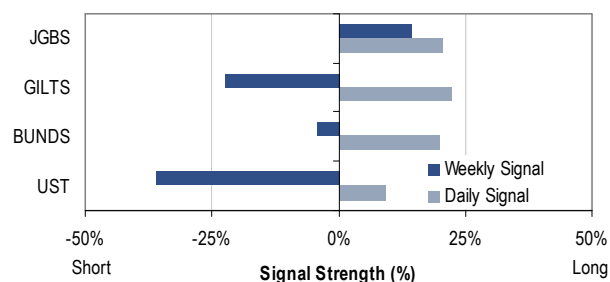
Source: Citi Investment Research and Analysis

Figure 52. Evolution history of the daily / weekly 10y fundamental signal



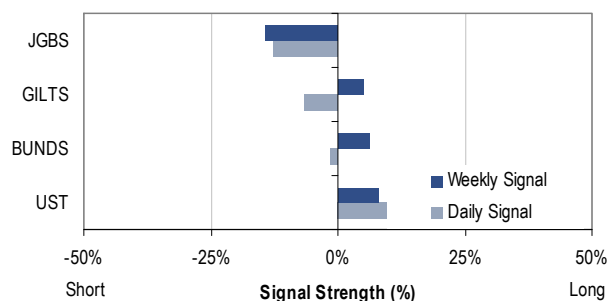
Source: CIRA, Bloomberg

Figure 51. Breakdown of current daily and weekly risk aversion signals



Source: CIRA, Bloomberg

Figure 53. Breakdown of current daily and weekly fundamental signals



Source: CIRA, Bloomberg

... while risk aversion is supporting a short term move to lower yields but maintains a bearish bias in the long term

Meanwhile fundamental have improved though signals remain weak

Weak signals suggest the positioning should remain light in the current market environment

Meanwhile, the short and long term risk aversion signal have crossed with the short/long term signals supporting lower/higher yield (see Figure 50). The increase in the short term signal is an expression of mean reversion. The strong rally in risk assets over the past week has increased the probability that there will be a correction in rates (given the recent sell-off). This is driving the increase in the short term risk aversion. However the opposite dynamics are at play in the longer term signals. Falling risk aversion indicators and rallying risk assets imply a "risk on" dynamics in the longer term signals and therefore short duration (see Figure 51).

Finally, the short and long term fundamental signals suggest that the fundamentals are improving (see Figure 52). This is a turn around from recent weeks where the signals had started to suggest that economic outlook was weaker than expected. However signals remain very weak and suggest that price action will be dominated by positioning and risk dynamics rather than underlying macro policy.

In summary, the positions continue to be driven by the momentum dynamics and risk aversion signals (because fundamentals remain weak). In this environment, where short and long term signals are conflicting suggesting there could be a breakout to a higher yields. However the signals are weak and therefore the model maintain light positioning.

Global Supply Monitor

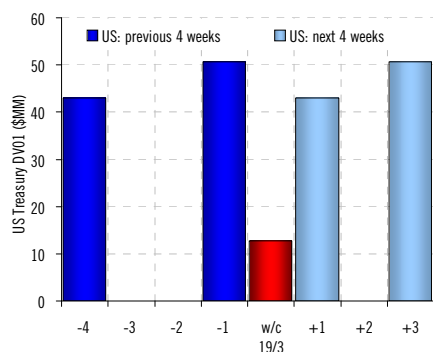
Nishay Patel
+44-20-7986-1007
nishay.patel@citi.com

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

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

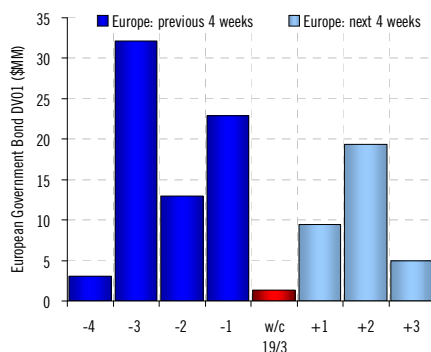
Figure 54 and Figure 55 show the \$DV01 of projected US and Euro Bond issuance respectively over the next four weeks and the previous four weeks. Figure 56 show the \$DV01 of projected UK Gilt issuance over the next two weeks and the previous four weeks. The DV01 of issuance in the week commencing 19 March is shown in red.

Figure 54. Estimated \$DV01 of US Treasury Issuance (Previous 4 and Next 4 Weeks)



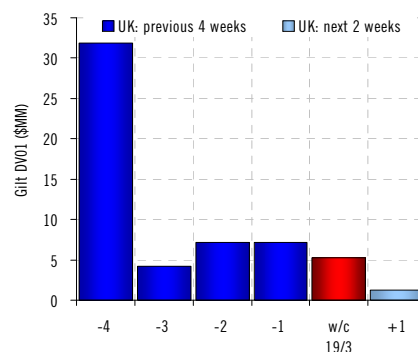
Source: US Treasury, CIRA estimates

Figure 55. Estimated \$DV01 of Euro Bond Issuance (Previous 4 and Next 4 Weeks)



Source: DMOs, CIRA estimates

Figure 56. Estimated \$DV01 of UK Gilt Issuance (Previous 4 and Next 2 Weeks)



Source: DMO, CIRA estimates

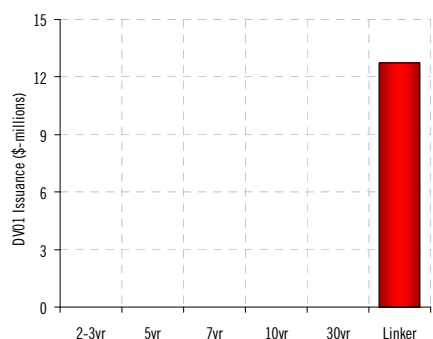
DV01 of expected USD, EUR and GBP issuance split by maturity (week beginning 19 March)

The US Treasury will issue approximately \$13million/bp of 10-year TIPS (Figure 57).

Euro issuance is extremely light next week at around €1million/bp (from Germany) (Figure 58).

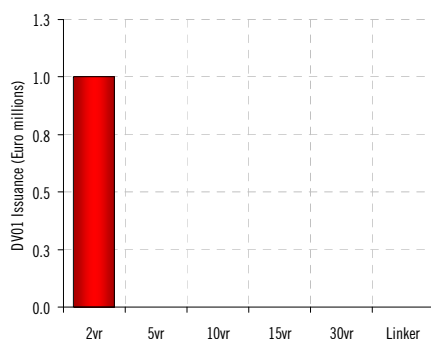
Next week's gilt issuance comes in the form of a linker '42 at around £3.5million/bp (Figure 59).

Figure 57. USD DV01: Split by Maturity (19 Mar–25 Mar)



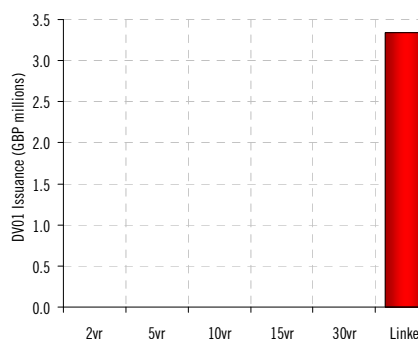
Source: US Treasury, CIRA estimates

Figure 58. EUR DV01: Split by Maturity (19 Mar–25 Mar)



Source: DMOs, CIRA estimates

Figure 59. GBP DV01: Split by Maturity (19 Mar–25 Mar)

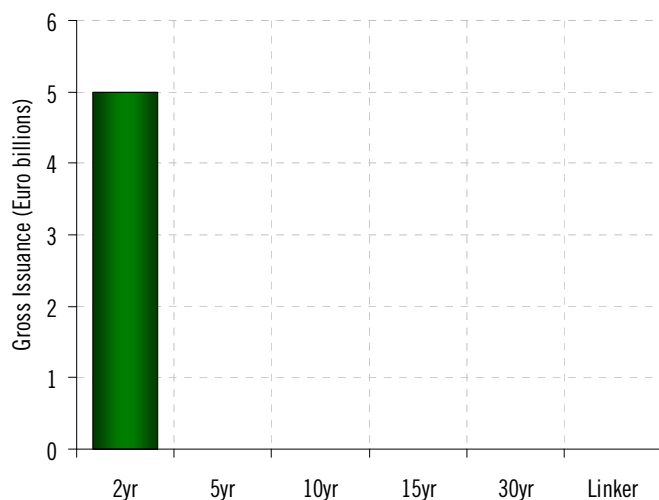


Source: DMO, CIRA estimates

Expected euro gross and DV01 split by country and maturity (week beginning 19 March)

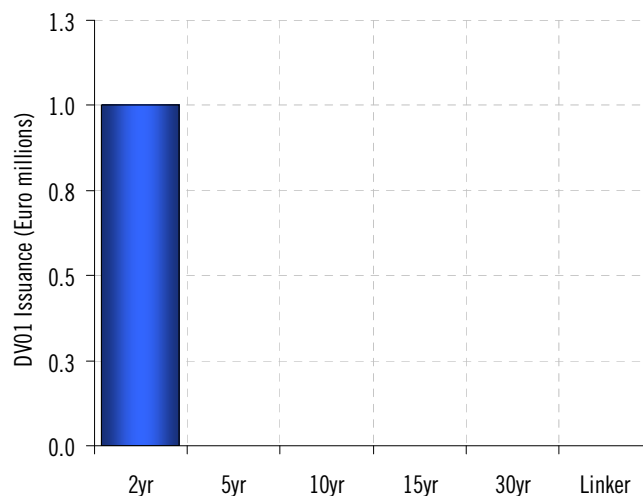
In Europe, all of next week's issuance comes from Germany (€5bn) - Figure 60. In DV01 terms, this is equivalent to around €1million/bp (Figure 61).

Figure 60. Euro Gross Issuance next week



Source: DMOs, CIRA estimates, Bloomberg

Figure 61. Euro DV01 Issuance next week



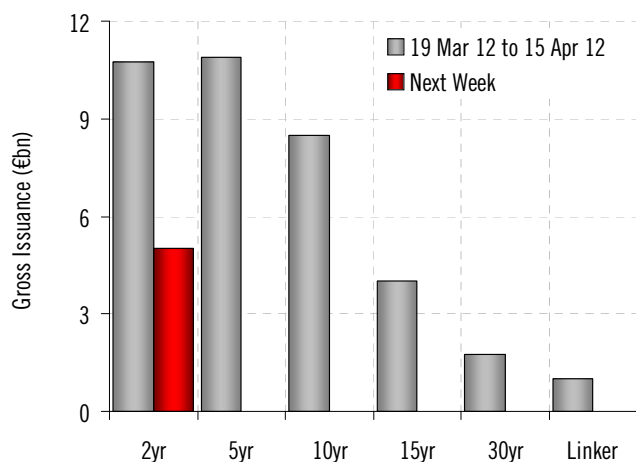
Source: DMOs, CIRA estimates, Bloomberg

Expected euro issuance (gross and DV01) by maturity for the next four-weeks (19 March – 15 April)

Over the next four weeks, we expect supply to be concentrated in sub 10-year sectors (Figure 62). Approximately 60% of issuance should come from the 2- and 5-year sectors.

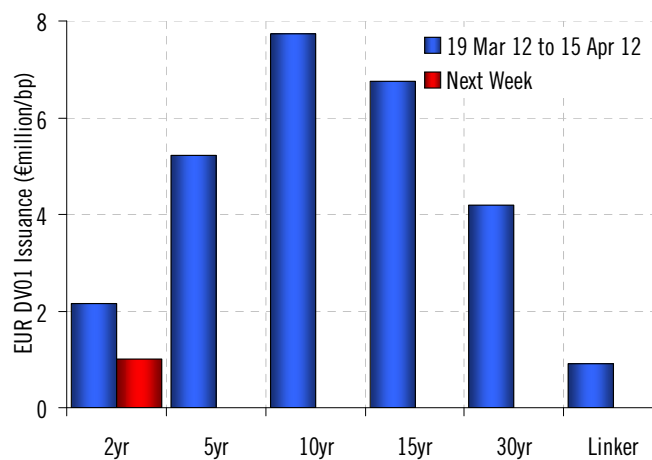
In DV01 terms, 10- and 15-year sectors account for approximately a half of total issuance at around €14million/bp (Figure 63).

Figure 62. Euro Gross Issuance over the Next Four Weeks



Source: DMOs, CIRA estimates, Bloomberg

Figure 63. Euro DV01 Issuance over the Next Four Weeks



Source: DMOs, CIRA estimates, Bloomberg

US coupons for the next four weeks – maturity split

US Treasury coupon payments will remain light over the next four weeks. \$4.5bn comes in week 2 is split across the 2-7year sectors (Figure 64).

Figure 64. Maturity Split of UST Coupon Payments over the Next Four Weeks (USD-Billions)*

Week Commencing	2-3yr	5yr	7yr	10yr	30yr	Linker	Total
19 Mar							
26 Mar	2.3	1.8	0.4				4.5
02 Apr							
09 Apr	0.9					1.3	2.1
Total	3.2	1.8	0.4			1.3	6.6

Source: CIRA, Bloomberg

*This table is on a trade-date basis

Euro coupons for the next four weeks – maturity split

There are sizeable Euro coupon payments over the next four weeks. Next week sees a fairly even distribution of coupon payments from Belgium across all the sectors (Figure 65 and Figure 67).

Figure 65. Maturity Split of Euro Coupon Payments over the Next Four Weeks (EUR-Billions)*

Week Commencing	2yr	5yr	10yr	15yr	30yr	Linker	Total
19 Mar	1.1	2.0	1.0	1.0	1.4		6.5
26 Mar	0.2						0.2
02 Apr	0.4	0.9					1.4
09 Apr	2.6	1.6	1.3		0.3	0.8	6.6
Total	4.3	4.5	2.2	1.0	1.7	0.8	14.6

Source: CIRA, Bloomberg

*This table is on a trade-date basis

UK coupons for the next four weeks

There are minimal gilt coupon payments over the next four weeks - Figure 66.

Figure 66. Maturity Split of Gilt Coupon Payments over the Next Four Weeks (GBP-Billions)*

Week Commencing	2yr	5yr	10yr	15yr	30yr	Linker	Total
19 Mar						0.1	0.1
26 Mar	0.3						0.3
02 Apr							
09 Apr						0.2	0.2
Total	0.3					0.4	0.7

Source: CIRA, Bloomberg

*This table is on a trade-date basis

Euro coupons and redemptions split by maturity and country

Figure 67 below shows a weekly breakdown of euro coupons and redemptions, split by sector and country for the next four weeks.

Figure 67. Euro Coupons and Redemptions by Maturity and Country for the Next 4 weeks (EUR Billions)

Week Beginning 19 Mar (Mon)			Coupons	Redemptions	Week Beginning 26 Mar (Mon)			Coupons	Redemptions
Coupons	2yr	1.1	6.5	3.8	Coupons	2yr	0.2	0.2	0.0
	5yr	2.0				5yr			
	10yr	1.0				10yr			
	15yr	1.0				15yr			
	30yr	1.4				30yr			
	Linker					Linker			
		6.5					0.2		
Week Beginning 02 Apr (Mon)			Coupons	Redemptions	Week Beginning 09 Apr (Mon)			Coupons	Redemptions
Coupons	2yr	0.4	1.4	0.0	Coupons	2yr	2.6	6.6	31.1
	5yr	0.9				5yr	1.6		
	10yr					10yr	1.3		
	15yr					15yr			
	30yr					30yr	0.3		
	Linker					Linker	0.8		
		1.4					6.6		

Source: CIRA, Bloomberg

*This table is on a trade-date basis

Provisional auction calendar for the next four weeks

Figure 68. Provisional Auction Calendar for the Next Four Weeks, Gross Issuance (Billions), DV01 (USD Millions)

Auction Date	Country Issuing	Estimated Size (Local Ccy)	Issue Details (Estimated)	DV01 \$million/bp	Approx. Number 10yr Futures		
					TYM2 (UST)	G M2 (Gilt)	RXM2 (Bund)
19 Mar (Mon)	US	4.5 - 5.25	Outright Treasury Coupon Purchases : 15/5/2020 - 15/2/2022				
19 Mar (Mon)	UK	1.3	Gilt APF Buyback: 3-7yrs				
20 Mar (Tue)	US	1.75 - 2.25	Outright Treasury Coupon Purchases : 15/2/2036 - 15/2/2042				
20 Mar (Tue)	UK	1.3	Gilt APF Buyback: 15yrs+				
21 Mar (Wed)	Germany	5.0	Schatz Mar14 reopening (issue and size confirmed)				9k
21 Mar (Wed)	US	3.5 - 4.25	Outright Treasury Coupon Purchases : 31/3/2018 - 15/2/2020				
21 Mar (Wed)	UK	1.3	Gilt APF Buyback: 7-15yrs				
22 Mar (Thu)	UK	0.9	0 5/8% Index-linked Treasury Gilt 2042 (issue and size confirmed)			29k	
22 Mar (Thu)	US	13.0	10-Year TIPS (re-opening)		156k		
22 Mar (Thu)	US	1.75 - 2.25	Outright Treasury Coupon Purchases : 15/8/2022 - 15/2/2031				
23 Mar (Fri)	US	1.75 - 2.25	Outright Treasury Coupon Purchases : 15/2/2036 - 15/2/2042				
Weekly \$DV01 of Issuance				-5.4			
Total Number of Futures Contracts					-55k	-12k	9k

Auction Date	Country Issuing	Estimated Size (Local Ccy)	Issue Details (Estimated)	DV01 \$million/bp	Approx. Number 10yr Futures		
					TYM2 (UST)	G M2 (Gilt)	RXM2 (Bund)
26 Mar (Mon)	UK	0.8	Mini tender in w/c 26 March (issue to be announced on 16Mar, further details 24-48 hours in advance)			7k	
26 Mar (Mon)	US	8 - 8.75	Outright Treasury Coupon Sales: 15/2/2013 - 31/7/2013		7k		
26 Mar (Mon)	UK	1.3	Gilt APF Buyback: 3-7yrs				
27 Mar (Tue)	Italy	2.0	CTZ (estimated size)				4k
27 Mar (Tue)	Italy	1.0	BTPei (estimated size)				8k
27 Mar (Tue)	US	35.0	2-Year		86k		
27 Mar (Tue)	US	1.75 - 2.25	Outright Treasury Coupon Purchases : 15/2/2036 - 15/2/2042				
27 Mar (Tue)	UK	1.3	Gilt APF Buyback: 15yrs+				
28 Mar (Wed)	US	35.0	5-Year		206k		
28 Mar (Wed)	US	4.5 - 5.25	Outright Treasury Coupon Purchases : 15/5/2020 - 15/2/2022				
28 Mar (Wed)	UK	1.3	Gilt APF Buyback: 7-15yrs				
29 Mar (Thu)	Italy	7.3	BTP 5yr and 10yr (estimated tenor and size)				46k
29 Mar (Thu)	Italy	2.0	CCTeu (estimated size)				9k
29 Mar (Thu)	US	29.0	7-Year		234k		
29 Mar (Thu)	US	8 - 8.75	Outright Treasury Coupon Sales : 15/6/2014 - 15/3/2015		28k		
30 Mar (Fri)	US	1.75 - 2.25	Outright Treasury Coupon Purchases : 15/2/2036 - 15/2/2042				
Weekly \$DV01 of Issuance				37.4			
Total Number of Futures Contracts					418k	-35k	67k

Auction Date	Country Issuing	Estimated Size (Local Ccy)	Issue Details (Estimated)	DV01 \$million/bp	Approx. Number 10yr Futures		
					TYM2 (UST)	G M2 (Gilt)	RXM2 (Bund)
02 Apr (Mon)	UK	1.3	Gilt APF Buyback: 3-7yrs				
03 Apr (Tue)	UK	1.3	Gilt APF Buyback: 15yrs+				
04 Apr (Wed)	Spain	2.5	Bono 5yr (estimated tenor and size)				11k
04 Apr (Wed)	UK	1.3	Gilt APF Buyback: 7-15yrs				
05 Apr (Thu)	France	10.4	OAT 5yr, 10yr1 15yr and 30yr (estimated tenor and size)				126k
Weekly \$DV01 of Issuance				12.0			
Total Number of Futures Contracts					0k	-42k	137k

Auction Date	Country Issuing	Estimated Size (Local Ccy)	Issue Details (Estimated)	DV01 \$million/bp	Approx. Number 10yr Futures		
					TYM2 (UST)	G M2 (Gilt)	RXM2 (Bund)
09 Apr (Mon)	UK	1.3	Gilt APF Buyback: 3-7yrs				
10 Apr (Tue)	Austria	2.0	RAGB 5yr and 10yr (estimated size and tenor)				13k
10 Apr (Tue)	US	32.0	3-Year		78k		
10 Apr (Tue)	UK	1.3	Gilt APF Buyback: 15yrs+				
11 Apr (Wed)	US	21.0	10-Year (re-opening)		229k		
11 Apr (Wed)	UK	1.3	Gilt APF Buyback: 7-15yrs				
12 Apr (Thu)	Italy	4.8	BTP 3yr and 15yr (estimated tenor and size)				22k
12 Apr (Thu)	US	13.0	30-Year (re-opening)		314k		
Weekly \$DV01 of Issuance				48.3			
Total Number of Futures Contracts					621k	-42k	35k

Additional Issues Expected in March: Bundeis (€2bn) and Finland 5yr (€2bn). These are not included in the cashflow tables and gross supply charts

The table does not include German auctions after 21 March as the auction calendar for 2Q 2012 has not yet been released

The next release of the approximate purchase and sale amounts and tentative outright Treasury operation schedule will be at 1400 (NY Time) on 30 March 2012

Source: DMOs, CIRA 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

The US NCR remains positive over the next four weeks. There is a large amount of issuance settling in week 3 which results in a positive NCR as \$99bn of gross supply outweigh \$61bn of coupon payments and redemptions and \$0.1bn of net buybacks under *Operation Twist* (Figure 69).

Figure 69. 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
19 Mar					4.4	-4
26 Mar	13	2.3	11		-7.9	19
02 Apr	99	2.2	97	59	0.1	37
09 Apr					0.1	-0
Total	112	4.5	108	59	-3.3	51
Average	28	1.1	27	15	-1.8	14
YTD Average	48	3.4	44	26	-0.2	18

Source: US Treasury, CIRA estimates, Bloomberg

Euro cash-flow profile over the next four weeks²

The NCR alternates between positive and negative over the next four weeks. The NCR in week 4 is significantly negative (largely due to the settlement of €31bn of redemptions from Germany and Italy) - Figure 70.

Figure 70. 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
19 Mar	19.3		19.3		19.3
26 Mar	8.0	6.5	1.5	3.8	-2.3
02 Apr	9.3	0.2	9.0		9.0
09 Apr	14.9	2.6	12.3	31.1	-18.8
Total	51.4	9.3	42.1	34.9	7.2
Average	12.8	2.3	10.5	8.7	1.8
YTD Average	18.8	4.5	14.3	13.1	1.3

Source: DMOs, CIRA estimates, Bloomberg

Gilt cash-flow profile over the next three weeks

The UK NCR is negative in each of the next two weeks (Figure 71).

Figure 71. Estimated UK Weekly Cash Flow Profile for Next Three 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
19 Mar	0.9	0.1	0.8		4.5	-3.7
26 Mar	0.8	0.3	0.5		4.5	-4.0
Total	1.7	0.5	1.2		9	-7.8
Average	0.8	0.2	0.6		4.5	-3.9
YTD Average	3.7	1.2	2.4	2.4		-0.0

Source: DMO, CIRA estimates, Bloomberg

We expect the UK DMO to release an auction calendar for the next quarter at the end of this month

² Figure 70 does not include German auctions after 21 March. Auction dates for 2Q2012 have not been announced yet.

JGB settlement cash-flow profile over the next four weeks

Figure 72 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 highly negative next week, largely due to sizeable redemptions on 20 March.

Figure 72. 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
19 Mar	1.1	2.55	-1.5	15.6	-17.0
26 Mar	0.3		0.3		0.3
02 Apr	3.0		3.0		3.0
09 Apr	2.6		2.6		2.6
Total	7.0	2.55	4.4	15.6	-11.1
Average	1.8	0.64	1.1	3.9	-2.8
YTD Average			-0.0	0.7	-0.7

Source: CIRA 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.

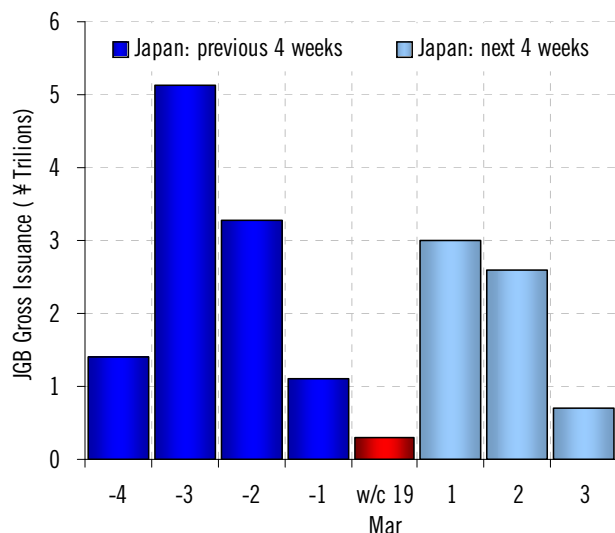
Trade date basis: In Europe if the coupon payment falls on Monday 5th March, for example, it would be allocated to the previous week (the week commencing 27 February) as that would be when you would trade to use the money you know is coming in on Monday 5th March. In other words, you don't wait for the 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 69, Figure 70, Figure 71 and Figure 72) 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)

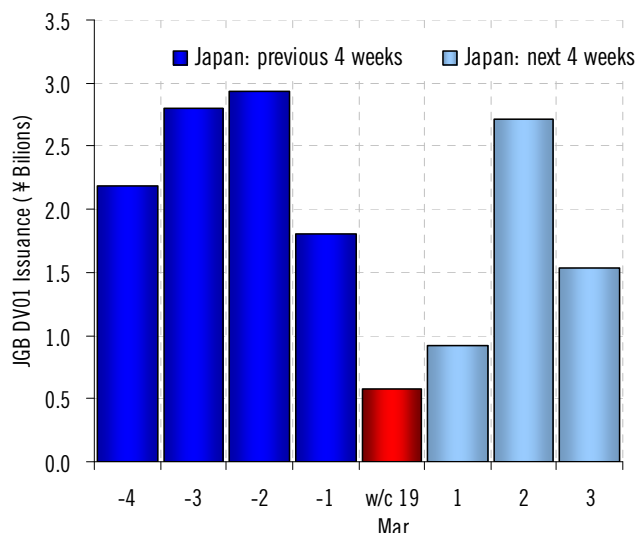
Figure 73 and Figure 74 show projected JGB gross and ¥DV01 of issuance over the next four weeks and the previous four weeks. Next week sees only ¥0.3trillion of JGB issuance in the form of an Auction for Enhanced-liquidity (20-30 years) - Figure 73. In DV01 terms, this is equivalent to around ¥0.6billion/bp (Figure 74).

Figure 73. Estimated Gross JGB Issuance (Previous 4 and Next 4 weeks)



Source: CIRA estimates, BoJ, MoF

Figure 74. Estimated ¥DV01 of JGB Issuance (Previous 4 and Next 4 weeks)



Source: CIRA estimates, BoJ, MoF

JGB coupons for the next four weeks – maturity split

There are minimal coupon payments over the next four weeks (Figure 75).

Figure 75. Maturity Split of JGB Coupon Payments over the Next Four weeks (JPY-Billions)*

Week commencing	2yr	5yr	10yr	20yr	30yr	TOTAL
19 Mar						
26 Mar						
02 Apr						
09 Apr	6					6
Total	6					6

Source: CIRA estimates, Bloomberg

*This table is on a trade-date basis

JGB auction calendar for the next four weeks

Figure 76 shows our JGB issuance expectations for the next four weeks and weekly \$DV01.

Figure 76. Provisional Auction Calendar for the Next Four Weeks, Gross Issuance (Billions), DV01 (JPY Millions).

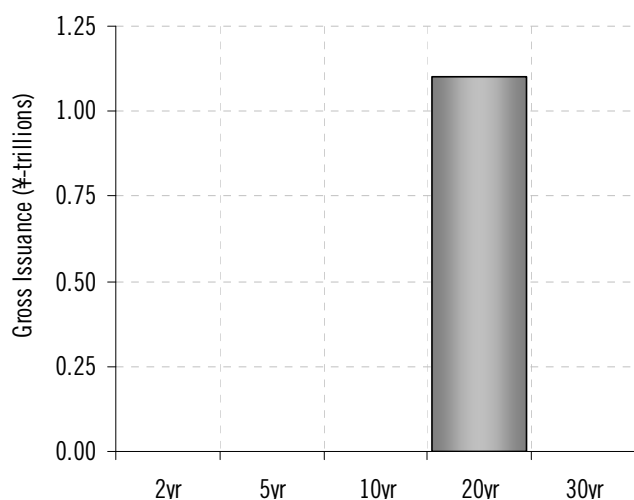
Auction Date	Country Issuing	Estimated Size (Local Ccy)	Issue Details (Estimated)	Weekly DV01	
				¥ millions	\$ millions
15 Mar (Thu)	JPY	1100	20year	1804	22
Weekly DV01 of Issuance				¥1804	\$22
22 Mar (Thu)	JPY	300	AEL (20-30 years)	576	7
Weekly DV01 of Issuance				¥576	\$7
27 Mar (Tue)	JPY	300	AEL (10-20 years)	386	5
29 Mar (Thu)	JPY	2700	2year	535	7
Weekly DV01 of Issuance				¥920	\$11
03 Apr (Tue)	JPY	2300	10year	2139	27
05 Apr (Thu)	JPY	300	AEL (20-30 years)	576	7
Weekly DV01 of Issuance				¥2715	\$34

Source: CIRA estimates, BoJ, MoF

Expected JGB gross and DV01 issuance by maturity (week beginning 19 March)

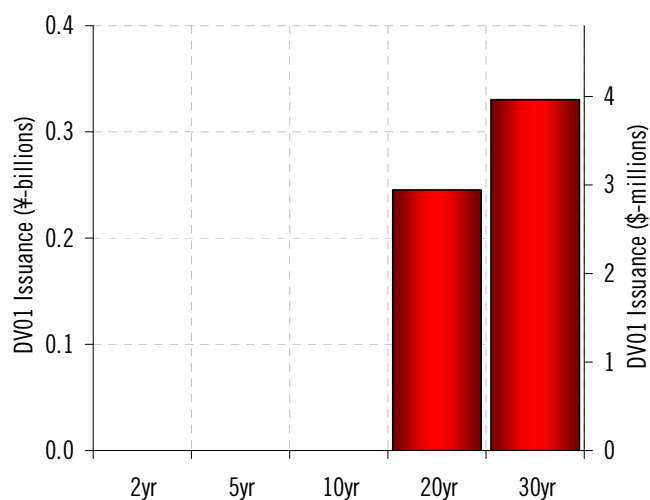
Figure 77 and Figure 78 show a split of next week's JGB issuance by maturity.

Figure 77. JGB Gross Split by Maturity (Week Beginning 19 March)



Source: CIRA, Bloomberg

Figure 78. JGB DV01 Split by Maturity (Week Beginning 19 March)



Source: CIRA, Bloomberg

Appendix – Global Supply Forecasts

Figure 79. UK, US and EMU-11 Gross Supply – Citi forecasts

2012 Cashflow Tables													
Nominal Gross Supply (£bn)													
	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	8	4		1	4			17	2	15		19	-4
Feb-12	4	3	2	1		3	1	13	1	13		13	
Mar-12	4	3	2	2			1	11	11	0	27	15	-42
Apr-12	5	4	2	2	5	3	1	17		17		15	1
May-12	5	4	2	2				16	1	15			15
Jun-12	5	4	2	1				16	7	8	26		-17
Jul-12	5	4	2	1	5	4	1	16	2	14			14
Aug-12	5		2	2				13	1	12			12
Sep-12	5	3		1				13	10	2			2
Oct-12	5	4	2	1	0	7	1	15		15			15
Nov-12	4		2	1				10	1	9			9
Dec-12	4	7	2	1				16	7	10			10
Total	61	39	20	18	14	17	5	173	43	130	53		15

Gross Supply								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	11	-1	170	93	77
Feb-12	35	32	35	29	24	16	9	180	25	0	155	110	46
Mar-12	35	32	35	29	21	13	13	178	8	0	170	90	80
Apr-12	35	32	35	29	21	13	14	179	5		174	103	71
May-12	35	32	35	29	24	16	13	184	27		157	96	61
Jun-12	35	32	35	29	21	13	8	173	4		169	86	84
Jul-12	35	31	34	28	21	13	15	176	12		164	114	50
Aug-12	35	31	34	28	24	16	14	181	26		155	100	55
Sep-12	34	31	34	28	21	13	13	174	3		171	83	88
Oct-12	33	30	33	28	21	13	8	166	9		157	91	67
Nov-12	33	30	33	28	24	16	13	177	22		155	110	45
Dec-12	33	30	33	28	21	13	14	172	7		165	90	75
Total	411	375	411	342	264	168	149	2120	159	-2	1962	1165	798

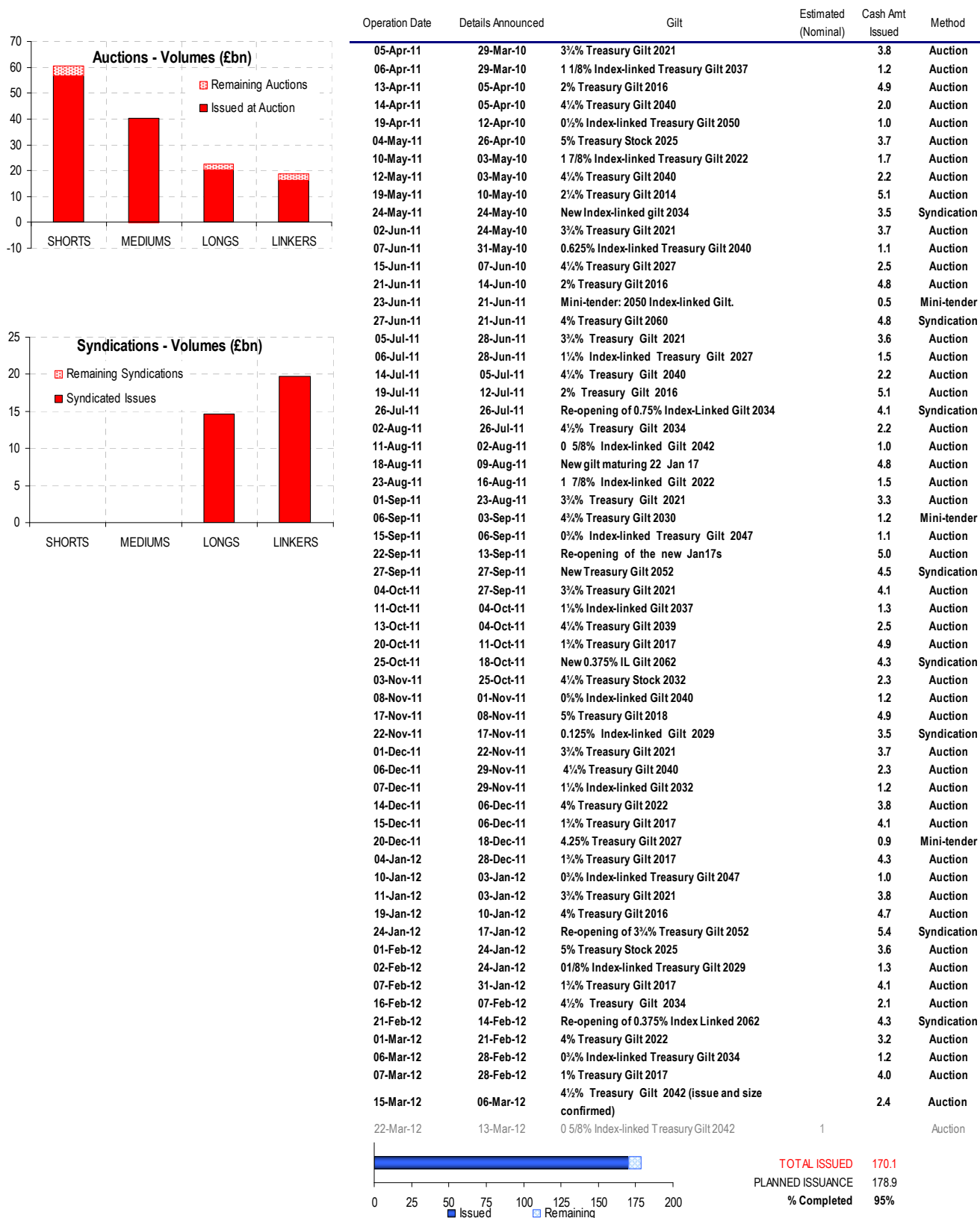
Gross issuance forecasts for 2012 to 2013 (for fixed rate government bonds and index-linked notes)

Gross Supply	2012	2013	Gross Supply (€bn)	2012	2013	Tickers used in our supply estimates
EMU-11 (€bn)	766	691	Germany	178	166	Schatz, Bobl, Bund, Bunde, Boblei
- excluding GRC, IRE and PRT			France	189	179	OAT, BTAN, BTANI, OATi, OATei
			Italy	197	139	BTP, BTPei, CCT, CTZ
Gross Supply	2012	2013	Spain	85	101	SPGB
US (\$bn)	2120	2035	Netherlands	59	44	DSL
			Belgium	27	38	OLO
Gross Supply *	11/12	12/13	Austria	21	15	RAGB
UK (£bn)	179	188	Finland	11	8	RFGB
			Total	766	691	

*UK supply forecasts on financial year basis

Source: DMOs, CIRA estimates, Bloomberg

Figure 80. UK Gilt Remit and Progress for FY2011/12 (Issued volumes include the Post Auction Facility)



Source: Citi Investment Research and Analysis

Figure 81. 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	24.7	24.5	26.8	4.3	9.2	2.3	92	28	64	54	10
Feb	16.1	27.9	34.6		1.2	2.6	82	12	70	38	33
Mar	21.8	22.7	11.8	6.4	4.0	4.6	71	16	55	56	-1
Apr	17.3	19.5	16.5	5.0	7.0	2.5	68	29	39	75	-36
May	18.0	20.5	19.3	6.5	1.5	5.5	71	5	67		67
Jun	19.8	18.3	17.0	6.0	1.8	3.5	66	5	61	29	32
Jul	18.5	15.5	20.0	4.0	3.8	5.5	67	38	29	112	-82
Aug	13.3	7.5	7.5				28	9	19	12	7
Sep	17.5	23.5	24.5	1.0	4.0	3.0	74	15	58	56	2
Oct	17.3	17.8	16.3	3.8	4.5	3.5	63	26	37	69	-33
Nov	14.0	23.0	15.8	1.0		3.5	57	5	53	13	39
Dec	10.5	6.8	7.5	1.5			26	3	23	59	-36
Total	209	227	218	40	37	36	766	191	575	573	3

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		11	19	-8
Apr	5.0	3.0	5.0		3.0		16	3	13	16	-3
May	5.0	5.0	5.0			2.0	17		17		17
Jun	5.0	4.0	5.0				14	1	13	19	-6
Jul	5.0	4.0	4.0		2.0	2.0	17	13	4	27	-23
Aug	5.0	4.0	4.0				13		13		13
Sep	5.0	5.0	9.0				19	1	18	18	
Oct	5.0	4.0	4.0		2.0		15	2	13	16	-3
Nov	5.0	7.0	4.0			2.0	18		18		18
Dec	4.0						4		4	17	-13
Total	58.0	48.0	54.0		10.0	8.0	178	34	144	157	-13

FRANCE	2yr/3yr	5yr	10yr	15yr	30yr	Linkers	Gross Supply	Coupons	Net Supply	Redemptions	NCR
Jan	3.0	6.2	4.8	1.2	2.4	1.7	19	3	17	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	3.0	6.5	4.0	3.0	1.8	1.5	20	16	4	20	-16
May	4.0	4.5	5.0	2.0	1.5	2.0	19		19		19
Jun	3.5	3.5	6.5	2.0		2.0	18		18		18
Jul	4.5	3.3	6.0	2.0		2.0	18	7	11	29	-19
Aug											
Sep	4.5	7.5	4.0		1.8	1.5	19		19	12	6
Oct	4.0	6.0	4.0			2.0	16	15	1	20	-19
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	36.4	58.6	54.4	15.0	7.4	17.6	189	42	147	102	45

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			0.8	18	10	8	36	-28
Mar	7.9	5.8	4.6			1.0	19	7	12	27	-15
Apr	5.8	5.0	3.5	1.0		1.0	16	2	14	27	-13
May	8.0	6.8	3.5	1.0		1.5	21	5	16		16
Jun	6.3	4.8	3.5		1.0	1.5	17	2	15		15
Jul	6.5	4.8	3.5	1.0		1.5	17	1	16	17	-1
Aug	5.8	2.0	3.5				11	9	2	12	-10
Sep	5.0	4.8	6.0	1.0		1.5	18	7	11	10	1
Oct	4.5	4.0	4.5		1.5	1.5	16	2	14	18	-4
Nov	4.5	6.0	3.0				14	5	9	13	-4
Dec	4.0	3.5	2.5				10	2	8	31	-23
Total	75.2	58.5	46.3	4.0	2.5	10.8	197	53	144	192	-48

Source: DMOs, CIRA estimates, Bloomberg

Figure 82. 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	4.3	7.2	5.3				17	7	10		10
Feb		7.6	5.3				13		13	1	11
Mar	2.1	5.4					8		8		8
Apr		2.5	2.5	1.0			6	4	2	12	-10
May		2.5	2.5				5		5		5
Jun	2.5	1.0	1.0	1.0			6		6		6
Jul	1.5	1.5	1.3	1.0			5	8	-2	13	-15
Aug	2.5	1.5					4		4		4
Sep		3.5	2.3		1.0		7		7		7
Oct	2.5	1.0	2.3		1.0		7	4	3	15	-12
Nov		1.8	2.0				4		4		4
Dec	2.5		2.0				5		5		5
Total	17.8	35.5	26.4	3.0	2.0		85	22	63	41	22

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	2.5	1.5			1.5		6		5		5
May			2.8	1.3			4		4		4
Jun	2.5	5.0					8		8		8
Jul		1.5	2.5		1.3		5	6	-1	15	-16
Aug											
Sep	2.5	2.0					5		5		5
Oct	0.8	1.5	0.8	3.0			6		6		6
Nov	2.0		2.0				4		4		4
Dec											
Total	17.1	15.5	14.0	8.4	4.3		59	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		0.9	1.1		1.2		3		3		3
Mar					4.0		4	6	-2	4	-6
Apr	1.0		0.5		0.8		2		2		2
May	1.0		0.5	0.8			2		2		2
Jun				3.0			3		3		3
Jul		0.5	0.8		0.5		2		2		2
Aug											
Sep	0.5		1.3		0.5		2	4	-2	9	-11
Oct	0.5	0.5	0.8				2		2		2
Nov		0.5	0.8				1		1		1
Dec										6	-6
Total	3.0	2.4	10.1	4.0	7.3		27	12	15	19	-4

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								1			
Nov											
Dec											
Total								1	0	0	-0

Source: DMOs, CIRA estimates, Bloomberg

Figure 83. 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		1.0	1.0				2		2		2
May		1.0		0.8			2		2		2
Jun			1.0		0.8		2		2		2
Jul	1.0		1.0				2	2		10	-11
Aug											
Sep		0.8			0.8		2	1			
Oct		0.8		0.8			2	1	1		1
Nov		0.8	1.0				2		2		2
Dec		0.8					1		1		1
Total	1.0	5.7	8.8	1.5	3.5		21	7	14	10	3

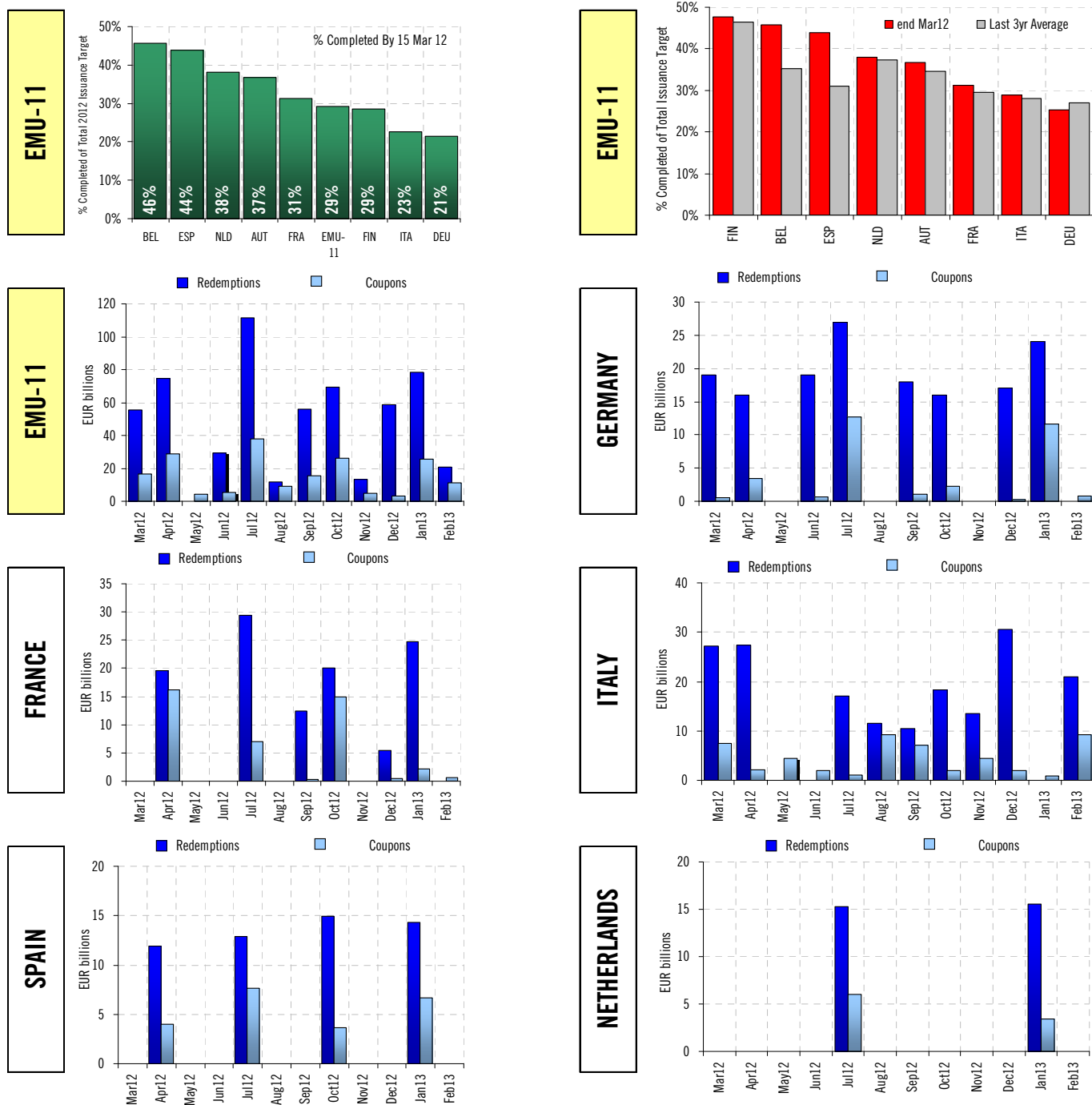
FINLAND	2yr/3yr	5yr	10yr	15yr	30yr	Linkers	Gross Supply	Coupons	Net Supply	Redemptions	NCR
Jan				3.0			3		3		3
Feb											
Mar		2.0					2		2		2
Apr								1	-1		-1
May		0.8		0.8			2		2		2
Jun											
Jul			1.0				1	1			
Aug											
Sep			2.0				2	1	1	6	-5
Oct											
Nov		0.5	0.5				1		1		1
Dec											
Total		3.3	3.5	3.8			11	2	8	6	2

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											
Aug											
Sep											
Oct								1	-1		-1
Nov											
Dec											
Total								4	-4	6	-10

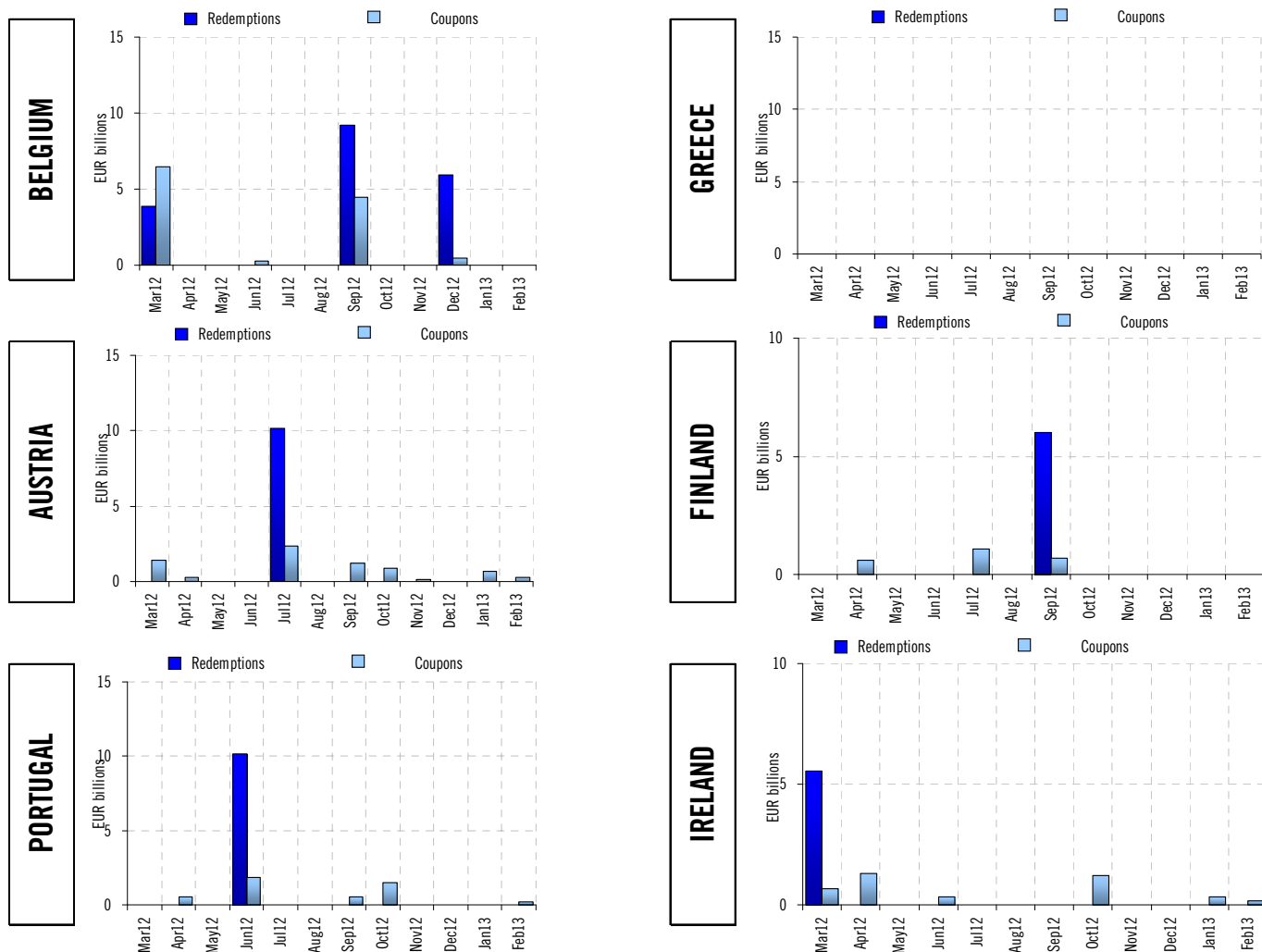
Source: DMOs, CIRA estimates, Bloomberg

Figure 84. 2012 EMU Issuance Progress and Cash flow profile – Citi Forecasts (Euro in Billions)



Source: DMOs, CIRA estimates, Bloomberg

Figure 85. 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	419	289	179	63	88	1038
France	337	325	281	76	128	1146
Italy	403	308	264	132	120	1228
Spain	178	123	116	38	54	509
Netherlands	92	74	65	12	24	267
Belgium	73	88	62	20	29	271
Greece	0	0	0	0	0	0
Austria	45	51	49	15	14	175
Finland	19	22	18	9	0	67
Portugal	34	32	31	0	7	104
Ireland	18	19	34	8	0	80

Credit Rating (LT local currency)	S&P		Moody's		Fitch	
	Rating	Outlook	Rating	Outlook	Rating	Outlook
Germany	AAA	Stable	Aaa	Stable	AAA	Stable
France	AA+	-ve	Aaa	-ve	AAA	-ve
Italy	BBB+	-ve	A3	-ve	A-	-ve
Spain	A	-ve	A3	-ve	A	-ve
Netherlands	AAA	-ve	Aaa	Stable	AAA	Stable
Belgium	AA	-ve	Aa3	-ve	AA	-ve
Greece	SD	-ve	C	-ve	B-	Stable
Austria	AA+	-ve	Aaa	-ve	AAA	Stable
Finland	AAA	-ve	Aaa	Stable	AAA	Stable
Portugal	BB	-ve	Ba3	-ve	BB+	-ve
Ireland	BBB+	-ve	Ba1	-ve	BBB+	-ve

Source: DMOs, CIRA estimates, Bloomberg

EUR: Coupons & Redemptions (next 3mths)

Figure 86. EMU-11 Redemptions over the next three months (€bn)

Redemptions = €127bn											
Redemptions = €127bn	DEU	FRA	NLD	ITA	ESP	BEL	AUT	FIN	PRT	GRC	IRL
	54	20	0	27	12	4	0	0	10	0	0
(Fri) 16-Mar-12	19.0										
(Wed) 28-Mar-12						3.8					
(Fri) 13-Apr-12	16.0										
(Sun) 15-Apr-12				15.1							
(Wed) 25-Apr-12		19.6									
(Mon) 30-Apr-12				12.3	11.9						
(Fri) 15-Jun-12	19.0								10.2		

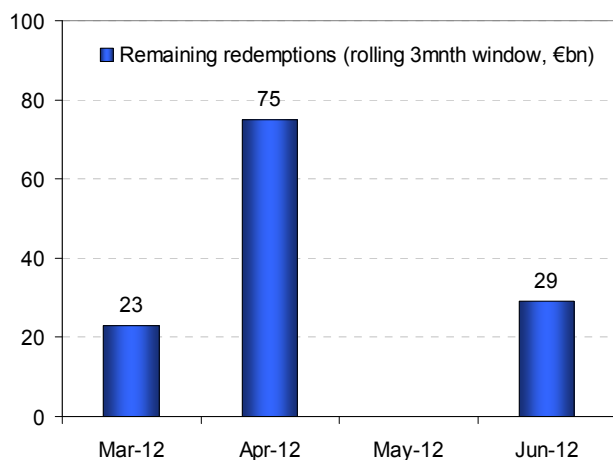
Source: DMOs, Bloomberg, CIRA estimates

Figure 87. EMU-11 Coupon Payments over the next three months (€bn)

Coupons = €44bn											
Coupons = €44bn	DEU	FRA	NLD	ITA	ESP	BEL	AUT	FIN	PRT	GRC	IRL
	4	16	0	9	4	6	0	1	2	0	1
(Fri) 16-Mar-12	0.2										
(Wed) 28-Mar-12						6.5					
(Fri) 30-Mar-12											0.0
(Sun) 01-Apr-12				0.2							
(Sun) 08-Apr-12	0.5										
(Tue) 10-Apr-12	0.4										
(Wed) 11-Apr-12	0.4										
(Thu) 12-Apr-12	0.6										
(Fri) 13-Apr-12	0.6										
(Sun) 15-Apr-12	0.8		0.0	2.0				0.6	0.6		
(Wed) 18-Apr-12											1.3
(Fri) 20-Apr-12							0.3				
(Wed) 25-Apr-12		16.2									
(Mon) 30-Apr-12					4.0						
(Tue) 01-May-12				4.1							
(Tue) 15-May-12				0.4							
(Fri) 01-Jun-12				1.0							
(Thu) 14-Jun-12	0.3								0.4		
(Fri) 15-Jun-12	0.1			1.1					1.2		

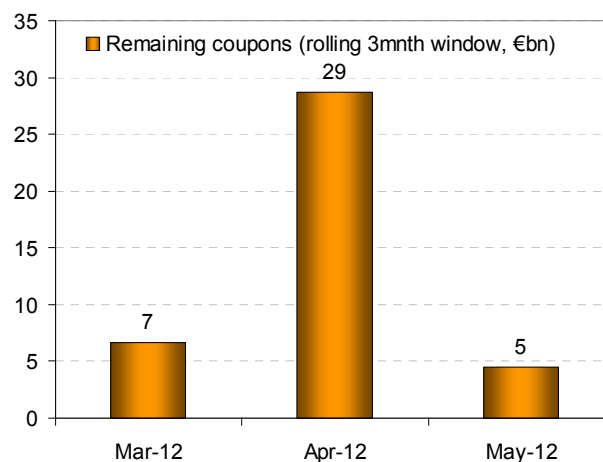
Source: DMOs, Bloomberg, CIRA estimates

Figure 88. EMU-11 remaining redemptions over the next 3 months (€bn)



Source: DMOs, Bloomberg, CIRA estimates

Figure 89. EMU-11 remaining coupons over the next 3 months (€bn)



Source: DMOs, Bloomberg, CIRA estimates

Inflation Forecasts, Carry & Weekly Changes

Figure 90. CIRA Inflation Forecasts

Month	EUR HICPXT			France CPIXT			UK RPI			US CPURNSA		
	Index Forecast	MoM Change	YoY Change	Index Forecast	MoM Change	YoY Change	Index Forecast	MoM Change	YoY Change	Index Forecast	MoM Change	YoY Change
Jan 12	112.96	-0.8	2.6	123.06	-0.4	2.3	238.00	-0.6	3.9	226.67	0.4	2.9
Feb 12	113.53	0.5	2.7	123.58	0.4	2.2	238.90	0.4	3.3	227.30	0.3	2.7
Mar 12	114.34	0.7	2.0	124.30	0.6	2.0	239.30	0.2	2.9	229.00	0.7	2.5
Apr 12	114.97	0.6	2.0	124.51	0.2	1.8	240.80	0.6	2.7	229.80	0.3	2.2
May 12	115.29	0.3	2.3	124.77	0.2	1.9	241.70	0.4	2.8	230.50	0.3	2.0
Jun 12	115.55	0.2	2.5	124.95	0.1	2.0	242.20	0.2	3.0	231.10	0.3	2.4

Shaded = Already released

Source: Citi Investment Research and Analysis

Figure 91. US TIPS Inflation- Linked Carry (based on forecasts above) – One week changes

TIPS	RY (%)	Chg (bp)	Carry-adj chg	Carry: RY (bp)			Ref	BE (bp)	Chg (bp)	Carry-adj chg	Carry: BE (bp)			ZC Swap - BE Spread (bp)	Chg (bp)
				1 Apr	1 May	1 Jun					1 Apr	1 May	1 Jun		
Repo (%)				0.14	0.14	0.14									
TIPS 4/13	-2.49	-13	-14	11	18	79	US-3.125-04/30/13	274	16	21	10	16	76	5	-23
TIPS 7/13	-2.60	-8	-8	8	13	60	US-4.250-08/15/13	290	9	13	8	12	57	18	-11
TIPS 1/14	-2.02	-2	-2	7	14	49	US-4.000-02/15/14	240	9	12	7	12	46	20	-5
TIPS 4/14	-1.89	-1	-1	7	13	44	US-1.875-04/30/14	231	8	11	6	11	41	11	-2
TIPS 7/14	-2.00	-1	-1	6	11	38	US-2.625-07/31/14	247	10	13	5	9	35	19	-4
TIPS 1/15	-1.63	2	2	5	11	34	US-2.250-01/31/15	221	11	13	5	8	30	30	-4
TIPS 4/15	-1.52	3	3	5	10	31	US-2.500-04/30/15	215	12	14	4	8	28	27	-5
TIPS 7/15	-1.61	1	1	5	9	29	US-4.250-08/15/15	231	15	17	4	7	25	29	-8
TIPS 1/16	-1.37	10	10	4	9	26	US-2.625-02/29/16	222	9	11	3	6	22	29	-2
TIPS 4/16	-1.28	11	11	4	8	25	US-2.000-04/30/16	219	10	11	3	6	20	27	-3
TIPS 7/16	-1.34	9	9	4	8	24	US-4.875-08/15/16	232	12	13	3	5	19	29	-5
TIPS 1/17	-1.16	8	8	4	8	22	US-3.125-01/31/17	227	14	16	3	5	17	29	-7
TIPS 7/17	-1.14	8	8	3	7	20	US-4.750-08/15/17	234	14	15	2	4	15	29	-7
TIPS 1/18	-0.90	10	10	3	7	19	US-3.500-02/15/18	228	15	16	2	4	14	32	-8
TIPS 7/18	-0.87	11	11	3	6	18	US-4.000-08/15/18	233	14	15	2	3	13	34	-7
TIPS 1/19	-0.69	12	12	3	6	17	US-2.750-02/15/19	233	14	15	2	3	12	32	-7
TIPS 7/19	-0.64	13	13	3	6	16	US-3.625-08/15/19	238	13	14	2	3	11	33	-6
TIPS 1/20	-0.48	13	13	3	6	15	US-3.625-02/15/20	234	14	15	2	3	10	35	-7
TIPS 7/20	-0.41	14	14	3	6	15	US-2.625-08/15/20	241	14	15	1	2	9	34	-6
TIPS 1/21	-0.26	14	14	2	5	14	US-3.625-02/15/21	233	13	14	1	2	9	39	-6
TIPS 7/21	-0.22	13	13	2	5	13	US-2.125-08/15/21	242	14	15	1	2	8	35	-6
TIPS 1/22	-0.10	14	14	2	5	13	US-2.000-02/15/22	234	9	10	1	2	7	40	-1
TIPS 1/25	0.21	9	9	2	5	11	US-7.625-02/15/25	239	18	18	1	1	6	40	-9
TIPS 1/26	0.31	9	9	2	4	11	US-6.000-02/15/26	245	18	19	1	1	5	35	-9
TIPS 1/27	0.39	10	10	2	4	10	US-6.625-02/15/27	244	17	17	1	1	5	37	-7
TIPS 1/28	0.46	9	9	2	4	10	US-6.125-11/15/27	243	18	19	1	1	4	38	-8
TIPS 4/28	0.51	9	9	2	4	10	US-5.500-08/15/28	244	18	18	1	1	5	36	-8
TIPS 1/29	0.50	9	9	2	4	9	US-5.250-02/15/29	249	18	18	1	1	4	33	-7
TIPS 4/29	0.53	9	9	2	4	10	US-5.250-02/15/29	246	18	19	1	1	5	35	-8
TIPS 4/32	0.59	9	9	2	4	9	US-5.375-02/15/31	246	18	18	1	1	4	37	-7
TIPS 2/40	0.83	8	8	1	3	6	US-4.625-02/15/40	249	16	16	0	0	2	35	-5
TIPS 2/41	0.86	9	9	1	3	6	US-4.750-02/15/41	248	16	16	0	0	2	36	-5
TIPS 2/42	0.91	8	8	1	2	5	US-3.125-02/15/42	250	16	16	0	0	2	33	-5

Source: Citi Investment Research and Analysis

Figure 92. Eur Inflation- Linked Carry (based on forecasts above)- One week changes

IL	RY (%)	Chg (bp)	Carry-adj chg	Carry: RY (bp)			Ref	BE (bp)	Chg (bp)	Carry-adj chg	Carry: BE (bp)			ZC Swap - BE Spread (bp)	Chg (bp)
				1 May	1 Jun	1 Jul					1 May	1 Jun	1 Jul		
Repo (%)				0.37	0.36	0.36									
BOBLei13	-1.34	-37	-37	-2	62	120	BUND 1/13	142	38	18	2	71	135	43	-16
OATi13	-1.71	-0	-0	3	39	42	FFRG 4/13	207	1	-8	3	39	41	44	10
BTPei14	0.87	-1	-1	10	45	74	BTP 8/14	166	10	1	-1	24	43	54	5
OATei15	-0.58	-2	-2	2	23	39	FFRG 4/15	166	12	6	-1	18	32	57	2
BUNDei16	-0.86	-3	-3	1	17	29	BUND 1/16	147	16	11	0	15	27	44	-3
BTANI16	-0.13	3	3	5	19	22	FFRG 4/16	161	9	7	2	12	13	67	2
BTPei16	2.14	-0	-0	9	31	49	BTP 8/16	125	7	1	0	15	26	83	5
OATi17	0.17	10	10	5	16	20	FFRG 4/17	167	3	1	1	10	10	59	5
BTPei17	2.55	11	11	9	27	43	BTP 8/17	134	-5	-10	0	11	20	73	15
BUNDei18	-0.45	4	4	1	13	21	BUND 1/18	159	13	9	0	10	17	36	-4
OATi19	0.60	5	5	4	13	16	FFRG 4/19	180	6	4	1	7	7	49	0
BTPei19	2.85	-5	-5	7	21	33	BTP 9/19	145	9	5	0	8	15	68	-1
BUNDei20	-0.13	5	5	2	11	18	BUND 1/20	171	9	6	0	7	13	37	-2
OATei20	0.83	5	5	3	13	22	FFRG 4/20	182	5	2	-1	7	12	40	2
BTPei21	3.40	-1	-1	6	18	28	BTP 9/20	110	1	-1	0	6	11	113	23
OATi22	1.03	5	5	3	11	17	FFRG 4/21	180	4	2	-1	4	8	48	1
OATi23	1.12	14	14	4	10	13	FFRG 10/23	200	-5	-6	0	4	4	36	8
BTPei23	3.60	-1	-1	6	16	25	BTP 8/23	137	-2	-4	-1	5	9	90	7
BTPei26	3.78	-10	-10	5	14	22	BTP 3/26	143	2	-0	0	4	8	89	4
OATei27	1.34	5	5	2	8	13	FFRG 4/26	206	4	3	-1	3	5	30	1
OATi29	1.47	7	7	3	8	10	FFRG 4/29	211	1	0	0	3	2	26	2
OATi32	1.53	12	12	2	7	12	FFRG 10/32	211	-4	-5	-1	2	4	28	7
BTPei35	3.74	-10	-10	3	9	14	BTP 8/34	182	7	6	-1	1	3	57	-4
OATei40	1.44	10	10	1	5	8	FFRG 10/38	227	-2	-4	-1	1	2	20	6
BTPei41	3.69	-10	-10	3	8	13	BTP 9/40	189	4	2	-1	1	2	58	-0

Source: Citi Investment Research and Analysis

Figure 93. UK Gilts Inflation- Linked Carry (based on forecasts above)- One Week Changes

UKTi	RY (%)	Chg (bp)	Carry-adj chg	Carry: RY (bp)			Ref	BE (bp)	Chg (bp)	Carry-adj chg	Carry: BE (bp)			ZC Swap - BE Spread (bp)	Chg (bp)
				1 Apr	1 May	1 Jun					1 Apr	1 May	1 Jun		
Repo (%)				0.48	0.49	0.48									
UKTi'13	-2.92	-12	-11	-1	-5	-8	UKT 9/13	332	9	9	-1	-4	-7	18	-9
UKTi'16	-1.79	2	1	1	2	4	UKT 9/16	280	11	11	0	0	1	45	2
UKTi'17	-1.28	8	11	-7	-3	-2	UKT 3/18	272	11	8	-8	-5	-6	52	1
UKTi'20	-0.82	13	13	1	3	5	UKT 3/20	276	7	7	0	0	0	47	1
UKTi'22	-0.41	13	14	-3	0	1	UKT 3/25	310	11	9	-4	-3	-4	24	-34
UKTi'24	-0.25	14	14	1	3	4	UKT 3/25	294	9	9	0	0	0	45	-1
UKTi'27	-0.08	8	9	-2	0	1	UKT 12/27	304	12	11	-3	-3	-4	41	-4
UKTi'29	0.03	8	9	-2	0	1	UKT 12/30	312	14	13	-3	-2	-4	32	-5
UKTi'30	-0.07	10	10	1	2	4	UKT 6/32	330	11	11	0	0	-1	21	-2
UKTi'32	0.04	9	10	-2	0	1	UKT 6/32	319	12	11	-3	-2	-3	34	-2
UKTi'34	0.11	8	8	-2	0	1	UKT 9/34	320	13	12	-2	-2	-3	31	-5
UKTi'35	0.06	10	10	1	2	3	UKT 3/36	329	11	11	0	-1	-1	26	-1
UKTi'37	0.09	9	10	-1	0	1	UKT 12/38	329	12	11	-2	-2	-3	29	-2
UKTi'40	0.12	10	10	-1	0	1	UKT 12/38	326	12	11	-2	-2	-3	32	1
UKTi'42	0.10	9	10	-1	0	1	UKT 9/39	331	12	12	-2	-2	-3	31	-1
UKTi'47	0.11	10	11	-1	0	1	UKT 12/46	332	12	11	-2	-2	-3	30	-2
UKTi'50	0.12	11	11	-1	0	0	UKT 12/46	331	11	10	-2	-2	-3	29	-1
UKTi'55	0.12	11	12	-1	0	0	UKT 12/55	332	11	11	-1	-2	-2	31	-1
UKTi'62	0.12	11	12	-1	0	0	UKT 1/60	329	12	11	-1	-2	-2	34	-1

Source: Citi Investment Research and Analysis

Summary of Recent Publications

Date	Publication	Topic	Page	Region
14-Mar-12	NOTE	Global Flow Monitor: US and European Flow Analysis	-	Global
09-Mar-12	NOTE	Rates Strategy Comment: After PSI-What next?	-	EUR
08-Mar-12	IIRS	Overview: What is the next driver for bond markets?	8	Global
		UK Budget & Gilt Issuance: Gilt issuance may nudge higher in FY2012-13	12	UK
		EUR Trade Idea: 5s10s France-Germany Box	14	EUR
07-Mar-12	NOTE	Interest Rate Strategy Comment: Greek PSI and CACs	-	EUR
06-Mar-12	NOTE	Interest Rate Strategy: Buy 30yr UK Gilts	-	UK
05-Mar-12	NOTE	Interest Rate Strategy: Buy Gilts against Bunds	-	Global
01-Mar-12	IIRS	Overview: Who will buy all the bonds?	8	EUR
		Greek PSI: Don't Compare Me To Argentina	12	EUR
		EMU-11: March Supply Outlook	16	EUR
		EUREX Futures Rolls	18	EUR
01-Mar-12	NOTE	Rates Strategy Update: Take profit on long 30yr UKT	-	UK
01-Mar-12	NOTE	Euro Rates Strategy: EMU-11: March Supply Outlook	-	EUR
29-Feb-12	NOTE	UK Rates Strategy: 10yr Gilt Auction, Cash-Flows, RV Fly & Futures Roll	-	UK
29-Feb-12	NOTE	Rates Strategy Update: LTRO thoughts	-	EUR
28-Feb-12	NOTE	Rate Strategy Update on Duration Trades: 5yr Germany and 30yr UK	-	Global
28-Feb-12	NOTE	Euro Rates Strategy: EMU Curve Trades & the LTRO	-	EUR
28-Feb-12	NOTE	Sovereign Ratings Update: Greece downgraded to Selective Default by S&P	-	EUR
23-Feb-12	IIRS	Overview: Growth expectations and yield divergence	8	Global
		Sovereign Ratings Outlook	12	EUR
		Greece: "It's déjà vu all over again"	14	EUR
		European Sovereign Bond Protection Facility	18	EUR
		Bund Futures Roll (RXH2-RXM2)	23	EUR
		Gilt Futures Roll (H2-M2)	25	UK
23-Feb-12	NOTE	UK Rates Strategy: Gilt H2-M2 Futures Roll + Net Basis Trade	-	UK
22-Feb-12	NOTE	End-February 2012 EGBI and WGBI Projections	-	Global
21-Feb-12	NOTE	Global Flow Monitor: US and European Flow Analysis	-	Global
21-Feb-12	NOTE	End-February 2012 Index-Linked Index Projections	-	Global
21-Feb-12	NOTE	Rates Strategy Update: Go long duration in 5yr Bobls and 30yr Gilts	-	Global
21-Feb-12	NOTE	Market Implications of Second Greek Bailout: "This Time It's Different"	-	EUR
16-Feb-12	IIRS	Rangebound yields, but for how much longer?	8	Global
		Implications of Moody's Downgrades: Muted market reaction and few surprises	11	Global
		BTPei Update: Implications of the Moody's downgrade	13	EUR
		Gilt Trade Idea: Buy the 2034s in a Long-End Gilt Fly	14	UK
		End-February EGBI/WGBI Projections	16	Global

Global Rates Team

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	Name	Office Number	Email Address
GLOBAL HEAD	Mark Schofield ¹	(44-20) 7986-9224	mark.schofield@citi.com
LONDON	Rates Strategy		
	Robert Crossley ¹	(44-20) 7986-9255	robert.crossley@citi.com
	Jamie Searle ¹	(44-20) 7986-9493	jamie.searle@citi.com
	Nishay Patel ¹	(44-20) 7986-1007	nishay.patel@citi.com
	Peter Goves ¹	(44-20) 7986-3215	peter.goves@citi.com
	Portfolio Strategy Group		
	David Bieber ¹	(44-20) 7986-4976	david.bieber@citi.com
MUMBAI	Aman Bansal ⁵	(91 22) 4277 5021	aman1.bansal@citi.com
	Mohit Aggarwal ⁵	(91 22) 4277 5022	mohit1.aggarwal@citi.com
NEW YORK	Rates & MBS Strategy		
	Brett Rose ²	(1-212) 723-6439	brett.rose@citi.com
	Neela Gollapudi ²	(1-212) 723-3075	neela.gollapudi@citi.com
	Inger Daniels ²	(1-212) 723-3274	inger.daniels@citi.com
	Bond Portfolio Analysis		
	Rob Rowe ²	(1-212) 723-1168	robert.rowe@citi.com
	Martin Bernstein ²	(1-212) 723-6067	martin.bernstein@citi.com
	Rohit Thapliyal ²	(1-212) 723-1696	rohit.thapliyal@citi.com
	Shuo Li ²	(1-212) 723-1179	shuo2.li@citi.com
Asia Pac	APAC Rates Strategy		
	Steven Mansell ⁹	(61-2) 8225 4900	steven.mansell@citi.com
	Sandeep Arora ⁶	(813-6) 270-7228	sandeep.k.arora@citi.com
	Japan Rates Strategy		
	Eiji Dohke ⁶	(813-6) 270-7246	eiji.dohke@citi.com
	Maki Shimizu ⁶	(813-6) 270-7249	maki.shimizu@citi.com
	Jacy Sun ⁶	(813-6) 270-7247	jacy.sun@citi.com
	Bond Portfolio Analysis		
	Hideaki Takahashi ⁶	(813-6) 270-7231	hideaki.takahashi@citi.com
	Yukichi Shimosato ⁶	(813-6) 270-7995	yukichi.shimosato@citi.com

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Appendix A-1

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