

## Developed Market Rates

14 June 2012 | 56 pages

# International Interest Rate Strategist

## Navigating the maelstrom

- **Overview:** The reversal of the rally in EMU peripheral markets has been further complicated by news on pension regulation, new ratings actions and further elections.
- We examine this maelstrom of new challenges and conclude that investors should buy the dip in 5yr German bonds and look at 5s30s steepening trades.
- **If Eurobonds are the Answer...What is the Question?** We examine the latest proposal for phased Eurobonds, which encompass the proposal from Germany's Five Wise Men for a European Redemption Fund, the red and blue bond proposal, and European t-bills replacing national t-bill issuance.
- **Downward Pressure on Spain's Rating:** Moody's lowered Spain's government bond rating from A3 to Baa3 on 13<sup>th</sup> June. Spain remains Investment Grade, but Moody's has placed Spain on a 3 month review "for possible further downgrades".
- **Algorithmic Trading Signals:** The ARTS signals forecast that yields will move lower, however the currently diverse dynamics suggest that investors should sell duration into rallies.

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

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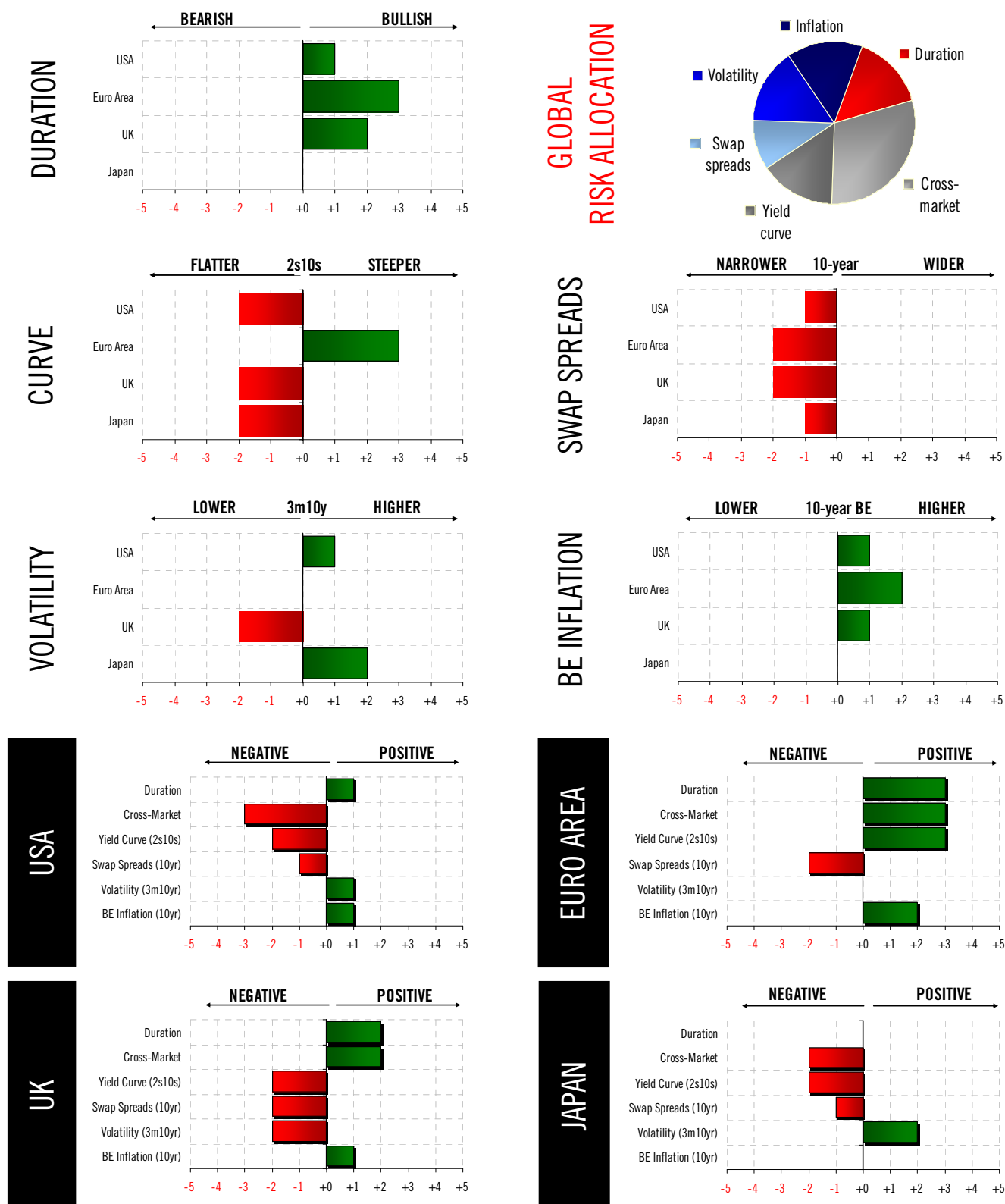
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Figure 1. Strategy Summary Table

<b>GLOBAL</b>	<b>View</b>	<b>Strategies</b>
<b>Direction</b>	Respite for the peripheral markets was short-lived and we see further downside risks on economic weakness, political impasse and further ratings actions. We would buy the dip in Germany but pension regulation changes mean we would confine long positions to sub 5yr maturities.	Long OEU2: Target 127.50, stop 125.50
<b>Yield Curve</b>	The zero boundary has been causing 2s5s to bull-flatten in Germany. We believe that this boundary can be broken with short-end yields moving negative. Rising concerns over pension regulation may add to a steepening bias. US and UK curves probably continue to flatten on safe-haven flows and QE expectations.	5s30s steepeners in Germany. Peripheral EMU flatteners, outright and boxed against core steepeners.
<b>Cross-market</b>	The correction in the Bund vs UST and EUR vs USD swap spreads has been dramatic, but we think this is due to heavy positioning in an illiquid market. We still expect ECB to cut rates and would use the move to add to positions.	Stay long 10yr gilts vs USTs Rec 2y2f EUR vs USD Long 10yr Bunds vs USTs 5s10s box Germany (flattener) vs Japan (steepener)
<b>EMU Spreads</b>	EMU tensions surrounding possible Greek exit and concerns centred on the Spanish banking system continue to rise. In this environment, we see scope for peripheral curves to flatten further.	Flatteners in Spain Long France vs Austria 2s10s flatteners in Netherlands vs Germany
<b>Swap Spreads</b>	Long end UKT swap spreads likely to be supported by QE purchases over the long term. The resumption of QE from the BoE remains a matter of when, not if, in our view. Bund swap spreads remain in thrall to swings in risk appetite, positioning 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 of Germany while 30s could benefit if the banking crisis worsens. Long 30yr gilt swap spreads on QE expectations. Buy soft core EMU vs swaps at positive spreads if you expect an EMU break-up.
<b>Inflation</b>	The sharp sell-off in Bunds has allowed long-end euro break-evens to bounce from the lows, but the front-end remains under pressure from falling oil prices. Euro break-evens look good value for long-term investors, but in the short-term the inflation market is a passenger to events elsewhere. In the UK, potential changes to the RPI calculation continues to weigh on BEs.	Stay long 5yr French inflation swap vs euro Sell 30yr UK break-evens 10s30s TIPS break-evens steepeners as a LT structural trade
<b>Volatility</b>	In Europe, we see good value in using the cheapness of the top left of the vol grid to initiate long duration trades in the front-end of the curve (where carry & roll is still elevated). We remain short the top left of the GBP volatility grid	Long EUR 3y2y Receiver (ATMF) Short rolling 1m5yr straddles in GBP and USD
<b>Risk Allocation</b>	The outlook continues to deteriorate rapidly and with it market liquidity is becoming very strained. We recommend an extremely low risk allocations to all strategies.	

Source: Citi Investment Research and Analysis

Figure 2. Global Summary



Source: Citi Investment Research and Analysis

# Tradesheet

## New Trades

### 1. Long 5yr Germany Futures

Buy OEU2 at 126.10

Open 126.10. Current 126.10. Target 127.50. Stop 125.50.

### 2. Germany 5s30s steepener

Buy OBL 0.5% 2017 at 0.55%

Sell DBR 2.5% 2044 at 2.2%

Open 165bps. Current 165bps. Target 200bps. Stop 150bps.

## Record of Closed Trades

Figure 3. Record of our Closed Trades

Country	Trade	Levels	Rationale	
<b>US / Europe</b>	<b>Long 10yr Bund vs UST</b>	Open 39bp Current 21bp <b>P&amp;L -18bp</b> Target 75bp Stop 21bp	Hit Stop 13 June 2012	
<i>Cross Market</i>	Sell UST 2% Feb22 at 2.25% Buy Bund 2% Jan22 at 1.86%		Interest Rate Strategy Trades 23 March 2012	
<b>Europe</b>	<b>Spain 5s10s flattener</b>	Open 106bp Current 76bp <b>P&amp;L 30bp</b> Target 40bp Stop 106bp	Hit trailing stop 7 June 2012	
<i>Curve</i>	Buy 5.85% Jan22 at 6.06% Sell 4.25% Oct16 at 5.00%		Morning Call 29 May 2012 Trade Update: Morning Call 29 May 2012	

Source: Citi Investment Research and Analysis

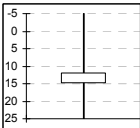
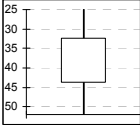
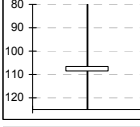
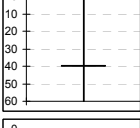
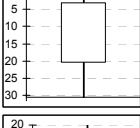
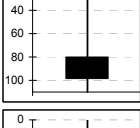
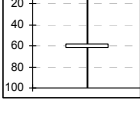
## Record of Open Trades

Figure 4. Record of our Open Trades

Region	Trade	Levels	Rationale + Publication Date	
<b>Germany</b>	<b>Long 5yr Germany Futures</b>	Open 126.1bp Current 126bp <b>P&amp;L 0bp</b> Target 127.5bp Stop 125.5bp	Core EMU sell-off should be short-lived, leading to negative yields in the short end	
<i>Duration</i>	Buy OEU2 at 126.10		IIRS 14 June 2012	
<b>Germany</b>	<b>Germany 5s30s steepener</b>	Open 165bp Current 165bp <b>P&amp;L 0bp</b> Target 200bp Stop 150bp	Broader uncertainties and current positioning might weigh on long-dated core rates	
<i>Curve</i>	Buy OBL 0.5% 2017 at 0.55% Sell DBR 2.5% 2044 at 2.2%		IIRS 14 June 2012	
<b>Europe</b>	<b>Long 10yr OAT vs RAGB</b>	Open 27bp Current 35bp <b>P&amp;L -8bp</b> Target 5bp Stop 38bp	France's latest spurt of outperformance, driven by the long end, has refocused attention on spreads again	
<i>Cross Market</i>	Buy OAT 3% Apr22 at 2.52% Sell RAGB 3.65% Apr22 at 2.25%		Morning Call 29 May 2012	
<b>Europe</b>	<b>Buy EUR 3y2yF Receiver</b>	Open 41bp Current 41bp <b>P&amp;L 0bp</b> Target 61bp Stop 31bp	Active roll on the underlying, ECB likely to cut rates and introduce extra liquidity measures	
<i>Duration</i>	Buy EUR 3y2yF Receiver (ATMF = 1.63%) at 41bps		IIRS 10 May 2012	

Source: Citi Investment Research and Analysis

Figure 5. Record of our Open Trades (continued)

<b>UK / US</b>	<b>Long 10yr Gilt vs UST</b>	Open 15bp Current 12bp <b>P&amp;L 3bp</b> Target -5bp Stop 25bp	Growth in the UK continues to disappoint and more QE is likely at some stage  IIRS 26 April 2012	
<b>Europe / Japan</b>	<b>Germany 5s10s flattener vs Japan</b>	Open 44bp Current 32bp <b>P&amp;L 12bp</b> Target 25bp Stop 52bp	5s10s in Germany looks too steep versus Japan relative to underlying volatilities  IIRS 12 April 2012	
<b>Belgium</b>	<b>Belgium 5s10s flattener</b>	Open 109bp Current 107bp <b>P&amp;L 2bp</b> Target 80bp Stop 125bp	Belgium 5yr sector is trading rich on the curve, and supply profile supports a flattener  Belgium Auction Preview 24 February 2012	
<b>Europe</b>	<b>Sell EUR 6m15y Strangle and buy OTM receiver</b>	Open 3bp Current 13bp <b>P&amp;L 16bp</b> Target 25bp Stop -10bp	Adjustment of GGB swap hedges should put downward pressure on 15yr EUR yields  Update on Long Duration Trades, 28 Feb 2012	
<b>US / Europe</b>	<b>Pay USD 2y 2y fwd vs EUR</b>	Open 40bp Current 40bp <b>P&amp;L 0bp</b> Target 0bp Stop 60bp	We expect divergence between UST and core EMU yields  IIRS 23 February 2012	
<b>Germany</b>	<b>Buy Germany 5s10s30s</b>	Open 20.5bp Current 3bp <b>P&amp;L 17bp</b> Target 0bp Stop 30.5bp	10s30s sector in Bunds has lagged the convergence in core yields. The 5s10s30s butterfly has much better carry and roll than the 2s5s10s alternative  Euro Rates Strategy Update 24th January 2012	
<b>UK / Europe</b>	<b>Long 30yr UK vs Germany with a 2y2y hedge</b>	Open 80bp Current 99bp <b>P&amp;L -19bp</b> Target 20bp Stop 110bp	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  IIRS 6 October 2011	
<b>UK / Europe</b>	<b>Bund 5s30s steepener vs gilts flattener</b>	Open 62bp Current 58bp <b>P&amp;L 4bp</b> Target 0bp Stop 100bp	Free-float profile suggests support to UK long end by QE, hedged by EUR steepener against EUR driven risk of mid-curve repricing  Interest Rate Strategy Focus on QE 14 Sep2011	

Source: Citi Investment Research and Analysis

## Overview

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### Navigating the maelstrom

In another turbulent week for markets the dynamic has shifted once more. In the last few days there has been a rapid reversal of the previous week's euphoria in anticipation of a rescue package for the Spanish banks.

The latest moves have seen Spanish 10yr Bono yields rise from 6.08% to a new high of 6.9% and 10yr BTP yields rise from 5.65% to 6.15%. Interestingly, however, there has been no accompanying flight to perceived safe-haven markets; 10yr Bund yields rose from a low of 1.16% to over 1.5%, 10yr US Treasuries from 1.46% to 1.7% and 10yr UK Gilts from 1.52% to 1.75%. At the same time, other non-sovereign "risk" assets have done reasonably well.

So what is going on? The answer is that there are now a lot of different factors pushing in various different directions in our view. These include shifting expectations over eventual EMU outcomes, changes to European pension regulations, further ratings moves and of course more elections.

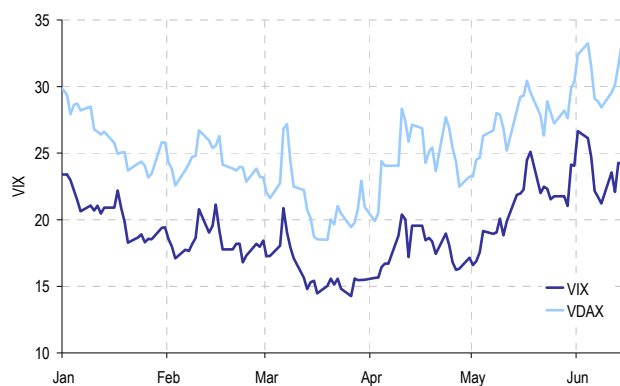
### The fear of EMU break-up and fiscal union

First, as we have previously noted, there appears to be a re-pricing of the probabilistic distribution of possible outcomes to the EMU crisis taking place. The central tendency of ongoing support measures for beleaguered sovereigns and banks is being priced as a less likely outcome while the implied probability of what were the tail events (total EMU break-up and fiscal union) is moving higher.

This suggests that investors are increasingly of the view that the crisis is nearing an inflexion point but they are not sure in what direction the move will come. Consistent with this, we have seen both interest rate and equity volatility move a little higher.

The implied probabilities of the one-time tail events of EMU break-up and fiscal union are rising

Figure 6. VIX and VDAX Indices



Source: Citi Investment Research and Analysis

Figure 7. Citi Short End Swaption Volatility Indices



Source: Citi Investment Research and Analysis

Such a shift in sentiment partly explains why we are seeing both core and peripheral yields move higher. There is a growing belief that core markets, and in particular Germany, will eventually have to foot a great deal of the bill for clearing up the EMU problem but that some private sector involvement in the reduction of the burden of debt in peripheral markets will be the quid pro quo; thus higher Bund yields AND higher peripheral yields.



## Why do equity markets seem so calm?

**Strong equity market performance may be explained by rising QE expectations and a lack of other income sources**

What does not sit so well with the theory of rising tail risks is the reasonably upbeat performance from equity markets. We attribute this to two factors; first of all a growing expectation that the toll the EMU crisis is taking on global confidence will lead to more QE in all the major developed economies, a move that would accelerate the process of risk-dilution that we have previously discussed. If risk is removed from the system, or diluted within the system then the theory of risk aggregation suggests that asset prices should rise in order to restore the equilibrium (Figure 8 and Figure 9).

Figure 8. US Equity Index / Broad Money



Source: Citi Investment Research and Analysis

Figure 9. US FI Index / Broad Money



Source: Citi Investment Research and Analysis

The second factor is the ongoing diminution in the number of assets that pay any kind of risk-adjusted return at all. With risk-free real bond yields deep in negative territory, CDS adjusted dividends are, as our equity strategists recently pointed out in their 6<sup>th</sup> June [Global Equity Strategist](#), arguably one of the more attractive alternatives.

## Pension regulation and the long-end

**Changes to pension fund regulation seems to be driving long end cheapening...**

The price action in the markets has been further distorted by other factors. Notably, in the past couple of days, a dramatic steepening of 10s30s curves in Europe. This, on the face of it, seems inconsistent with rising 10yr yields. Until late April there had been a strong bull steepening and bear flattening dynamic in the long end which only broke down when yields surged lower amid speculation of pension funds being forced to hedge ever increasing liabilities.

The reversal of the bull flattening move has been attributed to news of the adjustment to the discount rate curve being used by the Danish pension industry, following on from similar initiatives in the Netherlands and Sweden, raising the rate at which liabilities are discounted. This would significantly reduce those pressures to hedge widening deficits.

**...and there may be more to come**

This regulatory shift could significantly undermine demand in the long end of the yield curve. Firstly because it reduces the amount of bonds the pension funds would need to buy going forwards and secondly because the reduced duration requirement allows pension funds to match assets more closely with specific liability schedules (in effect this generates a steepening trade out of ultra-long assets and into the 10-20yr sector).

More immediately, however, it potentially leaves pension funds over-hedged against their current liabilities by virtue of the change in duration. At current yields, changing the coupon on a 30yr cashflow from 2% to 4.2% would reduce its duration by about 13%. We think that the Dutch pension funds are, by and large, modestly underweight duration but we believe that Danish pension funds are more likely close to fully hedged. Thus, while the Danish pension funds are smaller than the Dutch (we estimate that they might be around 15% of the approximately €750bn in the Netherlands<sup>1</sup>) the potential duration reduction following the Danish announcement might be disproportionately large.

#### Look out for pension changes in other markets too

A concurrent steepening in the US and UK curves makes us sceptical as to how much real flow has been behind the EUR move just yet and how much of the move is down to positioning and a reversal of the previous accelerated bull flattening. If the move gathers pace it could have a very significant impact indeed. With the UK's defined benefit pension deficit hitting a new high this may be a theme that we hear a great deal more about, in many regions, in coming months.

### Election mania

#### Greek election likely to leave uncertainty in the air

The next important event is the Greek election this week-end (assuming that the second round of the French legislative elections throw up no surprises). The latest polls appear to have the New Democracy gaining a very small majority. The greatest headline risk would likely come from a Syriza victory and a subsequent attempt to renegotiate the EU treaty and the reform program required by the terms of the bail-out package. We doubt, however, that even Syriza would go so far as to enter into a full-on battle with the Troika immediately given their recent comments that cash resources could dry up as soon as mid-July without further disbursements. That said, the situation remains very challenging and with any new government likely to have a very small majority it seems that policy implementation will remain a major issue.

With the Greek banking system highly dependent on ECB funding any perceived resistance to structural reforms is likely to be taken poorly by the markets in our view. We doubt, however, that this will unravel over the week-end. Parties will have to bring whatever they have to the negotiating table on Monday and the markets will respond thereafter.

### Conclusion

#### Trades:

1. Buy OEU2 at 126.10  
Target 127.50. Stop 125.50

2. Buy OBL 0.5% 2017 at 0.55% vs sell  
DBR 2.5% 2044 at 2.20%  
Entry spread 165bp. Target 200bp. Stop-loss 150bp

For the time being we expect EMU spreads and yields in the peripheral markets to remain under considerable pressure.

We think, however, that the sell-off in core markets and non-EMU safe-havens is likely to reverse fairly quickly and we retain our view that short-end German yields will trade in negative territory going forwards. We see the current back-up as a buying opportunity in the 3-5yr sector.

We are less comfortable about longer maturities, given the broader uncertainties and current positioning. We would look for 5s10s in Germany to steepen back over 100bp and 10s30s to head towards 100bp too. In EUR swaps we see 5s10s back to 75bp and 10s30s potentially up to 50bp

We expect US Treasury and UK Gilt yields to stabilize but to underperform Bobls and Bunds as the rally resumes.

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<sup>1</sup> Citi estimates based on latest DNB and OECD data.

# Ebonds are the answer. What is the question?

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Despite all the chatter, the reality of  
Eurobonds is probably some way off

Their potential value hinges on the  
details of the rules behind them

## Introduction: The devil is in the detail

Eurobonds will just not go away, however much Chancellor Merkel might like them to. They have returned to the centre of the debate about Europe, and seem to be gathering momentum even though recent market moves may have made them less attractive. However their flaws remain, partially in theory, but mostly in practice. The airtime they receive is disproportionate to their efficacy in stemming the crisis, or the feasibility of their introduction before they have been rendered irrelevant by events, in our view. Elements of the latest proposal of the European Parliament's ECON Committee<sup>2</sup>, built on the recommendations<sup>3</sup> of Germany's Five Wise Men, do represent progress, but they inevitably fall short. In this note we assess this proposal more fully.

Theoretically, and from a birds-eye perspective, Eurobonds make sense in the future once the crisis has forced much closer integration. But in the real world - where politics trumps economics - and the only horizon is short term, Eurobonds are much less obvious. Their potential value hinges on the details of the rules behind them however: there is no escaping the necessity of credible conditionality<sup>4</sup>. We believe there must be a mechanism to ensure that the time bought is used to implement the necessary measures and reforms.

## The latest proposal

The latest proposal from the European Parliament's ECON Committee basically combines the ideas advanced by the German Five Wise Men (a council of economists<sup>5</sup> nominated by the government to advise on government policy) with European T-bills (ET-bills) in Phase 1, and then blue bonds (Blue-EBonds) in Phase 2. We examine this below.

### Phase 1 – ERF bonds and ET-bills

Phase 1 in the report on Stability Bonds envisages European T-bills (up to a maximum of 10% of GDP) replacing all existing money market programmes, and a temporary European Redemption Fund, with joint and several liability and a roll-in phase of five years, for all debt above 60% debt/GDP. Member States would redeem this debt over a maximum 25 years "by using the interest rate savings for debt redemption which would be shorter if the growth rate is higher than foreseen".

### Phase 2 – red and blue bonds

Phase 2 is the old red/blue bond proposal (Blue-EBonds). The proposal is for common issuance of blue bonds up to 60% of GDP, and junior national issuance above 60%. The European Parliament believes no Treaty changes are required until phases 3 and 4<sup>6</sup>.

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<sup>2</sup> Draft report - The feasibility of introducing Stability Bonds - PE 491.075v01-00 - Committee on Economic and Monetary Affairs, 06 June 2012

<sup>3</sup> The German proposal for Eurobonds was a step forward from previous ones which appeared to require Treaty (and in some cases constitutional) change and ratification - a slow, fraught, and painful process. The ratification timetable – glacial in market terms - for the non-German Eurobond proposals would neutralize any potential bolstering of market confidence.

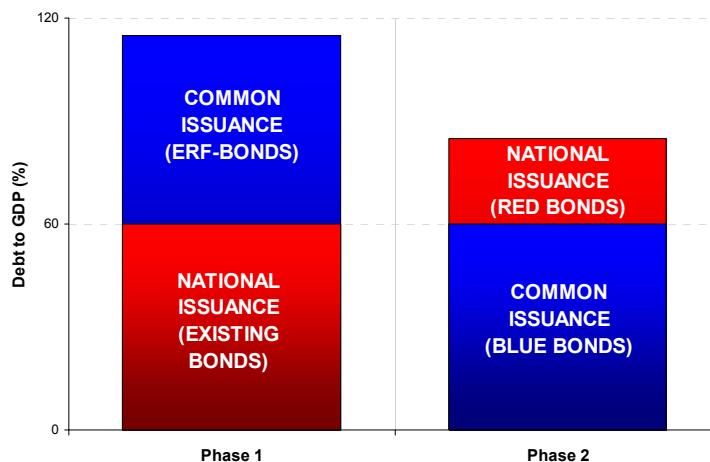
Moreover, these proposals ran a high risk of significantly diluting the incentives to pursue and implement the necessary structural reforms to reduce the competitive imbalances. That means the weak growth/historically profligate countries remain weak and the strong remain strong. That is not progress, merely postponing the problems, and that has been exposed as an unsustainable strategy by the markets. The reason that the ECB and Germany are so keen to avoid moral hazard is that it could undo all the progress so far, and mitigate the effects of all the money that has already been thrown at the problem to buy time to do the right thing.

<sup>4</sup> The draft report fully recognizes this: "sequencing is a key issue involving a binding roadmap". (Paragraph 7, Draft report - The feasibility of introducing Stability Bonds – Committee on Economic and Monetary Affairs, 06 June 2012).

<sup>5</sup> Formally known as the German Council of Economic Experts.

<sup>6</sup> Phase 3 envisages a European Debt Agency for the issuance of bonds, or conferring the task on the ESM. Phase 4 is EMU nirvana when there is "common issuance of a genuine European debt" after "having prepared all eventual changes to the EU legal framework" to serve as "an instrument to facilitate fiscal adjustment in response to external shocks when cross-border effects are at play" as

Figure 10. Simplified Schematic of Phases 1 and 2



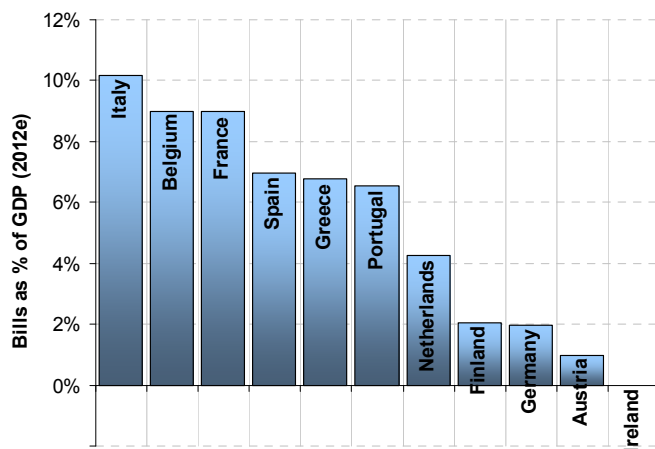
Source: Citi Investment Research and Analysis

## Phase 1 – ET-Bills – a step in the right direction

European T-bills could help reduce market access worries, but the maximum limit means it is far from a solution

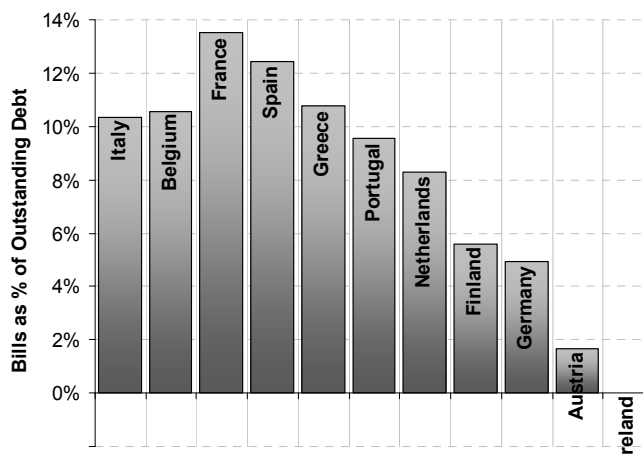
European T-bills would help with market access worries to a certain extent, but again the maximum limit means it falls short of its objective “to protect Member States from illiquidity runs”. For instance, Italy’s bill market is already 10% of its GDP (Figure 11), though Spain could gain access to approximately €30bn of funding through ET-bills.

Figure 11. Bills as a Percentage of GDP (2012e)



Source: Citi Investment Research and Analysis, IMF

Figure 12. Bills as a Percentage of Outstanding Debt



Source: Citi Investment Research and Analysis, IMF

There is no escaping the thorny issue of conditionality

Limiting participation to countries that comply with the rules of the Stability and Growth Pact also brings us back to the ineluctable issue of conditionality. There is no escaping the fact that members have to behave. The credibility of the enforcement of ‘good behaviour’ is at the root of all solutions, not just Eurobonds.

well as “possible issuance of bonds to finance EU investments for EU public goods (e.g., infrastructure...)”.

## Phase 1 – ERF-Bonds – better in theory than in practice

### What is the proposal?

The proposal of Germany's Five Wise Men from November was for a European Redemption Fund (ERF) that would take over the excess debt of countries breaking 60% debt to GDP<sup>7</sup>. This would be paid off immediately by the common redemption fund, financed cheaply through new, collectively guaranteed Eurobonds. Let's call these ERF-bonds to avoid confusion.

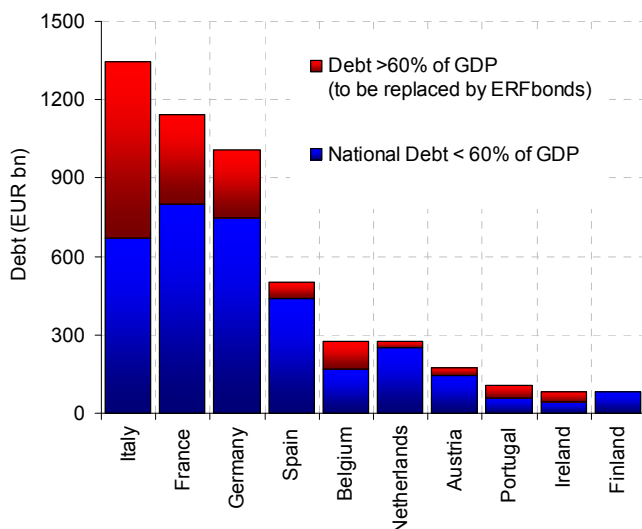
### How this is different from other Eurobond proposals?

This is importantly different from other Eurobond proposals in that it has a limited life<sup>8</sup>, and has strings attached to participation (and it appears that the European Parliament considers this possible within the framework of existing Treaties). The countries that use the ERF would have to agree to strict rules on borrowing and spending before getting help: they would have to provide collateral, earmark certain tax revenue, and introduce debt brakes into their constitution. In return, their interest payments are slashed and, so the plan goes, they have enough breathing room to grow and reduce their debt. This growth is planned to fund the paying off of the redemption fund (within 25 years).

### The workaround

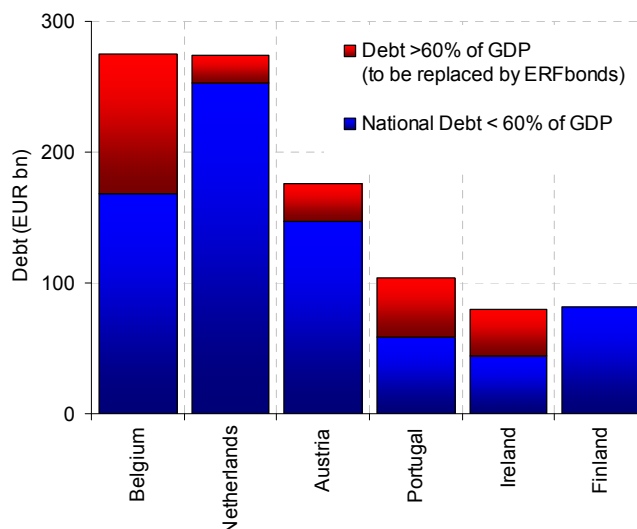
In addition, and most importantly, the ERF doesn't fall foul of the German Constitutional rules. According to the German Constitutional Court, the German parliament "is prohibited from establishing permanent mechanisms under the law of international agreements which result in an assumption of liability for other states' voluntary decisions, especially if they have consequences whose impact is difficult to calculate". Roughly translated into English, that means no collective Eurobonds. The European Redemption Fund (ERF) represents some steps to get round this by allowing you to calculate the liabilities, and technically the ERF does not assume the debt of other countries, but creates new debt instead.

Figure 13. Debt Above and Below 60% of GDP



Source: Citi Investment Research and Analysis. NB Sovereign bonds only

Figure 14. Debt Above and Below 60% of GDP



Source: Citi Investment Research and Analysis. NB Sovereign bonds only

<sup>7</sup> 60% was the old Maastricht limit, more honoured in the breach than the observance. EA countries would manage their own national debt up to 60%. So only Finland would be free of the ERF.

<sup>8</sup> Cited by the report as a way to reduce moral hazard.

**But what's in it for Germany?**

Under this proposal Germany's cost of funding would almost certainly rise<sup>9</sup>, but that will be less than they might be on the hook for if the single currency fails. Any option which would avoid the fallout from the breakup (not least an extremely strong exchange rate and all its consequences), the impact on European growth as a whole, the legal quagmire, etc. is not to be sniffed at just because it looks expensive at the moment. But would it really be cheaper? That depends on whether everybody sticks to the plan. And this is precisely where the conditionality<sup>10</sup> of the proposal looks like it scores<sup>11</sup>.

**The German proposal is the most logical and attractive of the various Eurobond options in our view. It wins the ugly contest.**

The notion underlying Eurobonds in general is, essentially, to find a mechanism for the weaker countries (the receivers in swap parlance) to rent the credibility reserve that the strong countries (the payers) have built up. But the strong countries need to get something in return, otherwise the market won't believe in it being a lasting solution. That could be some form of automatic compensation mechanism for the creditors, or simply an acceptably high (or increased) probability that this will stop the rot and the cost will be significantly less than the cost of an ongoing crisis and possible EMU breakup. That would mean guarantees that what has happened in the past won't happen again, i.e., that all countries will fulfil their responsibilities – not just when it suits them – rather than just enjoying the advantages. This is the absolutely central issue to the whole thing in our view.

**The crux is conditionality**

**No free lunch. The price may be too high.**

As outlined above, the quid pro quo for a country having its 'excess' debt paid off would be that they would have to submit to strict economic oversight and institute constitutional debt brakes to shrink their debt burdens<sup>12</sup>. Surrendering control in this way is theoretically good in the sense that the Achilles heel of all plans is watertight (and therefore market-credible) implementation, in the face of politicians and electorates with shorter term, divergent, priorities. But surrendering control is practically 'bad' in that it is politically somewhat tricky, to say the least.

**Eurobonds can be seen as similar to the LTROs - they buy time**

The reason is that economic progress and repair takes a long time, and it takes even longer for it to bear fruit politically. Eurobonds can be seen as another way to help bridge that gap between the present and the future. Eurobonds are similar to the LTROs in that they effectively buy time, but however it is bought, that time still has to be used effectively, not just to buy domestic political breathing space.

**Phase 1 would be very onerous for Italy. It has an unenviable starting point, both in terms of high debt to GDP and high t-bill issuance as a percentage of GDP**

Any rules of good behaviour that rely upon political, as opposed to market-based/automatic, enforcement for punishment of fiscal transgressors are unlikely to be believed by the market, and we believe yields of those sovereign bonds will remain unsustainably high if they are starting from a position of high debt to GDP, i.e., Italy.

**The advantage of the German proposal is also its weakness**

The strong conditionality of the German proposal is absolutely key to the efficacy of ERF-bonds. Unfortunately, that is precisely what makes it politically unpalatable domestically to the recipient countries<sup>13</sup>. It is difficult to see countries failing to choke on the domestic political implications of the conditionality (rightly) required by the Germans. So the key question is, "Could there be, in true European fashion, a compromise that delivers ERF-bonds but that is politically more palatable?"

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<sup>9</sup> By up to 100bps according to *The Economist*.

<sup>10</sup> Read loss of sovereign control.

<sup>11</sup> It also has the (not inconsiderable) advantage of not being blocked by the German constitution.

<sup>12</sup> A bit like the French Foreign Legion, once you're in you're in and there's no way out.

<sup>13</sup> The problem is that any conditionality strong enough to satisfy Germany (which they are quite right to demand) will likely be too strong to be acceptable to those being yoked. The question is whether the strong or the weak will cave in and whether one side will blink before the catastrophe is upon us.



## Anyone for fudge?

### Could there be a compromise? Of course

The answer is yes. But it would significantly undermine the value of ERF-bonds in solving or even stemming the crisis. A key danger for the long term health of Europe is that the conditionality is accepted in theory, but then gets "postponed" to "give growth a chance", i.e., mollify electorates. In much the same way that it is difficult to see calls for less austerity and more growth as little more than just a call for less austerity, postponing conditionality would look rather like the figleaf it is in our view.

### Could Germany be forced to compromise?

Another way that the conditionality could be made permeable is by Germany relenting and softening its stance. Germany could find itself in a situation where it feels it has no option but to yield and allow de facto fuzzy conditionality. One such scenario might be Merkel having her hands tied by domestic political issues. Another would be Europe being on the edge of a complete breakup and Germany calculating that the cost of genuinely drawing a line under the crisis would be less than the current death by a thousand cuts.

### The value of ERF-bonds lies in the extent to which they can be wedded to a mechanism for credible implementation of the necessary measures

However, we strongly suspect that Germany is under no illusion that however difficult it may seem in the moment, it is easier and cheaper in the long run to resist than to give in. Once they show any sign of weakness it will be exploited and the game will be up in our view. The question is how much conditionality can be weakened while retaining the belief of the market. The value of ERF-bonds lies in the extent to which they can be wedded to a mechanism for credible implementation of the necessary economic measures.

The German proposal element of Phase 1 goes a long way towards addressing the implementation issue<sup>14</sup>, but it seems somewhat unlikely that governments and electorates will accept a stronger version of the conditionality/austerity that they are rejecting now. The problem is that any conditionality strong enough to satisfy Germany (and it is quite right to demand it) will be too strong to be acceptable to those being yoked in our view. A lot hinges on who blinks first, the strong or the weak. The problem is that after a certain point the weak feel they have little to lose and the balance of power shifts dangerously, as we have seen in Greece.

## Phase 2 – red and blue bonds

### The red portion could easily be viewed by investors as the equity portion of the capital structure

We retain serious doubts about the red/blue bond proposal in practice. The red/blue bond proposal (common issuance up to 60% debt/GDP – blue bonds, joint and several guarantees<sup>15</sup>, making euro zone states responsible for repaying the debts of others - and national issuance above 60% - red bonds) could create even more volatility in spreads. It would be difficult to rate even supplementary German issuance as AAA. (Among EMU countries only Finland currently has a debt/GDP ratio that is under the 60% Maastricht limit). Belgium and Italy with debt/GDP ratios of almost 100% and 120% respectively would require very sizeable premia.

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<sup>14</sup> Though as ever, the devil will be in the detail.

<sup>15</sup> Joint liability is where each party is liable up to the full amount of the obligation.

Several (or proportionate) liability is where each party is liable only for their respective obligation.

Under joint and several liability a claimant can pursue any one party as if they were jointly liable and it is the responsibility of the defendants to sort out their respective proportions of liability and payment, i.e., there is an almighty bun fight. Joint and several liability helps ensure the claimant receives the full amount but means whoever pays out may end up holding the bag, in effect being jointly liable.

Significant supplementary issuance outside of the core tranche of such a program is likely to attract extremely punitive rates. If investors are already shunning BTPs and Bonos are they really going to buy them over alternatives when debt beyond 60% of GDP is carrying 100% of the risk? We're not sure why investors would want red bonds which could quickly turn toxic as increasing default probability was priced in of which they would bear the brunt? In order to make red bonds sufficiently attractive they may need to command such a premium that it is directly opposed to the objective of a sustainably low funding level. The red tranche appealing on ground of yield alone is self-defeating<sup>16</sup>. The weighted average funding level of red and blue bonds is going to be heavily dependent on the amount of debt above 60% of GDP. So Italy's funding costs are likely to change much less than Spain's for instance, because of the different starting points.

Hang on a minute...

Of course none of the above is going to be an issue because by the time Phase 2 occurs countries will have reduced their debt to GDP sufficiently that any red bonds are going to be seen as much less risky and a continually shrinking part of the whole – so will not need to offer anything like the premium that peripheral bonds do now. Or that is the theory implicit in the latest proposal. In other words, the credibility/implementation problem is supposed to have already been solved during Phase 1. That is the key assumption of the proposal. We come back again to the ineluctable issue of watertight (or at least credible and robust) conditionality. If that is missing, nothing else matters in our view.

At the very best, Eurobonds are part of a solution. They are not a short term crisis-management (or resolution) tool.

Whatever structure that Eurobonds assume, they need to be wedded to a credible roadmap - that countries are committed to - towards a form of de facto fiscal union at some point<sup>17</sup>. And the market needs to be able to have confidence in the delivery of the austerity and structural measures to return growth and debt to sustainable trajectories. Without that, for all the talk of Eurobonds, we believe they will be another expensive way to prolong the agony and the lives of governments.

### What problem are Eurobonds trying to solve?

Some form of closer integration is inevitable if the Euro is to hold together. Banks sprawl across national boundaries and are disproportionately large in relation to certain sovereigns<sup>18</sup>. A single currency yoking countries together with disparate fiscal policies and asynchronous growth cycles has created unsustainable tensions.

The problem is to find a way to stop the market singling out the weakest member of the herd each time

The problem is to find a way to stop the bond market singling out the weakest member of the herd each time. If confidence isn't engendered in the market that underlying problems are being solved then individual countries will remain vulnerable. The most vulnerable countries are, on the whole, the ones with the least credibility and which consequently have the most to prove. Unfortunately the market can see that it is questionable whether the group as a whole will underwrite the credibility of the weaker members, especially when national politics often makes brinksmanship a rational, if high risk, option.

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<sup>16</sup> The possibility that Ebonds might raise total funding cost across Europe if not wedded to a credible plan seldom seems to surface in discussions. Bond yields will only fall if the market has confidence in the fiscal trajectory and it being locked in. That goes back to the enforcement mechanism.

<sup>17</sup> Otherwise the fundamental (and probably terminal) contradiction of EMU will remain.

<sup>18</sup> Though in interest of keeping things in perspective, Spain's banking liabilities as a percentage of GDP are far smaller than Ireland's.



**Euro bonds are the cart, and fiscal integration the horse, not the other way round**

Even if you take a step back and ignore the political practicalities for a moment and focus on the theoretical economics instead, then Eurobonds at this stage are still far from obvious. Common issuance makes sense at the end of a process of euro area integration<sup>19</sup>, not at the beginning. Eurobonds are the cart, and fiscal union the horse: not the other way round<sup>20</sup>. Eurobonds are a *corollary* of fiscal integration, not a stepping stone towards it<sup>21</sup>.

But why not? Couldn't Eurobonds be part of the road to closer fiscal integration, even if they are theoretically premature? Well they could, it's just that they might not actually solve anything/improve market confidence.

**Don't get lost in the detail**

Eurobonds, in the right form, could be a way of making the market see the interest of the whole more closely wedded to the interest of the individual parts, but that isn't necessarily a solution to the problem. There is no escaping the fact that countries have to get themselves back on a credible and sustainable economic trajectory. Any country-specific issuance will continue to reflect the credibility of individual countries' economic and political in/action. But that debt will not be allowed to spiral out of control because "this time is different" and the countries will follow the rules.

**What all Eurobond proposals come back to**

This is why all Eurobond proposals ultimately come back to the issue of the strength of conditionality and how watertight it is. And the stronger and more credible the conditionality, the more politically unacceptable it is to the country submitting to it. Of course, drastic times call for drastic measures, and in a triage situation there is room for neither pontification nor posturing. But prescribing Eurobonds may not even stabilize the patient, never mind put him on the road to recovery.

## Conclusion: conditionality is key

**"Politics is the art of the possible, the attainable – the art of the next best."**

The crux of the issue is this: to the extent that Eurobonds can play a part in increasing the credibility of delivery of the necessary economic measures, and improve the chances of a return to sustainable growth, they are part of a solution. The reality is that politics means they are likely to fall well short of that. By the time Eurobonds make sense theoretically they will no longer be needed to help solve the crisis; and the forms of Eurobonds (i.e., with market-credible conditionality) that are likely to have a lasting positive effect on markets now are not feasible politically. But, as Bismark famously said, "Politics is the art of the possible, the attainable – the art of the next best". What seems impossible today may well seem possible tomorrow. The trouble is that could just as easily refer to a disintegration of the Euro, as to acceptance of a watertight delivery schedule.

**At best, Eurobonds are part of a solution. They are not a short term crisis-management (or resolution) tool.**

At best, Eurobonds are part of a solution<sup>22</sup>. They are not a short term crisis-management (or resolution) tool. Eurobonds by themselves don't actually solve anything at this stage, and ill-conceived Eurobonds would merely prolong the agony and increase the ultimate cost. Phase 1 could be a significant step forward however

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<sup>19</sup> Common fiscal policy, fiscal transfers, a flexible EMU-wide labour market etc. Given that we are not starting from a balanced and sustainable fiscal position, common issuance may merely redistribute pressures and strains.

<sup>20</sup> Merkel was saying as much in her recent comments that she is open to much more European integration over a 5-10yr horizon. See Euro Sovereign Debt Crisis Update, 01 June.

<sup>21</sup> But perhaps we shouldn't get too hung up on contradictions, given that EMU managed to muddle through and sublimate the contradiction at its very heart - viz, monetary union with no fiscal union - for 20 years, until the chickens came home to roost.

<sup>22</sup> If their introduction is part of throwing the kitchen sink at the problem then it is already too late. In other words, Eurobonds are most likely when they are not needed.

**We recommend fading any significant tightening of spreads on Eurobond headlines as it will almost certainly fade as the reality dawns.**

- if it can bring about the implementation of robust and credible conditionality, and a way is found to help mitigate Italy's dire starting point. However that is a big 'if' and experience has taught markets to be highly sceptical of promising headlines and to wait for evidence of delivery.

On balance, Eurobonds, even in their latest form, represent another false dawn in our view. The positive sounding headlines and the relief that something is being done will likely drive a risk-on move but we recommend fading any significant tightening of spreads on Eurobond headlines as it will almost certainly fade as the reality dawns and the light floods through the holes in the plan. The holes are gradually getting smaller with each successive initiative though. But time is running out.

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## Pressures on Spain's Rating

Moody's downgraded Spain from A3 to Baa3 (credit watch negative) on 13<sup>th</sup> June. A downgrade had been widely anticipated given recent comments by the agency about the bank recapitalization package for Spain. Given that downside risks to the rating remain, the upcoming Greek elections and the independent Spanish bank audit, we remain cautious on Spanish spreads. We believe the curve will continue to flatten.

### Spain as a BBB Sovereign

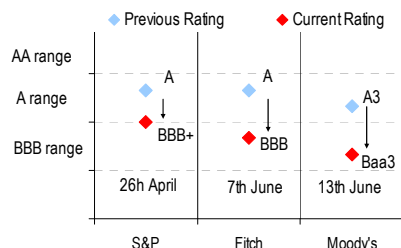
Spain is now rated BBB+ by S&P, BBB by Fitch and Baa3 by Moody's (Figure 15). Much of the move by Moody's (13<sup>th</sup> June) related to "encapsulating" new information relating to rising EMU tension, especially the recent announcement to recapitalize the Spanish sovereigns banking sector. The ratings action is also part of a wider re-appraisal of Spain's creditworthiness by the agencies given the recent moves by S&P and Fitch (as detailed in our recent note [Further pressure on Spain's rating likely 13<sup>th</sup> June.](#))

Moody's cited three core reasons behind its downgrade on 13<sup>th</sup> June<sup>23</sup>:

- The increase to the Spanish government's debt burden due to the bank recapitalization programme
- Limited financial market access
- Continued economic weakness

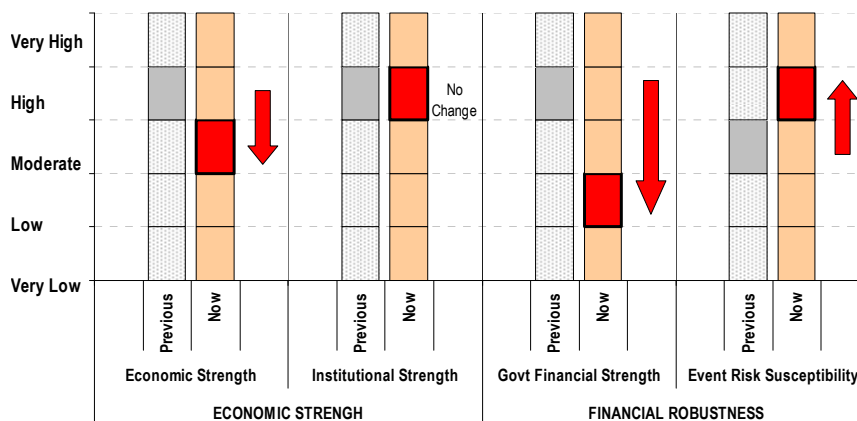
Understanding the drivers behind Moody's three-notch downgrade provides insight into the ongoing pressures on Spain's rating. This is shown in Figure 16.

Figure 15. Recent Changes in Spain's Rating



Source: S&P, Moody's, Fitch

Figure 16. Changes in Moody's Factor Scoring Driving its Rating Action on 14<sup>th</sup> June, Schematic

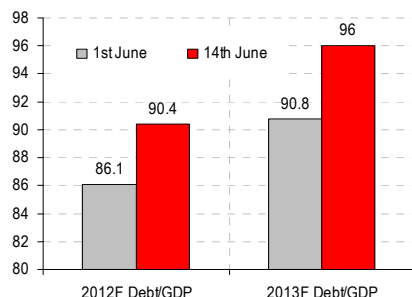


Source: Moodys (Credit Opinion details from 1<sup>st</sup> June and 14<sup>th</sup> June Moody's Reports), Citi

Moody's has lowered its factor ranking for Spain's "economic strength" from "high" to "moderate" and increased Spain's event risk susceptibility from "moderate" to "high". We had previously highlighted that Spain's bank recapitalization programme was likely to weigh on Moody's "financial strength score", which was previous rated as "high" due to Spain's comparatively low debt-to-GDP ratio vs peers. Moody's has now lowered its scoring from "high" to "low" for this factor. The combination of these factor changes helps explain the direction and magnitude of Moody's rating change according to their criteria.

<sup>23</sup> All references in terms of Moody's scoring and current economic forecasts are sourced to Moody's Credit Opinion on Spain, 14<sup>th</sup> June

**Figure 17. Changes in Moody's Forecast for Spain's General Govt Debt/GDP (%)**



Source: Moody's

#### No change in ECB haircuts

#### No change in Index eligibility

#### Another reason for Bono yields and spreads to remain elevated

#### Downside risks to the rating remain and are conditional on a variety of factors

### Spain's rising debt-to-GDP

A core reason behind the downgrade of Spain is the sovereign's rising debt burden due to the bank recapitalization package:

*"...it is clear that the responsibility for supporting Spanish banks rests with the Spanish government... This borrowing will materially worsen the government's debt position: Moody's now expects Spain's public debt ratio to rise to around 90% of GDP this year and continue to rise until the middle of the decade..."* (Moody's Rating Action, 13<sup>th</sup> June).

Moody's has revised its forecasts of debt-to-GDP ratios for Spain as shown in Figure 17 as a result of the bank recapitalization package ([Spain: Bank bail-out on the way](#)). Consequently, the agency states that the new debt dynamics are not "commensurate with a rating in the A range or even at the top of the Baa range".

### Key Implications of Moody's downgrade

- **ECB Haircuts:** The ECB takes into account the ratings of Moody's, S&P, Fitch and DBRS. As long as Spain's rating by DBRS is still be within the "A range", the ECB, under the current framework, will not require additional valuation haircuts for Spanish government and government guaranteed debt used as collateral for the open market operations. If DBRS would downgrade Spain below the 'A-' level as well, an extra 5% haircut will apply.
- **Index Eligibility:** The Investment Grade and EBT index inclusion threshold is BBB- and above. Hence, there are no consequences of index eligibility following a downgrade by Moody's towards the BBB range. However, "headroom" continues to decrease.
- **Market Impact:** Volatility in EMU spreads around ratings action is nothing new, but neither is the deterioration in Europe's creditworthiness. While the wider impact from this ratings action might be limited, the downgrade will serve to help keep yields and spreads elevated in our view. By mid-day on 14<sup>th</sup> June, Spanish 10yr yields were trading less than 10bp below the 7% level.

### Could Spain lose its investment grade status?

Moody's Baa3 rating of Spain (to the lowest IG rating) is also under review for possible further downgrades. We now have more clarity on specific factors on which the rating outlook depends (*Moody's Rating Action, 13<sup>th</sup> June*):

- The ultimate size and conditions of the banking support package
- The results of the independent audit of Spanish banks
- Any further steps relating to fiscal integration and/or banking union
- The impact of the banking support package on market confidence

In addition, Moody's has also indicated that the rating could be "adversely affected if the risk of a Greek exit from the euro area were to rise further"<sup>24</sup>.

<sup>24</sup> Moody's Credit Opinion, Government of Spain, 14<sup>th</sup> June

Separately, Moody's had also indicated the following regarding programmes where the sovereign itself is dependent on external support<sup>25</sup>:

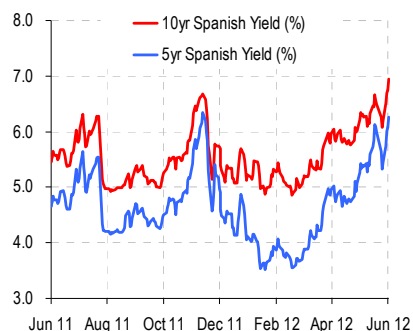
*"Given the experience with PSI in Greece and the intentions expressed by euro area officials around the development of the ESM, Moody's believes the debts of euro area sovereigns that are dependent upon funding support from official sources represent non-investment grade risks..."*<sup>26</sup>

Financial assistance to Spain has come in the form of a bank recapitalisation package, not directly for the sovereign to finance its own funding. Spain can still fund in the market, albeit the backdrop is increasingly challenging. It remains to be seen whether the Spanish sovereign might also need a bailout itself either to cover its funding needs in whole or in part. It is also unclear if the Moody's statement that sovereigns "dependent upon funding support from official sources represent non-investment grade risks" applies equally if a programme only partly funds the sovereign (as detailed in [Focus on Spain](#)).

Ireland remains in EGBI despite being rated Ba1 by Moody's

However, note that just because one agency rates a sovereign as sub-Investment Grade does not necessarily mean it becomes ineligible for index membership. As a result of differences in sovereign rating methodology and views, Ireland (a programme country) is rated BBB+ by S&P and Ba1 by Moody's. Because Ireland is still rated Investment Grade by S&P, Ireland is still eligible for EGBI membership and has not been removed from this benchmark index.

Figure 18. 5yr and 10yr Spanish Yields (%)



Source: Citi

## Conclusion - Spanish yields to remain elevated

**Spain Downgraded:** Given that S&P and Fitch already rated Spain as a BBB sovereign and that Moody's had already indicated a downgrade of Spain was likely, Moody's move from A3 to Baa3 can be put in the context of a wider re-appraisal of Spain's creditworthiness. However, risks clearly remain given that Moody's has put Spain on negative watch as discussed above. Moody's has stated it would expect to conclude the review within a maximum timeframe of three months<sup>27</sup>.

**EMU Ratings More Broadly:** Given Citi's base case of Greece leaving EMU ([Global Economic Outlook and Strategy May 2012](#)) and a general intensification of the EMU crisis, we think the rating agencies are likely to undertake a general pan-European re-appraisal of EMU creditworthiness (like they did in late 2011 / early 2012). In this sense, we think further downward pressure on the broader spectrum of EMU sovereign credit ratings is likely, as detailed in our latest [Sovereign Ratings Outlook](#). Indeed, Moody's and Fitch have indicated the possibility of such a review of European's creditworthiness should EMU tensions escalate.

**Flattening Pressure on Spain's Curve:** We therefore believe Spanish yields and spreads will remain elevated in the near-term. Spain's curve is likely to continue to flatten. The high degree of uncertainty makes it very difficult to argue for a sustainable rally in Spanish yields at present.

<sup>25</sup> Note, Moody's rates Ireland as Ba1, Portugal as Ba3 and Greece as C

<sup>26</sup> "Rating Euro Area Governments Through Extraordinary Times – Implications of Spain's bank recapitalisation needs and the rising risk of a Greek Exit" Moody's Investor Service, 8<sup>th</sup> June 2012

<sup>27</sup> Moody's Rating Action: Moody's downgrades Spain's government bond rating to Baa3 from A3, on review for further downgrade. 13<sup>th</sup> June 2012

## European Relative Value Trades

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

### France: Taking advantage of opportunities on the curve

#### Flattening Bias

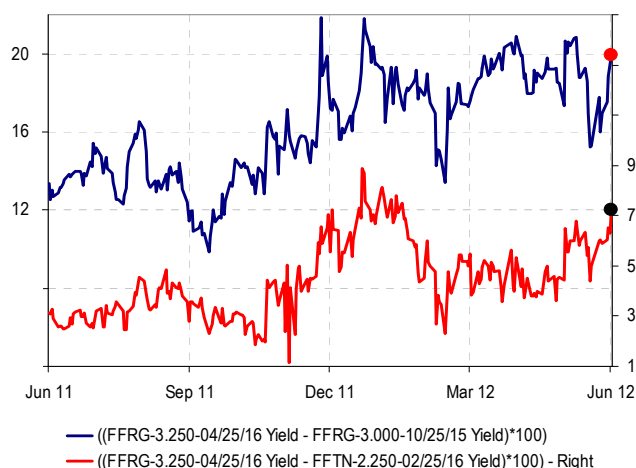
- Switch from 3% Oct15 to 3.25% Apr16 for a 20bps yield pick up

Or, Switch from 2.25% Feb16 to 3.25% Apr16 for a 7bps yield pick up (Figure 19).

#### Steepening bias

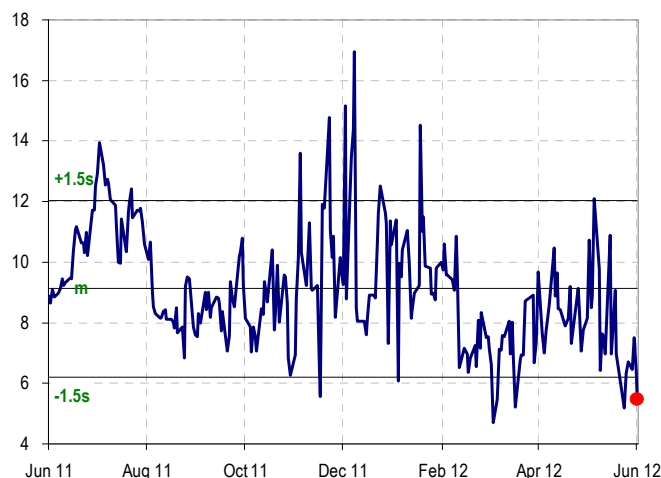
- Switch from 4% Oct14 to 3% Jul14 for a 6bps yield give up (Figure 20)

Figure 19. France: Switches into Apr16



Source: Citi Investment Research and Analysis

Figure 20. France: 4% Oct14 – 3% Jul14 yield spread (bp)



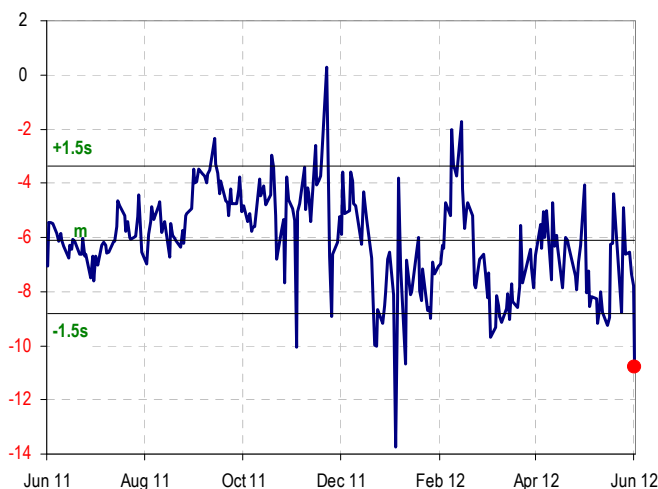
Source: Citi Investment Research and Analysis

#### Microfly

- Sell 3% Oct15 vs 2% Jul15 and 3.25% Apr16 (Figure 21).

- Buy 3.75% Apr17 vs 2.25% Feb16 and 4% Apr18 (Figure 22).

Figure 21. France: 2% Jul15, 3% Oct15, 3.25% Apr16 microfly (bp)



Source: Citi Investment Research and Analysis

Figure 22. France: 2.25% Feb16, 3.75% Apr17, 4% Apr18 microfly (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 23 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 23. 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> <div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>	Richest	1	3.25 Jul42	-1.81	Jul10	15	Richest	1	3.25 Jul21 (RX)	-0.26	Apr11	19
		2	4.00 Jan37 (UB)	-1.64	Jan05	23		2	2.00 Jan22	-0.19	Nov11	16
		3	4.75 Jul40	-1.54	Jul08	16		3	3.00 Jul20	-0.12	Apr10	22
		4	4.25 Jul39	-1.54	Jan07	14		4	2.50 Jan21	-0.10	Nov10	19
		5	2.00 Jan22	-1.45	Nov11	16		5	2.25 Sep21	-0.07	Aug11	16
		5	3.25 Jul15	1.16	May05	21		5	1.75 Jul22 (10y)	1.25	Apr12	5
		4	2.50 Jul44 (30y)	1.36	Apr12	3		4	6.25 Jan30	1.38	Jan00	9
		3	4.25 Jul14	1.46	May04	25		3	0.50 Apr17 (5y)	1.39	Apr12	5
		2	0.50 Apr17 (5y)	1.49	Apr12	5		2	4.75 Jul34	1.50	Jan03	20
	Cheapest	1	5.50 Jan31	1.89	Oct00	17	Cheapest	1	5.50 Jan31	1.64	Oct00	17

Source: Citi Investment Research and Analysis

Figure 24 (overleaf) looks at bonds of all maturities. For investors with maturity restrictions we have also provided another set of summary tables (Figure 25 and Figure 26) which looks at bonds shorter than 12 years and longer than 8 years, and uses the same criteria as Figure 24 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 24. 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	<div> <div>Richest</div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div>Cheapest</div> </div>	1	3.25 Jul42	-1.81	Jul10	15	1	3.25 Jul21 (RX)	-0.26	Apr11	19
		2	4.00 Jan37 (UB)	-1.64	Jan05	23	2	2.00 Jan22	-0.19	Nov11	16
		3	4.75 Jul40	-1.54	Jul08	16	3	3.00 Jul20	-0.12	Apr10	22
		4	4.25 Jul39	-1.54	Jan07	14	4	2.50 Jan21	-0.10	Nov10	19
		5	2.00 Jan22	-1.45	Nov11	16	5	2.25 Sep21	-0.07	Aug11	16
		5	3.25 Jul15	1.16	May05	21	5	1.75 Jul22 (10y)	1.25	Apr12	5
		4	2.50 Jul44 (30y)	1.36	Apr12	3	4	6.25 Jan30	1.38	Jan00	9
		3	4.25 Jul14	1.46	May04	25	3	0.50 Apr17 (5y)	1.39	Apr12	5
		2	0.50 Apr17 (5y)	1.49	Apr12	5	2	4.75 Jul34	1.50	Jan03	20
		1	5.50 Jan31	1.89	Oct00	17	1	5.50 Jan31	1.64	Oct00	17
FRANCE	<div> <div>Richest</div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div>Cheapest</div> </div>	1	4.50 Apr41 (30y)	-2.56	Apr09	15	1	4.00 Oct14	-1.28	Oct03	20
		2	0.75 Sep14	-1.52	Sep11	4	2	3.50 Apr15	-1.26	Apr04	22
		3	4.00 Oct38	-1.19	Oct05	24	3	3.00 Jul14	-1.22	Jun09	21
		4	5.00 Oct16	-0.94	Oct00	25	4	2.00 Jul15	-1.20	Jun10	21
		5	3.25 Apr16	-0.81	Apr05	28	5	3.00 Oct15	-1.16	Oct04	33
		5	3.00 Oct15	1.33	Oct04	33	5	4.50 Apr41 (30y)	0.73	Apr09	15
		4	5.75 Oct32	1.39	Oct00	23	4	4.00 Oct38	0.89	Oct05	24
		3	2.00 Jul15	1.85	Jun10	21	3	3.50 Apr26	1.01	Apr10	28
		2	4.00 Apr55	2.10	Apr04	15	2	4.75 Apr35	1.20	Apr03	18
		1	4.75 Apr35	3.24	Apr03	18	1	5.75 Oct32	1.30	Oct00	23
ITALY	<div> <div>Richest</div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div>Cheapest</div> </div>	1	5.50 Sep22 (10y-IK)	-2.81	Mar12	8	1	4.75 Aug23	0.95	Feb08	21
		2	4.75 Sep16	-2.25	Sep11	9	2	5.00 Mar22	0.97	Sep11	9
		3	5.00 Mar22	-1.97	Sep11	9	3	5.75 Feb33	1.01	Feb02	15
		4	4.75 May17	-1.86	Feb12	4	4	5.00 Mar25	1.12	Mar09	20
		5	4.00 Feb17 (5y)	-1.67	Aug06	23	5	4.75 Jun17	1.13	Jun12	3
		5	4.50 Mar19	1.95	Sep08	23	5	3.75 Apr16	1.53	Apr11	12
		4	5.00 Sep40 (30y)	2.14	Sep09	20	4	5.50 Sep22 (10y-IK)	1.55	Mar12	8
		3	2.50 Mar15 (BTS)	2.30	Mar12	5	3	4.25 Aug14	1.57	Feb04	27
		2	5.00 Mar25	2.46	Mar09	20	2	2.50 Mar15 (BTS)	2.14	Mar12	5
		1	4.25 Feb19	2.55	Feb03	23	1	4.75 May17	2.30	Feb12	4
N'LANDS	<div> <div>Richest</div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div>Cheapest</div> </div>	1	3.25 Jul15	-2.54	Jun05	14	1	0.75 Apr15	0.46	Jan12	3
		2	0.75 Apr15	-2.11	Jan12	3	2	3.25 Jul15	0.82	Jun05	14
		3	4.00 Jan37	-0.79	Apr05	12	3	3.50 Jul20	1.04	Feb10	15
		4	4.50 Jul17	-0.66	Jul07	15	4	3.25 Jul21	1.13	Mar11	11
		5	3.75 Jan42 (30y)	-0.49	May10	10	5	4.00 Jul16	1.18	Jul06	13
		5	2.75 Jan15	0.85	Jul09	13	5	3.75 Jan42 (30y)	1.33	May10	10
		4	2.50 Jan33	0.95	Mar12	4	4	4.00 Jul19	1.37	Feb09	13
		3	4.00 Jul18	0.99	Feb08	15	3	4.00 Jul18	1.54	Feb08	15
		2	4.00 Jul19	2.23	Feb09	13	2	4.00 Jan37	1.76	Apr05	12
		1	3.75 Jul14	3.02	Mar04	14	1	2.50 Jan33	2.58	Mar12	4
SPAIN	<div> <div>Richest</div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div>Cheapest</div> </div>	1	5.50 Jul17	-1.21	Mar02	15	1	4.00 Jul15	2.10	Jan12	4
		2	3.80 Jan17	-0.84	Oct06	13	2	4.70 Jul41 (30y)	2.11	Sep09	11
		3	4.70 Jul41 (30y)	-0.76	Sep09	11	3	4.90 Jul40	2.13	Jun07	13
		4	4.25 Oct16 (5y)	-0.73	Sep11	7	4	4.85 Oct20	2.16	Jul10	16
		5	3.25 Apr16	-0.72	Nov10	17	5	4.10 Jul18	2.18	Feb08	16
		5	4.85 Oct20	0.86	Jul10	16	5	3.15 Jan16	2.30	Sep05	16
		4	5.75 Jul32	0.90	Jan01	14	4	5.75 Jul32	2.30	Jan01	14
		3	4.60 Jul19	0.90	Feb09	13	3	3.00 Apr15	2.31	Mar10	18
		2	4.30 Oct19	0.91	Jun09	15	2	4.40 Jan15	2.32	Jun04	18
		1	3.15 Jan16	1.45	Sep05	16	1	3.30 Oct14	2.37	Jul09	17
BELGIUM	<div> <div>Richest</div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div>Cheapest</div> </div>	1	4.00 Mar17 (5y)	-0.97	Jan07	11	1	4.25 Sep14	-0.81	Jan04	13
		2	3.25 Sep16	-0.82	Jan06	12	2	3.50 Mar15	-0.70	Mar09	10
		3	4.25 Mar41 (30y)	-0.73	Apr10	6	3	3.75 Sep15	-0.64	Mar05	11
		4	3.50 Jun17	-0.70	Mar11	6	4	3.25 Sep16	-0.59	Jan06	12
		5	4.50 Mar26	-0.69	Jun11	4	5	2.75 Mar16	-0.59	Mar10	10
		5	4.00 Mar19	0.20	Jan09	10	5	4.50 Mar26	-0.13	Jun11	4
		4	3.50 Mar15	0.24	Mar09	10	4	5.00 Mar35	0.05	May04	14
		3	3.75 Sep15	0.42	Mar05	11	3	4.25 Sep22	0.45	Jan12	5
		2	3.75 Sep20	0.56	Jan10	18	2	3.00 Sep19	0.78	Apr12	4
		1	3.00 Sep19	0.60	Apr12	4	1	4.00 Mar32	1.09	Mar12	4

Source: Citi Investment Research and Analysis



# Relative Value Tables – Max 12Yr Maturity

Figure 25. 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	1	2.00 Jan22	-1.45	Nov11	16	1	3.25 Jul21 (RX)	-0.26	Apr11	19
		2	3.25 Jul21 (RX)	-1.26	Apr11	19	2	2.00 Jan22	-0.19	Nov11	16
		3	3.75 Jan15	-1.08	Nov04	23	3	3.00 Jul20	-0.12	Apr10	22
		4	1.75 Jul22 (10y)	-0.70	Apr12	5	4	2.50 Jan21	-0.10	Nov10	19
		5	2.50 Feb15	-0.50	Jan10	17	5	2.25 Sep21	-0.07	Aug11	16
	Cheapest	5	2.00 Feb16	0.98	Jan11	16	5	2.25 Apr15	0.72	Apr10	19
		4	4.25 Jul18	0.99	May08	21	4	2.50 Oct14	0.79	Sep09	17
		3	3.25 Jul15	1.16	May05	21	3	4.25 Jul14	0.83	May04	25
		2	4.25 Jul14	1.46	May04	25	2	1.75 Jul22 (10y)	1.25	Apr12	5
		1	0.50 Apr17 (5y)	1.49	Apr12	5	1	0.50 Apr17 (5y)	1.39	Apr12	5
FRANCE	Richest	1	0.75 Sep14	-1.52	Sep11	4	1	4.00 Oct14	-1.28	Oct03	20
		2	5.00 Oct16	-0.94	Oct00	25	2	3.50 Apr15	-1.26	Apr04	22
		3	3.25 Apr16	-0.81	Apr05	28	3	3.00 Jul14	-1.22	Jun09	21
		4	3.75 Apr17	-0.52	Apr06	25	4	2.00 Jul15	-1.20	Jun10	21
		5	2.25 Feb16	-0.47	Feb10	19	5	3.00 Oct15	-1.16	Oct04	33
	Cheapest	5	3.00 Apr22 (10y)	0.71	Feb12	14	5	3.75 Apr21	-0.13	Apr05	31
		4	4.25 Apr19	0.91	Apr03	28	4	2.50 Oct20	-0.12	Oct09	29
		3	2.50 Jan15	1.08	Jan10	20	3	3.25 Oct21	0.15	Oct10	6
		2	3.00 Oct15	1.33	Oct04	33	2	4.25 Oct23	0.55	Oct06	31
		1	2.00 Jul15	1.85	Jun10	21	1	3.00 Apr22 (10y)	0.58	Feb12	14
ITALY	Richest	1	5.50 Sep22 (10y-IK)	-2.81	Mar12	8	1	4.75 Aug23	0.95	Feb08	21
		2	4.75 Sep16	-2.25	Sep11	9	2	5.00 Mar22	0.97	Sep11	9
		3	5.00 Mar22	-1.97	Sep11	9	3	4.75 Jun17	1.13	Jun12	3
		4	4.75 May17	-1.86	Feb12	4	4	4.75 Sep21	1.22	Mar11	22
		5	4.00 Feb17 (5y)	-1.67	Aug06	23	5	3.75 Aug21	1.28	Feb06	27
	Cheapest	5	4.50 Feb20	1.19	Feb04	21	5	3.75 Apr16	1.53	Apr11	12
		4	4.25 Mar20	1.81	Sep09	23	4	5.50 Sep22 (10y-IK)	1.55	Mar12	8
		3	4.50 Mar19	1.95	Sep08	23	3	4.25 Aug14	1.57	Feb04	27
		2	2.50 Mar15 (BTS)	2.30	Mar12	5	2	2.50 Mar15 (BTS)	2.14	Mar12	5
		1	4.25 Feb19	2.55	Feb03	23	1	4.75 May17	2.30	Feb12	4
N'LANDS	Richest	1	3.25 Jul15	-2.54	Jun05	14	1	0.75 Apr15	0.46	Jan12	3
		2	0.75 Apr15	-2.11	Jan12	3	2	3.25 Jul15	0.82	Jun05	14
		3	4.50 Jul17	-0.66	Jul07	15	3	3.50 Jul20	1.04	Feb10	15
		4	4.00 Jul16	-0.37	Jul06	13	4	3.25 Jul21	1.13	Mar11	11
		5	3.50 Jul20	-0.02	Feb10	15	5	4.00 Jul16	1.18	Jul06	13
	Cheapest	5	3.75 Jan23	0.56	Jan06	10	5	3.75 Jan23	1.23	Jan06	10
		4	2.75 Jan15	0.85	Jul09	13	4	2.50 Jan17 (5y)	1.31	Jun11	8
		3	4.00 Jul18	0.99	Feb08	15	3	2.75 Jan15	1.32	Jul09	13
		2	4.00 Jul19	2.23	Feb09	13	2	4.00 Jul19	1.37	Feb09	13
		1	3.75 Jul14	3.02	Mar04	14	1	4.00 Jul18	1.54	Feb08	15
SPAIN	Richest	1	5.50 Jul17	-1.21	Mar02	15	1	4.00 Jul15	2.10	Jan12	4
		2	3.80 Jan17	-0.84	Oct06	13	2	4.85 Oct20	2.16	Jul10	16
		3	4.25 Oct16 (5y)	-0.73	Sep11	7	3	4.10 Jul18	2.18	Feb08	16
		4	3.25 Apr16	-0.72	Nov10	17	4	4.00 Apr20	2.18	Jan10	16
		5	5.85 Jan22 (10y)	-0.44	Nov11	4	5	4.30 Oct19	2.19	Jun09	15
	Cheapest	5	3.00 Apr15	0.66	Mar10	18	5	3.25 Apr16	2.28	Nov10	17
		4	4.85 Oct20	0.86	Jul10	16	4	3.15 Jan16	2.30	Sep05	16
		3	4.60 Jul19	0.90	Feb09	13	3	3.00 Apr15	2.31	Mar10	18
		2	4.30 Oct19	0.91	Jun09	15	2	4.40 Jan15	2.32	Jun04	18
		1	3.15 Jan16	1.45	Sep05	16	1	3.30 Oct14	2.37	Jul09	17
BELGIUM	Richest	1	4.00 Mar17 (5y)	-0.97	Jan07	11	1	4.25 Sep14	-0.81	Jan04	13
		2	3.25 Sep16	-0.82	Jan06	12	2	3.50 Mar15	-0.70	Mar09	10
		3	3.50 Jun17	-0.70	Mar11	6	3	3.75 Sep15	-0.64	Mar05	11
		4	4.25 Sep21	-0.53	Jan11	8	4	3.25 Sep16	-0.59	Jan06	12
		5	2.75 Mar16	-0.32	Mar10	10	5	2.75 Mar16	-0.59	Mar10	10
	Cheapest	5	4.00 Mar19	0.20	Jan09	10	5	4.25 Sep21	-0.25	Jan11	8
		4	3.50 Mar15	0.24	Mar09	10	4	3.75 Sep20	-0.21	Jan10	18
		3	3.75 Sep15	0.42	Mar05	11	3	4.00 Mar22 (10y)	-0.19	May06	14
		2	3.75 Sep20	0.56	Jan10	18	2	4.25 Sep22	0.45	Jan12	5
		1	3.00 Sep19	0.60	Apr12	4	1	3.00 Sep19	0.78	Apr12	4

Source: Citi Investment Research and Analysis

# Relative Value Tables – Min 8yr Maturity

Figure 26. 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	1	3.25 Jul42	-1.81	Jul10	15	1	3.25 Jul21 (RX)	-0.26	Apr11	19
		2	4.00 Jan37 (UB)	-1.64	Jan05	23	2	2.00 Jan22	-0.19	Nov11	16
		3	4.75 Jul40	-1.54	Jul08	16	3	3.00 Jul20	-0.12	Apr10	22
		4	4.25 Jul39	-1.54	Jan07	14	4	2.50 Jan21	-0.10	Nov10	19
		5	2.00 Jan22	-1.45	Nov11	16	5	2.25 Sep21	-0.07	Aug11	16
	Cheapest	5	4.75 Jul34	0.29	Jan03	20	5	4.00 Jan37 (UB)	1.20	Jan05	23
		4	2.25 Sep20	0.57	Aug10	16	4	1.75 Jul22 (10y)	1.25	Apr12	5
		3	6.25 Jan30	0.93	Jan00	9	3	6.25 Jan30	1.38	Jan00	9
		2	2.50 Jul44 (30y)	1.36	Apr12	3	2	4.75 Jul34	1.50	Jan03	20
		1	5.50 Jan31	1.89	Oct00	17	1	5.50 Jan31	1.64	Oct00	17
FRANCE	Richest	1	4.50 Apr41 (30y)	-2.56	Apr09	15	1	3.75 Apr21	-0.13	Apr05	31
		2	4.00 Oct38	-1.19	Oct05	24	2	2.50 Oct20	-0.12	Oct09	29
		3	3.75 Apr21	-0.26	Apr05	31	3	4.00 Apr60	-0.07	Apr09	8
		4	4.25 Oct23	-0.24	Oct06	31	4	4.00 Apr55	-0.01	Apr04	15
		5	4.00 Apr60	-0.16	Apr09	8	5	3.25 Oct21	0.15	Oct10	6
	Cheapest	5	3.25 Oct21	0.67	Oct10	6	5	4.50 Apr41 (30y)	0.73	Apr09	15
		4	3.00 Apr22 (10y)	0.71	Feb12	14	4	4.00 Oct38	0.89	Oct05	24
		3	5.75 Oct32	1.39	Oct00	23	3	3.50 Apr26	1.01	Apr10	28
		2	4.00 Apr55	2.10	Apr04	15	2	4.75 Apr35	1.20	Apr03	18
		1	4.75 Apr35	3.24	Apr03	18	1	5.75 Oct32	1.30	Oct00	23
ITALY	Richest	1	5.50 Sep22 (10y-IK)	-2.81	Mar12	8	1	4.75 Aug23	0.95	Feb08	21
		2	5.00 Mar22	-1.97	Sep11	9	2	5.00 Mar22	0.97	Sep11	9
		3	4.75 Aug23	-1.55	Feb08	21	3	5.75 Feb33	1.01	Feb02	15
		4	4.75 Sep21	-1.52	Mar11	22	4	5.00 Mar25	1.12	Mar09	20
		5	5.75 Feb33	-1.18	Feb02	15	5	5.00 Sep40 (30y)	1.15	Sep09	20
	Cheapest	5	3.75 Mar21	-0.35	Sep10	23	5	4.00 Feb37	1.23	Aug05	25
		4	5.00 Aug39	0.92	Aug07	19	4	3.75 Aug21	1.28	Feb06	27
		3	4.50 Mar26	1.71	Sep10	14	3	4.00 Sep20	1.34	Mar10	22
		2	5.00 Sep40 (30y)	2.14	Sep09	20	2	3.75 Mar21	1.40	Sep10	23
		1	5.00 Mar25	2.46	Mar09	20	1	5.50 Sep22 (10y-IK)	1.55	Mar12	8
N'LANDS	Richest	1	4.00 Jan37	-0.79	Apr05	12	1	3.50 Jul20	1.04	Feb10	15
		2	3.75 Jan42 (30y)	-0.49	May10	10	2	3.25 Jul21	1.13	Mar11	11
		3	3.50 Jul20	-0.02	Feb10	15	3	3.75 Jan23	1.23	Jan06	10
	Cheapest	3	3.25 Jul21	0.29	Mar11	11	3	3.75 Jan42 (30y)	1.33	May10	10
		2	3.75 Jan23	0.56	Jan06	10	2	4.00 Jan37	1.76	Apr05	12
		1	2.50 Jan33	0.95	Mar12	4	1	2.50 Jan33	2.58	Mar12	4
SPAIN	Richest	1	4.70 Jul41 (30y)	-0.76	Sep09	11	1	4.70 Jul41 (30y)	2.11	Sep09	11
		2	5.90 Jul26	-0.54	Mar11	7	2	4.90 Jul40	2.13	Jun07	13
		3	4.65 Jul25	-0.46	Feb10	14	3	4.85 Oct20	2.16	Jul10	16
		4	5.85 Jan22 (10y)	-0.44	Nov11	4	4	4.20 Jan37	2.18	Jan05	16
		5	4.80 Jan24	-0.18	Sep08	15	5	5.50 Apr21	2.19	Jan11	20
	Cheapest	5	4.90 Jul40	0.27	Jun07	13	5	5.85 Jan22 (10y)	2.24	Nov11	4
		4	4.20 Jan37	0.55	Jan05	16	4	4.80 Jan24	2.24	Sep08	15
		3	5.50 Apr21	0.56	Jan11	20	3	5.90 Jul26	2.28	Mar11	7
		2	4.85 Oct20	0.86	Jul10	16	2	4.65 Jul25	2.29	Feb10	14
		1	5.75 Jul32	0.90	Jan01	14	1	5.75 Jul32	2.30	Jan01	14
BELGIUM	Richest	1	4.25 Mar41 (30y)	-0.73	Apr10	6	1	4.25 Mar41 (30y)	-0.28	Apr10	6
		2	4.50 Mar26	-0.69	Jun11	4	2	4.25 Sep21	-0.25	Jan11	8
		3	4.25 Sep21	-0.53	Jan11	8	3	3.75 Sep20	-0.21	Jan10	18
		4	4.25 Sep22	-0.24	Jan12	5	4	4.00 Mar22 (10y)	-0.19	May06	14
	Cheapest	4	4.00 Mar32	-0.16	Mar12	4	4	4.50 Mar26	-0.13	Jun11	4
		3	4.00 Mar22 (10y)	0.06	May06	14	3	5.00 Mar35	0.05	May04	14
		2	5.00 Mar35	0.15	May04	14	2	4.25 Sep22	0.45	Jan12	5
		1	3.75 Sep20	0.56	Jan10	18	1	4.00 Mar32	1.09	Mar12	4

Source: Citi Investment Research and Analysis

## Current ARTS Trading Signal

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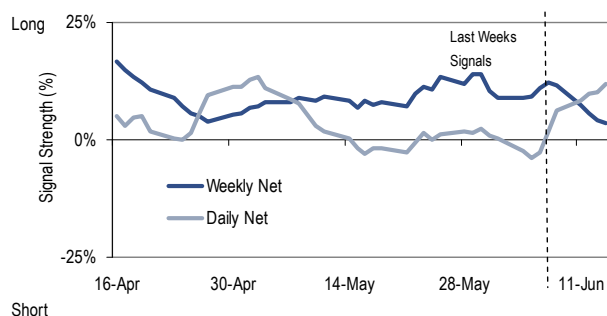
The short and long term signals continue to be disconnected ...

... Due to diverging risk dynamics and momentum signals ...

... But fundamentals remain weak in both long and short term models.

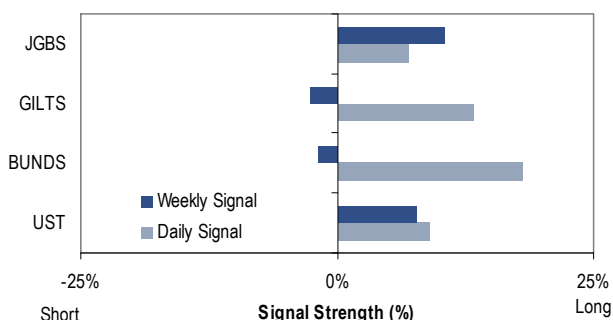
All signals are long duration (with short term signals strengthening but long term weakening) - currently the models are buying duration but maintain tight stops. This week the daily and weekly algorithmic rates trading signals<sup>28</sup> (DARTS / WARTS) have diverged. In the long term, the signals have reduced their duration of 2% while the short term signals have increased duration to 10% (see Figure 27). Weak fundamentals are the most consistent signals across both models this week which mainly support a move lower in yields. In contrast, the momentum and risk aversion signals are highly diverse. In the WARTS, both signals are weakening as a result of the recent sell-off in rates. However in DARTS, duration is increasing as a result of mean reversion dynamics dominating (i.e. value trumps trends as asset cheapen in the short term). As we noted in last weeks publication, this pattern suggests that short term price action will remain volatile with lower yields in the short terms (i.e. investors should with tight stops). The strongest signal this week is a long UST position which is being driven supportive momentum and raised risk aversion (see Figure 28).

Figure 27. Evolution history of the daily / weekly 10y net signal



Source: Citi Investment Research and Analysis

Figure 28. Breakdown of current daily and weekly net signals

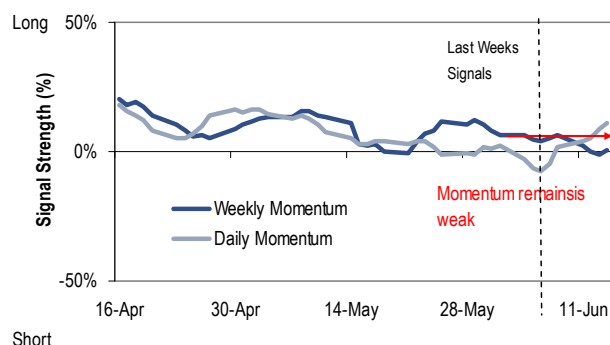


Source: Citi Investment Research and Analysis

The momentum signals are weak and dominated by mean reversion in the short term but trend dynamics in the longer term ...

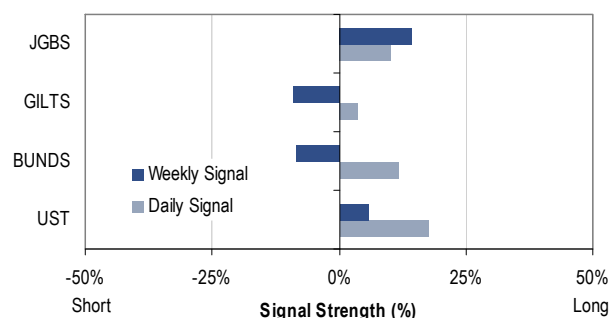
The momentum signals maintain a long duration position in the DARTS but have switched into a short position in WARTS (see Figure 29). The surprising aspect in the long term signals is the shorts positions in Bund and Gilts but longs in UST. This is a result of trend having a larger contribution in Bund compared to other assets. As Bund yields move higher there is a higher historical probability that this trend will continue (compared with UST where mean reversion dominates - see Figure 30).

Figure 29. Evolution history of the daily / weekly 10y momentum signal



Source: CIRA, Bloomberg

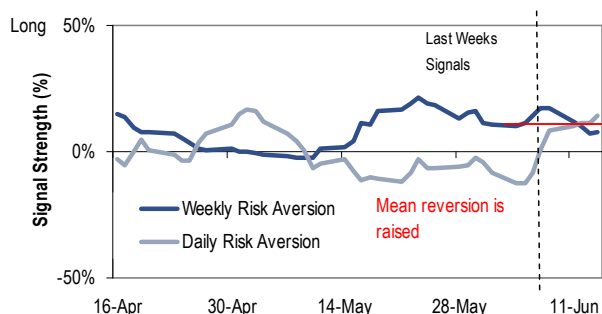
Figure 30. Breakdown of current daily and weekly momentum signals



Source: CIRA, Bloomberg

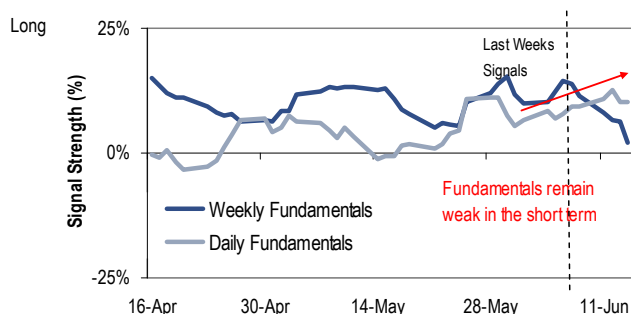
<sup>28</sup> The current signals are calibrated as of market close 13<sup>th</sup> June 2012.

**Figure 31. Evolution history of the daily / weekly 10y risk aversion signal**



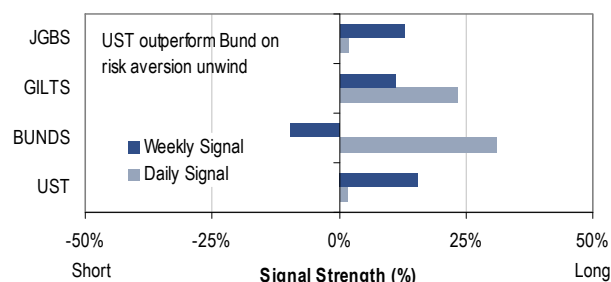
Short  
Source: Citi Investment Research and Analysis

**Figure 33. Evolution history of the daily / weekly 10y fundamental signal**



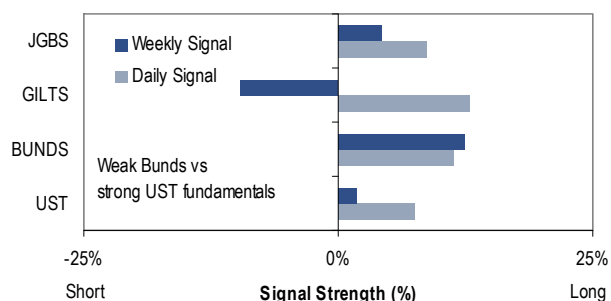
Short  
Source: CIRA, Bloomberg

**Figure 32. Breakdown of current daily and weekly risk aversion signals**



Source: CIRA, Bloomberg

**Figure 34. Breakdown of current daily and weekly fundamental signals**



Source: CIRA, Bloomberg

... Meanwhile risk aversion is raised but weak asset correlations are creating diverse positioning ...

Meanwhile, risk aversion continues to be raised in the both the short and long term signals. However it has been weakening in the longer term (particularly in Bunds - see Figure 31 and see Figure 32). This is a result of a breakdown in asset correlation while is particularly high in Bund (i.e. core and periphery yields have recently been all increasing). This split in position would suggest that likelihood of a reversal has increased in Bunds.

... However, fundamentals remain broadly weak in the short and long term.

Finally, the models find that short and long term fundamental continue to be weak as a result of the weak macro data (see Figure 33). The long term signals have weakened recently as result of fundamentals becoming more fairly priced as data improves. The strongest signal this week remains in Bunds (as last week) and remains the major driver of duration.

The signals suggest that short term price action will remain volatile...

In summary, the positions are being driven by weak fundamental in the short and long term. Momentum and risk signals are also supportive of duration due to dominate mean reversion dynamics in the short term. However in the longer term, trend is increasing in strength and therefore driving a short duration position (given the recent move higher in yields). Clearly price action is expected to remain volatile since short / long term signals are conflicting. As a results we would suggest that investors should buy reduce but maintain tight stops due to the weakening of longer term signals.

... but suggest that investors should selling duration into rallies.

# Global Supply Monitor

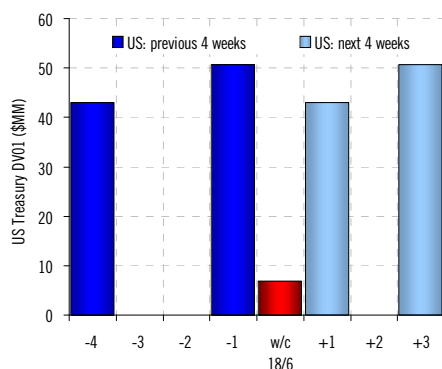
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## Historical and projected DV01 of USD, EUR and GBP issuance (weekly)

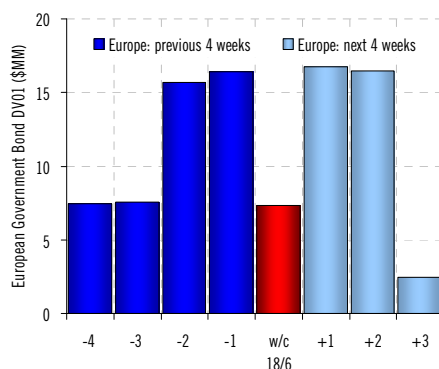
Figure 35 to Figure 37 show the \$DV01 of projected issuance over the next four weeks and the previous four weeks. The DV01 of issuance in the week commencing 18 June is shown in red. Across all markets the DV01 of next week's issuance is light across all the markets.

**Figure 35. Estimated \$DV01 of US Treasury Issuance (Previous 4 and Next 4 Weeks)**



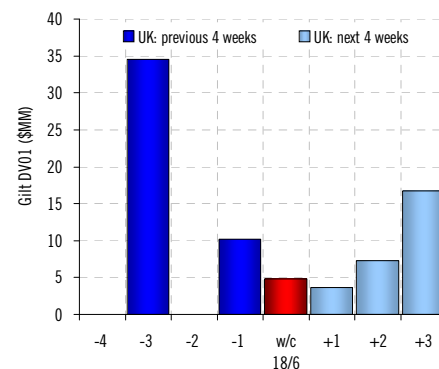
Source: US Treasury, CIRA estimates

**Figure 36. Estimated \$DV01 of Euro Bond Issuance (Previous 4 and Next 4 Weeks)**



Source: DMOs, CIRA estimates

**Figure 37. Estimated \$DV01 of UK Gilt Issuance (Previous 4 and Next 4 Weeks)**



Source: DMO, CIRA estimates

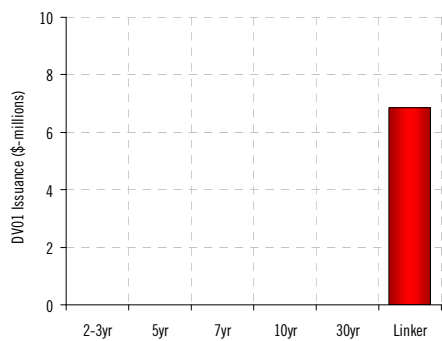
## DV01 of expected USD, EUR and GBP issuance split by maturity (week beginning 18 June)

US Treasury will re-open 30-year TIPS next week for approximately \$7million/bp (Figure 38).

Euro issuance is light next week at around €6million/bp. A third of total issuance (in DV01 terms) is expected to come from linkers (Figure 39).

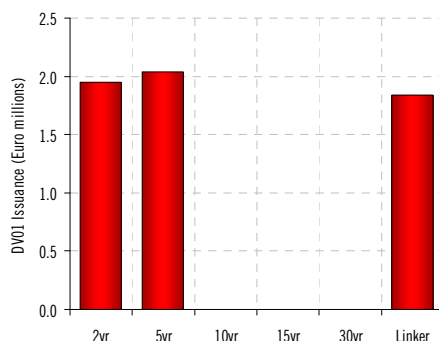
Next week's gilt issuance comes in the form of a new conventional gilt 1.75% 2022 at around £3million/bp (Figure 40).

**Figure 38. USD DV01: Split by Maturity (18 Jun–24 Jun)**



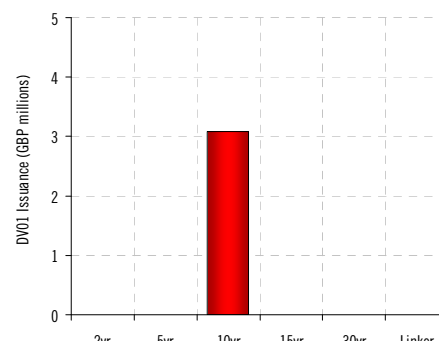
Source: US Treasury, CIRA estimates

**Figure 39. EUR DV01: Split by Maturity (18 Jun–24 Jun)**



Source: DMOs, CIRA estimates

**Figure 40. GBP DV01 Split by Maturity (18 Jun–24 Jun)**

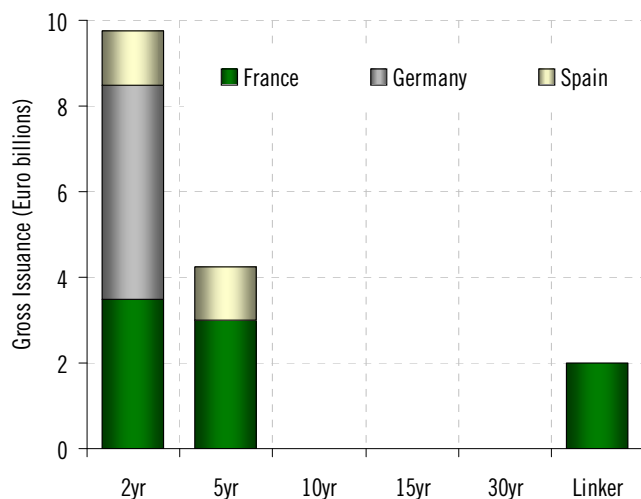


Source: DMO, CIRA estimates

### Expected euro gross and DV01 split by country and maturity (week beginning 18 June)

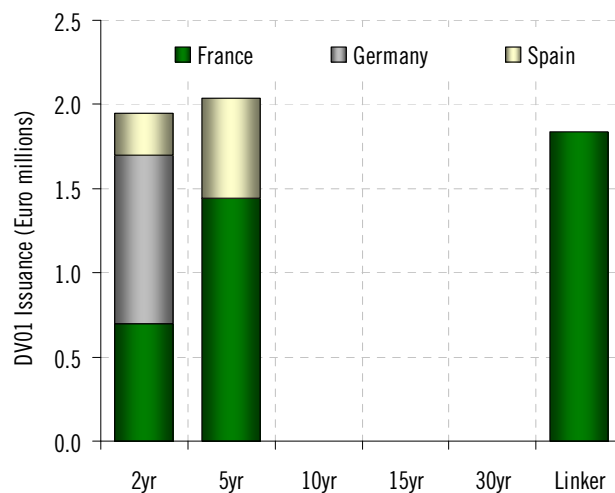
In Europe, issuance comes from Germany (€5bn), France (estimated €8.5bn) and Spain (estimated €2.5bn) - Figure 41. In DV01 terms, approximately 68% of total issuance should come from France (Figure 42).

Figure 41. Euro Gross Issuance next week



Source: DMOs, CIRA estimates, Bloomberg

Figure 42. Euro DV01 Issuance next week



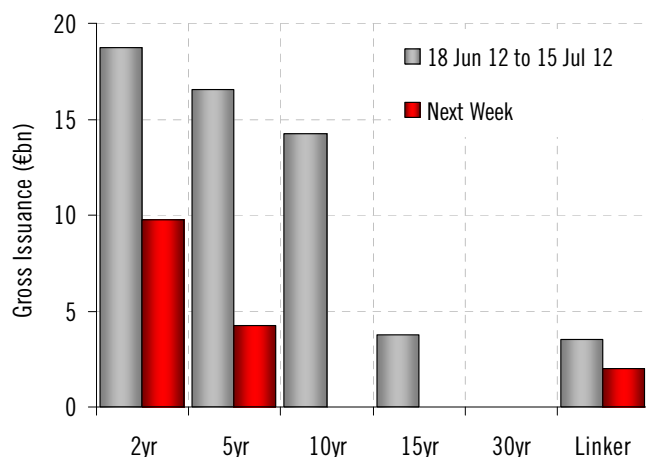
Source: DMOs, CIRA estimates, Bloomberg

### Expected euro issuance (gross and DV01) by maturity for the next four-weeks (18 June – 15 July)

Over the next four weeks, the 2yr sector accounts for approximately a third of total issuance. Long-end issuance is relatively light over the next four weeks (Figure 43).

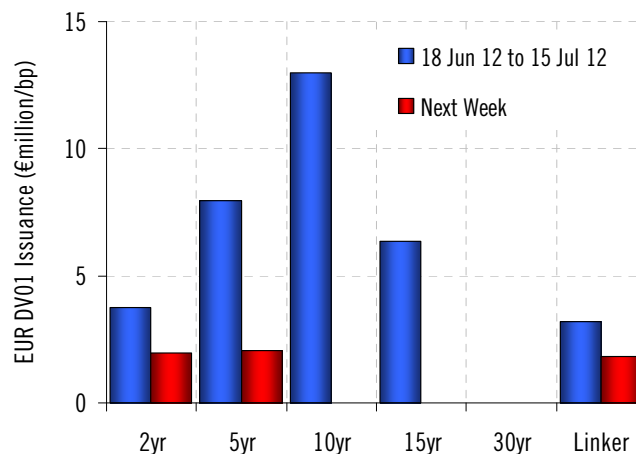
In DV01 terms, the 10yr sector accounts for 38% of the total issuance next week at around €13million/bp (Figure 44).

Figure 43. Euro Gross Issuance over the Next Four Weeks



Source: DMOs, CIRA estimates, Bloomberg

Figure 44. Euro DV01 Issuance over the Next Four Weeks



Source: DMOs, CIRA estimates, Bloomberg

### US coupons for the next four weeks – maturity split

UST coupon payments are light over the next four weeks at only \$10.1bn (Figure 45). Week 4 sees \$4.9bn of coupon payments from TIPS on 15 Jul.

Figure 45. Maturity Split of UST Coupon Payments over the Next Four Weeks (USD-Billions)\*

Week Commencing	2-3yr	5yr	7yr	10yr	30yr	Linker	Total
18 Jun							
25 Jun	2.2	1.7	0.3				4.3
02 Jul							
09 Jul	0.9					4.9	5.9
<b>Total</b>	<b>3.2</b>	<b>1.7</b>	<b>0.3</b>			<b>4.9</b>	<b>10.1</b>

Source: CIRA, Bloomberg

\*This table is on a trade-date basis

### Euro coupons for the next four weeks – maturity split

Euro coupon payments are absent in weeks 1 and 3. Week 2 sees €15.1bn of coupon payments split across the curve and €44bn of redemptions (Figure 46 and Figure 47)<sup>29</sup>.

Figure 46. Maturity Split of Euro Coupon Payments over the Next Four Weeks (EUR-Billions)\*

Week Commencing	2yr	5yr	10yr	15yr	30yr	Linker	Total
18 Jun							
25 Jun	4.3	4.0	2.3	1.6	2.8		15.1
02 Jul							
09 Jul	5.6	3.3	2.2	0.4			11.5
<b>Total</b>	<b>9.9</b>	<b>7.3</b>	<b>4.6</b>	<b>2.0</b>	<b>2.8</b>		<b>26.6</b>

Source: CIRA, Bloomberg

\*This table is on a trade-date basis

### UK coupons for the next four weeks

There are no gilt coupon payments over the next four weeks.

<sup>29</sup> €12.7bn of coupon payments and €27bn of redemptions come from Germany. The remaining redemptions come from Italy - Figure 47.

## Euro coupons and redemptions split by maturity and country

Figure 47 below shows a weekly breakdown of euro coupons and redemptions, split by sector and country for the next four weeks.

**Figure 47. Euro Coupons and Redemptions by Maturity and Country for the Next 4 weeks (EUR Billions)**

WEEK 1	Week Beginning 18 Jun (Mon)		Coupons	Redemptions	WEEK 2	Week Beginning 25 Jun (Mon)		Coupons	Redemptions
		Austria					Austria		
		Belgium					Belgium	0.3	
		Germany					Germany	12.7	27.0
		Finland					Finland	1.1	
	Coupons	France				Coupons	France		
2yr		Greece			2yr	4.3	Greece		
5yr		Ireland			5yr	4.0	Ireland		
10yr		Italy			10yr	2.3	Italy	1.0	17.1
15yr		Netherlands			15yr	1.6	Netherlands		
30yr		Portugal			30yr	2.8	Portugal		
Linker		Spain			Linker		Spain		
	0.0		0.0	0.0		15.1		15.1	44.1
WEEK 3	Week Beginning 02 Jul (Mon)		Coupons	Redemptions	WEEK 4	Week Beginning 09 Jul (Mon)		Coupons	Redemptions
		Austria					Austria	2.3	10.2
		Belgium					Belgium		
		Germany					Germany		
		Finland					Finland		
	Coupons	France				Coupons	France	3.2	16.2
2yr		Greece			2yr	5.6	Greece		
5yr		Ireland			5yr	3.3	Ireland		
10yr		Italy			10yr	2.2	Italy		
15yr		Netherlands			15yr	0.4	Netherlands	6.0	15.3
30yr		Portugal			30yr		Portugal		
Linker		Spain			Linker		Spain		
	0.0		0.0	0.0		11.5		11.5	41.6

Source: CIRA, Bloomberg

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



### Provisional auction calendar for the next four weeks

Figure 48. 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)
18 Jun (Mon)	US	1.5 - 2.25	Outright Treasury Coupon Purchases : 15/2/2036 - 15/5/2042		-52k		
18 Jun (Mon)	US	8 - 8.75	Outright Treasury Coupon Sales: 15/5/2013 - 30/11/2013		5k		
19 Jun (Tue)	US	1.5 - 2	Outright Treasury Coupon Purchases : 15/8/2022 - 15/2/2031		-32k		
20 Jun (Wed)	Germany	5.0	Schatz Jun14 Reopening (issue and size confirmed)				9k
21 Jun (Thu)	France	8.5	BTAN 2yr and 5yr /Index-linked OAT (estimated tenors and size)				36k
21 Jun (Thu)	Spain	2.5	Obligaciones 3yr and 5yr (estimated tenors and size)				8k
21 Jun (Thu)	UK	3.3	New 1¾% Treasury Gilt 2022 (issue and size confirmed)			32k	
21 Jun (Thu)	US	7.0	30-year TIPS (re-opening)		95k		
21 Jun (Thu)	US	4.25 - 5.25	Outright Treasury Coupon Purchases : 30/6/2018 - 15/5/2020		-39k		
22 Jun (Fri)	US	1.5 - 2.25	Outright Treasury Coupon Purchases : 15/2/2036 - 15/5/2042		-52k		
<b>Weekly \$DV01 of Issuance</b>				<b>5.9</b>			
<b>Total Number of Futures Contracts</b>					<b>-76k</b>	<b>32k</b>	<b>52k</b>

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)
25 Jun (Mon)	Belgium	2.5	OLO 5yr, 10yr and 15yr (estimated tenors and size)				26k
25 Jun (Mon)	US	8 - 8.75	Outright Treasury Coupon Sales: 15/3/2014 - 31/10/2014		14k		
26 Jun (Tue)	Netherlands	3.0	DSL Jul22 reopening (issue confirmed, size €2.3bn)				25k
26 Jun (Tue)	Italy	2.8	CTZ (estimated size)				5k
26 Jun (Tue)	Italy	1.5	BTPei (estimated size)				12k
26 Jun (Tue)	UK	1.4	01/8% Index-linked Treasury Gilt 2029 (issue confirmed, estimated size)			25k	
26 Jun (Tue)	US	35.0	2-Year		85k		
26 Jun (Tue)	US	4.5 - 5.5	Outright Treasury Coupon Purchases : 15/8/2020 - 15/5/2022		-51k		
27 Jun (Wed)	US	35.0	5-Year		203k		
27 Jun (Wed)	US	1.5 - 2.25	Outright Treasury Coupon Purchases : 15/2/2036 - 15/5/2042		-52k		
28 Jun (Thu)	Italy	7.3	BTP 5yr and 10yr (estimated tenors and size)				44k
28 Jun (Thu)	Italy	2.0	CCTeu (estimated size)				9k
28 Jun (Thu)	US	29.0	7-Year		231k		
28 Jun (Thu)	US	8 - 8.75	Outright Treasury Coupon Sales : 15/11/2014 - 15/6/2015		25k		
29 Jun (Fri)	US	4.25 - 5.25	Outright Treasury Coupon Purchases : 30/6/2018 - 15/5/2020		-39k		
<b>Weekly \$DV01 of Issuance</b>				<b>54.9</b>			
<b>Total Number of Futures Contracts</b>					<b>417k</b>	<b>25k</b>	<b>120k</b>

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)
03 Jul (Tue)	Austria	2.0	RAGB 2yr and 10yr (estimated tenors and size)				10k
03 Jul (Tue)	Netherlands	4.0	New DSL Jan18 (issue confirmed, estimated size)				17k
03 Jul (Tue)	UK	1.6	4¾% Treasury Gilt 2030 (issue confirmed, estimated size)			28k	
04 Jul (Wed)	UK	3.9	1% Treasury Gilt 2017 (issue confirmed, estimated size)			21k	
05 Jul (Thu)	France	8.8	OAT 5yr, 10yr and 15yr (estimated tenors and size)				83k
05 Jul (Thu)	Spain	2.8	Bono 2yr and 5yr (estimated tenors and size)				7k
<b>Weekly \$DV01 of Issuance</b>				<b>23.8</b>			
<b>Total Number of Futures Contracts</b>					<b>0k</b>	<b>49k</b>	<b>118k</b>

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)
10 Jul (Tue)	UK	1.7	0½% Index-linked Treasury Gilt 2050 (issue confirmed, estimated size)			81k	
10 Jul (Tue)	US	32.0	3-Year		77k		
11 Jul (Wed)	US	21.0	10-Year (re-opening)		226k		
12 Jul (Thu)	UK	3.3	Reopening of new 7 Sep 2022 (issue confirmed, estimated size)			32k	
12 Jul (Thu)	US	13.0	30-year (re-opening)		310k		
13 Jul (Fri)	Italy	4.3	BTP 3yr and 15yr (estimated tenors and size)				18k
<b>Weekly \$DV01 of Issuance</b>				<b>69.9</b>			
<b>Total Number of Futures Contracts</b>					<b>613k</b>	<b>113k</b>	<b>18k</b>

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 is positive (\$52bn) over the next four weeks. The NCR is significantly positive in week 3 (\$39bn) as \$99bn of gross supply easily outweighs \$60bn of coupon payments and redemptions (Figure 49).

Figure 49. 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
18 Jun					1.3	-1
25 Jun	7		7		-8.0	15
02 Jul	99	4	95	56		39
09 Jul						
<b>Total</b>	<b>106</b>	<b>4</b>	<b>102</b>	<b>56</b>	<b>-6.8</b>	<b>52</b>
<b>Average</b>	<b>27</b>	<b>1</b>	<b>25</b>	<b>14</b>	<b>-3.4</b>	<b>15</b>
<b>YTD Average</b>	<b>45</b>	<b>3</b>	<b>41</b>	<b>24</b>	<b>-0.1</b>	<b>17</b>

Source: US Treasury, CIRA estimates, Bloomberg

### Euro cash-flow profile over the next four weeks

The NCR is negative (-€42bn) over the next four weeks. The NCR moves sharply from positive in week 2 (€8bn) to negative (-€27bn) in week 3. This is due to €15bn of gross supply (in week 3) being easily offset by the settlement of €15bn of coupon payments and €27bn redemptions (Figure 50)

Figure 50. 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
18 Jun	11	1	10		10
25 Jun	26	0	25	17	8
02 Jul	15	15	0	27	-27
09 Jul	12	3	8	42	-33
<b>Total</b>	<b>63</b>	<b>19</b>	<b>44</b>	<b>86</b>	<b>-42</b>
<b>Average</b>	<b>16</b>	<b>5</b>	<b>11</b>	<b>21</b>	<b>-10</b>
<b>YTD Average</b>	<b>17</b>	<b>4</b>	<b>13</b>	<b>10</b>	<b>3</b>

Source: DMOs, CIRA estimates, Bloomberg

### UK cash-flow profile over the next four weeks

The NCR is positive (£15bn) over the next four weeks due to absence of coupon payments and redemptions (Figure 51).

Figure 51. Estimated UK Weekly Cash Flow Profile for Next Four weeks, GBP Billions

Settling in Week Commencing	A Gross Supply	B Coupons	A - B Net Supply	C Redemptions	D Buybacks	A - B - C - D NCR
18 Jun	3		3			3
25 Jun	1		1			1
02 Jul	6		6			6
09 Jul	5		5			5
<b>Total</b>	<b>15</b>		<b>15</b>			<b>15</b>
<b>Average</b>	<b>4</b>		<b>4</b>			<b>4</b>
<b>YTD Average</b>	<b>3</b>	<b>1</b>	<b>2</b>	<b>2</b>		<b>0</b>

Source: DMO, CIRA estimates, Bloomberg

### JGB settlement cash-flow profile over the next four weeks

Figure 52 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 significantly negative next week mainly due to redemptions (¥14.5trillion) on 20 June.

Figure 52. 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
18 Jun	4	1.8	2	14.5	-12.6
25 Jun	0		0		0.3
02 Jul	3		3		2.7
09 Jul	3		3		2.6
<b>Total</b>	<b>9</b>	<b>1.8</b>	<b>7</b>	<b>14.5</b>	<b>-7.0</b>
<b>Average</b>	<b>2</b>	<b>0.5</b>	<b>2</b>	<b>3.6</b>	<b>-1.8</b>
<b>YTD Average</b>	<b>2</b>	<b>0.1</b>	<b>2</b>	<b>1.3</b>	<b>0.9</b>

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.

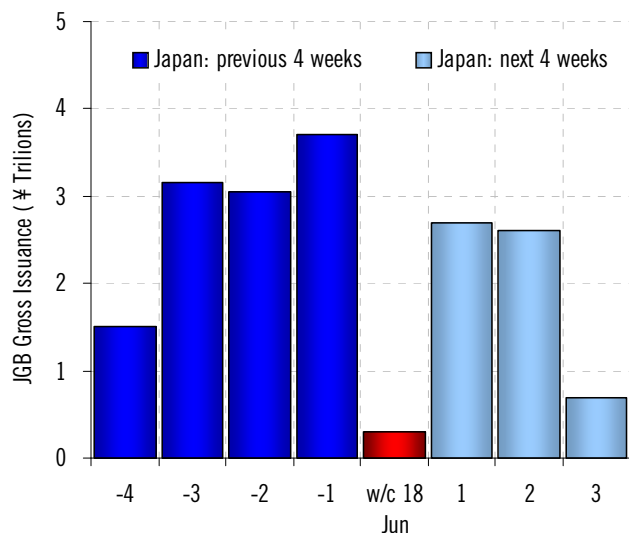
**Trade date basis:** In Europe if the coupon payment falls on Monday 5<sup>th</sup> March, for example, it would be allocated to the previous week (the week commencing 27 February) as that would be when you would trade to use the money you know is coming in on Monday 5<sup>th</sup> March. In other words, 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 49, Figure 50, Figure 51 and Figure 52) 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)

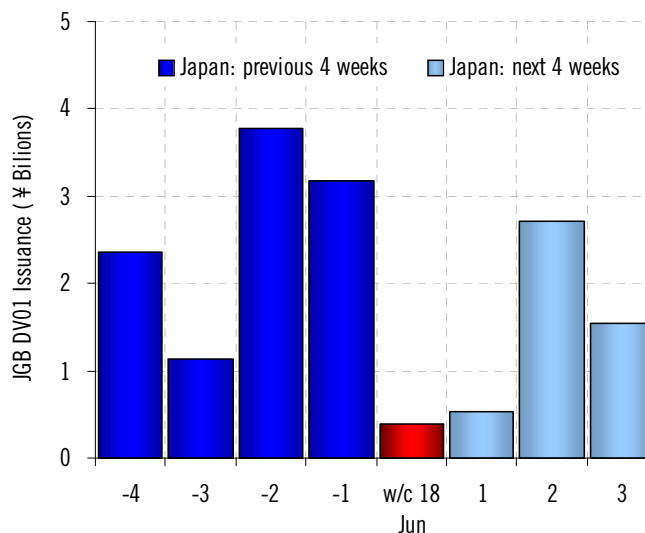
Figure 53 and Figure 54 show projected JGB gross and ¥DV01 of issuance over the next four weeks and the previous four weeks. Next week sees only ¥0.3trillion of JGB issuance in an *Auction for Enhanced Liquidity* (10-20-years) - Figure 53. In DV01 terms, this is equivalent to around ¥0.4billion/bp (Figure 54).

Figure 53. Estimated Gross JGB Issuance (Previous 4 and Next 4 weeks)



Source: CIRA estimates, BoJ, MoF

Figure 54. 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 55).

Figure 55. Maturity Split of JGB Coupon Payments over the Next Four weeks (JPY-Billions)\*

Week commencing	2yr	5yr	10yr	20yr	30yr	TOTAL
18 Jun						
25 Jun						
02 Jul						
09 Jul	7		8			15
Total	7		8			15

Source: CIRA estimates, Bloomberg

\*This table is on a trade-date basis

### JGB auction calendar for the next four weeks

Figure 56 shows our JGB issuance expectations for the next four weeks and weekly \$DV01.

Figure 56. Provisional Auction Calendar for the Next Four Weeks, Gross Issuance (Billions), DV01 (JPY Millions).

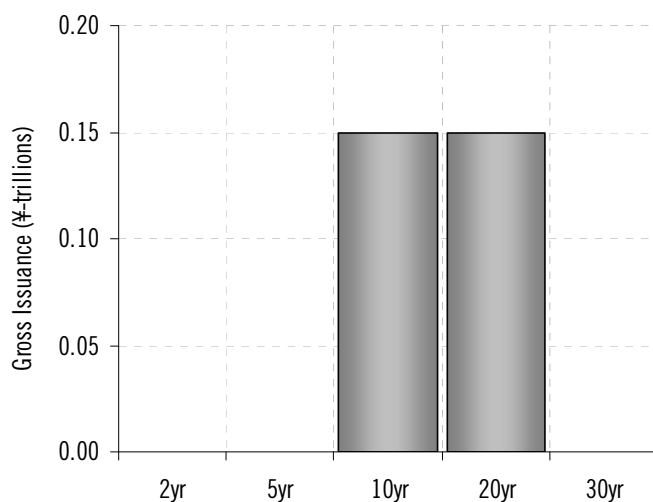
Auction Date	Country Issuing	Estimated Size (Local Ccy)	Issue Details (Estimated)	Weekly DV01	
				¥ millions	\$ millions
21 Jun (Thu)	JPY	300	AEL (10-20 years)	386	5
Weekly DV01 of Issuance				¥386	\$5
26 Jun (Tue)	JPY	2700	2year	535	7
Weekly DV01 of Issuance				¥535	\$7
03 Jul (Tue)	JPY	2300	10year	2139	27
05 Jul (Thu)	JPY	300	AEL (20-30 years)	576	7
Weekly DV01 of Issuance				¥2715	\$34
10 Jul (Tue)	JPY	700	30year	1540	19
Weekly DV01 of Issuance				¥1540	\$19

Source: CIRA estimates, BoJ, MoF

### Expected JGB gross and DV01 issuance by maturity (week beginning 18 June)

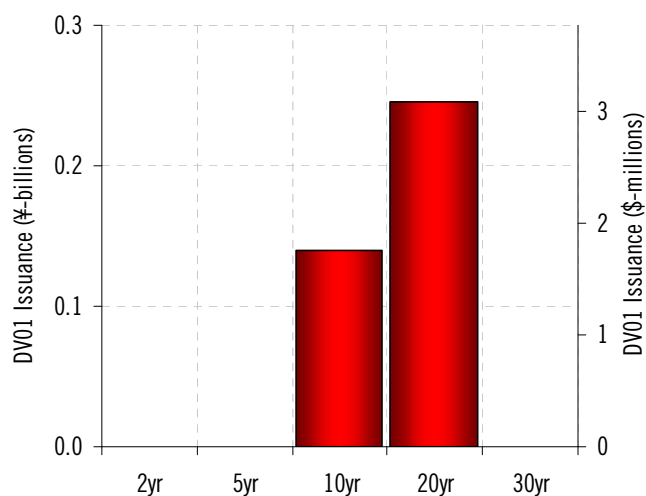
Figure 57 and Figure 58 show a split of next week's JGB issuance by maturity.

Figure 57. JGB Gross Split by Maturity (Week Beginning 18 June)



Source: CIRA, Bloomberg

Figure 58. JGB DV01 Split by Maturity (Week Beginning 18 June)



Source: CIRA, Bloomberg

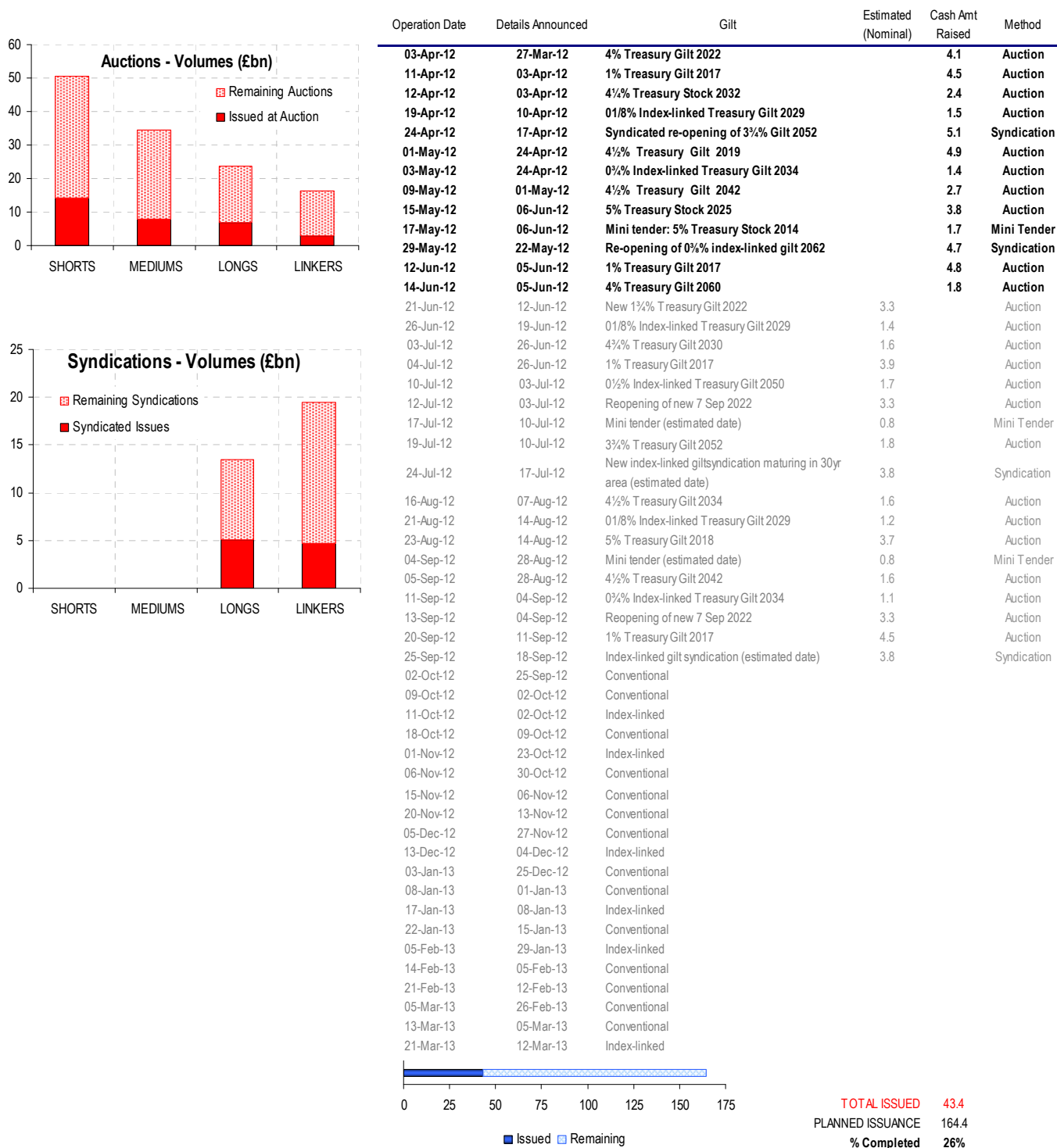
## 2012 Cashflow Tables

Gross Supply (\$bn nominal)									A	B	C	D = A - B - C	E	F = D - E
US	2yr	3yr	5yr	7yr	10yr	30yr	TIPS	Gross Supply	Coupons	C Fed Purchases	Net Supply	Redemptions	NCR	
Jan-12	35	32	35	29	21	13	15	180	12	-1	172	93	79	
Feb-12	35	32	35	29	24	16	9	180	25	1	153	110	43	
Mar-12	35	32	35	29	21	13	13	178	8		170	90	81	
Apr-12	35	32	35	29	21	13	16	181	5	-1	176	103	73	
May-12	35	32	35	29	24	16	13	184	27		157	96	61	
Jun-12	35	32	35	29	21	13	7	172	4	0	168	87	82	
Jul-12	35	32	35	29	21	13	15	180	13		167	115	53	
Aug-12	35	32	35	29	24	16	14	185	26		159	101	58	
Sep-12	35	32	35	29	21	13	13	178	3		175	88	87	
Oct-12	35	32	35	29	21	13	8	173	9		164	91	74	
Nov-12	35	32	35	29	24	16	13	184	22		162	110	52	
Dec-12	35	32	35	29	21	13	14	179	7		172	90	82	
Total	420	384	420	348	264	168	150	2154	161	-3	1996	1172	824	

	<b>Gross Supply</b>	<b>2012</b>	<b>2013</b>		<b>Gross Supply (€bn)</b>	<b>2012</b>	<b>2013</b>	<b>Tickers used in our supply estimates</b>
	<b>EMU-11 (€bn) - excluding GRC, IRE and PRT</b>	<b>771</b>	<b>691</b>		<b>Germany</b>	181	166	Schatz, Bobl, Bund, Bundeil, Boblei
					<b>France</b>	188	179	OAT,BTAN,BTANI,OATI,OATEi
					<b>Italy</b>	196	139	BTP, BTPei, CCT, CTZ
	<b>Gross Supply</b>	<b>2012</b>	<b>2013</b>		<b>Spain</b>	85	101	SPGB
	<b>US (\$bn)</b>	<b>2154</b>	<b>2035</b>		<b>Netherlands</b>	59	44	DSL
					<b>Belgium</b>	32	38	OLO
	<b>Gross Supply*</b>	<b>11/12</b>	<b>12/13</b>		<b>Austria</b>	20	15	RAGB
	<b>UK (£bn)</b>	<b>179</b>	<b>164</b>		<b>Finland</b>	11	8	RFGB
*UK supply forecasts on financial year basis (cash amt)					<b>Total</b>	<b>771</b>	<b>691</b>	

Citigroup Global Markets

Figure 60. UK Gilt Remit and Progress for FY2012/13



Source: Citi Investment Research and Analysis

Figure 61. 2012 Euro Government Bond Supply – Citi Forecasts (Euro in Billions)

EMU-11	2yr/3yr	5yr	10yr	15yr	30yr	Linkers	Gross Supply	Coupons	Net Supply	Redemptions	NCR
Jan	22.3	26.9	26.8	3.1	10.5	2.3	92	28	64	54	10
Feb	19.7	25.1	34.9		1.6	3.3	85	12	72	38	35
Mar	24.5	17.8	15.6	2.3	8.2	4.6	73	16	57	56	1
Apr	19.6	16.8	17.3	1.7	5.4	3.6	64	29	35	75	-40
May	22.0	21.1	19.3	3.5		3.6	69	5	65		65
Jun	16.2	18.0	18.5	3.8	2.8	4.5	64	5	59	29	29
Jul	18.5	19.9	20.3	2.8	4.0	5.5	71	38	33	112	-79
Aug	13.8	8.0	7.8				30	9	20	12	9
Sep	17.3	23.0	24.8	1.0	4.0	3.0	73	16	57	56	1
Oct	17.8	22.3	15.0	3.0	4.5	3.0	66	26	39	69	-30
Nov	14.0	23.8	17.1	1.0		3.5	59	5	54	13	41
Dec	10.0	6.8	8.5	1.5			27	3	24	59	-35
Total	216	229	226	24	41	37	772	193	579	573	6

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	4.0	5.0		3.0		17	3	14	16	-2
May	5.0	5.0	5.0			1.5	17		17		17
Jun	5.0	5.0	5.0			1.0	16	1	15	19	-4
Jul	5.0	4.0	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	50.0	54.0		10.0	8.5	181	35	146	157	-11

FRANCE	2yr/3yr	5yr	10yr	15yr	30yr	Linkers	Gross Supply	Coupons	Net Supply	Redemptions	NCR
Jan	4.9	4.3	4.8		3.6	1.7	19	3	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	5.3	4.0	4.7	1.7	1.2	2.5	19	17	3	20	-17
May	4.1	6.6	5.9	1.9		1.4	20		20		20
Jun	3.5	4.3	3.5	2.0	0.7	2.0	16		16		16
Jul	4.5	3.3	6.0	2.0		2.0	18	7	11	29	-19
Aug											
Sep	4.0	7.0	4.5		1.8	1.5	19		18	12	6
Oct	4.0	6.0	4.5			1.5	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	40.2	56.7	54.0	12.3	7.3	17.5	188	43	145	102	43

ITALY	CTZ/3yr	5yr/CCT	10yr	15yr	30yr	Linkers	Gross Supply	Coupons	Net Supply	Redemptions	NCR
Jan	9.4	6.4	3.5			0.6	20	1	19		19
Feb	7.6	4.9	4.7			1.5	19	10	9	36	-28
Mar	8.7	4.8	4.4			1.0	19	7	11	27	-16
Apr	5.9	3.6	5.1			1.0	16	2	14	27	-14
May	7.0	4.4	3.9	0.6		0.8	17	5	12		12
Jun	5.8	6.0	4.8			1.5	18	2	16		16
Jul	6.3	4.8	3.8	0.8		1.5	17	1	16	17	-1
Aug	6.3	2.0	3.8				12	9	3	12	-9
Sep	5.3	4.8	6.0	1.0		1.5	19	7	11	10	1
Oct	5.5	4.0	4.5		1.5	1.5	17	2	15	18	-3
Nov	4.5	6.0	3.8				14	5	10	13	-4
Dec	4.0	3.5	2.5				10	2	8	31	-23
Total	76.2	55.1	50.6	2.3	1.5	10.8	196	53	143	192	-49

Source: DMOs, CIRA estimates, Bloomberg



Figure 62. 2012 Euro Government Bond Supply – Citi Forecasts (Euro in Billions)

SPAIN	2yr/3yr	5yr	10yr	15yr	30yr	Linkers	Gross Supply	Coupons	Net Supply	Redemptions	NCR
Jan		11.5	5.3				17	7	10		10
Feb	3.6	4.6	5.3				14		13	1	12
Mar	4.0	3.5					8		8		8
Apr	2.2	1.0	1.9				5	4	1	12	-11
May	2.6	2.9					5		5		5
Jun	2.0	2.1	0.6				5		5		5
Jul	1.8	2.0	1.5				5	8	-2	13	-15
Aug	2.5	2.0					5		5		5
Sep		3.5	2.0		1.0		7		7		7
Oct	2.5	2.0	2.0		1.0		8	4	4	15	-11
Nov		2.0	2.0				4		4		4
Dec	2.0		2.0				4		4		4
Total	23.2	37.1	22.7		2.0		85	22	63	41	21

NETHERLANDS	2yr/3yr	5yr	10yr	15yr	30yr	Linkers	Gross Supply	Coupons	Net Supply	Redemptions	NCR
Jan	4.1				1.5		6	4	2	14	-13
Feb		4.0	6.0				10		10		10
Mar	2.8				4.2		7		7		7
Apr	1.1	3.5			1.1		6		6		6
May	3.3		2.9				6		6		6
Jun			3.0		1.7		5		5		5
Jul		4.0	2.5		1.3		8	6	2	15	-14
Aug											
Sep	2.5	2.0					5		5		5
Oct	0.8	1.5		2.3			5		5		5
Nov	2.0		2.3				4		4		4
Dec											
Total	16.6	14.9	16.6	2.3	9.7		60	10	50	30	21

BELGIUM	2yr/3yr	5yr	10yr	15yr	30yr	Linkers	Gross Supply	Coupons	Net Supply	Redemptions	NCR
Jan			4.5				5		5		5
Feb		1.0	1.4		1.6		4		4		4
Mar			4.0		4.0		8	7	1	4	-2
Apr											
May		0.5	1.0	1.0			3		3		3
Jun		0.5	1.0	1.0			3		2		2
Jul		0.5	0.8		0.8		2		2		2
Aug											
Sep	0.5		1.3		0.5		2	5	-2	9	-12
Oct		4.0					4		4		4
Nov		0.5	0.8				1		1		1
Dec										6	-6
Total	0.5	7.0	14.6	2.2	7.1		32	12	20	19	1

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

Source: DMOs, CIRA estimates, Bloomberg

Figure 63. 2012 Euro Government Bond Supply – Citi Forecasts (Euro in Billions)

AUSTRIA	2yr/3yr	5yr	10yr	15yr	30yr	Linkers	Gross Supply	Coupons	Net Supply	Redemptions	NCR
Jan		0.7	3.7		2.0		6	1	6		6
Feb											
Mar			1.1				1	1			
Apr		0.7	0.6				1		1		1
May		0.7	0.6				1		1		1
Jun			0.7				1		1		1
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	1.0				2		2		2
Total	1.0	5.1	9.7	0.8	3.2		20	7	13	10	2

FINLAND	2yr/3yr	5yr	10yr	15yr	30yr	Linkers	Gross Supply	Coupons	Net Supply	Redemptions	NCR
Jan				3.0			3		3		3
Feb											
Mar											
Apr								1	-1		-1
May		1.0					1		1		1
Jun				0.8			1		1		1
Jul		1.3	0.8				2	1	1		1
Aug											
Sep			2.0				2	1	1	6	-5
Oct											
Nov		1.0	0.8				2		2		2
Dec											
Total		3.3	3.6	3.8			11	2	8	6	2

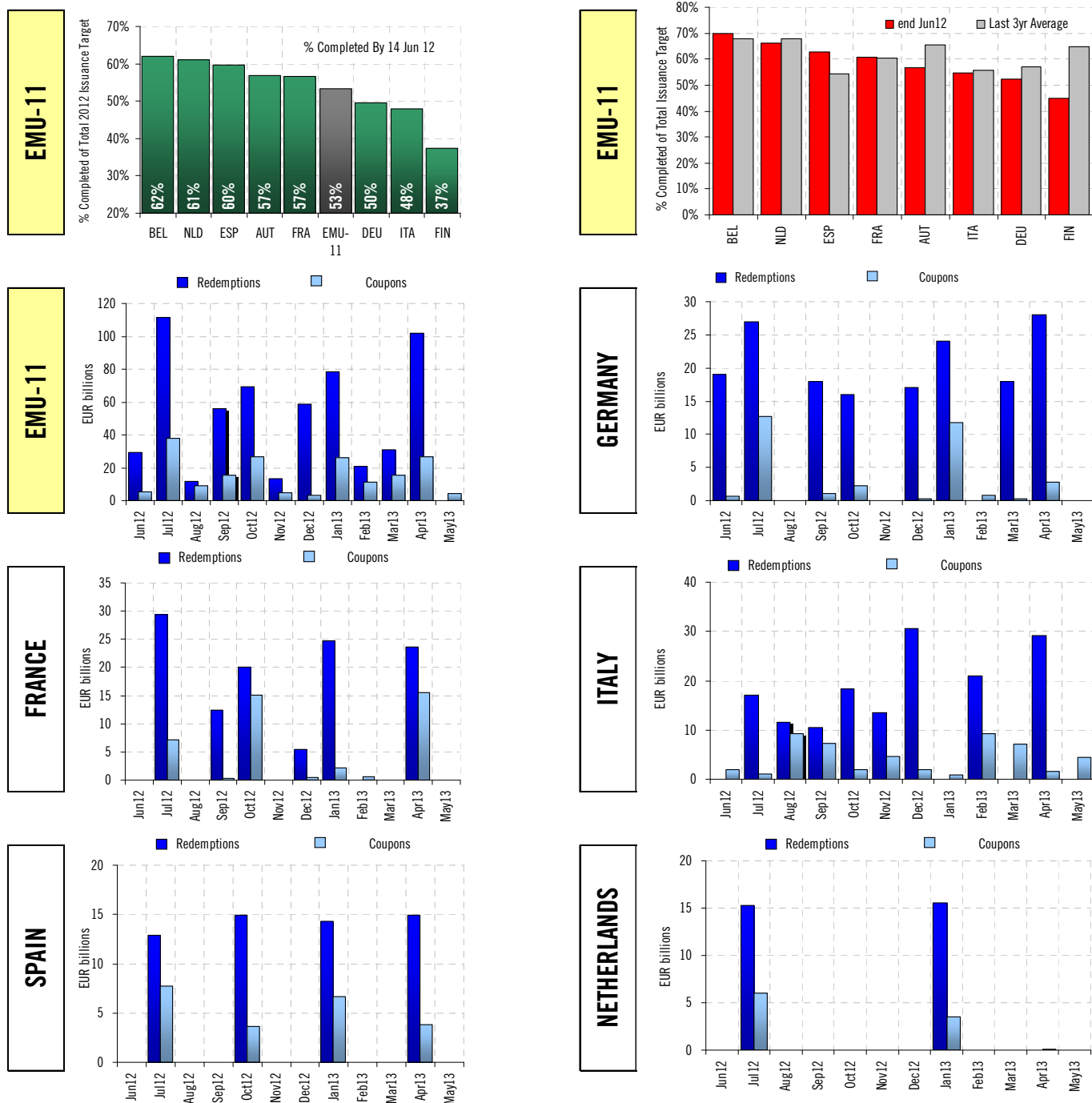
PORTUGAL	2yr/3yr	5yr	10yr	15yr	30yr	Linkers	Gross Supply	Coupons	Net Supply	Redemptions	NCR
Jan											
Feb											
Mar											
Apr								1	-1		-1
May											
Jun								2	-2	10	-12
Jul											
Aug											
Sep								1	-1		-1
Oct								1	-1		-1
Nov											
Dec											
Total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

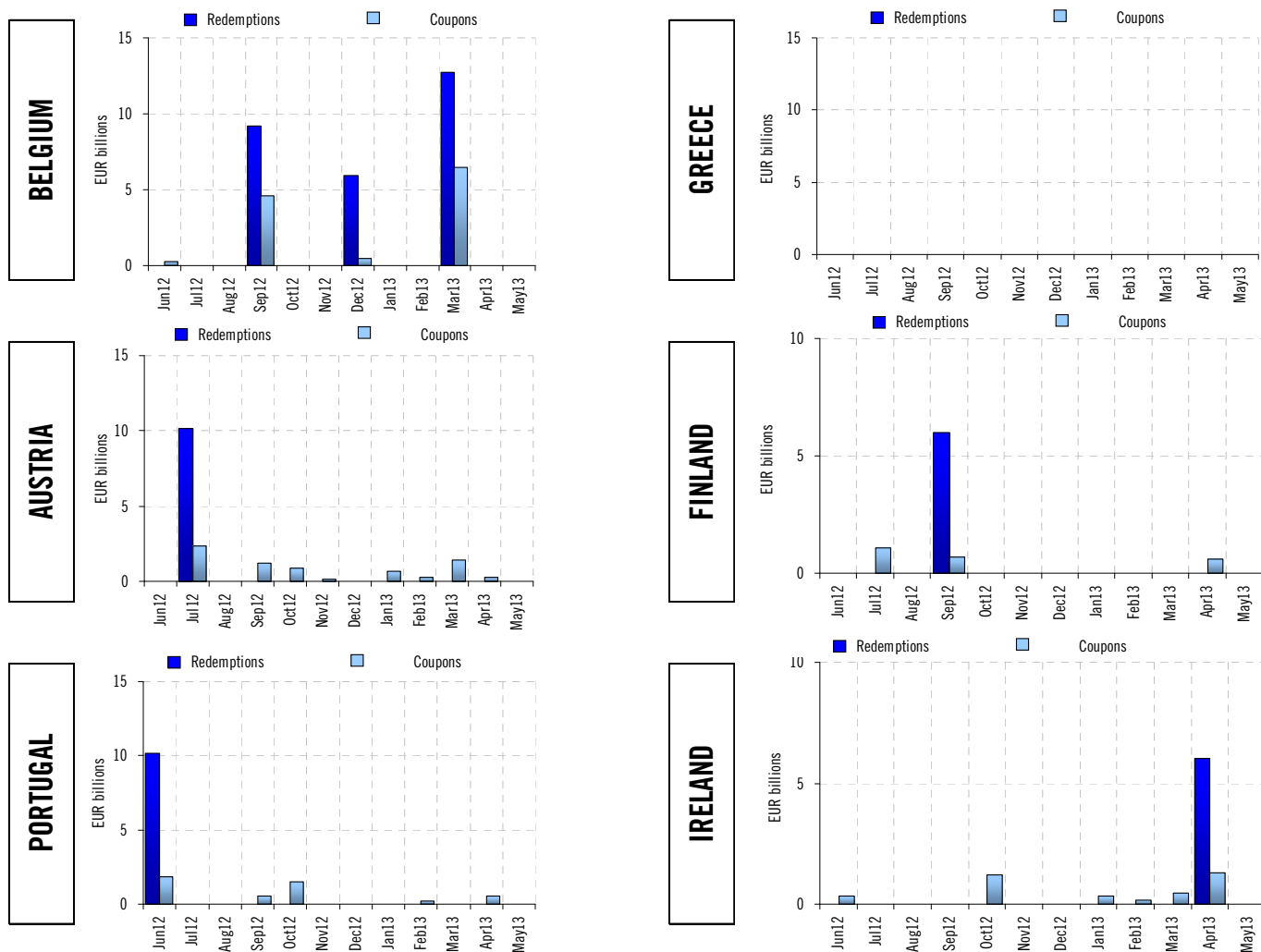
Source: DMOs, CIRA estimates, Bloomberg

Figure 64. 2012 EMU Issuance Progress and Cash flow profile – Citi Forecasts (Euro in Billions)



Source: DMOs, CIRA estimates, Bloomberg

Figure 65. 2012 EMU Issuance Progress and Cash flow profile – Citi Forecasts (Euro in Billions)



	Sector					
	2yr	5yr	10yr	15yr	30yr	Total
Germany	408	274	185	63	88	1018
France	343	336	260	78	128	1145
Netherlands	98	70	65	12	28	274
Italy	445	372	274	132	120	1344
Spain	186	111	116	38	54	504
Belgium	85	82	56	24	28	275
Austria	45	62	39	15	14	176
Finland	19	22	18	9	0	67
Ireland	18	19	34	8	0	80
Portugal	34	32	31	0	7	104
Greece	0	0	0	0	0	0

	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
Netherlands	AAA	-ve	Aaa	Stable	AAA	Stable
Italy	BBB+	-ve	A3	-ve	A-	-ve
Spain	BBB+	-ve	Baa3	-ve watch	BBB	-ve
Belgium	AA	-ve	Aa3	-ve	AA	-ve
Austria	AA+	-ve	Aaa	-ve	AAA	Stable
Finland	AAA	-ve	Aaa	Stable	AAA	Stable
Ireland	BBB+	-ve	Ba1	-ve	BBB+	-ve
Portugal	BB	-ve	Ba3	-ve	WD	-ve
Greece	CCC	Stable	C		CCC	

Source: DMOs, CIRA estimates, Bloomberg

## EUR: Coupons & Redemptions (next 3mths)

Figure 66. EMU-11 Redemptions over the next three months (€bn)

Redemptions = €170bn											
Redemptions = €170bn	DEU 64	FRA 29	NLD 15	ITA 29	ESP 13	BEL 0	AUT 10	FIN 0	PRT 10	GRC 0	IRL 0
(Fri) 15-Jun-12	19.0								10.2		
(Sun) 01-Jul-12				17.1							
(Wed) 04-Jul-12	27.0										
(Thu) 12-Jul-12		16.2									
(Sun) 15-Jul-12			15.3				10.2				
(Wed) 25-Jul-12		13.2									
(Mon) 30-Jul-12					12.9						
(Fri) 31-Aug-12				11.5							
(Fri) 14-Sep-12	18.0										

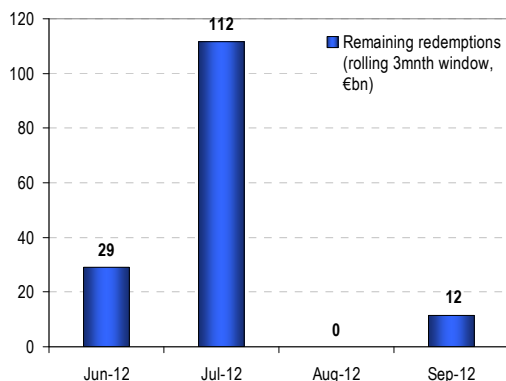
Source: DMOs, Bloomberg, CIRA estimates

Figure 67. EMU-11 Coupon Payments over the next three months (€bn)

Coupons = €57bn											
Coupons = €57bn	DEU 14	FRA 7	NLD 6	ITA 17	ESP 8	BEL 0	AUT 2	FIN 1	PRT 1	GRC 0	IRL 0
(Fri) 15-Jun-12	0.1			1.1					1.2		
(Sat) 16-Jun-12									0.3		
(Mon) 18-Jun-12											0.3
(Wed) 20-Jun-12	0.2										
(Thu) 28-Jun-12						0.3					
(Sun) 01-Jul-12				1.0							
(Wed) 04-Jul-12	12.7							1.1			
(Thu) 12-Jul-12		3.2									
(Sun) 15-Jul-12			6.0				2.3				
(Wed) 25-Jul-12		3.9									
(Mon) 30-Jul-12					7.7						
(Wed) 01-Aug-12				9.3							
(Sat) 18-Aug-12											0.0
(Sat) 01-Sep-12				5.4							
(Tue) 04-Sep-12	0.7										
(Thu) 13-Sep-12	0.1										
(Fri) 14-Sep-12	0.1										

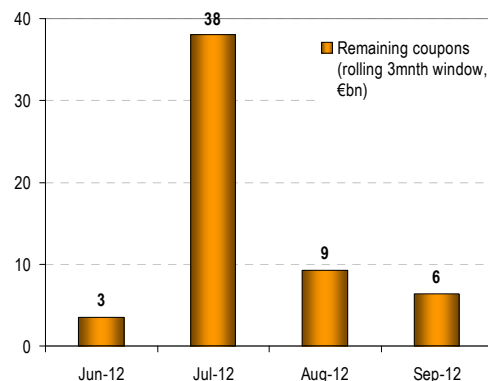
Source: DMOs, Bloomberg, CIRA estimates

Figure 68. EMU-11 remaining redemptions over the next 3months (€bn)



Source: DMOs, Bloomberg, CIRA estimates

Figure 69. EMU-11 remaining coupons over the next 3months (€bn)



Source: DMOs, Bloomberg, CIRA estimates

# Inflation Forecasts, Carry & Weekly Changes

Figure 70. 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
Apr 12	115.56	0.5	2.5	124.80	0.1	2.0	242.50	0.7	3.5	230.09	0.3	2.3
May 12	115.38	-0.2	2.3	124.73	-0.1	1.9	243.30	0.3	3.4	229.82	-0.1	1.7
Jun 12	115.35	-0.0	2.3	124.88	0.1	1.9	243.90	0.2	3.7	229.91	0.0	1.9
Jul 12	114.82	-0.5	2.5	124.30	-0.5	1.9	243.10	-0.3	3.6	229.91	0.0	1.8
Aug 12	115.00	0.2	2.5	124.89	0.5	1.9	244.30	0.5	3.5	230.21	0.1	1.6
Sep 12	115.43	0.4	2.1	124.76	-0.1	1.9	245.00	0.3	3.0	230.61	0.2	1.6

Shaded = Already released

Source: Citi Investment Research and Analysis

Figure 71. US TIPS Inflation- Linked Carry (based on forecasts above) – One week changes

Bond	RY (%)	Chg (bp)	Carry-adj chg	Carry: RY (bp)			Ref	BE (bp)	Chg (bp)	Carry-adj chg	Carry: BE (bp)			ZC Swap - BE Spread (bp)	Chg (bp)
				1 Aug	1 Sep	1 Oct					1 Aug	1 Sep	1 Oct		
Repo (%)				0.17	0.17	0.17									
TIPS 7/13	-0.67	-2	-2	-7	-11	-20	US-4.250-08/15/13	91	3	8	-8	-12	-23	9	-17
TIPS 1/14	-0.63	3	3	-4	-6	-12	US-4.000-02/15/14	93	-2	2	-5	-8	-15	10	-5
TIPS 4/14	-0.63	-14	-14	-4	-5	-10	US-1.875-04/30/14	93	15	18	-5	-7	-12	6	-20
TIPS 7/14	-0.98	2	2	-5	-9	-14	US-2.625-07/31/14	130	-0	2	-6	-10	-17	9	-2
TIPS 1/15	-0.87	-2	-2	-4	-6	-10	US-2.250-01/31/15	125	4	5	-5	-8	-12	20	-6
TIPS 4/15	-0.90	-4	-4	-4	-5	-9	US-2.500-04/30/15	131	6	8	-5	-7	-12	13	-8
TIPS 7/15	-1.03	-7	-7	-4	-6	-10	US-4.250-08/15/15	147	9	11	-5	-8	-13	24	-11
TIPS 1/16	-1.06	-1	-1	-3	-5	-9	US-2.625-02/29/16	159	-1	1	-5	-8	-12	15	-1
TIPS 4/16	-1.03	-3	-3	-3	-5	-8	US-2.000-04/30/16	157	2	3	-4	-7	-11	16	-4
TIPS 7/16	-1.10	-4	-4	-3	-5	-8	US-4.875-08/15/16	171	3	4	-5	-8	-12	22	-5
TIPS 1/17	-1.03	-6	-6	-3	-4	-6	US-3.125-01/31/17	172	6	7	-4	-7	-10	23	-8
TIPS 4/17	-1.08	-4	-4	-3	-4	-6	US-0.875-04/30/17	179	4	5	-4	-6	-10	14	-6
TIPS 7/17	-1.10	-7	-7	-3	-4	-6	US-4.750-08/15/17	186	6	7	-4	-7	-10	23	-9
TIPS 1/18	-0.96	-3	-3	-2	-3	-5	US-3.500-02/15/18	182	2	3	-4	-6	-9	26	-5
TIPS 7/18	-1.00	-3	-3	-2	-3	-5	US-4.000-08/15/18	189	1	2	-4	-6	-9	30	-4
TIPS 1/19	-0.88	-1	-1	-2	-2	-4	US-2.750-02/15/19	187	-1	-0	-3	-5	-8	31	-2
TIPS 7/19	-0.91	-3	-3	-1	-2	-4	US-3.625-08/15/19	197	1	2	-3	-5	-8	31	-4
TIPS 1/20	-0.80	1	1	-1	-2	-3	US-3.625-02/15/20	195	-4	-4	-3	-5	-7	31	1
TIPS 7/20	-0.77	1	1	-1	-2	-3	US-2.625-08/15/20	205	-5	-4	-3	-5	-7	30	1
TIPS 1/21	-0.66	1	1	-1	-1	-2	US-3.625-02/15/21	202	-5	-5	-3	-5	-7	31	1
TIPS 7/21	-0.65	-1	-1	-1	-1	-2	US-2.125-08/15/21	214	-3	-3	-3	-4	-7	26	-1
TIPS 1/22	-0.52	-2	-2	0	-1	-1	US-2.000-02/15/22	210	-3	-3	-3	-4	-6	28	-1
TIPS 1/25	-0.22	0	0	0	0	0	US-7.625-02/15/25	209	-4	-4	-2	-4	-6	38	-1
TIPS 1/26	-0.13	0	0	0	0	0	US-6.000-02/15/26	213	-4	-3	-2	-4	-5	36	-2
TIPS 1/27	-0.07	4	4	0	0	0	US-6.625-02/15/27	213	-7	-7	-2	-4	-5	38	1
TIPS 1/28	0.02	2	2	0	0	0	US-6.125-11/15/27	210	-5	-5	-2	-3	-5	42	-0
TIPS 4/28	0.06	2	2	0	0	0	US-5.500-08/15/28	211	-5	-5	-2	-3	-5	40	-1
TIPS 1/29	0.05	2	2	0	0	0	US-5.250-02/15/29	215	-5	-5	-2	-3	-5	38	-1
TIPS 4/29	0.08	1	1	0	0	0	US-5.250-02/15/29	212	-4	-4	-2	-3	-5	40	-1
TIPS 4/32	0.13	2	2	0	0	0	US-5.375-02/15/31	214	-5	-5	-2	-3	-4	41	-1
TIPS 2/40	0.44	-0	-0	0	1	1	US-4.625-02/15/40	217	-4	-4	-1	-2	-3	41	-2
TIPS 2/41	0.46	-1	-1	0	1	1	US-4.750-02/15/41	217	-4	-4	-1	-2	-3	41	-2
TIPS 2/42	0.52	-1	-1	0	1	1	US-3.125-02/15/42	219	-3	-3	-1	-2	-3	39	-3

Source: Citi Investment Research and Analysis

Figure 72. Eur Inflation- Linked Carry (based on forecasts above)- One week changes

Bond	RY (%)	Chg (bp)	Carry-adj chg	Carry: RY (bp)			Ref	BE (bp)	Chg (bp)	Carry-adj chg	Carry: BE (bp)			ZC Swap - BE Spread (bp)	Chg (bp)
				1 Aug	1 Sep	1 Oct					1 Aug	1 Sep	1 Oct		
Repo (%)				0.31	0.29	0.28									
OATi13	-1.05	-13	-13	-17	-18	-88	FFRG 4/13	127	14	15	-15	-16	-85	33	-15
BTPei14	3.98	63	63	22	38	31	BTP 8/14	92	26	30	-7	-14	-45	45	-28
OATei15	-0.25	7	7	-1	-4	-22	FFRG 4/15	98	-4	-1	-3	-7	-27	56	5
BUNDei16	-0.53	2	2	-2	-5	-20	BUND 1/16	80	1	4	-2	-4	-20	46	3
BTANi16	-0.11	-4	-4	-1	1	-12	FFRG 4/16	126	10	10	-4	-4	-19	53	-2
BTPei16	5.29	98	98	16	27	26	BTP 8/16	21	-16	-14	-1	-3	-17	126	20
OATi17	0.14	2	2	0	2	-8	FFRG 4/17	138	6	6	-4	-4	-17	45	3
BTPei17	5.36	82	82	13	22	21	BTP 8/17	48	-7	-5	-2	-5	-17	104	13
BOBLei18	-0.44	3	3	-1	-3	-12	BUND 1/18	111	3	5	-2	-4	-15	31	3
OATei18	0.60	10	10	1	1	-6	FFRG 4/18	121	-0	1	-2	-5	-15	42	6
OATi19	0.54	1	1	0	3	-4	FFRG 4/19	154	8	8	-3	-4	-13	43	0
BTPei19	5.21	65	65	10	16	15	BTP 9/19	80	6	8	-2	37	-13	88	-0
BUNDei20	-0.36	2	2	-1	-2	-9	BUND 1/20	142	5	6	-2	-4	-12	20	1
OATei20	0.88	9	9	1	2	-4	FFRG 4/20	144	2	3	-2	-4	-13	34	4
BTPei21	5.06	55	55	7	12	11	BTP 9/20	90	7	8	-3	30	-14	94	11
OATei22	1.01	10	10	1	2	-3	FFRG 4/21	149	2	3	-2	-4	-11	43	4
BUNDei23	-0.24	-2	-2	0	-1	-6	BUND 1/22	162	12	13	-2	-4	-10	24	-6
OATi23	0.97	3	3	1	3	-2	FFRG 10/23	187	11	11	-3	-3	-10	30	-3
BTPei23	5.02	49	49	6	10	10	BTP 8/23	112	-2	-1	-2	-4	-11	84	8
BTPei26	4.98	42	42	5	9	8	BTP 3/26	138	6	6	-2	24	-10	66	0
OATei27	1.40	7	7	1	2	-1	FFRG 4/26	173	6	7	-2	-4	-9	35	-0
OATi29	1.43	2	2	1	3	0	FFRG 4/29	188	13	13	-2	-3	-8	31	-6
OATei32	1.52	4	4	1	2	-1	FFRG 10/32	188	13	13	-2	-3	-8	30	-7
BTPei35	4.72	47	47	3	6	5	BTP 8/34	179	-3	-2	-3	-5	-10	40	8
OATei40	1.45	2	2	1	1	-1	FFRG 10/38	203	18	18	-2	-3	-6	24	-12
BTPei41	4.59	34	34	3	5	4	BTP 9/40	190	6	6	-3	18	-9	37	-0

Source: Citi Investment Research and Analysis

Figure 73. UK Gilts Inflation- Linked Carry (based on forecasts above)- One Week Changes

Bond	RY (%)	Chg (bp)	Carry-adj chg	Carry: RY (bp)			Ref	BE (bp)	Chg (bp)	Carry-adj chg	Carry: BE (bp)			ZC Swap - BE Spread (bp)	Chg (bp)
				1 Jul	1 Aug	1 Sep					1 Jul	1 Aug	1 Sep		
Repo (%)				0.48	0.47	0.45									
UKTi'13	-2.27	6	6	1	3	5	UKT 9/13	250	-2	-1	2	5	10	4	-8
UKTi'16	-1.70	4	4	1	3	5	UKT 9/16	237	-2	-2	1	2	3	35	-4
UKTi'17	-1.48	4	2	5	9	11	UKT 3/18	246	-3	-1	5	7	8	27	-4
UKTi'20	-0.93	0	-0	1	3	5	UKT 3/20	230	2	2	0	1	2	49	-11
UKTi'22	-0.72	-1	-2	3	6	7	UKT 3/22	242	-2	-1	3	4	4	53	-3
UKTi'24	-0.43	0	-0	1	3	4	UKT 3/25	245	-3	-3	0	0	1	56	-3
UKTi'27	-0.27	-2	-3	2	4	6	UKT 12/27	261	-0	0	2	2	2	51	-2
UKTi'29	-0.10	-0	-1	2	4	5	UKT 12/30	269	2	2	1	2	2	44	-4
UKTi'30	-0.14	1	0	1	2	4	UKT 6/32	287	2	2	0	0	0	34	-3
UKTi'32	-0.08	1	1	2	3	5	UKT 6/32	281	1	2	1	1	1	44	0
UKTi'34	0.01	1	-0	2	3	4	UKT 9/34	285	3	4	1	1	1	39	-3
UKTi'35	-0.01	-1	-1	1	2	3	UKT 3/36	295	4	4	0	0	-1	33	-3
UKTi'37	0.00	1	0	2	3	4	UKT 12/38	300	4	5	1	1	1	31	-3
UKTi'40	0.03	1	1	1	3	3	UKT 12/38	298	4	4	1	1	0	35	2
UKTi'42	0.02	1	0	1	2	3	UKT 9/39	305	5	5	1	0	0	33	1
UKTi'47	0.05	1	0	1	2	3	UKT 12/46	312	7	7	1	0	0	26	-5
UKTi'50	0.07	1	0	1	2	3	UKT 12/46	310	7	7	0	0	0	25	-2
UKTi'55	0.07	1	1	1	2	2	UKT 12/55	315	7	7	0	0	0	24	-5
UKTi'62	0.07	-0	-1	1	1	2	UKT 1/60	314	8	9	0	0	-1	26	-6

Source: Citi Investment Research and Analysis

## Summary of Recent Publications

Date	Publication	Topic	Page	Region
13-Jun-12	NOTE	<a href="#">Euro Rates Strategy: Further pressure on Spain's rating likely</a>	-	EUR
12-Jun-12	NOTE	<a href="#">Global Flow Monitor: US and European Flow Analysis</a>	-	Global
31-May-12	IIRS	<a href="#">Overview: The Point of No Return</a>	8	EUR
		<a href="#">Buy France vs Austria, not Germany</a>	10	EUR
		<a href="#">Upcoming Gilt Seasonality and Coupons</a>	11	UK
		<a href="#">UK Inflation Strategy: A formula for lower break-evens?</a>	13	UK
		<a href="#">EMU-11: June Supply Outlook</a>	18	EUR
		<a href="#">Bund Futures Expiry: RXM2-RXU2</a>	20	EUR
		<a href="#">Bobl Futures Expiry: OEM2-OEU2</a>	21	EUR
		<a href="#">Schatz Futures Expiry: DUM2-DUU2</a>	22	EUR
		<a href="#">Gilt Futures Expiry: GM2 - GU2</a>	23	UK
31-May-12	NOTE	<a href="#">Euro Rates Strategy: EMU-11 June Supply Outlook</a>	-	EUR
29-May-12	NOTE	<a href="#">UK Inflation Strategy: A formula for lower UK break-evens?</a>	-	UK
25-May-12	NOTE	<a href="#">End-May 2012 Index-Linked Projections</a>	-	Global
24-May-12	IIRS	<a href="#">Global Economic Outlook and Strategy</a>	8	Global
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		<a href="#">UK Real Yields: Positively Negative</a>	19	UK
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		<a href="#">End-May 2012 EGBI/WGBI Projections</a>	24	Global
23-May-12	NOTE	<a href="#">Global Month-end IndexProjections</a>	-	Global
21-May-12	NOTE	<a href="#">European Rates Strategy: ECB = European Circuit Breaker?</a>	-	EUR
21-May-12	NOTE	<a href="#">Global Flow Monitor:US and European Flow Analysis</a>	-	Global
17-May-12	IIRS	<a href="#">Overview: How low can Bund yields go?</a>	8	EUR
		<a href="#">Tier2 Turmoil: Yields unlikely to rally any time soon</a>	10	EUR
		<a href="#">Gilt-Edged Haven, With More QE To Boot</a>	11	UK
		<a href="#">Euro Inflation: long-term value in BEI?</a>	12	EUR
15-May-12	NOTE	<a href="#">Euro Inflation Strategy: Can euro break-even inflation spreads recover?</a>	-	EUR
14-May-12	NOTE	<a href="#">Global Flow Monitor: Changing demand dynamics in both Treasuries and Europe</a>	-	Global
10-May-12	IIRS	<a href="#">Overview: The End of Austerity</a>	8	EUR
		<a href="#">BTP and Bono Auctions to Gauge Sentiment</a>	10	EUR
		<a href="#">Taking advantage of the recent risk-off move</a>	12	EUR
		<a href="#">UK: Trading Implications of the QE Decision</a>	14	UK



## Global Rates Team

Figure 74. Citi Global Interest Rate Strategy Team, For informational purposes only

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## **Notes**

## **Notes**

## **Notes**

## Appendix A-1

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