Global

Developed Market Rates

22 July 2011 | 80 pages

International Interest Rate Strategist

The summit and the climb back down

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- **Euro Rates Strategy:** Summit headlines are still emerging but we expect the risk-on move to continue in the very short term. However we think the market is getting ahead of itself and the risk/reward will flip back towards wider spreads in coming weeks.
- **US Rates Strategy:** We see a high likelihood of a rating agency downgrade of US sovereign risk in 2011. The weak budget deal that drives this decision will likely increase Treasury yields prior to any rating agency action.
- **UK Rates Strategy:** We think gilts will continue to perform in the near term. The benign rate environment, relatively soft economic data and the strength of the FTQ bid should continue to dominate the market tone.
- **Japan Rates Strategy:** We lower our forecasts for JGB yields for the near term based on the extended duration commitment of the BoJ policy.
- **Australia and NZ Rates Strategy:** High levels of volatility in AUD and NZ markets leave us cautious. But we see merit in low cost bearish trades via options in the front-end of the AUD curve.
- **SAS Strategy:** EFSF spreads have come under pressure as the market has focused on the proposed changes to the facility. The near term direction of EFSF spreads is largely policy dependent, especially given the EU Summit.
- **Algorithmic Trading Strategy:** ARTS reduced into long position of 10% driven by falling risk aversion – this week we look at a simple approach to trading risk aversion.
- **Principal Strips:** We highlight two trade ideas to take advantage of the recent moves in French and Belgian strips.
- **EMU Relative Value Trades:** We present eleven RV trades along with an update of our latest RV summary tables that scan for value relative to each country's fitted curve.
- **Month-end Index Projections:** We present details on the curve and country breakdown of estimated end-July EGBI and WGBI changes.
- **Global Flow Monitor:** We saw net buying of the US last week, but overall selling of Europe. Demand for AAAs is still positive across the board.

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

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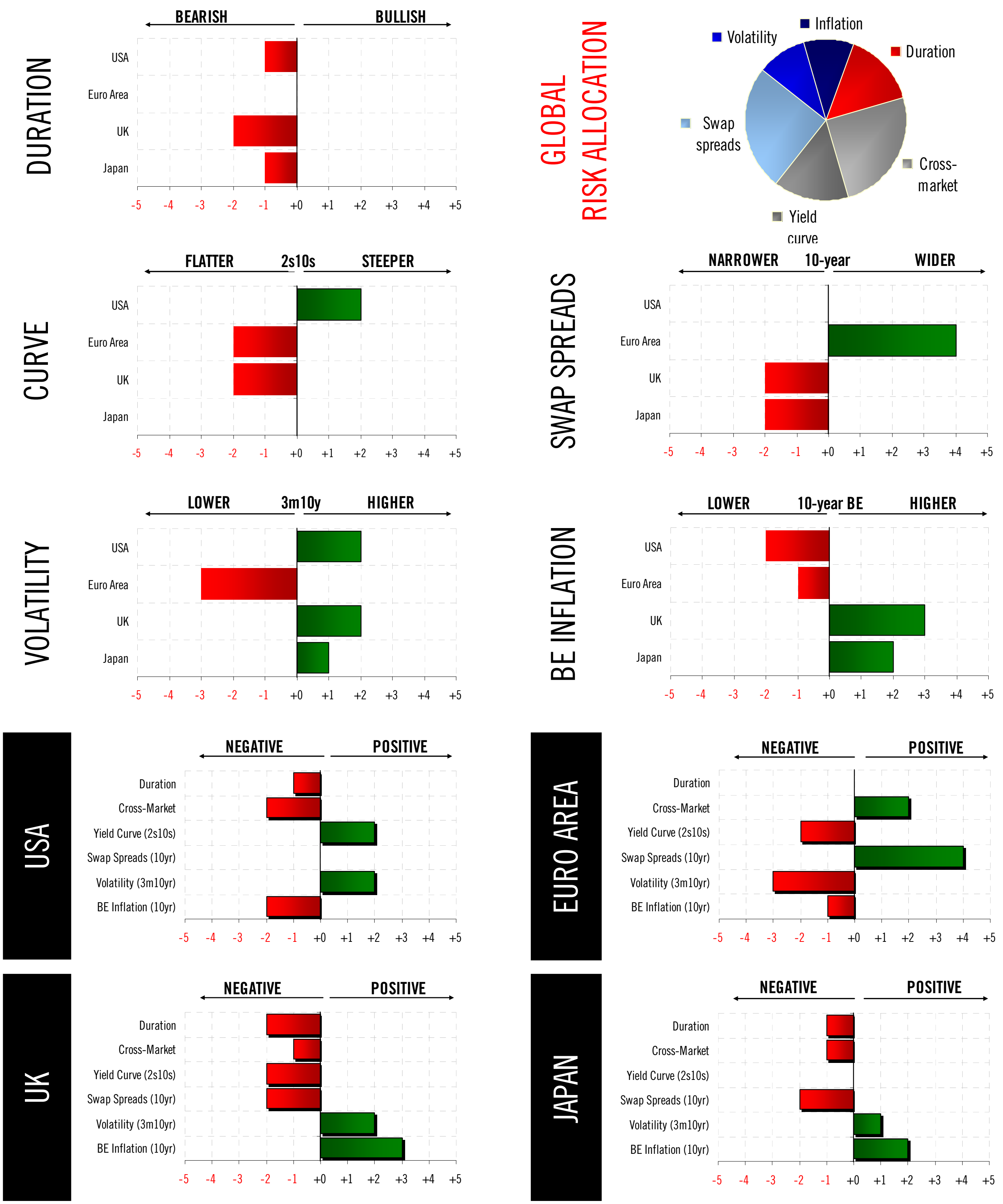
Figure 1. Strategy Summary Table

GLOBAL	View	Strategies
Direction	Duration risks are unattractively balanced here. We remain bearish over the medium-term but further bouts of risk aversion are likely to make it a bumpy ride. Seasonal influences could support the long-ends of the EUR and GBP markets over the summer.	Neutral for now.
Yield Curve	Euro curve to flatten beyond 3yr point. Fed still likely to be cautious in unwinding accommodation; this could see some steepening of front-mid curve. UK curve to flatten, but struggle to beat the forwards in the medium term.	US 3s7s steepener. EUR vs GBP 5s10s box trade (steeper EUR). GBP 2s5s flattener, or 2s5s10s, 2yrs forward
Cross-market	Relative slowing of US vs EU rate cycle expectations should mean continued Bund underperformance versus US Treasuries in H2 but Bunds should continue to outperformTreasuries and Gilts in the short term.	Position for UST outperformance vs Bunds over the next 3 months. Buy 3m5yr EUR payers vs 3m5yr USD payers. Sell 10yr Gilt versus Bund; target 50bp spread. Pay 1yr2yr GBP vs EUR for a move to flat.
EMU Spreads	Short term headinline driven optimism too strong to fade but we expect political momentum to dissipate once the pressure is off. Summit proposals a step in right direction but need to be implemented and underlying problems still need to be addressed.	Run long Netherlands/Finland/Austria vs Bunds until risk-on bid wanes after Summit.
Swap Spreads	Euro swaps spreads are likely to widen as policy rates rise in the medium term and and on FTQ and pressure on OIS-Libor continues in the short term.	Long Bobls spreads vs Bund spreads.
Inflation	Large month-end extensions in the French and US inflation-linked bond indices should help support break-evens in the near-term. OATei also stand to benefit from EUR3.5bn coupon payments which settle on 25 July. However, the most important index event next week is in the UK where the 5yr+ index extends nearly 1.5yrs which should support the long-end.	Real yield flatteners in the UK. Buy Boblei13 ASW. Euro 2s10s break-even steepeners. Bundei16-20 asset-swap steepener. Stay long UKTi 2013 BE. Maintain 10s30s TIPS break-even curve steepener.
Volatility	EUR gamma very correlated to market direction. Vol surfaces expected to flatten as rate hikes come to the fore. Curvature of EUR gamma looks high. Time decay and asymmetric directional risk make the recent spike in volatility look unsustainable.	Contimue to sell EUR gamma. Vol curve convergence trades between GBP and EUR remain attractive (3m x 2s5s vol steepener in EUR vs flattener in GBP). Sell EUR 6m2y straddle, delta-hedged.
Risk Allocation	EMU risks will continue to dominate the landscape and are likely to intensify. Short end pricing is probably too benign but needs data to swing back.	

Source: Citi Investment Research and Analysis

Figure 2. Global Summary



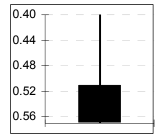
Source: Citi Investment Research and Analysis

Tradesheet

Record of Closed Trades

Figure 3. Record of Closed Trades

Country	Trade	Levels		Rationale
Australia	**3s10s ACGB flattener**	Open	0.51%	
		Current	0.57%	Hit Stop 15 July 2011
Curve	Sell 6.25% Jun14 at 4.41%	**P&L**	**-0.06%**	
	Buy 5.75% May21 at 4.92%	Target	0.38%	
		Stop	0.57%	*IIRS 14 July 2011*

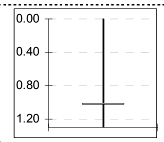


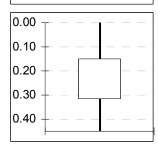
Source: Citi Investment Research and Analysis

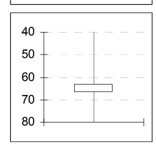
Record of Open Trades

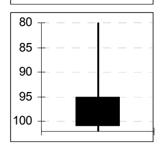
Figure 4. Record of our Open Trades

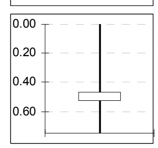
Country	Trade	Levels		Rationale + Publication Date
Europe	**Sell EUR 6m2yr straddle (delta hedged)**	Open	1.03%	The spread of breakevens looks unsustainable
		Current	1.01%	relative to the current trading range
Volatility	Sell EUR 6m2yr straddle at 1.03% (delta hedged)	**P&L**	**0.02%**	
		Target	0%	
		Stop	1.3%	*EMU Crisis Update: Crossing the Rubicon 13-Jul-11*
Europe	**Sell EUR 3m2yr payer (unhedged)**	Open	0.32%	negative correlation of yields with volatility
		Current	0.15%	makes selling unhedged 3m2y payers
Volatility	Sell EUR 3m2yr payer at 0.32%	**P&L**	**0.17%**	attractive
		Target	0%	
		Stop	0.45%	*Morning Call 30 June 2011*
Sweden / Norway	**Pay 2yr SEK vs NOK**	Open	67bp	Front end rally in SEK looking overdone
	Pay 2yr SEK at 2.96%	Current	63.3bp	given monetary policy tightening
Swap	Receive 2yr NOK at 3.63%	**P&L**	**3.7bp**	
		Target	40bp	
		Stop	80bp	*IIRS 30 June 2011*
EMU Spreads	**Sell EUR 2y2yr ATMF straddle (delta hedged)**	Open	95bpv	
		Current	101bpv	Implied vol out of line with convexity
Volatility	Sell EUR 2y2yr straddle (delta hedged at 1.98%, 95bpv)	**P&L**	**-6bpv**	
		Target	80bpv	
		Stop	102bpv	*EUR 10s30s: Curve or Convexity 22 June 2011*
UK / EUR	**Pay 1yr2yr GBP vs Rec 1yr2yr EUR**	Open	0.53%	
	Pay 1y2y GBP at 2.12%	Current	0.47%	Relative risks regarding policy rate
Cross Market	Receive 1y2y EUR at 2.65%	**P&L**	**0.06%**	expectations favour short UK vs Europe
		Target	0%	
		Stop	0.75%	*Morning Call 9 June 2011*
EMU Spreads	**Sell 10yr Bund Spread vs 5yr Bobl Spread**	Open	10bp	On going EMU tensions support long positions
	Sell 10yr Bund vs Matched Maturity Swap at 33bp	Current	10.7bp	in Bobl spreads vs Bund spreads
Swap Spread	Buy 5yr Bobl vs Matched Maturity Swap at 43bp	**P&L**	**0.7bp**	
		Target	20bp	
		Stop	5bp	*IIRS 26 May 2011*
UK / EUR	**EUR vs GBP 2s5s volatlity box**	Open	13bpv	We expect the EUR vs GBP 2s5s volatility box
	Buy GBP 3m2yr ATMF straddle at 76bpv	Current	15bpv	to normalise based on our projections for
Volatility	Sell GBP 3m5yr ATMF straddle at 90bpv	**P&L**	**-2bpv**	upcoming rate hikes
	Sell EUR 3m2yr ATMF Straddle at 90bpv	Target	3bpv	
	Buy EUR 3m5yr ATMF straddle at 91bpv	Stop	18bpv	*IIRS 26 May 2011*

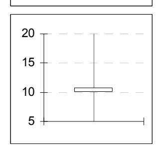


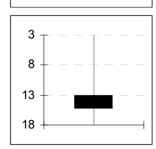






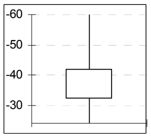
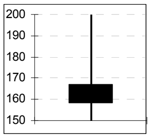






Source: Citi Investment Research and Analysis

Figure 5. Record of our Open Trades (continued)

UK / EUR	**Sell Gilt 10yr versus Bund**	Open	-32bp		
	Sell UKT 3.75% 09/20 at 3.37%	Current	-41.8bp	With no MPC rate hike priced in for 2011, we	
Cross Market	Buy DBR 3% 07/20 at 3.05%	**P&L**	**9.8bp**	think the risk is skewed towards a surprise on	
		Target	-60bp	the upside.	
		Stop	-24bp	*Morning Call 11 May 2011*	
US	**3yr - 7yr Treasury Steepener**	Open	167bp		
		Current	158bp	Fed rate hike in 2012 now increasingly unlikely	
Curve	Buy 3yr UST (1.25% 4/14) at 1.02%	**P&L**	**-9bp**	given FOMC meeting. Position for a curve	
	Sell 7yr UST (2.625% 4/18) at 2.69%	Target	202bp	steepener	
		Stop	147bp	*IIRS 28 April 2011*	

Source: Citi Investment Research and Analysis

Global Economic Outlook and Strategy

Following the latest *Global Economic Outlook and Strategy* *July 2011* publication from our global economists and market strategists, we highlight their key views in the US, Euro Area, UK, China and Japan.

Global

GDP (YoY) 2011F 3.4%

CPI 2011F 3.9%

Economic prospects for many advanced economies are deteriorating, with soft Q2 data, worsening near term prospects and large fiscal challenges — and rising uncertainties that deter risk-taking and investment. As with the last few months, our economists continue to make more GDP forecast downgrades than upgrades, especially to industrial countries.

US

GDP (YoY) 2011F 2.3%

CPI 2011F 2.9%

Rates on hold at 0.25% until 3Q 2012

A reviving auto sector and a boost to real incomes from the drop in energy costs should buoy near-term growth. However, the 1H 2011 slowdown has raised concerns about more persistent sources of weakness and looming fiscal policy questions pose a threat to financial stability. Current monetary accommodation is likely to remain in place through most of the forecast horizon.

Euro Area

GDP (YoY) 2011F 1.9%

CPI 2011F 2.6%

4Q 2011 Policy Rate Forecast 1.75%

Our economists have revised down GDP growth forecast for the euro area on average, mainly reflecting lower forecasts for the periphery countries and Italy and Spain caused by the widening of the sovereign debt crisis. While there is a chance that the Euro area summit in July will calm markets for some months, a comprehensive package is unlikely in the meantime in our view. Taking into account the lower growth forecast we expect fewer rate hikes from the ECB in 2012, but we still expect the ECB to increase rates again in 4Q.

UK

GDP (YoY) 2011F 1.0%

CPI 2011F 4.4%

4Q 2011 Policy Rate Forecast 0.50%

UK growth projections have also been cut again. In terms of revisions to 2011-12 growth forecasts, the UK matches Australia as the worst underperformer among major countries over the last six months. Despite high inflation at 4.3%, we have postponed our tightening forecast and now expect the first hike in Q2-2012 (Q4-2011 previously).

Japan

GDP (YoY) 2011F -0.3%

CPI 2011F 0.5%

Rates on hold at 0.1% in 2011 and 2012

Our economists have revised up growth estimates for Q3 reflecting faster-than-expected normalization in the economy. Q4 forecasts however have been revised down as it will likely take longer for reconstruction demand from the earthquake to feed through to the economy than we had previously assumed. Moreover, medium-term uncertainties surrounding power supply and costs increased in recent weeks.

China

GDP (YoY) 2011F 9.2%

CPI 2011F 5.3%

4Q 2011 Rate Forecast 3.75%

Fighting inflation will remain a policy priority as CPI inflation jumped and growth decelerated less than expected. Monetary and credit conditions have tightened, and the impact on the economy should be more tangible in 2H. We continue to expect YoY inflation to fall in 2H, but rapidly rising pork prices should slow the pace of disinflation. We continue to expect one rate hike by year-end.

Figure 6. Interest Rate and Bond Market Forecast (End of Period), as of 20 Jul 2011

		Forecast End Period					
	Current	3Q 11	4Q 11	1Q 12	2Q 12	3Q 12	4Q 12
US							
Policy Rate (Fed Funds) End Quarter	0.25	0.25	0.25	0.25	0.25	0.50	1.00
3-Month Libor	0.25	0.3	0.35	0.40	0.60	0.85	1.35
2 Year Treasury Yield	0.36	0.65	0.90	1.15	1.35	1.60	2.00
10 Year Treasury Yield	2.92	3.10	3.25	3.35	3.45	3.60	3.85
30 Year Treasury Yield	4.27	4.35	4.40	4.40	4.45	4.60	4.70
2-10 Year Treasury Curve	256	245	235	220	210	200	185
2 Year Swap Spread (Swap Less Govt.), bp	31	28	30	32	34	36	38
10 Year Swap Spread (Swap Less Govt.), bp	13	15	16	18	20	22	24
30 Year Swap Spread (Swap Less Govt.), bp	-36	-30	-35	-40	-45	-50	-55
30 Year Mortgage Yield	4.49	4.65	4.80	5.00	5.15	5.35	5.65
10 Year Breakeven Inflation	234	235	240	245	245	245	250
Euro Area							
Policy Rate	1.50	1.50	1.75	1.75	1.75	2.00	2.00
3-Month Libor	1.60	1.60	1.80	1.80	1.90	2.25	2.30
2 Year Treasury Yield	1.30	1.35	1.60	1.85	2.00	2.40	2.55
10 Year Treasury Yield	2.72	2.80	2.95	3.10	3.25	3.60	3.75
30 Year Treasury Yield	3.25	3.30	3.40	3.50	3.65	3.85	4.00
2-10 Year Treasury Curve	142	145	135	125	125	120	120
10 Year BTP-Bund Spread	290	320	330	290	250	180	150
2 Year Swap Spread (Swap Less Govt.), bp	73	75	80	70	60	50	50
10 Year Swap Spread (Swap Less Govt.), bp	51	55	55	50	45	40	40
30 Year Swap Spread (Swap Less Govt.), bp	5	11	12	15	20	20	20
10 Year Breakeven Inflation	210	215	215	220	225	225	220
Japan							
Policy Rate	0.10	0.10	0.10	0.10	0.10	0.10	0.10
3-Month Libor	0.20	0.20	0.20	0.20	0.20	0.20	0.20
2 Year Treasury Yield	0.15	0.15	0.20	0.20	0.25	0.20	0.20
10 Year Treasury Yield	1.08	1.15	1.30	1.30	1.40	1.30	1.30
30 Year Treasury Yield	2.02	2.10	2.20	2.20	2.25	2.20	2.20
2-10 Year Treasury Curve	93	100	110	110	115	110	110
2 Year Swap Spread (Swap Less Govt.), bp	22	22	24	24	25	23	23
10 Year Swap Spread (Swap Less Govt.), bp	1	3	5	5	7	5	5
30 Year Swap Spread (Swap Less Govt.), bp	-8	-5	-3	-3	0	-3	-3
10 Year Breakeven Inflation	NA	NA.	NA	NA.	NA	NA	NA.
UK							
Policy Rate	0.50	0.50	0.50	0.50	0.75	0.75	1.00
3-Month Libor	0.82	0.80	0.80	0.90	1.20	1.30	1.40
2 Year Treasury Yield	0.70	0.80	0.90	1.00	1.20	1.30	1.50
10 Year Treasury Yield	3.06	3.15	3.35	3.55	3.70	3.85	4.00
30 Year Treasury Yield	4.10	4.10	4.20	4.30	4.40	4.50	4.60
2-10 Year Treasury Curve	236	235	245	255	250	255	250
2 Year Swap Spread (Swap Less Govt.), bp	63	60	55	50	45	40	40
10 Year Swap Spread (Swap Less Govt.), bp	22	15	10	15	20	25	25
30 Year Swap Spread (Swap Less Govt.), bp	-21	-19	-15	-10	0	10	10
10 Year Breakeven Inflation	310	320	325	335	345	350	355
Australia							
Policy Rate	4.75	4.75	5.00	5.00	5.25	5.25	5.50
3-Month Libor	4.93	5.00	5.20	5.10	5.40	5.30	5.50
2 Year Treasury Yield	4.33	4.50	4.80	5.10	5.40	5.50	5.65
10 Year Treasury Yield	4.98	5.30	5.50	5.60	5.80	6.00	6.20
2-10 Year Treasury Curve	65	80	70	50	40	50	55
10 Year Swap Spread (Swap Less Govt.), bp	64	55	60	55	55	50	55

Source: Citi Investment Research and Analysis

Euro Rates Strategy

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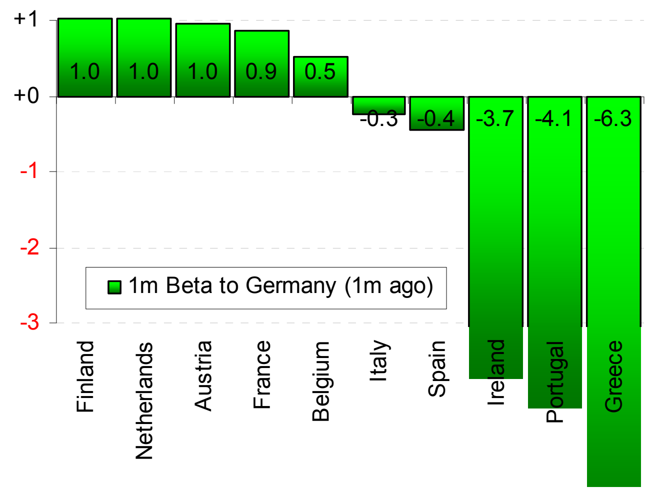
More AAA outperformance vs Bunds likely, but only in the short term

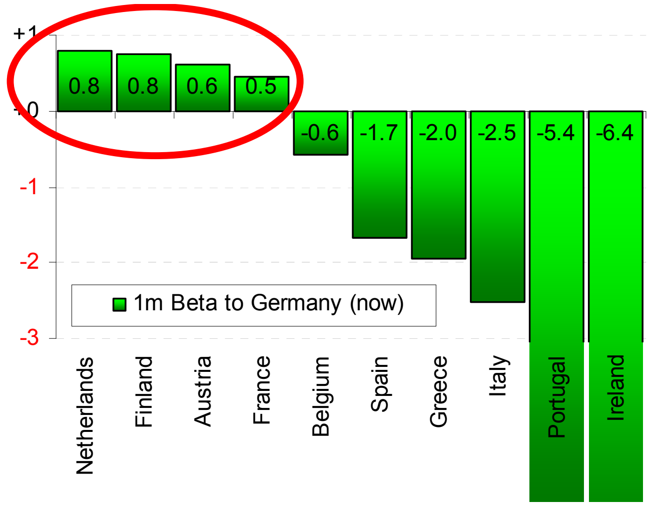
In the 14 July *International Interest Rate Strategist* we highlighted the recent independence of AAAs from Germany, whose betas had been close to 1 for some time[1].

Figure 7. 1-Month Beta of 10yr Yield vs Germany (1-Month Ago)



Source: Citi Investment Research and Analysis

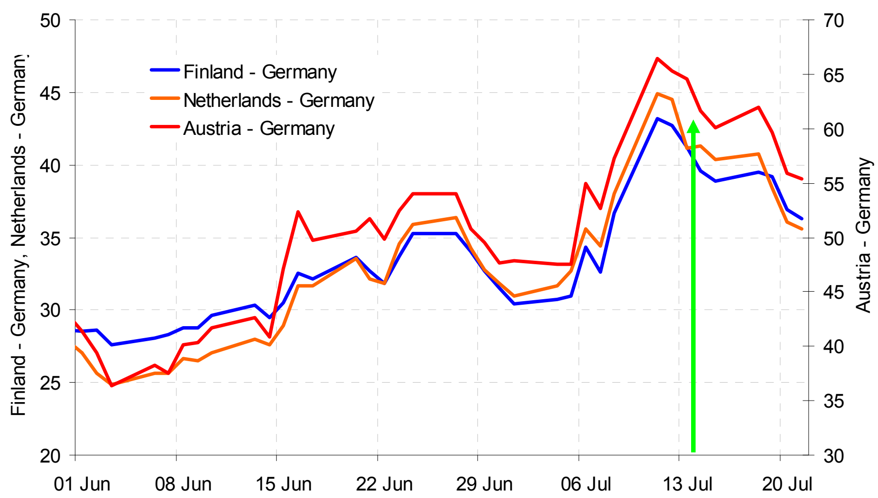
Figure 8. 1-Month Beta of 10yr Yield vs Germany (Today)



Source: Citi Investment Research and Analysis

We recommended taking advantage of the liquidity-driven blow out in spreads to work orders to buy those countries with relatively sound fundamentals, namely the Netherlands, Austria and Finland. These spreads have tightened over the last week (Figure 9), helped by the levels of optimism going into the European Summit.

Figure 9. 10yr Spreads to Germany of Finland, Austria and the Netherlands



Source: Citi Investment Research and Analysis

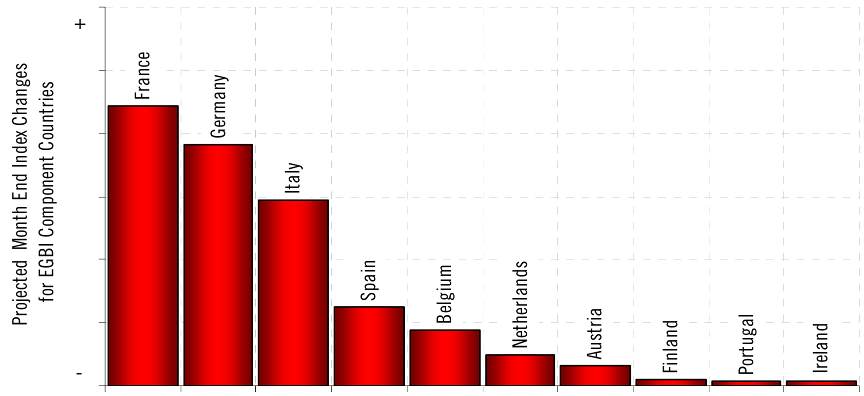
Take profits on signs that the short-covering is reversing

We would recommend taking profits at the first sign that the short-covering in peripherals is reversing. We expect a temporary overshoot of risk-on trades going into, and possibly in the immediate aftermath of, the announcement of the Summit proposals.

[1] Two other striking features of the two beta charts are the sharp fall in the betas of Italy and Spain, and the fall in the beta of France.

Looking further forward however, projected month-end index changes[2] should provide a headwind for short Germany trades (Figure 10), but we would expect some reversal of the current risk-on flow to be underway by then as some of the current headline-driven excitement has faded.

Figure 10. End-Jul Projected Index Changes by Country (Weighted Duration)



Source: Citi Investment Research and Analysis

Reaching the summit is only half the battle

Information is still emerging as we go to press but it seems likely that the situation in Greece will be stablised. Dow Jones and Reuters report a draft EU statement which includes public sector support for Greece extended for a minimum of 15 years, options for private sector involvement, lowering of the EFSF lending rate to Greece to 3.50% (and a probable reduction for Portugal and Ireland too). They also report an expanded role for EFSF, including recapitalization of some banks and possible intervention in the secondary market of countries not currently receiving assistance. These would represent very significant steps in the right direction, but risks remain high in our view.

What is needed to calm markets

In their 20 July *Global Economics View: Buying Time For The Euro* our economists set out three things that they believe EU/EA policymakers need to agree on to calm markets and buy some time:

i) full details of a programme to provide liquidity to Greece for at least 12 months

ii) an easing of the terms of EFSF/EFSM (and Greek programme) loans

iii) allowing the EFSF to purchase sovereign debt in secondary markets, and not just for programme countries.

There is a significant gap between agreement on proposals, their ratification, and the actual implementation

If today's Summit can pull off this hat-trick, then that is an undoubted positive. However, this would only be the first step. Further measures to address sovereign and banking sector insolvency issues will still be needed later in the year. Markets may have forced politicians into recognizing that the 11th hour is looming, but we fear that politics will once again trump economics once we move beyond the agreement of proposals stage. When the headline honeymoon is over and it comes to fleshing out those theoretical proposals, there is a very real risk that the reality will fall short of what is needed to defuse the crisis, rather than just temporarily dampen it down.

[2] See the Index Projections section for the full details.

We may be right at the peak of positive sentiment

We are sceptical that the political momentum will persist once the pressure is off

We believe the short covering that we have seen this week is justified given the headline risk and is obviously self-reinforcing, but we remain sceptical that political momentum won't dissipate once again. Having "done something", and with electorates to appease, the danger is that nothing else happens until more pressure is applied by the markets. There is a significant gap between agreement on proposals, their ratification, and the actual implementation. And with the immediate pressure relieved by the short-covering the path of least resistance will be to sit down and rest. Political reality dictates that the bare minimum will be done in our view.

Progress is necessary on a number of fronts, not just one

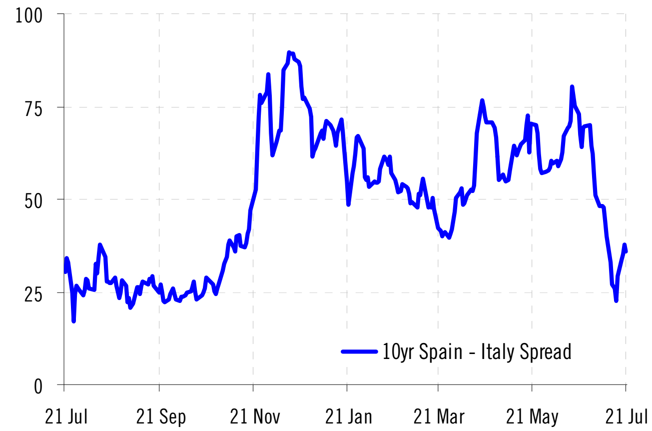
Our economists also sound a note of caution and stress the necessity for progress on a number of fronts, not just one: "*An agreement to give the EFSF the right to purchase bonds in the secondary market and an agreement to increase the lending capacity beyond €440bn will likely be difficult to achieve.... In order to satisfy markets, tonight's Summit statement must also include a schedule for the ratification of the decisions by the member states in the near-term (next two weeks). Furthermore, it is important that the ECB makes clear that it is fine with the outcome of the summit and willing to contribute to stabilise markets by using its Securities Markets Programme" (*20 July, *Global Economics View: Buying Time For The Euro)*

We expect the current short-covering to continue and even to see some optimists going long

In our 19 July note (*EMU Spreads - Thoughts Ahead of Thursday*) we looked at the countries' funding trajectories and the shifting balance of short term risks. We concluded that risks for Italian and Spanish spreads were skewed to the upside - in the very short term - given the probability of headline risks and knee-jerk tightening. We continue to hold that view. We expect the current short-covering to continue and even to see some optimists going long.

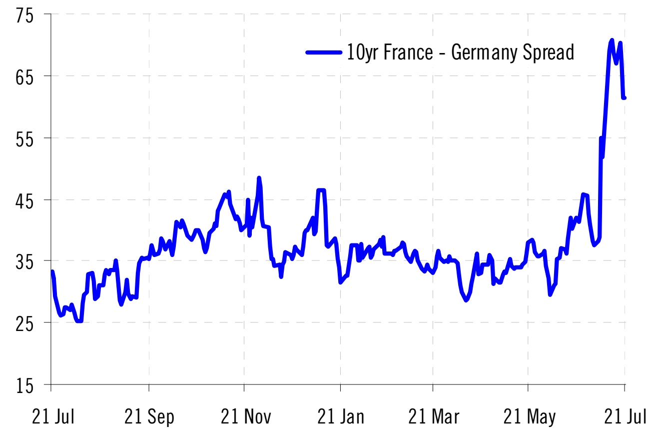
If the Summit proposals are a significant positive surprise and we have underestimated the ability of the politicians to put EMU before their national interests, we will likely see a swift 10-15bps retightening of France/Germany, a 25-50bps rewidening of Italy/Spain etc.

Figure 11. 10yr Italy/Spain Spread



Source: Citi Investment Research and Analysis

Figure 12. 10yr France/Germany Spread



Source: Citi Investment Research and Analysis

While we would not want to position for such a positive surprise, we could easily see the current risk-on move (or rather, unwinding of the risk-off move) overshoot in the short term, driving these spreads back towards where they came from.

Size matters

However, the scope for disappointment to set in once the positive-sounding headlines have been digested remains significant, even if we have moved closer to a solution. The right things need to be done, *and* in a large enough size. Both are required. Buybacks/EFSF effective capacity needs to be sufficiently large to remove the skew from the risk/reward of buying vs selling spreads. If they are not then nothing will have changed. No amount of wishful thinking will turn a peashooter into a bazooka.

Buying time is not sufficient

And the time bought by the latest measures still needs to be spent wisely to solve the underlying problems, which have not gone away. Once the dust has settled, the speculative overshoot has unwound, and the clock has been turned back a few weeks in spread terms, the balance of risks will once again be tipped towards wider rather than tighter spreads in our view.

Plus ça change, plus c'est la même chose

As things stand we do not anticipate that this is the beginning of a trend tighter in spreads

In absence of the details of the final set of official proposals at time of writing we are flying in the dark to some extent, and we may yet be surprised at the extent of and substance behind the Summit proposals. But as things stand, we do not anticipate that this is the beginning of a trend tighter in spreads. To not see spreads rewiden, fresh buyers are needed when position covering is exhausted. On a relative basis, we may be closer to the end than we were, but on an absolute basis we are still a long way from being out of the woods, in our view.

Second-guessing the twists and turns of European politics will continue to dominate EMU spreads for some time yet.

From a bigger picture perspective, it is a considerable understatement to say that any taxpayer-funded fiscal transfers (overt or otherwise) will be a hard sell politically for the creditor nations (unless there is some mechanism for a quid pro quo in the form of loss of fiscal sovereignty for the recipient)[3]. When push comes to shove, some form of fiscal transfer may be the price of holding EMU together. And as our economists point out, Chancellor Merkel does not want to go down in history as the leader who presided over the collapse of EMU. What is certain is that merely token buybacks (or symbolic Eurobond issuance) will not be sufficient in our view. Our fear is that the current political momentum will dissipate once the pressure is off and the hairy nettles of the lack of a Euro-wide banking recapitalization mechanism and sovereign insolvency will not be grasped until other alternatives have been tried and failed. And time is running out, fast. The proposals that are emerging are welcome, but we can't help feeling the market is getting ahead of itself once again.

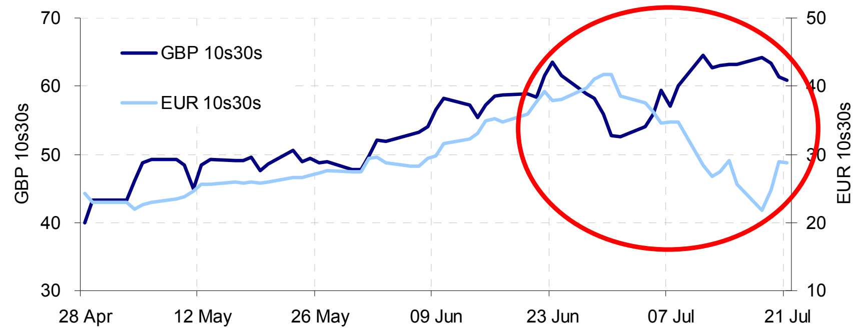
[3] See our 20 July, *Global Economics View: Buying Time For The Euro*.

Comparing 10s30s in UK and Europe

Recent divergence in 10s30s in GBP and EUR, with GBP bull steepening and EUR bull flattening

Until July, 10s30s in the UK and Europe had been moving hand in hand. However in recent weeks they have moved in opposite directions (Figure 13), both during the risk-off phase and the more recent bout of short-covering in EMU spreads.

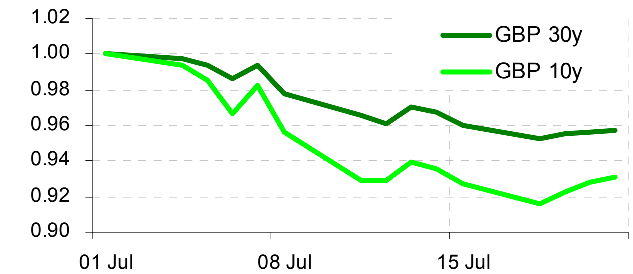
Figure 13. Recent Moves in 10s30s in EUR and GBP



Source: Citi Investment Research and Analysis

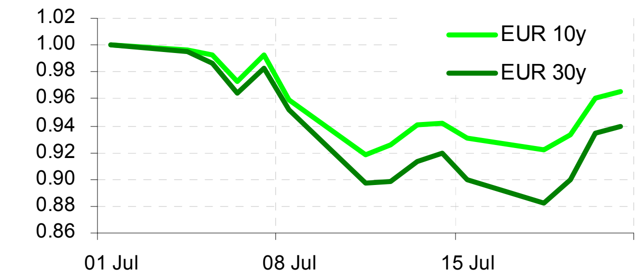
Normalising recent yield moves clearly shows that the GBP steepening has been led by 10s (Figure 14), while EUR flattening has been led by 30s (Figure 15).

Figure 14. Normalised GBP 10y and 30y Yields (From 01 July)



Source: Citi Investment Research and Analysis

Figure 15. Normalised EUR 10y and 30y Yields (From 01 July)



Source: Citi Investment Research and Analysis

This has pushed the cross-market box out towards levels it has only been to on two previous occasions in the past 20 years and quickly turned round from (Figure 16).

10s30s GBP flatteners vs EUR steepeners carry around +1bp over 3 months (+8bps carry and -7bps roll)

The box has very low directionality

Figure 16. GBP 10s30s vs EUR 10s30s (1991 to Present)

Source: Citi Investment Research and Analysis

What's the trade?

For clients who have (or are looking at) GBP 10s30s flatteners, but are concerned about its directionality, or are worried about EUR 10s30s re-steepening, we would recommend boxing either trade at close to current levels. For clients who are flat, scaling into the box from here looks historically attractive too.

US Rates Strategy

Paths of the US Budget and Sovereign Rating

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With the August 2 debt ceiling deadline close at hand, a budget deal continues to be elusive. The rating agencies have opined several times on the potential impact on US sovereign ratings for various outcomes.[4] We will examine some of the paths that are likely and the impact they would likely have on a variety of fixed-income markets. **We see about a 50-50 chance that the US is downgraded in 2011.** However, we can not emphasize enough the distinction that needs to be made between two possible negative outcomes.

- **High Probability Outcome** – The resolution of the debt-ceiling crisis involves a deal that does not adequately address long-term US debt and deficit conditions. This results in a near-term credit rating down grade into the 'AA' category.
- **Low Probability Outcome** – A debt ceiling breach occurs resulting in either a technical default on US Treasuries or a default on other US government spending obligations. This would result in a significant short-term sovereign downgrade and have a massive impact on numerous markets.

We will consider potential ratings actions based upon both and the potential impact this will have on the investor base for US securities.

Budget Negotiation Path

While the budget negotiations could go in many directions, we look at some broad paths that an agreement could take in descending order of probability.

Some Sort of Overlap of Various Plans Seems Most Likely

The most likely outcome is a compromise of existing plans that takes some of the least controversial deficit cuts from different proposals. The President suggested recently that there were \$1.5 - \$1.7 trillion in cuts that each side agreed to. Since the total deficit reduction in this type of a package is likely to fall well short of \$4 trillion over 10-12 years, it seems very likely this would result in a downgrade of the US sovereign to 'AA'.

Figure 17. Simplification of Types of Potential Budget Deals

Plan	Short Description	Deficit Reduction	House	Senate	President	Rating Agencies
'Overlap' Plan	Not an actual plan, but a compromise based on overlapping deficit cuts in other plans	\$1-2 trillion / 10-12-years	Compromise	Compromise	Likely to Sign	'AA'
Extension (*)	A small amount of deficit cuts in exchange for a commensurate increase in debt ceiling. Followed by further negotiation.	\$100 billion / month for X-months	Likely to Pass	Grudgingly Pass	Grudgingly Sign	'AA' absent immediate follow-up
McConnell/Reid (Plan B)	Gives President ability to raise debt ceiling by \$2.5 trillion over 2-years. Accomplishes debt ceiling hike by shifting blame to President – minimal debt progress.	\$300 billion / 2-years	Unlikely to Pass	Grudgingly Pass	Grudgingly Sign	'AA'
Gang of Six Plan	Meaningful spending cuts and tax reform. Tax increases are hidden by AMT reform in attempt to provide cover to Republican House.	\$4 billion/ 10-12-years	Unlikely to Pass	Likely to Pass	Likely to Sign	'AAA'
Cut, Cap and Balance	Cut deficit in half next year, cap revenue at 18% of GDP, introduce balanced budget amendment.	\$1.4 trillion / 2-years, More in future years	Passed 234-190	Unlikely to Pass	Unlikely to Sign	'AAA'
Temporary Default (*)	No deal is reached in time	NA	NA	NA	NA	default

Source: Citi Investment Research and Analysis

* These outcomes would be followed with future plans. A default would, hopefully, lead to another deal relatively quickly. An extension, by definition would precede another deal at some pre-determined interval.

[4] The most stringent rating agency statements so far were from S&P on July 14. We will follow the guidance from these statements for the sake of this article.

- **Extend (and Re-Visit)** – Given the late date and lack of clear consensus, there is an increased probability that a temporary fix will take place. This could take the form of a very small increase ($100-250 billion) which would merely serve as a stop-gap to allow current negotiations to continue. This is a likely scenario only if it appears that a meaningfully break-through is at hand, but the time to get it through the political process would not meet the default deadline. This could also take the form of a larger increase ($1 trillion) that would allow negotiations to continue into 2012. This seems like a less likely outcome. The short-term version would likely avert a sovereign downgrade (assuming a large deal followed) while the longer-term version would likely result in a downgrade to 'AA'.

- **McConnell Plan** – This is the plan that no one really likes, but is politically expedient. It solves the issue of raising the debt ceiling, gives politicians cover to not raise the debt ceiling and accomplishes very little on the long-term fiscal issue. The plan would raise the debt ceiling by a total of $2.5 trillion over 2-years unless a two-thirds majority revoked the increase. This is $300 billion cut relative to baseline forecasts that would need to be resolved by the President through spending cuts and with tax increases. It seems very likely this would result in a downgrade of the US sovereign to 'AA'.

- **'Gang of Six' Plan** – This is the most plausible grand plan available in our view. It would reduce the deficit by just under $4 trillion over 10-years – likely enough to delay a downgrade of the US sovereign. Specific details of the plan are thin, but the plan appears to relay on about 75% on spending cuts and 25% on increased revenues. The trick it has is that it fixes the AMT, which allows it to increase taxes relative to the plausible baseline scenario while cutting taxes relative to the CBO baseline scenario. This trick gives it some hope to get through the Republican House that has pledged no new taxes. However, the tax increases will include reductions in mortgage interest and charitable contribution deductions that make that hope very low.

- **Cut, Cap and Balance** – This plan requires that the deficit be cut in half next year, federal spending to be limited to 18% of GDP and for Congress to pass a Balance Budget amendment to the Constitution. Given the drastic cuts involved in the plan it would certainly allow the United States' 'AAA' sovereign rating to be maintained. This plan passed the House of Representatives on Wednesday, but is very unlikely to pass the Senate and the President has stated that he will veto this bill if it is able to pass the Senate.

- **Default** – Perhaps even more unlikely than the Cut, Cap and Balance is that no plan at all is reached prior to either a default on US Treasuries or a default on other US spending obligations. Obviously this event would lead to a downgrade of the US sovereign risk below 'AAA'. The rating agencies have differed on their guidance with Moody's suggesting 'Aa' based on expectation of it being a short-lived event, S&P suggesting 'SD' or selective default and Fitch suggesting 'B+'.

Given the likelihoods of each of these plans (or ones that resemble them) we think that the odds of a US sovereign rating downgrade are relatively high. Once again we want to emphasize that the likely outcome is based on long-term fiscal issues, not a debt ceiling breach. **While we see very little chance of a default and massive US sovereign downgrade - we see a better than 50% chance that the deal to increase the debt ceiling is not strong enough to prevent a downgrade to 'AA' in 2011.**

Downgrade to 'AA' Likely to Little Impact Treasury Yields

While a downgrade to 'AA' for the US will certainly be an embarrassment, we believe it is unlikely to have a meaningful impact on Treasury yields. We think that very few investors will be forced to sell and few others will choose to sell strictly because of a rating downgrade to 'AA'. In Figure 18 we show the broad categories of Treasury ownership.

Figure 18. Most Owners are Unlikely to React to a Downgrade to 'AA'

US Treasury Owner	$ Bln
Households	959
Corporations, Businesses, GSEs, ABS Issuers and Dealers	271
State & Local Governments	506
US Federal Reserve	1,340
Banks, S&Ls, Credit Unions, Insurance Cos.	578
Pension & Retirement Funds	826
Mutual Funds, Closed End Funds, ETFs	359
Money Market Funds	338
Non-US Central Banks & Sovereign Wealth Funds	3,158
Non US Private Investors	1,287
Total	9,621

Source: Federal Reserve, US Treasury and Citi Investment Research and Analysis

We will split the above categories into five groups to discuss likelihood of reaction to a downgrade to 'AA'.

- **Household, Corporate & Government** – Domestic households, corporations and government entities (including the Fed) are unlikely to sell a meaningful amount of Treasuries on a downgrade to 'AA'. Most of these entities will have very US-centric portfolios and the lack of alternative US 'AAA' securities will likely result in investors maintaining Treasury holdings.

- **Financial Institutions** – US Banking and insurance institutions are also unlikely to want to sell due to a downgrade to 'AA'. There is also no risk weighting impact of this type of a downgrade under any of the Basel frameworks. A downgrade into the 'A' category could potential motivate sales from these institutions based on Base II/III. However, this is extremely unlikely in the near-term absent a technical default.

- **Money Managers** – The majority of money managers will not sell due to a downgrade to 'AA' in our view. Keep in mind that most are index benchmarked and the change in their benchmark would mostly mirror the change in their assets, absent an overweight to the assets that are downgraded.

- **Money Markets** – Under a downgrade scenario to 'AA' it is expected that the US would continue to hold a short-term 'A-1+' rating which would mean that US Treasuries remain first tier securities. Therefore, we would expect that there would be limited selling of short-term Treasuries by money market funds.

Figure 19. Non-US Ownership of Treasuries

Country	$ Bln
China	1,145
Japan	908
United Kingdom	325
Oil Exporters	222
Brazil	194
Taiwan	156
Carib Bnkng Ctrs	155
Hong Kong	122
Russia	128
Switzerland	110
Other	1,015
Grand Total	4,479
* Total CBs / SWFs	3,182
- Treasury Bills	415
- Bonds & Notes	2,767
* Total Non-US Private	1,297

Source: US Treasury and Citi Investment Research and Analysis

- **Foreign Official** – Central Bank and Sovereign Wealth Funds are likely to modestly sell and modestly reduce future purchases of Treasuries. We think that very few would be forced sellers at the 'AA' level – although some potentially could be. However, we think that this would forever change the view of US Treasuries as a riskless asset. In practice, this type of an action would likely slightly accelerate the diversification out of US Treasuries into other assets that have been under way for decades.

- **Other Foreign** – We expect that there would be few forced sellers, but more sellers by choice in this category. It is more likely that these investors are in out of benchmark investments and these investors are certainly non US centric. While foreign financial institutions may have many of these securities matched versus US dollar liabilities, many investors are likely to look at other 'AAA' assets worldwide as a substitute.

Budget Agreement Important Beyond Sovereign Credit Rating

Investors, of course, will react to more than just the credit rating. The budget deal will also have an impact on future inflation and growth expectations. A large, back-loaded deal will not only reduce the possibility of a downgrade but is likely to decrease future inflation and have relatively limited impact on growth.

- **Large Deal** – If greater than $4 trillion over 10-years in deficit reduction is achieved we would expect a significant bull flattener. Potentially 45bp in the back-end of the curve with relatively little impact on the front-end of the curve. This is consistent with market behavior earlier this week as long-term Treasuries rose and fell along with perceived probabilities of the 'Gang of Six' plan.

- **Mid-Size Deal** – The base case is probably in the $1-2 trillion range and we would expect limited market impact.

- **Anything Less** – A sub-$1 trillion deal or a mini-extension will likely result in higher rates led by the back-end. This could be greater than 25bp if no further action were expected. It would likely be less though as any deal this size is likely to be accompanied by ongoing negotiation and ongoing debt ceiling deadlines.

While we think that the chance of a 2011 downgrade of US Treasuries is near 50% in 2011, we see few forced sellers due to the rating event. However, we continue to follow the budget negotiations for the likely impact that the outcome will have on inflation and growth expectations.

UK Rates Strategy

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Gilts should continue to benefit from safe haven flows and the benign rate outlook. Our economists also expect a -0.2% QoQ GDP reading next week (below consensus) which could provide further support. Medium term risks remain, but these are currently being superseded.

Gilts to perform further despite historically low yields

The UK market continues to be driven by three core factors: the paring back of rate hike expectations, the flight-to-quality bid and the dovish MPC. Yields are now of course near historic levels. We assess these prevailing dynamics and the impact on the gilt curve. Furthermore, markets have now purged any expectations of a BoE hike untill late next year. Our economists now expect the first rate hike in Q2 2012 (previously Q4 2011, *Global Economic Outlook and Strategy*). All this suggests the downward pressure on yields is likely to remain for longer than previously thought and the current march lower in yields is probably fundamentally justified.

Supports for gilts remain…

Gilts are benefiting from a confluence of fundamental and technical factors. In our view, these fall into three core categories:

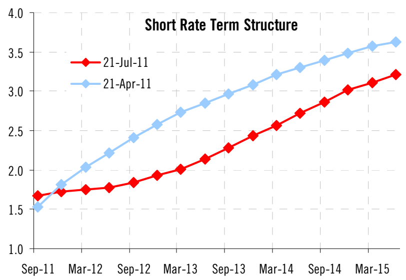
- **Q2 GDP data is released next week** (26th July) and our economists expect a reading of -0.2% QoQ which is below the consensus estimate of 0.1%. Economic data in general have been softer in Q2, often missing expectations[5].
- **The European debt crisis** has clearly divided countries perceived to be competently arresting their fiscal difficulties and those which are not. We think it is highly unlikely that European Tier2 spreads will tighten sustainably in the near term. This enhances gilts' (and Bunds') status as safe havens (Figure 21). Furthermore, the UK is already successfully on the path of austerity, which should further reduce fiscal premia in gilts.
- **MPC dovishness** also supports gilts in the near term. The recent BoE Minutes were unchanged from the prior rate meeting with a 7-2 split in voting against a hike. Even without any likelihood that the BoE could embark on QE2, the Minutes implied rates will be on hold for longer. The current environment has simply reduced the risk of a near term hikes and the Governor appears willing to tolerate inflation - which remains stubbornly above target at 4.3% - in order to promote economic activity (in contrast to the ECB).

… despite current valuations

We think such arguments provide a powerful mix of reasons to believe gilts should continue to perform in the short term. Medium term risks remain, but these are being trumped by the benign rate outlook and the FTQ bid in our view.

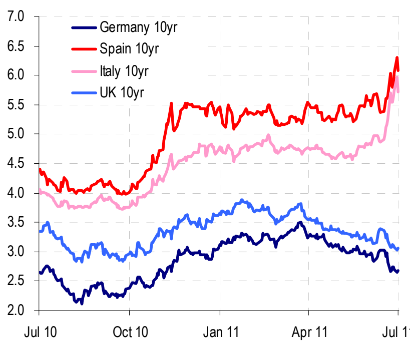
- Valuations in some areas are perhaps looking stretched, even after accounting for fundamental drivers. For example, the 2s5s10s yield fly breached previous all time lows this month (Figure 22). There is also already some evidence that valuations are weighing on investor appetite. Historically low yield levels were probably a factor behind the low levels of demand at the recent 5yr gilt auction (the tap of the Jan16s had a bid-to-cover ratio of just 1.48x).
- Although June's inflation reading at 4.3% was softer than the consensus 4.5%, we still believe in a sustained overshoot in both UK CPI and RPI (*Sterling Weekly* - although the market is (perhaps rightly) preoccupied with other concerns.

Figure 20. Short Sterling Curve, %



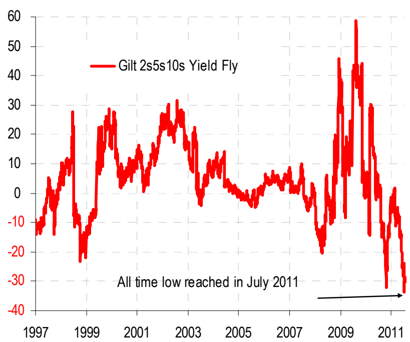
Source: Citi Investment Research and Analysis

Figure 21. Selective 10yr Yields, %



Source: Citi Investment Research and Analysis

Figure 22. UK 2s5s10s Cash Yield Fly (bp)



Source: Citi Investment Research and Analysis

[5] Specifically, IP, manufacturing activity and service sector data have generally fallen over Q2.

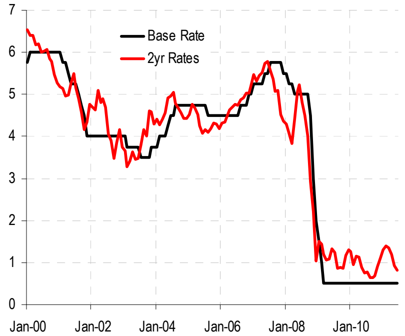
Market implications – the belly to drive curvature

On balance, what does this all mean? In our view, while we acknowledge the inflationary risks and historically low yield levels, we see little prospect of a dramatic reversal in the very near term. Even seasonals point to yield stability at the moment, given that both bonds and swaps tend to rally over the summer months[6].

The shape of the curve is being increasingly driven by the belly. Given the historic lows of the front end of the curve and the expectation of no rate hike until 2012, it's hard to see significant outperformance of this sector going forward (Figure 23). Consequently, betas in the belly of the UK curve continue to grow in importance as shown in Figure 24. In other words, the curve is likely to continue bull flattening / bear steepening in 2s5s and 2s10s but bull steepening / bear flattening in 10s30s (Figure 25). Furthermore, the re-pricing of the money market curve remains a key determinant of 10s30s (Figure 26) – which is still very directional.

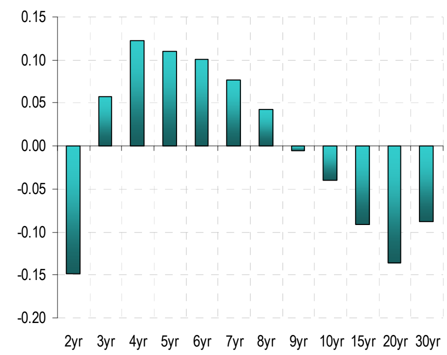
On a cross market basis, although optically, 5yr gilts *look* rich to 5yr German yields (gilts being comfortably 15-20bp inside Bobls), we find this is consistent with the relative pricing of money markets. Bunds are perhaps a more natural and immediate safe haven within the European domain and are likely to attract more attention – as they have been doing – with big moves in periphery yields. However, unless there is a dramatic reassessment of relative policy rate risks, we find it hard to justify a sharp reversal in the current gilt-Bund dynamic in the immediate term.

Figure 23. 2yr Gilt Yields vs Base Rate (%)



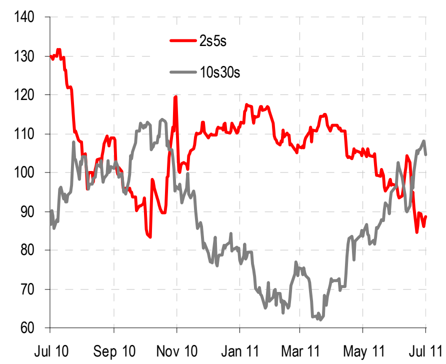
Source: Citi Investment Research and Analysis

Figure 24. Change in Betas Since May of Weekly Changes in £ Swaps to Average Yields



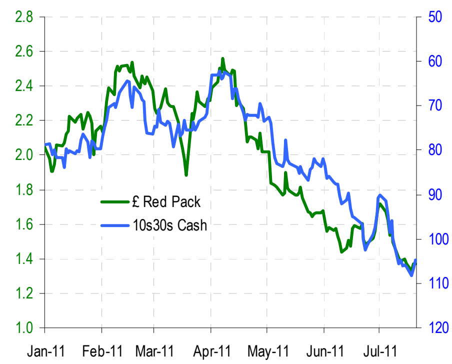
Source: Citi Investment Research and Analysis

Figure 25. UK 2s5s and 10s30s (bp).



Source: Citi Investment Research and Analysis

Figure 26. Sterling Red Pack (%, Left) vs Cash 10s30s (bp, Right)



Source: Citi Investment Research and Analysis

Conclusion

With policy rates seemingly on hold until 2012 and the strength of the FTQ bid unlikely to diminish any time soon, gilts will likely perform further in the near term. We think impetus is also likely to come should Q2 GDP disappoint next week as our economists forecast.

[6] See *UK Rates Strategy* in the International Interest Rate Strategist 7th July 2011

Japan Rates Strategy

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Downward rate revision on extended duration commitment

We revise down our interest rate forecast; 10yr yield is expected to be 1.15% at end-September (previously 1.30%), 1.30% at end-December (1.40%), and 1.30% at end-March 2012 (1.40%), as shown in the table below. The risk balance of our base case scenario remains to the downside. Citi's economics team revised the expected term of the BoJ's policy duration commitment by roughly 1 year, which is a primary reason of our forecast revision. The margin for a rate hike by the BoJ on exiting current accommodative easing policies is likely to be 0.30% from a 0-0.10% range, in our view. Having initially anticipated the length of duration commitment to be around 2.5 years, our estimate implies the theoretical level of 5yr JGB yield to be 0.43%. After the revision, however, the level has been lowered to 0.32% now with the policy duration commitment is extended to 3+ years.

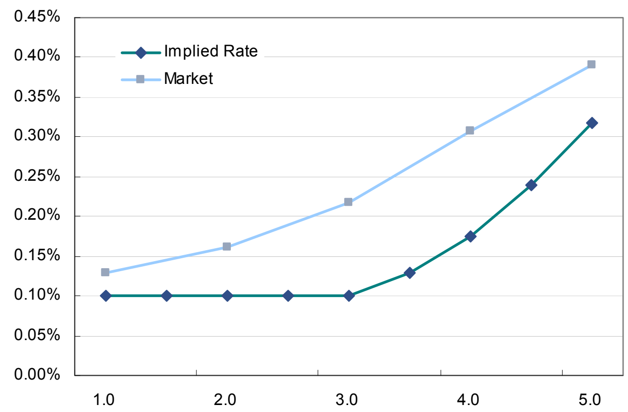
Figure 27. JGB Interest Rate Forecast (Quarter-End)

→ Forecast

	Dec-10	Mar-11	Jun-11	Sep-11	Dec-11	Mar-12
O/N Call Rate	0～0.10	0～0.10	0～0.10	0～0.10	0～0.10	0～0.10
3m TIBOR	0.34	0.34	0.33	0.35	0.35	0.35
2yr JGB	0.17	0.21	0.17	0.15	0.20	0.20
5yr JGB	0.40	0.49	0.43	0.40	0.50	0.50
10yr JGB	1.12	1.25	1.13	1.15	1.30	1.30
20yr JGB	1.88	2.06	1.89	1.95	2.05	2.05

Source: Citi Investment Research and Analysis

Figure 28. Implied 5yr Yield Based On BoJ's Duration Commitment



Source: BoJ, Citi Investment Research and Analysis

We remain bearish over the medium-term. This view is based on three key factors:

- The third FY2011 supplementary budget (incorporating reconstruction measures) passes the Diet by mid-October
- The US economy returns to a stable recovery path of around 3% later this year
- The European debt crisis does not pervade to Italy

Considering the moderate pace of the rise in 5yr yields, it seems more appropriate to buy when the market sells off than shorting the sector outright for the sake of carry. We focus on the medium-term sector as a key tenor to buy on the curve as oppose to long-term and super-long sectors for tactical dealing purposes.

Citi now expects the BoJ to resume its policy tightening from 3Q 2014 (previously 3Q 2013) by taking the impact of CPI rebasing into consideration. The release of July nationwide core CPI scheduled on August 26 will be with the data using a new 2010-base. Index level resets and weight changes of individual items will be significant enough to dent the price growth calculated according to the current base. Citi's forecast is revised to 0.0% YoY for FY2011 and -0.1% YoY for FY2012.

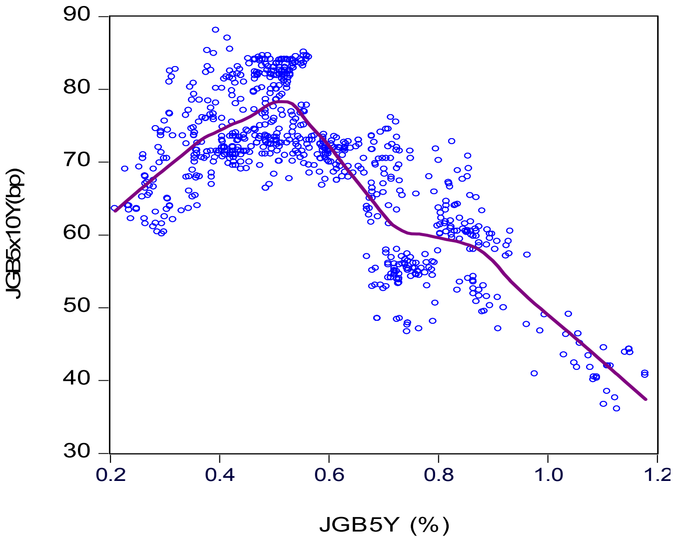
The BoJ states "Understanding of Medium- to Long-Term Price Stability" is "a positive range of 2 percent or lower, and the midpoints of most policy board members' understanding around 1 percent." What is meant by "medium- to long-term" above is longer than the forecast period used in the BoJ's Outlook Report that is 2-2.5years. Also, the forecast figure does not incorporate the impact of rebasing at this point. We believe the market expectations for the BoJ's exit from its duration commitment will heighten only when core CPI rises to around 0.5% or higher.

Figure 29. Core CPI Forecast (Citi and BoJ scenarios, YoY)

	2011	2012
Citi Forecast (after CPI rebasing)	0.0%	-0.1%
BoJ Outlook Report (July Interim Assessment)	0.7% [0.6%~0.8%]	0.7% [0.6%~0.7%]

Source: BoJ, Citi Investment Research and Analysis

Figure 30. JGB5yr Yield vs 5-10yr Spread (since Sep 2008)



Source: Citi Investment Research and Analysis

In monitoring the length of the BoJ's duration commitment, the timing of the FRB's exit will be one of the key determinants, in our view. The US Jobs Report in June was disappointedly weak. The possibility of FRB's "exit" disappeared in the near future and FRB Chairman even implied additional monetary easing along with the resurgence of deflationary pressure as a precondition. Other risks include the depth of European dept crisis going forward. Any money shift out of Europe into US Treasury and JGB markets where excess money will be parked could put JGB yields under downside pressure.

Australia and New Zealand Rates Strategy

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Re assessing the flight to the front-end

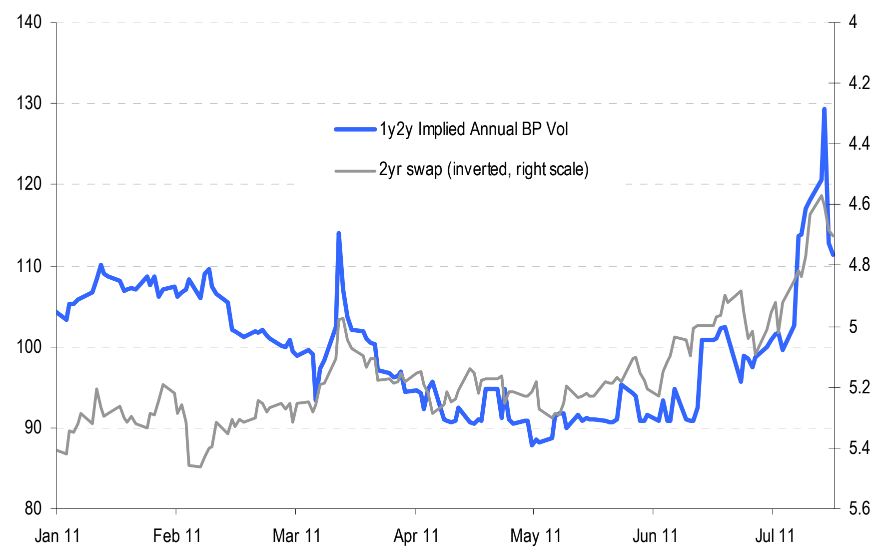
Levels of volatility in AUD and NZ rates markets remain at very elevated levels, making directional and curve moves a very difficult call. We imagine most market participants are now running very light risk positions and we would do the same. Figure 31 illustrates the sharp recent moves seen in AUD short rates and swaption vols. As all eyes remain fixed on Europe, we would make the following tentative conclusions ahead of any actual knowledge of the outcome of this week's key EU Summit:

1. Some positive steps to improve liquidity in strained Euro debt markets are likely to be forthcoming. These may add up to quite significant steps forward relative to recent slow progress in narrowing entrenched positions;

2. It is simply too much to expect all areas of concern to be addressed at one Summit. We may therefore be left with only "agreements in principle" in a number of key areas. This may leave lingering doubts for the markets;

3. If there is sufficient detail and clarity in the New Deal to stabilise Europe, it could provide some near-term respite to the flight to quality trade. However, if longer term concerns over solvency remain and agreements still need to be ratified in a number of key areas (EFSF enlargement and scope, for example), then the peace will likely be short-lived.

Figure 31. Implied volatility and recent history of AUD 2yr swap rate



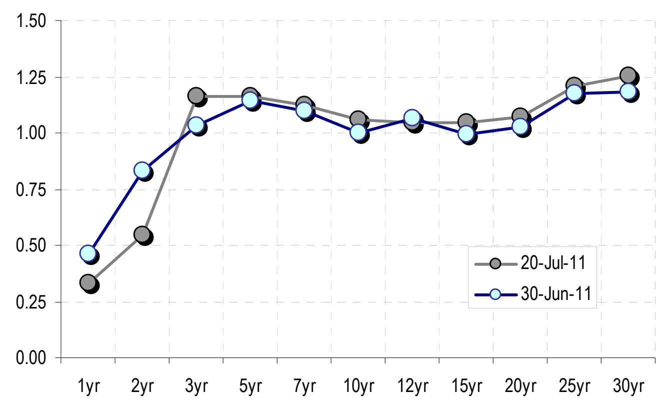
Source: Citi Investment Research and Analysis

At this stage it is probably unwise to speculate further. Instead, we would like to address potential opportunities that the recent flight to quality trade has presented in the front-end of the AUD curve.

In last week's publication we considered yield curve prospects in light of the recent moves seen in the ACGB curve. As shown, this has also proven to be a short-end driven story, with the 3yr point of the curve being the high yield beta point in the latest phase of volatility. It is notable that the yield beta of the 3yr sector has jumped sharply over the course of the month (Figure 32). Accordingly, the curve has spiked higher but has since consolidated with the move in short rate expectations (Figure 33). In more normal times we would expect the curve to behave differently, with

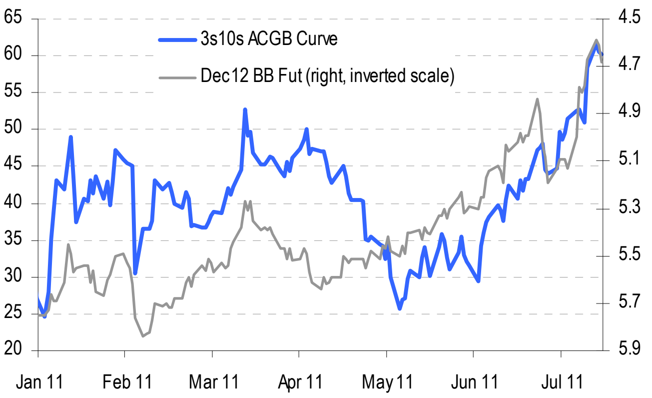
longer tenors displaying higher sensitivity to global events than short-end yields. However, rightly or wrongly the AUD market has inferred that a full blown systemic crisis in Europe would equate to RBA easing risks. We think this is stretching the potential spillovers from Europe a bit far as it would take a lot of bad news to blow the RBA off course. Our economists believe that the RBA may well remain on hold for longer if conditions globally deteriorate, but for Australia the next move for policy rates is still likely to be higher and not lower in their view.

Figure 32. AUD Swap Curve yield betas



Source: Citi Investment Research and Analysis

Figure 33. 3s-10s ACGB Curve and Dec12 Bank Bill Futures



Source: Citi Investment Research and Analysis

From a strategy perspective we have to recognize that there is still potential for significant overseas inflows to distort the front-end of the curve even further, should the outlook for risk assets once again turn sour. On this basis we think that near-term exposure to short-end rates should be expressed via options. However, with OIS forwards still discounting around 40bp of RBA easing expectations, there are definable limits to the downside risks for short rates from here, particularly over the next 3 months or so (it would take longer for monetary policy to adjust to unfolding economic events that are a knock-on effect from other regions, in our view).

Figure 34. AUD 2yr swap rate and strike levels for ATM +/-50bp risk reversal

Source: Citi Investment Research and Analysis

Figure 34 shows the history of 2yr swap rates and the breakeven points for a bearish 3m expiry 100bp wide risk reversal (i.e. short an ATM-50bp 3m2yr receiver

versus a long ATM +50bp equivalent payer). As shown, 2yr rates would need to fall quite precipitously for the short receiver leg to be in the money. This indeed would require a global disaster scenario to unfold, in our view, pushing yields back to the depths seen during the GFC in '08/09. On the other hand, it is more likely that a respite from the FTQ trade would see short tenors drift back into the middle of their trading range, pushing the bearish RR into profit. Even for those believing that any relief rally is likely to be short-lived, this type of structure still provides an effective low cost vehicle for benefiting from a near-term retracement in yields. It is less costly that payer structures and potentially less risky, should the back up in yields prove to be pronounced (we would stay well clear of 1x2 payer spreads for this reason).

NZD OIS market pricing early hikes by RBNZ

Kiwi rates market continued to focus on whether the combination of a stronger Q1 GDP and a stronger Q2 CPI report will have changed the thinking of the RBNZ and encouraging them to hike rates much earlier than had been expected. A cursory review of the OIS market shows that it is now pricing in the prospect of two 25bp hikes by January of next year.

As inflation is only measured on a quarterly basis, the RBNZ will have to rely on their analysis of how much of the current inflation is really a lasting threat before delivering any judgment. Our economists make the point that inflation expectations generally remain well anchored in spite of a number of tax driven price rises. The date of the next Inflation Expectations release is August 23rd. If the next RBNZ 2y forward inflation expectations survey shows that inflation is continuing to rise then a hike at the September meeting could be a very real possibility, particularly for a bank with a single mandate. This is provided that the European debt crisis has not spiraled out of control by then. Conversely, if expectations fall back from the current 3% then the Bank may feel confident enough to allow growth to continue building for longer; then they are likely to wait until October or more likely December before acting. A lot is likely to hinge on the behaviour of forward inflation expectations.

The RBNZ is still likely to remain cautious.

The RBNZ had noted in its latest monetary policy statement that inflation data showed stronger energy price increases, despite the fact that oil prices were around 15% lower in local currency terms over the course of Q2. The recent appreciation in the value of currency is likely to further suppress imported oil price costs, while reducing export activity. In our view, the RBNZ would be reluctant to encourage the currency to appreciate further with talk of interest rate hikes, but the market will likely build in an increasing rate premium if it perceives that the RBNZ is falling behind the inflation curve.

Interestingly, the Bank is now at risk of being a victim of its own success: the dramatic 50bp rate cut back in March 2011 appears to have bolstered an economy that was not as weak as the RBNZ initially thought to be the case. Then, the RBNZ made it clear that this policy easing would be unlikely to be reversed upon initial signs of positive growth. The Bank does not want to risk a repeat of the errors made in 2010 when interest rates were raised too early in the recovery cycle. Besides, the global economic situation is now far worse than it was a year ago. Clearly, the recovery this time appears to be more solid and the inflation threat appears to be much more significant. However, we believe the Bank will still want confirmation that the recovery seen to date is sustainable. Hence the RBNZ is still likely to proceed cautiously and this argues against a policy tightening trajectory on the scale currently implied by OIS forwards.

SAS Strategy

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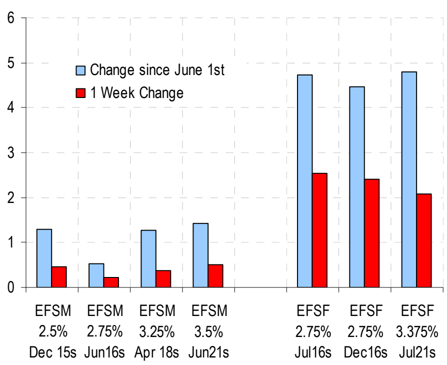
Given the EU summit, focus on the EFSF has grown significantly in recent days. Specifically, the proposal for the facility to be able to buy bonds directly in the secondary market has gained much traction. Full fundamental details and views on this and other aspects of the EFSF can be found in our economists' *Global Economics View - Buying Time for the Euro: A Proposal*. In this section, we focus on the market dynamics of EFSF bonds and conclude that the current widening may have further to run.

EFSF underperformance

Supranational spreads have come under pressure

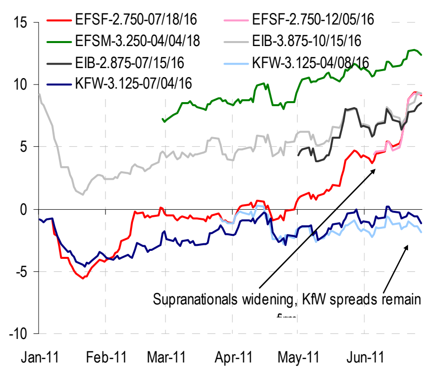
EFSF bonds have clearly widened within the SAS sector. Around half of the month-to-date widening has occurred over the last week and in general, EFSF bonds have underperformed peers such as the EFSM (Figure 35). More broadly, supranational spreads have underperformed core agencies: EFSM bonds are slightly wider and EIB has also tracked the move higher. KfW spreads on the other hand have held in firm (Figure 36). Put into context, however, at around 9bp to swaps, the EFSF 5yr bonds are only 3bp wide from where they were originally launched.

Figure 35. Change in ASW spreads of EFSF and EFSM bonds (bp).



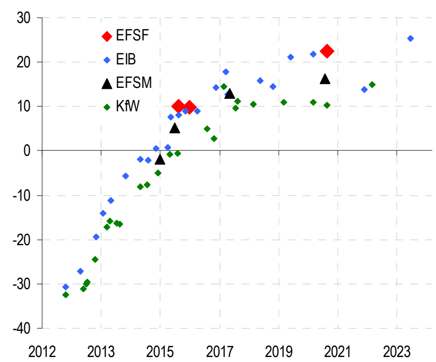
Source: Bloomberg

Figure 36. 5yr Bond ASW Spreads of Core European Supranationals and Agencies (bp)



Source: Bloomberg

Figure 37. EFSF, EFSM, EIB and KfW Credit Curves (Spreads to Swaps, bp)



Source: Citi Investment Research and Analysis

There are also other forces at work. Credit markets in general have not been immune to the recent turbulence and associated convulsions in European periphery markets. iTraxx Main recently hit a YTD high of 127bp and corporate issuance has slowed. Secondly, flows in the SAS market have been generally light and there has also been some profit taking in core names.

Uncertainty premium probably explains part of the move wider

However, despite this market tone, we think there are other factors that help us to understand moves in the EFSF bonds specifically. The prospects of secondary market intervention and fund enlargement are likely drivers of recent spread moves. As our economists note "*any substantial increase of the size of the EFSF would be likely to lead to downgrades of at least some of the remaining AAA-rated Euroarea sovereigns….as a consequence, the EFSF itself is likely to lose its AAA-rating, which will likely increase its funding costs"* (Global Economics View). We are a long way from this scenario in our view, but markets will likely discount any growing tail risk and uncertainty premium in the current environment.

The EFSF remains a core AAA issuer and 4 more bonds are expected to be issued in 2011

In our view, the EFSF remains a core AAA issuer within the SAS sector. However, given the points above and associated political constraints in requiring Eurozone parliamentary approvals to ratify changes, it's hardly surprising spreads have come under pressure. A dramatic reversal of this trend is unlikely until further certainty is achieved regarding the proposed changes to the facility.

ARTS Model Review

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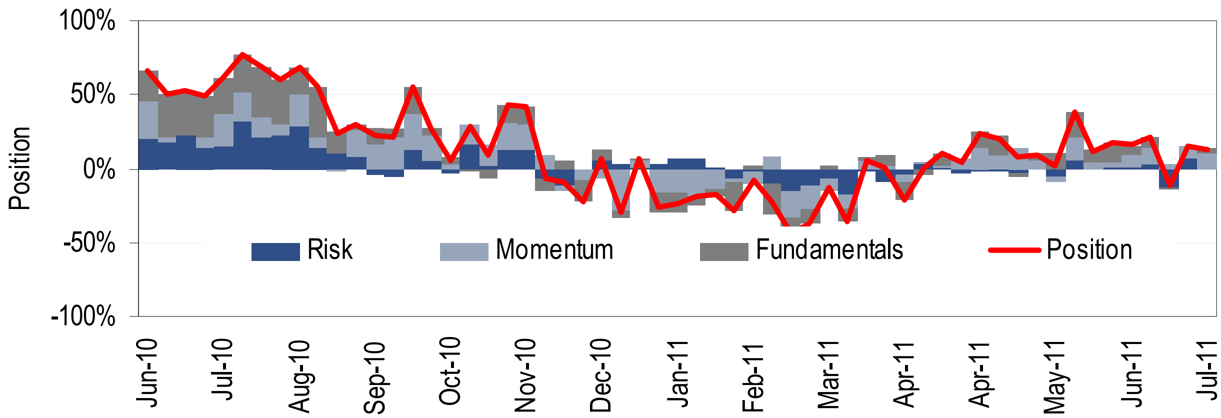
Current Forecasts

This week (as of Monday 4th July) ARTS[7] reduced its long position to 10% in response to weaker risk aversion (see Figure 38). ARTS new positions for this week are :-

- Long Treasuries, Gilts JGBs but short Bund
- 2/10y curve steepeners in Treasuries, Gilt, but flatteners in Bund, JGBs.

Currently the global 10y ARTS portfolio is up down by 2bps as of mid week.

Figure 38. Historical evolution and current 10 year global ARTS signal, in terms of the three model dynamics - risk, momentum and fundamentals



Source: Citi Investment Research and Analysis

This week the ARTS risk signal aversion signals was the biggest mover and switched form a long to neutral position. This left momentum as the only signal that continues to be supportive for a further rally in rates. Clearly risk trades have been a dominating force driving the volatile price action this week at the market digests new surrounding the eurozone crisis and US debt ceiling negotiation. Given its current prominence, this week we will look more detail how investors can trade the risk aversion dynamic. For instance 1) what risk model / factors currently work 2) and does diversification perform across multiple assets. We will present a new dynamic variable selection model which has generated good performance from 2006.

An initial starting point is to define a risk model – namely the process of how prices move in response to the market risk appetite. In the current analysis we regress daily changes of 50 risk factors (outlined in Figure 39) at time "t-1" against daily changes bond market returns at time "t" in order to construct a forecasting relationship on a rolling relationship[8].

[7] For further details of the ARTS model, methodology can be found in the publication: Quantitative Portfolio Strategy – Introducing the Algorithmic Rates Trading Signals Models (ARTS), 1 October 2010. For full historical performance please contact the Quantitative Portfolio Strategy Team. Past performance is no indication of future performance.

[8] A formal definition is $rtn^{bond}_{t} = b * rtn^{risk}_{t-1} + c$ where rtn^{bond} is the daily change in the bond price, rtn^{risk} is the daily change in the risk factor, B

In the current analysis we generated a daily forecast for 10y UST, 10y Bund and 10y Gilts, using a rolling regression window of 60 days. At each point in time the model goes long/short conditional on the direction of the forecast. The out-of-sample performance and statistical parameters of each model / factor are subsequently recorded (hence for each 10y asset we have 50 associated model / factors). The problem is then a variable selection problem – namely which factor should be used to trade in the subsequent period. We address this question pragmatically – we rank each factor based on its historical performance (because we believe that there is some forecasting persistence in the ability of any factor but not its regression betas) and the statistical model criterion.

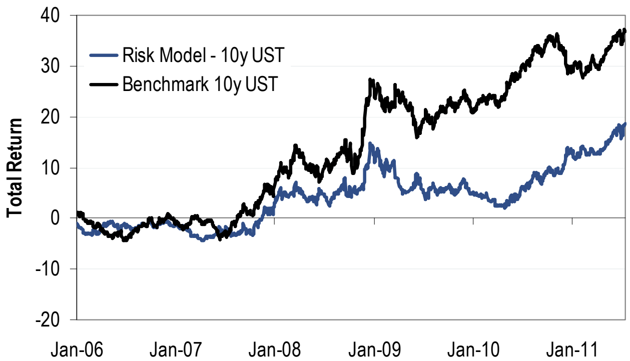
Figure 39. Summary of risk factors used in linear regression model

FX	Volatility	Spreads	Commodity	Equity	Risk Index
EURUSD	FX EURUSD Vol 1M	Spread: USD AAA to BBB	Oil	S&P Equity	GRMA index
JPYUSD	FX USDJPY Vol 1M	Spread: EUR AAA to BBB	Cry Index	Dax Equity	MRI CITI Index
GBPUSD	FX GBPUSD Vol 1M	Spread: GBP AAA to BBB	CRB Index	Nikkei Equity	MRI ST Index
US Trade Weighted	Swpation USD 10x6m	Spread: JPY AAA to BBB	Gold	FTSE Equity	
EU Trade Weighted	Swaption EUR 10x6m	Sovereign Spreads			
JPY Trade Weighted	Swaption JPY 10x6m	CDX			
UK Trade Weighted	Swaption GBP 10x6m	Itraxx 5-Yr Europe			
	VIX	Itraxx 5-Yr Crossover			
		TED Spread			

Source: Citi Investment Research and Analysis

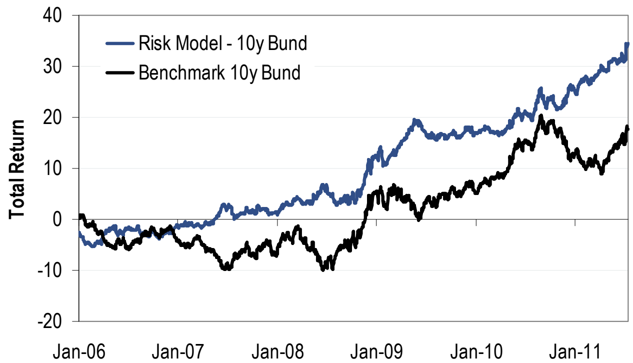
In Figure 40 to Figure 42 we plot the out-of-sample performance of each asset from January 2006. In this historical analysis we choose which model to trade based on available data (up to that trade period – i.e. this is not an in-sample performance). We subsequently use the model forecasts to generate the out of sample performance which are plotted in the figures. It can be observed that all the models generated a positive return over the period with both Bunds and Gilt model generating significantly out-performed (i.e. Sharpe ratios exceed the benchmark). In addition all the models have performed over the last years which Sharpe ratio higher than the benchmark (1y Sharpe benchmark / risk model, UST(0.84/1.88), Bund(0.39/1.97), Gilt(0.94/1.54)).

Figure 40. Benchmark and risk model performance of UST 10y (Sharpe ratio of benchmark / risk model = 0.77 / 0.51)



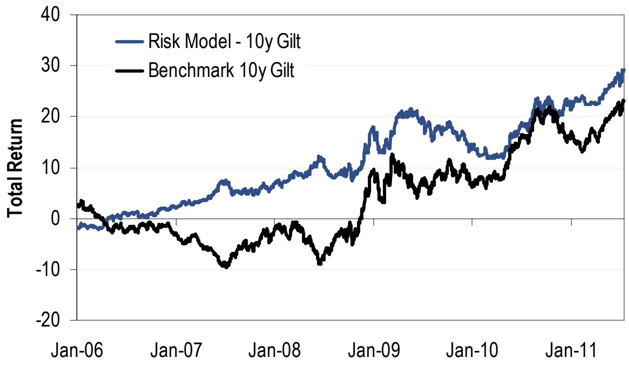
Source: Citi Investment Research and Analysis

Figure 41. Benchmark and risk model performance of Bund 10y (Sharpe ratio of benchmark / risk model = 0.44 / 1.12)



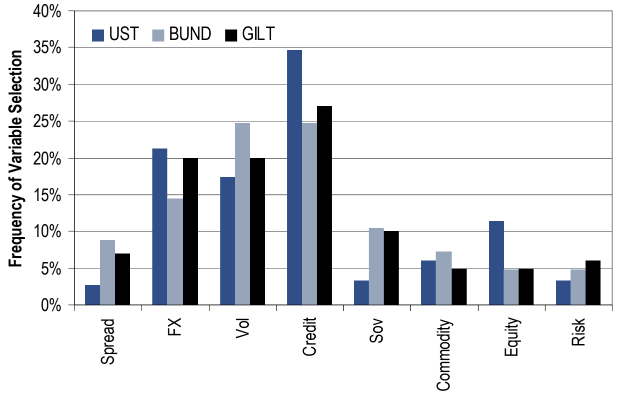
Source: Citi Investment Research and Analysis

Figure 42. Benchmark and risk model performance of Gilt 10y (Sharpe ratio of benchmark / risk model = 0.53 / 0.90)



Source: Citi Investment Research and Analysis

Figure 43. Distribution of risk factors over the last 6yr by asset class



Source: Citi Investment Research and Analysis

Figure 44. Current factors in the risk model

UST	BUND	GILT
GBP FX	USD Swaption	FTSE Equity
JPY AAA	Sov Spreads	GRMA index
UK Trade FX	CRY Index	USD BBB
CRY Index	GBP BBB	CRY Index
USD BBB	JPY AAA	JPY AAA
USDJPY Vol	CRB Index	CRB Index

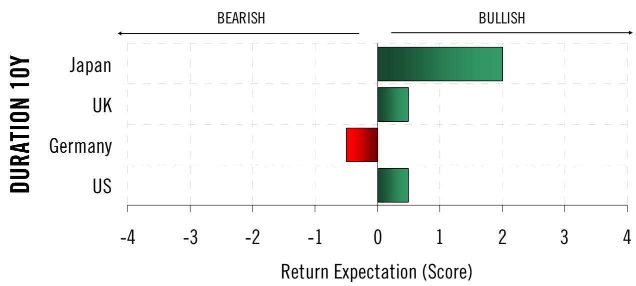
Source: Citi Investment Research and Analysis

This process is clearly dynamic in that each period a new model is chosen – in Figure 43 we illustrate the frequency in which a risk variable is selected. There are clearly similarities across assets – FX, volatility and credit are selected more that 50% of the time, while in contrast commodities are rarely selected. However given the dynamic nature of the markets, the model will adapt to the current risk drivers. In Figure 44 will outline what the current factors that are being used with the risk model. It can be seen the Sovereign spreads are driving the Bund model while in USD there are elements of JPY volatility driven by carry trades.

Clearly such model can not work all the time, primarily because price action is not always dominated by risk aversion dynamics. However dynamic variable selection models, such as currently presented and included in ARTS, can quickly adapt to the time varying nature of risk aversion.

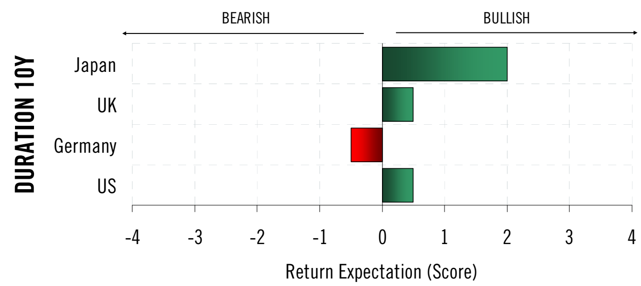
ARTS Position Summary – 21th July 2011

Figure 45. 10y Duration Forecast – Probability



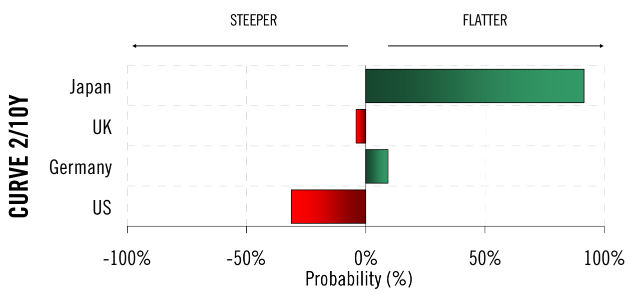
Source: CIRA, Bloomberg

Figure 46. 10y Duration Forecast – Expected Return Units



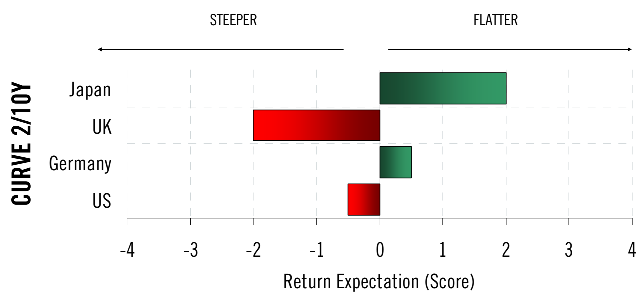
Source: CIRA, Bloomberg

Figure 47. 2/10y Curve Forecast – Probability



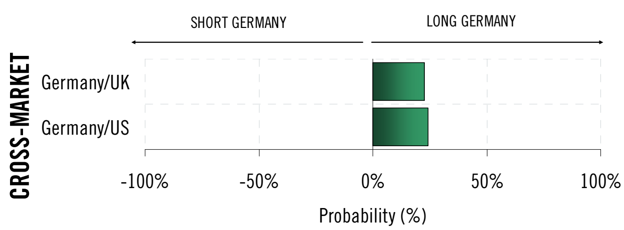
Source: CIRA, Bloomberg

Figure 48. 2/10y Curve Forecast – Expected Return Units



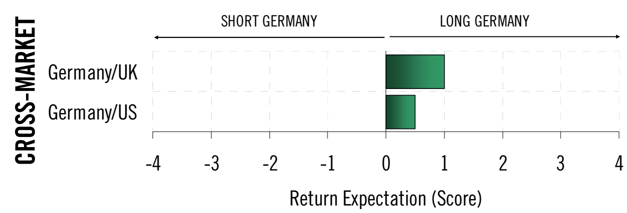
Source: CIRA, Bloomberg

Figure 49. Cross Market Forecast – Probability



Source: CIRA, Bloomberg

Figure 50. Cross Market Forecast – Expected Return Units



Source: CIRA, Bloomberg

Principal Strips: Trades and Statistics

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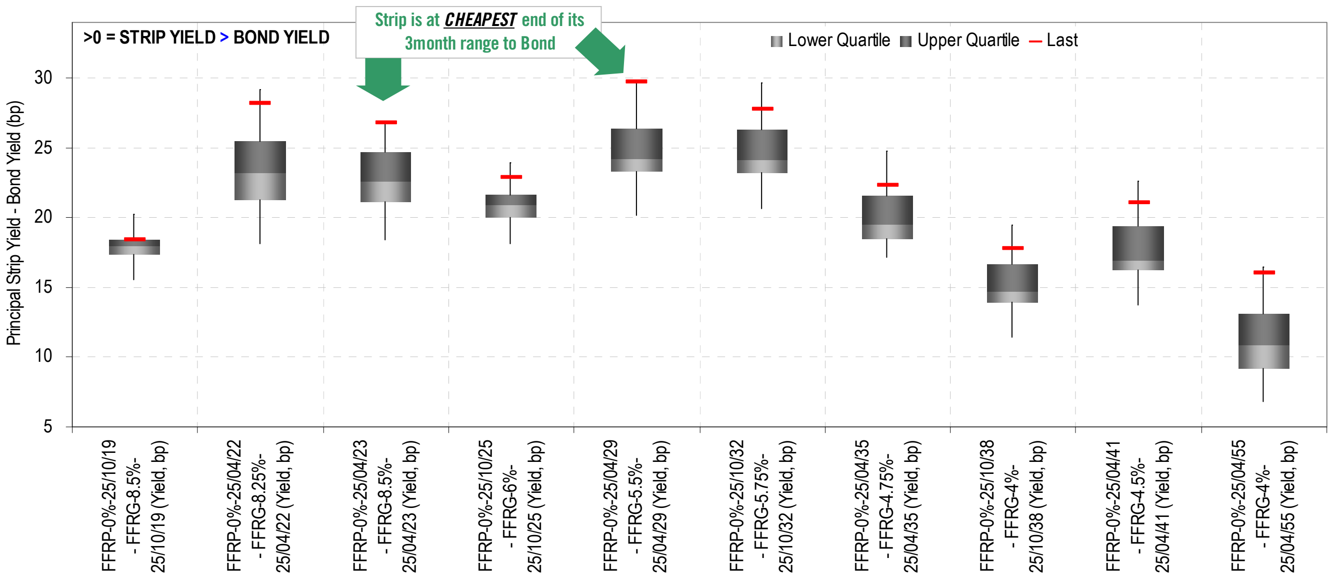
1) French Strips

Trade 1: If you are looking to express a long duration position in the 12- or 18-year sector of the French curve we suggest using strips rather than bonds given the historical yield spread between the two (Figure 51).

Relative value indicator: strip yield vs bond yield (10-50yr sector)[9]

Figure 51 below shows the current yield spread between the strip and the relevant maturity bond and place it in the context of its 3month range. We use this as an initial screening tool to identify potential bond/strip trades.

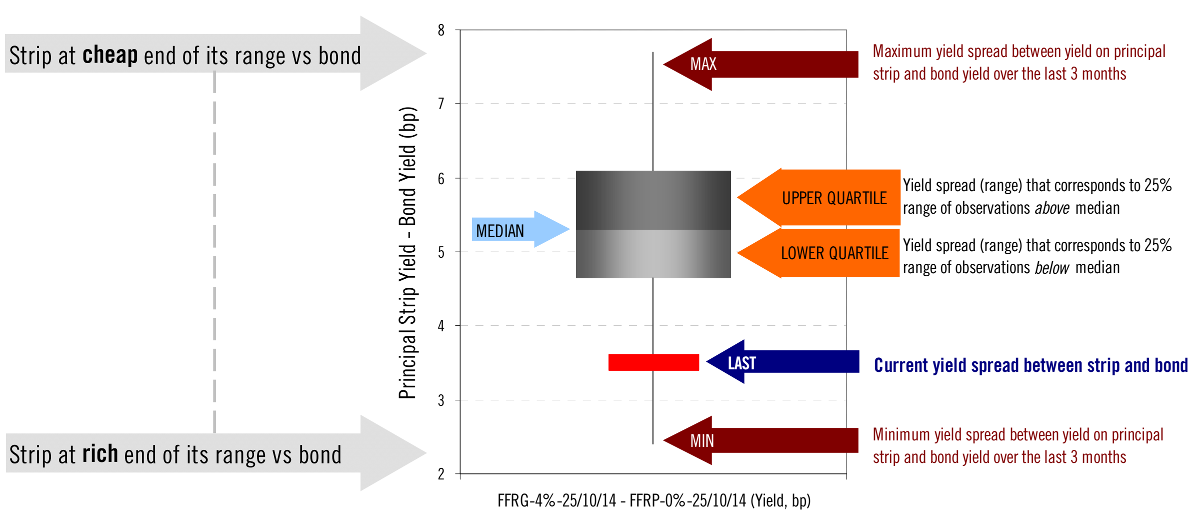
Figure 51. France: Yield spread between strip and bond over the last 4months (bps)



Source: CIRA, Reuters

How to interpret the chart in Figure 51

Figure 52. Box plot: Principal strip minus bond yield (bp)



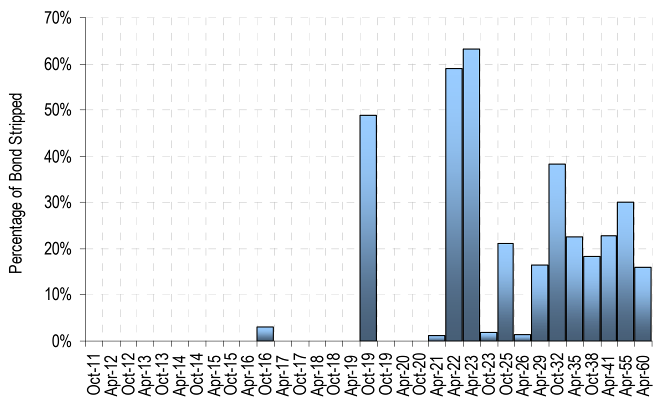
Source: Citi Investment Research and Analysis

[9] Criteria: Minimum percentage of OAT stripped = 10%. Minimum maturity = 8yrs

Stripping Activity Statistics

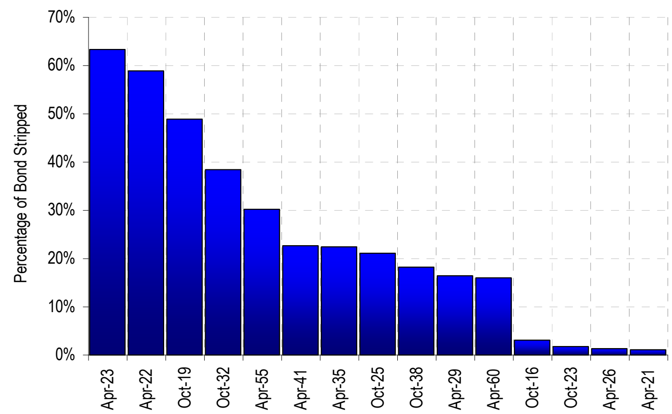
The French Debt Management Office (Agence France Trésor) has released its latest *OAT stripping activity statistics*. These are shown in Figure 53 and Figure 54.

Figure 53. % of OAT stripped ordered by maturity



Source: DMO

Figure 54. % of OAT stripped ordered by proportion

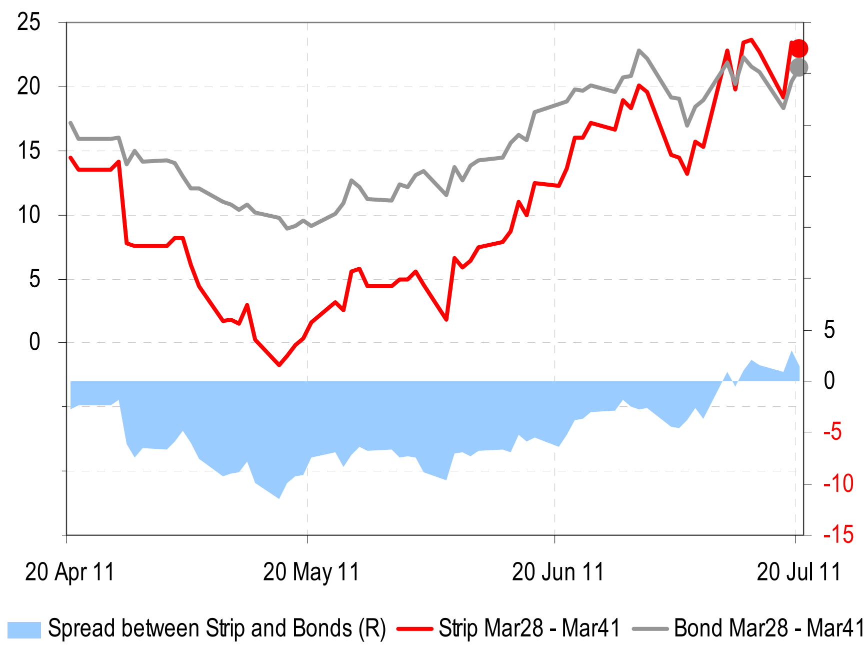


Source: DMO

2) Belgian Strips

Trade 2: Investors looking to express 17s30s flatteners in Belgium may wish to consider using strips over bonds. As shown in Figure 55 below, 17s30s in strips are currently steeper than bonds.

Figure 55. Belgium 17s30s: strips vs bonds (yield, bp)

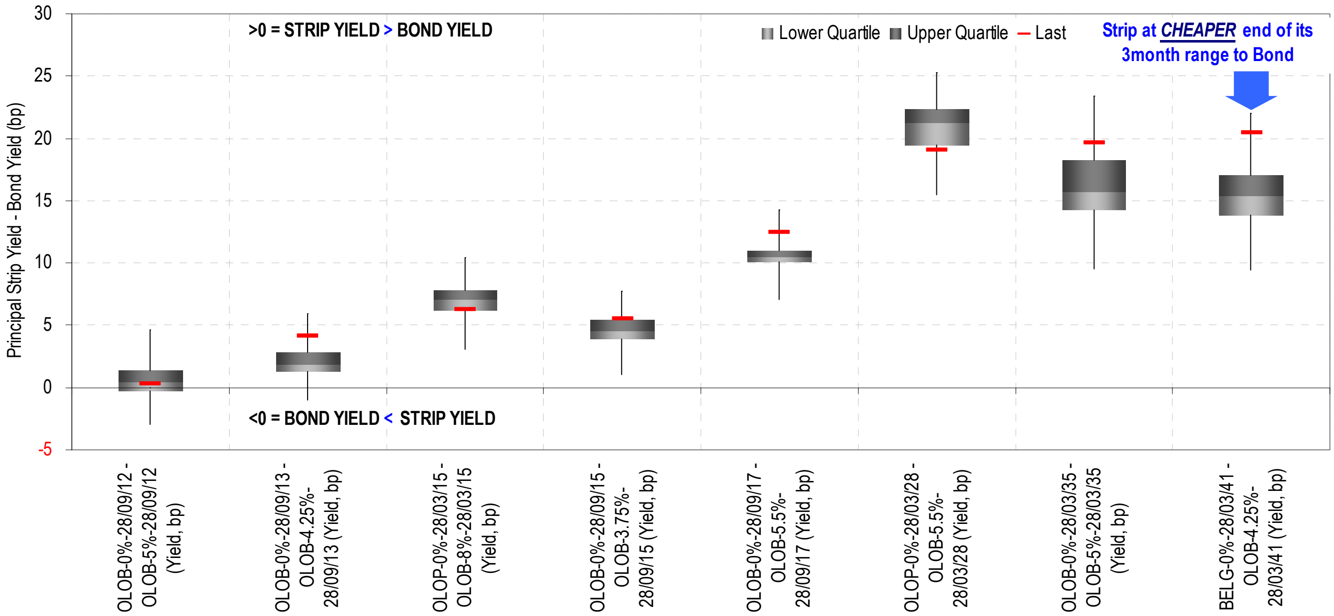


Source: Citi Investment Research and Analysis

Alternatively, if you are looking to buy 30yr Belgium outright then buying strips rather than bonds looks appealing (Figure 56).

Relative value indicator: strip yield vs bond yield[10]

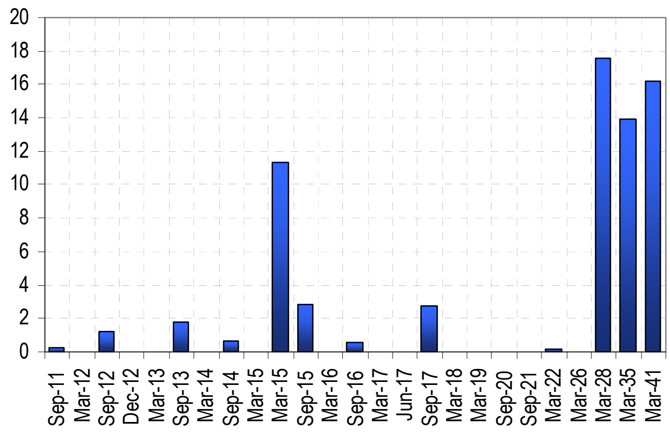
Figure 56. Belgium: Yield spread between strip and bond over the last 4months (bps)



Source: CIRA

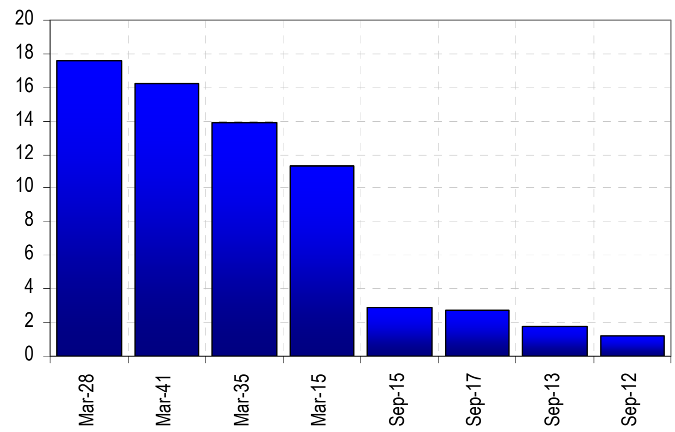
Stripping Activity Statistics

Figure 57. % of OLO stripped ordered by maturity



Source: DMO

Figure 58. % of OLO stripped ordered by proportion



Source: DMO

[10] Criteria: Minimum percentage of OLO stripped = 10%

European Relative Value Trades

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Tier 1 Markets

Investors looking to generate returns on a micro level may wish to consider the following trades. All of the trades below have been generated using the relative value tools available at the end of this section.

Germany

Trade 1: Sell 3.75% Jan15 vs 2.5% Oct14 and 3.25% Jul15 (microfly) - Figure 59

Netherlands

Trade 2: Sell 4% Jul19 vs 4% Jul18 and 3.5% Jul20 (microfly) - Figure 60

Finland

Trade 3: Buy 1.75% Apr16 vs 4.25% Jul15 and 3.875% Sep17 (microfly) - Figure 61

Figure 59. Germany: 2.5% Oct14, 3.75% Jan15, 3.25% Jul15 microfly (bp)

Source: Citi Investment Research and Analysis

Figure 60. Netherlands: 4% Jul18, 4% Jul19, 3.5% Jul20 microfly (bp)

Source: Citi Investment Research and Analysis

Figure 61. Finland: 4.25% Jul15, 1.75% Apr16, 3.875% Sep17 microfly (bp)

Source: Citi Investment Research and Analysis

France

Trade 4: Sell 2.5% Jan15 vs 2.5% Jan14 and 3.25% Apr16 (microfly) - Figure 62

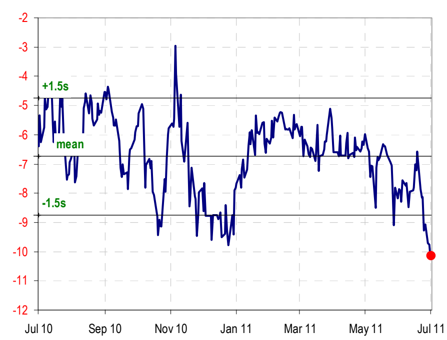
Trade 5: Sell 2.5% Jan15 vs 4% Oct14 and 2% Jul15 (microfly) - Figure 63

Trade 6: Switch from 2.5% Oct20 to 8.25% Apr22 (Figure 64)

Figure 62. France: 2.5% Jan14, 2.5% Jan15, 3.25% Apr16 microfly (bp)

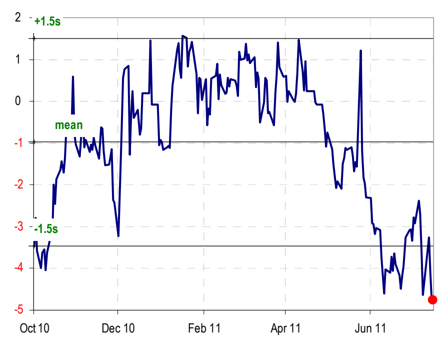
Source: Citi Investment Research and Analysis

Figure 63. France: 4% Oct14, 2.5% Jan15, 2% Jul15 microfly (bp)



Source: Citi Investment Research and Analysis

Figure 64. France: 2.5% Oct20 - 8.25% Apr22 yield spread (bp)



Source: Citi Investment Research and Analysis

Tier 2 Markets

Belgium

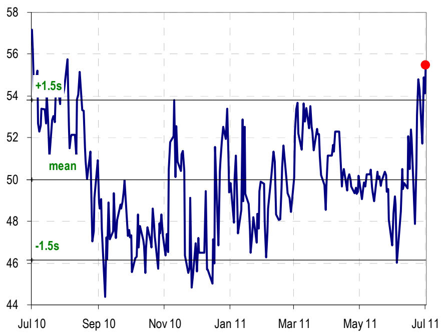
Trade 7: Buy OLOB-49 (4% Mar17) vs OLOB-23 (8% Mar15) and OLOB-40 (5.5% Sep17 (microfly) - Figure 65

Spain

Trade 8: Buy 4.4% Jan15 vs 4.25% Jan14 and 3.15% Jan16 (microfly) - Figure 66

Trade 9: Switch from 3.15% Jan16 to 3% Apr15 (Figure 67)

Figure 65. Belgium: 8% Mar15, 4% Mar17, 5.5% Sep17 microfly (bp)

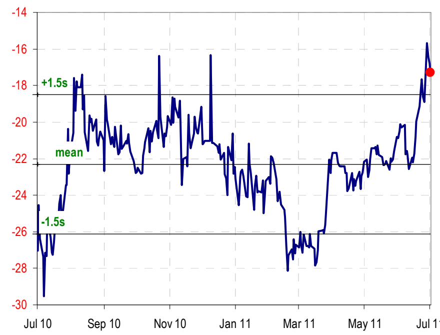


Source: Citi Investment Research and Analysis

Figure 66. Spain: 4.25% Jan14, 4.4% Jan15, 3.15% Jan16 microfly (bp)

Source: Citi Investment Research and Analysis

Figure 67. Spain: 3.15% Jan16 to 3% Apr15 yield spread (bp)



Source: Citi Investment Research and Analysis

Italy

Trade 10: Sell 5% Mar25 vs 4.75% Aug23 and 7.25% Nov26 (microfly) - Figure 68

Trade 11: Switch from 4.25% Aug13 to 3.75% Dec13 (Figure 69)

Figure 68. Italy: 4.75% Aug23, 5% Mar25, 7.25% Nov26 microfly (bp)

Source: Citi Investment Research and Analysis

Figure 69. Italy: 4.25% Aug13 - 3.75% Dec13 yield spread (bp)

Source: Citi Investment Research and Analysis

Euro RV Summary Tables and Charts

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

GERMANY

Versus Fitted Yield Curve

	Rank		ZScore	Issued	Size (€bn)
Richest	1	3.50 Jul19	-2.32	May09	24
	2	4.00 Jan18	-2.17	Nov07	20
	3	4.75 Jul40	-2.07	Jul08	16
	4	4.25 Jan14	-1.99	Oct03	24
	5	#157 2.25 Apr15	-1.97	Apr10	19
	5	#155 2.50 Oct14	1.56	Sep09	17
	4	2.25 Sep20	1.64	Aug10	16
	3	4.00 Jul16	1.73	May06	23
	2	2.50 Jan21	1.90	Nov10	19
Cheapest	1	4.25 Jul39	1.97	Jan07	14

Versus Swap Curve (CAS)

	Rank		ZScore	Issued	Size (€bn)
Richest	1	2.25 Sep20	-2.54	Aug10	16
	2	4.25 Jul17	-2.49	May07	19
	3	3.50 Jul19	-2.46	May09	24
	4	4.00 Jan18	-2.44	Nov07	20
	5	#158 1.75 Oct15	-2.43	Sep10	16
	5	4.75 Jul34	-0.98	Jan03	20
	4	4.00 Jan37 (UB)	-0.31	Jan05	23
	3	3.25 Jul42 (30y)	-0.27	Jul10	8
	2	4.75 Jul40	-0.19	Jul08	16
Cheapest	1	4.25 Jul39	0.22	Jan07	14

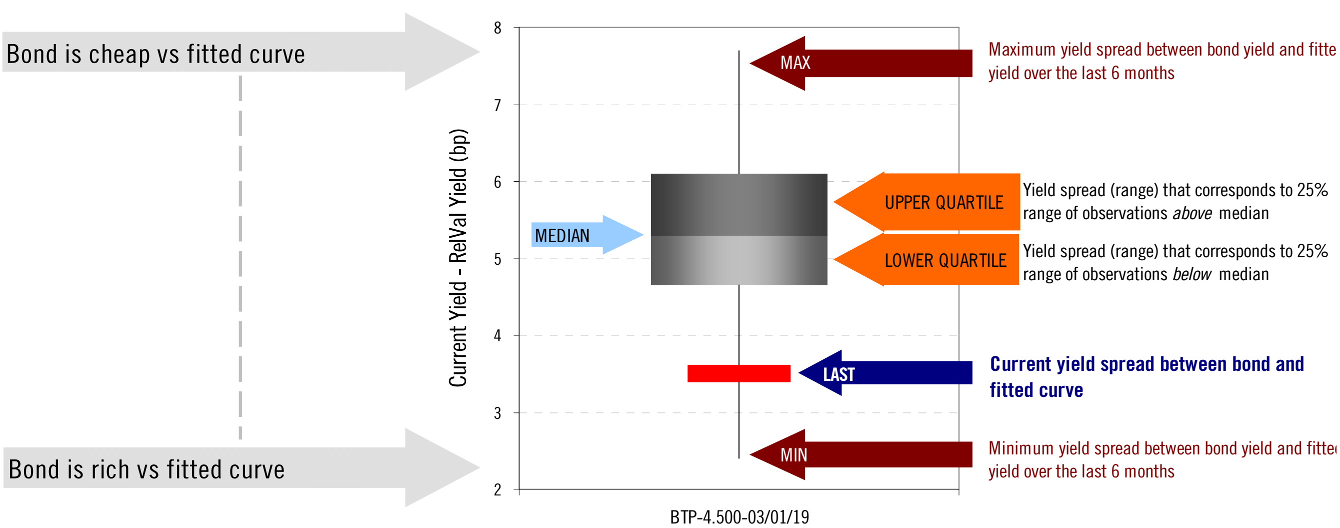
Source: Citi Investment Research and Analysis

Figure 72 (overleaf) looks at bonds of all maturities. For investors with maturity restrictions we have also provided another set of summary tables (Figure 73 and Figure 74) which looks at bonds shorter than 12 years and longer than 8 years, and uses the same criteria as Figure 72 to highlight the richest and cheapest bonds in these narrower maturity spectrums.

Read in conjunction with the regular box whisker plots in the following pages these summary tables should help facilitate efficient screening of bonds and, among other things, provide a selection of starting points when considering switches.

How to interpret the box plot charts in on pages 40, 41 & 42

Figure 71. Boxplot: Yield spread between bond and fitted curve



Relative Value Tables – All Maturities

Figure 72. Yield Spread and CAS to Fitted Relative Value Curve by Country (6m History); All bonds on each curve

Versus Fitted Yield Curve (left) | Versus Swap Curve (CAS) (right)

GERMANY

	Rank	Bond	ZScore	Issued	Size (€bn)		Rank	Bond	ZScore	Issued	Size (€bn)
Richest	1	3.50 Jul19	-2.32	May09	24	Richest	1	2.25 Sep20	-2.54	Aug10	16
	2	4.00 Jan18	-2.17	Nov07	20		2	4.25 Jul17	-2.49	May07	19
	3	4.75 Jul40	-2.07	Jul08	16		3	3.50 Jul19	-2.46	May09	24
	4	4.25 Jan14	-1.99	Oct03	24		4	4.00 Jan18	-2.44	Nov07	20
	5	#157 2.25 Apr15	-1.97	Apr10	19		5	#158 1.75 Oct15	-2.43	Sep10	16
	5	#155 2.50 Oct14	1.56	Sep09	17		5	4.75 Jul34	-0.98	Jan03	20
	4	2.25 Sep20	1.64	Aug10	16		4	4.00 Jan37 (UB)	-0.31	Jan05	23
	3	4.00 Jul16	1.73	May06	23		3	3.25 Jul42 (30y)	-0.27	Jul10	8
	2	2.50 Jan21	1.90	Nov10	19		2	4.75 Jul40	-0.19	Jul08	16
Cheapest	1	4.25 Jul39	1.97	Jan07	14	Cheapest	1	4.25 Jul39	0.22	Jan07	14

FRANCE

	Rank	Bond	ZScore	Issued	Size (€bn)		Rank	Bond	ZScore	Issued	Size (€bn)
Richest	1	3.00 Jul14	-2.19	Jun09	21	Richest	1	2.00 Sep13	-0.90	Sep10	6
	2	3.50 Apr26	-2.13	Apr10	22		2	2.50 Oct20	-0.82	Oct09	29
	3	4.00 Apr18	-1.79	Apr07	24		3	3.75 Oct19	-0.77	Oct08	25
	4	2.50 Jan15	-1.70	Jan10	20		4	3.50 Apr20	-0.65	Feb10	27
	5	4.00 Apr14	-1.54	Apr03	20		5	4.00 Apr18	-0.63	Apr07	24
	5	3.75 Apr17	1.02	Apr06	25		5	3.00 Oct15	0.91	Oct04	33
	4	3.25 Oct21 (10y)	1.05	Oct10	6		4	5.75 Oct32	1.70	Oct00	23
	3	4.00 Oct14	1.25	Oct03	20		3	4.75 Apr35	1.80	Apr03	18
	2	2.50 Jul16	1.32	Jul10	4		2	4.50 Apr41 (30y)	1.89	Apr09	15
Cheapest	1	4.00 Oct38	1.83	Oct05	24	Cheapest	1	4.00 Oct38	1.93	Oct05	24

ITALY

	Rank	Bond	ZScore	Issued	Size (€bn)		Rank	Bond	ZScore	Issued	Size (€bn)
Richest	1	4.25 Aug13	-3.38	Feb03	25	Richest	1	3.75 Apr16 (5y)	2.07	Apr11	12
	2	3.75 Mar21	-2.45	Sep10	23		2	3.00 Apr14	2.24	Apr11	15
	3	5.00 Mar25	-2.41	Mar09	20		3	4.75 Sep21 (10y-IK)	2.43	Mar11	19
	4	4.00 Sep20	-2.00	Mar10	22		4	5.00 Aug39	2.47	Aug07	19
	5	3.75 Aug16	-1.96	Feb06	27		5	5.00 Sep40 (30y)	2.47	Sep09	20
	5	2.25 Nov13 (BTS)	1.21	Nov10	18		5	3.75 Aug15	2.94	Feb05	26
	4	4.50 Feb18	1.76	Aug07	25		4	3.00 Apr15	2.94	Jan10	20
	3	3.50 Jun14	1.82	Jun09	19		3	3.75 Aug16	2.95	Feb06	27
	2	4.25 Aug14	1.85	Feb04	27		2	4.00 Feb17	2.98	Aug06	23
Cheapest	1	3.00 Apr14	2.21	Apr11	15	Cheapest	1	5.25 Aug17	3.02	Feb02	23

N'LANDS

	Rank	Bond	ZScore	Issued	Size (€bn)		Rank	Bond	ZScore	Issued	Size (€bn)
Richest	1	4.00 Jul19	-1.90	Feb09	13	Richest	1	4.00 Jul18	-4.39	Feb08	15
	2	3.50 Jul20	-1.19	Feb10	15		2	4.00 Jul19	-4.15	Feb09	13
	3	4.00 Jul16 (5y)	-0.81	Jul06	13		3	4.50 Jul17	-4.05	Jul07	15
	4	3.75 Jul14	-0.27	Mar04	14		4	4.00 Jul16 (5y)	-3.28	Jul06	13
	5	3.25 Jul21 (10y)	-0.19	Mar11	9		5	3.75 Jan23	-3.04	Jan06	10
	5	4.00 Jan37	0.78	Apr05	12		5	3.75 Jul14	-1.97	Mar04	14
	4	2.75 Jan15	1.27	Jul09	13		4	2.75 Jan15	-1.89	Jul09	13
	3	4.00 Jul18	1.92	Feb08	15		3	1.00 Jan14	-1.58	Jan11	10
	2	4.50 Jul17	2.45	Jul07	15		2	3.75 Jan42 (30y)	0.78	May10	10
Cheapest	1	3.25 Jul15	2.67	Jun05	14	Cheapest	1	4.00 Jan37	1.14	Apr05	12

SPAIN

	Rank	Bond	ZScore	Issued	Size (€bn)		Rank	Bond	ZScore	Issued	Size (€bn)
Richest	1	4.65 Jul25	-1.72	Feb10	14	Richest	1	3.40 Apr14	1.85	Apr11	7
	2	5.90 Jul26	-1.50	Mar11	6		2	5.90 Jul26	1.89	Mar11	6
	3	4.70 Jul41 (30y)	-1.19	Sep09	11		3	4.70 Jul41 (30y)	2.09	Sep09	11
	4	3.80 Jan17	-1.13	Oct06	13		4	4.20 Jan37	2.12	Jan05	16
	5	3.15 Jan16	-0.95	Sep05	16		5	5.75 Jul32	2.14	Jan01	14
	5	4.00 Apr20	1.29	Jan10	16		5	4.25 Jan14	2.42	Oct08	13
	4	4.85 Oct20	1.43	Jul10	16		4	3.30 Oct14	2.43	Jul09	15
	3	4.20 Jul13	1.54	Apr03	15		3	3.00 Apr15	2.45	Mar10	16
	2	5.75 Jul32	1.63	Jan01	14		2	4.40 Jan15	2.45	Jun04	16
Cheapest	1	5.50 Apr21 (10y)	2.30	Jan11	15	Cheapest	1	2.50 Oct13	2.46	Jun10	16

BELGIUM

	Rank	Bond	ZScore	Issued	Size (€bn)		Rank	Bond	ZScore	Issued	Size (€bn)
Richest	1	#56 3.50 Mar15	-3.10	Mar09	10	Richest	1	4.50 Mar26	0.91	Jun11	4
	2	#55 4.00 Mar19	-2.86	Jan09	10		2	#63 3.50 Jun17	2.06	Mar11	6
	3	#52 4.00 Mar18	-1.89	Jan08	10		3	#41 4.25 Sep13	2.10	Jan03	16
	4	#43 4.25 Sep14	-1.66	Jan04	13		4	#54 4.00 Mar14	2.11	Apr08	12
	5	#58 3.75 Sep20	-1.61	Jan10	18		5	#58 3.75 Sep20	2.20	Jan10	18
	5	#40 5.50 Sep17	0.42	Jun02	8		5	#52 4.00 Mar18	2.33	Jan08	10
	4	#44 5.00 Mar35	1.58	May04	14		4	#40 5.50 Sep17	2.40	Jun02	8
	3	#41 4.25 Sep13	1.76	Jan03	16		3	#59 2.75 Mar16 (5y)	2.44	Mar10	10
	2	#48 4.00 Mar22	1.90	May06	14		2	#47 3.25 Sep16	2.45	Jan06	12
Cheapest	1	#49 4.00 Mar17	2.00	Jan07	11	Cheapest	1	#49 4.00 Mar17	2.47	Jan07	11

Source: Citi Investment Research and Analysis

Relative Value Tables – Max 12Yr Maturity

Figure 73. Yield Spread and CAS to Fitted Relative Value Curve by Country (6m History); Bonds with a Maximum Maturity of 12yrs

	Versus Fitted Yield Curve						Versus Swap Curve (CAS)				

GERMANY

	Rank	Bond	ZScore	Issued	Size (€bn)		Rank	Bond	ZScore	Issued	Size (€bn)
Richest	1	3.50 Jul19	-2.32	May09	24	Richest	1	2.25 Sep20	-2.54	Aug10	16
	2	4.00 Jan18	-2.17	Nov07	20		2	4.25 Jul17	-2.49	May07	19
	3	4.25 Jan14	-1.99	Oct03	24		3	3.50 Jul19	-2.46	May09	24
	4	#157 2.25 Apr15	-1.97	Apr10	19		4	4.00 Jan18	-2.44	Nov07	20
	5	3.75 Jan19	-1.95	Nov08	24		5	#158 1.75 Oct15	-2.43	Sep10	16
	5	#160 2.75 Apr16 (5y-OE)	1.35	Apr11	12		5	#155 2.50 Oct14	-1.75	Sep09	17
	4	#155 2.50 Oct14	1.56	Sep09	17		4	4.25 Jul14	-1.73	May04	25
	3	2.25 Sep20	1.64	Aug10	16		3	#153 4.00 Oct13	-1.61	Sep08	16
	2	4.00 Jul16	1.73	May06	23		2	#160 2.75 Apr16 (5y-OE)	-1.59	Apr11	12
Cheapest	1	2.50 Jan21	1.90	Nov10	19	Cheapest	1	#154 2.25 Apr14	-1.47	Mar09	19

FRANCE

	Rank	Bond	ZScore	Issued	Size (€bn)		Rank	Bond	ZScore	Issued	Size (€bn)
Richest	1	3.00 Jul14	-2.19	Jun09	21	Richest	1	2.00 Sep13	-0.90	Sep10	6
	2	4.00 Apr18	-1.79	Apr07	24		2	2.50 Oct20	-0.82	Oct09	29
	3	2.50 Jan15	-1.70	Jan10	20		3	3.75 Oct19	-0.77	Oct08	25
	4	4.00 Apr14	-1.54	Apr03	20		4	3.50 Apr20	-0.65	Feb10	27
	5	4.25 Oct18	-1.43	Oct07	22		5	4.00 Apr18	-0.63	Apr07	24
	5	4.00 Oct13	0.96	Oct02	24		5	3.50 Apr15	0.70	Apr04	22
	4	3.75 Apr17	1.02	Apr06	25		4	3.25 Apr16	0.71	Apr05	28
	3	3.25 Oct21 (10y)	1.05	Oct10	6		3	2.25 Feb16 (5y)	0.71	Feb10	19
	2	4.00 Oct14	1.25	Oct03	20		2	4.00 Oct14	0.74	Oct03	20
Cheapest	1	2.50 Jul16	1.32	Jul10	4	Cheapest	1	3.00 Oct15	0.91	Oct04	33

ITALY

	Rank	Bond	ZScore	Issued	Size (€bn)		Rank	Bond	ZScore	Issued	Size (€bn)
Richest	1	4.25 Aug13	-3.38	Feb03	25	Richest	1	3.75 Apr16 (5y)	2.07	Apr11	12
	2	3.75 Mar21	-2.45	Sep10	23		2	3.00 Apr14	2.24	Apr11	15
	3	4.00 Sep20	-2.00	Mar10	22		3	4.75 Sep21 (10y-IK)	2.43	Mar11	19
	4	3.75 Aug16	-1.96	Feb06	27		4	3.75 Aug21	2.73	Feb06	27
	5	3.00 Nov15	-1.73	Nov10	16		5	3.75 Mar21	2.75	Sep10	23
	5	2.25 Nov13 (BTS)	1.21	Nov10	18		5	3.75 Aug15	2.94	Feb05	26
	4	4.50 Feb18	1.76	Aug07	25		4	3.00 Apr15	2.94	Jan10	20
	3	3.50 Jun14	1.82	Jun09	19		3	3.75 Aug16	2.95	Feb06	27
	2	4.25 Aug14	1.85	Feb04	27		2	4.00 Feb17	2.98	Aug06	23
Cheapest	1	3.00 Apr14	2.21	Apr11	15	Cheapest	1	5.25 Aug17	3.02	Feb02	23

N'LANDS

	Rank	Bond	ZScore	Issued	Size (€bn)		Rank	Bond	ZScore	Issued	Size (€bn)
Richest	1	4.00 Jul19	-1.90	Feb09	13	Richest	1	4.00 Jul18	-4.39	Feb08	15
	2	3.50 Jul20	-1.19	Feb10	15		2	4.00 Jul19	-4.15	Feb09	13
	3	4.00 Jul16 (5y)	-0.81	Jul06	13		3	4.50 Jul17	-4.05	Jul07	15
	4	3.75 Jul14	-0.27	Mar04	14		4	4.00 Jul16 (5y)	-3.28	Jul06	13
	5	3.25 Jul21 (10y)	-0.19	Mar11	9		5	3.75 Jan23	-3.04	Jan06	10
	5	1.00 Jan14	0.49	Jan11	10		5	3.25 Jul21 (10y)	-2.43	Mar11	9
	4	2.75 Jan15	1.27	Jul09	13		4	3.25 Jul15	-2.05	Jun05	14
	3	4.00 Jul18	1.92	Feb08	15		3	3.75 Jul14	-1.97	Mar04	14
	2	4.50 Jul17	2.45	Jul07	15		2	2.75 Jan15	-1.89	Jul09	13
Cheapest	1	3.25 Jul15	2.67	Jun05	14	Cheapest	1	1.00 Jan14	-1.58	Jan11	10

SPAIN

	Rank	Bond	ZScore	Issued	Size (€bn)		Rank	Bond	ZScore	Issued	Size (€bn)
Richest	1	3.80 Jan17	-1.13	Oct06	13	Richest	1	3.40 Apr14	1.85	Apr11	7
	2	3.15 Jan16	-0.95	Sep05	16		2	3.80 Jan17	2.35	Oct06	13
	3	4.60 Jul19	-0.95	Feb09	13		3	5.50 Jul17	2.37	Mar02	15
	4	5.50 Jul17	-0.73	Mar02	15		4	3.25 Apr16 (5y)	2.38	Nov10	12
	5	3.40 Apr14	-0.71	Apr11	7		5	3.15 Jan16	2.40	Sep05	16
	5	3.25 Apr16 (5y)	1.23	Nov10	12		5	4.25 Jan14	2.42	Oct08	13
	4	4.00 Apr20	1.29	Jan10	16		4	3.30 Oct14	2.43	Jul09	15
	3	4.85 Oct20	1.43	Jul10	16		3	3.00 Apr15	2.45	Mar10	16
	2	4.20 Jul13	1.54	Apr03	15		2	4.40 Jan15	2.45	Jun04	16
Cheapest	1	5.50 Apr21 (10y)	2.30	Jan11	15	Cheapest	1	2.50 Oct13	2.46	Jun10	16

BELGIUM

	Rank	Bond	ZScore	Issued	Size (€bn)		Rank	Bond	ZScore	Issued	Size (€bn)
Richest	1	#56 3.50 Mar15	-3.10	Mar09	10	Richest	1	#63 3.50 Jun17	2.06	Mar11	6
	2	#55 4.00 Mar19	-2.86	Jan09	10		2	#41 4.25 Sep13	2.10	Jan03	16
	3	#52 4.00 Mar18	-1.89	Jan08	10		3	#54 4.00 Mar14	2.11	Apr08	12
	4	#43 4.25 Sep14	-1.66	Jan04	13		4	#58 3.75 Sep20	2.20	Jan10	18
	5	#58 3.75 Sep20	-1.61	Jan10	18		5	#61 4.25 Sep21 (10y)	2.20	Jan11	8
	5	#47 3.25 Sep16	0.23	Jan06	12		5	#52 4.00 Mar18	2.33	Jan08	10
	4	#40 5.50 Sep17	0.42	Jun02	8		4	#40 5.50 Sep17	2.40	Jun02	8
	3	#41 4.25 Sep13	1.76	Jan03	16		3	#59 2.75 Mar16 (5y)	2.44	Mar10	10
	2	#48 4.00 Mar22	1.90	May06	14		2	#47 3.25 Sep16	2.45	Jan06	12
Cheapest	1	#49 4.00 Mar17	2.00	Jan07	11	Cheapest	1	#49 4.00 Mar17	2.47	Jan07	11

Source: Citi Investment Research and Analysis

Relative Value Tables – Min 8yr Maturity

Figure 74. Yield Spread and CAS to Fitted Relative Value Curve by Country (6m History); Bonds with a Minimum Maturity of 8yrs

GERMANY

Versus Fitted Yield Curve

	Rank	Bond	ZScore	Issued	Size (€bn)
Richest	1	4.75 Jul40	-2.07	Jul08	16
	2	6.25 Jan30	-1.73	Jan00	9
	3	3.25 Jul42 (30y)	-1.67	Jul10	8
	4	3.25 Jan20	-1.46	Nov09	22
	5	5.50 Jan31	-0.74	Oct00	17
	5	4.00 Jan37 (UB)	0.88	Jan05	23
	4	3.25 Jul21 (10y)	1.20	Apr11	15
	3	2.25 Sep20	1.64	Aug10	16
	2	2.50 Jan21	1.90	Nov10	19
Cheapest	1	4.25 Jul39	1.97	Jan07	14

Versus Swap Curve (CAS)

	Rank	Bond	ZScore	Issued	Size (€bn)
Richest	1	2.25 Sep20	-2.54	Aug10	16
	2	2.50 Jan21	-2.41	Nov10	19
	3	3.00 Jul20 (RX)	-2.39	Apr10	22
	4	3.25 Jan20	-2.37	Nov09	22
	5	3.25 Jul21 (10y)	-2.16	Apr11	15
	5	4.75 Jul34	-0.98	Jan03	20
	4	4.00 Jan37 (UB)	-0.31	Jan05	23
	3	3.25 Jul42 (30y)	-0.27	Jul10	8
	2	4.75 Jul40	-0.19	Jul08	16
Cheapest	1	4.25 Jul39	0.22	Jan07	14

FRANCE

Versus Fitted Yield Curve

	Rank	Bond	ZScore	Issued	Size (€bn)
Richest	1	3.50 Apr26	-2.13	Apr10	22
	2	3.75 Oct19	-0.92	Oct08	25
	3	2.50 Oct20	-0.86	Oct09	29
	4	3.75 Apr21	-0.71	Apr05	31
	5	3.50 Apr20	-0.53	Feb10	27
	5	4.50 Apr41 (30y)	0.26	Apr09	15
	4	5.75 Oct32	0.51	Oct00	23
	3	4.75 Apr35	0.85	Apr03	18
	2	3.25 Oct21 (10y)	1.05	Oct10	6
Cheapest	1	4.00 Oct38	1.83	Oct05	24

Versus Swap Curve (CAS)

	Rank	Bond	ZScore	Issued	Size (€bn)
Richest	1	2.50 Oct20	-0.82	Oct09	29
	2	3.75 Oct19	-0.77	Oct08	25
	3	3.50 Apr20	-0.65	Feb10	27
	4	3.75 Apr21	-0.59	Apr05	31
	5	3.25 Oct21 (10y)	-0.07	Oct10	6
	5	4.00 Apr55	0.71	Apr04	15
	4	5.75 Oct32	1.70	Oct00	23
	3	4.75 Apr35	1.80	Apr03	18
	2	4.50 Apr41 (30y)	1.89	Apr09	15
Cheapest	1	4.00 Oct38	1.93	Oct05	24

ITALY

Versus Fitted Yield Curve

	Rank	Bond	ZScore	Issued	Size (€bn)
Richest	1	3.75 Mar21	-2.45	Sep10	23
	2	5.00 Mar25	-2.41	Mar09	20
	3	4.00 Sep20	-2.00	Mar10	22
	4	4.25 Mar20	-1.05	Sep09	23
	5	5.75 Feb33	-1.01	Feb02	15
	5	4.50 Feb20	-0.04	Feb04	21
	4	5.00 Sep40 (30y)	0.39	Sep09	20
	3	4.00 Feb37	0.73	Aug05	25
	2	4.50 Mar26	0.96	Sep10	14
Cheapest	1	4.75 Sep21 (10y-IK)	1.05	Mar11	19

Versus Swap Curve (CAS)

	Rank	Bond	ZScore	Issued	Size (€bn)
Richest	1	4.75 Sep21 (10y-IK)	2.43	Mar11	19
	2	5.00 Aug39	2.47	Aug07	19
	3	5.00 Sep40 (30y)	2.47	Sep09	20
	4	4.00 Feb37	2.53	Aug05	25
	5	5.75 Feb33	2.59	Feb02	15
	5	4.75 Aug23	2.78	Feb08	21
	4	4.00 Sep20	2.79	Mar10	22
	3	4.25 Mar20	2.81	Sep09	23
	2	4.50 Feb20	2.83	Feb04	21
Cheapest	1	4.25 Sep19	2.84	Mar09	22

N'LANDS

Versus Fitted Yield Curve

	Rank	Bond	ZScore	Issued	Size (€bn)
Richest	1	3.50 Jul20	-1.19	Feb10	15
	2	3.25 Jul21 (10y)	-0.19	Mar11	9
	2	3.75 Jan23	0.39	Jan06	10
Cheapest	1	4.00 Jan37	0.78	Apr05	12

Versus Swap Curve (CAS)

	Rank	Bond	ZScore	Issued	Size (€bn)
Richest	1	3.75 Jan23	-3.04	Jan06	10
	2	3.50 Jul20	-2.97	Feb10	15
	2	3.75 Jan42 (30y)	0.78	May10	10
Cheapest	1	4.00 Jan37	1.14	Apr05	12

SPAIN

Versus Fitted Yield Curve

	Rank	Bond	ZScore	Issued	Size (€bn)
Richest	1	4.65 Jul25	-1.72	Feb10	14
	2	5.90 Jul26	-1.50	Mar11	6
	3	4.70 Jul41 (30y)	-1.19	Sep09	11
	4	4.60 Jul19	-0.95	Feb09	13
	5	4.20 Jan37	-0.05	Jan05	16
	5	4.80 Jan24	1.17	Sep08	15
	4	4.00 Apr20	1.29	Jan10	16
	3	4.85 Oct20	1.43	Jul10	16
	2	5.75 Jul32	1.63	Jan01	14
Cheapest	1	5.50 Apr21 (10y)	2.30	Jan11	15

Versus Swap Curve (CAS)

	Rank	Bond	ZScore	Issued	Size (€bn)
Richest	1	5.90 Jul26	1.89	Mar11	6
	2	4.70 Jul41 (30y)	2.09	Sep09	11
	3	4.20 Jan37	2.12	Jan05	16
	4	5.75 Jul32	2.14	Jan01	14
	5	4.90 Jul40	2.15	Jun07	13
	5	4.60 Jul19	2.40	Feb09	13
	4	4.85 Oct20	2.41	Jul10	16
	3	5.50 Apr21 (10y)	2.41	Jan11	15
	2	4.30 Oct19	2.41	Jun09	15
Cheapest	1	4.00 Apr20	2.41	Jan10	16

BELGIUM

Versus Fitted Yield Curve

	Rank	Bond	ZScore	Issued	Size (€bn)
Richest	1	#58 3.75 Sep20	-1.61	Jan10	18
	2	4.25 Mar41 (30y)	-1.07	Apr10	6
	3	4.50 Mar26	-0.91	Jun11	4
	3	#61 4.25 Sep21 (10y)	-0.63	Jan11	8
	2	#44 5.00 Mar35	1.58	May04	14
Cheapest	1	#48 4.00 Mar22	1.90	May06	14

Versus Swap Curve (CAS)

	Rank	Bond	ZScore	Issued	Size (€bn)
Richest	1	4.50 Mar26	0.91	Jun11	4
	2	#58 3.75 Sep20	2.20	Jan10	18
	3	#61 4.25 Sep21 (10y)	2.20	Jan11	8
	3	#44 5.00 Mar35	2.27	May04	14
	2	#48 4.00 Mar22	2.30	May06	14
Cheapest	1	4.25 Mar41 (30y)	2.31	Apr10	6

Source: Citi Investment Research and Analysis

European Relative Value Charts

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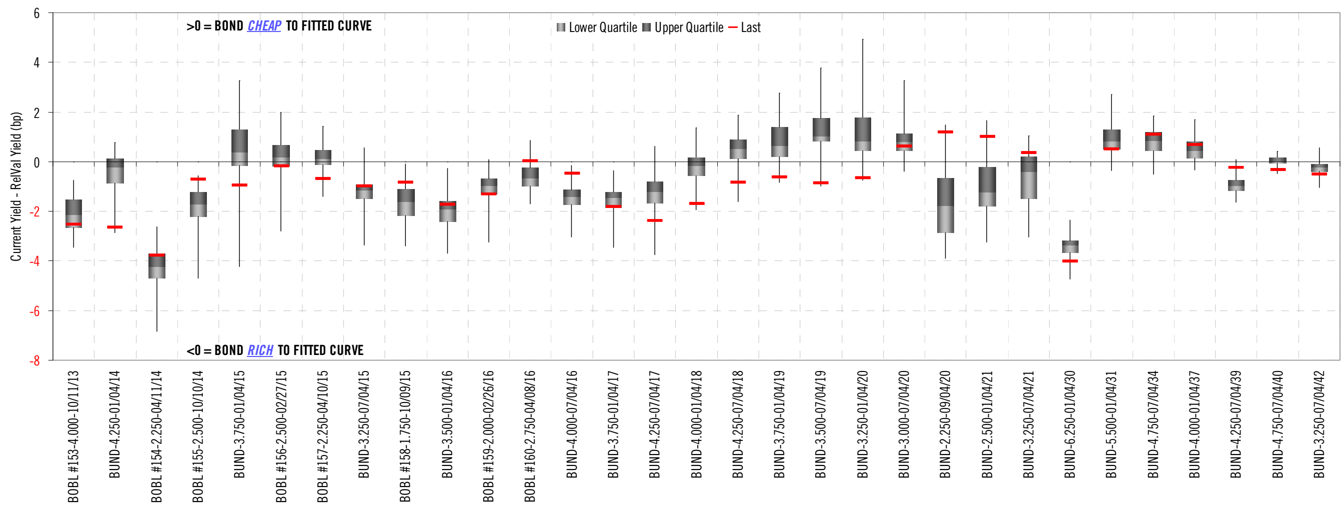
with thanks to
Mohit Aggarwal

This section presents a selection of relative value charts[11] for Germany, France, Italy, the Netherlands, Spain and Belgium and places current levels in the context of their 6-month trading range.
A positive (negative) value indicates that a bond is cheap (rich) relative to the fitted curve.

Germany: current yield vs fitted yield curve

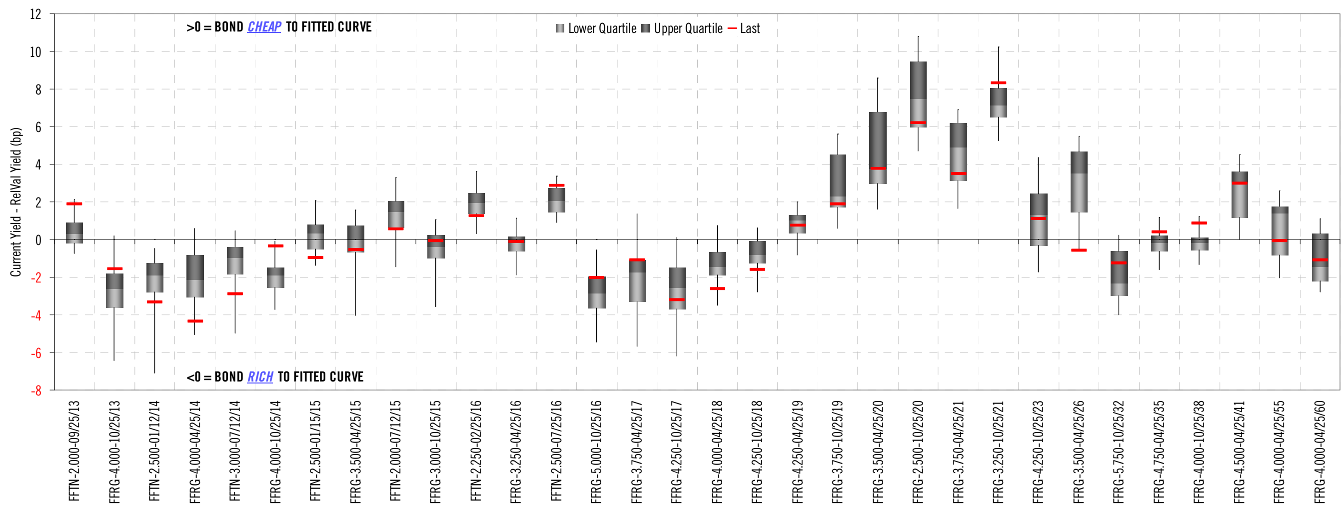
Figure 75. Germany: Current bond curve minus fitted curve (bps), 6-month history.



Source: Citi Investment Research and Analysis

France: current yield vs fitted yield curve

Figure 76. France: Current bond curve minus fitted curve (bps), 6-month history.

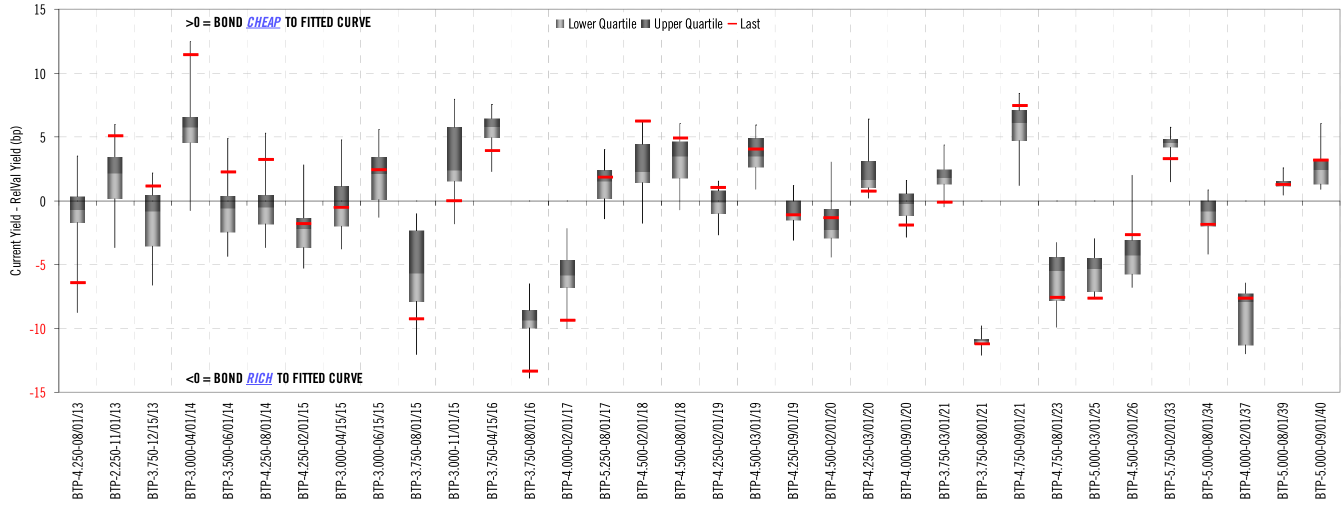


Source: Citi Investment Research and Analysis

[11] Criteria: (1) Fixed rate bonds issued in local currency, (2) minimum amount outstanding €1bn/£1bn, (3) maturity > 2yrs and (4) issued since 1 Jan 2000.
Lower Quartile Range = the range between the median and the lower quartile (the 25th percentile)
Upper Quartile Range = the range between the median and the upper quartile (the 75th percentile)

Italy: current yield vs fitted yield curve

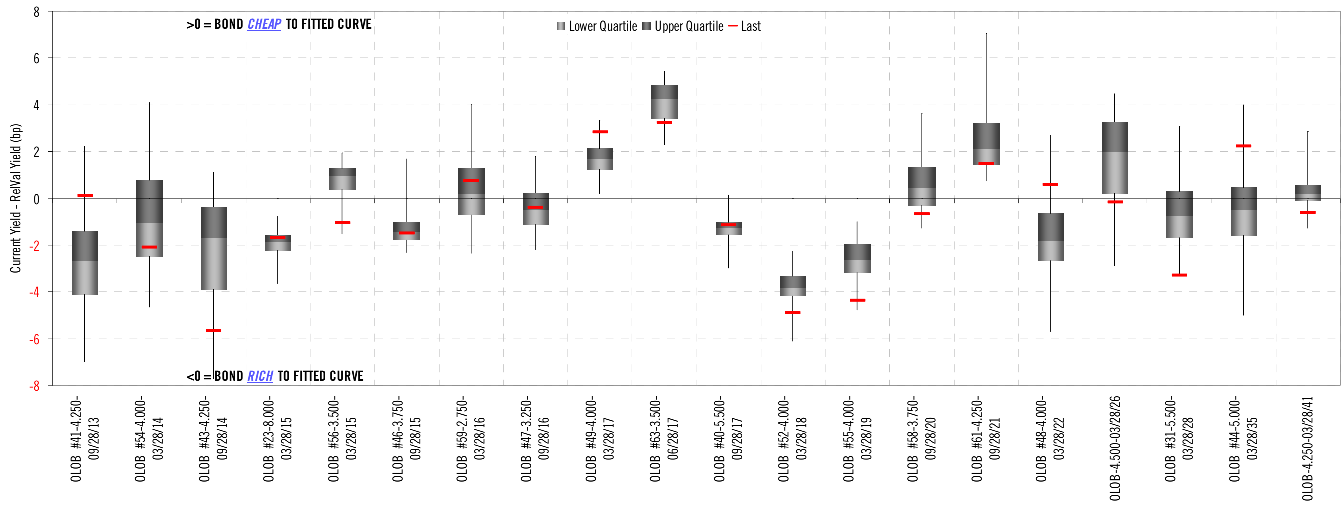
Figure 77. Italy: Current bond curve minus fitted curve (bps), 6-month history.



Source: Citi Investment Research and Analysis

Belgium: current yield vs fitted yield curve

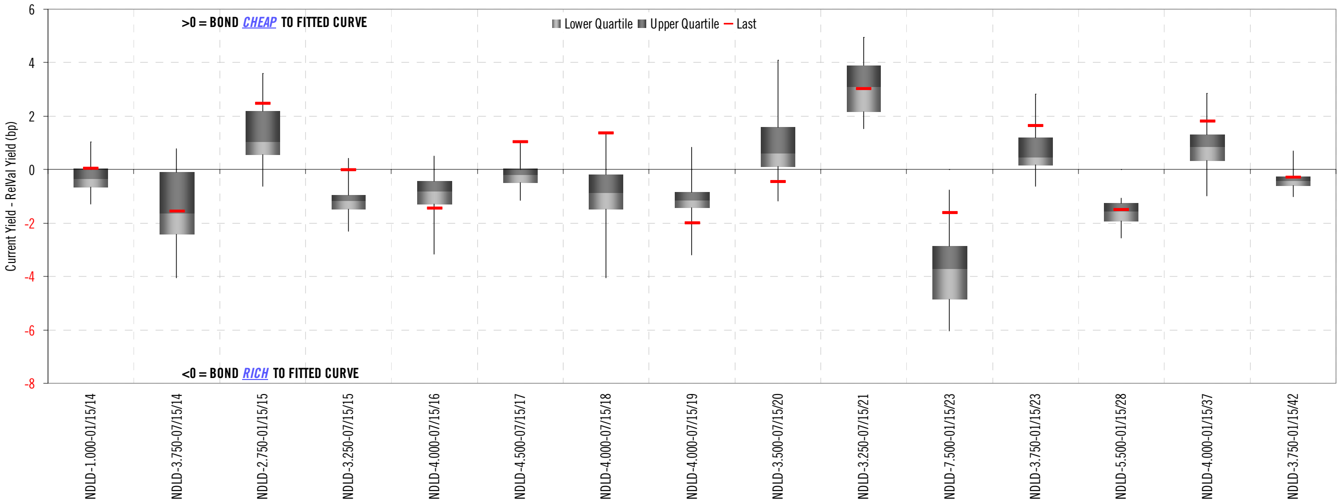
Figure 78. Belgium: Current bond curve minus fitted curve (bps), 6-month history.



Source: Citi Investment Research and Analysis

Netherlands: current yield vs fitted yield curve

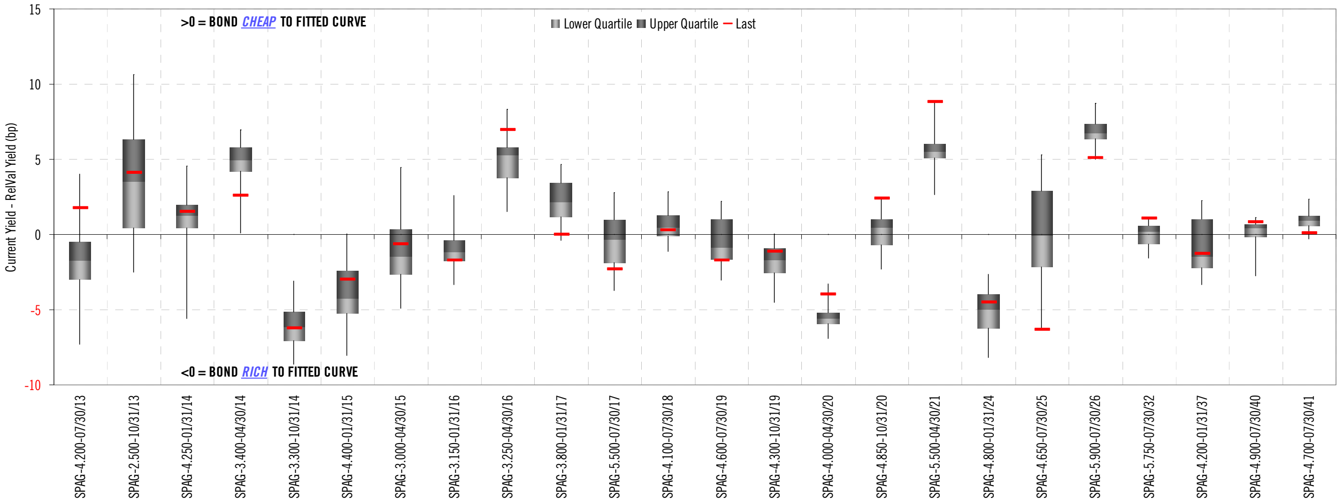
Figure 79. Netherlands: current bond curve minus fitted curve (bps), 6-month history.



Source: Citi Investment Research and Analysis

Spain: current yield vs fitted yield curve

Figure 80. Spain: Current bond curve minus fitted curve (bps), 6-month history.



Source: Citi Investment Research and Analysis

USD and EUR Flow Analysis

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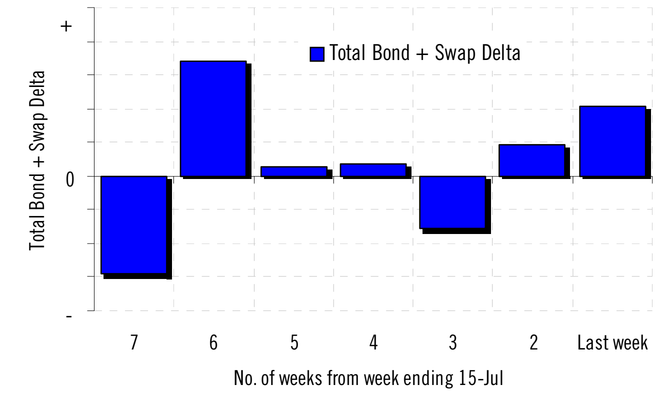
US: good demand

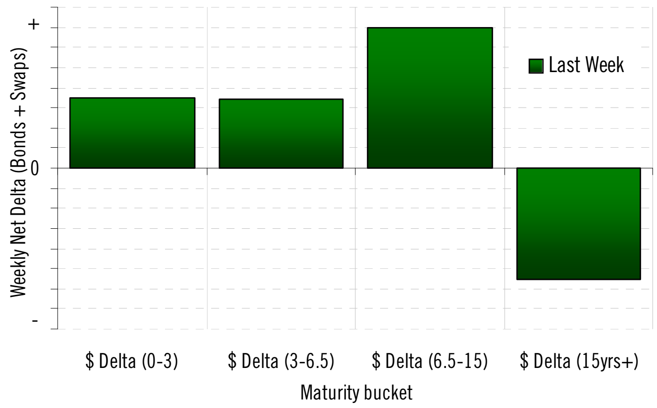
There was relatively strong net buying of the US last week (Figure 81). Demand was strongest in 10s and also positive in 2s and 5s (Figure 82). There was net selling of the long end.

Figure 81. Weekly Net Demand for USD (Bonds + Swaps)



Source: Citi Investment Research and Analysis

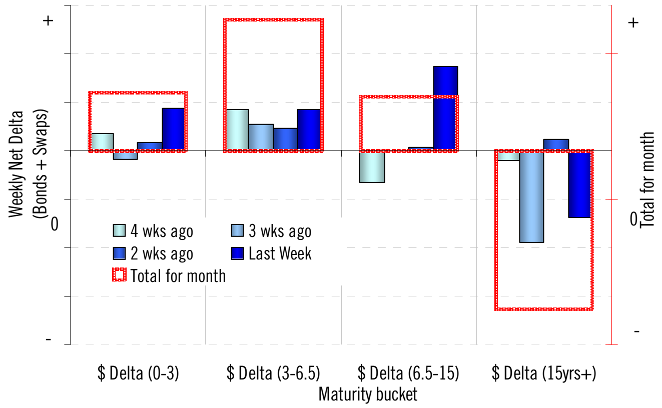
Figure 82. USD: Net Demand By Maturity Last Week (Bonds + Swaps)



Source: Citi Investment Research and Analysis

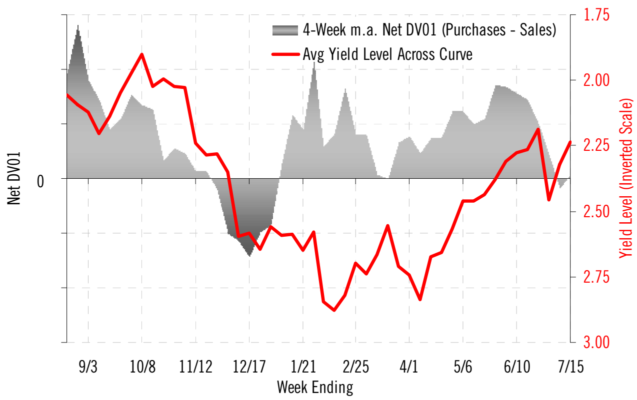
Over the last 4 weeks on the whole, demand has been greatest and the most consistent in 5s (Figure 83). Selling pressure has been greatest in the long end, particularly last week and 3 weeks ago.

Figure 83. USD: Weekly Net Demand by Maturity (Bonds + Swaps)



Source: Citi Investment Research and Analysis

Figure 84. USD: Net Demand (4wk Average) vs Yield Level



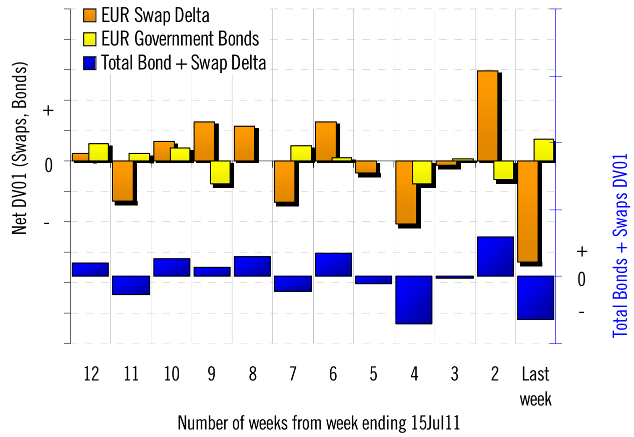
Source: Citi Investment Research and Analysis

Given weeks of relatively low levels of buying of the US, the 4-week moving average of net demand is fairly flat (Figure 84). This comes as market yields continue to plunge.

Europe: net selling reversing buying of the previous week

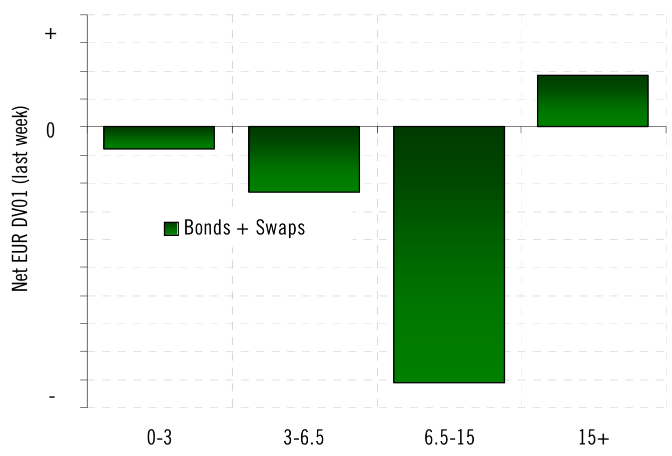
There was net selling of Europe last week (Figure 85) with net paying of swaps outweighing the net buying of bonds. Flows are roughly the opposite to the previous week. On the curve, selling was greatest in 10s (Figure 86).

Figure 85. Weekly Net Demand for EUR (Bonds and Swaps)



Source: Citi Investment Research and Analysis

Figure 86. EUR: Net Demand By Maturity Last Week (Bonds + Swaps)

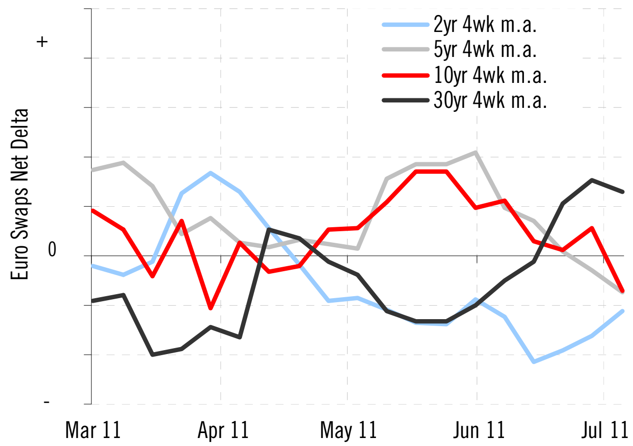


Source: Citi Investment Research and Analysis

The 4 week moving-average of swap net delta remains greatest in 30s (Figure 87). Net paying is still the dominant trend in shorter dated maturities, especially 2s.

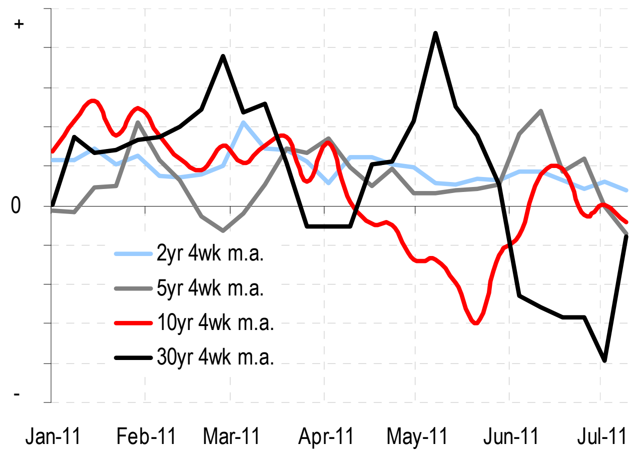
In the bond market, the 4wk moving-average of net demand is only positive in the 2yr sector – and has consistently been so throughout 2011 (Figure 88). By the same 4 week moving average, demand in the long end remains negative, but has improved significantly recently.

Figure 87. Euro Swap Net Delta by Tenor (4wk Moving Average)



Source: Citi Investment Research and Analysis

Figure 88. European Govt Bond Net Demand by Tenor (4wk M.A.)



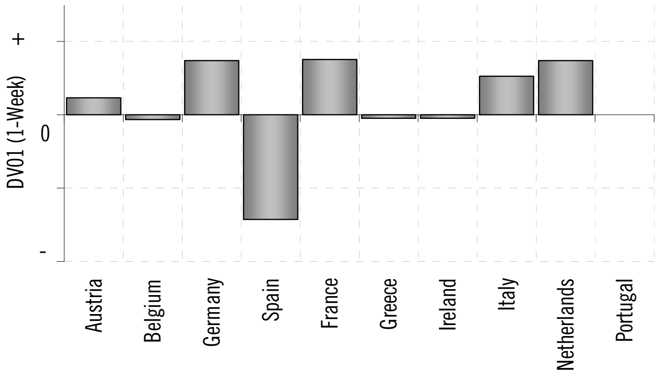
Source: Citi Investment Research and Analysis

EMU: non-AAA demand remains low

Last week's flows highlight the broad themes within fixed income markets at present: consistent buying across all AAA countries and growing weakness in demand for Tier2 markets (Figure 89). In particular, demand was strongest and positive for the Netherlands, France and Germany. Net flows across the periphery were muted and selling pressure was strongest for Spain.

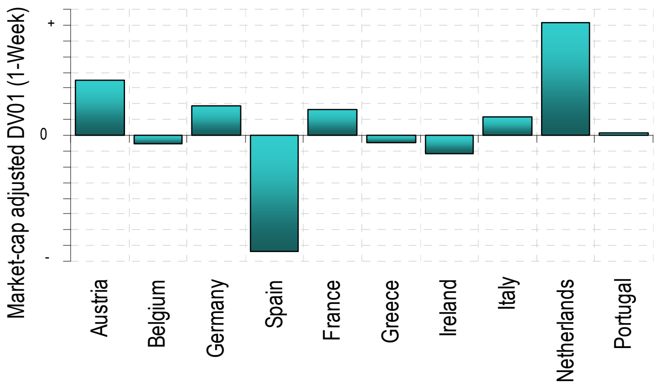
Figure 90 adjusts these data for market cap and further illustrates the low demand for Italy and net selling of Spain. AAA demand – especially for the Netherlands and Austria – remains high given the size of their debt markets.

Figure 89. Net Demand for European Govt Bonds Last Week, Adjusted for Market Cap



Source: Citi Investment Research and Analysis

Figure 90. Net Demand for European Govt Bonds Last Week, Adjusted for Market Cap

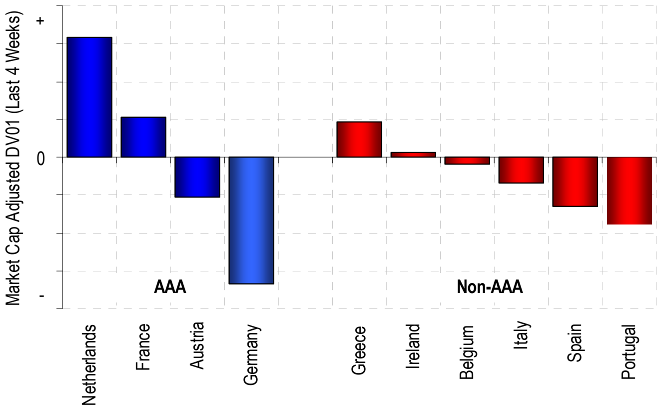


Source: Citi Investment Research and Analysis

More broadly, over the last four weeks, selling pressure has been greatest for Portugal, Spain and Italy, when adjusting issuer flows by market cap (Figure 91). The Netherlands continues to attract the lion's share of AAA demand.

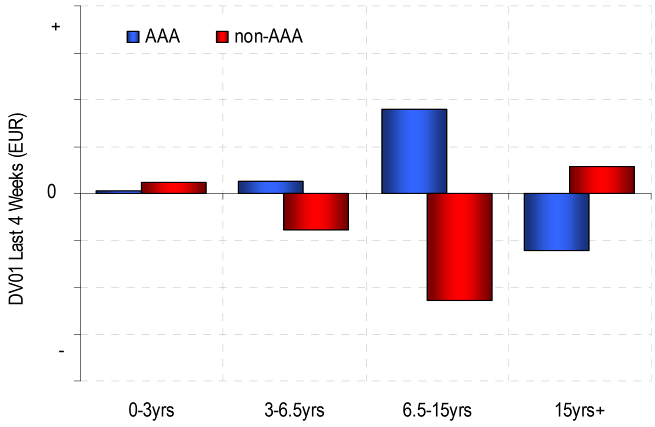
On the curve, AAA demand has been greatest in 10s and weakest in the long end (Figure 92). This is the opposite of non-AAA flow data which has seen selling pressure greatest in 10s and slight net buying in the long end.

Figure 91. Net Demand for European Govt Bonds Last 4 Weeks, Adjusted for Market Cap



Source: Citi Investment Research and Analysis

Figure 92. Net Demand of AAA Govt Bonds vs Non-AAA Govt Bonds by Maturity, Last 4 Weeks



Source: Citi Investment Research and Analysis

End-July EGBI Projections

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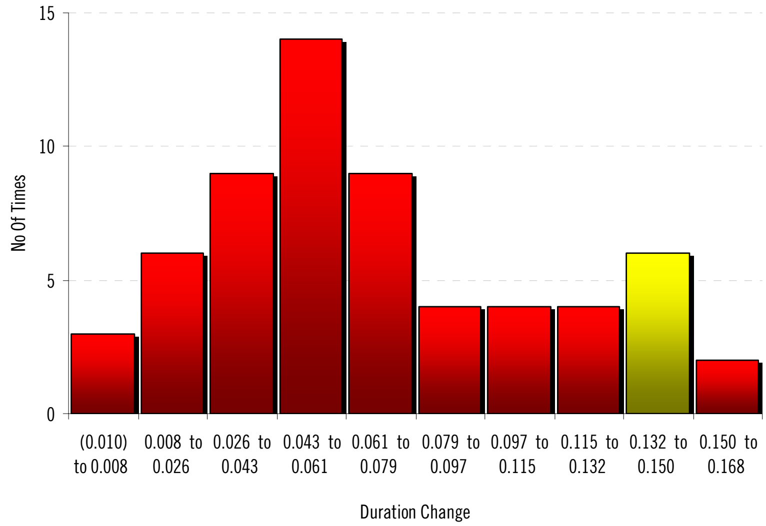
Significant extension in the EGBI

The effective duration of the EGBI should extend by 0.14 at the end of July[12]. This would be the largest extension in the last year and is 1.8 standard deviations above its 5-year mean. The five year frequency distribution of month-end changes is shown in Figure 93.

Figure 93. Five Year Distribution of Month-End EGBI Duration Changes (July Projection Highlighted)



Source: Citi Investment Research and Analysis

Ratings and eligibility

The rating requirement for inclusion in the EGBI is investment grade by both Moody's (Baa3) *and* S&P (BBB-). The change in the EGBI excluding Portugal and Ireland is expected to be 0.15.

If Portugal or Ireland were excluded from the index – something that would require downgrade by only S&P to non-investment grade (Figure 94) – we calculate an index extension of 0.17, or 0.19 if both of them are removed (Figure 95).

Figure 94. Portugal and Ireland's EGBI Eligibility

	S&P	Moody's
EGBI Eligibility	BBB-	Baa3
Portugal	BBB-	Ba2
Downgrade buffer	1 notch	underwater
Ireland	BBB+	Ba1
Downgrade Buffer	3 notches	underwater

Source: Citi Investment Research and Analysis

Figure 95. EGBI extension in case of a rating event

		EGBI Effective Duration if removed		
	% EGBI (par)	End Jun	End Jul(e)	Change
Portugal	2.39	6.17	6.33	0.17
Ireland	2.03	6.17	6.33	0.17
Both	4.43	6.17	6.36	0.19

Source: Citi Investment Research and Analysis

Bonds dropping out of the EGBI at the end of July

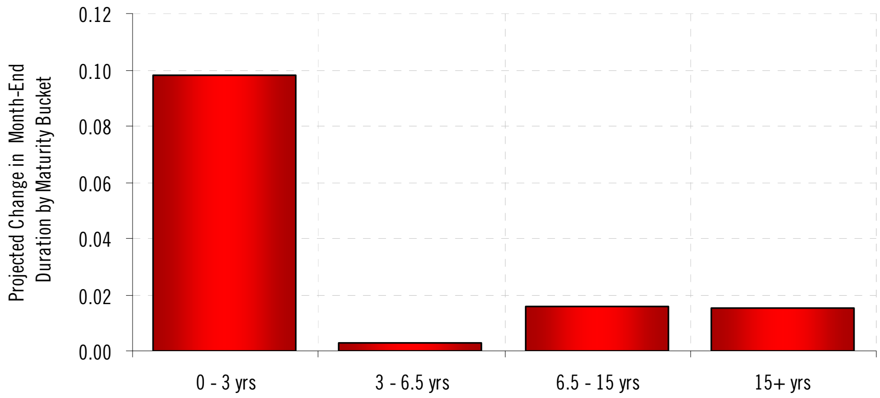
A total of €102.9bn bonds will be dropping out of the EGBI: Germany (€27bn), Italy (€17bn), France (€22bn), the Netherlands (€14bn), Austria (€10bn) and Spain (€13bn).

[12] Please see the supply section of our weekly *International Interest Rate Strategist* for details of the estimated issuance on which this and related projections are based. Supply is the main driver of projections but other factors, e.g., yield level and curve shape, also affect the calculations and are subject to change.

Curve breakdown of end-July EGBI projection

As shown by the curve breakdown of the projected changes (Figure 96), nearly all the index extension is concentrated in the 2yr sector. Ceteris paribus, this should put downward pressure on 2yr yields relative to other maturities as previously matched investors buy these sectors to rematch the index.

Figure 96. End-July Projected Index Changes by Curve Sector (Unweighted Duration)

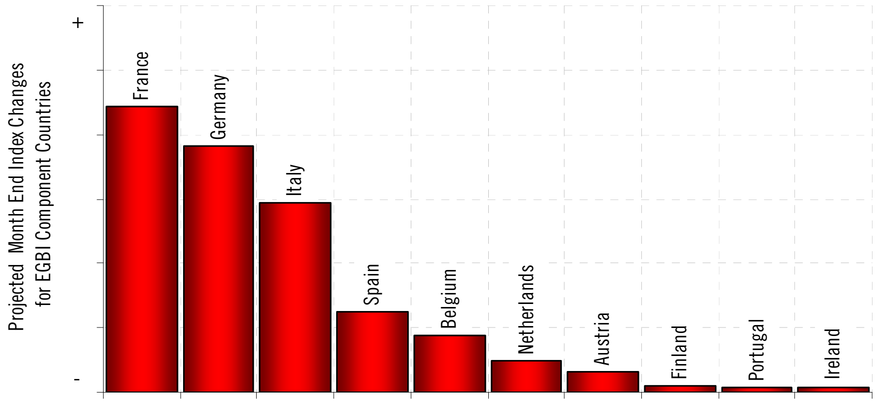


Source: Citi Investment Research and Analysis

Country breakdown of end-July EGBI projection

Among the projected index changes at a country level, the weighted duration increase is largest for France[13], followed by Germany, Italy, Spain and Belgium. These changes should be supportive for France and Germany; however, the extensions in tier 2 markets may be less supportive than they otherwise should be. Investors may be willing to be taken short/ shorter by the extension.

Figure 97. End-July Projected Index Changes by Country (Weighted Duration)



Source: Citi Investment Research and Analysis

[13] it will increase for the eleventh consecutive month.

Detailed breakdown of end-July EGBI projections

Figure 98 shows the detailed breakdown of projected end-July duration and index weight changes by country. The changes for the Netherlands, Austria and Germany are the largest in a year. Looking at a longer history, the 5yr z-scores of the three are 2.3, 2.2 and 1.8 respectively.

Figure 98. End-July EGBI Projections

18-Jul-11	End of Jun - Actual		End of Jul - Projected		Projected Change			Duration change range over last year		
	% weight in EGBI	Duration	% weight in Index	Duration	Weighted Dur Change X 100	Weight Change	Duration Change	-ve	+ve	Average Absolute Change
Germany	22.6	6.231	22.6	6.408	3.81	(0.03)	0.18	(0.08)	0.18	0.08
Italy	22.3	6.170	22.4	6.271	2.95	0.11	0.10	(0.02)	0.25	0.09
France	23.7	6.558	23.9	6.680	4.42	0.23	0.12	(0.06)	0.17	0.07
Spain	10.0	5.738	10.0	5.894	1.26	(0.05)	0.16	(0.03)	0.28	0.08
Portugal	1.4	4.773	1.5	4.773	0.08	0.02	0.00	(0.08)	0.50	0.07
Belgium	6.4	5.750	6.6	5.760	0.88	0.14	0.01	(0.02)	0.26	0.06
Netherlands	6.2	6.278	6.0	6.655	0.50	(0.28)	0.38	(0.06)	0.38	0.09
Ireland	1.2	4.751	1.3	4.751	0.07	0.02	0.00	(0.03)	0.37	0.07
Austria	4.4	6.330	4.2	6.662	0.31	(0.17)	0.33	(0.03)	0.33	0.03
Finland	1.6	5.310	1.6	5.310	0.10	0.02	0.00	(0.03)	0.23	0.05

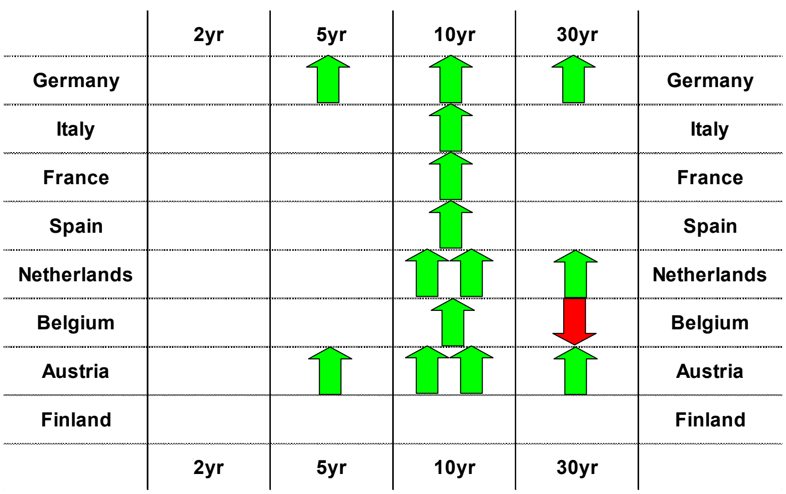
Source: Citi Investment Research and Analysis

Pressures on individual country curves

Figure 99 summarises the pressures on individual country curves from the projected index changes. Green arrows indicate support for prices and red arrows indicate downward pressure on prices, relative to the domestic curve. Double arrows indicate strong pressure on that part of the domestic curve relative to other maturities. The underlying detail is shown in Figure 100 to Figure 113.

Projected index changes indicate strong support for the 10yr sector, especially for the Netherlands (Figure 109) and Austria (Figure 113). The changes also imply bull-steepening pressure on the German curve (Figure 101) and bull-flattening pressure on the Dutch curve. The changes point to a downward pressure on curvature of the Austrian curve in 5-30yr sector[14].

Figure 99. Summary of Pressure on Prices of Individual Country Curve Sectors



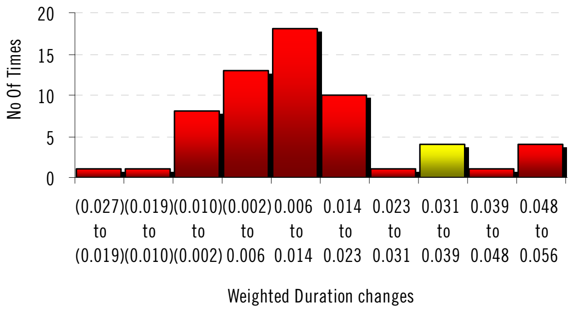
Source: Citi Investment Research and Analysis

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

Putting projected country changes in perspective

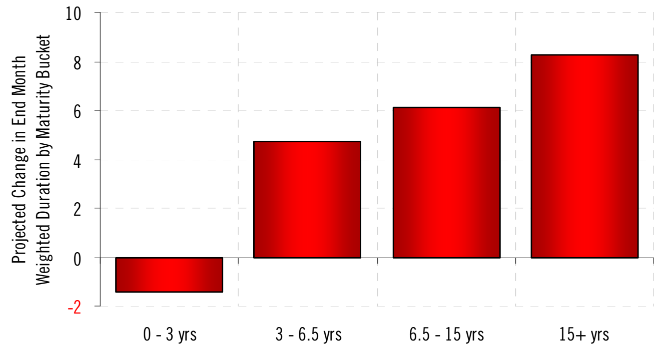
Below we show the distributions of weighted duration changes and the curve splits of the projected end-July changes. The most significant changes from the historical perspective are Germany (Figure 100), France (Figure 104) and Belgium (Figure 110).

Figure 100. Germany: Distribution of Month-End Duration Changes Over The Last Five Years (Weighted Duration)



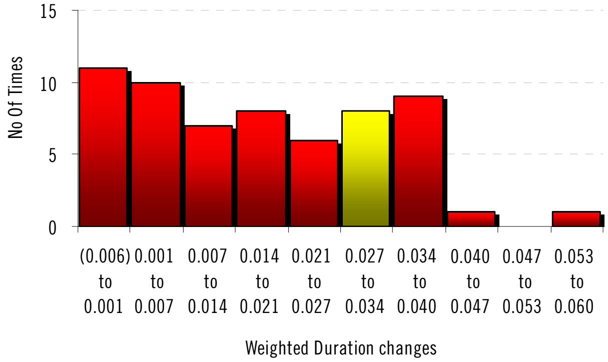
Source: Citi Investment Research and Analysis

Figure 101. Germany: End-July Projected Index Change by Maturity (Weighted Duration)



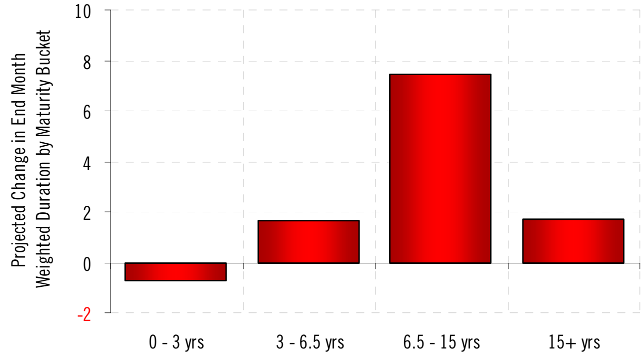
Source: Citi Investment Research and Analysis

Figure 102. Italy: Distribution of Month-End Duration Changes Over The Last Five Years (Weighted Duration)



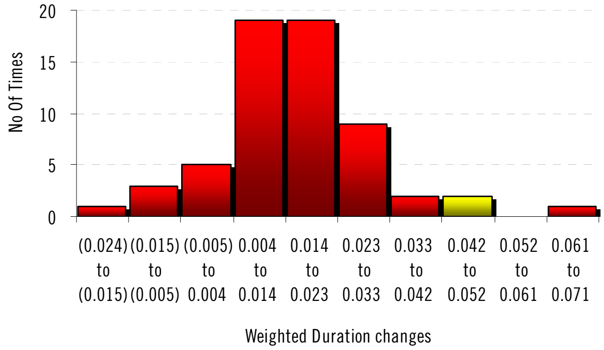
Source: Citi Investment Research and Analysis

Figure 103. Italy: End-July Projected Index Change by Maturity (Weighted Duration)



Source: Citi Investment Research and Analysis

Figure 104. France: Distribution of Month-End Duration Changes Over The Last Five Years (Weighted Duration)

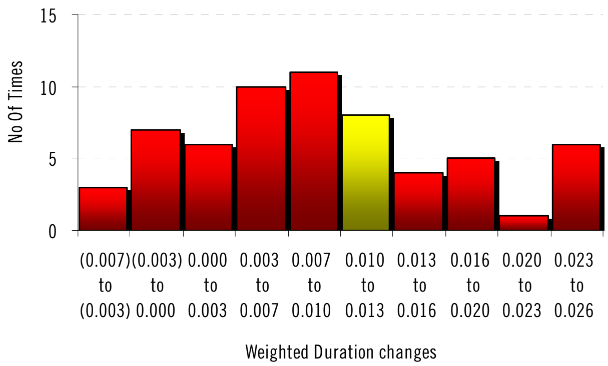


Source: Citi Investment Research and Analysis

Figure 105. France: End-July Projected Index Change by Maturity (Weighted Duration)

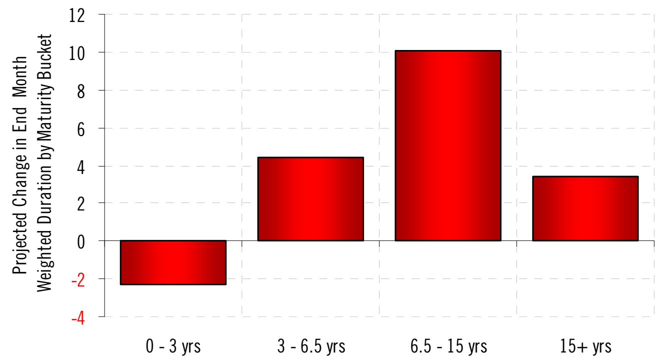
Source: Citi Investment Research and Analysis

Figure 106. Spain: Distribution of Month-End Duration Changes Over The Last Five Years



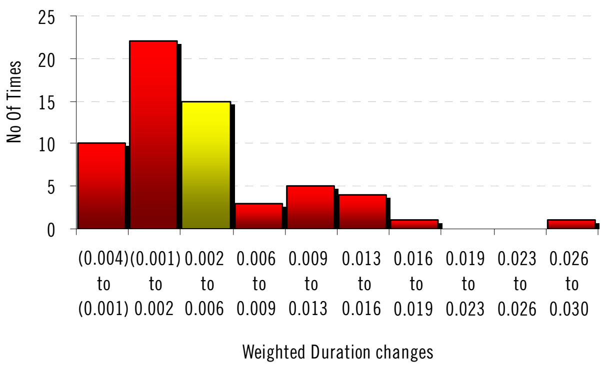
Source: Citi Investment Research and Analysis

Figure 107. Spain: End-July Projected Index Change by Maturity (Weighted Duration)



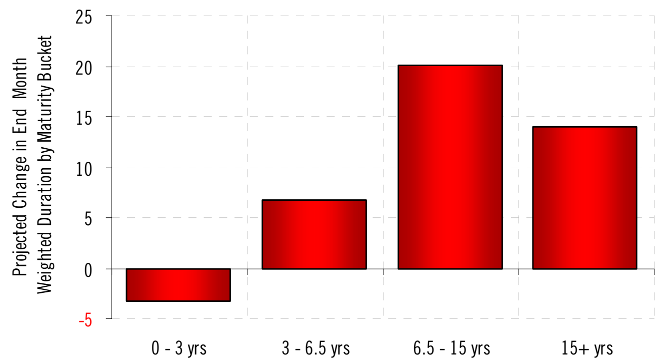
Source: Citi Investment Research and Analysis

Figure 108. Netherlands: Distribution of Month-End Duration Changes Over The Last Five Years (Weighted Duration)



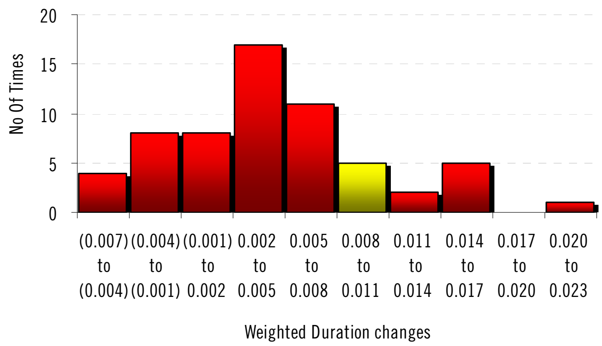
Source: Citi Investment Research and Analysis

Figure 109. Netherlands: End-July Projected Index Change by Maturity (Weighted Duration)



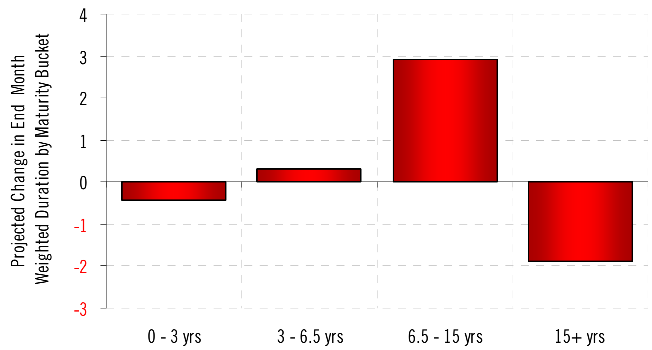
Source: Citi Investment Research and Analysis

Figure 110. Belgium: Distribution of Month-End Duration Changes Over The Last Five Years



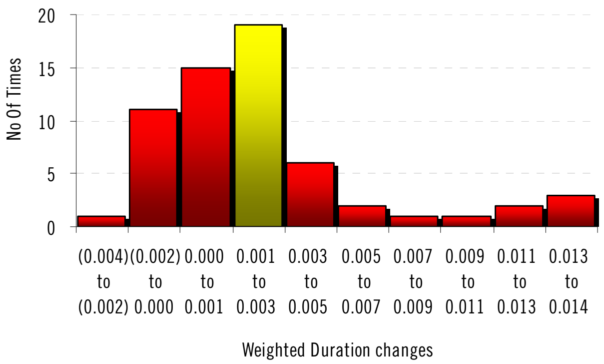
Source: Citi Investment Research and Analysis

Figure 111. Belgium: End-July Projected Index Change by Maturity (Weighted Duration)



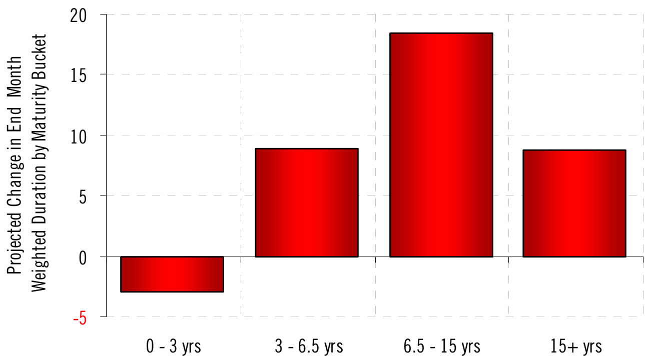
Source: Citi Investment Research and Analysis

Figure 112. Austria: Distribution of Month-End Duration Changes Over The Last Five Years



Source: Citi Investment Research and Analysis

Figure 113. Austria: End-July Projected Index Change by Maturity (Weighted Duration)

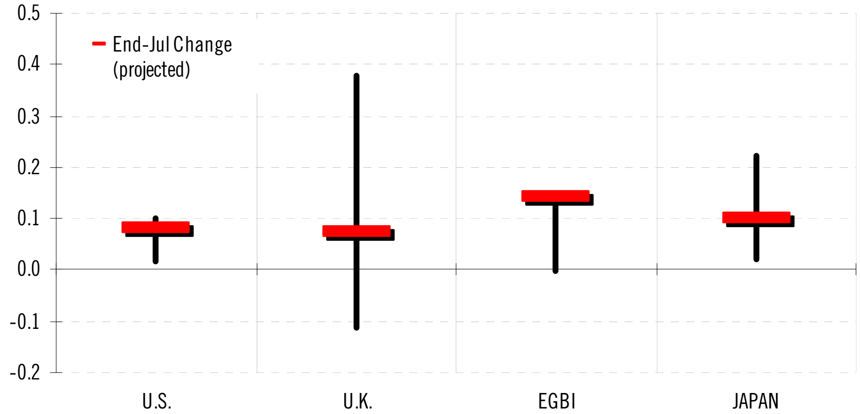


Source: Citi Investment Research and Analysis

End-July WGBI Projections

Figure 114 shows the projected end-July index changes for the EGBI, Japan, UK and US components of the WGBI, and places them in the context of their respective 12-month ranges.

Figure 114. Projected Duration Changes for WGBI Components and 12-Month Range



Source: Citi Investment Research and Analysis

Figure 115 shows the details of these changes.

Figure 115. End July Projected Duration Changes for the Main Components of the WGBI

18-Jul-11	End of Jun - Actual		End of Jul - Projected		Projected Change		Duration change range over last year		
	% weight in WGBI	Duration	% weight in Index	Duration	Weight Change	Duration Change	-ve	+ve	Average Absolute
EGBI	30.0	6.168	29.5	6.312	(0.48)	0.14	(0.00)	0.14	0.06
JAPAN	32.1	7.541	32.2	7.628	0.11	0.09	0.02	0.22	0.10
U.S.	25.9	5.289	26.3	5.372	0.35	0.08	0.02	0.10	0.07
U.K.	5.4	9.467	5.5	9.542	0.11	0.07	(0.11)	0.38	0.11

Source: Citi Investment Research and Analysis

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End-July 2011 Index-Linked Index Projections

The modified duration of EUR ILSI should increase by 0.38 at the end of July. At a country level, its French component should extend by 0.8, which is its largest extension in the last 3 years. Other things being equal, this should offer relative support for French real yields and exert flattening pressure on the curve. In the World ISLI, the US component of the index should extend by its largest in a year and third-largest in 3yrs. The UK index is expected to extend for the sixth consecutive month.

July Compositional Change in the World ILSI Index

This month's fixing period[15] covers only one auction in the euro area – 3 lines from France (€0.642bn BTANi'16, €0.59bn OATei'22 and €0.242bn OATei'40). In the UK, the extension includes a re-opening of UKTI 2027 (£1.1bn). The only TIPS issuance is a new $13bn 10yr TIPS later today. Compositional changes include TIPS Jul12 ($23bn) and OATei12 (€13.9bn) dropping out of the index at the end of the month.

Projected end-July change in the Euro IL Index

We expect the duration of the Euro ILSI to increase by a significant 0.38 at the end of July[16] (a three year z-score of 2.05) - Figure 116.

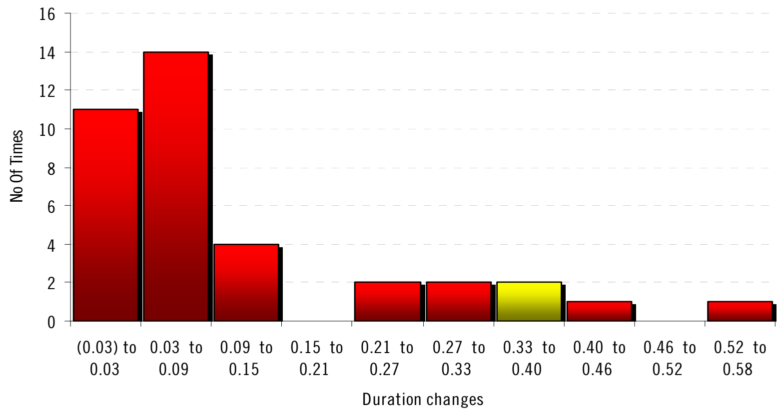
Figure 116. Projected End-July EUR ILSI Change

EUR ILSI Duration			Largest absolute Duration changes over last year		
End Jun	End Jul(e)	Duration Change(e)	-ve	+ve	Average Absolute Change
7.69	8.07	0.38	(0.03)	0.43	0.10

Source: Citi Investment Research and Analysis

This is the third largest extension in the last three years (Figure 117).

Figure 117. Distribution of Month-End Euro ILSI Duration Changes (July Change Highlighted)



Source: Citi Investment Research and Analysis

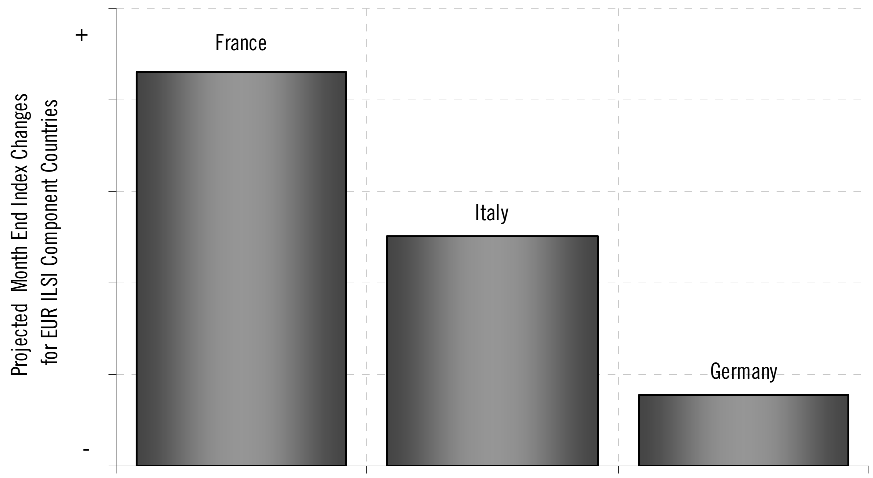
[15] 25 June 2011 to 25 July 2011.

[16] Please see the supply section of our weekly *International Interest Rate Strategist* for details of the estimated issuance on which this and related projections are based. Supply is the main driver of projections but other factors, principally yield level and curve shape, also affect the calculations and are subject to change.

Country breakdown of end-July Euro ILSI projection

We project an increase of 0.22 in the weighted duration of the French component of the EUR ILSI. This would be its largest increase in the last three years, and is 8.3 standard deviations above its mean (Figure 118). This is largely attributed to OATei12 falling below 1yr to maturity and dropping out of the index. German and Italian indices also see their weighted durations rise due to the increases in their respective weights. The changes should lend relative support to French real yields, which are already at very rich levels on an absolute basis, as investors matching the index find themselves underweight France after adjusting for the OATei12.

Figure 118. End-July Projected Euro Index Linked Index Changes by Country (Weighted Duration)



Source: Citi Investment Research and Analysis

Figure 119 shows the detailed *Euro* breakdown of projected end-July duration and index weight changes by country.

Figure 119. End-July EUR ILSI Projections

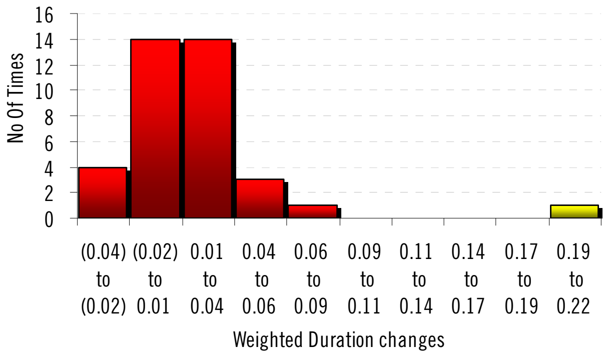
20-Jul-11	End of Jun - Actual		End of Jul - Projected		Projected Change			Largest absolute duration changes over last year		
	% weight in Index	Duration	% weight in Index	Duration	Weighted Dur Change X 100	Weight Change	Duration Change	-ve	+ve	Average Absolute Change
Germany	15.1	5.14	15.9	5.14	3.83	0.75	0.00	(0.01)	0.14	0.05
Italy	32.0	8.00	33.5	8.00	12.58	1.56	0.00	(0.09)	0.10	0.04
France	52.9	8.19	50.6	8.99	**21.54**	**(2.33)**	**0.80**	(0.05)	0.80	0.10

Source: Citi Investment Research and Analysis

Changes on the curve

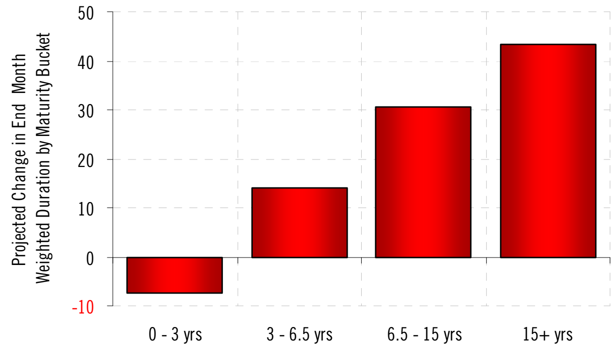
This will be the largest extension in the French index during the last three years, and by a huge margin (Figure 120). The maturity breakdown further points to flattening pressure on the French real yield curve[17] (Figure 121).

Figure 120. France: Distribution of Month-End Duration Changes Over The Last Three Years (Projected change highlighted)



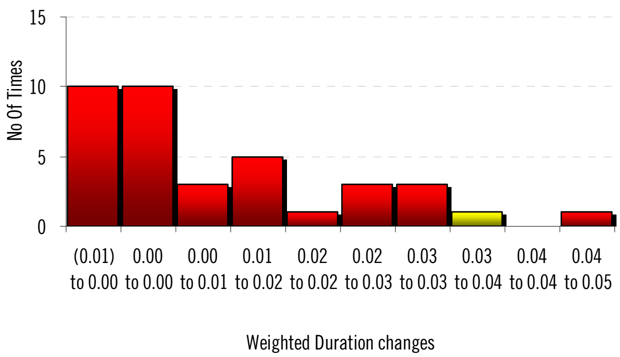
Source: Citi Investment Research and Analysis

Figure 121. France: Projected Index Change by Maturity (Weighted Duration)



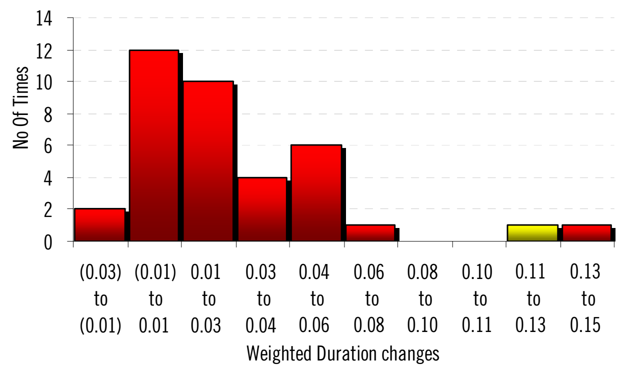
Source: Citi Investment Research and Analysis

Figure 122. Germany: Distribution of Month-End Duration Changes Over The Last Three Years (Projected change highlighted)



Source: Citi Investment Research and Analysis

Figure 123. Italy: Distribution of Month-End Duration Changes Over The Last Three Years (Projected change highlighted)



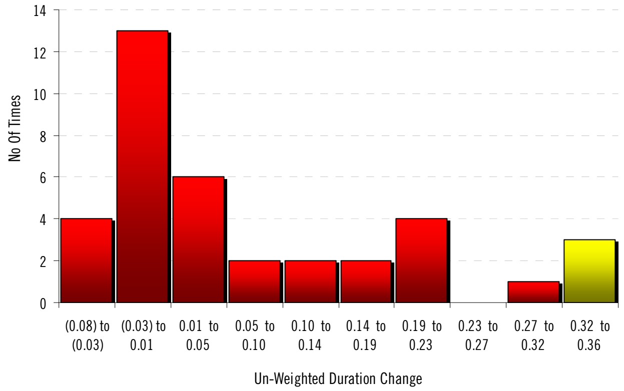
Source: Citi Investment Research and Analysis

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

End-July World IL Index projection

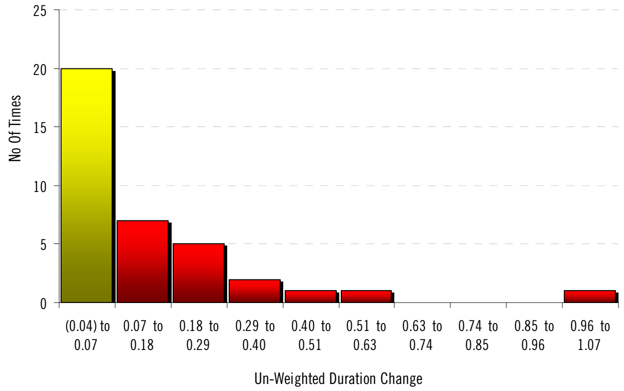
The US index is projected to extend by a significant 0.33 years (Figure 124). This will be the largest extension in the last 1 year and the third largest in 3 years. The UK index should extend by an insignificant 0.05, but this will be its sixth consecutive extension.

Figure 124. US: Distribution of Month-End Duration Changes Over The Last Three Years (Projected change highlighted)



Source: Citi Investment Research and Analysis

Figure 125. UK: Distribution of Month-End Duration Changes Over The Last Three Years (Projected change highlighted)



Source: Citi Investment Research and Analysis

Figure 126 shows the projected index changes for Europe, Japan, US and UK components of the World ILSI.

Figure 126. End-July World ILSI Projections

20-Jul-11	End of Jun - Actual		End of Jul - Projected		Projected Change			Largest absolute duration changes over last year		
	% weight in Index	Duration	% weight in Index	Duration	Weighted Dur Change X 100	Weight Change	Duration Change	Average Absolute Change	-ve	+ve
EUR ILSI	27.6	7.690	26.7	8.073	4.05	(0.81)	0.38	0.10	(0.03)	0.43
JAPAN	1.5	5.726	1.5	5.688	(0.29)	(0.04)	(0.04)	0.03	(0.08)	0.17
U.S.	41.5	8.066	41.3	8.398	11.83	(0.23)	0.33	0.09	(0.06)	0.33
U.K.	27.5	16.395	28.5	16.442	18.43	1.04	0.05	0.17	(0.02)	1.07

Source: Citi Investment Research and Analysis

Inflation Forecasts, Carry & Weekly Changes

Figure 127. CIRA Inflation Forecasts

	EUR HICPxT			France CPIxT			UK RPI			US CPURNSA		
Month	Index Forecast	MoM Change	YoY Change	Index Forecast	MoM Change	YoY Change	Index Forecast	MoM Change	YoY Change	Index Forecast	MoM Change	YoY Change
Jun 11	112.75	0.0	2.8	122.49	0.1	2.1	235.20	0.0	5.0	225.72	-0.1	3.6
Jul 11	112.07	-0.6	2.5	122.37	-0.1	2.2	234.73	-0.2	5.0	226.10	0.2	3.7
Aug 11	112.19	0.1	2.4	122.73	0.3	2.3	235.90	0.5	5.1	226.40	0.1	3.7
Sep 11	112.63	0.4	2.6	122.61	-0.1	2.3	237.08	0.5	5.2	226.60	0.1	3.7
Oct 11	112.97	0.3	2.6	122.73	0.1	2.3	237.79	0.3	5.3	226.40	-0.1	3.5
Nov 11	113.31	0.3	2.8	122.69	-0.0	2.2	239.40	0.7	5.6	226.10	-0.1	3.3

Shaded = Already released

Source: Citi Investment Research and Analysis

Figure 128. US TIPS Inflation- Linked Carry (based on forecasts above)

TIPS	RY (%)	1wk chg	Carry Adj	Carry: RY (bp) 1 Sep	1 Oct	1 Nov	Ref	BE (bp)	1wk Chg	Carry Adj	Carry: BE (bp) 1 Sep	1 Oct	1 Nov	BE Spread (bp)	1wk chg
Repo (%)				*0.11*	*0.10*	*0.11*									
TIPS 4/13	-1.30	-2	-2	-7	-4	-3	*US-3.125-04/30/13*	165	3	7	-9	-7	-8	-9	-5
TIPS 7/13	-1.41	-2	-2	-7	-5	-5	*US-4.250-08/15/13*	182	3	7	-9	-8	-10	11	-4
TIPS 1/14	-1.30	-5	-5	-5	-3	-2	*US-4.000-02/15/14*	184	4	7	-7	-6	-8	8	-6
TIPS 4/14	-1.16	-3	-3	-4	-1	0	*US-1.875-04/30/14*	175	2	5	-6	-5	-6	12	-5
TIPS 7/14	-1.19	-3	-3	-4	-1	-1	*US-2.625-07/31/14*	185	2	4	-6	-5	-6	26	-3
TIPS 1/15	-1.02	-4	-4	-2	0	1	*US-2.250-01/31/15*	188	3	6	-5	-5	-6	21	-6
TIPS 4/15	-0.90	-4	-4	-2	0	2	*US-2.500-04/30/15*	185	4	5	-5	-4	-5	21	-5
TIPS 7/15	-0.89	-3	-3	-2	1	2	*US-4.250-08/15/15*	196	3	5	-5	-5	-6	27	-4
TIPS 1/16	-0.69	-4	-4	-1	1	3	*US-2.625-02/29/16*	200	3	5	-4	-4	-5	23	-5
TIPS 4/16	-0.60	-4	-4	-1	2	3	*US-2.000-04/30/16*	200	4	5	-4	-4	-5	20	-5
TIPS 7/16	-0.59	-2	-2	-1	2	3	*US-4.875-08/15/16*	207	2	4	-4	-4	-6	27	-3
TIPS 1/17	-0.38	-4	-4	0	2	4	*US-3.125-01/31/17*	208	3	4	-4	-4	-5	26	-3
TIPS 7/17	-0.30	-5	-5	0	2	4	*US-4.750-08/15/17*	215	4	5	-4	-4	-5	29	-4
TIPS 1/18	-0.09	-5	-5	0	3	5	*US-3.500-02/15/18*	213	4	5	-3	-4	-5	32	-3
TIPS 7/18	-0.02	-5	-5	0	3	5	*US-4.000-08/15/18*	219	4	5	-3	-4	-5	36	-2
TIPS 1/19	0.14	-6	-6	1	3	5	*US-2.750-02/15/19*	223	5	6	-3	-3	-4	33	-3
TIPS 7/19	0.23	-6	-6	1	3	5	*US-3.625-08/15/19*	228	6	6	-3	-4	-5	35	-3
TIPS 1/20	0.36	-5	-5	1	3	5	*US-3.625-02/15/20*	229	5	6	-3	-4	-5	34	-2
TIPS 7/20	0.45	-5	-5	1	3	5	*US-2.625-08/15/20*	236	6	6	-3	-3	-4	33	-2
TIPS 1/21	0.57	-5	-5	1	3	5	*US-3.625-02/15/21*	233	6	6	-3	-3	-4	36	-2
TIPS 1/25	1.00	-1	-1	1	3	5	*US-7.625-02/15/25*	245	2	2	-3	-4	-5	39	1
TIPS 1/26	1.12	0	0	1	3	5	*US-6.000-02/15/26*	249	1	1	-3	-3	-5	38	1
TIPS 1/27	1.18	-1	-1	1	3	5	*US-6.625-02/15/27*	249	3	3	-3	-3	-5	40	-1
TIPS 1/28	1.25	-0	-0	1	3	5	*US-6.125-11/15/27*	250	2	2	-3	-3	-5	42	-0
TIPS 4/28	1.32	2	2	1	3	5	*US-5.500-08/15/28*	249	0	1	-2	-3	-4	41	2
TIPS 1/29	1.29	1	1	1	3	5	*US-5.250-02/15/29*	256	1	1	-2	-3	-4	37	1
TIPS 4/29	1.33	1	1	1	3	5	*US-5.250-02/15/29*	253	1	1	-2	-3	-4	39	0
TIPS 4/32	1.39	1	1	1	3	5	*US-5.375-02/15/31*	255	2	2	-2	-3	-4	41	-1
TIPS 2/40	1.61	2	2	1	2	4	*US-4.625-02/15/40*	264	2	2	-2	-3	-4	36	0
TIPS 2/41	1.62	2	2	1	2	3	*US-4.750-02/15/41*	264	2	2	-2	-3	-4	37	0

Source: Citi Investment Research and Analysis

Figure 129. Eur Inflation- Linked Carry (based on forecasts above)- One week changes

	RY	Chg	Carry	Carry: RY (bp)				BE		Carry	Carry: BE (bp)			BE Spread	Chg
IL	(%)	(bp)	Adj	1 Sep	1 Oct	1 Nov	*Ref*	(bp)	Chg	Adj	1 Sep	1 Oct	1 Nov	(bp)	(bp)
Repo (%)				*1.34*	*1.33*	*1.35*									
OATei12	-0.56	-9	-9	-20	-114	-136	*FFRG 4/12*	185	12	8	-20	-113	-133	10	-8
BTPei12	1.80	5	5	6	-54	-44	*BTP 2/12*	79	0	-3	-26	-125	-180	89	82
BOBLei13	0.21	3	3	-6	-53	-55	*BUND 1/13*	105	1	-0	-6	-52	-54	32	6
OATi13	-0.13	-5	-5	-3	-16	-6	*FFRG 4/13*	163	11	10	-4	-18	-9	25	-10
BTPei14	2.95	-9	-9	6	-11	-3	*BTP 8/14*	146	-14	-16	-6	-32	-35	48	23
OATei15	0.26	-10	-10	-3	-21	-21	*FFRG 4/15*	189	14	13	-5	-26	-28	18	-5
BUNDei16	0.21	-2	-2	-2	-18	-18	*BUND 1/16*	171	12	11	-4	-21	-23	16	-3
BTANi16	0.41	-10	-10	0	-4	1	*FFRG 4/16*	205	13	13	-3	-9	-6	28	-5
BTPei16	3.30	-17	-17	4	-5	0	*BTP 8/16*	145	-2	-3	-3	-20	-21	60	10
OATi17	0.48	-11	-11	0	-3	1	*FFRG 4/17*	221	14	13	-3	-8	-6	18	-5
BTPei17	3.35	-17	-17	4	-4	1	*BTP 8/17*	169	4	3	-4	-18	-20	42	4
BUNDei18	0.50	2	2	-1	-12	-11	*BUND 1/18*	183	8	8	-3	-15	-16	19	-1
OATi19	0.77	-9	-9	0	-2	2	*FFRG 4/19*	229	10	10	-2	-6	-5	17	-2
BTPei19	3.48	-14	-14	3	-3	1	*BTP 9/19*	174	-2	-3	-3	-14	-15	45	9
BUNDei20	0.59	-1	-1	-1	-9	-9	*BUND 1/20*	204	9	9	-3	-13	-14	8	-3
OATei20	1.01	-10	-10	0	-8	-7	*FFRG 4/20*	220	11	10	-3	-13	-14	5	-5
BTPei21	3.65	-6	-6	3	-2	1	*BTP 9/20*	165	-8	-9	-3	-12	-13	59	33
OATei22	1.19	-9	-9	0	-6	-5	*FFRG 4/21*	213	10	9	-3	-11	-12	17	-4
OATi23	1.12	-12	-12	1	0	2	*FFRG 10/23*	246	14	14	-2	-5	-4	9	-7
BTPei23	3.77	-4	-4	3	-2	1	*BTP 8/23*	177	-10	-11	-2	-10	-11	52	17
HELRei25	11.95	5	5	12	14	25	*HELR 3/24*	194	-85	-86	-6	-17	-21	42	92
BTPei26	3.86	-17	-17	2	-1	1	*BTP 3/26*	193	1	1	-2	-9	-10	43	6
OATei27	1.44	0	0	0	-4	-3	*FFRG 4/26*	233	2	2	-2	-8	-9	5	5
OATi29	1.35	-7	-7	1	0	2	*FFRG 4/29*	257	11	11	-2	-4	-4	1	-3
HELRei30	9.26	-47	-47	7	7	13	*HELR 3/26*	463	-24	-26	-10	-24	-32	-222	32
OATei32	1.47	-4	-4	0	-4	-3	*FFRG 10/32*	251	9	8	-2	-7	-8	-9	-2
BTPei35	3.57	-8	-8	1	-1	1	*BTP 8/34*	238	-4	-5	-2	-8	-9	6	10
OATei40	1.46	-0	-0	0	-3	-2	*FFRG 10/38*	257	4	4	-2	-6	-7	-6	-0
BTPei41	3.53	-15	-15	1	-1	0	*BTP 9/40*	246	-1	-2	-2	-7	-8	5	5

Source: Citi Investment Research and Analysis

Figure 130. UK Gilts Inflation- Linked Carry (based on forecasts above)- One Week Changes

	RY	Chg	Carry	Carry: RY (bp)				BE		Carry	Carry: BE (bp)			BE Spread	Chg
UKTi	(%)	(bp)	Adj	1 Sep	1 Oct	1 Nov	*Ref*	(bp)	Chg	Adj	1 Sep	1 Oct	1 Nov	(bp)	(bp)
Repo (%)				*0.53*	*0.53*	*0.53*									
UKTi'13	-2.50	5	5	-1	-1	-1	*UKT 9/13*	333	-2	-3	-2	-4	-6	32	-2
UKTi'16	-0.98	-2	-3	3	6	9	*UKT 9/16*	294	4	4	0	0	0	43	-5
UKTi'17	-0.61	-1	-2	0	-5	2	*UKT 3/18*	300	1	1	-4	-12	-8	33	0
UKTi'20	-0.06	-1	-2	3	6	9	*UKT 3/20*	302	1	1	0	-1	-1	25	-0
UKTi'22	0.28	-2	-3	1	-1	3	*UKT 3/25*	340	1	1	-3	-8	-6	5	-29
UKTi'24	0.39	-3	-3	3	5	7	*UKT 3/25*	329	2	2	-1	-1	-2	23	0
UKTi'27	0.48	-5	-5	1	-1	3	*UKT 12/27*	341	2	2	-2	-6	-5	21	0
UKTi'30	0.42	-4	-5	2	4	5	*UKT 6/32*	363	2	1	-1	-1	-2	6	0
UKTi'32	0.51	-4	-5	1	-1	2	*UKT 6/32*	355	1	1	-2	-5	-5	17	1
UKTi'34	0.56	-5	-5	1	0	2	*UKT 9/34*	355	2	2	-2	-5	-5	15	-0
UKTi'35	0.45	-2	-2	2	3	4	*UKT 3/36*	367	-0	-0	-1	-2	-2	6	2
UKTi'37	0.50	-3	-3	0	0	2	*UKT 12/38*	360	0	-0	-2	-5	-5	16	1
UKTi'40	0.50	-2	-2	0	0	2	*UKT 12/38*	360	-1	-1	-2	-5	-5	16	3
UKTi'42	0.46	-2	-2	0	0	1	*UKT 9/39*	366	-1	-1	-2	-5	-5	13	2
UKTi'47	0.43	-1	-1	0	0	1	*UKT 12/46*	367	-2	-2	-2	-4	-4	11	3
UKTi'50	0.42	-1	-1	0	0	1	*UKT 12/46*	368	-1	-2	-2	-4	-4	8	3
UKTi'55	0.40	-1	-1	0	0	1	*UKT 12/55*	370	-1	-1	-2	-4	-4	8	3

Source: Citi Investment Research and Analysis

Global Supply Monitor

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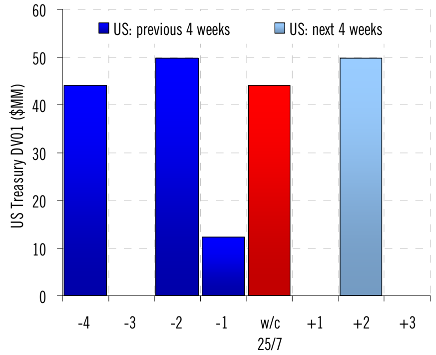
Historical and projected DV01 of USD and EUR issuance (weekly)

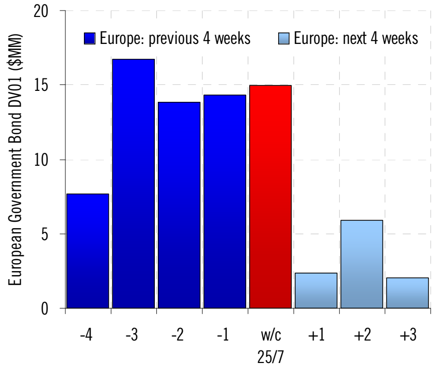
Figure 131 and Figure 132 show the $DV01 of projected issuance over the next four weeks and the previous four weeks. The DV01 of issuance in the week commencing 25 July is shown in red.

Figure 131. Estimated $DV01 of US Treasury Issuance (Previous 4 and Next 4 Weeks)



Source: US Treasury, CIRA estimates

Figure 132. Estimated $DV01 of Euro Bond Issuance (Previous 4 and Next 4 Weeks)



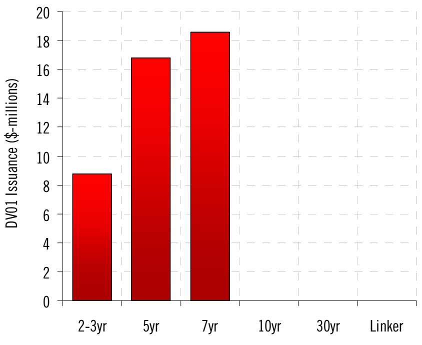
Source: DMOs, CIRA estimates

DV01 of expected USD and EUR issuance split by maturity (week beginning 25 July)

The US will issue in 2-, 5- and 7yr maturity sectors next week at $44million/bp. 42% of this falls in the 7yr sector (Figure 133).

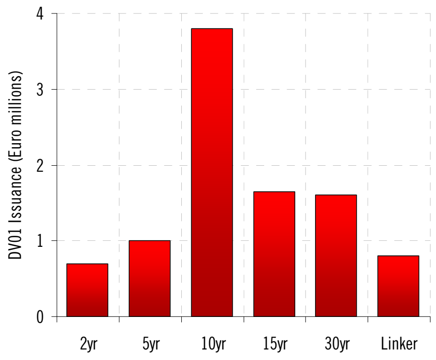
36% of euro issuance falls in the 10yr sector at €3.8million/bp (Figure 134)

Figure 133. USD DV01 Split by Maturity (25 July – 1 Aug)



Source: US Treasury, CIRA estimates

Figure 134. EUR DV01 Split by Maturity (25 July – 1 Aug)



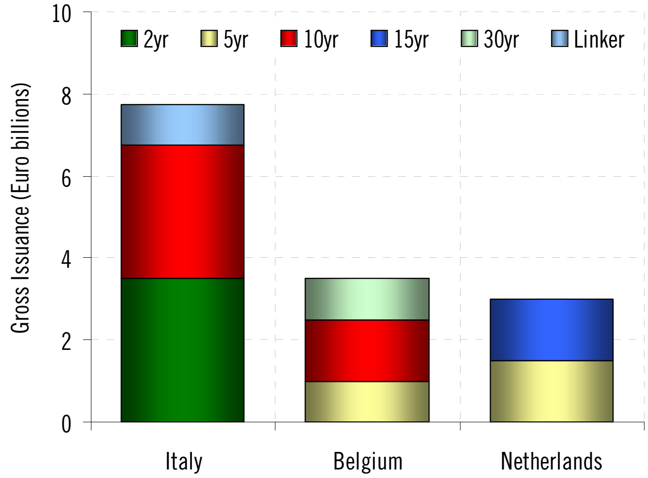
Source: DMOs, CIRA estimates

Expected euro gross and DV01 split by country and maturity (week beginning 25 July)

All euro issuance in the week beginning 25 July is split between Italy (€7.75bn), Belgium (€3.5bn) and the Netherlands (€3bn) - Figure 135.

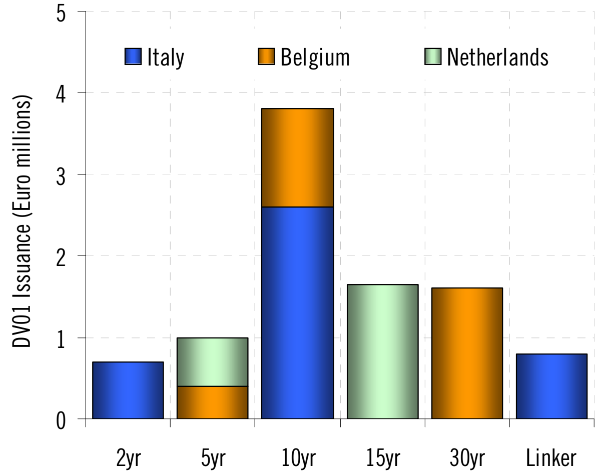
In DV01 terms, Italy accounts for approximately 43% of total issuance at €4.1milliion/bp (Figure 136).

Figure 135. Euro Gross Issuance for Next Week from 25 July



Source: DMOs, CIRA estimates, Bloomberg

Figure 136. Euro DV01 Issuance for Next Week from 25 July



Source: DMOs, CIRA estimates, Bloomberg

Expected euro issuance (gross and DV01) by maturity for the next four-weeks (25 July – 21 August)

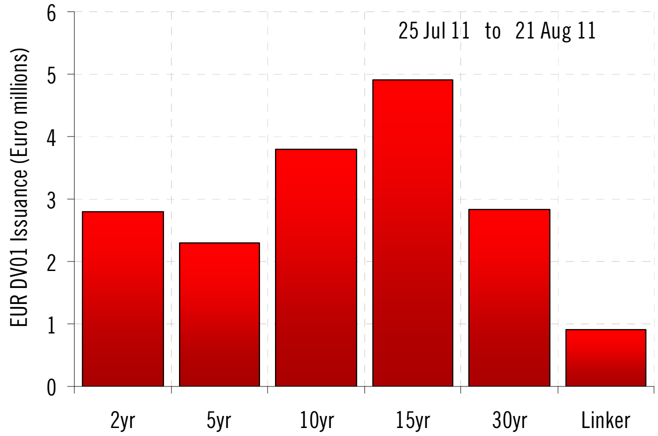
Over the next four weeks, the 2-year sector accounts for 45% of total euro issuance (€14bn) - Figure 137.

In DV01 terms, the 15-year sector accounts for 27% of total euro issuance (€18million/bp) - Figure 138.

Figure 137. Euro Gross Issuance Four Weeks from 25 July

Source: DMOs, CIRA estimates, Bloomberg

Figure 138. Euro DV01 Issuance Four Weeks from 25 July



Source: DMOs, CIRA estimates, Bloomberg

US coupons for the next four weeks – maturity split

There will be sizeable UST coupon payments during the w/c 8 Aug. In this week, 60% of total coupon payments fall in the 10-30yr sector (Figure 139).

Figure 139. Maturity Split of UST Coupon Payments over the Next Four Weeks (USD-Billions)*

Week Commencing	2-3yr	5yr	7yr	10yr	30yr	Linker	Total
25 Jul	2.7	1.7	0.5				**4.9**
01 Aug							
08 Aug	4.3	2.8	2.2	6.8	7.3		**23.5**
15 Aug							
Total	**7.0**	**4.6**	**2.7**	**6.8**	**7.3**		**28.4**

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

Euro coupons for the next four weeks – maturity split

There are sizeable euro coupon payments and redemptions from Italy and Spain during the week beginning 25 July (€18bn of coupon payments and €36bn of redemptions) - Figure 140 and Figure 141.

Figure 140. Maturity Split of Euro Coupon Payments over the Next Four Weeks (EUR-Billions)*

Week Commencing	2yr	5yr	10yr	15yr	30yr	Linker	Total
25 Jul	4.3	5.2	3.2	1.5	3.9		**18.1**
01 Aug							
08 Aug							
15 Aug	0.8	1.2					**2.0**
Total	**5.1**	**6.4**	**3.2**	**1.5**	**3.9**		**20.1**

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

Euro coupons and redemptions split by maturity and country

Figure 141 below shows a weekly breakdown of euro coupons and redemptions, split by sector and country for the next four weeks.

Figure 141. Euro Coupons and Redemptions by Maturity and Country for the Next 4 Weeks (EUR Billions)

	Week Beginning		Coupons	Redemptions
	25 Jul (Mon)	Austria		
		Belgium		
		Germany		
		Finland		
	Coupons	France		
2yr	**4.3**	Greece		
5yr	**5.2**	Ireland		
10yr	**3.2**	Italy	**10.3**	**20.2**
15yr	**1.5**	Netherlands		
30yr	**3.9**	Portugal		
Linker		Spain	**7.8**	**15.5**
	18.1		18.1	35.7

	Week Beginning		Coupons	Redemptions
	01 Aug (Mon)	Austria		
		Belgium		
		Germany		
		Finland		
	Coupons	France		
2yr		Greece		
5yr		Ireland		
10yr		Italy		
15yr		Netherlands		
30yr		Portugal		
Linker		Spain		
	0.0		0.0	0.0

	Week Beginning		Coupons	Redemptions
	08 Aug (Mon)	Austria		
		Belgium		
		Germany		
		Finland		
	Coupons	France		
2yr		Greece		
5yr		Ireland		
10yr		Italy		
15yr		Netherlands		
30yr		Portugal		
Linker		Spain		
	0.0		0.0	0.0

	Week Beginning		Coupons	Redemptions
	15 Aug (Mon)	Austria		
		Belgium		
		Germany		
		Finland		
	Coupons	France		
2yr	**0.8**	Greece	**2.0**	**6.6**
5yr	**1.2**	Ireland		
10yr		Italy		
15yr		Netherlands		
30yr		Portugal		
Linker		Spain		
	2.0		2.0	6.6

Source: CIRA, Bloomberg

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

Provisional auction calendar for the next four weeks

Figure 142. 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 TYU1 (UST)	RXU1 (Bund)
25 Jul (Mon)	Belgium	3.5	OLO 3.5% Jun17, 4.25% Sep21 and 4.25% Mar41 (issue confirmed, size will be announced on 22 July)			35k
26 Jul (Tue)	Netherlands	3	DSL 2.75% Jan15 and 5.5% Jan28 reopening (issue and max size of €3bn confirmed)			27k
26 Jul (Tue)	US	35	2-Year		116k	
26 Jul (Tue)	US	2.75 - 3.5	Outright Treasury Coupon Purchase: 15/8/2018 - 15/5/2021		-32k	
27 Jul (Wed)	Italy	1	BTPei '21 (issue confirmed, max size €1bn)			9k
27 Jul (Wed)	US	35	5-Year		223k	
28 Jul (Thu)	Italy	6.75	BTP 4.25% 2014 and 4.75% 2021 (issue confirmed)			33k
28 Jul (Thu)	US	29	7-Year		246k	
29 Jul (Fri)	US	2.5 - 3	Outright Treasury Coupon Purchase: 31/1/2014 - 30/6/2015		-11k	
			Weekly $DV01 of Issuance	**68.2**		
			Total Number of Futures Contracts		**543k**	**105k**

Auction Date	Country Issuing	Estimated Size (Local Ccy)	Issue Details (Estimated)	DV01 $million/bp	Approx. Number 10yr Futures TYU1 (UST)	RXU1 (Bund)
02 Aug (Tue)	Austria	0.49	RAGB 30yr (estimated tenor and size)			9k
04 Aug (Thu)	Spain	3.5	Bono 3.4% 2014 (issue confirmed, estimated size)			7k
04 Aug (Thu)	US	2.75 - 3.5	Outright Treasury Coupon Purchase: 15/2/2017 - 31/7/2018		-24k	
			Weekly $DV01 of Issuance	**6.0**		
			Total Number of Futures Contracts		**-24k**	**16k**

Auction Date	Country Issuing	Estimated Size (Local Ccy)	Issue Details (Estimated)	DV01 $million/bp	Approx. Number 10yr Futures TYU1 (UST)	RXU1 (Bund)
08 Aug (Mon)	US	0.25 - 0.5	Outright TIPS Purchase: 15/4/2013 - 15/2/2041		-7k	
09 Aug (Tue)	US	32	3-Year		106k	
10 Aug (Wed)	US	21	10-Year		242k	
11 Aug (Thu)	US	13	30-Year		311k	
12 Aug (Fri)	Italy	5.25	BTP			41k
			Weekly $DV01 of Issuance	**56.6**		
			Total Number of Futures Contracts		**652k**	**41k**

Auction Date	Country Issuing	Estimated Size (Local Ccy)	Issue Details (Estimated)	DV01 $million/bp	Approx. Number 10yr Futures TYU1 (UST)	RXU1 (Bund)
17 Aug (Wed)	Germany	7	New Schatz 9/2013 (issue and size confirmed)			14k
			Weekly $DV01 of Issuance	**5.1**		
			Total Number of Futures Contracts		**0k**	**14k**

[1] The next release of the approximate purchase amount and tentative outright Treasury operation schedule will be at 14:00 (ET) on 10 August 2011.

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 strongly positive over the next four weeks as $178bn of gross supply easily offsets $28.4bn of coupon payments, $81bn of redemptions and an estimated $16bn of buybacks.

Figure 143. 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
25 Jul	13		13		4	9
01 Aug	99	4.9	94	57	6	31
08 Aug					3	-3
15 Aug	66	23.5	43	24	3	15
Total	**178**	**28.4**	**150**	**81**	**16**	**52**
Average	45	7.1	37	20	4	13

Source: US Treasury, Citi estimates *This table is on a settlement-date basis

Euro cash-flow profile over the next four weeks

The euro NCR is negative until the week beginning 8 August. During the weeks beginning 25 July and 1 August there will be €71bn of coupon payments and redemptions. This easily offsets €28bn of gross supply (Figure 144). As a result, the euro NCR is strongly negative (-€42bn) during this period.

Figure 144. 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
25 Jul	19.9	4.1	15.8	28.5	-12.6
01 Aug	8.2	18.1	-9.8	20.2	-30.0
08 Aug	3.5		3.5		3.5
15 Aug	5.3	0.0	5.2	6.6	-1.4
Total	**36.9**	**22.1**	**14.7**	**55.3**	**-40.5**
Average	9.2	5.5	3.7	13.8	-10.1

Source: DMOs, CIRA estimates *This table is on a settlement-date basis

JGB settlement cash-flow profile over the next four weeks

Figure 145 shows the profile of JGB gross and net supply, coupons and redemptions, and the resultant NCR, for each of the next four weeks. The NCR is positive over the next 4 weeks due to minimal coupon payments and redemptions (Figure 145).

Figure 145. 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
25 Jul	1.1		1.1		1.1
01 Aug	2.9		2.9		2.9
08 Aug	2.5		2.5		2.5
15 Aug	2.8	0.01	2.8	2.5	0.3
Total	**9.3**	**0.01**	**9.3**	**2.5**	**6.8**

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.

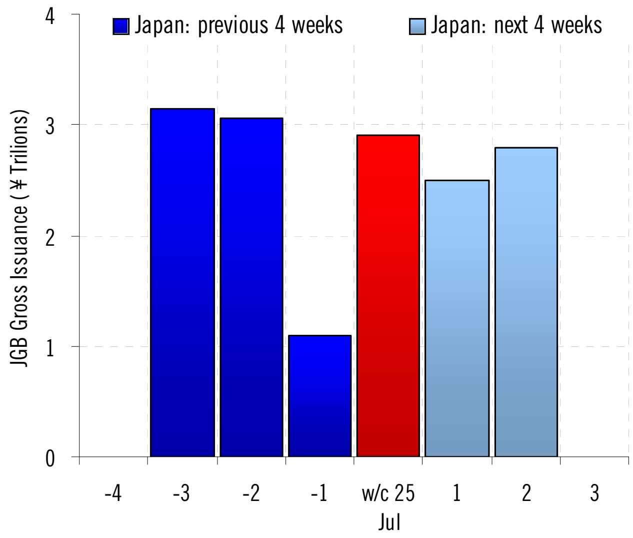
Trade date basis: In Europe if the coupon payment falls on Monday 7th March, for example, it would be allocated to the previous week (the week commencing 28 February) as that would be when you would trade to use the money you know is coming in on Monday 1st March. In other words, you don't wait for the 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 143, Figure 144 and Figure 145) 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 8 March the money would leave your account during the w/c 14 March. In addition, TIPS often settle during a different week from conventional supply.

Historical and projected DV01 of JGB issuance (weekly)

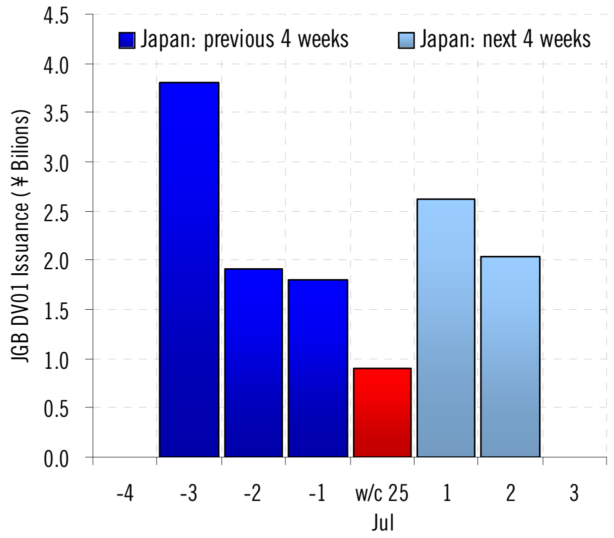
Figure 146 and Figure 147 show the projected JGB gross and ¥DV01 of issuance over the next four weeks and the previous four weeks. Next week sees ¥2600bn of JGB issuance in the 2year sector (Figure 146). In DV01 terms, this is approximately ¥0.52billion/bp (Figure 147).

Figure 146. Estimated Gross JGB Issuance (Previous 4 and Next 4 Weeks)



Source: CIRA estimates, BoJ, MoF

Figure 147. 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 only ¥20bn of JGB coupon payments during the next 4 weeks. 45% of this comes from the 2yr sector (Figure 148).

Figure 148. Maturity Split of JGB Coupon Payments over the Next Four Weeks (JPY-Billions)*

Week commencing	2yr	5yr	10yr	20yr	30yr	TOTAL
25 Jul						
01 Aug						
08 Aug	9					**9**
15 Aug			7	4		**11**
Total	**9**		**7**	**4**		**20**

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

JGB auction calendar for the next four weeks

Figure 149 shows our JGB issuance expectations for the next four weeks and weekly $DV01.

Figure 149. Provisional Auction Calendar for the Next Four Weeks, Gross Issuance (Billions), DV01 (JPY Millions).

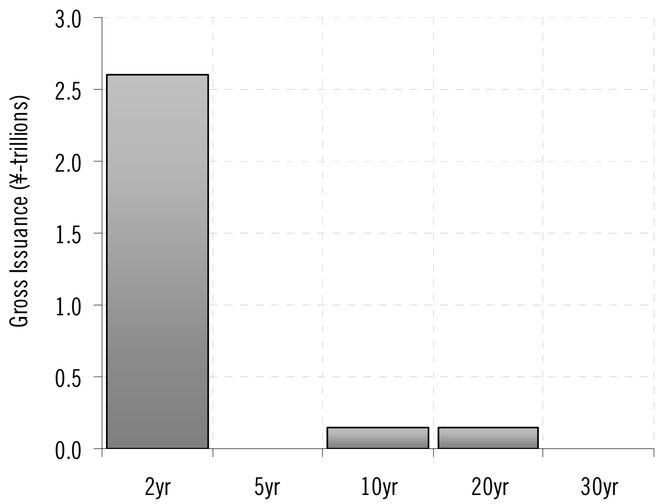
Auction Date	Country Issuing	Estimated Size (Local Ccy)	Issue Details (Estimated)	Weekly DV01 ¥ millions	Weekly DV01 $ millions
26 Jul (Tue)	JPY	300	AEL (10-20year)	386	5
28 Jul (Thu)	JPY	2600	2year	515	7
			Weekly DV01 of Issuance	¥900	$11
02 Aug (Tue)	JPY	2200	10year	2046	26
04 Aug (Thu)	JPY	300	AEL (20-30year)	576	7
			Weekly DV01 of Issuance	¥2622	$33
09 Aug (Tue)	JPY	400	40year	880	11
11 Aug (Thu)	JPY	2400	5year	1164	15
			Weekly DV01 of Issuance	¥2044	$26

Source: CIRA estimates, BoJ, MoF

Expected JGB gross and DV01 issuance by maturity (week beginning 25 July)

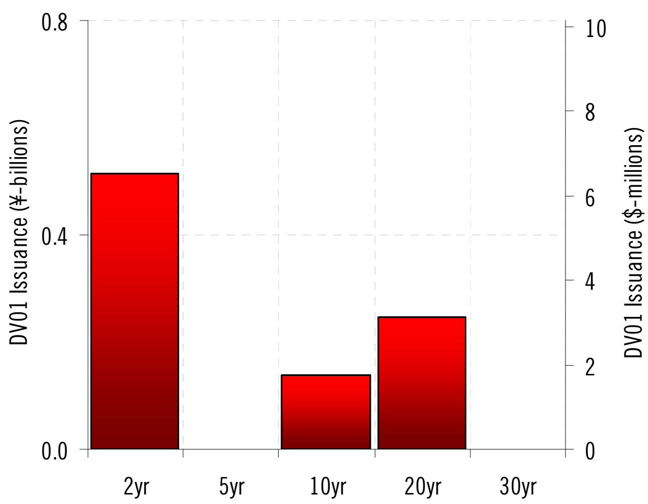
90% of JGB issuance this week falls in the 2yr sector (€2600bn). In DV01 terms, this is approximately ¥0.9billion/bp (Figure 150 and Figure 151).

Figure 150. JGB Gross Split by Maturity (Week Beginning 25 July)



Source: CIRA , Bloomberg

Figure 151. JGB DV01 Split by Maturity (Week Beginning 25 July)



Source: CIRA, Bloomberg

Appendix – EMU supply forecasts

Figure 152. 2011 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			4.0				4	1	3	8	-5
Feb		0.9			0.7		2		1		1
Mar		0.7	0.7				1	1			
Apr		0.9	0.8				2		1		1
May		0.7		0.7			1		1		1
Jun			0.9		0.9		2		2		2
Jul	0.9		0.8				2	2	-1		-1
Aug											
Sep			1.0	0.5			2	1			
Oct			0.7		0.5		1	1			
Nov		0.7	0.7				1		1		1
Dec		0.7					1		1		1
Total	0.9	4.5	9.5	1.2	2.6		19	7	12	8	3

FINLAND	2yr/3yr	5yr	10yr	15yr	30yr	Linkers	Gross Supply	Coupons	Net Supply	Redemptions	NCR
Jan		1.5					2		2		2
Feb			4.0				4		4	6	-2
Mar											
Apr		1.0		0.5			2	1	1		1
May											
Jun			1.5				2		2		2
Jul								1	-1		-1
Aug											
Sep		4.0					4	1	3		3
Oct											
Nov											
Dec											
Total		6.5	5.5	0.5			13	3	10	6	4

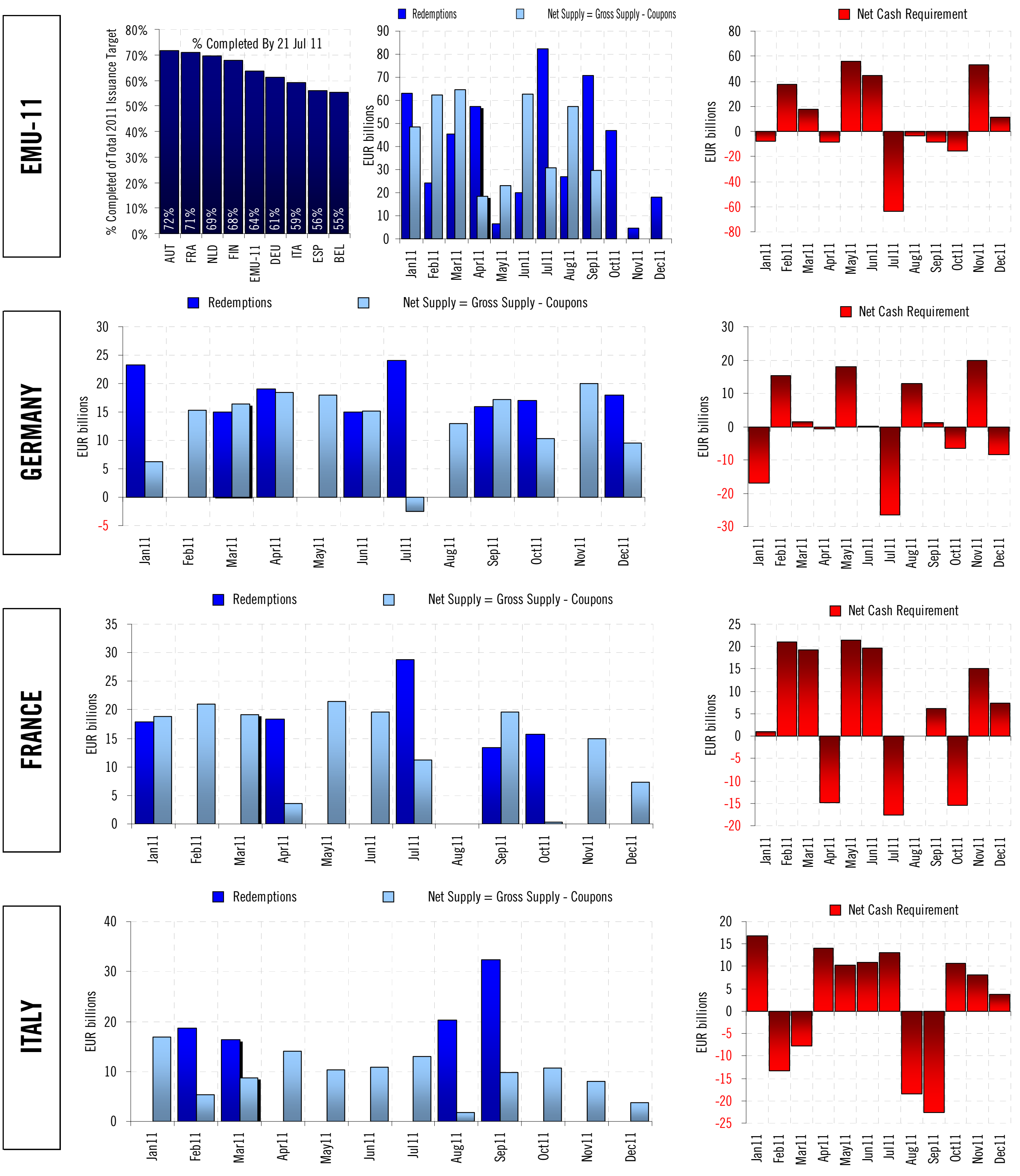
PORTUGAL*	2yr/3yr	5yr	10yr	15yr	30yr	Linkers	Gross Supply	Coupons	Net Supply	Redemptions	NCR
Jan		0.7	0.6				1		1		1
Feb		3.5					4		4		4
Mar	1.0						1		1		1
Apr	1.7						2	1	1	4	-3
May											
Jun								2	-2	5	-7
Jul											
Aug											
Sep								1	-1		-1
Oct								1	-1		-1
Nov											
Dec											
Total	2.7	4.2	0.6				7	5	3	9	-7

*Pre-bailout supply forecasts

IRELAND	2yr/3yr	5yr	10yr	15yr	30yr	Linkers	Gross Supply	Coupons	Net Supply	Redemptions	NCR
Jan											
Feb											
Mar								1	-1		-1
Apr								1	-1		-1
May											
Jun											
Jul											
Aug											
Sep											
Oct								1	-1		-1
Nov										4	-5
Dec											
Total								4	-4	4	-9

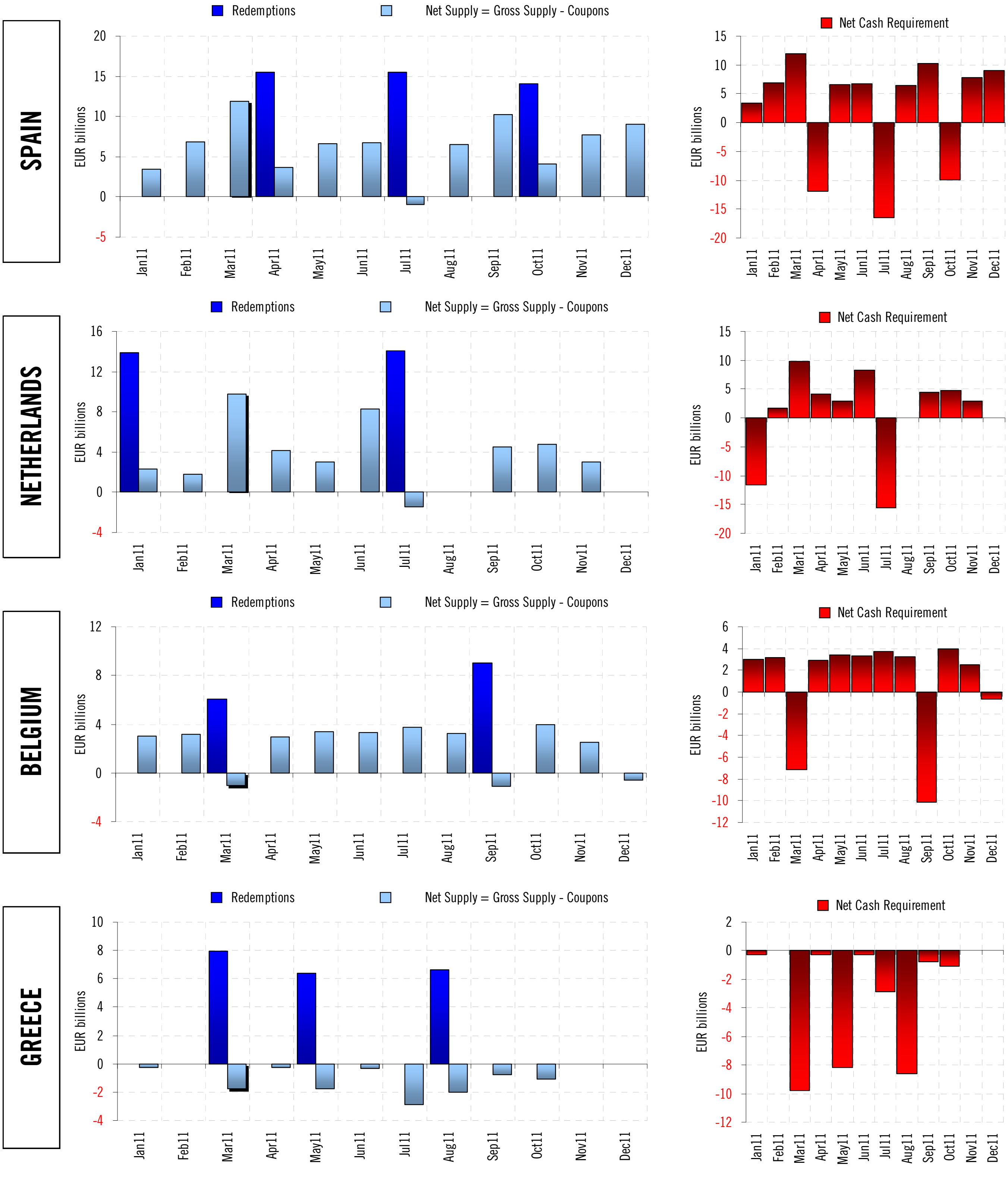
Source: DMOs, Citi estimates

Figure 153. 2011 Euro Government Net Cash Requirements – Citi Forecasts (Euro in Billions)



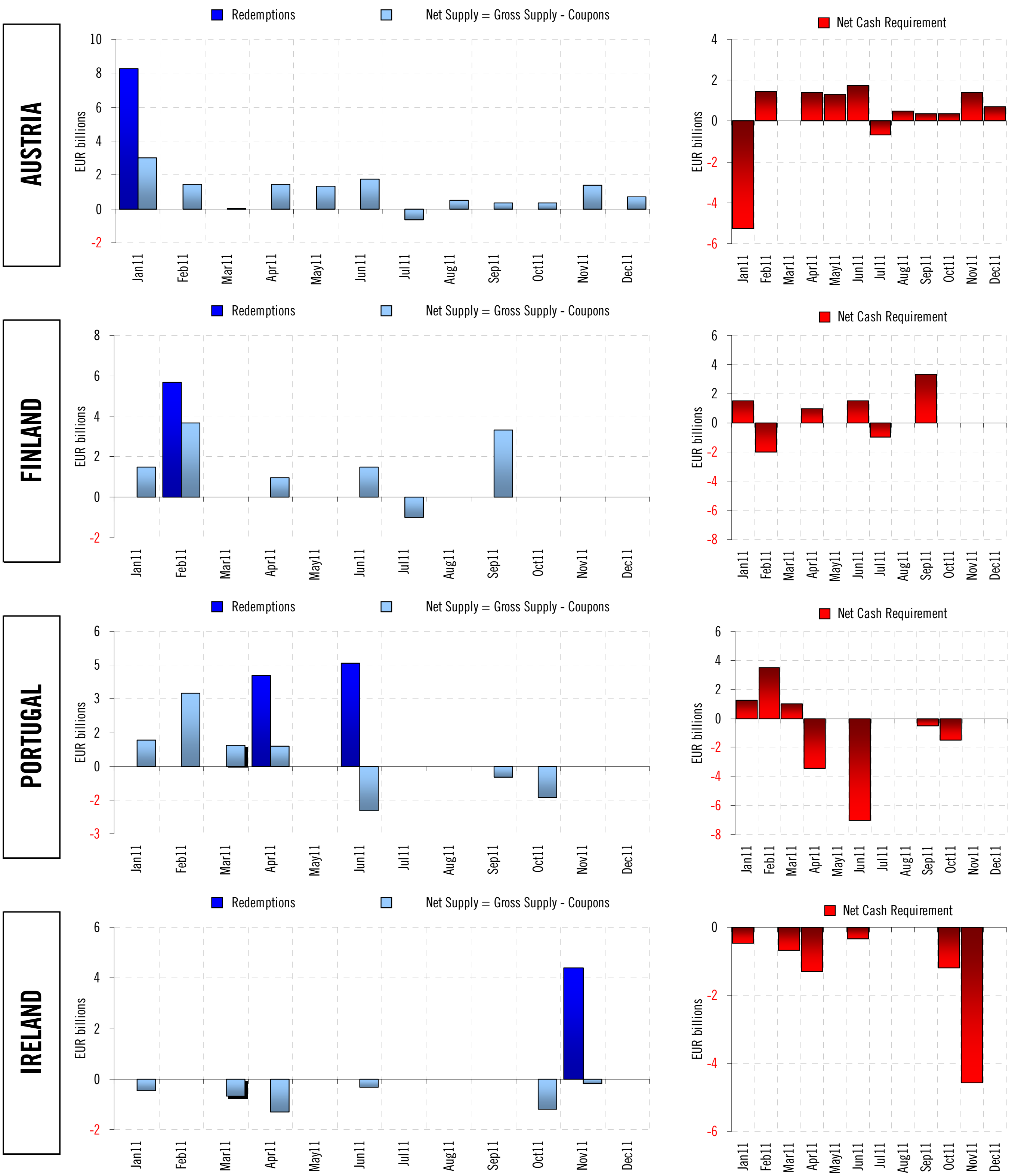
Source: Citi Investment Research and Analysis

Figure 154. 2011 Euro Government Net Cash Requirements – Citi Forecasts (Euro in Billions)



Source: DMOs, CIRA estimates

Figure 155. 2011 Euro Government Net Cash Requirements – Citi Forecasts (Euro in Billions)



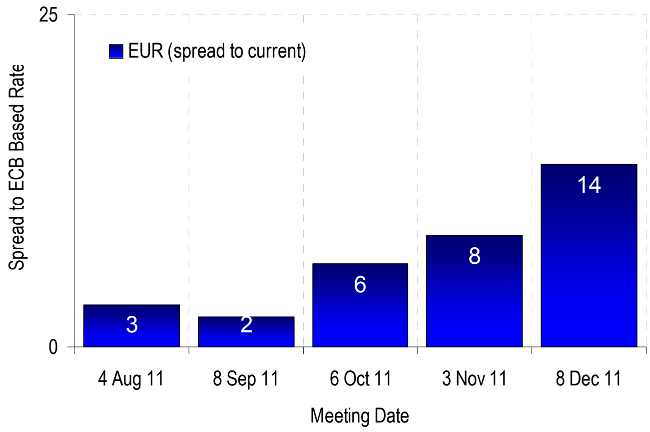
Source: DMOs, CIRA estimates

Policy Rate Expectations using Market Rates

Below we present the latest market expectations for policy rate changes in Europe (ECB), UK (BoE) and the US (Fed).

Figure 156. ECB

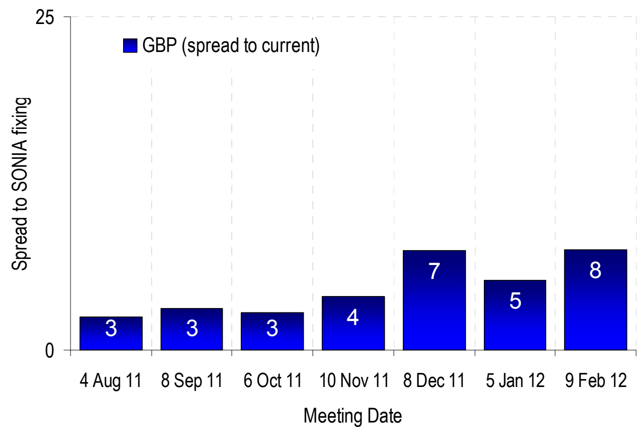
Current (O/N Rate)	**1.30**
Meeting Date	Spread (bp)
4 Aug 11	3
8 Sep 11	2
6 Oct 11	6
3 Nov 11	8
8 Dec 11	14



Source: Citi Investment Research and Analysis

Figure 157. BOE

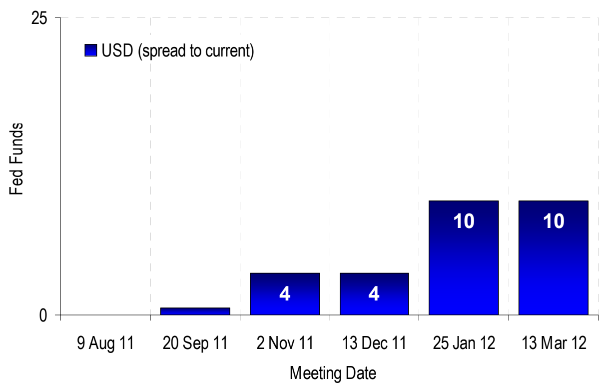
Current (SONIA)	**0.5**
Meeting Date	Spread (bp)
4 Aug 11	3
8 Sep 11	3
6 Oct 11	3
10 Nov 11	4
8 Dec 11	7
5 Jan 12	5
9 Feb 12	8



Source: Citi Investment Research and Analysis

Figure 158. FED

Current (Fed Funds)	**0.1**
Meeting Date	Spread (bp)
9 Aug 11	0
20 Sep 11	1
2 Nov 11	4
13 Dec 11	4
25 Jan 12	10
13 Mar 12	10



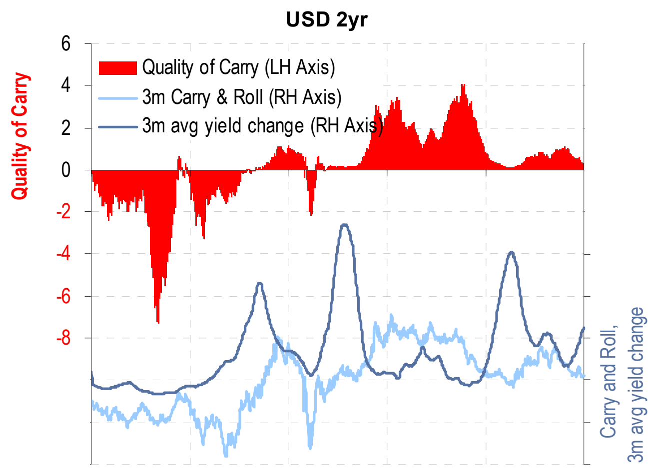
Source: Citi Investment Research and Analysis

Quality of 3m Carry for 2yr swap rates

The following charts present the *Quality of Carry*[18] on 2yr swap rates in USD, EUR, GBP and JPY over a 3month horizon.

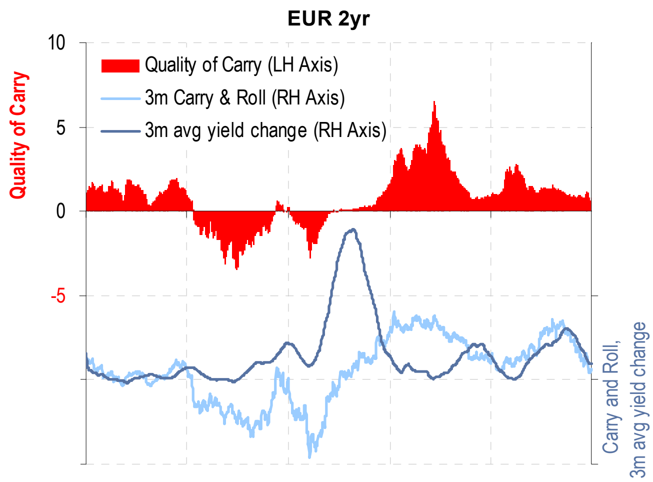
The charts on the next page use the same metric but for 5yr swap rates over a 12month horizon.

Figure 159. USD 2yr



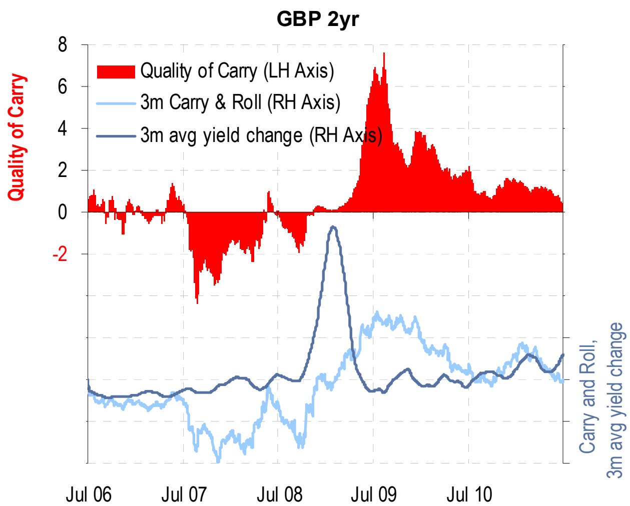
Source: CIRA

Figure 160. EUR 2yr



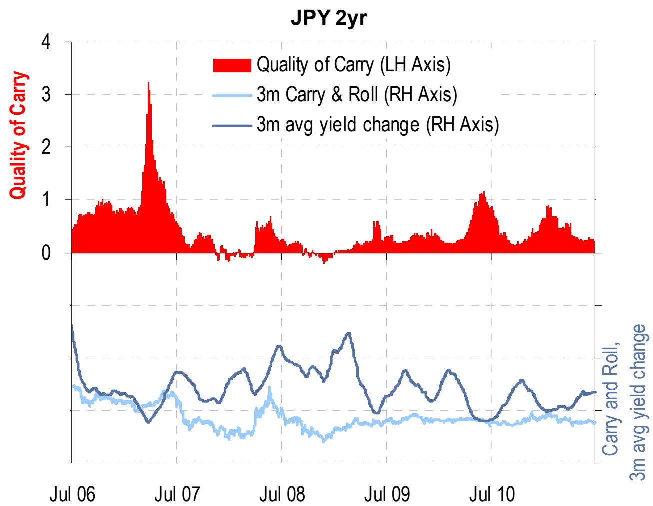
Source: CIRA

Figure 161. GBP 2yr



Source: CIRA

Figure 162. JPY 2yr

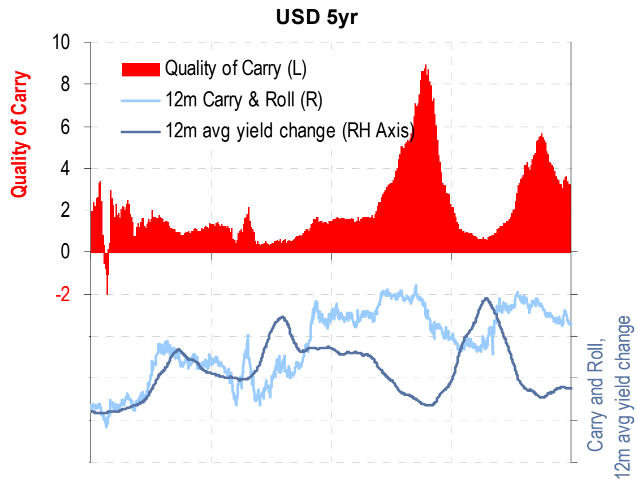


Source: CIRA

[18] Quality of Carry = (Carry + Roll)/ Average yield change

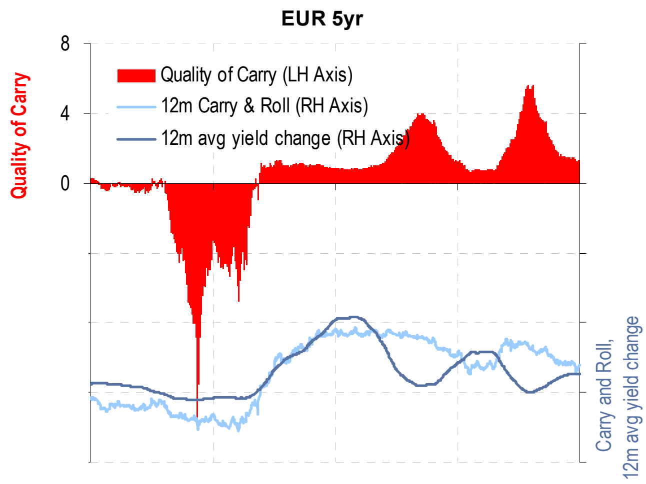
Quality of 12m Carry for 5yr swap rates

Figure 163. USD 5yr



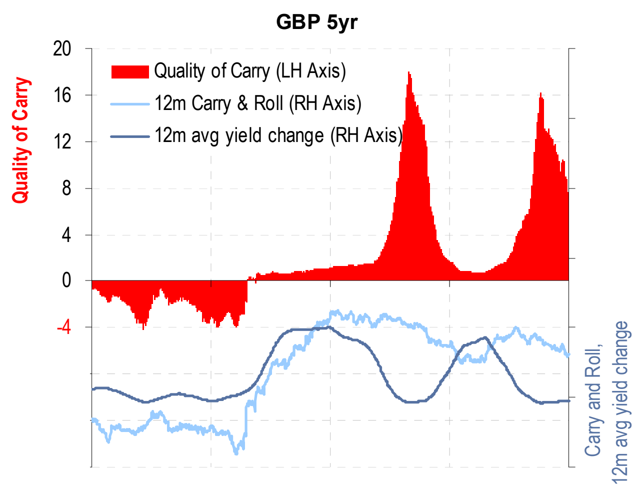
Source: CIRA

Figure 164. EUR 5yr



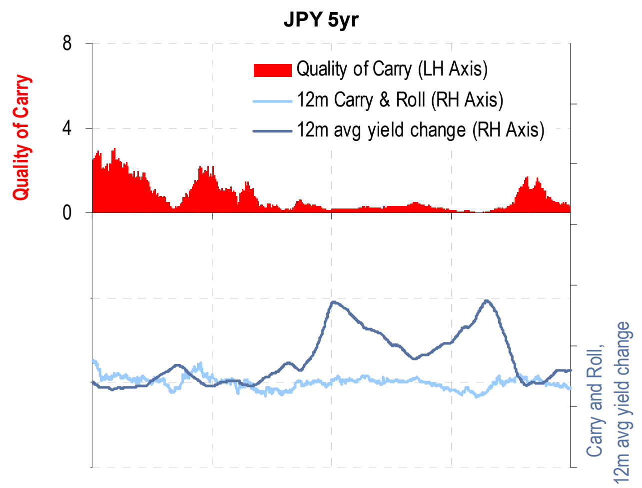
Source: CIRA

Figure 165. GBP 5yr



Source: CIRA

Figure 166. JPY 5yr



Source: CIRA

Summary of Recent Publications

Date	Publication	Topic	Page	Region
20-Jul-11	NOTE	Global Month-End Index Projections: EGBI and WGBI	-	Global
18-Jul-11	NOTE	Global Flow Monitor: US and European Flow Analysis	-	Global
14-Jul-11	IIRS	Overview: Crossing the Rubicon	8	EUR
		US Rates Strategy: Following Europe, For Now	12	US
		Euro Rates Strategy: What to buy in this turmoil?	14	EUR
		UK Rates Strategy: Curvature approaching attractive levels to buy?	17	UK
		Global Inflation Strategy: Huge volatility hits BTPei / 10y TIPS Appear Rich	20	Global
		JGB Strategy: Assessment of new yield depressants	26	Japan
		AUD NZD: improved prospects for a flatter AUD curve / NZD front-end	29	APAC
		Scandinavia Rates Strategy: Sweden – Opportunities in break-evens	31	Scandinavia
13-Jul-11	NOTE	EMU Crisis Update: Crossing the Rubicon	-	EUR
11-Jul-11	NOTE	Global Flow Monitor: US and European Flow Analysis	-	Global
07-Jul-11	IIRS	Euro Rates Strategy: A significant change in the BTP/Bono dynamic	8	EUR
		US Rates Strategy: Treasury Yields' Reaction to NFP	16	US
		UK Rates Strategy: Summer seasonality in the UK in bonds and swaps	18	UK
		Global Inflation Strategy: Boblei/Bundei offer value/ UK index event dominating	21	Global
		Japan Rates Strategy: Projected JGB issuance for 3rd supplementary budget	27	Japan
		Australia Rates Strategy: The directional curve bias remains intact	30	Australia
		SAS Strategy: 1H 2011 Supply	32	Global
04-Jul-11	NOTE	Global Flow Monitor: Focus on EMU Bond Flows	-	EUR
30-Jun-11	IIRS	Overview: The French proposal for rolling Greek debt	8	EUR
		US Rates Strategy: Still neutral on duration	10	US
		Euro Rates Strategy: The EMU crisis in context	13	EUR
		UK Rates Strategy: Gilt 10s30s likely to flatten further	19	UK
		Scandinavia Rates Strategy: Sweden – beware the front end	23	Scandinavia
		Global Inflation Strategy: Global break-even inflation curve moves and outlook	25	Global
		Japan Rates Strategy: July–September interest rate outlook revisited	30	Japan
		Australia & NZ Rates Strategy: Australia Policy Rate Outlook	33	Australia/ NZ
		Covered Bond Strategy: Rating Agency Fallout	36	EUR
		Cross Asset Return Analysis	40	Global
30-Jun-11	NOTE	Examining the French Proposal for Rolling Over Greek Debt	-	EUR
27-Jun-11	NOTE	Global Flow Monitor: US and European Flow Analysis	-	Global

Global Rates Strategy Team

Figure 167. Citi Global Interest Rate Strategy Team, *For informational purposes only*

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Notes

Appendix A-1

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