15 November 2012 | 32 pages

Europe

European Rates Weekly

France: changing dynamics in the government bond market

- **French Government Bonds:** We expect less support for French government bonds next year vs this year. A worsening supply/demand balance is likely to pressure a wider OAT/Bund equilibrium level materializing in 2H13.
- On the positive side, we need to consider the (still) attractive, above benchmark risk adjusted yield as well as potential support for the front-end of the OAT curve coming from the ESM investing its paid-in capital. Overall, we recommend less aggressive allocations of risk towards France with a bias towards a steeper yield curve.
- **Euro Money Markets:** The Eonia curve does not price in any rate hike for 2013. However, long-term expectations seem to favour a return to normality, rather than a very long period of interest rates close to the zero nominal bound. Against this background, we continue to favour yield rich carry & roll-down trades at the front-end of the swap & periphery curves.
- **SSA Strategy:** European SSA spreads remain in tightening mode and yields continue to compress among core issuers. We continue to hunt for relative value, particularly focusing on laggards in the general march lower in yields.
- **Gilt futures roll (Z2-H3):** The roll is currently trading just below our fair value estimate at time of writing. As the repo rate for gilt deliverables into both contracts is trading close to GC the risk-reward favours rolling longs late and shorts early. We do not expect a CTD switch in either contract at this stage.
- **EMU RV Trades:** The cheapness of Bund Jan16s and BTAN Jul15s offers several attractive opportunities on their domestic curves.
- **Algorithmic Trading Signals:** Maintain long duration position but with tight stops given poor risk / reward in the short term.
- **Upcoming Supply:** Within Europe, around €7.5bn of issuance comes from Germany and Spain next week. The US Treasury will re-open $13bn of 10-year TIPS. The only gilt supply will be a £4.5bn reopening of gilt 1% 2017.

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Figure 1. Strategy Summary Table

Europe	View	Strategies
Direction	We are mildly bearish on core duration in the very near-term based on our duration scorecard.	Mildly bearish in the very near term
Money Market	The market is pricing out the probability of ECB rate cuts. While excess liquidity conditions bias our perception of the probability of changes in the refinancing rate, a negative discount rate seem highly unlikely until next year. Positioning and anticipation of a potential large exercise of the January 2013 early repayment option are currently driving Euribor.	Receive EUR 1y3yF
Yield Curve	With the front-end well anchored, the Bund curve is likely to continue to bear steepen / bull flatten into year end. In the UK, tactical 10s30s flatteners have worked well, but the curve is likely to become more directional from here (bear flatten/bull steepen).	10s30s steepeners in Germany as a long-term trade (or boxed with Gilts).
Cross-market	The 10yr Bund-Treasuries spread is approaching 6mth highs, but we see scope for further Bund outperformance over the longer-term. Seasonals support gilts over Bunds in November, but the end of QE continues to weigh on the former for now. November seasonals also point to Bunds underperforming Treasuries.	Buy 10yr gilts vs Bunds to capture November seasonals. Long 2x5 ATMF/+100 payer spread in USD versus EUR Long 30yr gilts vs USTs Receive EUR 2y2y vs USD 2y2y
EMU Spreads	Peripheral yields have come under pressure recently as the market awaits a Spanish request for aid and auction results have been more mixed. We expect the market to lose patience in the coming months and force Spain into a bailout via higher yields.	Sell 5yr Austria vs Germany. Long CTZ Jan14 at 1.90% Retain flatteners in BTPs Bono 2/10s curve to outperform the BTP 2/10s given likley OMT for Spain
Swap Spreads	Bund spreads have tightened significantly in the last two months. We suggest selling Schatz vs EONIA as a way to express a deposit rate cut into negative territory.	Sell Schatz vs EONIA Long 30yr Bund swap spreads
Inflation	In euro inflation markets, French inflation is looking historically rich vs euro. In the UK, we like 10s30s real yield flatteners ahead of the November index changes.	Sell 10yr CPI ZC swaps vs 10yr HICPxT ZC swaps Buy UKTI 2022 vs OATei22 break-even Sell OATei22 vs Bundei23 real yield spread
Volatility	EUR calendar spreads are too high. We suggest selling vega vs gamma. EUR front-end fwds are considerably elevated vs spot and do not reflect further ECB action. GBP 2y2y vol is too rich vs fundamentals, we continue to suggest selling straddles on a rolling basis.	Buy EUR Gamma vs Vega (EUR 1y5y vs 5y5y bpv) Sell EUR 3y1y ATMF straddles and buy EUR 3y1y ATMF-25 receivers. Sell GBP 2y2y ATMF straddles
SSA	We continue to expect yields to remain low in Q4. Waning supply pressure going into year-end is also broadly supportive. However on some relative value metrics, core supra yields now appear rich to core EMU sovereigns such as France.	Long 4yr KfW vs France (medium term, strategic spread widener) Long NEDWBK vs BNG in 9yr sector

Source: Citi Research

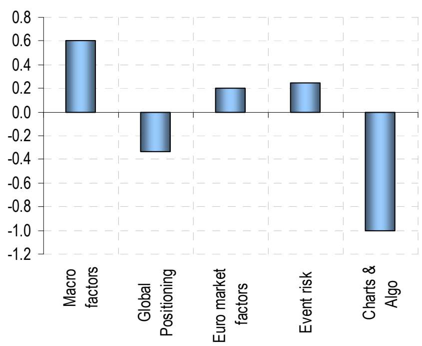
Duration Scorecard

Figure 2. Bund Weekly Cheat Sheet – Week 19th– 23rd November

Weekly Citi Bund Cheat Sheet: Week 5th November - 9th November				
Category	**Variable**	**Score**	**Weight**	**Comments**
Macro factors		**0.6**	**10.0%**	
	ECB	0	2.0%	Refi rate cut now unlikely in Dec
	FED	0	2.0%	QE3 supportive for risk on
	Inflation	1	2.0%	Peak in HICP reached
	Growth related data	2	2.0%	Still weak activity indicators in EMU
	Global risk appetite	0	2.0%	Risk-off momentum to prevail
Global Positioning		**-0.3**	**25.0%**	
	CFTC	0	8.3%	+400k lots in 6 months, top of the range
	T-Note	-1	8.3%	On 1.60% supports
	Citi surprise	0	8.3%	US still +ve / EU weak
Euro market factors		**0.2**	**25.0%**	
	Supply	-1	5.0%	Bund & Bono auction
	Positioning	0	5.0%	Overweights in core markets
	Equity	1	5.0%	Softening of QE support + fiscal cliff concerns
	Sovereign credit	1	5.0%	Periphery under pressure + Greek vote
	FX	0	5.0%	Tactical rebound
Event risk		**0.3**	**20.0%**	
	Elections	0	5.0%	--
	EU & G20 Summits	1	5.0%	EU Summit 22 Nov / Uncertainty
	Stability mechanisms	0	5.0%	Spain unlikely to request help next week
	Middle East / Oil	0	5.0%	Oil still trending lower
Charts & Algo		**-1.0**	**20.0%**	
	Technicals	-1	10.0%	Bunds testing Aug lows
	ARTS	-1	10.0%	ARTS medium conviction shorts
Recommendation				
Actual RXZ2		#N/A Requesting Data...		(Thursday close)
Actual CTD yield		#VALUE!		
10d del. volatility		#VALUE!		
Conviction level		12%		
Trade		**Sell**		

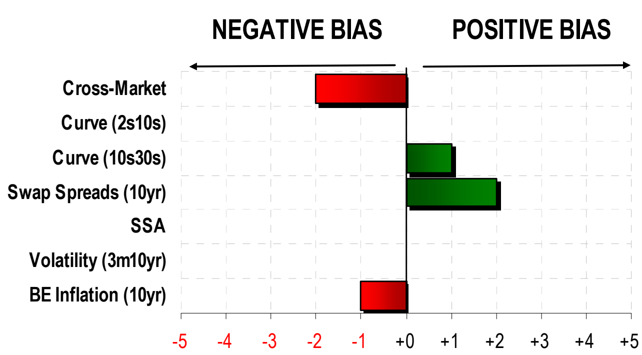
Source: Citi Research

Figure 3. Contribution to Bund Signals



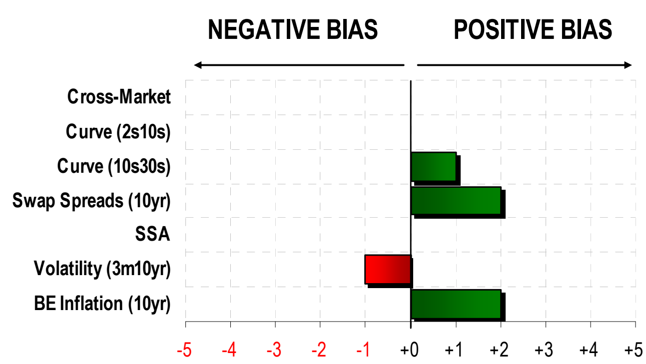
Source: Citi Research

Figure 4. EURO AREA (Near-term Bias)



Source: Citi Research

Figure 5. UK (Near-term Bias)



Source: Citi Research

Tradesheet

New Trades

1. Buy NWB 3.5% Jan21s vs BNG 2.625% Sep20s

Buy NWB 3.5% Jan21 at 1.71%

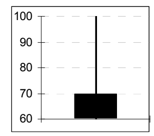
Sell BNG 2.625% Sep20 at 1.63%

Open 8bps. Current 8bps. Target 3bps. Stop 11bps.

Record of Closed Trades

Figure 6. Closed Trades This Week

Europe	**France 2s5s Steepener**	Open	70bp	Hit Stop 15 November 2012
		Current	60bp	
Curve	Buy BTAN 3% Jul14 at 0.14%	**P&L**	**-10bp**	
	Sell OAT 3.75% Apr17 at 0.86%	Target	100bp	
		Stop	60bp	*IIRS 16 August 2012*

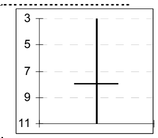


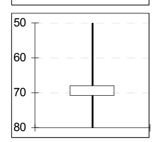
Source: Citi Research

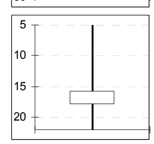
Record of Our Open Trades

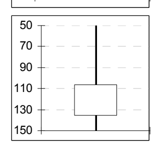
Figure 7. Record of our Open Trades

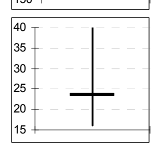
Europe	**Buy NWB 3.5% Jan21s vs BNG 2.625% Sep20s**	Open	8bp	
		Current	8bp	Yield compression trade for fundamentally similar Dutch agencies
Curve	Buy NWB 3.5% Jan21 at 1.71%	**P&L**	**0bp**	
	Sell BNG 2.625% Sep20 at 1.63%	Target	3bp	
		Stop	11bp	*European Rates Weekly 15 November 2012*
Europe / US	**Sell 10yr US CPI ZC swap vs**	Open	71bp	The Fed's inflationary stance looks well priced and some reversal of recent trends is likely in the near-term. The US-euro inflation swap differential is at appealing historical levels
	EUR HICPxT ZC swap	Current	68bp	
Inflation	Sell 10yr US CPI ZC swap at 2.79%	**P&L**	**3bp**	
	Buy 10yr EUR HICPxT ZC swap at 2.08%	Target	50bp	
		Stop	80bp	*Global Inflation Strategy 9 October 2012*
Europe	**Receive EUR 30s50s**	Open	18bp	
		Current	16bp	Long-end of EUR swap curve is pricing in more than required de-hedging by Dutch pension funds. CVA activity should support the trade.
Curve	Receive EUR 30s50s at 18bp	**P&L**	**2bp**	
		Target	5bp	
		Stop	22bp	*European Rates Weekly 11 October 2012*
Europe	**Receive EUR 1y3yF**	Open	136bp	
		Current	106bp	ECB rate cut and very high carry should be supportive for this trade
Duration	Receive EUR 1y3yF at 1.36%	**P&L**	**30bp**	
		Target	50bp	
		Stop	150bp	*IIRS 13 September 2012*
Europe	**Sell 5yr Austria vs 5yr Germany**	Open	24bp	
		Current	23bp	Risk of delay to the ECB's OMT programme and attractive entry levels
EMU Spreads	Sell RAGB 4% Sep16 at 0.59%	**P&L**	**-1bp**	
	Buy Bobl 1.25% Oct16 at 0.35%	Target	40bp	
		Stop	16bp	*IIRS 13 September 2012*
Europe	**Italy 2s10s flattener**	Open	280bp	We expect this strategy to work in both a risk-on environment (duration extension across front-end BTPs) & risk-off environment (increase in credit risk would bear-flatten the curve)
		Current	277bp	
Curve	Sell BTP 4.25% Jul14 at 2.20%	**P&L**	**3bp**	
	Buy BTP 5.5% Sep22 at 5.00%	Target	250bp	
		Stop	290bp	*Assessing the Impact of a Theoretical OMT... 12 September 2012*
Europe	**Sell EUR 1y3yF ATMF straddle and buy ATMF-25 receiver**	Open	63bp	Fwd levels in front-end EUR swaps are too high in an environment where additional policy measures by the ECB are likely to be undertaken
		Current	46bp	
Volatility	Sell EUR 1y3yF ATMF (=1.36%) straddle for 98bp	**P&L**	**17bp**	
	Buy EUR 1y3yF ATMF-25 receiver for 35bp	Target	30bp	
		Stop	73bp	*IIRS 9 August 2012*

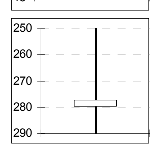


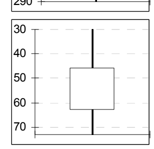






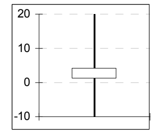
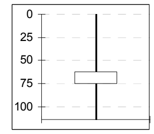
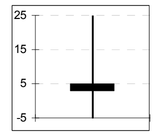
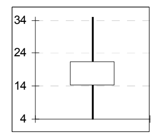
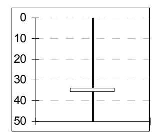
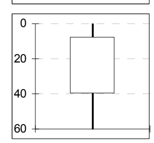






Source: Citi Research

Figure 8. Record of our Open Trades (continued)

Market	Trade	Levels	Rationale	Chart
Europe *Cross Market*	**Long KfW 1.375% Feb17s vs OAT 5% Oct16s** Buy KfW 1.375% Feb17 at 0.62% Sell OAT 5% Oct16s at 0.63%	Open 1bp Current 4bp **P&L 3bp** Target 20bp Stop -10bp	Spread compression looking overdone and we look for KfW to outperform should the EMU crisis intensify *IIRS 2 August 2012*	
UK *Volatility*	**Sell GBP 2y2y ATMF straddle** Sell GBP 2y2y ATMF (1.04%) straddle at 76bps	Open 76bp Current 62bp **P&L 14bp** Target 0bp Stop 114bp	The fundamental backdrop in the UK supports selling GBP 2y2y vol *IIRS 12 July 2012*	
Europe / US *Duration*	**Buy USD Payer Spread vs EUR (delta-weighted and fx-adjusted)** Buy 108 units USD 2yr5yr ATMF payer at 2.1% Sell 108 units USD 2yr5yr ATMF+100 payer at 0.8% Sell 100 units EUR 2yr5yr ATMF payer at 1.9% Buy 100 units EUR 2yr5yr ATMF+100 payer at 0.64%	Open 5bp Current 3bp **P&L -2bp** Target 25bp Stop -5bp	Range-bound short rates with short term cash-flow support for Europe *IIRS 12 July 2012*	
US / Europe *Cross Market*	**Long 10yr Bund vs UST** Sell UST 1.75% May22 at 1.62% Buy Bund 1.75% Jul22 at 1.48%	Open 14bp Current 21bp **P&L 7bp** Target 35bp Stop 4bp	The recent weakness in equities, the upcoming NCR profile & our ARTS weekly trading signal suggests buying 10yr Bunds vs USTs *Interest Rate Strategy Update 25 June 2012*	
US / UK *Cross Market*	**Long 30yr Gilt vs UST** Buy UKT 4.5% Dec42 at 3.09% Sell UST 3% May42 at 2.74%	Open 36bp Current 34bp **P&L 2bp** Target 0bp Stop 50bp	With Operation Twist extension largely priced in, QE resumption should help gilts outperform treasuries *UK Rates Strategy 20 June 2012*	
US / Europe *Cross Market*	**Pay USD 2y 2y fwd vs EUR** Pay USD 2y 2y fwd at 1.27% Receive EUR 2y 2y fwd at 1.67%	Open 40bp Current 8bp **P&L 32bp** Target 0bp Stop 60bp	We expect divergence between UST and core EMU yields *IIRS 23 February 2012*	

Source: Citi Research

French Government Bonds

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In an environment of near-zero interest rates, risk-loving investors have the choice of shifting location on the capital structure or extending duration of their investments. French government bonds have benefited in 2012 from their AAA rating, their huge liquidity, their superior risk-adjusted returns as well as favorable market positioning and flow. We expect the flow to dominate valuations again in 2013, but market positioning is now radically different in comparison to Q4 2011. Against the background of large net supply, this trims the probability of French government bonds outperforming within EMU indices in 2013.

The Flow Will Dominate Again in 2013

French sovereign debt has outperformed the Euro GBI in the post-Lehman world. The French sub-index of the WGBI has returned 21.7% since Jan-09, i.e. +3% excess return vs EMU, +4.8% vs Italy and +10.1% vs Spain. Top performer in this period has been Austria with a total return above 26%.

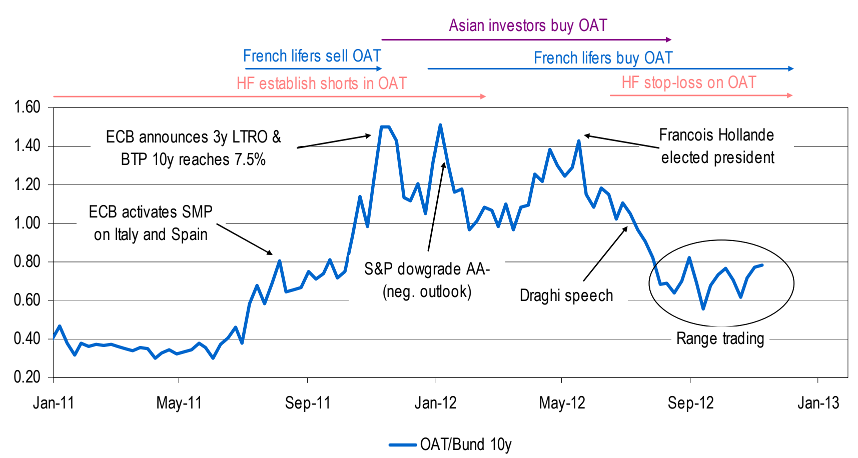
Year-to-date, France is up by 7.7%, in line with the Euro GBI return. Nevertheless, the performance has been remarkable, especially against the background of the tremendous volatility experienced in Q4 2011.

Notwithstanding the macroeconomic environment, we do not think a similar performance is on the cards for 2013. The reason has to do with the significant demand/supply imbalance that we currently observe in the market. Let's start by looking into the demand side of the price equation.

Demand Analysis

At the start of 2012, hedge funds were carrying successful shorts from Q4 2011, Asian accounts were just about to start their rotation into Euro AAA-benchmarks while domestic lifers where just about to start rebuilding their core OAT position after the shakeup in peripheral markets in Q4 2011. The market was not long OAT.

Figure 9. Events and demand dynamics over the past 18 months



Source: Citi Research

During the course of the year, market positioning changed drastically as a result of the following flows (Figure 9):

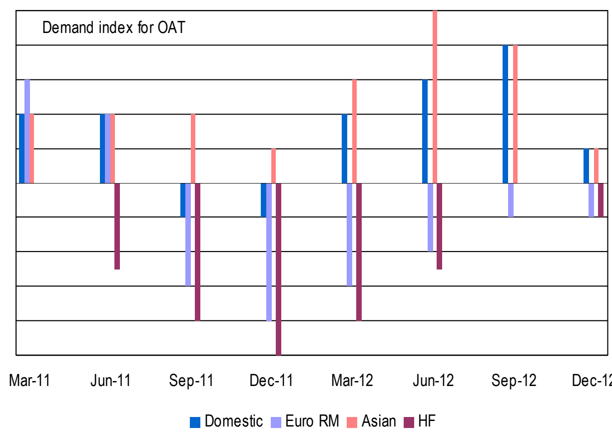
- **Asian investors:** Portfolio rotation from Italy into Bunds and OATs as well as from Treasuries and MBS into OATs.
- **Hedge funds:** Painful shorts stopped somewhere between Q2 and Q3.

- **Lifers:** Continuous investment into OATs financed by large cash balance, resulting from de-risking of peripheral portfolios during the second half of 2011.

To better visualize market positioning on France through time, we aggregate investor intelligence on a quarterly basis (Figure 10). This is a subjective assessment of the strength of underlying buying/selling flows in the OAT market from four representative investor categories. We find it nonetheless useful in comparing and tracking the flow over time.

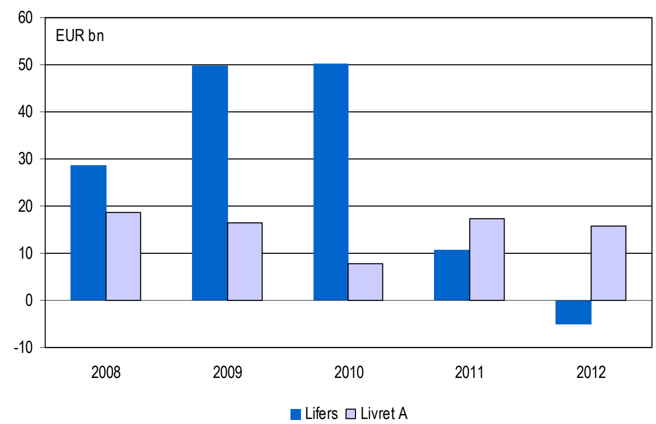
In Q4 on aggregate, we think domestic and Asian investors are still buyers of OATs albeit at a significantly slower pace compared to previous quarters. On the other hand, our perception is that European real money and global fast money are slightly underweight/short. Overall the level of conviction in shorts is still low and we expect investors to be reactive rather than proactive at this point (i.e. significant shorts would materialize on weakness as opposed to sellers at tight OAT/Bund spreads).

Figure 10. Estimate of market positioning in French govies



Source: Citi Research

Figure 11. French lifers' net collection not supportive of OATs



Source: Citi Research

We conclude the demand section with a final point on domestic investors:

- **Banks:** Compared to banks in other regions, French banks warehouse a low amount of EGB risk on their balance sheet. Moreover, our impression is that the risk is not concentrated in domestic securities to the same extent as it is in Spain or Italy. Gauged by previous experience in peripheral markets, French banks are likely to act as a "backstop" in case of violent market moves. It is not clear to us whether French banks would proactively seek a larger EGB allocation on their banking books, given negative diversification effects.

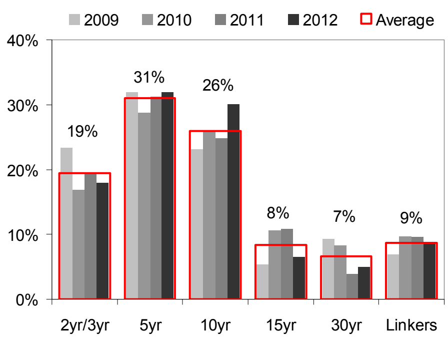
- **Life insurers:** Gone are the years of large net collection (e.g. 2009-2010 with roughly EUR 50bn each). Net collection for French lifers has turned negative in 2012 (Figure 11), reflecting very low OAT yields as well as improved conditions for competitor retail products (e.g. Livret A). Moreover, the prospect for further significant investments on the back of cash balances is not rosy given the pace at which lifers have been buying OATs throughout 2012.

Overall, we do not expect demand for OATs to be as supportive a factor as it has been in 2012.

Supply Analysis

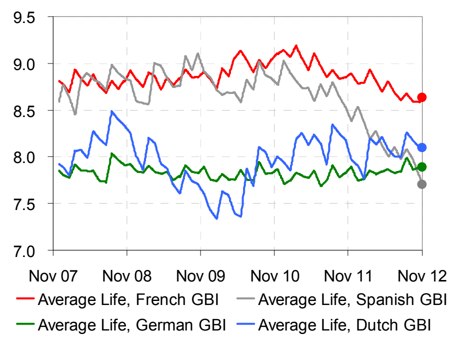
- **Gross issuance:** We forecast €188bn of issuance (BTAN/OAT) in 2013. Net of buybacks (of approximately €18bn) we estimate €170bn of issuance.
- **Issuance by maturity:** Analysing the breakdown of gross issuance in previous years and our estimate for the remainder of 2012 suggests that gross issuance in 2013 is likely to be split across the following maturities: 2/3yr (€37bn), 5yr (€58bn), 10yr (€49bn), 15yr (€16bn), 30yr (€12bn) and linkers (€16bn).
- **Average maturity:** As shown in Figure 13 below, the average maturity of French government debt has declined in recent years. However, it continues to be much higher than comparative issuers.

Figure 12. % of yearly issuance split by tenor (2009 to 2012)



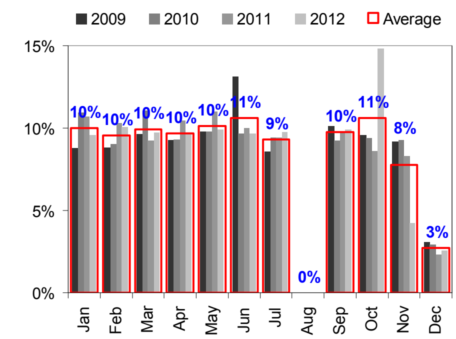
Source: Citi Research, AFT

Figure 13. Average life (yrs) of French debt falling but still higher than Germany



Source: Citi Research

Figure 14. % of yearly issuance split by month tenor (2009 to 2012)



Source: Citi Research, AFT

- **New issues** - we expect the following new securities to be issued in 2013: 1 x new 2yr BTAN in April/May, 2 x new 5yr BTANs in January/February and June/July, 1 x new 10yr OAT in June/July and 1 new 30yr OAT in 2Q13

Figure 15. Monthly net cash requirement profile for 2013

2013	Gross Supply	Coupons	Net Supply	Redemptions	NCR
Jan	19	2	17	25	-8
Feb	18	1	17		17
Mar	19		19		19
Apr	18	17	2	24	-22
May	19		19		19
Jun	20		20		20
Jul	17	6	11	42	-31
Aug					
Sep	18		18	15	3
Oct	20	15	5	24	-19
Nov	15		15		15
Dec	5		5		5
Total	188	41	147	129	17

Source: Citi Research, Bloomberg

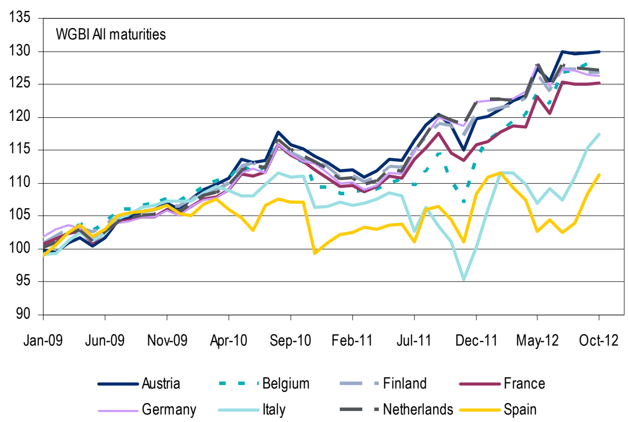
- **Monthly issuance profile:** the monthly issuance profile of French government debt is fairly consistent with most months accounting for 10% of total issuance (Figure 14). There is typically no issuance in August and supply in December is fairly muted at around 3% of total annual issuance.
- **Monthly cash flow profile:** Our estimates for monthly issuance in 2013 along with coupons and redemptions can be found in Figure 15. The net cash requirement (NCR) is -€8bn in January as €25bn of redemptions and €2bn coupons outweigh €19bn of gross supply. All things being equal this should be supportive for short-end French yields during the course of January.
- The NCR moves sharply from being supportive for bonds in January to being non-supportive for bonds in February and March due to minimal coupons and zero redemptions in these months (Figure 15).
- **Cross-market comparison:** The 2013 net cash requirement (+€17bn) for France is the second highest amongst non-programme issuers in EMU-11[1]. All things being equal this may be interpreted by investors as being relatively negative for French bonds – which could result in France underperforming other core issuers.

[1] The NCR for the Netherlands will be €1bn higher than France, in our view.

Total Return Analysis

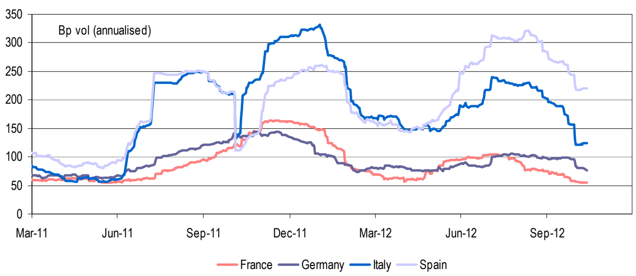
Within the Euro GBI universe, France keeps performing in line with its AAA-peers (Figure 16). Looking back, the underperformance experienced in Q4 2011 looks more like an incident, rather than a structural shift in investors' risk assessment. Looking forward and looking at market-implied risk metrics only, investments in the French government bond market still look relatively attractive in terms of volatility-adjusted returns. One possible measure is the promised yield adjusted by delivered yield volatility. We show a vector of such risk-adjusted 10y yields in Figure 17: France and Italy are outperformed only by Belgium. Still, France has the highest risk adjusted-yield amongst its AAA peers.

Figure 16. AAA performance…



Source: Citi Research

Figure 17. …even better in risk adjusted terms



Issuer	BP vol 10y	Yield 10y	Risk adj yield
Austria	52	1.78	0.03
Belgium	48	2.27	0.05
Finland	85	1.63	0.02
France	55	2.09	0.04
Germany	77	1.35	0.02
Italy	124	4.95	0.04
Netherlands	65	1.61	0.02
Spain	220	5.84	0.03

Source: Citi Research

However, we are cautious of looking at risk-adjusted yield as a measure of future return, because by construction it is a very backward looking indicator of performance. One example is Italy: Risk adjusted yields on BTPs were in line with AAA risk-adjusted yields up to Q2 2011 and this was often cited as a reason for investing in BTPs…

Summary & Strategy

We expect flow components to provide less support for the OAT market in 2013 than they have done in 2012. All else equal, we see a pressure towards a wider OAT/Bund equilibrium level materializing in the 2nd half of 2013 (see page 14 of *Global Economic Outlook and Strategy*, published 24 October 2012). The risk scenario is clearly skewed towards a break of the 60-80bp trading range in Q1 as a result of an evident supply/demand imbalance. On the positive side, we need to consider the (still) attractive, above benchmark risk adjusted yield as well as potential support for the front-end of the OAT curve coming from the ESM investing its paid-in capital. Within this environment, we recommend less aggressive allocations of risk towards France, with a bias towards a steeper yield curve.

Euro Money Markets

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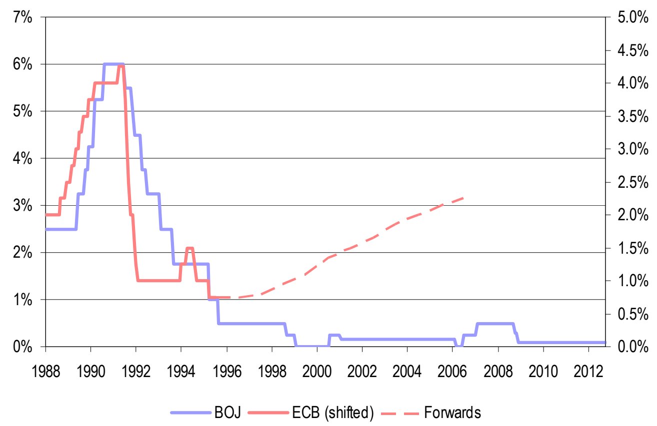
The Eonia curve does not price in any rate hike for 2013. However, long-term expectations seem to favor a return to normality, rather than a very long period of interest rates close to the zero nominal bound. Against this background, we continue to favor yield rich carry & roll-down trades at the front-end of the swap & periphery curves.

Low(er) for Longer? Check the Forwards

The likelihood of ending in a Japan-style macro scenario has been debated at length by market participants for a while. While the consensus seems to think that the probability of such a scenario has increased through time, the structure of Eonia forwards does suggest a different picture (Figure 18).

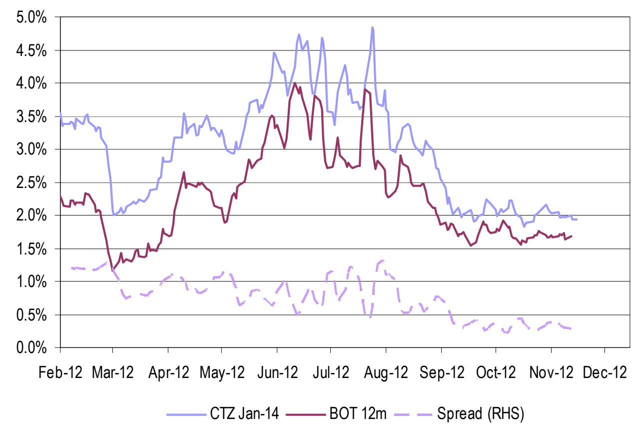
This "scenario asymmetry" generates one of the market's favourite strategies, i.e. receiving front-end forwards. For example, receiving EUR 3y1y delivers a roll-down that is attractive in both absolute (43bp/12m) and risk-adjusted (0.7bp/vol) terms to investors who believe in the lower-for-longer scenario. We have discussed this strategy in previous editions of the Euro Rates Weekly (please refer to "Eurozone's Lost Decade" on 20 September 2012).

Figure 18. Low(er) for longer? Forwards vs BOJ



Source: Citi Research

Figure 19. Carry in government bond space



Source: Citi Research

Investors constrained to the cash market can also express roll-down trades at the front-end of the curve by exploiting the shape of the peripheral curves, especially in the 12-18m bucket (in order to minimize sovereign credit risk exposure), and special situations within an issuer's space of available debt instruments. For example, the CTZ offers an interesting opportunity in terms of spread to the BOT curve and roll-down into the pure money market space, which it will enter in a couple of months. In that sense, CTZ's performance should profit from additional demand from domestic money market investors.

Strategy

We recommend buying CTZ Jan-14 @1.90%. The bond profits from 34bp roll-down in the coming 3 months in addition to trading at a 25bp spread to the 12m BOT.

SSA yield compression likely to continue

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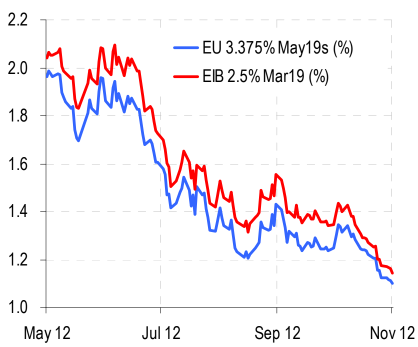
Core European supras and agency spreads remain in tightening mode and yields continue to compress among core issuers. EIB's convergence to EU is indicative of this dynamic (Figure 20) as is the good performance of the EFSF vs France. Given waning supply pressures, the soothing effect of the ECB's announced OMT programme and the reduced likelihood a Greek exit in the near-term, we expect core SSA yields to remain low in Q4.

Relative value in Dutch agencies

Figure 20. EU May19s and EIB Mar19s Yield



Source: Citi Research

We believe investors looking for relative value within the SSA sector should consider some of the laggards in the march lower in core yields. One such example involves the AAA Dutch issuers, Nederlandse Bank Gemeenten (BNG) and Nederlandse Waterschapsbank NV (NWB Bank). We see few fundamental differences between these core agencies that should warrant historic spread differentials (as our US strategists highlighted when assessing relative value in the front end of the USD curves, *USD Supranational and non-US Agency Notes*).

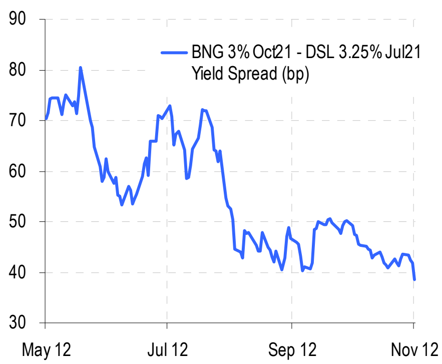
BNG is a Dutch public sector lending institution which provides financing primarily for housing associations and local authorities. It is half owned by the Netherlands and half owned by municipalities, provincial authorities and a district waterboard. Reported total assets in 2011 amounted to €136bn and BNG has a funding programme of €15bn-€17bn in 2012 (the vast majority of which has been completed). NWB Bank is also a core Dutch public sector bank providing loans to municipal authorities, public housing and activities relating to water and the environment. It is publically owned and shareholders include the water boards (waterschappen, 81%), the Netherlands sovereign (17%) and the local provinces (2%). NWB is smaller than BNG, with around €75.6bn in total assets and €46bn in bond debt outstanding (as detailed in the NWB Bank Half-Year Report 2012).

Put together, both BNG/NWB are rated AAA/Aaa by S&P and Moody's in line with the Netherlands sovereign. Both rating agencies point to their operating efficiency, their high asset quality and their established market traditions (BNG established in 1914, NWB in 1954). In addition, the backstop of likely support from the national government is a strong credit positive for both BNG/NWB Bank.

Trade: Buy NEDWBK Jan21s vs BNG Sep20s at 8bp. Target 3bp, Stop 11bp.

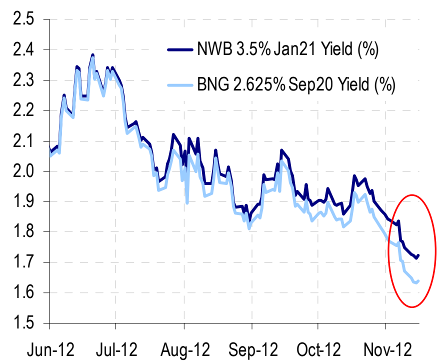
As with KfW and Germany, Dutch agency spreads to the Netherlands are at historic lows (Figure 21). Better value can be found in spreads between core issuers rather than vs governments. For example, in some cases, spreads between BNG and NWB have widened to historic levels, largely because (the smaller) NWB has lagged in the rally (Figure 22, Figure 23). We expect such differentials to narrow in a yield compressing environment for such fundamentally similar issuers.

Figure 21. 10yr BNG vs 10yr Netherlands (bp)



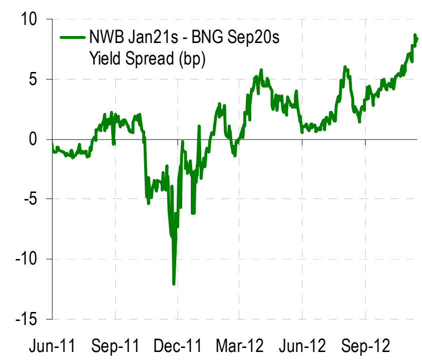
Source: Citi Research

Figure 22. NWB Bank Jan21s and BNG Sep20s



Source: Citi Research

Figure 23. NWB Bank Jan21s vs BNG Sep20s



Source: Citi Research

Gilt Calendar Roll: G Z2-G H3

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The roll approaches: We currently see fair value for the G Z2/G H3 roll at 83ticks (Figure 24). For every 10bp change in repo to March the roll changes by approximately 4ticks (Figure 29). Based on repo rates at the time of writing, the roll is trading 5ticks below our fair value estimate.

A CTD switch is more likely to occur in the front contract than in the back: Figure 26 and Figure 28 show the required cheapening of gilt deliverables vs the current CTD in each contract to become the new CTD. For example if the gilt 4% Mar22s were to cheapen by over 2bps vs the Sep21s (current CTD to December) it will become the new CTD. Likewise, if the gilt 5% Mar25s (current CTD to March) cheapens by over 3bps vs the Mar22s then it will become the new CTD to March.

Figure 24. Gilt Roll December – March Contracts

	G Z2	G H3
CTD	UKT-3.750-09/07/21	UKT-4.000-03/07/22
Repo to delivery	0.4% (GC-0.02%)	0.39% (GC-0.02%)
Current Fair Value	83 ticks	

Source: CIRA

Impact of a CTD switch on the roll

4% Mar22: If the gilt 4% Mar22 cheapens by over 2bp vs 3.75% Sep21 (current CTD) it will become the new CTD to December. This could result in the fair value of the futures roll increasing by up to 11ticks.

5% Mar25: In the event that the Mar25s becomes the CTD in both contracts the fair value of the futures roll will increase by up to 8ticks.

Impact of a change in repo on roll

For every 10bps change in repo to March, the fair value of the roll changes by approximately 4 ticks (Figure 29). With the repo rate for all gilt deliverables trading close to GC the risk-reward favours rolling longs late and shorts roll early.

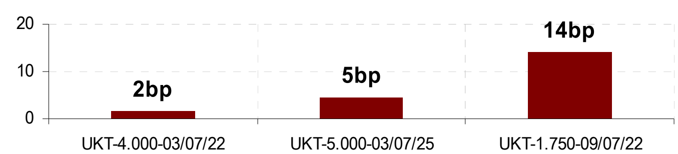
Roll timing: Based on the profile of previous gilt rolls, the roll tends to gain momentum around 8 days before the first delivery date (Figure 30).

Figure 25. Deliverables into G Z2 – December Contract Details

	Bond	ConvFactor	GrossBasis	NetBasis	FairFutPx	ImplRepo
G Z2	**UKT-3.750-09/07/21**	**0.981623**	**0.43**	**0.02**	**120.37**	**0.23**
	UKT-4.000-03/07/22	0.999951	0.63	0.19	120.53	-0.86
	UKT-5.000-03/07/25	1.096132	1.18	0.62	120.91	-3.37
	UKT-1.750-09/07/22	0.819562	1.44	1.27	121.90	-9.86

Source: Citi Research

Figure 26. Required moves vs 3.75% Sep21 for a CTD switch (bps)



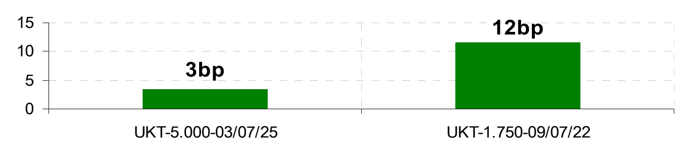
Source: Citi Research

Figure 27. Deliverables into G H3 – March Contract Details

	Bond	ConvFactor	GrossBasis	NetBasis	FairFutPx	ImplRepo
G H3	**UKT-4.000-03/07/22**	**1.000007**	**1.39**	**0.11**	**119.68**	**0.15**
	UKT-5.000-03/07/25	1.094680	2.20	0.57	120.09	-0.79
	UKT-1.750-09/07/22	0.823367	1.62	1.12	120.93	-2.70

Source: Citi Research

Figure 28. Required moves vs 4% Mar22 for a CTD switch (bps)



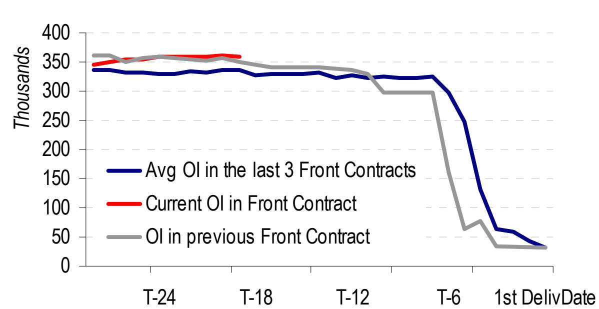
Source: Citi Research

Figure 29. Fair Value Level of Z2-H3 Futures Roll for different repo rates

Repo of H3 CTD (UKT-3.750-09/07/21) to expiry	Repo of Z2 CTD (UKT-4.000-03/07/22) to expiry: 0.30	0.40	0.50
-0.11	102	104	106
-0.01	98	100	102
0.09	93	96	98
0.19	89	92	94
0.29	85	87	90
0.39	81	**83**	85
0.49	77	79	81
0.59	73	75	77
0.69	69	71	73

Source: Citi Research

Figure 30. Current Open Interest (OI) in front contract vs previous rolls



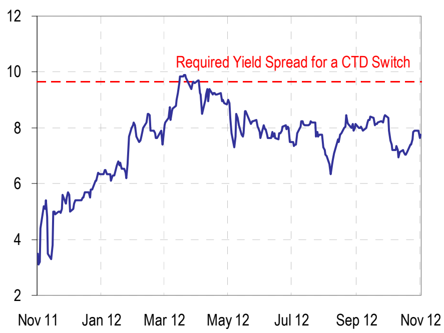
Source: Citi Research, Bloomberg

Scenario analysis – change in curve slope

Figure 31 and Figure 32 shows the required yield spread for a CTD switch to occur in the front contract. Likewise, Figure 33 displays the required yield spread for a CTD switch to occur in the back contract.

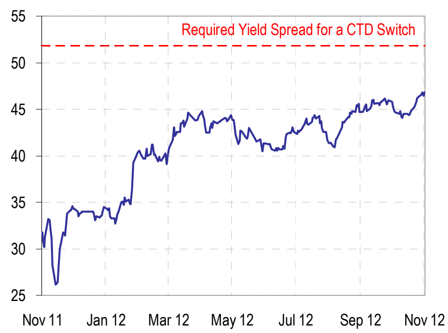
We do not expect a substantial steepening of the 10s30s segment of the gilt curve between now and the last delivery date. In turn, a CTD switch in either contract is unlikely to occur, in our view.

Figure 31. Gilt Mar22 – Sep21 yield spread (bp)



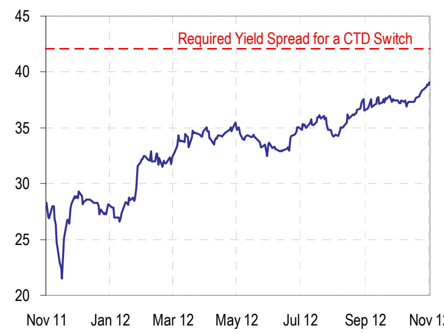
Source: Citi Research

Figure 32. Gilt Mar25 – Sep21 yield spread (bp)



Source: Citi Research

Figure 33. Gilt Mar25 – Mar22 yield spread (bp)



Source: Citi Research

Scenario analysis – parallel shift + curve slope

Figure 34 below highlights various scenarios (parallel curve shift and curve slope) for a CTD switch to occur in the front contract. We highlight three examples below.

Relative: 2.1bp steepening

- If the gilt 4% Mar22 were to cheapen by over 1.7bps relative to the current CTD (3.75% Sep21) it would become the new CTD. In the event that Mar22s become the new CTD the roll would increase by up 11 ticks.

Parallel: 30bp parallel shift higher

- In the event that gilt curve shifts higher (in parallel) by 30bps the gilt 5% Mar25 would become the new CTD into both December and March. This would result in a 12tick increase in the fair value of the futures roll.

Both: 2.1bp steepening of Sep21-Mar22 + 10bp parallel shift lower

- If Sep21s were to richen by 10bps and the Mar22s richened by only 7.9bp (10bp minus 2.1bp) then Mar22s would become the new CTD to December. In this instance, the fair value of the futures roll would increase by approximately 6ticks (this is due to a 10bp parallel shift lower contributing to a 7tick decrease in the roll but the curve steepening by 2.1ticks, resulting in a 13tick increase in the roll).

Figure 34. Required cheapening of G Z2 deliverables vs the CTD for various parallel yield shifts (bps)

	Parallel Yield Shifts (bps)												
Deliverable	-60	-50	-40	-30	-20	-10	0	10	20	30	40	50	60
UKT-3.750-09/07/21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	4.9	7.6	10.2
UKT-4.000-03/07/22	4.0	3.6	3.2	2.9	2.5	2.1	1.7	1.3	0.9	2.7	4.9	7.0	9.2
UKT-1.750-09/07/22	22.6	21.2	19.8	18.3	16.9	15.4	13.9	12.5	11.0	11.5	12.3	13.1	13.9
UKT-5.000-03/07/25	17.3	15.2	13.0	10.9	8.8	6.7	4.5	2.4	0.3	0.0	0.0	0.0	0.0

Source: Citi Research

Conclusion: The roll is currently trading just below our fair value estimate at the time of writing. As the repo rate for gilt deliverables into both contracts is trading close to GC we see the risk-reward favouring rolling longs late and shorts early. We do not expect a CTD switch in either contract at this stage.

Relative Value Trades

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We explore relative richness/ cheapness of bonds on domestic curves of Germany and France. The cheapness of Bund Jan16s and BTAN Jul15s offers several attractive opportunities on their domestic curves.

Germany: Taking advantage of the cheapness of Jan16s

Steepening Bias

- Switch from 2.75% Apr16 into 3.5% Jan16 with a yield give up of 3bp (total 3m carry is -0.5bp) - Figure 35

France: Taking advantage of the cheapness of Jul15s

Steepening Bias

- Switch from 3% Oct15 into 2% Jul15 with a yield give up of 5bp (total 3m carry is -1bp) - Figure 36

Steepening Bias

- Switch from 2.25% Feb16 into 2% Jul15 with a yield give up of 14bp (total 3m carry is -2bp) - Figure 37

Figure 35. Germany: 2.75% Apr16 – 3.5% Jan16 yield spread (bp)

Source: Citi Research, Bloomberg

Figure 36. France: 3% Oct15 – 2% Jul15 yield spread (bp)

Source: Citi Research

Figure 37. France: 2.25% Feb16 – 2% Jul15 yield spread (bp)

Source: Citi Research

European Relative Value Tables

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

For example, Figure 38 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 38. Yield Spread and CAS to Fitted Relative Value Curve (6m History)

GERMANY

	Versus Fitted Yield Curve					Versus Swap Curve (CAS)			
	Rank		ZScore	Issued		Rank		ZScore	Issued
Richest	1	**3.75 Jan17**	**-2.19**	Nov06	Richest	1	**1.50 Sep22 (10y)**	-1.03	Sep12
	2	**4.25 Jul17 (OE)**	**-1.83**	May07		2	**4.75 Jul40**	-0.18	Jul08
	3	**1.25 Oct16**	**-1.60**	Sep11		3	**4.25 Jul39**	-0.12	Jan07
	4	**0.50 Apr17**	-1.37	Apr12		4	**3.25 Jul42**	-0.12	Jul10
	5	**0.75 Feb17**	-1.29	Jan12		5	**5.50 Jan31**	-0.11	Oct00
	5	**2.25 Sep20**	**1.64**	Aug10		5	**1.75 Oct15**	**0.93**	Sep10
	4	**2.50 Jan21**	**1.67**	Nov10		4	**2.25 Apr15**	**0.98**	Apr10
	3	**3.75 Jan19**	**1.76**	Nov08		3	**3.25 Jul15**	**1.00**	May05
	2	**3.25 Jul15**	**1.77**	May05		2	**2.50 Feb15**	**1.00**	Jan10
Cheapest	1	**3.00 Jul20**	**2.51**	Apr10	Cheapest	1	**3.75 Jan15**	**1.05**	Nov04

Source: Citi Research

Figure 39 (overleaf) looks at bonds of all maturities. For investors with maturity restrictions we have also provided another set of summary tables (Figure 40 and Figure 41) which looks at bonds shorter than 12 years and longer than 8 years, and uses the same criteria as Figure 39 to highlight the richest and cheapest bonds in these narrower maturity spectrums.

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

Relative Value Tables – All Maturities

Figure 39. Yield Spread and CAS to Fitted Relative Value Curve by Country (6m History); All bonds on each curve

Country		Versus Fitted Yield Curve: Rank	Bond	ZScore	Issued		Versus Swap Curve (CAS): Rank	Bond	ZScore	Issued
GERMANY	Richest	1	3.75 Jan17	-2.19	Nov06	Richest	1	1.50 Sep22 (10y)	-1.03	Sep12
		2	4.25 Jul17 (OE)	-1.83	May07		2	4.75 Jul40	-0.18	Jul08
		3	1.25 Oct16	-1.60	Sep11		3	4.25 Jul39	-0.12	Jan07
		4	0.50 Apr17	-1.37	Apr12		4	3.25 Jul42	-0.12	Jul10
		5	0.75 Feb17	-1.29	Jan12		5	5.50 Jan31	-0.11	Oct00
		5	2.25 Sep20	1.64	Aug10		5	1.75 Oct15	0.93	Sep10
		4	2.50 Jan21	1.67	Nov10		4	2.25 Apr15	0.98	Apr10
		3	3.75 Jan19	1.76	Nov08		3	3.25 Jul15	1.00	May05
		2	3.25 Jul15	1.77	May05		2	2.50 Feb15	1.00	Jan10
	Cheapest	1	3.00 Jul20	2.51	Apr10	Cheapest	1	3.75 Jan15	1.05	Nov04
FRANCE	Richest	1	3.75 Apr21	-1.80	Apr05	Richest	1	3.75 Oct19	-0.85	Oct08
		2	2.25 Feb16	-1.73	Feb10		2	4.25 Apr19	-0.80	Apr03
		3	3.25 Apr16	-1.53	Apr05		3	4.25 Oct18	-0.79	Oct07
		4	2.25 Oct22 (10y)	-1.38	Oct11		4	3.75 Apr21	-0.79	Apr05
		5	3.00 Oct15	-1.33	Oct04		5	2.50 Oct20	-0.78	Oct09
		5	4.00 Apr18	1.39	Apr07		5	2.00 Jul15	-0.22	Jun10
		4	3.50 Apr26	1.42	Apr10		4	2.25 Oct22 (10y)	-0.01	Oct11
		3	5.00 Oct16	1.45	Oct00		3	1.00 Jul17 (5y)	0.01	Jul11
		2	4.25 Oct17	1.47	Oct06		2	3.50 Apr15	0.10	Apr04
	Cheapest	1	3.75 Apr17	2.36	Apr06	Cheapest	1	2.50 Jan15	0.15	Jan10
ITALY	Richest	1	4.50 Feb20	-2.67	Feb04	Richest	1	4.75 Sep16	-1.18	Sep11
		2	4.25 Mar20	-2.54	Sep09		2	4.25 Mar20	-1.17	Sep09
		3	4.00 Sep20	-1.97	Mar10		3	4.50 Feb20	-1.15	Feb04
		4	4.25 Sep19	-1.60	Mar09		4	5.00 Aug34	-1.14	Aug03
		5	5.00 Aug34	-1.54	Aug03		5	4.00 Sep20	-1.14	Mar10
		5	5.50 Nov22 (10y-IK)	1.49	May12		5	5.50 Sep22	-0.99	Mar12
		4	4.50 Feb18 (MFB)	1.60	Aug07		4	4.00 Feb37	-0.98	Aug05
		3	4.00 Feb17	1.64	Aug06		3	4.50 Jul15	-0.78	Jul12
		2	5.50 Sep22	1.73	Mar12		2	5.50 Nov22 (10y-IK)	0.03	May12
	Cheapest	1	4.75 Aug23	2.02	Feb08	Cheapest	1	3.50 Nov17 (5y)	0.53	Nov12
N'LANDS	Richest	1	1.25 Jan18	-1.05	Jul12	Richest	1	3.75 Jan42 (30y)	-0.75	May10
		2	2.50 Jan33	-0.88	Mar12		2	2.50 Jan33	-0.73	Mar12
		3	4.50 Jul17 (5y)	-0.77	Jul07		3	4.00 Jan37	-0.66	Apr05
		4	3.75 Jan23	-0.36	Jan06		4	3.75 Jan23	-0.39	Jan06
		5	3.25 Jul15	-0.20	Jun05		5	4.50 Jul17 (5y)	-0.34	Jul07
		5	2.25 Jul22 (10y)	0.59	Feb12		5	1.25 Jan18	-0.08	Jul12
		4	4.00 Jan37	0.59	Apr05		4	4.00 Jul16	0.09	Jul06
		3	2.75 Jan15	0.59	Jul09		3	3.25 Jul15	0.34	Jun05
		2	3.25 Jul21	0.67	Mar11		2	0.75 Apr15	0.55	Jan12
	Cheapest	1	4.00 Jul16	0.69	Jul06	Cheapest	1	2.75 Jan15	0.65	Jul09
SPAIN	Richest	1	4.60 Jul19	-2.04	Feb09	Richest	1	4.00 Jul15	-0.84	Jan12
		2	4.30 Oct19	-1.90	Jun09		2	3.15 Jan16	-0.83	Sep05
		3	3.15 Jan16	-1.28	Sep05		3	3.25 Apr16	-0.82	Nov10
		4	4.00 Jul15	-1.08	Jan12		4	3.00 Apr15	-0.81	Mar10
		5	3.75 Oct15	-1.02	Sep12		5	4.25 Oct16	-0.79	Sep11
		5	4.90 Jul40	1.31	Jun07		5	5.85 Jan22 (10y-FBB)	-0.35	Nov11
		4	5.85 Jan22 (10y-FBB)	1.32	Nov11		4	4.90 Jul40	-0.35	Jun07
		3	4.20 Jan37	1.35	Jan05		3	4.70 Jul41 (30y)	-0.34	Sep09
		2	3.80 Jan17	1.55	Oct06		2	3.75 Oct15	0.86	Sep12
	Cheapest	1	5.50 Jul17 (5y)	1.65	Mar02	Cheapest	1	4.50 Jan18	1.31	Nov12
BELGIUM	Richest	1	5.50 Sep17	-1.10	Jun02	Richest	1	4.00 Mar32	-1.20	Mar12
		2	4.25 Sep21	-1.02	Jan11		2	5.00 Mar35	-1.18	May04
		3	3.50 Mar15	-0.70	Mar09		3	4.50 Mar26	-1.14	Jun11
		4	4.00 Mar32	-0.44	Mar12		4	3.00 Sep19	-1.10	Apr12
		5	4.00 Mar18	-0.38	Jan08		5	4.25 Mar41 (30y)	-1.09	Apr10
		5	5.00 Mar35	0.90	May04		5	4.00 Mar18	-0.99	Jan08
		4	4.00 Mar19	0.96	Jan09		4	5.50 Sep17	-0.97	Jun02
		3	3.25 Sep16	0.97	Jan06		3	3.50 Jun17 (5y)	-0.97	Mar11
		2	3.75 Sep20	1.38	Jan10		2	3.25 Sep16	-0.95	Jan06
	Cheapest	1	4.00 Mar17	1.63	Jan07	Cheapest	1	4.00 Mar17	-0.91	Jan07

Source: Citi Research

Relative Value Tables – Max 12Yr Maturity

Figure 40. Yield Spread and CAS to Fitted Relative Value Curve by Country (6m History); Bonds with a Maximum Maturity of 12yrs

Left: Versus Fitted Yield Curve. Right: Versus Swap Curve (CAS).

GERMANY

	Rank	Versus Fitted Yield Curve	ZScore	Issued		Rank	Versus Swap Curve (CAS)	ZScore	Issued
Richest	1	3.75 Jan17	-2.19	Nov06	Richest	1	1.50 Sep22 (10y)	-1.03	Sep12
	2	4.25 Jul17 (OE)	-1.83	May07		2	2.25 Sep21	0.56	Aug11
	3	1.25 Oct16	-1.60	Sep11		3	1.75 Jul22	0.57	Apr12
	4	0.50 Apr17	-1.37	Apr12		4	4.25 Jul17 (OE)	0.61	May07
	5	0.75 Feb17	-1.29	Jan12		5	3.25 Jul21 (RX)	0.61	Apr11
	5	2.25 Sep20	1.64	Aug10		5	1.75 Oct15	0.93	Sep10
	4	2.50 Jan21	1.67	Nov10		4	2.25 Apr15	0.98	Apr10
	3	3.75 Jan19	1.76	Nov08		3	3.25 Jul15	1.00	May05
	2	3.25 Jul15	1.77	May05		2	2.50 Feb15	1.00	Jan10
Cheapest	1	3.00 Jul20	2.51	Apr10	Cheapest	1	3.75 Jan15	1.05	Nov04

FRANCE

	Rank	Versus Fitted Yield Curve	ZScore	Issued		Rank	Versus Swap Curve (CAS)	ZScore	Issued
Richest	1	3.75 Apr21	-1.80	Apr05	Richest	1	3.75 Oct19	-0.85	Oct08
	2	2.25 Feb16	-1.73	Feb10		2	4.25 Apr19	-0.80	Apr03
	3	3.25 Apr16	-1.53	Apr05		3	4.25 Oct18	-0.79	Oct07
	4	2.25 Oct22 (10y)	-1.38	Oct11		4	3.75 Apr21	-0.79	Apr05
	5	3.00 Oct15	-1.33	Oct04		5	2.50 Oct20	-0.78	Oct09
	5	1.00 Jul17 (5y)	1.12	Jul11		5	2.00 Jul15	-0.22	Jun10
	4	4.00 Apr18	1.39	Apr07		4	2.25 Oct22 (10y)	-0.01	Oct11
	3	5.00 Oct16	1.45	Oct00		3	1.00 Jul17 (5y)	0.01	Jul11
	2	4.25 Oct17	1.47	Oct06		2	3.50 Apr15	0.10	Apr04
Cheapest	1	3.75 Apr17	2.36	Apr06	Cheapest	1	2.50 Jan15	0.15	Jan10

ITALY

	Rank	Versus Fitted Yield Curve	ZScore	Issued		Rank	Versus Swap Curve (CAS)	ZScore	Issued
Richest	1	4.50 Feb20	-2.67	Feb04	Richest	1	4.75 Sep16	-1.18	Sep11
	2	4.25 Mar20	-2.54	Sep09		2	4.25 Mar20	-1.17	Sep09
	3	4.00 Sep20	-1.97	Mar10		3	4.50 Feb20	-1.15	Feb04
	4	4.25 Sep19	-1.60	Mar09		4	4.00 Sep20	-1.14	Mar10
	5	4.50 Mar19	-1.29	Sep08		5	4.75 May17	-1.13	Feb12
	5	5.50 Nov22 (10y-IK)	1.49	May12		5	4.75 Aug23	-1.00	Feb08
	4	4.50 Feb18 (MFB)	1.60	Aug07		4	5.50 Sep22	-0.99	Mar12
	3	4.00 Feb17	1.64	Aug06		3	4.50 Jul15	-0.78	Jul12
	2	5.50 Sep22	1.73	Mar12		2	5.50 Nov22 (10y-IK)	0.03	May12
Cheapest	1	4.75 Aug23	2.02	Feb08	Cheapest	1	3.50 Nov17 (5y)	0.53	Nov12

N'LANDS

	Rank	Versus Fitted Yield Curve	ZScore	Issued		Rank	Versus Swap Curve (CAS)	ZScore	Issued
Richest	1	1.25 Jan18	-1.05	Jul12	Richest	1	3.75 Jan23	-0.39	Jan06
	2	4.50 Jul17 (5y)	-0.77	Jul07		2	4.50 Jul17 (5y)	-0.34	Jul07
	3	3.75 Jan23	-0.36	Jan06		3	2.25 Jul22 (10y)	-0.30	Feb12
	4	3.25 Jul15	-0.20	Jun05		4	4.00 Jul19	-0.30	Feb09
	5	2.50 Jan17	-0.09	Jun11		5	4.00 Jul18	-0.29	Feb08
	5	3.50 Jul20	0.45	Feb10		5	1.25 Jan18	-0.08	Jul12
	4	2.25 Jul22 (10y)	0.59	Feb12		4	4.00 Jul16	0.09	Jul06
	3	2.75 Jan15	0.59	Jul09		3	3.25 Jul15	0.34	Jun05
	2	3.25 Jul21	0.67	Mar11		2	0.75 Apr15	0.55	Jan12
Cheapest	1	4.00 Jul16	0.69	Jul06	Cheapest	1	2.75 Jan15	0.65	Jul09

SPAIN

	Rank	Versus Fitted Yield Curve	ZScore	Issued		Rank	Versus Swap Curve (CAS)	ZScore	Issued
Richest	1	4.60 Jul19	-2.04	Feb09	Richest	1	4.00 Jul15	-0.84	Jan12
	2	4.30 Oct19	-1.90	Jun09		2	3.15 Jan16	-0.83	Sep05
	3	3.15 Jan16	-1.28	Sep05		3	3.25 Apr16	-0.82	Nov10
	4	4.00 Jul15	-1.08	Jan12		4	3.00 Apr15	-0.81	Mar10
	5	3.75 Oct15	-1.02	Sep12		5	4.25 Oct16	-0.79	Sep11
	5	5.50 Apr21	1.06	Jan11		5	4.80 Jan24	-0.44	Sep08
	4	4.40 Jan15	1.30	Jun04		4	5.50 Apr21	-0.43	Jan11
	3	5.85 Jan22 (10y-FBB)	1.32	Nov11		3	5.85 Jan22 (10y-FBB)	-0.35	Nov11
	2	3.80 Jan17	1.55	Oct06		2	3.75 Oct15	0.86	Sep12
Cheapest	1	5.50 Jul17 (5y)	1.65	Mar02	Cheapest	1	4.50 Jan18	1.31	Nov12

BELGIUM

	Rank	Versus Fitted Yield Curve	ZScore	Issued		Rank	Versus Swap Curve (CAS)	ZScore	Issued
Richest	1	5.50 Sep17	-1.10	Jun02	Richest	1	3.00 Sep19	-1.10	Apr12
	2	4.25 Sep21	-1.02	Jan11		2	3.50 Mar15	-1.09	Mar09
	3	3.50 Mar15	-0.70	Mar09		3	3.75 Sep15	-1.08	Mar05
	4	4.00 Mar18	-0.38	Jan08		4	4.25 Sep21	-1.08	Jan11
	5	3.00 Sep19	-0.26	Apr12		5	4.00 Mar22	-1.08	May06
	5	3.75 Sep15	0.48	Mar05		5	4.00 Mar18	-0.99	Jan08
	4	4.00 Mar19	0.96	Jan09		4	5.50 Sep17	-0.97	Jun02
	3	3.25 Sep16	0.97	Jan06		3	3.50 Jun17 (5y)	-0.97	Mar11
	2	3.75 Sep20	1.38	Jan10		2	3.25 Sep16	-0.95	Jan06
Cheapest	1	4.00 Mar17	1.63	Jan07	Cheapest	1	4.00 Mar17	-0.91	Jan07

Source: Citi Research

Relative Value Tables – Min 8yr Maturity

Figure 41. 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					Versus Swap Curve (CAS)			
	Rank		ZScore	Issued		Rank		ZScore	Issued
Richest	1	2.25 Sep21	-0.99	Aug11	Richest	1	1.50 Sep22 (10y)	-1.03	Sep12
	2	2.50 Jul44 (30y)	-0.79	Apr12		2	4.75 Jul40	-0.18	Jul08
	3	3.25 Jul42	-0.39	Jul10		3	4.25 Jul39	-0.12	Jan07
	4	1.75 Jul22	-0.28	Apr12		4	3.25 Jul42	-0.12	Jul10
	5	6.25 Jan30	-0.08	Jan00		5	5.50 Jan31	-0.11	Oct00
	5	4.25 Jul39	0.71	Jan07		5	2.25 Sep21	0.56	Aug11
	4	1.50 Sep22 (10y)	0.93	Sep12		4	1.75 Jul22	0.57	Apr12
	3	4.75 Jul34	0.98	Jan03		3	3.25 Jul21 (RX)	0.61	Apr11
	2	4.00 Jan37 (UB)	1.15	Jan05		2	2.00 Jan22	0.62	Nov11
Cheapest	1	2.50 Jan21	1.67	Nov10	Cheapest	1	2.50 Jan21	0.67	Nov10

FRANCE

	Versus Fitted Yield Curve					Versus Swap Curve (CAS)			
	Rank		ZScore	Issued		Rank		ZScore	Issued
Richest	1	3.75 Apr21	-1.80	Apr05	Richest	1	3.75 Apr21	-0.79	Apr05
	2	2.25 Oct22 (10y)	-1.38	Oct11		2	5.75 Oct32	-0.76	Oct00
	3	5.75 Oct32	-0.94	Oct00		3	4.75 Apr35	-0.76	Apr03
	4	3.00 Apr22	-0.60	Feb12		4	4.00 Oct38	-0.75	Oct05
	5	3.25 Oct21 (OAT)	-0.33	Oct10		5	3.25 Oct21 (OAT)	-0.73	Oct10
	5	4.00 Apr55	0.26	Apr04		5	4.00 Apr55	-0.65	Apr04
	4	4.00 Oct38	0.46	Oct05		4	4.00 Apr60	-0.65	Apr09
	3	4.50 Apr41 (30y)	0.62	Apr09		3	4.25 Oct23	-0.63	Oct06
	2	4.25 Oct23	1.00	Oct06		2	2.75 Oct27	-0.35	Oct11
Cheapest	1	3.50 Apr26	1.42	Apr10	Cheapest	1	2.25 Oct22 (10y)	-0.01	Oct11

ITALY

	Versus Fitted Yield Curve					Versus Swap Curve (CAS)			
	Rank		ZScore	Issued		Rank		ZScore	Issued
Richest	1	5.00 Aug34	-1.54	Aug03	Richest	1	5.00 Aug34	-1.14	Aug03
	2	5.00 Aug39	-0.99	Aug07		2	5.00 Sep40 (30y)	-1.10	Sep09
	3	5.75 Feb33	-0.52	Feb02		3	5.00 Aug39	-1.10	Aug07
	4	4.75 Sep21	-0.09	Mar11		4	4.50 Mar26	-1.10	Sep10
	5	5.00 Sep40 (30y)	-0.01	Sep09		5	3.75 Aug21	-1.09	Feb06
	5	5.00 Mar22	0.95	Sep11		5	5.75 Feb33	-1.03	Feb02
	4	4.00 Feb37	1.19	Aug05		4	4.75 Aug23	-1.00	Feb08
	3	5.50 Nov22 (10y-IK)	1.49	May12		3	5.50 Sep22	-0.99	Mar12
	2	5.50 Sep22	1.73	Mar12		2	4.00 Feb37	-0.98	Aug05
Cheapest	1	4.75 Aug23	2.02	Feb08	Cheapest	1	5.50 Nov22 (10y-IK)	0.03	May12

N'LANDS

	Versus Fitted Yield Curve					Versus Swap Curve (CAS)			
	Rank		ZScore	Issued		Rank		ZScore	Issued
Richest	1	2.50 Jan33	-0.88	Mar12	Richest	1	3.75 Jan42 (30y)	-0.75	May10
	2	3.75 Jan23	-0.36	Jan06		2	2.50 Jan33	-0.73	Mar12
	3	3.75 Jan42 (30y)	-0.09	May10		3	4.00 Jan37	-0.66	Apr05
	3	2.25 Jul22 (10y)	0.59	Feb12		3	3.75 Jan23	-0.39	Jan06
	2	4.00 Jan37	0.59	Apr05		2	2.25 Jul22 (10y)	-0.30	Feb12
Cheapest	1	3.25 Jul21	0.67	Mar11	Cheapest	1	3.25 Jul21	-0.27	Mar11

SPAIN

	Versus Fitted Yield Curve					Versus Swap Curve (CAS)			
	Rank		ZScore	Issued		Rank		ZScore	Issued
Richest	1	4.70 Jul41 (30y)	-1.01	Sep09	Richest	1	5.75 Jul32	-0.51	Jan01
	2	5.75 Jul32	-0.99	Jan01		2	5.90 Jul26	-0.45	Mar11
	3	5.90 Jul26	-0.08	Mar11		3	4.80 Jan24	-0.44	Sep08
	4	4.80 Jan24	0.47	Sep08		4	5.50 Apr21	-0.43	Jan11
	5		#VALUE!			5		#VALUE!	
	5		#VALUE!			5		#VALUE!	
	4	5.50 Apr21	1.06	Jan11		4	4.20 Jan37	-0.37	Jan05
	3	4.90 Jul40	1.31	Jun07		3	5.85 Jan22 (10y-FBB)	-0.35	Nov11
	2	5.85 Jan22 (10y-FBB)	1.32	Nov11		2	4.90 Jul40	-0.35	Jun07
Cheapest	1	4.20 Jan37	1.35	Jan05	Cheapest	1	4.70 Jul41 (30y)	-0.34	Sep09

BELGIUM

	Versus Fitted Yield Curve					Versus Swap Curve (CAS)			
	Rank		ZScore	Issued		Rank		ZScore	Issued
Richest	1	4.25 Sep21	-1.02	Jan11	Richest	1	4.00 Mar32	-1.20	Mar12
	2	4.00 Mar32	-0.44	Mar12		2	5.00 Mar35	-1.18	May04
	3	4.00 Mar22	0.07	May06		3	4.50 Mar26	-1.14	Jun11
	3	4.25 Sep22 (10y)	0.46	Jan12		3	4.25 Sep21	-1.08	Jan11
	2	4.50 Mar26	0.71	Jun11		2	4.00 Mar22	-1.08	May06
Cheapest	1	5.00 Mar35	0.90	May04	Cheapest	1	4.25 Sep22 (10y)	-1.04	Jan12

Source: Citi Research

Current ARTS Trading Signals

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Short and long term signals have moved apart …

… Due to differing outlooks of risk aversion …

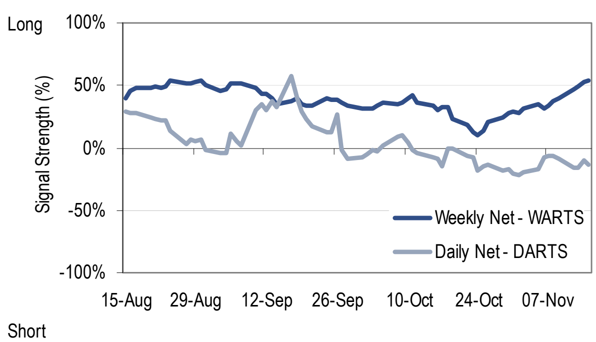
… resulting in a long duration portfolio but with tight stops.

The long duration risk / reward has weakened in the short term but improved in the long term hence we would maintain longs but with tight stops.

This week the weekly algorithmic rates trading signals[2] have become disconnected from the daily signals[3]. The long term models (WARTS) have increased longs to 54% while the short term models (DARTS) have increased shorts exposure to 12% (Figure 42). This disconnection between trading signals is being driven by differing measures of risk aversion. In WARTS risk aversion remains raised and therefore supportive of long duration, however in DARTS it has collapsed, supporting a short duration position. Meanwhile momentum signals remain supportive of duration across both models (given the recent sustained rally in rates) and there is broad agreement that fundamentals remain weak.

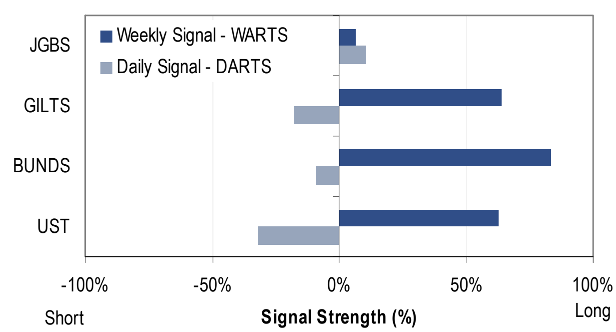
At an asset level positioning continues to be diverse between DARTS and WARTS (Figure 43). As a result the signals maintain a long position, with the strongest signals being in Bunds.

Figure 42. Evolution history of the daily / weekly 10y net signal



Source: Citi Investment Research and Analysis

Figure 43. Breakdown of current daily and weekly net signals

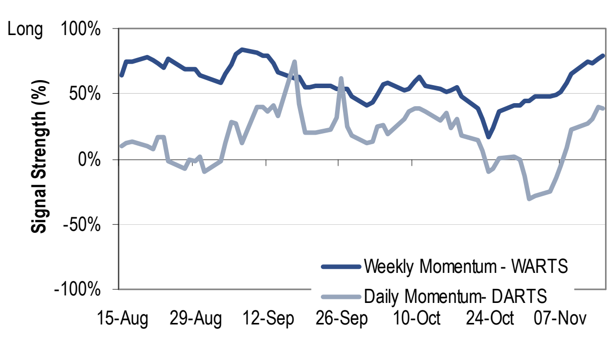


Source: Citi Investment Research and Analysis

Currently trend dominates the momentum signal, driving the long duration position …

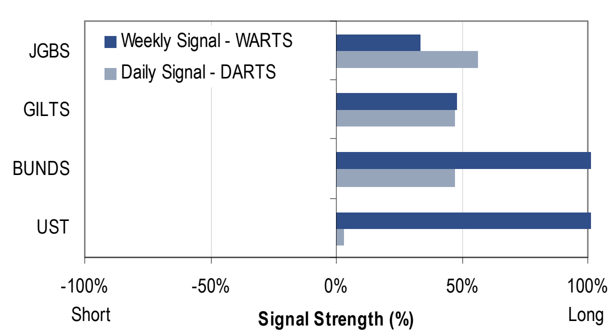
The momentum signal has been increasing duration exposure in DARTS and WARTS (Figure 44). This is being driven by stronger trend, which has been established given the sustained move lower in yields. However the signals are weaker in DARTS given a larger component of reversion in the short term. At an asset level signals show Bunds remain the most attractive but there is less certainty in UST (Figure 45).

Figure 44. Evolution history of the daily / weekly 10y momentum signal



Source: CIRA, Bloomberg

Figure 45. Breakdown of current daily and weekly momentum signals

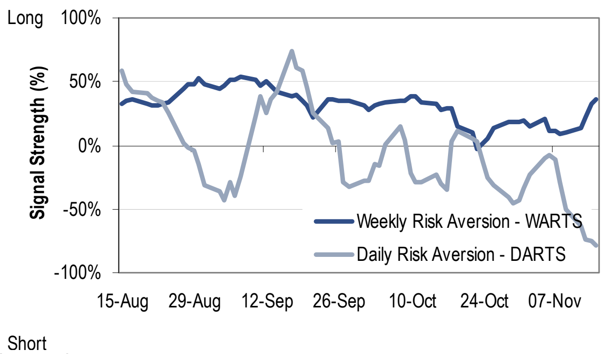


Source: CIRA, Bloomberg

[2] The current signals are calibrated as of market close 7th November 2012.

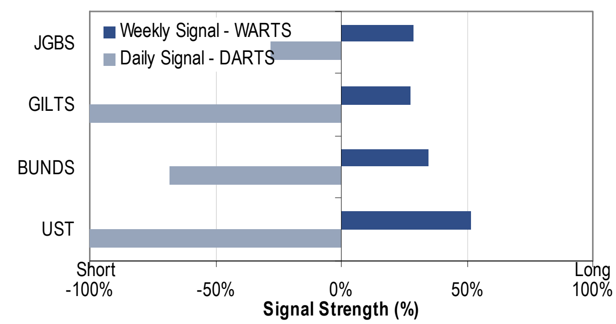
[3] See DARTS Signals, 15th November 2012 for the latest breakdown

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



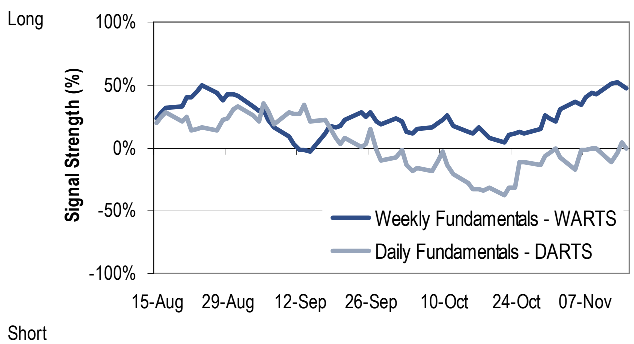
Source: Citi Investment Research and Analysis

Figure 47. Breakdown of current daily and weekly risk aversion signals



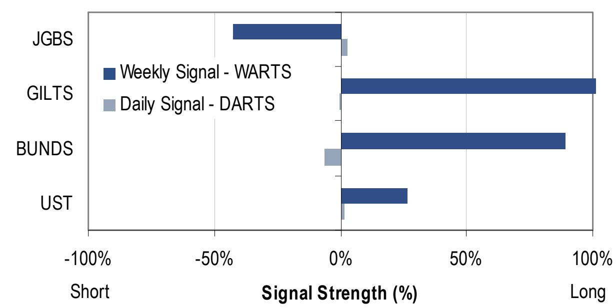
Source: CIRA, Bloomberg

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



Source: CIRA, Bloomberg

Figure 49. Breakdown of current daily and weekly fundamental signals



Source: CIRA, Bloomberg

… Meanwhile risk aversion has fallen in the short term but risen in the longer due to different market betas.

Meanwhile, the risk aversion signal has become disconnected between the models. In WARTS, risk aversion has mildly risen but in DARTS it has collapsed and hence is strongly supportive of a short duration position (Figure 46). This has occurred as a result of the model selecting a larger component of mean reversion dynamic (i.e. as risk assets sell off there is an increased probability that they will correct higher and hence bonds sell off). This pattern is also occurring at the asset level where all assets forecast “risk on” in the short term but not in the longer term (Figure 47).

… But fundamentals have broadly weakened across all signals, suggesting the momentum of upward surprises in economic data is weakening.

Finally, fundamentals have continued to weaken in the long term but remain fair-value in the short term (Figure 48). As with last week the models find that the momentum of positive macro data releases is forecast to weaken over the longer term horizon. For instance the economic surprise index (ESI) is at YTD highs. Given its mean reverting nature there is an increased probability of a disappointment ahead as the market become overly optimistic. At the asset level the longer term outlook remains weak, particularly for Gilts and Bunds (see Figure 49).

The signals suggest an increase in duration exposure to 25%, with an overweight bias in Bunds.

In summary, trends are becoming stronger but this has coincided with a higher probability of a short term risk reversal (given the strong “risk on” signal in DARTS). Hence the combined signals maintain an overall duration position to 25%, however this is being run with tight stops given the combination of net short in DARTS and the stronger risk signal. Alternatively the models are waiting for more attractive levels to add to duration.

Supply Analysis and Forecasts

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Our regular detailed supply analysis is now published separately under the title "*Weekly Supply Monitor*". Please click *here* for the most recent edition.

This publication includes 3 main areas:

Analysis of supply in the coming week and month

Analysis of upcoming supply

- Weekly DV01 of supply in EUR, GBP, and USD – historic and projected
- Maturity split of expected issuance next week in EUR, GBP, and USD
- Gross supply (and DV01) next week and month, by maturity and country
- 4-week issuance calendar incl. buybacks (DV01 and futures equivalents)

Profile of cash flows

Coupons…

- Coupons by maturity for each of the next 4 weeks in EUR, GBP, and USD
- Total coupons for each of the next 4 weeks, by maturity sector and country
- Coupon payment dates and amounts by country for next 3 months
- Monthly coupon totals for next 3 months

Redemptions…

- Redemptions for each of the next 4 weeks, by maturity sector and country
- Redemption dates and amounts by country for next 3 months
- Monthly redemption totals for next 3 months

Net cash requirements…

- Net cash requirement for each of the next 4 weeks for EUR, GBP and USD
- 2012 monthly net cash requirements by maturity for GBP and USD

Detailed supply forecasts

Supply forecasts

- 2012 and 2013 forecasts by currency and for each EMU-11 country
- Monthly EMU-11 net and gross supply by country and maturity to end-2012
- YTD issuance progress: percentage and vs 3yr average at this stage
- UK gilt remit progress by maturity + syndications

Click *here* for link…

Please click *here* for the document.

Provisional auction calendar for the next four weeks

Figure 50. Provisional Auction Calendar for the Next Four Weeks, Gross Issuance (Billions), DV01 (USD Millions)

Date	Country	Estimated Size (Local Ccy)	Issue Details (Estimated)	DV01 $million/bp	Approx. Number 10yr Futures TYZ2 (UST)	G Z2 (Gilt)	RXZ2 (Bund)
19 Nov (Mon)	US	7 - 8	Outright Treasury Coupon Sales: 31/7/2015 - 15/11/2015		25k		
20 Nov (Tue)	UK	4.5	1% Treasury Gilt 2017 (issue and size confirmed)			23k	
20 Nov (Tue)	US	1.75 - 2.25	Outright Treasury Coupon Purchases: 15/2/2036 - 15/11/2042		-55k		
21 Nov (Wed)	Germany	4.0	Bund 1.5% Sep22 reopening (issue and size confirmed)				33k
21 Nov (Wed)	US	13.0	10-Year TIPS (re-opening)		156k		
21 Nov (Wed)	US	7 - 8	Outright Treasury Coupon Sales : 30/11/2015 - 31/1/2016		25k		
22 Nov (Thu)	Spain	3.5	Obligaciones 2yr, 5yr and 10yr (estimated tenors and size)				16k
			Weekly $DV01 of Issuance	**22.7**			
			Total Number of Futures Contracts		**151k**	**23k**	**49k**

Date	Country	Estimated Size (Local Ccy)	Issue Details (Estimated)	DV01 $million/bp	Approx. Number 10yr Futures TYZ2 (UST)	G Z2 (Gilt)	RXZ2 (Bund)
26 Nov (Mon)	Belgium	3.0	OLO 5yr, 10yr and 15yr (estimated tenors and size)				26k
26 Nov (Mon)	US	1.75 - 2.25	Outright Treasury Coupon Purchases: 15/2/2036 - 15/11/2042		-55k		
27 Nov (Tue)	Netherlands	2.5	DSL Apr15 reopening (issue confirmed, size €2-3bn)				5k
27 Nov (Tue)	Italy	3.0	CTZ (estimated size)				5k
27 Nov (Tue)	UK	3.7	Syndicated re-opening of 0⅛% Index-linked Gilt 2044 (second half of November)			116k	
27 Nov (Tue)	US	35.0	2-Year		86k		
27 Nov (Tue)	US	1.5 - 2	Outright Treasury Coupon Purchases: 15/2/2023 - 15/2/2031		-34k		
28 Nov (Wed)	Germany	3.0	Bobl-164 0.5% Oct17 reopening (issue and size confirmed)				13k
28 Nov (Wed)	US	35.0	5-Year		205k		
28 Nov (Wed)	US	1.75 - 2.25	Outright Treasury Coupon Purchases: 15/2/2036 - 15/11/2042		-55k		
28 Nov (Wed)	US	4.25 - 5.25	Outright Treasury Coupon Purchases: 30/11/2018 - 15/11/2020		-48k		
29 Nov (Thu)	Italy	7.0	BTP 5yr and 10yr (estimated tenors and size)				44k
29 Nov (Thu)	Italy	2.0	CCTeu (estimated size)				4k
29 Nov (Thu)	US	29.0	7-Year		234k		
29 Nov (Thu)	US	4.25 - 5.25	Outright Treasury Coupon Purchases: 15/2/2021 - 15/11/2022		-49k		
30 Nov (Fri)	US	1.75 - 2.25	Outright Treasury Coupon Purchases : 15/2/2036 - 15/11/2042		-55k		
			Weekly $DV01 of Issuance	**49.3**			
			Total Number of Futures Contracts		**229k**	**116k**	**97k**

Date	Country	Estimated Size (Local Ccy)	Issue Details (Estimated)	DV01 $million/bp	Approx. Number 10yr Futures TYZ2 (UST)	G Z2 (Gilt)	RXZ2 (Bund)
05 Dec (Wed)	Germany	4.0	Schatz Dec14 reopening (issue and size confirmed)				7k
05 Dec (Wed)	Spain	3.0	Bono 2yr, 5yr, obligaciones 10yr (estimated tenors and size)				13k
06 Dec (Thu)	France	5.1	OAT 5yr, 10yr and 15yr (estimated tenors and size)				51k
			Weekly $DV01 of Issuance	**9.9**			
			Total Number of Futures Contracts		**0k**	**0k**	**70k**

Date	Country	Estimated Size (Local Ccy)	Issue Details (Estimated)	DV01 $million/bp	Approx. Number 10yr Futures TYZ2 (UST)	G Z2 (Gilt)	RXZ2 (Bund)
11 Dec (Tue)	Austria	1.3	RAGB 5yr and 10yr (estimated tenors and size)				8k
11 Dec (Tue)	UK	3.2	1¾% Treasury Gilt 2022 (issue confirmed, estimated size)			31k	
11 Dec (Tue)	US	32.0	3-Year		78k		
12 Dec (Wed)	US	21.0	10-Year (re-opening)		228k		
13 Dec (Thu)	Italy	7.0	BTP 3yr, 5yr and 10yr (estimated tenors and size)				27k
13 Dec (Thu)	Spain	3.0	Obligaciones 2yr, 5yr and 10yr (estimated tenors and size)				13k
13 Dec (Thu)	UK	1.3	Re-opening of index-linked gilt 2024 (issue confirmed, estimated size)			17k	
13 Dec (Thu)	US	13.0	30-year (re-opening)		313k		
			Weekly $DV01 of Issuance	**64.4**			
			Total Number of Futures Contracts		**620k**	**48k**	**48k**

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

Source: DMOs, Citi estimates

EUR: Coupons & Redemptions (next 3 mths)

Figure 51. EMU-11 Redemptions over the next three months (€bn)

	Redemptions = €158bn										
Redemptions	DEU 41	FRA 30	NLD 16	ITA 51	ESP 14	BEL 6	AUT 0	FIN 0	PRT 0	GRC 0	IRL 0
(Fri) 14-Dec-12	17.0										
(Sat) 15-Dec-12				18.7							
(Mon) 24-Dec-12						5.9					
(Wed) 26-Dec-12		5.5									
(Mon) 31-Dec-12				11.5							
(Fri) 04-Jan-13	24.0										
(Sat) 12-Jan-13		24.7									
(Tue) 15-Jan-13			15.5								
(Thu) 31-Jan-13					14.3						
(Fri) 01-Feb-13				21.0							

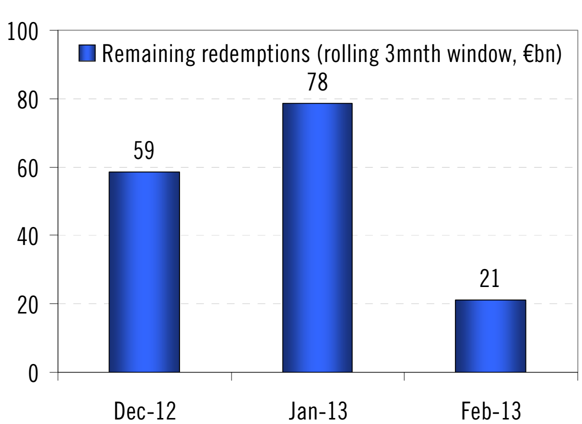
Source: DMOs, Bloomberg, Citi Research

Figure 52. EMU-11 Coupon Payments over the next three months (€bn)

	Coupons = €40bn										
Coupons	DEU 12	FRA 3	NLD 4	ITA 13	ESP 7	BEL 0	AUT 1	FIN 0	PRT 0	GRC 0	IRL 0
(Thu) 15-Nov-12				0.4							
(Thu) 22-Nov-12							0.2				
(Sat) 01-Dec-12				1.0							
(Thu) 13-Dec-12	0.04										
(Fri) 14-Dec-12	0.2										
(Sat) 15-Dec-12				1.0							
(Sat) 22-Dec-12				0.1							
(Mon) 24-Dec-12						0.5					
(Wed) 26-Dec-12		0.5									
(Tue) 01-Jan-13				0.8							
(Fri) 04-Jan-13	11.7										
(Sat) 12-Jan-13		1.7									
(Tue) 15-Jan-13		0.6	3.9	0.3			0.6				0.3
(Sun) 20-Jan-13											0.02
(Sat) 26-Jan-13							0.1				
(Thu) 31-Jan-13					7.2						
(Fri) 01-Feb-13				9.4							

Source: DMOs, Bloomberg, Citi Research

Figure 53. EMU-11 remaining redemptions over the next three months (€bn)



Source: DMOs, Bloomberg, Citi Research

Figure 54. EMU-11 remaining coupons over the next three months (€bn)

Source: DMOs, Bloomberg, Citi Research

Summary of Recent Publications

Date	Publication	Topic	Page	Region
08-Nov-12	European Weekly	ECB Meeting	8	EUR
		LTRO: The Early Repayment Option	9	EUR
		Impact of CACs on 2013 EMU issuance	11	EUR
		France: a contrarian performer in 2012	16	EUR
		MPC on hold: Attention shifts to the Inflation Report	17	UK
08-Nov-12	NOTE	Weekly Supply Monitor: Euro, US and UK supply outlook	-	Global
01-Nov-12	European Weekly	Keep an Eye on the ESI	8	Global
		Sterling Rates Strategy	10	UK
		The ESM as an Investor	12	EUR
		EMU-11: Profile for the rest of 2012	16	EUR
01-Nov-12	NOTE	Weekly Supply Monitor: Euro, US and UK supply outlook	-	Global
01-Nov-12	NOTE	EMU-11: Profile of Supply to end-2012	-	EUR
29-Oct-12	NOTE	European Flow Analysis: Divergence between core and peripheral appetite	-	EUR
29-Oct-12	NOTE	UK Rates Strategy: Seasonality in November	-	UK
25-Oct-12	European Weekly	Sovereign Ratings Outlook and Key Expected Ratings Issues	12	Global
		November Seasonality in Bunds and Gilts	14	EUR
		Euro Inflation Strategy: November issuance could be light	17	EUR
25-Oct-12	NOTE	Weekly Supply Monitor: Euro, US and UK Supply Outlook	-	EUR
25-Oct-12	NOTE	European Thematic Research: Rates market implications of a severe growth shock	-	EUR
22-Oct-12	NOTE	European Flow Analysis in Pictures: Short-Term Confidence Returning	-	EUR
19-Oct-12	NOTE	European Inflation-Linked Index Projection	-	EUR
18-Oct-12	European Weekly	Bund: A Framework for Direction	8	EUR
		Moody's keeps Spain at Baa3…what next?	11	EUR
		Flows before and after Spain's downgrade	12	EUR
		Sterling Rates Strategy: Tactical 10s30s flatteners and 2s5s7s RV flies	14	UK
		EUR Vol: Sell Vega vs Gamma	17	EUR
		SSA Supply and Relative Value	20	EUR
		Month-end EGBI projection highlights	22	EUR

Notes

Notes

Appendix A-1

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