

## European Rates Weekly

### EGBs: How to position for Q2

- **EGB portfolio allocation:** Following a strong Q1 for EGBs, we update our portfolio allocation for Q2. We recommend being short overall duration (96%) with small underweights in all countries except for Finland and Ireland (unchanged) and a small overweight in the Netherlands. The main risk to this view is QE from the ECB. However, while QE is being discussed, we think it is unlikely for now.
- **EUR vol:** Roll-down based flows and change of preferences among callable players allow for attractive strategies in the vega region of the EUR surface: we recommend investors buy 20y20y ATMF swaption payer vs. 5y5y (vega neutral) and sell the belly of the 7y20y/10y20y/15y20y ATMF receiver swaption fly (1x2x1).
- **UK – gilt-Bunds and betas:** The 10yr gilt-Bund spread is near multi-year wides. However, the structural widening trend is not over, in our view, and we target 160bp later this year. We use beta analysis to examine the mechanics behind the gilt-Bund spread and show that widening can occur even in range-bound markets.
- **EGB liquidity:** We view the recent tightening in bid-offer spreads for peripherals as a function of lower yields, higher volumes and subdued intra-day volatility. We provide a comparison of bid-offer spreads for selected countries and tenors.
- **Greece & Ireland:** Greece is likely to return to markets in Q2 (we expect a €1.5-€2bn 5yr). This is likely to be viewed favourably by rating agencies and the investor community. Ireland will issue next week as well as on 8<sup>th</sup> May. We anticipate good demand for the auctions and for the investor base to progressively diversify.
- **Euro inflation - new Bundei30:** Germany will issue a new Bundei30 via auction on Tuesday 8 April. This will extend the existing German real yield curve by 7 years. The Bundei30 will be the only AAA-rated IL bond in the 10yr+ sector and long-dated break-even forwards look historically attractive. We also estimate fair value.
- **SSA cash flows in April:** We identify €21bn in redemptions from euro fixed rate bonds from key supras and agencies we typically cover in our publications. Redemptions from EIB (€8.25bn) and KfW (€7bn) are likely to outweigh euro supply.
- **Covered bonds:** We look back at Q1 and summarize primary market activities, compare them with our expectations and give an outlook for the next three months.
- **Relative value trades:** We highlight a number of relative value opportunities in the 2-10yr sector of the French, Dutch, Italian and gilt yield curves.
- **Supply:** In Europe, next week's supply comes from Austria (€1.21bn), Germany (€6bn), Ireland (around €1bn), Netherlands (€2-3bn) and Italy (around €7bn). The UK DMO will issue £1.3bn of IL34 next Tuesday.

---

#### Alessandro Tentori

+44-20-7986-9224  
alessandro.tentori@citi.com

#### Jamie Searle

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

#### Matteo Regesta

+44-20-7986-9101  
matteo.regesta@citi.com

#### Peter Goves

+44-20-7986-3215  
peter.goves@citi.com

#### Nishay Patel

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

#### Michael Spies

+49-69-1366-8403  
michael.spies@citi.com

#### Aman Bansal, CFA

+91-22-4277-5021  
aman1.bansal@citi.com

#### Mohit Aggarwal

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

---

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

Citi Research is a division of Citigroup Global Markets Inc. (the "Firm"), which does and seeks to do business with companies covered in its research reports. As a result, investors should be aware that the Firm may have a conflict of interest that could affect the objectivity of this report. Investors should consider this report as only a single factor in making their investment decision. Certain products (not inconsistent with the author's published research) are available only on Citi's portals.

**This page is left intentionally blank**

## Contents

Contents	3
Duration Scorecard	5
Tradesheet	6
EGB: Q1 Performance & Q2 Allocation	8
EUR Vol: Vega RV Analysis & Trades	10
UK Rates – Gilt-Bunds and betas	12
Market Technicals: EGB Liquidity Snapshot	14
Greece: Three items for the outlook	16
Ireland: Q2 issuance calendar and outlook	17
Euro Inflation: New Bundeis30	18
Supportive SSA cash-flows in April	20
Covered Bond Strategy	21
Relative value trades	23
Relative value tables	24
EMU relative value table – all maturities	25
EMU relative value table – max 12yr maturity	26
EMU relative value table – min 8yr maturity	27
UK relative value table	28
4 Week Auction Calendar: US, EMU-10, UK	29
EMU: Coupons & Redemptions (Next 3mths)	30
ESP and ITA Bill Issuance Projections	31
Inflation Forecasts, Carry & Weekly Changes	32
Summary of Recent Publications	34
Summary of Recent Publications	34
Appendix A-1	37

Figure 1. Strategy Summary Table

Europe	View	Strategies
<b>Direction</b>	The ECB kept policy unchanged in April, as expected, but further easing looks likely in the coming months. But, with Bund yields around 1.6% we would be underweight for medium-term investment horizons.	Play the range: sell below 1.6% and long above 2% .
<b>Money Market</b>	We continue to like decoupling strategies with USD money markets such as buying ERM4 vs EDM4. In the UK, we retain a bearish bias on the very front-end and recommend selling the rallies.	Buy ERM4 vs EDM4 (or use U4) Receive EUR 2y1y vs USD 2y1y
<b>Yield Curve</b>	We expect the supply profile over the coming weeks to put flattening pressure on EUR 10s30s. An attractive way to capture a decline in curvature in the front-end of the euro curve is to receive the belly of EUR 1y1y/3y1y/5y2y using -1:1.5:-1 weights as this trade offers positive carry and a short duration exposure.	Receive belly of EUR 1y1y/3y1y/5y2y (using -1:1.5:-1 weights) Hold BTP 10s30s steepener
<b>Cross-market</b>	The likelihood of further stimulus from the ECB supports our view that Bunds will continue to outperform USTs given the diverging policy/growth/inflation outlook. Despite the 10yr spread already at historic wides, we think this can move further. The same is true for the 10yr gilt-Bund spread. We also like selling 5yr gilts vs USTs following recent moves.	Sell 5yr gilts vs UST Stay short 10yr gilts vs Bunds Long 10yr Bunds vs UST (add on corrections)
<b>EMU Spreads</b>	Ireland will hold a bond auction next week; we continue to expect Ireland to gravitate towards the soft core and target a yield spread of 110bp to Germany in Q4. The outlook for Greece, which may return to bond markets soon, is also steadily improving. Elsewhere, we remain short DSL 37s vs Bunds. More broadly, expectations for policy easing by the ECB is likely to maintain the tightening trend in EMU spreads.	Long Spain vs Italy Remain short France vs Belgium and Germany (in either 5s or 10s) Sell 20yr DSLs vs Bunds Range trade 10yr OAT-Bunds (50bp/70bp)
<b>Swap Spreads</b>	In the UK, 30yr swap spreads offer tactical value, in our view, given the light supply calendar into long gilts over the coming weeks.	Close long 5yr Germany vs swaps at revised stop Buy 30yr gilts vs swaps
<b>Inflation</b>	Euro break-evens continue to perform well, buoyed by the ECB, despite the heavy supply calendar over the coming weeks. The main event next week will be the auction of a new Bundeis30, the longest linker ever issued by Germany. In the UK, front-end break-evens have corrected lower, but the downside is likely to be limited, in our view.	Maintain long in IL gilt 2017 break-even Sell BTPei18 vs OATei18 break-even Sell BTPei19 vs BTPei17 and BTPei23 real yield Sell OATei22 vs OATei20 and OATei24 real yield
<b>Volatility</b>	Whilst black swans can, and indeed have, appeared to wreak havoc on carry trades (they showed up at least twice in 2013), we believe that long positions on receiver swaptions in the top left corner are the safest way to play the ECB at the current market juncture, given the limited downside and the current cheap gamma vol valuation.	Long 1y3y ATM Receiver Swaption
<b>SSA</b>	Look to the primary market for liquidity pockets to add exposure selectively. Move up in quality, especially from EMU sovereigns of lower ratings, when spread levels and liquidity permit.	Long the front-end of EIB vs France Long Dutch agencies vs the Netherlands Long EU vs other supras with larger supply pipelines
For a list of outstanding trade strategies please see the Tradesheet section of this report		

Futures trading involves substantial risk of loss.

Source: Citi Research

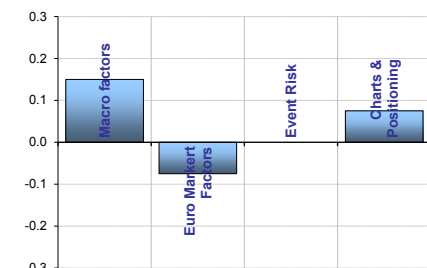
## Duration Scorecard

Figure 2. Bund Weekly Cheat Sheet: 4 – 10 Apr

Bund Directional Scorecard (1w horizon)			
Recommendation	Buy	RXM4 (EOD Thurs) = 142.95	
Conviction level	Medium	CTD yield = 1.29%      10day del vol = 3.69%	
Signal Strength (+/-2)			
Macro factors	0.2	Weight = 40%	
ECB	1	Citi expects the ECB to cut rates in June	10.0%
Fed, BoE and BOJ	-1	Tapering likely to continue	7.5%
Inflation	1	Citi expects core inflation to subside to 0.5% by year-end	7.5%
Growth related data	-1	Consensus expects NFP to increase to 200k for March	5.0%
Citi surprise	1	Citi Economic Surprise Index slightly negative	5.0%
Middle East / Oil	1	Citi expects Brent at \$100 in 2Q14	5.0%
Euro Markert Factors	-0.1	Weight = 25%	
Supply	2	Core supply offset by German cash flows	5.0%
Risk appetite	-1	GRAMI indicates very low levels of risk aversion	5.0%
Flow	0	Demand flat for the core	2.5%
Equity	-1	Eurostoxx50 at its highest level in 5 years	5.0%
Sovereign credit	-1	Peripheral yields at multi year low	5.0%
FX	-1	Citi expects EURUSD at 1.4 by year-end	2.5%
Event Risk	0.0	Weight = 13%	
Politics	0	Developments in the Ukraine have failed to meaningfully impact Bunds	5.0%
3yr LTRO	0	We expect a new 1yr LTRO in 2H14	5.0%
Stability mechanisms	0	Nothing on the agenda in the near-term	2.5%
Charts & Positioning	0.1	Weight = 23%	
Technicals	1	Bottom of the upward channel	7.5%
T-Note	0	Neutral	5.0%
CFTC	-1	Shorts building up	5.0%
ARTS	1	Mild long	5.0%
Source: Citi Research    NOTE: Futures trading involves a substantial risk of loss			

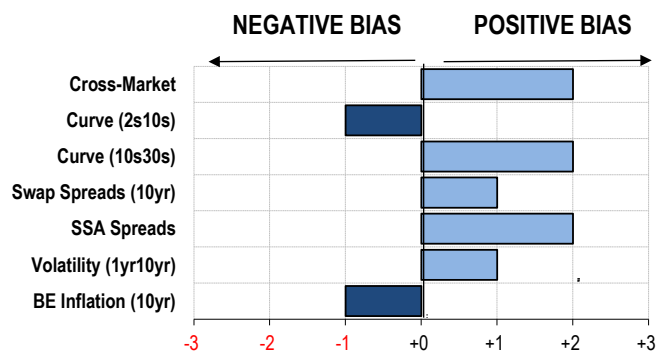
Source: Citi Research NOTE: Futures trading involves a substantial risk of loss

Figure 3. Contribution to Bund Signals



Source: Citi Research

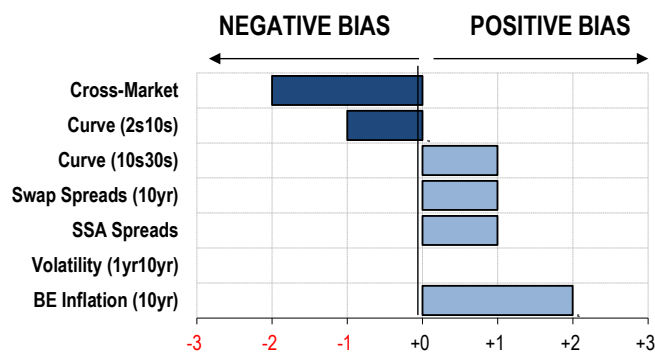
Figure 4. EURO AREA (Near-term Bias)



Source: Citi Research

POSITIVE bias = bullish vs UST, flatter curve, wider swap spreads, tighter SSA spreads, higher implied vol, wider BE inflation

Figure 5. UK (Near-term Bias)



Source: Citi Research

POSITIVE bias = bullish vs Bunds, flatter curve, wider swap spreads, tighter SSA spreads, higher implied vol, wider BE inflation

# Tradesheet

## Record of Our Closed Trades

Figure 6. Record of our Closed Trades

Region	Trade	Levels	Rationale	
UK / US	Receive 15y15y GBP vs USD	Open -63bp Current -40bp	Hit Stop 27 March 2014	
Cross Market	Receive 15y15y GBP at 3.61% Pay 15y15y USD at 4.24%	P&L -23bp Target -100bp Stop -40bp	European Rates Weekly, 30 January 2014	
EUR	Buy 5yr Germany vs Swaps	Open -33bp Current -33bp	Hit Revised Stop 2 April 2014	
Swap Spreads	Buy Bobl-167 (Oct18) vs swaps (YYS) at -33bp	P&L 0bp Target -50bp Stop -33bp	European Rates Weekly, 16 January 2014 Revised Stop: The Morning Call 5 Feb	

Source: Citi Research

## Record of Our Open Trades

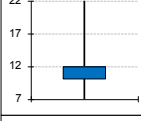
Figure 7. Record of our Open Trades

Region	Trade	Levels	Rationale + Publication Date	
UK / US	Sell 5yr gilts vs UST	Open 7bp Current 5bp	The recent outperformance of 5yr UK vs the US looks stretched given respective policy rate outlooks	
Cross Market	Sell gilt 1.75% Jul19 at 1.93% Buy UST 0.875% Jul19 at 1.86%	P&L -2.4bp Target 30bp Stop -5bp	Euro Rates Weekly, 27 March 2014	
EUR	Buy ERM4 and sell EDM4	Open -5bp Current -8bp	Attractive entry levels and benefits from ECB policy rate view	
Money Market	Buy ERM4 at 99.69 Sell EDM4 at 99.74	P&L -2.5bp Target 5bp Stop -10bp	Euro Rates Strategy, 11 March 2014	
EUR	Buy BNG 2.5% Nov17 vs DSL 2.25% Jan18	Open 10bp Current 11.8bp	Tactically good entry point for spread compression trade	
SSA	Buy BNG 2.5% Nov17 at 0.63% Sell DSL 2.25% Jan18 at 0.53%	P&L -1.8bp Target 3bp Stop 14bp	European Rates Weekly, 27 February 2014	
EUR	Sell BTPei19 vs BTPei17 and BTPei23	Open -46bp Current -44bp	Fade the richness of 5yr BTPei.	
Inflation	Buy BTPei17 at 1.04% Sell BTPei19 at 1.53% Buy BTPei23 at 2.48%	P&L 2bp Target -26bp Stop -56bp	European Rates Weekly, 20 February 2014	
EUR	Sell BTPei18 break-even vs OATei18	Open 13.5bp Current 13bp	BTPei likely to reverse some of the richness now that Boblei18 and OATei18 auctions are over.	
Inflation	Sell OATei18 break-even at 79.5bp Buy OATei18 break-even at 93bp	P&L -1bp Target 28bp Stop 6bp	European Rates Weekly, 20 February 2014	
EUR	BTP 10s30s steepener	Open 106bp Current 114bp	Macro factors, cash flow profile, expect strong demand for new 10yr BTP and +ve carry are supportive for steepeners	
Curve	Buy BTP Aug23 at 3.49% Buy BTP Sep44 at 4.54%	P&L 8bp Target 144bp Stop 90bp	European Rates Weekly, 20 February 2014	
EUR	Buy OATei20 and OATei24 vs OATei22	Open 2bp Current 3bp	OATei22 looks too rich on the curve; OATei24 likely to perform after auction is out of the way	
Inflation	Buy OATei20 at 0.10% Sell OATei22 at 0.42% Buy OATei24 at 0.72%	P&L 1bp Target 10bp Stop -2bp	Euro Inflation Strategy, 19 February 2014	
UK	Buy IL gilt 2017 break-evens	Open 2.71% Current 2.91%	We believe that RPI-CPI wedge to widen over the medium-term	
Inflation	Buy IL gilt 2017 break-evens at 2.71%	P&L 20bp Revised Target 3.15% Revised Stop 2.70%	UK Rates Strategy, 18 February 2014 Revised: UK Inflation Strategy, 25 March 2014	

Futures trading involves substantial risk of loss.

Source: Citi Research

Figure 8. Record of our Open Trades (continued)

EUR	Buy 30yr Netherlands vs Austria	Open 14bp Current 14.1bp P&L 0.1bp Target 24bp Stop 8bp	Close to historically tight levels. Uncertainty surrounding the Austria banking sector should weigh on Austrian bonds	
Cross Market	Buy DSL Jan42 at 2.67% Sell RAGB Jun44 at 2.81%		European Rates Weekly, 12 February 2014	
UK / US	Sell UKT 2.25% Sep23 vs UST 2.5% Aug23	Open 6.5bp Current 2bp P&L -4bp Target 30bp Stop -5bp	We expect the MPC to hike three quarters ahead of the Fed	
Cross Market	Sell UKT 2.25% Sep23 at 2.82% Buy UST 2.5% Aug23 at 2.77%		European Rates Weekly, 23 January 2014	
EUR	Long Bund Jan37 vs DSL Jan37	Open 12bp Current 10bp P&L -2bp Target 22bp Stop 7bp	Optically attractive entry level + relative supply pressures are more favourable for Bunds than DSLs	
Cross Market	Buy Bund 4% Jan37 at 2.72% Sell DSL 4% Jan37 at 2.84%		European Rates Weekly, 9 January 2014	
EUR	Long 10yr Spain vs Italy	Open 20bp Current 4bp P&L 16bp Target -25bp Stop 45bp	Spain has a stable rating and lower political risks compared with Italy	
Cross Market	Buy Bono 4.4% Oct23s at 4.26% Sell BTP 4.5% May23s at 4.06%		European Rates Weekly 5 Dec 2013	
EUR	Sell France vs Belgium and Germany	Open 6bp Current 6bp P&L 0bp Target 16bp Stop 1bp	Attractive entry level, possible auction concession and non-supportive cash flow profile for OATs into year-end	
Cross Market	Sell BTAN 1.75% Feb17 at 0.51% Buy OLO 4% Mar17 at 0.66% Buy Bobl 0.5% Apr17 at 0.30%		Euro Rates Strategy, 8 November 2013.	
EUR / UK	Sell UKT Sep23 vs DBR Aug23	Open 85bp Current 124bp P&L 39bp Target 140bp Stop 58bp Revised Stop 85bp	Entry levels are attractive for medium-term gilt-Bund wideners	
Cross Market	Sell UKT 2.25% Sep23 at 2.60% Buy DBR 2% Aug23 at 1.75%		European Rates Weekly, 24 October 2013. Revised Stop: UK Rates Strategy, 11 November 2013	
UK	Sell 30yr gilt swap spreads vs 10yr	Open 20bp Current 24bp P&L 4bp Target 50bp Stop 10bp	Fiscal risks, supply pressures and the absence of QE to put steepening pressure on the gilt curve.	
Swap spread	Sell gilt 3.25% Jan44 ASW at 20bp Buy gilt 1.75% Sep22 ASW at 0bp		UK Rates Strategy, 30 July 2013	
EUR	Receive EUR 10y2y vs 12y3y	Open 4bp Current 16bp P&L 12bp Target 25bp Stop -5bp	Cheapness of the sector due to legacy ASW positions. The trade offers a positive roll-down for relatively low volatility	
Curve	Receive EUR 10y2y at 3.1% Pay EUR 12y3y at 3.14%		The Morning Call, 23 January 2013	
UK	Sell GBP 2y2y ATM straddle	Open 76bp Current 26bp P&L 50bp Target 0bp Stop 114bp	The fundamental backdrop in the UK supports selling GBP 2y2y vol	
Volatility	Sell GBP 2y2y ATM (1.04%) straddle at 76bps		IIRS 12 July 2012	

Source: Citi Research

## EGB: Q1 Performance & Q2 Allocation

Alessandro Tentori  
Head of International Rates Strategy  
+44-20-7986-9224  
[alessandro.tentori@citi.com](mailto:alessandro.tentori@citi.com)

Domestic inflation and UST rally have helped EGB performance in Q1...

...in addition to tighter sovereign credit spreads and the "hunt" for duration

Q1 has been a very good quarter for EGB portfolios. Our allocation for Q2 takes into consideration both an expected partial retracement of the Q1 decline in core yields as well as our overall positive bias towards peripheral EGBs in 2014. Risks to overweight EGBI duration result mainly from higher US yields. Also market expectations of QE in the Eurozone might be overly optimistic at least in the short term.

EGBs had a stellar start of the year with the broad EMU GBI returning 3.8% during Q1 2014. Below consensus HICP prints together with a significant rally in US Treasuries relative to forwards<sup>1</sup> are the main reasons for the performance of long-duration strategies. In addition, we can further decompose EMU index performance between "issuer names" and "curve sectors" (Figure 9):

- **Issuer performance:** Spain is leading the pack with +5.8% (Italy +5.2%), while Finland is lagging with a total return of +2.5%. Bono/Bund 10y spreads tightened by approximately 55bp in Q1.
- **Curve performance:** The long-end was the clear performer with the 10-15y sector delivering +6.4% and the +10y bucket +7.2%. The front-end (1-3y) returned an anaemic +0.7% return. In fact, EUR 2/10s swaps flattened by 32bp in Q1.

Figure 9. Measuring the performance of EGB portfolios

EGBI Return and Risk Parameters - Issuers										
Date	EMU	Austria	Belgium	Finland	France	Germany	Ireland	Italy	Holland	Spain
2013	2.2%	-1.0%	-0.5%	-1.8%	-0.5%	-2.3%	10.7%	7.0%	-2.1%	10.5%
2014 YTD	3.8%	2.9%	3.3%	2.5%	2.9%	2.6%	4.1%	5.2%	2.7%	5.8%
Outstanding (EUR bn)	5025	198	325	79	1197	990	96	1179	325	647
Index yield (%)	1.63	1.27	1.57	1.14	1.33	0.99	1.91	2.40	1.15	2.15
Index volatility (%)	2.4	3.0	3.2	2.7	3.0	2.8	2.4	2.9	2.8	2.7
Yield/vol ratio	0.7	0.4	0.5	0.4	0.4	0.4	0.8	0.8	0.4	0.8
Index duration	6.5	7.1	6.9	6.2	6.7	6.7	5.2	6.3	6.7	5.7

EGBI Return and Risk Parameters - Curve							
Date	EMU	1-3y	3-5y	5-7y	7-10y	10-15y	10+
2013	2.2%	1.8%	2.3%	3.3%	2.7%	3.4%	1.5%
2014 YTD	3.8%	0.7%	2.1%	3.7%	4.8%	6.4%	7.2%
Outstanding (EUR bn)	5025	1148	945	688	974	478	1269
Index yield (%)	1.63	0.46	0.92	1.47	2.05	2.79	2.98
Index volatility (%)	2.4	0.5	1.4	2.2	3.1	3.6	4.5
Yield/vol ratio	0.7	0.9	0.7	0.7	0.7	0.8	0.7
Index duration	6.5	1.9	3.7	5.3	7.2	9.5	12.9

Source: Citi Research (data as of 2 April 2014)

Our recommended Q1 EGB allocation has outperformed by 19bp

Our active views<sup>2</sup> vs EGBI for Q1 2014 were: Long overall portfolio duration and overweight Ireland, Italy and Spain. We had underweights in Belgium and Finland. This particular portfolio returned 19bp in excess of the benchmark portfolio, i.e. a TR of 3.60% vs BMK at 3.41%.

We look to reduce overall EGB portfolio duration in Q2

For Q2 2014 (Figure 10), we are changing the allocation to: Short overall portfolio duration (96%) with small underweights in all countries except for Finland and Ireland (unchanged) and a small overweight in the Netherlands. This view is based on the quarterly EGB spread forecasts published in the Mar-14 GEOS<sup>3</sup>. In practice, we're calling for absolute yield levels across EGBs to retrace part of the significant

<sup>1</sup> Year-end forwards for UST 10y were 3.43% with a spot yield of 3.04% on 1 Jan-14.

<sup>2</sup> "Prospects for Economies and Financial Markets in 2014 and Beyond" (p. 71-72, 2 December 2013)

<sup>3</sup> "Global Economic Outlook and Strategy: March 2014" (p. 13, 26 March 2014)



Q1 decline (Bunds from 1.92% to 1.60%). At the same time, we keep in mind that our 2014 forecast still implies tighter peripheral spreads at year end.

#### Fading the strong rally in Q1?

The view takes into account the very strong performance seen so far – especially in non-core names – as well as the improved macro landscape for the Netherlands. Specifically, last year's discussion about the “funding/deposits gap” and the poor real estate performance remain confined to a tail risk scenario for the Dutch economy and are unlikely to materialize in the near term.

Figure 10. EGB portfolio allocation for Q2 2014

Citi EGB Portfolio Allocation											
Country	MV	Weight	modD	Index t(0)	Index Live	TR	wTR	Views	New weight	New wTR	Excess TR
Austria	198	3.9%	7.1	372.4	372.4	0.00%	0.00%	-5%	3.7%	0.00%	0.00%
Belgium	325	6.5%	6.9	475.7	475.7	0.00%	0.00%	-5%	6.1%	0.00%	0.00%
Finland	79	1.6%	6.2	329.5	329.5	0.00%	0.00%	0%	1.6%	0.00%	0.00%
France	1197	23.8%	6.7	865.9	865.9	0.00%	0.00%	-5%	22.6%	0.00%	0.00%
Germany	990	19.7%	6.7	577.9	577.9	0.00%	0.00%	-5%	18.7%	0.00%	0.00%
Ireland	96	1.9%	5.2	499.0	499.0	0.00%	0.00%	0%	1.9%	0.00%	0.00%
Italy	1179	23.4%	6.3	1351.4	1351.4	0.00%	0.00%	-5%	22.2%	0.00%	0.00%
Netherlands	325	6.5%	6.7	619.9	619.9	0.00%	0.00%	5%	6.8%	0.00%	0.00%
Spain	647	12.8%	5.7	599.5	599.5	0.00%	0.00%	-5%	12.2%	0.00%	0.00%
Portfolio	5036	100%	6.5				0.00%		96%	0.00%	0.00%

Source: Citi Research (data as of 2 April 2014)

#### QE being discussed...

The main risks to the quarterly view expressed above result from the probability of the ECB embarking on outright QE. On that particular topic, Mr Draghi has disclosed that the GC has had a “rich discussion” about non-conventional tools including also QE. However, the ECB will need additional data evidence before embarking on a new round of non-conventional measures. Also, the financial infrastructure of the Euro area and the Eurosystem is different from the US and the real economic effect of QE is not necessarily obvious as long as the banking sector suffers from heightened heterogeneity.

#### ...but ECB is not ready yet

It may well be that ECB's scenario of a gradual pick-up in HICP will be realized and the necessity of extra stimulus in order to prevent price instability will disappear. In any case, the design of a QE-program is not straightforward and the ECB might need not just further deflation evidence, but also some more time before going this way.

## EUR Vol: Vega RV Analysis & Trades

Matteo Regesta

Volatility

+44-20-7986-9101

[matteo.regesta@citi.com](mailto:matteo.regesta@citi.com)

We recommend investors enter the two following trades:

**Buy 50mn 20y20y swaption payer ATMF &  
Sell 225mn 5y5y swaption payer ATMF**

to get paid EUR 2.98mn upfront. The position is vega neutral at inception.

**Buy 100mn 7y20y swaption receiver ATMF &  
Sell 200mn 10y20y swaption receiver ATMF &  
Buy 100mn 15y20y swaption receiver ATMF**

to get paid EUR 1mn upfront.

We have assumed EONIA discounting.

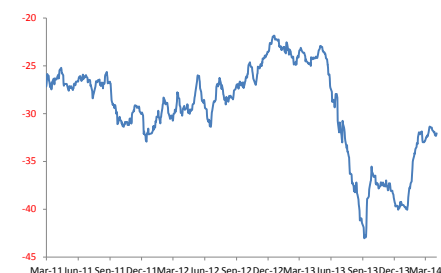
### Rationale:

Shifts in investors' preferences and cap provisions on CMS-linked notes are supportive of long vol positions on 20y20y vs. 5y5y

With respect to the first trade, we have argued for some time that preferences of long-dated swaptions players have changed: portfolio diversification requirements as well as prevailing risk-on mode in the market has facilitated investment rotation from long dated callable notes to long dated credit and EUR peripheral bonds: as a result, vega supply in the bottom right corner has decreased. Moreover cap provisions on CMS linked notes has translated to net vega supply in the belly of the surface<sup>4</sup>. In fact, given these flow trends, we expect the bottom right to continue to outperform the belly (Figure 11).

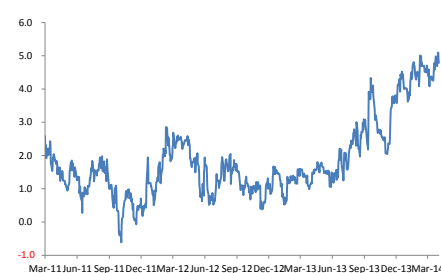
We have chosen to implement the strategy via payers for rolldown considerations: one year rolldown PnL of long position on 20y20y payer is worth 4% of the premium whilst for the short position on 5y5y it is 25%.

Figure 11. Evolution of the 20y20y/5y5y implied volatility spread



Source: Citi Research

Figure 12. Evolution of the 7y20y/10y20y/15y20y implied volatility fly



Source: Citi Research

Gradual erosion of positive rolldown of 10y20y vol should help the point to normalize vis-à-vis adjacent expiries.

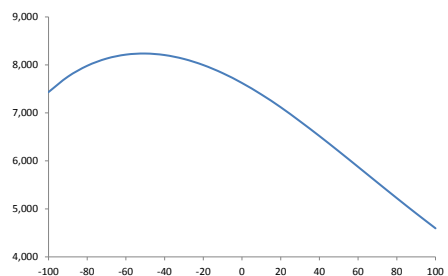
With respect to the second trade, the strategy plays a normalization of 10y expiry on long tenors which in relative value terms has become very expensive: Figure 12 plots the evolution of the 7y20y/10y20y/15y20y calendar implied volatility fly. As shown, it is trading at the historical high. This has been largely due to positively rolling short fixed income market strategies via payer swaptions on 10y expiry such as long 10y20y and 10y30y payer swaption positions. Given these flows, rolldown has been gradually eroded with one year rolldown for 10y20y and 10y30y ATMF payer swaptions now worth just 1% of the premium. In turn, these flows should now fade, thereby supporting the normalization of the vol calendar from current levels.

<sup>4</sup> [EUR Volatility: Vega, Flow Dynamics & Investors' Preferences \(14 March 2014\)](#)

We have chosen to implement the strategy via receiver swaptions to achieve a roughly flat one year rolldown which on this calendar fly is not attained if the trade is based on swaption straddles (or payers), i.e. strategy would have incurred in negative rolldown.

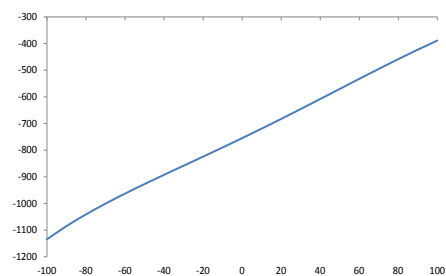
Finally, Figure 13 to Figure 15 below show scenario analysis for delta, gamma and vega assuming instantaneous shifts of the curve (in bp). More detailed risk analysis is available upon request.

**Figure 13. Delta scenario analysis for the 7y20y/10y20y/15y20y calendar fly (EUR)**



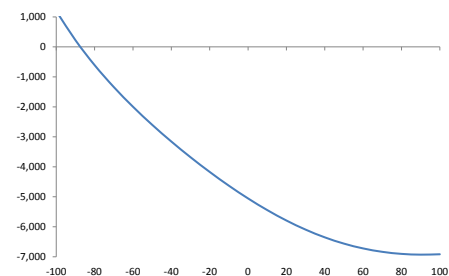
Source: Citi Research

**Figure 14. Gamma scenario analysis for the 7y20y/10y20y/15y20y calendar fly (EUR)**



Source: Citi Research

**Figure 15. Vega scenario analysis for the 7y20y/10y20y/15y20y calendar fly (EUR)**



Source: Citi Research

## UK Rates – Gilt-Bunds and betas

Jamie Searle  
UK, Inflation  
+44-20-7986-9493  
[jamie.searle@citi.com](mailto:jamie.searle@citi.com)

The 10yr gilt-Bund spread is back to within touching distance of the multi-year wides. The spread has become 'stuck' in the 100-115bp range over the last few months, and there appears to be some resistance to a further push wider. However, our long-standing view remains unchanged – we expect 10yr gilt-Bund to widen significantly further reaching around 160bp later this year. This trade requires patience as global yields undoubtedly remain highly correlated. However, high correlations are not inconsistent with structural decoupling, as we show below.

### The mechanics of spread widening

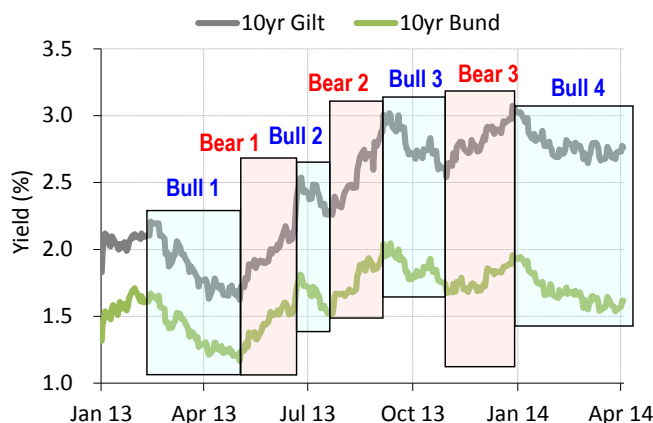
The respective policy rate outlooks for the ECB and MPC underpins our spread widening view

Our spread widening view is underpinned by the respective policy rate outlooks. The ECB appear to be considering further easing and we expect a rate cut at the June meeting (which is a non-consensus view). At the very least, the ECB are a long way from hiking rates. In contrast, the MPC has started to prepare the market for higher policy rates. The market expects the first hike around March/April next year, but we think it could be earlier (in November of this year).

The beta of Bunds to gilts is well below one in a sell-off and close to one in a rally, meaning the spread has a widening bias

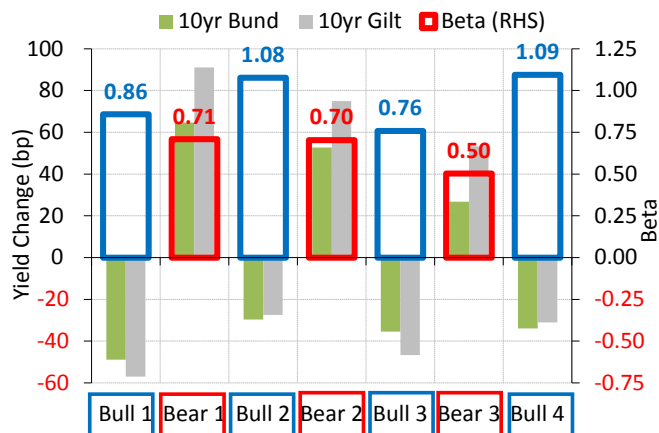
The likely direction of global bond yields is also very important to our widening view. As already noted, yields remain highly correlated (for 10yr gilts vs Bunds,  $r = 0.93$  over the last 3 months). It is a shifting beta which allows spread widening to take place. This is clearly illustrated by the charts below. In Figure 16, we break the last year or so into distinct bullish and bearish phases. In Figure 17, we show yield changes over these phases as well as the beta of Bunds to gilts. There is a clear pattern of a low beta in the bear phases (average 0.64) and a very high beta in the bull phases (average 0.95, but often above one). Put simply, the 10yr gilt-Bund spread tends to widen in a sell-off, but it doesn't necessarily tighten in the rallies.

Figure 16. Short-term correlation is still consistent with de-coupling...



Source: Citi Research, Bloomberg.

Figure 17. ...thanks to contrasting betas in bullish and bearish moves



Source: Citi Research, Bloomberg.

### Looking to the future and alternative scenarios

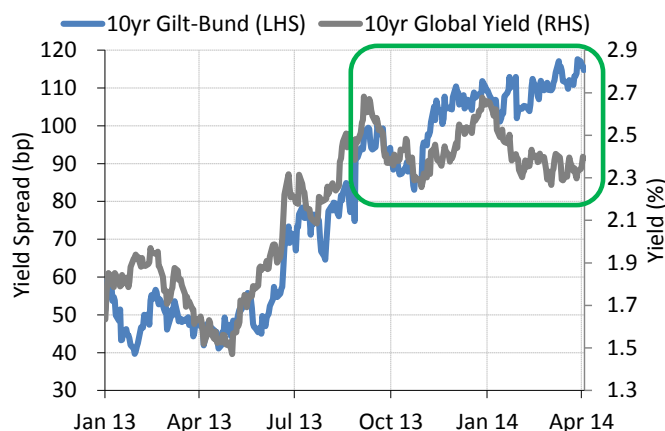
Our yield forecasts imply a further widening in the 10yr gilt-Bund spread of around 45bp by the end of this year

Over the last year or so, there has been a clear bias towards a wider gilt-Bund spread. What of the future? Our latest yield forecasts (see [GEOS](#)) show 10yr Treasuries (currently 2.80%) moving higher by around 55bp to 3.35% later this year. The forecast for 10yr gilts (currently 2.77%) is very similar at 3.40%. However, we expect a far more modest sell-off in 10yr Bunds (currently 1.62%) of around 20bp to 1.80%. These forecasts imply a widening in the 10yr gilt-Bund spread of around 45bp. This is consistent with the beta dynamics above which show that the 10yr gilt-Bund spread widens much more readily in a sell-off.

**Even if we are wrong, and global 10yr yields remain range-bound, we still expect the 10yr gilt-Bund spread to widen further from here**

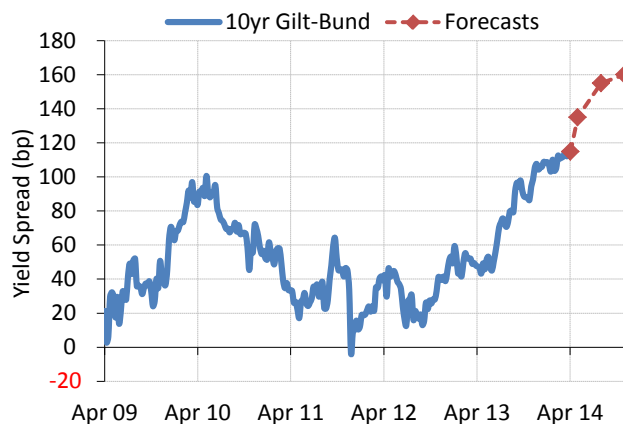
But, what if our yield forecasts are too high? For example, what if the US and UK yield curves bear flatten with the long-end range-trading. Undoubtedly, this would mean that spreads to Bunds do not widen by as much as we envisage, but we still think that widening would take place given longer-term fundamentals (and by more than the forwards which currently imply widening of around 11bp in 10yr gilt-Bunds to year-end). There has been evidence to support this view over the last few months. Global 10yr yields have been broadly range-bound since last September, and yet the 10yr gilt-Bund spread has still managed to trend wider (Figure 18). We would, again, highlight the importance of the beta dynamic. Even in range-bound markets, the spread can widen thanks to the agility of the beta.

Figure 18. Recent spread widening despite range-bound market



Source: Citi Research, Bloomberg.

Figure 19. Citi forecasts for 10yr gilt-Bund spread



Source: Citi Research, Bloomberg.

**VIEW: fade any tightening in gilt-Bunds driven by short-term drivers (such as cash-flows) and add to wideners if a bearish trend is re-established**

## Trading strategy – trust in wideners

The analysis presented above illustrates the widening bias that has been evident recently in the 10yr gilt-Bund spread, even in range-bound markets. We see no reason for this to change given our relatively optimistic macro view on the UK economy vs our relatively pessimistic view on the euro area. We are targeting a widening in the 10yr gilt-Bund spread to around 160bp later this year. At the very least, we are inclined to fade any tightening in gilt-Bunds driven by short-term drivers (such as cash-flows) and add to wideners if a bearish trend is re-established.

# Market Technicals: EGB Liquidity Snapshot

## Sector and country

Nishay Patel

Relative Value

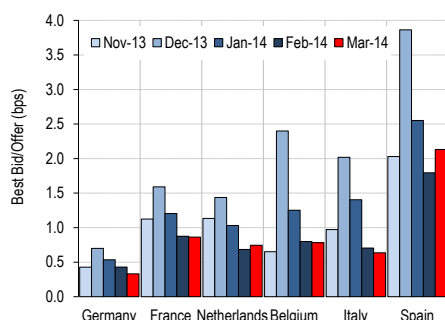
+44-20-7986-1007

[nishay.patel@citi.com](mailto:nishay.patel@citi.com)

■ **EMU issuers:** Figure 20 to Figure 22 below display the average bid-offer spreads<sup>5</sup> in each of the last 5 months for a selection of countries and tenors. All three charts highlight a narrowing in bid-offer spreads over the last few months, particularly for Italy. Shorter maturities (Figure 20) continue to have wider bid-offer spreads than longer maturities (Figure 22).

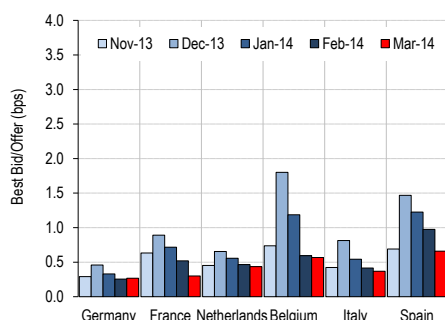
■ We view the tightening in bid-offer yield spreads for peripherals as a reflection of lower yields (lower credit risk in non-core markets), higher volumes and subdued intra-day volatility (more below).

Figure 20. 2yr sector: average of B/O spreads



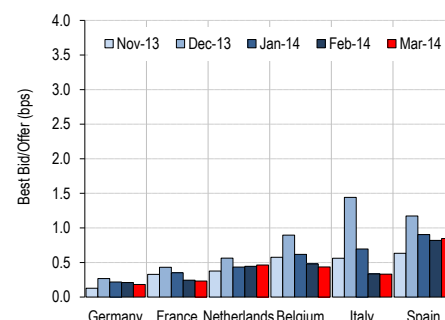
Source: Citi Research, Bloomberg

Figure 21. 5yr sector: average of B/O spreads



Source: Citi Research, Bloomberg

Figure 22. 10yr sector: average of B/O spreads

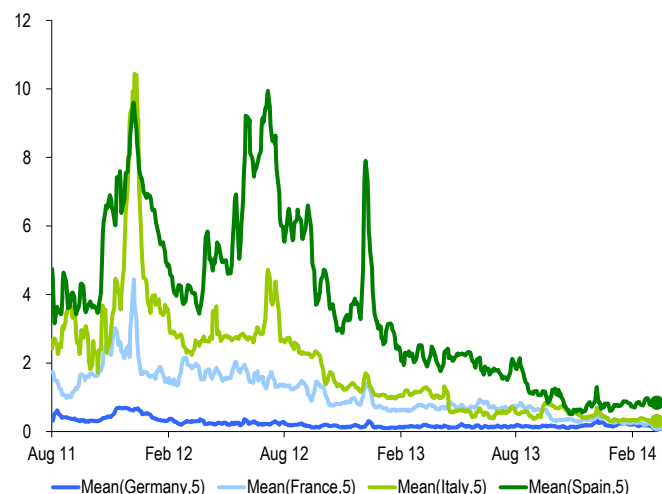


Source: Citi Research, Bloomberg

## Two main drivers

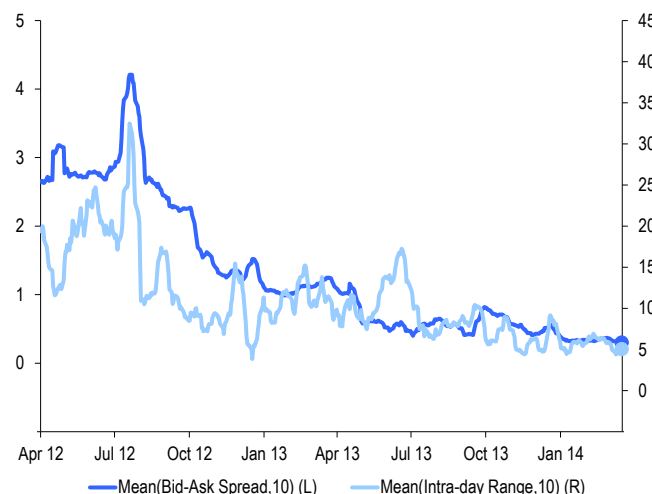
■ **B/O vs intra-day ranges & EMU spreads:** As noted on [previous](#) occasions there has been a strong relationship between intra-day ranges and bid-offer spreads (tighter B/O spreads during small intra-day ranges). This can be seen in Figure 24. Furthermore, higher intraday ranges have tended to coincide with wider EMU spreads.

Figure 23. 10yr bid offer spreads: rolling five day average



Source: Citi Research, Bloomberg

Figure 24. Italy: rolling average of B/O spread and intra-day range (10d)



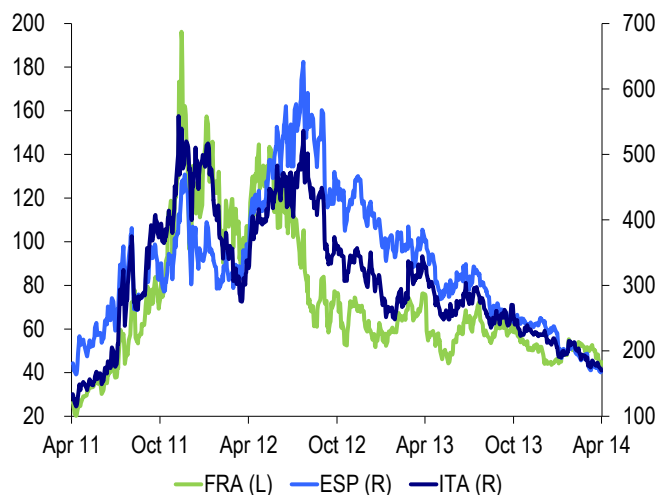
Source: Citi Research, Bloomberg

<sup>5</sup> Defined by the best closing B/O spread (independent of quote size) for each issuer quoted on Bloomberg.

■ **Yield spreads:** The dramatic tightening in core and peripheral spreads to Germany has also been another factor behind the tightening of bid-offer spreads in recent months, in our view. Overlaying yield spreads with bid-offer spreads shows a reasonable relationship. We highlight two examples below:

- **Italy-Germany:** The tightening in yield spreads has filtered through into tighter bid-offer spreads (Figure 26). Although we expect yield spreads to tighten further and have noted a fairly strong relationship between the two variables this does not necessarily mean we expect BTPs to have a tighter bid-offer spread than Bunds.

Figure 25. 10yr yield spreads to Germany (bp)



Source: Citi Research, Bloomberg

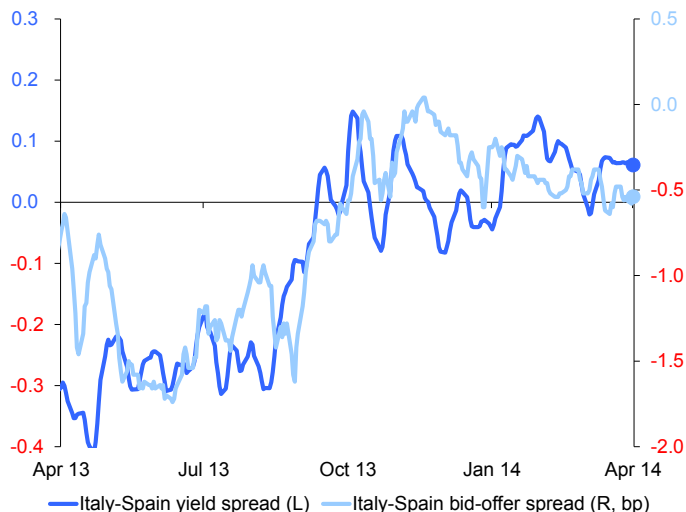
Figure 26. 10yr Italy/Germany: bid-offer yield spread vs yield spread (bp)



Source: Citi Research, Bloomberg

- **Italy-Spain:** Although BTPs have traded both above and below Bonos the liquidity premium embedded into the BTP curve has prevented Italy from having a wider bid-offer yield spread than Spain (Figure 27).

Figure 27. 10yr Italy/Spain: bid-offer yield spread vs yield spread (bp)



Source: Citi Research, Bloomberg

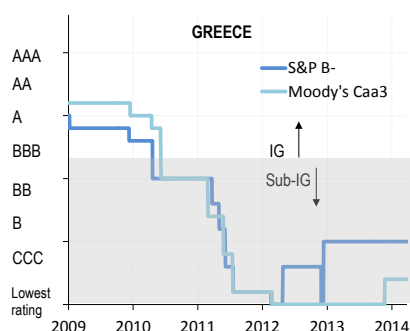
Peter Goves  
EGB and SSA  
+44-20- 7986-3215  
[peter.goves@citi.com](mailto:peter.goves@citi.com)

## Greece: Three items for the outlook

Investor attention on Greece continues to rise, not least given the prospect of bond supply and that Greece features on Moody's rating calendar tomorrow. We distill the near-term outlook into the following three key factors: Greece's rating, supply and likely spread trajectory.

### (1) Rating outlook

Figure 28. Credit Rating History of Greece



Source: Citi Research, Moody's, S&P

**Moody's on Greece:** Moody's has rated Greece Caa3 with a stable outlook since 29<sup>th</sup> November 2012 (Figure 28). This followed a period of being rated C (Moody's lowest rating) with no outlook at all. In their last Credit Opinion (3<sup>rd</sup> March 2014), Moody's indicated that *"the stable outlook on Greece's government bond rating balances the government's improving fiscal position and the drop in debt-service requirements with the country's still-high debt load and political fragility"*.

**Strategy view – chance of an upgrade?** Moody's rates Greece three notches below S&P (B- stable) and there are recent precedents for upgrades to occur from a *stable* outlook (ie without the rating being on positive outlook) given Moody's moves on Ireland and Spain earlier this year. Recent Troika negotiations regarding Greece and the Eurogroup's appraisal are likely to be seen favourably by Moody's due to the continued commitment to reform. Chances of an upgrade have risen, in our view, but our base case remains for the rating to be unchanged tomorrow, although the outlook is likely to be revised to "positive".

**The Friday ratings calendar for EMU:** Full details regarding the rating calendars for Moody's and S&P can be found in our [European Rates Strategy - S&P and Moody's Sovereign Credit Ratings Calendar for 2014](#).

### (2) Bond issuance outlook

**We expect €1.5bn-€2bn in a 3yr-5yr bond soon:** Earlier this week, the Greek Finance Minister stated that *"a small issuance of 3-5 year bonds in the first semester of 2014 will contribute to the financing needs of Greece"*. We pencil in €1.5bn-€2bn in supply some time before June, and note that recent sources have indicated supply could come as early as before Easter ([Sovereign Debt Update](#)).

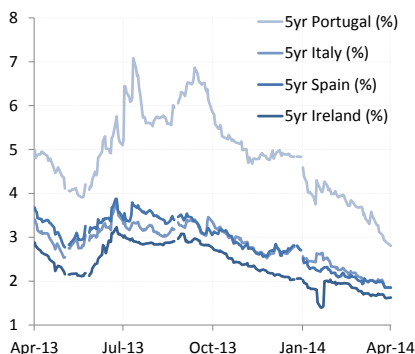
**Significant signal to the wider market:** Bond issuance by Greece will be an important milestone, not only for the sovereign itself (which defaulted in 2012), but also for the wider periphery. Access to capital markets is a crucial step in fostering investor confidence, shoring up market sentiment and will also likely be viewed positively by the rating agencies ([Global Economic Outlook and Strategy](#)).

### (3) Market outlook

**Troika funding and fundamental improvements:** Fundamentals are improving in terms of the growth and fiscal outlook. The Eurogroup noted this week *"with satisfaction that the fiscal performance is on track to exceed the programme targets in 2013 and meet them in 2014"*. Although the debt ratio remains high, the certainty regarding Troika funding is a credit positive: €6.3bn is planned to be released by the end of April and the programme is fully financed for the next 12 months.

**We expect firm demand in this test of appetite:** Given the fundamental improvements, the considerable richening of alternatives within the periphery such as Portugal (Figure 29) and anecdotal evidence of a gradual widening in the investor base, we expect good demand in the event that Greece comes to market. A successful bond issue is likely to be a notable positive elsewhere in the periphery and support further spread compression to the core, in our view.

Figure 29. 5yr non-core yields (%)



Source: Citi Research



# Ireland: Q2 issuance calendar and outlook

Peter Goves  
EGB and SSA  
+44-20- 7986-3215  
[peter.goves@citi.com](mailto:peter.goves@citi.com)

## Auction schedule announced

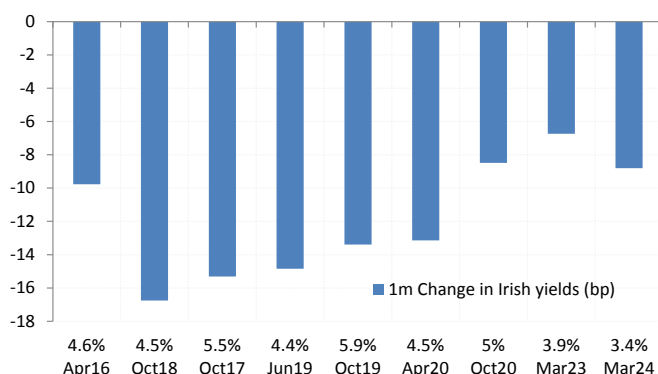
This week, Ireland announced its issuance calendar for Q2. The dates for the bond auctions are bulleted below, with specific details announced on the Monday prior:

- Thursday 10<sup>th</sup> April
- Thursday 8<sup>th</sup> May

**Supply next week:** For the auction next week, we expect €1bn. More broadly, Ireland's market access is likely to remain secure, having made a "clean exit" from its Troika programme and being fully funded for 2014 – although Ireland has indicated a target of €8bn in supply for this year.

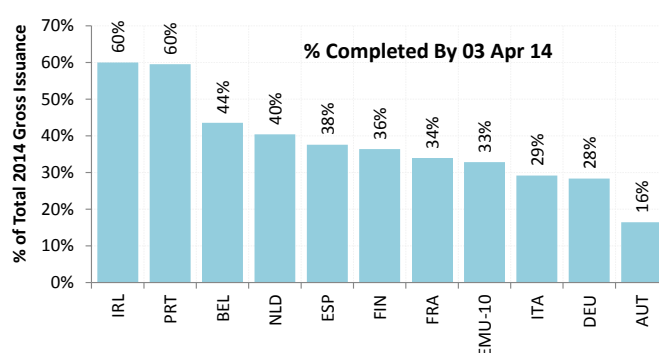
**Issuance progress and outlook:** Following the €3.75bn syndication in January and the €1bn raised in its first auction since 2010 in March, Ireland has achieved 60% of this funding programme already (Figure 31). Such auctions (2 per quarter) will be important in enabling the gradual broadening and diversification of the demand structure for Irish government bonds, which its investment grade status now permits.

Figure 30. 1m Change in Irish Yields (bp)



Source: Citi Research

Figure 31. Issuance completion rates (%)



Source: Citi Research, DMOs

## Ireland features on both Moody's and S&P calendars in Q2

As well as the supply in Q2, attention on Ireland will also settle on its rating again – note that it features on both rating calendar of Moody's (16<sup>th</sup> May) and S&P (6<sup>th</sup> June). Together with further upgrades, we expect 10yr Irish spreads to Bunds to average 110bp in Q4 (from a current level of around 140bp).

Given that Moody's has just upgraded Ireland and updated its expectations, out of the two rating agencies, it's perhaps more likely that S&P upgrades next. S&P has rated Ireland BBB+ ever since January 2012 and moved the outlook to positive in July 2013. Therefore, given the extent of fundamental and market improvements, our base case is for S&P to upgrade Ireland by one notch to A- when Ireland features on its calendar in June this summer.

## Euro Inflation: New Bundeis30

Jamie Searle  
UK, Inflation  
+44-20-7986-9493  
[jamie.searle@citi.com](mailto:jamie.searle@citi.com)

Aman Bansal, CFA

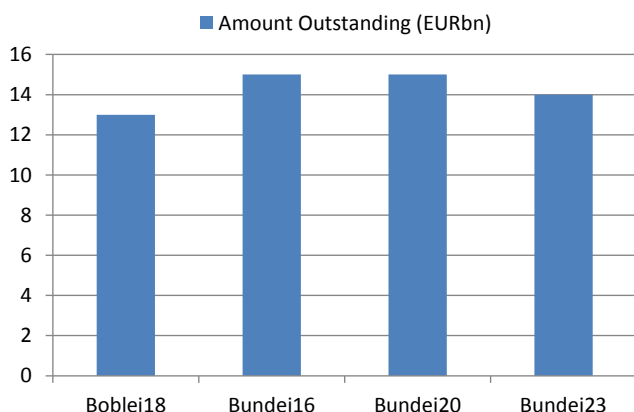
Further new inflation-linked issues are likely over the next year

**A new Bundeis30:** Germany announced earlier this week that it will issue a new Bundeis30 via auction on Tuesday 8 April. The Bundeis30 will have a maturity of 15 April 2030 and a real coupon of 0.50%. The auction size will be €2bn.

**Extending the German real yield curve:** The new Bundeis30 will mark the first time that Germany has ventured beyond the 10yr sector in issuing inflation-linked bonds. The Bundeis23 is currently the longest maturity. A new 30yr Bundeis has occasionally been muted, but a new 16yr is something of a surprise.

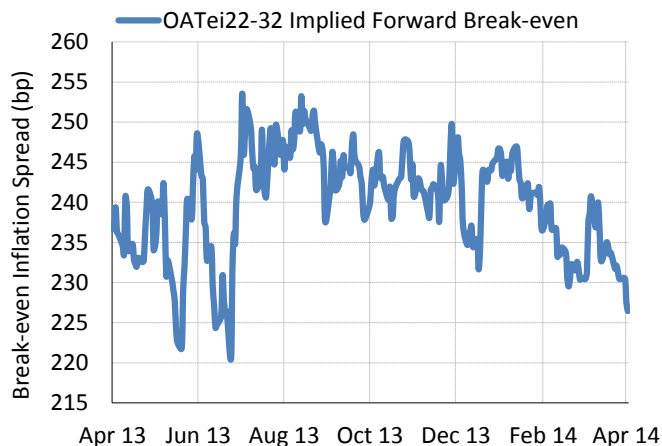
**The need for new Bundeis benchmarks:** All the existing Bobl/Bundeis are either at or approaching 'full-size' (assumed to be €15bn). The on-the-runs – Boblei18 and Bundeis23 – are €13bn and €14bn in size respectively (Figure 32). Germany has an IL issuance target of €10-14bn for Bundeis in 2014. Following this auction, it will have issued €5bn to date. Theoretically, Germany could complete 2014 issuance without issuing another new bond. However, the Bundeis30 may be re-opened less frequently than 5/10yr issues, so a new 5yr, or even filling in the gap with a new 10yr, is possible later this year (or early next). Issuing several new bonds will give Germany greater flexibility in meeting its issuance target for the coming years.

Figure 32. Amount outstanding for existing Bundeis



Source: Citi Research, Bloomberg.

Figure 33. Long-dated forward break-evens have fallen recently



Source: Citi Research, Bloomberg.

### Demand drivers

The new Bundeis30 will offer a positive real yield with the highest credit quality

**Appealing to long-term investors:** The backdrop of low and falling inflation is putting pressure on the front-end of the euro break-even inflation curve. However, the long-end of the break-even curve has held up relatively well in recent months and shows that the market still expects inflation to be above the ECB's target (of close to but below 2%) over the very long-term. For example, the implied break-even forward between OATe22 and OATe32 is currently around 2.25%. However, the long-end forwards have cheapened recently (Figure 33) and may attract interest from those focused on long-term inflation risks. Moreover, by issuing a 16yr Bundeis, Germany will likely capture demand from real liability hedgers as well as offering diversification opportunities. Importantly, this bond will offer a positive real yield (see below) with the highest credit quality.

The new Bundeis30 will create a large extension on the German inflation index and encourage curve extensions

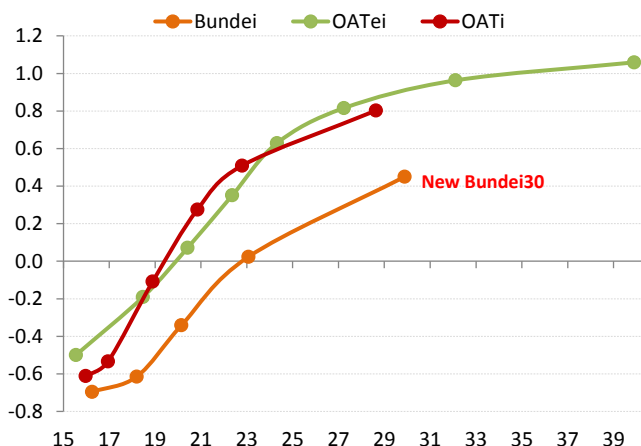
**Index demand:** Another important source of demand will be index-related. At month-end, this issuance will trigger an extension of around 0.04 in the Citi Euro Inflation-Linked Securities Index (ILSI) and an extension of 0.3 years in the Citi German ILSI. This would be the largest extension in the German index since June 2012 and is likely to prompt curve extensions.

## Pricing thoughts and switch opportunities

Our fair value estimate is Bundei23  
+42/50bp

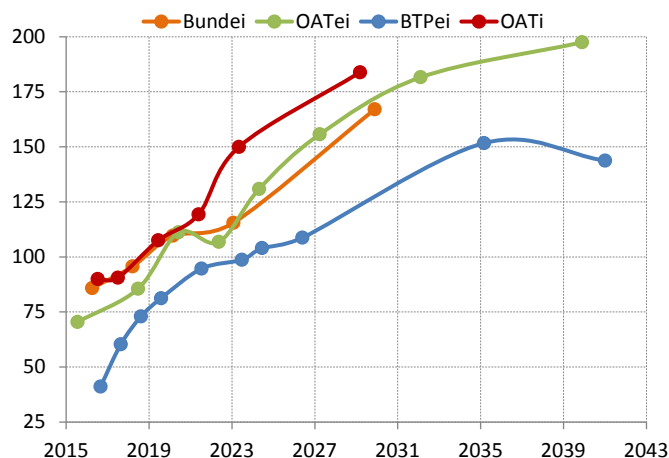
**Fair value:** Assessing fair value is complicated by the 7yr extension of the German real yield curve. Our starting point is to extrapolate the existing real yield curve by using a maturity-matched (and seasonally-adjusted) OATei curve as a guide. This provides a real yield estimate of 0.45% for Bundei30 at the time of writing, equivalent to Bundei23 +42bp. As a reality check, this gives an asset-swap (par-par) spread of around -2bp, compared with around -9bp for Bundei23, which sounds reasonable to us. As an alternative, we also assessed fair value from the starting point of the coupon adjusted spread (CAS) curve. An extrapolation here provides a fair value real yield of 0.52%, or Bundei23 +50bp. This equates to an asset-swap (par-par) of +6bp which may attract good interest. In summary, our fair value range is Bundei23 +42/50bp. The 'true' fair value is probably towards the richer-end of this range, but as always with a new issue some discount may be needed.

Figure 34. Seasonally adjusted real yield curves (%)



Source: Citi Research

Figure 35. Seasonally adjusted break-even curves (bp)



Source: Citi Research

The new Bundei30 is likely to look relatively attractive vs OATei27 and OATei32

**Switch opportunities:** We estimate a break-even inflation spread of around 167-174bp for Bundei30 (using the Bund Jan30 as the conventional). At the rich-end of this estimate, this looks, at worst, comparable with existing OATei (seasonally adjusted, see Figure 35). However, a valuation towards the cheaper end of the range will make the switches out of OATei27 and OATei32 look attractive from a relative value perspective and also offer credit diversification.

Extend from Boblei18 into Bundei30

**Curve extensions:** For those looking to extend on the domestic curve, perhaps ahead of the month-end index extension, switching out of Boblei18 into the new bond is likely to look attractive. The Boblei18 is the richest bond on the Bundei curve judging by CAS valuations vs conventionals. This trade should also benefit in the event of any further fall in the consensus inflation outlook.

The new Bundei30 will extend the existing real yield curve, reach a new investor base and create high-credit-quality diversification opportunities

## Conclusion – a welcome, new frontier

By issuing a new 16yr Bundei, Germany are extending their existing real yield curve, reaching a new investor base and creating high-credit-quality diversification opportunities in the long-end of the euro inflation market. It also allows Germany to offer a bond with a positive real yield. The small size of this auction and index-related demand is likely to ensure to a healthy auction. Re-openings are likely to be less frequent in Bundei30 (Germany plan to increase its size to €13-15bn over 3-4yrs; by way of comparison, Bundei23 has reached €14bn in just under 2yrs) and we expect Germany to issue new 5- and 10-yr benchmarks in the coming year.

## Supportive SSA cash-flows in April

### €21bn in redemptions to be supportive for spreads

Peter Goves

EGB and SSA

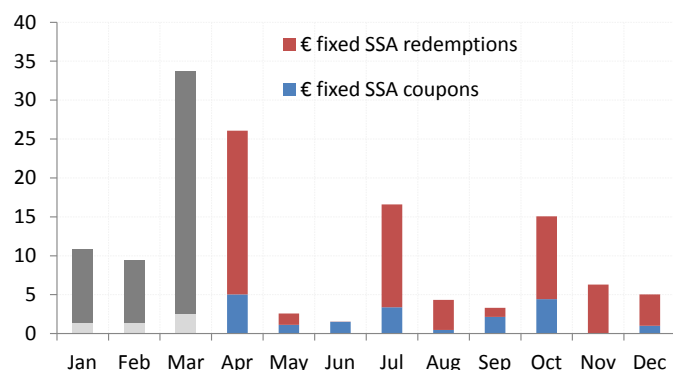
+44-20- 7986-3215

[peter.goves@citi.com](mailto:peter.goves@citi.com)

**High redemptions:** April is another relatively “high redemption month” for the euro supra and agency market. Taking the universe of outstanding euro fixed rate SSA bonds for the key issuers we tend to cover in our publications, we identify €21bn in redemptions that come due in April. This is the second highest month for supportive cash flows following March (Figure 36). All things being equal, this is likely to be positive for spreads in the near-term.

**April’s profile:** The schedule for upcoming redemptions is shown in Figure 37 (taking € fixed rate supra and agency bonds as the universe). For instance, today sees €1bn in redemptions from the EU and €2bn from KfW.

Figure 36. EUR fixed bond SSA cashflows in 2014 (€bn)



Source: Citi Research, Bloomberg

Figure 37. April’s EUR redemptions from key European supras & agencies (€bn)

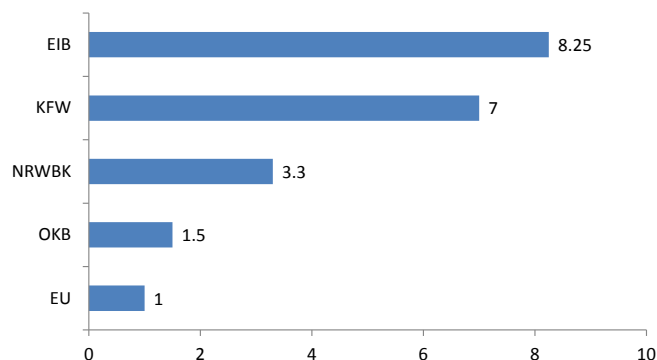
Redemptions	EU 1	EIB 8	KfW 7	NRWBK 3	OKB 2
(Wed) 02-Apr-14				0.1	
(Thu) 03-Apr-14	1.0		2.0		
(Wed) 09-Apr-14				0.3	
(Fri) 11-Apr-14			5.0		
(Tue) 15-Apr-14		8.3		0.5	
(Tue) 22-Apr-14				1.0	
(Fri) 25-Apr-14				1.5	
(Mon) 28-Apr-14					1.5

Source: Citi Research, Bloomberg

**Issuer level analysis:** Drilling deeper into the issuer level (Figure 38), EIB has €8.25 redeeming this month which is likely to outweigh its euro supply in April. EIB is currently nearly half way through its funding programme for year, which is shown in Figure 39 alongside peers. KfW redemptions are also relatively high at €7bn which comes from two issues: one today (€2bn) and one on 11<sup>th</sup> April (€5bn).

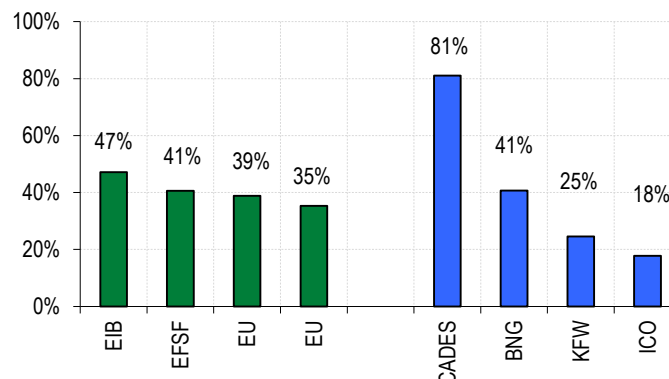
**Spread outlook:** Such cash-flows are likely to act to as a key support in the coming weeks. Together with the wider constructive tone in credit markets, we expect spreads to remain relatively low and range bound.

Figure 38. EUR fixed rate redemptions by issuer in April (€bn)



Source: Citi Research, Bloomberg

Figure 39. Issuer completion rates for 2014 funding programmes (%)



Source: Citi Research, DCM Analytics, Issuer Presentations

## Covered Bond Strategy

Michael Spies  
Covered Bonds, SSA  
+49-69-1366-8403  
[michael.spies@citi.com](mailto:michael.spies@citi.com)

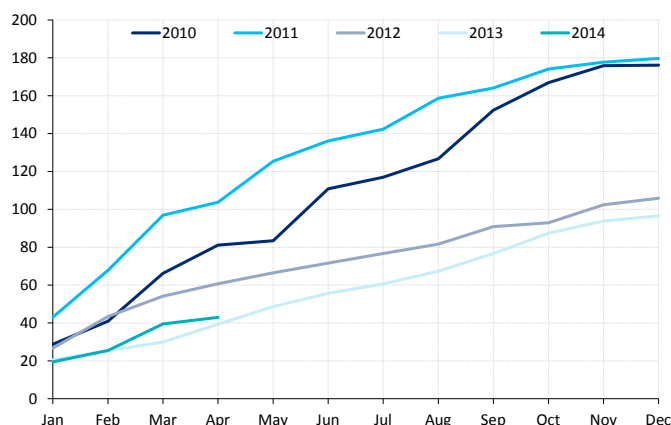
We look back at the first quarter and summarize primary market activities, compare them with our expectations and give an outlook for the next three months. Although some segments surprised to the upside we stick to our FY forecast of €113bn.

### Q1 Review – Q2 Outlook

**Issuance volume in 1Q14 surprised to the upside,...**

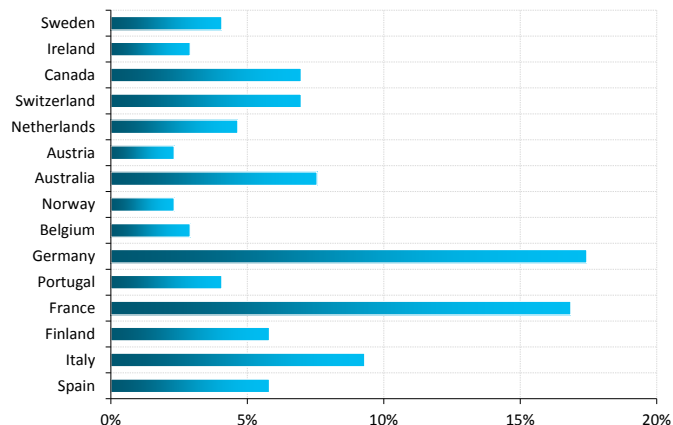
Covered bond market participants seem to be coping with the new reality of low issuance volumes. And that's why issuance activity in March surprised many to the upside, making total 1Q14 numbers relatively strong when compared with the last two years. The biggest issuance volume was recorded from the French banks and – as expected at the end of last year – the biggest positive surprise was the Canadian banks (for more details on the Canadian market, don't miss our latest [Euro SSA and Covered Bond Monthly - APEC – the rising covered bond market](#)). Moreover, we expect further activity soon coming from Berlin Hyp as well as from Aktia.

Figure 40. Historical cumulative primary market activity by year, EURbn



Source: Citi Research

Figure 41. Primary market activity in 2014 by geography, %

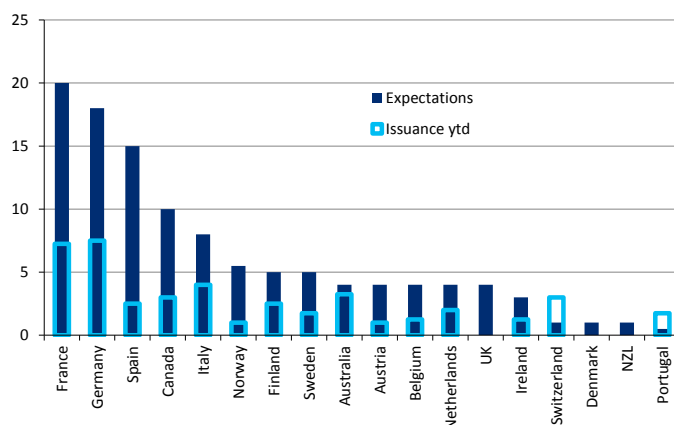


Source: Citi Research

**...especially in Portugal and Switzerland**

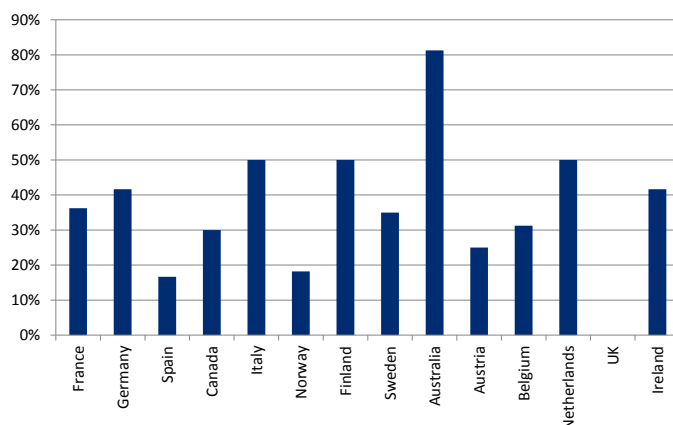
When comparing our expectations on primary market activity with the actual volume issued during the first three months one can already state that some developments have been surprising. In particular, the issuance volumes coming from Portugal and Switzerland have already overshoot our expectations.

Figure 42. Issuance of covered bonds and expectations of primary market activity, EURbn



Source: Citi Research

Figure 43. Completion rates of our expectations, %



Source: Citi Research

**We stick to our initial forecast of €113bn**

However, putting this into perspective, this doesn't mean that a revision is necessary for the overall issuance expectation as both segments are among the smallest ones in the covered bond universe. Another positive surprise is the Australian segment as we had expected an overall volume of €4bn whereas €3.25bn has already been placed to the market. If NAB should follow its peers during the next months, the total volume would probably exceed our expectations from the end of last year. That said, the Spanish covered bond issuers remain below our expectations. Year-to-date, the market was fed by only three benchmark deals with an overall volume of €2.5bn. Apart from that, we think that our projections are on track.

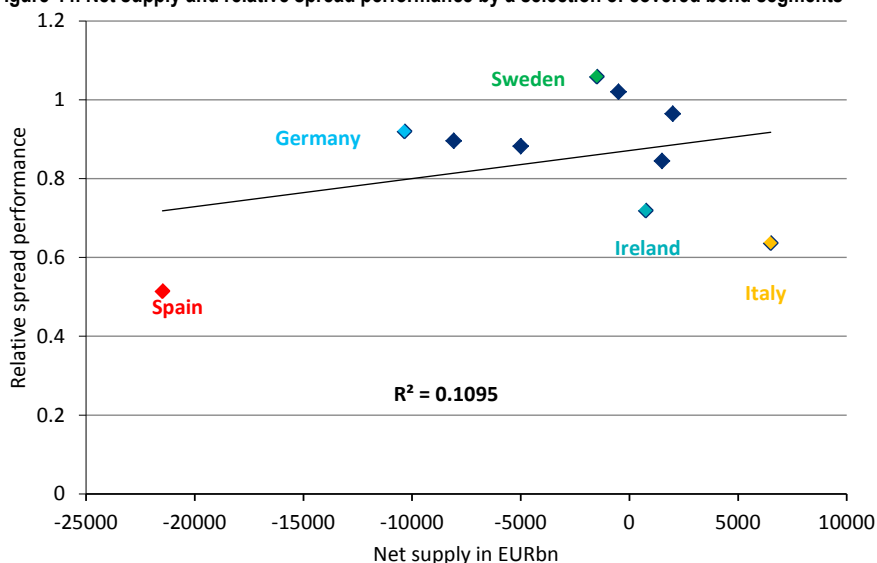
**We expect UK banks to return in 2H14**

In the second half of this year we would not be surprised if UK banks returned to the covered bond market as the end of FLS is within sight. Obviously, the EUR-GBP basis swap will be a factor to decide which market will be the preferred one to return to covered bonds. Looking at the issuance pattern of last year - where the market did not front-load their primary market activity as observed in 2011 and 2012 in anticipation of spreads going lower - we might become rather optimistic on primary market activity for this year as our spread outlook continues to be constructive. Assuming a similar issuance pattern in 2014, we would eventually end up with €128bn of new issuance. This would be €15bn more than we expected. However, at current stage we would stick to our original projection of €113bn as issuers still tend to front-load, although to a lesser extent than some years ago.

**Net negative issuance should be supportive for spreads...**

For secondary markets, net negative supply can be a supportive factor but is clearly not the strongest. Although the top-performer during the last six months has been Spain, where the market volume decreased by €22bn during this period, it's also a matter of fact that the second and third placed segments in terms of performance have been growing – quite substantially when considering their relative size, especially in one case: The Italian covered bond market grew by nearly €9bn during the last six months while the Irish market volume increased by €0.75bn.

**Figure 44. Net supply and relative spread performance by a selection of covered bond segments**



Source: Bloomberg, Markit, Citi Research

**...but won't be the main driver in the upcoming months**

Hence, it's quite obvious that net supply which we expect to be clearly negative in 2014 (€42bn) will not be the main spread driver for covered bonds until year-end. That said, spread compression should continue in the medium-term, albeit to a lesser extent. In some cases we recommend investors to reduce exposure to the high-beta peripheral covered bonds but the general tone should continue to stay positive on these segments (for more on that please see our latest [Euro SSA and Covered Bond Monthly](#)).

## Relative value trades

Mohit Aggarwal

Supply

+91-22-4277-5022

[mohit1.aggarwal@citi.com](mailto:mohit1.aggarwal@citi.com)

*Buy Apr18s vs surrounding issues*

*Buy Oct20s vs surrounding issues*

*Sell Jan17s vs surrounding issues*

We highlight a number of relative value opportunities in the 2-10yr sector of the French, Dutch, Italian and gilt yield curves.

### France: take advantage of cheapness of Apr18s, Oct20s

■ Buy 4% Apr18 vs 1% Jul17 and 4.25% Apr19 (3m carry: 0.2bp) - Figure 45

■ Buy 2.5% Oct20 vs 4.25% Apr19 and 3% Apr22 (3m carry: -0.3bp) - Figure 46.

### Netherlands: fade the richness of Jan17s

■ Sell 2.5% Jan17 vs 0% Apr16 and 1.25% Jan18 (3m carry: 1bp) - Figure 47.

Figure 45. France: 1% Jul17, 4% Apr18, 4.25% Apr19 microfly (bp)



Source: Citi Research

Figure 46. France: 4.25% Apr19, 2.5% Oct20, 3% Apr22 microfly (bp)



Source: Citi Research

Figure 47. Netherlands: 0% Apr16, 2.5% Jan17, 1.25% Jan18 microfly (bp)



Source: Citi Research

### Italy: 8s9s flattener, fade the richness of Mar20s

*Switch into May23s*

*Sell Mar20s vs surrounding issues*

■ Switch from 5% Mar22 to 4.5% May23 at 28.5bp (3m carry: -0.7bp) - Figure 48.

■ Sell 4.25% Mar20 vs 4.25% Feb19 and 4.75% Sep21 (3m carry: -0.4bp) - Figure 49.

### UK: take advantage of cheapness of Sep17s

*Buy Sep17s vs surrounding issues*

■ Buy 1% Sep17 vs 4% Sep16 and 4.5% Mar19 (3m carry: 4.4bp) - Figure 50.

Figure 48. Italy: 4.5% May23 – 5% Mar22 yield spread (bp)



Source: Citi Research

Figure 49. Italy: 4.25% Feb19, 4.25% Mar20, 4.75% Sep21 microfly (bp)



Source: Citi Research

Figure 50. UK: 4% Sep16, 1% Sep17, 4.5% Mar19 microfly (bp)



Source: Citi Research



## Relative value tables

Regular readers will be familiar with the Relative Value Appendix showing individual bonds from the major EMU/UK 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 51 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 51. Yield Spread and CAS to Fitted Relative Value Curve (6m History)

GERMANY

Versus Govt Curve (CAS)						Versus Swap Curve (CAS)					
	Rank		ZScore	Issued	Size (€bn)		Rank		ZScore	Issued	Size (€bn)
<div><div>Richest</div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div>Cheapest</div></div>	1	2.50 Jul44	-1.70	Apr12	16	Richest	1	4.75 Jul40	0.23	Jul08	16
	2	0.25 Apr18	-1.50	Apr13	17		2	4.25 Jul39	0.26	Jan07	14
	3	1.50 Feb23	-1.42	Jan13	18		3	2.50 Jul44	0.27	Apr12	16
	4	1.50 May23	-1.41	May13	18		4	3.25 Jul42	0.32	Jul10	15
	5	2.00 Aug23	-1.32	Sep13	18		5	0.75 Feb17	0.49	Jan12	16
	5	4.75 Jul34	1.52	Jan03	20		5	5.50 Jan31	1.40	Oct00	17
	4	4.00 Jan37	1.76	Jan05	23		4	6.25 Jan30	1.41	Jan00	9
	3	4.25 Jul39	1.80	Jan07	14		3	1.00 Feb19	2.19	Jan14	16
	2	2.75 Apr16	1.85	Apr11	18		2	2.50 Aug46	2.33	Feb14	3
	1	4.75 Jul40	1.95	Jul08	16	Cheapest	1	1.75 Feb24	2.91	Jan14	14

Source: Citi Research

Figure 52 (overleaf) looks at bonds of all maturities. For investors with maturity restrictions we have also provided another set of summary tables (Figure 53 and Figure 54) which looks at bonds shorter than 12 years and longer than 8 years, and uses the same criteria as Figure 52 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.



## EMU relative value table – all maturities

Figure 52. Coupon Adjusted Spread to Fitted Curve and Swap Curve by Country (6m History); All bonds on each curve

		Versus Govt Curve (CAS)					Versus Swap Curve (CAS)				
		Rank		ZScore	Issued	Size (€bn)	Rank		ZScore	Issued	Size (€bn)
GERMANY	Richest	1	2.50 Jul44	-1.70	Apr12	16	1	4.75 Jul40	0.23	Jul08	16
		2	0.25 Apr18	-1.50	Apr13	17	2	4.25 Jul39	0.26	Jan07	14
		3	1.50 Feb23	-1.42	Jan13	18	3	2.50 Jul44	0.27	Apr12	16
		4	1.50 May23	-1.41	May13	18	4	3.25 Jul42	0.32	Jul10	15
		5	2.00 Aug23	-1.32	Sep13	18	5	0.75 Feb17	0.49	Jan12	16
	Cheapest	5	4.75 Jul34	1.52	Jan03	20	5	5.50 Jan31	1.40	Oct00	17
		4	4.00 Jan37	1.76	Jan05	23	4	6.25 Jan30	1.41	Jan00	9
		3	4.25 Jul39	1.80	Jan07	14	3	1.00 Feb19	2.19	Jan14	16
		2	2.75 Apr16	1.85	Apr11	18	2	2.50 Aug46	2.33	Feb14	3
		1	4.75 Jul40	1.95	Jul08	16	1	1.75 Feb24	2.91	Jan14	14
FRANCE	Richest	1	4.25 Oct17	-2.43	Oct06	30	1	1.00 Jul17	-2.14	Jul11	20
		2	1.00 Jul17	-1.91	Jul11	20	2	1.75 Feb17	-2.14	Feb11	20
		3	3.75 Apr17	-1.85	Apr06	35	3	4.25 Oct17	-2.10	Oct06	30
		4	1.75 Feb17	-1.70	Feb11	20	4	3.75 Apr17	-2.03	Apr06	35
		5	4.25 Apr19 (BTA)	-1.56	Apr03	31	5	4.25 Oct23 (OAT)	-1.70	Oct06	33
	Cheapest	5	4.75 Apr35	1.69	Apr03	21	5	3.25 Oct21	-0.13	Oct10	36
		4	3.25 Oct21	1.75	Oct10	36	4	5.75 Oct32	-0.11	Oct00	26
		3	3.75 Apr21	1.75	Apr05	34	3	3.75 Apr21	-0.04	Apr05	34
		2	3.50 Apr26	2.07	Apr10	30	2	3.50 Apr20	0.10	Feb10	36
		1	5.75 Oct32	2.19	Oct00	26	1	2.50 Oct20	0.18	Oct09	35
ITALY	Richest	1	4.75 Jun17	-2.02	Jun12	15	1	3.75 May21	-2.30	Oct13	13
		2	2.75 Nov16	-1.92	Sep13	12	2	3.75 Mar21	-2.27	Sep10	24
		3	4.75 May17	-1.87	Feb12	14	3	3.75 Aug21	-2.18	Feb06	28
		4	4.00 Feb17	-1.86	Aug06	26	4	4.00 Sep20	-2.16	Mar10	25
		5	1.50 Dec16	-1.80	Jan14	12	5	4.25 Mar20	-2.12	Sep09	24
	Cheapest	5	4.50 May23 (IK)	1.33	Mar13	18	5	4.75 Sep28	-1.84	Jan13	18
		4	3.75 Sep24	1.44	Mar14	8	4	5.75 Feb33	-1.82	Feb02	15
		3	3.50 Jun18	1.46	Apr13	20	3	2.25 May16	-1.78	Apr13	15
		2	4.50 Aug18	1.60	Feb08	25	2	3.75 Apr16	-1.72	Apr11	16
		1	4.50 Mar26	1.91	Sep10	21	1	3.75 Sep24	-0.95	Mar14	8
N'LANDS	Richest	1	1.75 Jul23	-2.84	Mar13	16	1	2.50 Jan17	-1.88	Jun11	16
		2	2.50 Jan17	-2.03	Jun11	16	2	1.25 Jan18	-1.52	Jul12	15
		3	3.75 Jan23	-1.64	Jan06	11	3	0.50 Apr17	-1.48	Jan14	7
		4	3.75 Jan42	-1.14	May10	14	4	4.50 Jul17	-1.28	Jul07	15
		5	1.25 Jan18	-1.09	Jul12	15	5	4.00 Jul18	-1.19	Feb08	15
	Cheapest	5	4.50 Jul17	0.40	Jul07	15	5	3.50 Jul20	-0.52	Feb10	15
		4	4.00 Jul16	0.65	Jul06	14	4	3.25 Jul21	-0.52	Mar11	16
		3	0.00 Apr16	1.02	Jan13	15	3	2.50 Jan33	-0.42	Mar12	10
		2	4.00 Jan37	1.50	Apr05	14	2	2.75 Jan47	-0.21	Feb14	4
		1	1.25 Jan19	1.61	Jun13	10	1	2.00 Jul24	0.90	Mar14	7
SPAIN	Richest	1	4.90 Jul40	-2.28	Jun07	13	1	2.75 Apr19	-2.16	Jan14	12
		2	4.00 Apr20	-2.05	Jan10	20	2	4.10 Jul18	-2.07	Feb08	19
		3	4.20 Jan37	-1.87	Jan05	16	3	4.50 Jan18	-2.04	Nov12	19
		4	3.30 Jul16	-1.47	Apr13	17	4	5.50 Jul17	-1.99	Mar02	20
		5	4.70 Jul41	-1.16	Sep09	12	5	4.85 Oct20	-1.95	Jul10	18
	Cheapest	5	5.50 Apr21	0.75	Jan11	24	5	5.15 Oct44	-1.60	Oct13	5
		4	4.10 Jul18	0.86	Feb08	19	4	5.75 Jul32	-1.56	Jan01	15
		3	4.80 Jan24	1.19	Sep08	15	3	5.90 Jul26	-1.55	Mar11	12
		2	4.40 Oct23	1.59	May13	18	2	5.15 Oct28	-1.53	Jul13	9
		1	5.40 Jan23	1.83	Jan13	17	1	3.80 Apr24	-1.34	Jan14	13
BELGIUM	Richest	1	3.00 Sep19	-2.72	Apr12	9	1	4.00 Mar17	-2.33	Jan07	11
		2	3.00 Jun34	-2.35	Mar14	5	2	5.50 Sep17	-2.28	Jun02	8
		3	4.00 Mar17	-1.92	Jan07	11	3	4.00 Mar18	-2.20	Jan08	12
		4	4.25 Sep22	-1.82	Jan12	15	4	3.25 Sep16	-2.15	Jan06	13
		5	5.50 Sep17	-1.76	Jun02	8	5	3.00 Sep19	-2.10	Apr12	9
	Cheapest	5	4.00 Mar22	0.82	May06	14	5	4.00 Mar32	-0.98	Mar12	8
		4	1.25 Jun18	1.59	Feb13	12	4	4.25 Mar41	-0.89	Apr10	14
		3	3.75 Sep20	1.80	Jan10	18	3	5.00 Mar35	-0.72	May04	18
		2	4.25 Sep21	2.08	Jan11	15	2	3.50 Feb64	0.00	Feb14	0
		1	5.00 Mar35	2.61	May04	18	1	3.00 Jun34	1.08	Mar14	5

Source: Citi Research

# EMU relative value table – max 12yr maturity

Figure 53. Coupon Adjusted Spread to Fitted Curve and Swap Curve by Country (6m History); Bonds with a Maximum Maturity of 12yrs

		Versus Govt Curve (CAS)					Versus Swap Curve (CAS)				
		Rank		ZScore	Issued	Size (€bn)	Rank		ZScore	Issued	Size (€bn)
GERMANY	<div> <div>Richest</div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div>Cheapest</div> </div>	1	0.25 Apr18	-1.50	Apr13	17	1	0.75 Feb17	0.49	Jan12	16
		2	1.50 Feb23	-1.42	Jan13	18	2	0.50 Oct17	0.50	Sep12	16
		3	1.50 May23	-1.41	May13	18	3	4.00 Jan18	0.50	Nov07	20
		4	2.00 Aug23	-1.32	Sep13	18	4	3.75 Jan17	0.54	Nov06	20
		5	0.50 Oct17	-1.09	Sep12	16	5	4.25 Jul18	0.56	May08	21
		5	1.25 Oct16	-1.19	Sep11	16	5	2.25 Sep21	1.12	Aug11	16
		4	3.25 Jul21	1.21	Apr11	19	4	2.25 Sep20	1.18	Aug10	16
		3	1.50 Sep22	1.25	Sep12	18	3	2.75 Apr16	1.35	Apr11	18
		2	2.25 Sep21	1.29	Aug11	16	2	1.00 Feb19	2.19	Jan14	16
		1	2.75 Apr16	1.85	Apr11	18	1	1.75 Feb24	2.91	Jan14	14
FRANCE	<div> <div>Richest</div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div>Cheapest</div> </div>	1	4.25 Oct17	-2.43	Oct06	30	1	1.00 Jul17	-2.14	Jul11	20
		2	1.00 Jul17	-1.91	Jul11	20	2	1.75 Feb17	-2.14	Feb11	20
		3	3.75 Apr17	-1.85	Apr06	35	3	4.25 Oct17	-2.10	Oct06	30
		4	1.75 Feb17	-1.70	Feb11	20	4	3.75 Apr17	-2.03	Apr06	35
		5	4.25 Apr19 (BTA)	-1.56	Apr03	31	5	4.25 Oct23 (OAT)	-1.70	Oct06	33
		5	3.25 Apr16	1.30	Apr05	35	5	3.75 Oct19	-0.42	Oct08	32
		4	2.50 Oct20	1.45	Oct09	35	4	3.25 Oct21	-0.13	Oct10	36
		3	3.50 Apr20	1.64	Feb10	36	3	3.75 Apr21	-0.04	Apr05	34
		2	3.25 Oct21	1.75	Oct10	36	2	3.50 Apr20	0.10	Feb10	36
		1	3.75 Apr21	1.75	Apr05	34	1	2.50 Oct20	0.18	Oct09	35
ITALY	<div> <div>Richest</div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div>Cheapest</div> </div>	1	4.75 Jun17	-2.02	Jun12	15	1	3.75 May21	-2.30	Oct13	13
		2	2.75 Nov16	-1.92	Sep13	12	2	3.75 Mar21	-2.27	Sep10	24
		3	4.75 May17	-1.87	Feb12	14	3	3.75 Aug21	-2.18	Feb06	28
		4	4.00 Feb17	-1.86	Aug06	26	4	4.00 Sep20	-2.16	Mar10	25
		5	1.50 Dec16	-1.80	Jan14	12	5	4.25 Mar20	-2.12	Sep09	24
		5	4.50 May23 (IK)	1.33	Mar13	18	5	1.50 Dec16	-1.86	Jan14	12
		4	3.75 Sep24	1.44	Mar14	8	4	4.50 Mar26	-1.84	Sep10	21
		3	3.50 Jun18	1.46	Apr13	20	3	2.25 May16	-1.78	Apr13	15
		2	4.50 Aug18	1.60	Feb08	25	2	3.75 Apr16	-1.72	Apr11	16
		1	4.50 Mar26	1.91	Sep10	21	1	3.75 Sep24	-0.95	Mar14	8
N'LANDS	<div> <div>Richest</div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div>Cheapest</div> </div>	1	1.75 Jul23	-2.84	Mar13	16	1	2.50 Jan17	-1.88	Jun11	16
		2	2.50 Jan17	-2.03	Jun11	16	2	1.25 Jan18	-1.52	Jul12	15
		3	3.75 Jan23	-1.64	Jan06	11	3	0.50 Apr17	-1.48	Jan14	7
		4	1.25 Jan18	-1.09	Jul12	15	4	4.50 Jul17	-1.28	Jul07	15
		5	2.00 Jul24	-0.86	Mar14	7	5	4.00 Jul18	-1.19	Feb08	15
		5	3.25 Jul21	0.25	Mar11	16	5	1.25 Jan19	-0.58	Jun13	10
		4	4.50 Jul17	0.40	Jul07	15	4	4.00 Jul19	-0.54	Feb09	14
		3	4.00 Jul16	0.65	Jul06	14	3	3.50 Jul20	-0.52	Feb10	15
		2	0.00 Apr16	1.02	Jan13	15	2	3.25 Jul21	-0.52	Mar11	16
		1	1.25 Jan19	1.61	Jun13	10	1	2.00 Jul24	0.90	Mar14	7
SPAIN	<div> <div>Richest</div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div>Cheapest</div> </div>	1	4.00 Apr20	-2.05	Jan10	20	1	2.75 Apr19	-2.16	Jan14	12
		2	3.30 Jul16	-1.46	Apr13	17	2	4.10 Jul18	-2.07	Feb08	19
		3	3.25 Apr16	-0.94	Nov10	21	3	4.50 Jan18	-2.04	Nov12	19
		4	4.25 Oct16	-0.83	Sep11	21	4	5.50 Jul17	-1.99	Mar02	20
		5	4.60 Jul19	-0.63	Feb09	18	5	4.85 Oct20	-1.95	Jul10	18
		5	5.50 Apr21	0.76	Jan11	24	5	2.10 Apr17	-1.78	Nov13	14
		4	4.10 Jul18	0.86	Feb08	19	4	4.40 Oct23	-1.76	May13	18
		3	4.80 Jan24	1.20	Sep08	15	3	4.80 Jan24	-1.76	Sep08	15
		2	4.40 Oct23	1.60	May13	18	2	4.65 Jul25	-1.69	Feb10	14
		1	5.40 Jan23	1.84	Jan13	17	1	3.80 Apr24	-1.34	Jan14	13
BELGIUM	<div> <div>Richest</div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div>Cheapest</div> </div>	1	3.00 Sep19	-2.72	Apr12	9	1	4.00 Mar17	-2.33	Jan07	11
		2	4.00 Mar17	-1.92	Jan07	11	2	5.50 Sep17	-2.28	Jun02	8
		3	4.25 Sep22	-1.82	Jan12	15	3	4.00 Mar18	-2.20	Jan08	12
		4	5.50 Sep17	-1.76	Jun02	8	4	3.25 Sep16	-2.15	Jan06	13
		5	2.60 Jun24	-1.17	Jan14	6	5	3.00 Sep19	-2.10	Apr12	9
		5	4.00 Mar18	0.52	Jan08	12	5	4.00 Mar22	-1.72	May06	14
		4	4.00 Mar22	0.82	May06	14	4	3.75 Sep20	-1.67	Jan10	18
		3	1.25 Jun18	1.59	Feb13	12	3	2.25 Jun23	-1.62	Jan13	14
		2	3.75 Sep20	1.80	Jan10	18	2	4.50 Mar26	-1.15	Jun11	8
		1	4.25 Sep21	2.08	Jan11	15	1	2.60 Jun24	-1.01	Jan14	6

Source: Citi Research

# EMU relative value table – min 8yr maturity

Figure 54. Coupon Adjusted Spread to Fitted Curve and Swap Curve by Country (6m History); Bonds with a Minimum Maturity of 8yrs

	Versus Govt Curve (CAS)						Versus Swap Curve (CAS)					
	Rank		ZScore	Issued	Size (€bn)		Rank		ZScore	Issued	Size (€bn)	
GERMANY	<div><div>Richest</div><div></div><div>Cheapest</div></div>	1	2.50 Jul44	-1.70	Apr12	16	1	4.75 Jul40	0.23	Jul08	16	
		2	1.50 Feb23	-1.42	Jan13	18	2	4.25 Jul39	0.26	Jan07	14	
		3	1.50 May23	-1.41	May13	18	3	2.50 Jul44	0.27	Apr12	16	
		4	2.00 Aug23	-1.32	Sep13	18	4	3.25 Jul42	0.32	Jul10	15	
		5	1.75 Feb24	-0.97	Jan14	14	5	4.00 Jan37	0.56	Jan05	23	
	<div><div></div><div></div><div></div></div>	5	5.50 Jan31	1.37	Oct00	17	5	1.50 Sep22	1.07	Sep12	18	
		4	4.75 Jul34	1.52	Jan03	20	4	5.50 Jan31	1.40	Oct00	17	
		3	4.00 Jan37	1.76	Jan05	23	3	6.25 Jan30	1.41	Jan00	9	
		2	4.25 Jul39	1.80	Jan07	14	2	2.50 Aug46	2.33	Feb14	3	
		1	4.75 Jul40	1.95	Jul08	16	1	1.75 Feb24	2.91	Jan14	14	
FRANCE	<div><div>Richest</div><div></div><div>Cheapest</div></div>	1	3.25 May45	-1.39	May12	9	1	4.25 Oct23 (OAT)	-1.70	Oct06	33	
		2	4.25 Oct23 (OAT)	-1.39	Oct06	33	2	1.75 May23	-1.22	May12	26	
		3	4.00 Apr55	-1.14	Apr04	15	3	2.25 Oct22	-1.20	Oct11	25	
		4	2.25 Oct22	-1.02	Oct11	25	4	4.50 Apr41	-0.83	Apr09	24	
		5	1.75 May23	-0.71	May12	26	5	3.25 May45	-0.80	May12	9	
	<div><div></div><div></div><div></div></div>	5	4.00 Apr60	0.95	Apr09	11	5	2.75 Oct27	-0.72	Oct11	25	
		4	2.75 Oct27	1.15	Oct11	25	4	4.75 Apr35	-0.44	Apr03	21	
		3	4.75 Apr35	1.71	Apr03	21	3	4.00 Apr60	-0.41	Apr09	11	
		2	3.50 Apr26	2.09	Apr10	30	2	3.50 Apr26	-0.21	Apr10	30	
		1	5.75 Oct32	2.20	Oct00	26	1	5.75 Oct32	-0.11	Oct00	26	
ITALY	<div><div>Richest</div><div></div><div>Cheapest</div></div>	1	4.00 Feb37	-1.01	Aug05	26	1	4.75 Aug23	-2.10	Feb08	25	
		2	4.50 Mar24	-0.89	Aug13	23	2	5.50 Sep22	-2.02	Mar12	20	
		3	5.75 Feb33	-0.82	Feb02	15	3	4.50 May23 (IK)	-1.99	Mar13	18	
		4	5.00 Aug34	-0.59	Aug03	21	4	5.00 Aug39	-1.96	Aug07	19	
		5	5.50 Sep22	-0.55	Mar12	20	5	5.00 Mar25	-1.95	Mar09	22	
	<div><div></div><div></div><div></div></div>	5	4.75 Sep28	1.03	Jan13	18	5	4.75 Sep44	-1.85	Mar13	11	
		4	4.75 Aug23	1.17	Feb08	25	4	4.50 Mar26	-1.84	Sep10	21	
		3	4.50 May23 (IK)	1.28	Mar13	18	3	4.75 Sep28	-1.84	Jan13	18	
		2	3.75 Sep24	1.41	Mar14	8	2	5.75 Feb33	-1.82	Feb02	15	
		1	4.50 Mar26	1.89	Sep10	21	1	3.75 Sep24	-0.95	Mar14	8	
N'LANDS	<div><div>Richest</div><div></div><div>Cheapest</div></div>	1	1.75 Jul23	-2.84	Mar13	16	1	1.75 Jul23	-1.14	Mar13	16	
		2	3.75 Jan23	-1.65	Jan06	11	2	3.75 Jan42	-1.04	May10	14	
		3	3.75 Jan42	-1.09	May10	14	3	3.75 Jan23	-0.90	Jan06	11	
		4	2.00 Jul24	-0.86	Mar14	7	4	4.00 Jan37	-0.73	Apr05	14	
	<div><div></div><div></div><div></div></div>	4	2.25 Jul22	-0.42	Feb12	15	4	2.25 Jul22	-0.72	Feb12	15	
		3	2.75 Jan47	-0.40	Feb14	4	3	2.50 Jan33	-0.42	Mar12	10	
		2	2.50 Jan33	0.13	Mar12	10	2	2.75 Jan47	-0.21	Feb14	4	
		1	4.00 Jan37	1.54	Apr05	14	1	2.00 Jul24	0.90	Mar14	7	
SPAIN	<div><div>Richest</div><div></div><div>Cheapest</div></div>	1	4.90 Jul40	-2.28	Jun07	13	1	5.40 Jan23	-1.79	Jan13	17	
		2	4.20 Jan37	-1.87	Jan05	16	2	4.40 Oct23	-1.76	May13	18	
		3	4.70 Jul41	-1.15	Sep09	12	3	4.80 Jan24	-1.76	Sep08	15	
		4	5.75 Jul32	-1.09	Jan01	15	4	4.65 Jul25	-1.69	Feb10	14	
		5	5.15 Oct28	-0.96	Jul13	9	5	4.70 Jul41	-1.64	Sep09	12	
	<div><div></div><div></div><div></div></div>	5	3.80 Apr24	0.57	Jan14	13	5	5.15 Oct44	-1.60	Oct13	5	
		4	5.90 Jul26	0.65	Mar11	12	4	5.75 Jul32	-1.56	Jan01	15	
		3	4.80 Jan24	1.20	Sep08	15	3	5.90 Jul26	-1.55	Mar11	12	
		2	4.40 Oct23	1.60	May13	18	2	5.15 Oct28	-1.53	Jul13	9	
		1	5.40 Jan23	1.84	Jan13	17	1	3.80 Apr24	-1.34	Jan14	13	
BELGIUM	<div><div>Richest</div><div></div><div>Cheapest</div></div>	1	3.00 Jun34	-2.24	Mar14	5	1	4.25 Sep22	-1.75	Jan12	15	
		2	4.25 Sep22	-1.82	Jan12	15	2	2.25 Jun23	-1.62	Jan13	14	
		3	2.60 Jun24	-1.10	Jan14	6	3	4.50 Mar26	-1.15	Jun11	8	
		4	3.75 Jun45	-0.95	Sep13	4	4	3.75 Jun45	-1.13	Sep13	4	
		5	4.00 Mar32	-0.30	Mar12	8	5	2.60 Jun24	-1.01	Jan14	6	
	<div><div></div><div></div><div></div></div>	5	4.50 Mar26	-0.23	Jun11	8	5	4.00 Mar32	-0.98	Mar12	8	
		4	2.25 Jun23	-0.22	Jan13	14	4	4.25 Mar41	-0.89	Apr10	14	
		3	3.50 Feb64	0.00	Feb14	0	3	5.00 Mar35	-0.72	May04	18	
		2	4.25 Mar41	0.77	Apr10	14	2	3.50 Feb64	0.00	Feb14	0	
		1	5.00 Mar35	2.61	May04	18	1	3.00 Jun34	1.08	Mar14	5	

Source: Citi Research

## UK relative value table

Figure 55. Coupon Adjusted Spread to Fitted Curve and Swap Curve by Country (6m History)

		Versus Govt Curve (CAS)					Versus Swap Curve (CAS)				
		Rank		ZScore	Issued	Size (€bn)	Rank		ZScore	Issued	Size (€bn)
ALL	Richest	1	2.25 Sep23	-2.75	Jun13	27	1	2.75 Sep24	-1.94	Mar14	3
		2	5.00 Sep14	-2.18	Jul02	41	2	3.25 Jan44	-1.91	Oct12	24
		3	4.25 Dec27	-2.07	Sep06	29	3	4.25 Dec27	-1.89	Sep06	29
		4	4.50 Mar19	-1.93	Sep08	35	4	1.75 Jul19	-1.88	Nov13	18
		5	3.25 Jan44	-1.67	Oct12	24	5	4.75 Dec30	-1.86	Oct07	29
	Cheapest	5	4.75 Mar20	1.17	Mar05	33	5	4.00 Sep16	-0.19	Mar06	35
		4	3.75 Jul52	1.24	Sep11	22	4	4.00 Jan60	0.00	Jan12	0
		3	4.50 Dec42	1.39	Jun07	26	3	2.75 Jan15	0.01	Nov09	29
		2	3.75 Sep20	1.45	Jun10	24	2	4.75 Sep15	0.30	Sep03	38
		1	4.25 Dec40	1.62	Jun10	24	1	5.00 Sep14	0.44	Jul02	41
2yr - 7yr	Richest	1	4.50 Mar19	-1.91	Sep08	35	1	1.75 Jul19 (5y)	-1.88	Nov13	18
		2	1.75 Jul19 (5y)	-1.45	Nov13	18	2	4.50 Mar19	-1.86	Sep08	35
		3	3.75 Sep19	-0.94	Jul09	28	3	5.00 Mar18 (WX)	-1.76	May07	34
		4	1.00 Sep17	-0.90	Mar12	31	4	1.25 Jul18	-1.63	Feb13	34
		5	5.00 Mar18 (WX)	-0.73	May07	34	5	1.00 Sep17	-1.60	Mar12	31
	Cheapest	5	1.25 Jul18	0.06	Feb13	34	5	3.75 Sep19	-1.49	Jul09	28
		4	4.00 Sep16	0.79	Mar06	35	4	3.75 Sep20	-1.17	Jun10	24
		3	1.75 Jan17	0.95	Aug11	29	3	4.75 Mar20	-1.13	Mar05	33
		2	4.75 Mar20	1.19	Mar05	33	2	1.75 Jan17	-0.94	Aug11	29
		1	3.75 Sep20	1.48	Jun10	24	1	4.00 Sep16	-0.19	Mar06	35
7yr - 15yr	Richest	1	2.25 Sep23 (10y)	-1.80	Jun13	27	1	2.75 Sep24	-1.94	Mar14	3
		2	4.25 Dec27	-1.71	Sep06	29	2	4.25 Dec27	-1.89	Sep06	29
		3	5.00 Mar25 (G)	-1.08	Sep01	34	3	2.25 Sep23 (10y)	-1.75	Jun13	27
		4					4				
		5					5				
	Cheapest	5					5				
		4					4				
		3	3.75 Sep21	1.32	Mar11	28	3	1.75 Sep22	-1.39	Jun12	28
		2	4.00 Mar22	1.33	Feb09	37	2	3.75 Sep21	-1.28	Mar11	28
		1	1.75 Sep22	1.51	Jun12	28	1	4.00 Mar22	-1.19	Feb09	37
>15yr	Richest	1	4.00 Jan60	0.00	Jan12	0	1	3.25 Jan44 (30y)	-1.91	Oct12	24
		2	4.75 Dec30	0.81	Oct07	29	2	4.75 Dec30	-1.86	Oct07	29
		3	3.25 Jan44 (30y)	1.01	Oct12	24	3	4.25 Dec46	-1.72	May06	21
		4	4.50 Sep34	1.16	Jun09	26	4	4.25 Jun32	-1.67	May00	35
		5	4.00 Jan60	1.21	Oct09	19	5	4.25 Dec49	-1.66	Sep08	19
	Cheapest	5	4.50 Dec42	2.40	Jun07	26	5	4.25 Dec40	-1.28	Jun10	24
		4	4.25 Sep39	2.64	Mar09	19	4	4.25 Sep39	-1.27	Mar09	19
		3	4.25 Dec40	3.24	Jun10	24	3	4.25 Mar36	-1.23	Feb03	26
		2	3.75 Jul52	4.18	Sep11	22	2	4.75 Dec38	-1.13	Apr04	25
		1	3.50 Jul68	7.08	Jun13	10	1	4.00 Jan60	0.00	Jan12	0

Source: Citi Research

## 4 Week Auction Calendar: US, EMU-10, UK

Mohit Aggarwal

This is an excerpt from our latest [Weekly Supply Monitor](#) that was published earlier today. For further details (such as a breakdown of upcoming coupon payments, redemptions and our longer term supply forecasts) please see the original note.

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

Date	Country	Nominal Size (Local Ccy, bn)	Issue Details	DV01 \$million/bp	Approx. Number 10yr Futures		
					TYM4 (UST)	G M4 (Gilt)	RXM4 (Bund)
07 Apr (Mon)	US	0.9 - 1.15	Outright Treasury Coupon Purchases: 15/2/2036 - 15/2/2044		-24k		
08 Apr (Tue)	Austria	1.2	RAGB 1.75% Oct23 and 3.15% Jun44 (issue confirmed, size €1.21bn)				16k
08 Apr (Tue)	Germany	2.0	New Bundel30 (issue and size confirmed)				16k
08 Apr (Tue)	Netherlands	2.5	DSL Jan19 re-opening (issue confirmed, size €2.3bn)				10k
08 Apr (Tue)	UK	1.3	0.75% Index-linked Treasury Gilt 2034 (issue confirmed, estimated size)			31k	
08 Apr (Tue)	US	28.0	3-year		92k		
08 Apr (Tue)	US	0.75 - 1	Outright TIPS Purchases: 15/4/2018 - 15/2/2044		-17k		
09 Apr (Wed)	Germany	4.0	Schatz Mar16 re-opening (issue and size confirmed)				7k
09 Apr (Wed)	US	21.0	10-Year (re-opening)		236k		
09 Apr (Wed)	US	0.9 - 1.15	Outright Treasury Coupon Purchases: 15/2/2036 - 15/2/2044		-24k		
10 Apr (Thu)	Ireland	1.0	Ireland 10yr (estimated tenor and size)				8k
10 Apr (Thu)	US	13.0	30-year (re-opening)		301k		
10 Apr (Thu)	US	2.75 - 3.5	Outright Treasury Coupon Purchases: 30/4/2018 - 31/12/2018		-14k		
11 Apr (Fri)	Italy	7.0	BTP 3yr, 7yr and 30yr (estimated tenor and size)				45k
11 Apr (Fri)	US	2 - 2.5	Outright Treasury Coupon Purchases: 15/5/2021 - 15/2/2024		-20k		

Weekly \$DV01 of Issuance

61.5

Total Number of Futures Contracts

530k

31k

101k

Date	Country	Nominal Size (Local Ccy, bn)	Issue Details	DV01 \$million/bp	Approx. Number 10yr Futures		
					TYM4 (UST)	G M4 (Gilt)	RXM4 (Bund)
14 Apr (Mon)	US	0.9 - 1.15	Outright Treasury Coupon Purchases: 15/2/2036 - 15/2/2044		-24k		
15 Apr (Tue)	US	1.75 - 2.25	Outright Treasury Coupon Purchases: 31/1/2020 - 31/3/2021		-13k		
16 Apr (Wed)	Germany	4.0	Bund Feb24 re-opening (issue and size confirmed)				31k
16 Apr (Wed)	US	0.9 - 1.15	Outright Treasury Coupon Purchases: 15/2/2036 - 15/2/2044		-24k		
17 Apr (Thu)	France	9.7	OAT 2yr and 5yr, index-linked OAT (estimated tenors and size)				36k
17 Apr (Thu)	US	13.0	5-year TIPS		156k		

Weekly \$DV01 of Issuance

18.1

Total Number of Futures Contracts

95k

0k

67k

Date	Country	Nominal Size (Local Ccy, bn)	Issue Details	DV01 \$million/bp	Approx. Number 10yr Futures		
					TYM4 (UST)	G M4 (Gilt)	RXM4 (Bund)
21 Apr (Mon)	US	3.25 - 4	Outright Treasury Coupon Purchases: 31/1/2019 - 31/12/2019		-20k		
22 Apr (Tue)	Belgium	3.0	OLO 5yr, 10yr and 15yr (estimated tenors and size)				26k
22 Apr (Tue)	Netherlands	2.5	DSL Apr17 re-opening (issue confirmed, size €2.3bn)				4k
22 Apr (Tue)	US	30.0	2-Year		99k		
22 Apr (Tue)	US	0.9 - 1.15	Outright Treasury Coupon Purchases: 15/2/2036 - 15/2/2044		-24k		
23 Apr (Wed)	US	35.0	5-year		194k		
23 Apr (Wed)	US	0.45 - 0.7	Outright Treasury Coupon Purchases: 15/11/2024 - 15/2/2031		-10k		
24 Apr (Thu)	Italy	4.0	CTZ (estimated size)				7k
24 Apr (Thu)	Italy	1.0	BTPei (estimated size)				8k
24 Apr (Thu)	Spain	5.0	Bono 2yr, 5yr and 10yr (estimated tenors and size)				25k
24 Apr (Thu)	UK	4.1	1.75% Treasury Gilt 2019 (issue confirmed, estimated size)			21k	
24 Apr (Thu)	US	29.0	7-year		230k		
25 Apr (Fri)	US	0.9 - 1.15	Outright Treasury Coupon Purchases: 15/2/2036 - 15/2/2044		-24k		

Weekly \$DV01 of Issuance

48.5

Total Number of Futures Contracts

445k

21k

70k

Date	Country	Nominal Size (Local Ccy, bn)	Issue Details	DV01 \$million/bp	Approx. Number 10yr Futures		
					TYM4 (UST)	G M4 (Gilt)	RXM4 (Bund)
28 Apr (Mon)	US	15.0	2-Year FRN		50k		
28 Apr (Mon)	US	1.75 - 2.25	Outright Treasury Coupon Purchases: 31/1/2020 - 31/3/2021		-13k		
29 Apr (Tue)	Italy	5.8	BTP 5yr and 10yr (estimated tenor and size)				36k
29 Apr (Tue)	Italy	1.8	CCTeu (estimated size)				7k
29 Apr (Tue)	UK	3.4	2.75% Treasury Gilt 2024 (issue confirmed, estimated size)			32k	
29 Apr (Tue)	US	2 - 2.5	Outright Treasury Coupon Purchases : 15/5/2021 - 15/2/2024		-20k		
30 Apr (Wed)	France	8.3	OAT 5yr, 10yr and 15yr (estimated tenors and size)				74k

Weekly \$DV01 of Issuance

25.3

Total Number of Futures Contracts

17k

32k

117k

The next release of the tentative outright Treasury operation schedule will be at 3 p.m. on April 30, 2014. Therefore we have only included Fed buybacks up to April 30 in this calendar. Additional issue expected in Apr: Italy 15yr syndication (€5bn). It is not included in the table above as the timing of this supply events has not been announced.

Source: DMOs, Citi Research

## EMU: Coupons & Redemptions (Next 3mths)

Figure 57. EMU-10 Bond Redemptions over the next three months (€bn)

Redemptions = €121bn											
Redemptions	DEU 34	FRA 21	NLD 0	ITA 46	ESP 15	BEL 0	AUT 0	FIN 0	PRT 4	GRC 0	IRL 0
(Fri) 11-Apr-14	19.0										
(Fri) 25-Apr-14		20.7									
(Wed) 30-Apr-14					15.4						
(Fri) 30-May-14				12.8							
(Sun) 01-Jun-14				19.4							
(Fri) 13-Jun-14	15.0										
(Mon) 16-Jun-14									4.4		
(Tue) 01-Jul-14				13.9							

Source: DMOs, Bloomberg, Citi Research

This table is on a calendar-date basis

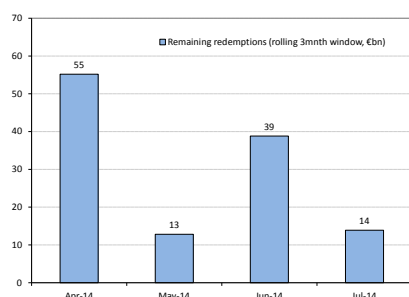
Figure 58. EMU-10 Coupon Payments over the next three months (€bn)

Coupons = €42bn											
Coupons	DEU 3	FRA 18	NLD 0	ITA 10	ESP 5	BEL 1	AUT 1	FIN 1	PRT 2	GRC 0	IRL 1
(Mon) 07-Apr-14	0.1										
(Tue) 08-Apr-14	0.5										
(Thu) 10-Apr-14	0.4										
(Fri) 11-Apr-14	0.4										
(Sun) 13-Apr-14	0.0										
(Tue) 15-Apr-14	0.7		0.1	0.8				0.8	0.6		
(Fri) 18-Apr-14											1.0
(Sun) 20-Apr-14							0.3				
(Fri) 25-Apr-14		16.8									
(Wed) 30-Apr-14					5.0						
(Thu) 01-May-14				5.7							
(Thu) 15-May-14	0.3			0.8							
(Tue) 20-May-14											0.0
(Fri) 23-May-14							0.1				
(Sun) 25-May-14		1.5									
(Sun) 01-Jun-14				1.6							
(Sat) 14-Jun-14									0.5		
(Sun) 15-Jun-14				0.6					0.9		
(Mon) 16-Jun-14									0.2		
(Wed) 18-Jun-14							0.1				0.3
(Fri) 20-Jun-14	0.2						0.2				
(Sun) 22-Jun-14						0.9					
(Sat) 28-Jun-14						0.5					
(Tue) 01-Jul-14				0.4							

Source: DMOs, Bloomberg, Citi Research

This table is on a calendar-date basis

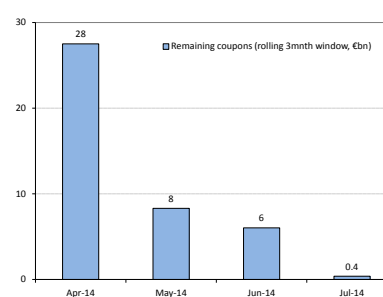
Figure 59. EMU-10 remaining redemptions over the next 3months (€bn)



Source: DMOs, Bloomberg, Citi Research

This chart is on a calendar-date basis

Figure 60. EMU-10 remaining coupons over the next 3months (€bn)



Source: DMOs, Bloomberg, Citi Research

This chart is on a calendar-date basis



## ESP and ITA Bill Issuance Projections

This page contains our projections for Spanish and Italian bill supply in 2014. Please note that this is the only page in this document (other than page 1) which refers to bills.

### Auction calendar for the next four weeks

Figure 61. Provisional Bill Auction Calendar for the Next Four Weeks, Gross Issuance (Billions), DV01 (EUR Million/bp)

Week	Date	Country	Issue Details	Total Size (€bn)
Week 1	10 Apr (Thu)	Italy	12 month (14 April 2015; issue confirmed, estimated size)	9
	10 Apr (Thu)	Spain	6month (17 October 2014) and 12month (new bill) - tenors confirmed, estimated issue and size	5.5
Total Size in Week 1				14.5
Week 3	22 Apr (Tue)	Spain	3month (18 July 2014) and 9month (23 January 2015) - tenors confirmed, estimated issue and size	3.5
Total Size in Week 3				3.5
Week 4	28 Apr (Mon)	Italy	6 month (31 October 2014; issue confirmed, estimated size)	9
Total Size in Week 4				9.0

Italy announces issue size 3 business days before the auction

Spain announces issue details 1 business day before the auction

Source: DMOs, Citi Research

This table is on a calendar-date basis

### 2014 projections for bill supply

Figure 62. 2014 Italy and Spain Bill Supply – Citi Forecast (Euro Billion)

SPAIN	3m	6m	9m	12m	18m	Gross Supply	Redemptions	NCR
Jan	1.0	1.0	2.2	3.1		7	8	-1
Feb	0.9	0.9	2.2	3.6		8	11	-4
Mar	1.3	1.0	2.0	3.5		8	10	-2
Apr	1.0	1.5	2.5	4.0		9	12	-3
May	0.9	1.5	3.0	4.0		9	8	1
Jun	0.9	1.5	3.0	4.0		9	14	-5
Jul	0.8	1.5	3.0	4.0		9	8	2
Aug	0.8	1.5	3.0	4.0		9	8	2
Sep	0.8	1.5	3.0	4.0		9	7	2
Oct	0.8	1.5	3.0	3.8		9	9	
Nov	0.8	1.5	3.0	3.8		9	8	1
Dec	0.8	1.5	3.0	3.8		9	7	2
Total	10.4	16.5	32.9	45.5		105	110	-5

ITALY	3m*	6m	9m	12m	Flexible BOT	Gross Supply	Redemptions	NCR
Jan		8.1		9.3		17	20	-2
Feb		8.6		8.0		17	19	-3
Mar		8.3		7.6		16	16	-1
Apr	3.0	9.0		9.0		21	17	4
May		9.0		6.5	3.0	19	14	5
Jun		9.0		6.5		16	16	
Jul		9.0		6.5		16	18	-3
Aug		9.0		8.0		17	17	
Sep		8.5		8.0	3.0	20	18	1
Oct		8.5		8.0		17	19	-2
Nov		7.0		7.0		14	16	-2
Dec		7.0		6.0		13	15	-2
Total	3.0	101.0		90.4	6.0	200	205	-5

\*3month bills will be issued only for specific cash needs. In this case, auctions shall be held on the 12 month BOT auction dates

Source: DMOs, Bloomberg, Citi Research

This table is on a calendar-date basis

## Inflation Forecasts, Carry & Weekly Changes

Figure 63. Citi Inflation Forecasts

Month	EUR HICP <sub>xT</sub>			France CPI <sub>xT</sub>			UK RPI			US CPURNSA		
	Index Forecast	MoM Change	YoY Change	Index Forecast	MoM Change	YoY Change	Index Forecast	MoM Change	YoY Change	Index Forecast	MoM Change	YoY Change
Feb 14	116.28	0.3	0.6	125.71	0.5	0.8	254.20	0.6	2.7	234.78	0.4	1.1
Mar 14	117.41	1.0	0.4	126.68	0.8	0.8	255.00	0.3	2.5	236.30	0.6	1.5
Apr 14	117.76	0.3	0.8	126.58	-0.1	0.9	256.10	0.4	2.6	236.80	0.2	1.8
May 14	117.78	0.0	0.7	126.85	0.2	1.0	256.90	0.3	2.8	237.30	0.2	1.9
Jun 14	117.80	0.0	0.6	126.98	0.1	1.0	257.10	0.1	3.0	237.50	0.1	1.7
Jul 14	116.96	-0.7	0.5	126.54	-0.3	0.9	256.80	-0.1	2.8	237.60	0.0	1.7

Source: Citi Research, Bloomberg

Shaded = Already released

Figure 64. US TIPS Inflation-linked Carry (based on forecasts above) – One week changes

Bond	RY (%)	Chg (bp)	Carry-adj chg	Carry: RY (bp)			Ref	BE (bp)	Chg (bp)	Carry-adj chg	Carry: BE (bp)			ZC Swap - BE Chg (bp)	
				1 May	1 Jun	1 Jul					1 May	1 Jun	1 Jul	Spread (bp)	
Repo (%)				0.09	0.09	0.09									
TIPS 4/15	-1.49	10	5	22	83	102	US-2.500-04/30/15	162	-13	-8	22	82	101	11	3
TIPS 7/15	-1.86	5	1	15	59	69	US-4.250-08/15/15	206	-6	-3	15	58	66	20	-0
TIPS 1/16	-1.40	-6	-10	13	46	54	US-2.625-02/29/16	180	5	8	12	43	50	14	-0
TIPS 4/16	-1.22	-5	-8	12	41	49	US-2.000-04/30/16	171	6	8	10	38	43	11	-2
TIPS 7/16	-1.41	-3	-5	10	35	41	US-4.875-08/15/16	203	3	5	8	31	35	9	-7
TIPS 1/17	-0.98	4	1	10	32	38	US-3.125-01/31/17	183	-1	1	7	27	30	16	5
TIPS 4/17	-0.79	3	1	9	29	35	US-0.875-04/30/17	177	1	2	7	24	27	14	2
TIPS 7/17	-0.94	2	-0	8	27	32	US-4.750-08/15/17	204	2	3	6	22	24	9	-4
TIPS 1/18	-0.58	4	2	8	25	30	US-3.500-02/15/18	192	2	3	5	19	21	14	1
TIPS 4/18	-0.41	5	3	7	23	28	US-0.625-04/30/18	187	1	3	5	18	19	16	-3
TIPS 7/18	-0.55	6	4	7	22	26	US-4.000-08/15/18	206	1	2	4	16	17	13	-2
TIPS 1/19	-0.27	6	5	7	21	25	US-2.750-02/15/19	199	0	1	4	15	16	15	2
TIPS 7/19	-0.23	0	-1	6	19	23	US-3.625-08/15/19	209	6	7	3	13	14	17	-8
TIPS 1/20	0.01	6	5	6	18	22	US-3.625-02/15/20	201	3	3	3	12	13	22	-1
TIPS 7/20	0.04	8	6	6	16	20	US-2.625-08/15/20	215	2	3	3	11	11	18	-3
TIPS 1/21	0.24	4	3	5	16	19	US-3.625-02/15/21	206	7	8	3	10	10	25	-5
TIPS 7/21	0.25	8	7	5	14	18	US-2.125-08/15/21	219	4	4	2	9	9	20	-4
TIPS 1/22	0.42	5	3	5	14	17	US-2.000-02/15/22	211	7	8	2	8	8	27	-5
TIPS 7/22	0.41	9	8	4	13	16	US-1.625-08/15/22	222	3	3	2	7	8	24	-3
TIPS 1/23	0.54	9	8	4	12	15	US-2.000-02/15/23	215	2	3	2	7	7	29	-0
TIPS 7/23	0.52	9	8	4	12	15	US-2.500-08/15/23	221	2	2	2	7	7	30	-2
TIPS 1/24	0.62	8	7	4	11	14	US-2.750-02/15/24	216	3	3	2	6	6	33	-1
TIPS 7/24	0.69	5	4	4	11	14	US-7.625-02/15/25	207	6	6	1	6	6	45	-3
TIPS 1/26	0.79	9	8	4	10	13	US-6.000-02/15/26	212	3	3	1	5	5	44	-0
TIPS 1/27	0.86	7	6	4	10	13	US-6.625-02/15/27	213	5	6	1	5	5	45	-2
TIPS 1/28	0.95	11	10	3	9	12	US-6.125-11/15/27	211	2	2	1	4	4	49	2
TIPS 4/28	0.93	8	7	3	10	12	US-5.500-08/15/28	221	5	6	1	5	5	38	-2
TIPS 1/29	0.98	11	10	3	9	11	US-5.250-02/15/29	220	2	3	1	4	4	42	1
TIPS 4/29	0.97	9	8	3	9	12	US-5.250-02/15/29	222	5	5	1	5	5	40	-1
TIPS 4/32	1.08	10	10	3	8	10	US-5.375-02/15/31	219	3	3	1	4	3	47	1
TIPS 2/40	1.26	10	9	2	6	7	US-4.625-02/15/40	225	1	2	0	2	2	46	1
TIPS 2/41	1.27	10	9	2	6	7	US-4.750-02/15/41	225	1	2	0	2	2	47	0
TIPS 2/42	1.33	8	8	2	5	6	US-3.125-02/15/42	227	3	3	0	2	1	45	-1
TIPS 2/43	1.33	8	8	2	5	6	US-3.125-02/15/43	229	3	3	0	1	1	43	-2
TIPS 2/44	1.32	8	8	2	5	6	US-3.625-02/15/44	230	3	3	0	2	1	43	-2

Source: Citi Research, Bloomberg



Figure 65. EUR Inflation-linked Carry (based on forecasts above) – One week changes

Bond	RY (%)	Chg (bp)	Carry-adj chg	Carry: RY (bp)			Ref	BE (bp)	Chg (bp)	Carry-adj chg	Carry: BE (bp)			ZC Swap - BE Spread (bp)	Chg (bp)
				1 May	1 Jun	1 Jul					1 May	1 Jun	1 Jul		
Repo (%)				0.22	0.20	0.19									
OATei15	-1.47	6	3	10	83	104	FFRG 4/15	166	-4	-2	10	83	104	16	-7
BUNDei16	-0.70	1	-2	9	57	72	BUND 1/16	86	3	5	9	57	73	11	-4
BTANI16	-0.95	5	0	15	47	40	FFRG 4/16	121	-1	3	15	46	40	20	-5
BTPei16	-0.08	-10	-13	9	52	66	BTP 8/16	97	3	5	7	47	58	40	-2
OATi17	-0.74	2	-1	11	33	29	FFRG 4/17	113	1	4	11	32	27	27	-4
BTPei17	0.28	-12	-14	7	38	49	BTP 8/17	102	4	6	5	32	40	33	-1
BOBLEi18	-0.63	-1	-2	5	28	35	BUND 1/18	98	8	10	4	27	34	17	-8
OATei18	-0.57	-5	-6	4	26	32	FFRG 4/18	122	8	9	4	24	30	24	-8
BTPei18	0.57	-13	-15	6	30	39	BTP 8/18	106	5	6	4	25	30	34	-1
OATi19	-0.35	1	-2	7	22	20	FFRG 4/19	124	3	5	6	20	16	28	-3
BTPei19	0.87	-14	-16	5	26	34	BTP 9/19	109	6	7	3	21	25	38	-3
BUNDei20	-0.37	-0	-2	3	20	25	BUND 1/20	114	8	9	3	18	22	22	-4
OATei20	-0.19	-3	-4	4	20	25	FFRG 4/20	135	7	8	2	17	21	21	-6
OATi21	0.09	3	1	6	16	15	FFRG 4/21	132	3	4	4	13	11	35	-2
BTPei21	1.49	-15	-16	5	21	27	BTP 9/21	117	6	7	2	15	18	43	-3
OATei22	0.15	-2	-3	3	15	19	FFRG 4/21	126	7	8	2	12	15	44	-6
BUNDei23	0.01	2	1	2	13	17	BUND 1/22	119	6	7	2	11	13	42	-5
OATi23	0.34	2	0	5	14	14	FFRG 10/23	161	4	5	4	11	9	21	-4
BTPei23	1.94	-9	-11	4	18	23	BTP 8/23	118	5	6	2	12	14	56	-2
OATei24	0.47	1	0	2	12	16	FFRG 10/23	147	5	5	1	9	11	35	-4
BTPei24	2.10	-7	-9	4	16	22	BTP 9/24	122	6	6	2	11	13	58	-3
BTPei26	2.23	-11	-12	3	15	19	BTP 3/26	126	8	9	1	9	11	64	-5
OATei27	0.70	1	-0	2	11	14	FFRG 4/26	168	4	4	1	8	9	27	-3
OATi29	0.72	1	-1	4	10	10	FFRG 4/29	190	4	4	2	7	5	19	-3
OATei32	0.89	2	1	2	9	12	FFRG 10/32	189	3	3	1	6	7	18	-0
BTPei35	2.40	-6	-7	2	9	12	BTP 8/34	163	5	5	0	5	5	46	-1
OATei40	1.00	2	2	1	6	8	FFRG 4/41	203	3	3	0	4	4	10	0
BTPei41	2.68	-5	-6	2	8	11	BTP 9/40	153	2	2	0	4	5	61	1

Source: Citi Research

Figure 66. UK Gilts Inflation-linked Carry (based on forecasts above) – One week changes

Bond	RY (%)	Chg (bp)	Carry-adj chg	Carry: RY (bp)			Ref	BE (bp)	Chg (bp)	Carry-adj chg	Carry: BE (bp)			ZC Swap - BE Spread (bp)	Chg (bp)
				1 May	1 Jun	1 Jul					1 May	1 Jun	1 Jul		
Repo (%)				0.42	0.42	0.42									
UKTi Jul16	-1.89	6	6	2	5	8	UKT 9/16	276	-5	-5	1	2	3	39	1
UKTi Nov17	-1.57	7	7	12	16	25	UKT 3/18	306	-2	-3	10	12	17	8	-13
UKTi Nov19	-1.01	6	6	8	12	18	UKT 9/19	295	-1	-2	6	7	10	25	-1
UKTi Apr20	-0.82	5	4	2	5	8	UKT 3/20	288	0	0	0	0	0	25	-4
UKTi Nov22	-0.50	6	6	6	9	14	UKT 3/22	296	1	0	4	5	7	32	-4
UKTi Mar24	-0.24	7	7	5	8	12	UKT 3/25	310	1	1	3	3	5	13	-7
UKTi Jul24	-0.23	7	7	2	4	6	UKT 3/25	308	1	1	0	0	-1	26	-3
UKTi Nov27	-0.12	5	5	4	6	10	UKT 12/27	321	1	1	2	2	3	24	-3
UKTi Mar29	-0.02	5	5	4	6	8	UKT 12/30	326	-1	-1	2	2	2	17	-3
UKTi Jul30	-0.05	4	4	1	3	5	UKT 6/32	336	-0	-1	0	-1	-1	18	-8
UKTi Nov32	-0.02	4	4	3	5	7	UKT 6/32	333	-1	-1	2	1	2	26	-0
UKTi Mar34	0.02	5	5	3	4	7	UKT 9/34	336	-1	-2	1	1	1	22	-1
UKTi Jan35	0.02	5	5	1	2	4	UKT 3/36	340	-2	-2	0	-1	-1	22	0
UKTi Nov37	0.00	3	3	3	4	6	UKT 12/38	343	-0	-1	1	1	1	21	-0
UKTi Mar40	0.01	3	3	2	3	5	UKT 9/39	345	-0	-0	1	0	1	17	-0
UKTi Nov42	-0.02	3	2	2	3	5	UKT 12/42	349	-0	-0	1	0	0	18	-1
UKTi Mar44	0.02	2	2	2	3	4	UKT 1/44	349	-0	-1	1	0	0	15	-1
UKTi Nov47	-0.02	2	2	2	3	4	UKT 12/46	350	-0	-1	1	0	0	17	-0
UKTi Mar50	-0.03	1	1	2	2	4	UKT 12/49	349	0	-0	0	0	0	15	-1
UKTi Mar52	-0.03	1	1	1	2	3	UKT 7/52	350	0	0	0	0	0	14	-1
UKTi Nov55	-0.06	1	0	2	2	3	UKT 12/55	350	1	0	0	0	0	16	-1
UKTi Mar62	-0.06	0	0	1	2	3	UKT 1/60	349	1	1	0	0	-1	16	-1
UKTi Mar68	-0.06	0	0	1	2	2	UKT 7/68	351	1	1	0	0	-1	14	-1

Source: Citi Research

## Summary of Recent Publications

Date	Publication	Topic	Page	Region
3-Apr-14	NOTE	<a href="#">Weekly Supply Monitor: Euro, UK and US Supply Outlook</a>	-	EUR
3-Apr-14	NOTE	<a href="#">Euro SSA and Covered Bond Monthly: APEC – the rising covered bond market</a>	-	EUR
2-Apr-14	NOTE	<a href="#">Euro SSA Strategy: Supportive cash-flows in April</a>	-	EUR
1-Apr-14	NOTE	<a href="#">UK Rates Strategy: Scenario analysis for new 30yr gilt future*</a>	-	UK
31-Mar-14	NOTE	<a href="#">Euro Rates Strategy: EMU Supply In April: NCR Most Supportive For France*</a>	-	EUR
31-Mar-14	NOTE	<a href="#">European Flow Monitor: Strong Buying Of Portugal Last Week</a>	-	EUR
31-Mar-14	NOTE	<a href="#">SSA Strategy: Weekly Chart-Pack and Market Monitor: 21st – 28th March</a>	-	EUR
28-Mar-14	NOTE	<a href="#">European Rates Strategy: The month-end RV pack</a>	-	EUR
27-Mar-14	European Weekly	<a href="#">EGBs: What's Consensus?</a>	9	EUR
		<a href="#">EUR Vol: Light Positioning in Gamma</a>	11	EUR
		<a href="#">UK/Inflation: Follow or fight the consensus?</a>	13	UK
		<a href="#">EUR RV: ECB Expectations and Positioning</a>	15	EUR
		<a href="#">Euro Inflation: Sell HICPXT 3y1y</a>	17	EUR
		<a href="#">Euro SSA Strategy</a>	19	EUR
		<a href="#">Covered Bond Strategy</a>	20	EUR
27-Mar-14	NOTE	<a href="#">Weekly Supply Monitor: Euro, UK and US Supply Outlook</a>	-	EUR
25-Mar-14	NOTE	<a href="#">UK Inflation Strategy: Overweight the wings given RPI and supply/demand outlooks</a>	-	UK
24-Mar-14	NOTE	<a href="#">Covereds: DPB mortgage covered bonds put on rating watch negative</a>	-	EUR
24-Mar-14	NOTE	<a href="#">European Flow Monitor: Net demand for core markets moves up to positive</a>	-	EUR
24-Mar-14	NOTE	<a href="#">SSA Strategy: Weekly Chart-Pack and Market Monitor: 14th – 21st March</a>	-	EUR
21-Mar-14	NOTE	<a href="#">Inflation-linked Index Projection: Changes supportive for BTPei real yields</a>	-	EUR
21-Mar-14	NOTE	<a href="#">EMU Month-end Index Projections: Changes supportive for Germany and France</a>	-	EUR
21-Mar-14	NOTE	<a href="#">Euro Rates Strategy: S&amp;P affirms Greece at B-, Outlook Stable</a>	-	EUR
20-Mar-14	European Weekly	<a href="#">Bunds: Caught between Yellen and HICP</a>	8	EUR
		<a href="#">UK Rates – Views post FOMC &amp; Budget</a>	10	UK
		<a href="#">EUR Vol: Conditional Bull Steepeners Revisited</a>	13	EUR
		<a href="#">EUR RV: Outlook for 10s30s post FOMC</a>	15	EUR
		<a href="#">EGB Strategy – thawing periphery markets</a>	16	EUR
		<a href="#">EUR break-even outlook and RV in OATei</a>	19	EUR
		<a href="#">SSA Strategy – Supra drivers &amp; trades</a>	21	EUR
		<a href="#">Covered Bond Strategy</a>	25	EUR

**Notes**

**Notes**

## Appendix A-1

### Analyst Certification

The research analyst(s) primarily responsible for the preparation and content of this research report are named in bold text in the author block at the front of the product except for those sections where an analyst's name appears in bold alongside content which is attributable to that analyst. Each of these analyst(s) certify, with respect to the section(s) of the report for which they are responsible, that the views expressed therein accurately reflect their personal views about each issuer and security referenced and were prepared in an independent manner, including with respect to Citigroup Global Markets Inc and its affiliates. No part of the research analyst's compensation was, is, or will be, directly or indirectly, related to the specific recommendation(s) or view(s) expressed by that research analyst in this report.

### IMPORTANT DISCLOSURES

Within the past 12 months, Citigroup Global Markets Inc. or its affiliates has acted as manager or co-manager of an offering of securities of NV BANK NEDERLANDSE GEMEENTEN, Austria, Belgium, France, Italy, Netherlands, Spain, United States.

Citigroup Global Markets Inc. or its affiliates has received compensation for investment banking services provided within the past 12 months from NV BANK NEDERLANDSE GEMEENTEN, Austria, Belgium, France, Germany, Italy, Netherlands, Spain, United States.

Citigroup Global Markets Inc. or its affiliates expects to receive or intends to seek, within the next three months, compensation for investment banking services from NV BANK NEDERLANDSE GEMEENTEN, Austria, Germany, Italy, Netherlands, Spain.

Citigroup Global Markets Inc. or an affiliate received compensation for products and services other than investment banking services from NV BANK NEDERLANDSE GEMEENTEN, Austria, Belgium, France, Germany, Italy, Netherlands, Spain, United States in the past 12 months.

Citigroup Global Markets Inc. currently has, or had within the past 12 months, the following as investment banking client(s): NV BANK NEDERLANDSE GEMEENTEN, Austria, Belgium, France, Germany, Italy, Netherlands, Spain, United States.

Citigroup Global Markets Inc. currently has, or had within the past 12 months, the following as clients, and the services provided were non-investment-banking, securities-related: NV BANK NEDERLANDSE GEMEENTEN, Austria, Belgium, France, Germany, Italy, Netherlands, Spain, United States.

Citigroup Global Markets Inc. currently has, or had within the past 12 months, the following as clients, and the services provided were non-investment-banking, non-securities-related: NV BANK NEDERLANDSE GEMEENTEN, Austria, Belgium, France, Germany, Italy, Netherlands, Spain, United States.

United States or its affiliates beneficially owns 5% or more of any class of common equity securities of Citigroup Inc.

Analysts' compensation is determined based upon activities and services intended to benefit the investor clients of Citigroup Global Markets Inc. and its affiliates ("the Firm"). Like all Firm employees, analysts receive compensation that is impacted by overall firm profitability which includes investment banking revenues.

For important disclosures (including copies of historical disclosures) regarding the companies that are the subject of this Citi Research product ("the Product"), please contact Citi Research, 388 Greenwich Street, 28th Floor, New York, NY, 10013, Attention: Legal/Compliance [E6WYB6412478]. In addition, the same important disclosures, with the exception of the Valuation and Risk assessments and historical disclosures, are contained on the Firm's disclosure website at [https://www.citivelocity.com/cvr/eppublic/citi\\_research\\_disclosures](https://www.citivelocity.com/cvr/eppublic/citi_research_disclosures). Valuation and Risk assessments can be found in the text of the most recent research note/report regarding the subject company. Historical disclosures (for up to the past three years) will be provided upon request.

### NON-US RESEARCH ANALYST DISCLOSURES

Non-US research analysts who have prepared this report (i.e., all research analysts listed below other than those identified as employed by Citigroup Global Markets Inc.) are not registered/qualified as research analysts with FINRA. Such research analysts may not be associated persons of the member organization and therefore may not be subject to the NYSE Rule 472 and NASD Rule 2711 restrictions on communications with a subject company, public appearances and trading securities held by a research analyst account. The legal entities employing the authors of this report are listed below:

Citigroup Global Markets Ltd	Alessandro Tentori; Jamie Searle; Matteo Regesta; Peter Goves; Nishay Patel
Citigroup Global Markets Deutschland AG	Michael Spies
Citigroup Global Markets India Private Limited	Aman Bansal, CFA; Mohit Aggarwal

### OTHER DISCLOSURES

Citigroup Global Markets Inc. and/or its affiliates has a significant financial interest in relation to NV BANK NEDERLANDSE GEMEENTEN, Austria, Italy, Spain. (For an explanation of the determination of significant financial interest, please refer to the policy for managing conflicts of interest which can be found at [www.citiVelocity.com](http://www.citiVelocity.com).)

For securities recommended in the Product in which the Firm is not a market maker, the Firm is a liquidity provider in the issuers' financial instruments and may act as principal in connection with such transactions. The Firm is a regular issuer of traded financial instruments linked to securities that may have been recommended in the Product. The Firm regularly trades in the securities of the issuer(s) discussed in the Product. The Firm may engage in securities transactions in a manner inconsistent with the Product and, with respect to securities covered by the Product, will buy or sell from customers on a principal basis.

Securities recommended, offered, or sold by the Firm: (i) are not insured by the Federal Deposit Insurance Corporation; (ii) are not deposits or other obligations of any insured depository institution (including Citibank); and (iii) are subject to investment risks, including the possible loss of the principal amount invested. Although information has been obtained from and is based upon sources that the Firm believes to be reliable, we do not guarantee its accuracy and it may be incomplete and condensed. Note, however, that the Firm has taken all reasonable steps to determine the accuracy and completeness of the disclosures made in the Important Disclosures section of the Product. The Firm's research department has received assistance from

the subject company(ies) referred to in this Product including, but not limited to, discussions with management of the subject company(ies). Firm policy prohibits research analysts from sending draft research to subject companies. However, it should be presumed that the author of the Product has had discussions with the subject company to ensure factual accuracy prior to publication. All opinions, projections and estimates constitute the judgment of the author as of the date of the Product and these, plus any other information contained in the Product, are subject to change without notice. Prices and availability of financial instruments also are subject to change without notice. Notwithstanding other departments within the Firm advising the companies discussed in this Product, information obtained in such role is not used in the preparation of the Product. Although Citi Research does not set a predetermined frequency for publication, if the Product is a fundamental research report, it is the intention of Citi Research to provide research coverage of the/those issuer(s) mentioned therein, including in response to news affecting this issuer, subject to applicable quiet periods and capacity constraints. The Product is for informational purposes only and is not intended as an offer or solicitation for the purchase or sale of a security. Any decision to purchase securities mentioned in the Product must take into account existing public information on such security or any registered prospectus.

Investing in non-U.S. securities, including ADRs, may entail certain risks. The securities of non-U.S. issuers may not be registered with, nor be subject to the reporting requirements of the U.S. Securities and Exchange Commission. There may be limited information available on foreign securities. Foreign companies are generally not subject to uniform audit and reporting standards, practices and requirements comparable to those in the U.S. Securities of some foreign companies may be less liquid and their prices more volatile than securities of comparable U.S. companies. In addition, exchange rate movements may have an adverse effect on the value of an investment in a foreign stock and its corresponding dividend payment for U.S. investors. Net dividends to ADR investors are estimated, using withholding tax rates conventions, deemed accurate, but investors are urged to consult their tax advisor for exact dividend computations. Investors who have received the Product from the Firm may be prohibited in certain states or other jurisdictions from purchasing securities mentioned in the Product from the Firm. Please ask your Financial Consultant for additional details. Citigroup Global Markets Inc. takes responsibility for the Product in the United States. Any orders by US investors resulting from the information contained in the Product may be placed only through Citigroup Global Markets Inc.

**Important Disclosures for Bell Potter Customers:** Bell Potter is making this Product available to its clients pursuant to an agreement with Citigroup Global Markets Australia Pty Limited. Neither Citigroup Global Markets Australia Pty Limited nor any of its affiliates has made any determination as to the suitability of the information provided herein and clients should consult with their Bell Potter financial advisor before making any investment decision.

**The Citigroup legal entity that takes responsibility for the production of the Product is the legal entity which the first named author is employed by.** The Product is made available in **Australia** through Citigroup Global Markets Australia Pty Limited. (ABN 64 003 114 832 and AFSL No. 240992), participant of the ASX Group and regulated by the Australian Securities & Investments Commission. Citigroup Centre, 2 Park Street, Sydney, NSW 2000. The Product is made available in Australia to Private Banking wholesale clients through Citigroup Pty Limited (ABN 88 004 325 080 and AFSL 238098). Citigroup Pty Limited provides all financial product advice to Australian Private Banking wholesale clients through bankers and relationship managers. If there is any doubt about the suitability of investments held in Citigroup Private Bank accounts, investors should contact the Citigroup Private Bank in Australia. Citigroup companies may compensate affiliates and their representatives for providing products and services to clients. The Product is made available in **Brazil** by Citigroup Global Markets Brasil - CCTVM SA, which is regulated by CVM - Comissão de Valores Mobiliários, BACEN - Brazilian Central Bank, APIMEC - Associação dos Analistas e Profissionais de Investimento do Mercado de Capitais and ANBID - Associação Nacional dos Bancos de Investimento. Av. Paulista, 1111 - 11º andar - CEP. 01311920 - São Paulo - SP. If the Product is being made available in certain provinces of **Canada** by Citigroup Global Markets (Canada) Inc. ("CGM Canada"), CGM Canada has approved the Product. Citigroup Place, 123 Front Street West, Suite 1100, Toronto, Ontario M5J 2M3. This product is available in **Chile** through Banchile Corredores de Bolsa S.A., an indirect subsidiary of Citigroup Inc., which is regulated by the Superintendencia de Valores y Seguros. Agustinas 975, piso 2, Santiago, Chile. The Product is distributed in **Germany** by Citigroup Global Markets Deutschland AG ("CGMD"), which is regulated by Bundesanstalt fuer Finanzdienstleistungsaufsicht (BaFin). CGMD, Reuterweg 16, 60323 Frankfurt am Main. Research which relates to "securities" (as defined in the Securities and Futures Ordinance (Cap. 571 of the Laws of Hong Kong)) is issued in **Hong Kong** by, or on behalf of, Citigroup Global Markets Asia Limited which takes full responsibility for its content. Citigroup Global Markets Asia Ltd. is regulated by Hong Kong Securities and Futures Commission. If the Research is made available through Citibank, N.A., Hong Kong Branch, for its clients in Citi Private Bank, it is made available by Citibank N.A., Citibank Tower, Citibank Plaza, 3 Garden Road, Hong Kong. Citibank N.A. is regulated by the Hong Kong Monetary Authority. Please contact your Private Banker in Citibank N.A., Hong Kong, Branch if you have any queries on or any matters arising from or in connection with this document. The Product is made available in **India** by Citigroup Global Markets India Private Limited, which is regulated by Securities and Exchange Board of India. Bakhtawar, Nariman Point, Mumbai 400-021. The Product is made available in **Indonesia** through PT Citigroup Securities Indonesia. 5/F, Citibank Tower, Bapindo Plaza, Jl. Jend. Sudirman Kav. 54-55, Jakarta 12190. Neither this Product nor any copy hereof may be distributed in Indonesia or to any Indonesian citizens wherever they are domiciled or to Indonesian residents except in compliance with applicable capital market laws and regulations. This Product is not an offer of securities in Indonesia. The securities referred to in this Product have not been registered with the Capital Market and Financial Institutions Supervisory Agency (BAPEPAM-LK) pursuant to relevant capital market laws and regulations, and may not be offered or sold within the territory of the Republic of Indonesia or to Indonesian citizens through a public offering or in circumstances which constitute an offer within the meaning of the Indonesian capital market laws and regulations. The Product is made available in **Israel** through Citibank NA, regulated by the Bank of Israel and the Israeli Securities Authority. Citibank, N.A., Platinum Building, 21 Ha'arba'ah St, Tel Aviv, Israel. The Product is made available in **Italy** by Citigroup Global Markets Limited, which is authorised by the PRA and regulated by the FCA and the PRA. Via dei Mercanti, 12, Milan, 20121, Italy. The Product is made available in **Japan** by Citigroup Global Markets Japan Inc. ("CGMJ"), which is regulated by Financial Services Agency, Securities and Exchange Surveillance Commission, Japan Securities Dealers Association, Tokyo Stock Exchange and Osaka Securities Exchange. Shin-Marunouchi Building, 1-5-1 Marunouchi, Chiyoda-ku, Tokyo 100-6520 Japan. If the Product was distributed by SMBC Nikko Securities Inc. it is being so distributed under license. In the event that an error is found in an CGMJ research report, a revised version will be posted on the Firm's Citi Velocity website. If you have questions regarding Citi Velocity, please call (81 3) 6270-3019 for help. The Product is made available in **Korea** by Citigroup Global Markets Korea Securities Ltd., which is regulated by the Financial Services Commission, the Financial Supervisory Service and the Korea Financial Investment Association (KOFIA). Citibank Building, 39 Da-dong, Jung-gu, Seoul 100-180, Korea. KOFIA makes available registration information of research analysts on its website. Please visit the following website if you wish to find KOFIA registration information on research analysts of Citigroup Global Markets Korea Securities Ltd. <http://dis.kofia.or.kr/fs/dis2/fundMgr/DISFundMgrAnalystPop.jsp?companyCd2=A03030&pageDiv=02>. The Product is made available in Korea by Citibank Korea Inc., which is regulated by the Financial Services Commission and the Financial Supervisory Service. Address is Citibank Building, 39 Da-dong, Jung-gu, Seoul 100-180, Korea. The Product is made available in **Malaysia** by Citigroup Global Markets Malaysia Sdn Bhd



(Company No. 460819-D) ("CGMM") to its clients and CGMM takes responsibility for its contents. CGMM is regulated by the Securities Commission of Malaysia. Please contact CGMM at Level 43 Menara Citibank, 165 Jalan Ampang, 50450 Kuala Lumpur, Malaysia in respect of any matters arising from, or in connection with, the Product. The Product is made available in **Mexico** by Acciones y Valores Banamex, S.A. De C. V., Casa de Bolsa, Integrante del Grupo Financiero Banamex ("Accival") which is a wholly owned subsidiary of Citigroup Inc. and is regulated by Comisión Nacional Bancaria y de Valores. Reforma 398, Col. Juárez, 06600 Mexico, D.F. In **New Zealand** the Product is made available to 'wholesale clients' only as defined by s5C(1) of the Financial Advisers Act 2008 ("FAA") through Citigroup Global Markets Australia Pty Ltd (ABN 64 003 114 832 and AFSL No. 240992), an overseas financial adviser as defined by the FAA, participant of the ASX Group and regulated by the Australian Securities & Investments Commission. Citigroup Centre, 2 Park Street, Sydney, NSW 2000. The Product is made available in **Pakistan** by Citibank N.A. Pakistan branch, which is regulated by the State Bank of Pakistan and Securities Exchange Commission, Pakistan. AWT Plaza, 1.1. Chundrigar Road, P.O. Box 4889, Karachi-74200. The Product is made available in the **Philippines** through Citicorp Financial Services and Insurance Brokerage Philippines, Inc., which is regulated by the Philippines Securities and Exchange Commission. 20th Floor Citibank Square Bldg. The Product is made available in the Philippines through Citibank NA Philippines branch, Citibank Tower, 8741 Paseo De Roxas, Makati City, Manila. Citibank NA Philippines NA is regulated by The Bangko Sentral ng Pilipinas. The Product is made available in **Poland** by Dom Maklerski Banku Handlowego SA an indirect subsidiary of Citigroup Inc., which is regulated by Komisja Nadzoru Finansowego. Dom Maklerski Banku Handlowego S.A. ul.Senatorska 16, 00-923 Warszawa. The Product is made available in the **Russian Federation** through ZAO Citibank, which is licensed to carry out banking activities in the Russian Federation in accordance with the general banking license issued by the Central Bank of the Russian Federation and brokerage activities in accordance with the license issued by the Federal Service for Financial Markets. Neither the Product nor any information contained in the Product shall be considered as advertising the securities mentioned in this report within the territory of the Russian Federation or outside the Russian Federation. The Product does not constitute an appraisal within the meaning of the Federal Law of the Russian Federation of 29 July 1998 No. 135-FZ (as amended) On Appraisal Activities in the Russian Federation. 8-10 Gasheka Street, 125047 Moscow. The Product is made available in **Singapore** through Citigroup Global Markets Singapore Pte. Ltd. ("CGMSPL"), a capital markets services license holder, and regulated by Monetary Authority of Singapore. Please contact CGMSPL at 8 Marina View, 21st Floor Asia Square Tower 1, Singapore 018960, in respect of any matters arising from, or in connection with, the analysis of this document. This report is intended for recipients who are accredited, expert and institutional investors as defined under the Securities and Futures Act (Cap. 289). The Product is made available by The Citigroup Private Bank in Singapore through Citibank, N.A., Singapore Branch, a licensed bank in Singapore that is regulated by Monetary Authority of Singapore. Please contact your Private Banker in Citibank N.A., Singapore Branch if you have any queries on or any matters arising from or in connection with this document. This report is intended for recipients who are accredited, expert and institutional investors as defined under the Securities and Futures Act (Cap. 289). This report is distributed in Singapore by Citibank Singapore Ltd ("CSL") to selected Citigold/Citigold Private Clients. CSL provides no independent research or analysis of the substance or in preparation of this report. Please contact your Citigold/Citigold Private Client Relationship Manager in CSL if you have any queries on or any matters arising from or in connection with this report. This report is intended for recipients who are accredited investors as defined under the Securities and Futures Act (Cap. 289). Citigroup Global Markets (Pty) Ltd. is incorporated in the **Republic of South Africa** (company registration number 2000/025866/07) and its registered office is at 145 West Street, Sandton, 2196, Saxonwold. Citigroup Global Markets (Pty) Ltd. is regulated by JSE Securities Exchange South Africa, South African Reserve Bank and the Financial Services Board. The investments and services contained herein are not available to private customers in South Africa. The Product is made available in the **Republic of China** through Citigroup Global Markets Taiwan Securities Company Ltd. ("CGMTS"), 14 and 15F, No. 1, Songzhi Road, Taipei 110, Taiwan and/or through Citibank Securities (Taiwan) Company Limited ("CSTL"), 14 and 15F, No. 1, Songzhi Road, Taipei 110, Taiwan, subject to the respective license scope of each entity and the applicable laws and regulations in the Republic of China. CGMTS and CSTL are both regulated by the Securities and Futures Bureau of the Financial Supervisory Commission of Taiwan, the Republic of China. No portion of the Product may be reproduced or quoted in the Republic of China by the press or any third parties [without the written authorization of CGMTS and CSTL]. If the Product covers securities which are not allowed to be offered or traded in the Republic of China, neither the Product nor any information contained in the Product shall be considered as advertising the securities or making recommendation of the securities in the Republic of China. The Product is for informational purposes only and is not intended as an offer or solicitation for the purchase or sale of a security or financial products. Any decision to purchase securities or financial products mentioned in the Product must take into account existing public information on such security or the financial products or any registered prospectus. The Product is made available in **Thailand** through Citicorp Securities (Thailand) Ltd., which is regulated by the Securities and Exchange Commission of Thailand. 18/F, 22/F and 29/F, 82 North Sathorn Road, Silom, Bangrak, Bangkok 10500, Thailand. The Product is made available in **Turkey** through Citibank AS which is regulated by Capital Markets Board. Tekfen Tower, Eski Büyükdere Caddesi # 209 Kat 2B, 23294 Levent, Istanbul, Turkey. In the **U.A.E.**, these materials (the "Materials") are communicated by Citigroup Global Markets Limited, DIFC branch ("CGML"), an entity registered in the Dubai International Financial Center ("DIFC") and licensed and regulated by the Dubai Financial Services Authority ("DFSA") to Professional Clients and Market Counterparties only and should not be relied upon or distributed to Retail Clients. A distribution of the different Citi Research ratings distribution, in percentage terms for Investments in each sector covered is made available on request. Financial products and/or services to which the Materials relate will only be made available to Professional Clients and Market Counterparties. The Product is made available in **United Kingdom** by Citigroup Global Markets Limited, which is authorised by the Prudential Regulation Authority ("PRA") and regulated by the Financial Conduct Authority ("FCA") and the PRA. This material may relate to investments or services of a person outside of the UK or to other matters which are not authorised by the PRA nor regulated by the FCA and the PRA and further details as to where this may be the case are available upon request in respect of this material. Citigroup Centre, Canada Square, Canary Wharf, London, E14 5LB. The Product is made available in **United States** by Citigroup Global Markets Inc, which is a member of FINRA and registered with the US Securities and Exchange Commission. 388 Greenwich Street, New York, NY 10013. Unless specified to the contrary, within EU Member States, the Product is made available by Citigroup Global Markets Limited, which is authorised by the PRA and regulated by the FCA and the PRA.

Pursuant to Comissão de Valores Mobiliários Rule 483, Citi is required to disclose whether a Citi related company or business has a commercial relationship with the subject company. Considering that Citi operates multiple businesses in more than 100 countries around the world, it is likely that Citi has a commercial relationship with the subject company.

Many European regulators require that a firm must establish, implement and make available a policy for managing conflicts of interest arising as a result of publication or distribution of investment research. The policy applicable to Citi Research's Products can be found at [https://www.citivelocity.com/cvr/eppublic/citi\\_research\\_disclosures](https://www.citivelocity.com/cvr/eppublic/citi_research_disclosures).

Compensation of equity research analysts is determined by equity research management and Citigroup's senior management and is not linked to specific transactions or recommendations.

The Product is not to be construed as providing investment services in any jurisdiction where the provision of such services would not be permitted. Subject to the nature and contents of the Product, the investments described therein are subject to fluctuations in price and/or value and investors may get back less than originally invested. Certain high-volatility investments can be subject to sudden and large falls in value that could equal or exceed the amount invested. Certain investments contained in the Product may have tax implications for private customers whereby levels and basis of taxation may be subject to change. If in doubt, investors should seek advice from a tax adviser. The Product does not purport to identify the nature of the specific market or other risks associated with a particular transaction. Advice in the Product is general and should not be construed as personal advice given it has been prepared without taking account of the objectives, financial situation or needs of any particular investor. Accordingly, investors should, before acting on the advice, consider the appropriateness of the advice, having regard to their objectives, financial situation and needs. Prior to acquiring any financial product, it is the client's responsibility to obtain the relevant offer document for the product and consider it before making a decision as to whether to purchase the product. Citi Research generally disseminates its research to the Firm's global institutional and retail clients via both proprietary (e.g., Citi Velocity and Citi Personal Wealth Management) and non-proprietary electronic distribution platforms. Certain research may be disseminated only via Citi's proprietary distribution platforms; however such research will not contain changes to earnings forecasts, target price, investment or risk rating or investment thesis or be otherwise inconsistent with the author's previously published research. Certain research is made available only to institutional investors to satisfy regulatory requirements. Individual Citi Research analysts may also opt to circulate published research to one or more clients by email; such email distribution is discretionary and is done only after the research has been disseminated.

The level and types of services provided by Citi Research analysts to clients may vary depending on various factors such as the client's individual preferences as to the frequency and manner of receiving communications from analysts, the client's risk profile and investment focus and perspective (e.g. market-wide, sector specific, long term, short-term etc.), the size and scope of the overall client relationship with Citi and legal and regulatory constraints. Citi Research product may source data from dataCentral. dataCentral is a Citi Research proprietary database, which includes Citi estimates, data from company reports and feeds from Thomson Reuters.

---

© 2014 Citigroup Global Markets Inc. Citi Research is a division of Citigroup Global Markets Inc. Citi and Citi with Arc Design are trademarks and service marks of Citigroup Inc. and its affiliates and are used and registered throughout the world. All rights reserved. Any unauthorized use, duplication, redistribution or disclosure of this report (the "Product"), including, but not limited to, redistribution of the Product by electronic mail, posting of the Product on a website or page, and/or providing to a third party a link to the Product, is prohibited by law and will result in prosecution. The information contained in the Product is intended solely for the recipient and may not be further distributed by the recipient to any third party. Where included in this report, MSCI sourced information is the exclusive property of Morgan Stanley Capital International Inc. (MSCI). Without prior written permission of MSCI, this information and any other MSCI intellectual property may not be reproduced, redisseminated or used to create any financial products, including any indices. This information is provided on an "as is" basis. The user assumes the entire risk of any use made of this information. MSCI, its affiliates and any third party involved in, or related to, computing or compiling the information hereby expressly disclaim all warranties of originality, accuracy, completeness, merchantability or fitness for a particular purpose with respect to any of this information. Without limiting any of the foregoing, in no event shall MSCI, any of its affiliates or any third party involved in, or related to, computing or compiling the information have any liability for any damages of any kind. MSCI, Morgan Stanley Capital International and the MSCI indexes are services marks of MSCI and its affiliates. The Firm accepts no liability whatsoever for the actions of third parties. The Product may provide the addresses of, or contain hyperlinks to, websites. Except to the extent to which the Product refers to website material of the Firm, the Firm has not reviewed the linked site. Equally, except to the extent to which the Product refers to website material of the Firm, the Firm takes no responsibility for, and makes no representations or warranties whatsoever as to, the data and information contained therein. Such address or hyperlink (including addresses or hyperlinks to website material of the Firm) is provided solely for your convenience and information and the content of the linked site does not in anyway form part of this document. Accessing such website or following such link through the Product or the website of the Firm shall be at your own risk and the Firm shall have no liability arising out of, or in connection with, any such referenced website.

---

ADDITIONAL INFORMATION IS AVAILABLE UPON REQUEST

---