

# EMU Month-end Index Projections

## Significant Extension In Ireland At The End Of November

- **EMU Government Bond Index (EGBI)** – We expect the effective duration of the EGBI to increase by 0.06 years at the end of November.
- **Weighted duration changes** – Month-end changes in November are expected to be broadly supportive for EGBs. On a relative basis, we expect the French index to extend the most at the end of November.
- **Focus on Ireland** – The Irish index is expected to extend by its second-largest amount in five years, on a weighted basis. This should be supportive for Irish yields at the margin.
- **Domestic curves** – On domestic curves, we expect index changes to be supportive for 30yr Ireland and the Netherlands and 10yr Spain.
- **EGBI extension in the context of the US and UK** – We expect the Treasury index to extend the most at the end of November, followed by the gilt index. The extension in the gilt index is being driven by the syndication of 3.5% Treasury Gilt 2068 at the end of October.

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Figure 1. EGBI: Projected month-end duration change

EGBI Effective Duration			Spectrum of duration changes over last year		
Nov Index	Dec Index (e)	Duration Change (e)	Minimum	Maximum	Average Absolute Change
6.97	7.02	0.06	0.02	0.16	0.07

Source: Citi Research

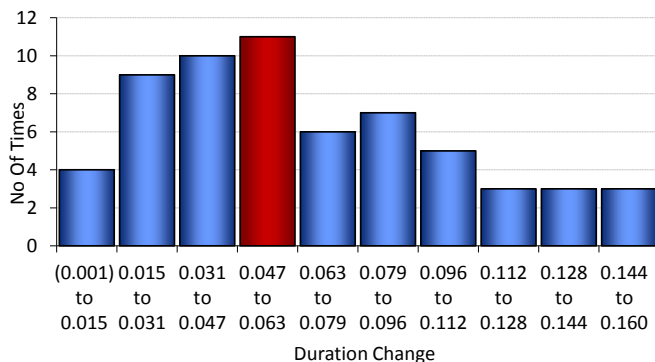
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## End-November EGBI changes

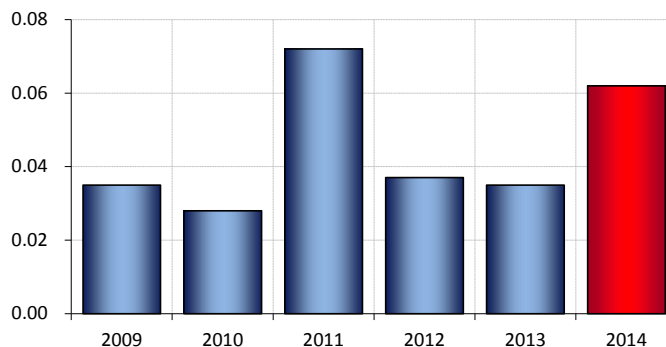
We expect the effective duration of the EGBI to increase by 0.06 years at the end of November (Figure 1)<sup>1</sup>. This is relatively large when compared to previous November changes (Figure 3).

Figure 2. Five-year distribution of month-end EGBI changes



Source: Citi Research

Figure 3. End-November EGBI changes over the last five years

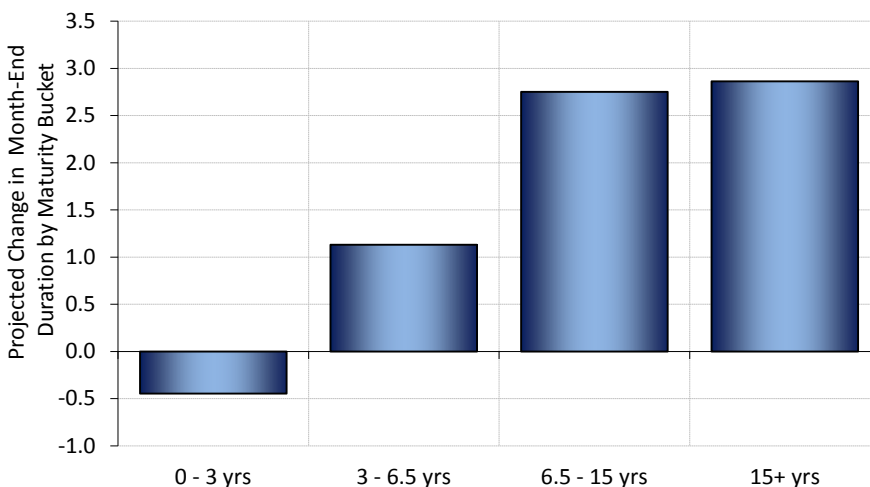


Source: Citi Research

## Projected changes on the curve

The projected changes should be supportive for the long-end of the curve. The changes should also put flattening pressure on 2s10s (Figure 4).

Figure 4. End-November projected index changes by curve sector (weighted duration)



Source: Citi Research

## €48bn of bonds to drop out of the EGBI

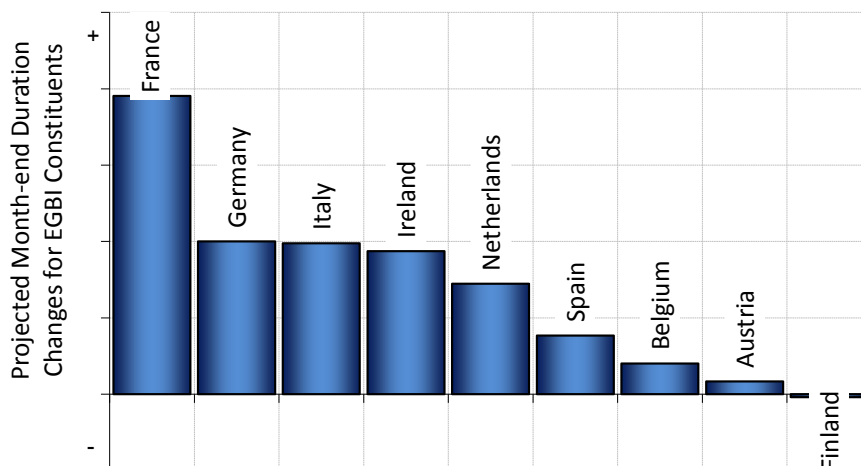
Issuance over the fixing period – 28 October to 20 November – will be eligible for inclusion in the index at the end of November. On the other hand, bonds that fall below one year of residual maturity on the last calendar day of the month are excluded from the index. Based on this criterion, €48bn of bonds from Spain (€14.6bn of Bono 3.75% Oct15), Italy (€17.3bn of BTP 3% Nov15) and France (€16.3bn of OAT 0.25% Nov15) will drop out of the EGBI at the end of the month.

<sup>1</sup> Based on Citi supply estimates. Supply is the main driver of duration changes, but other factors, e.g. yield level and curve shape, also affect the calculations and are subject to change.

## Projected changes should be broadly supportive for EGBs

Month-end changes in November are expected to be broadly supportive for EGBs. On a relative basis, we expect the French index to extend the most at the end of November (Figure 5).

Figure 5. Weighted duration change at the end of November



Source: Citi Research

## Detailed analysis of the changes

Figure 6 shows detailed analysis of end-November EGBI changes. Among the individual country indices that make up the EGBI, we expect the Irish index to extend by its largest amount since February 2013.

For EGBI portfolios, it is the weighted duration change that is most relevant<sup>2</sup>. On this metric as well, the Irish index is expected to extend by its second-highest amount in five years.

Figure 6. Breakdown of end-November EGBI projections

18-Nov-14	Nov Index		Dec Index*		Projected Change			Duration change range over last year (unweighted)			5yr Z-score	
	% weight in EGBI	Duration	% weight in EGBI	Duration	Weighted Dur Change X 100	Weight Change	Duration Change	Minimum	Maximum	Average Absolute Change	Unweighted duration	Weighted Duration
Germany	19.6	7.17	19.8	7.14	1.00	0.21	(0.03)	(0.04)	0.12	0.08	(1.38)	(0.04)
Italy	23.7	6.53	23.6	6.61	0.99	(0.14)	0.08	0.02	0.15	0.07	0.09	(0.37)
France	23.6	7.38	23.6	7.47	1.95	(0.02)	0.09	(0.02)	0.18	0.06	0.47	0.17
Spain	13.0	6.17	12.9	6.29	0.38	(0.18)	0.12	(0.01)	0.18	0.08	0.71	(0.79)
Belgium	6.3	7.92	6.4	7.92	0.20	0.03	(0.01)	(0.01)	0.45	0.08	(0.70)	(0.51)
Netherlands	6.3	7.20	6.3	7.29	0.72	0.02	0.09	(0.06)	0.33	0.10	0.16	0.31
Ireland	1.9	5.21	2.0	5.50	0.94	0.07	0.29	(0.00)	0.29	0.04	2.36	3.02
Austria	3.9	7.83	3.9	7.83	0.08	0.01	(0.01)	(0.07)	0.50	0.08	(0.51)	(0.38)
Finland	1.6	6.59	1.6	6.59	(0.02)	(0.00)	0.00	(0.03)	0.37	0.07	(0.55)	(0.56)

Source: Citi Research

<sup>2</sup> Weighted duration of a country is calculated as (market value of that country) \* (effective duration) / (total market value of the EGBI). This is very significant for an EGBI portfolio manager as he tries to keep it unchanged through rebalancing at the month-end (within the bounds of his mandate).

### Summary of pressures on individual country curves<sup>3</sup>

Figure 7 summarises the pressures on individual country curves from the projected index changes. Green arrows indicate support for prices relative to other points on the respective domestic curves (and red arrows point to downward price pressure). Double arrows indicate particularly strong pressure on that part of the domestic curve. White/transparent arrows indicate weaker price pressures. The underlying detail is shown below in Figure 8 to Figure 23.

Figure 7. Summary of price pressures on individual domestic curves

	2yr	5yr	10yr	30yr	
Germany					Germany
France			↑	↑	France
Spain			↑		Spain
Italy		↑			Italy
Ireland		↓	↓	↑	Ireland
Netherlands				↑	Netherlands
	2yr	5yr	10yr	30yr	

Source: Citi Research

### Putting projected country changes in perspective

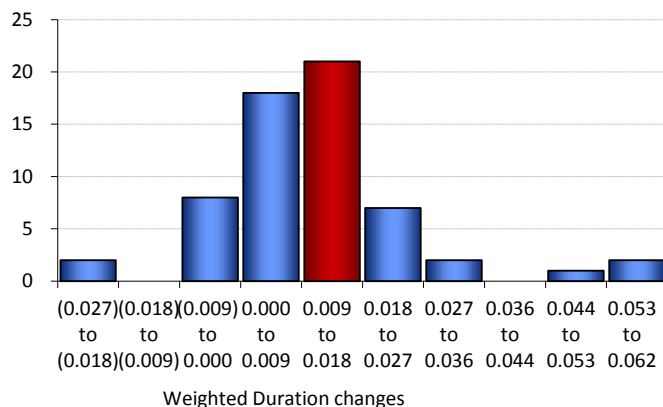
On the next page, we show the distributions of weighted duration changes (charts on the left) and curve splits (charts on the right) of the projected changes.

On domestic curves, we expect index changes to be supportive for:

- The 30yr sector of Ireland (Figure 23) and the Netherlands (Figure 11);
- 10yr Spain (Figure 19);
- The changes are also likely to put flattening pressure on 10s30s Ireland.

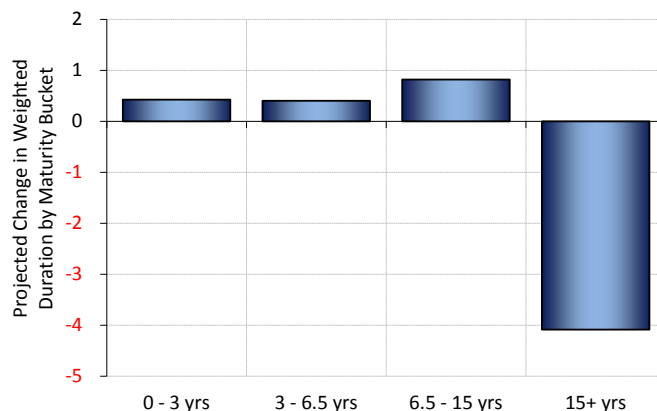
<sup>3</sup>Note that all these changes are on the domestic curve only, and should not be viewed as necessarily indicating cross-market opportunities.

**Figure 8. Germany: Distribution of month-end duration changes over the last five years (weighted duration)**



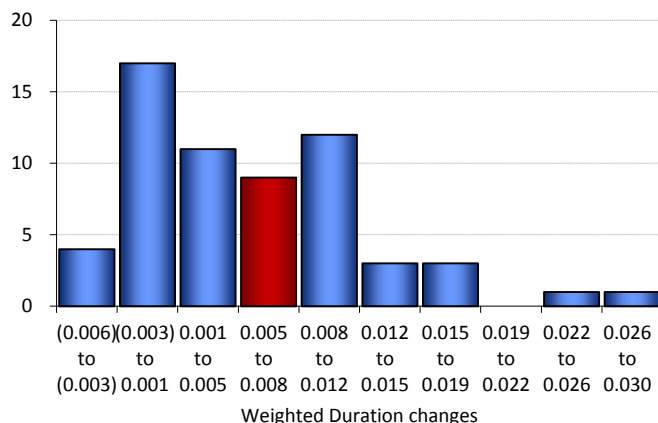
Source: Citi Research

**Figure 9. Germany: Maturity split of projected index changes**



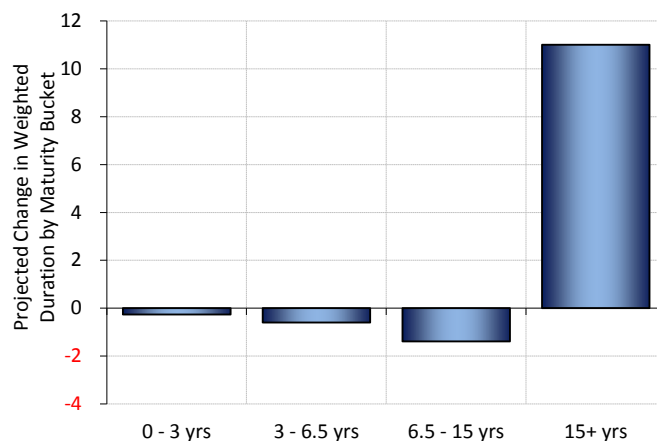
Source: Citi Research

**Figure 10. Netherlands: Distribution of month-end duration changes over the last five years (weighted duration)**



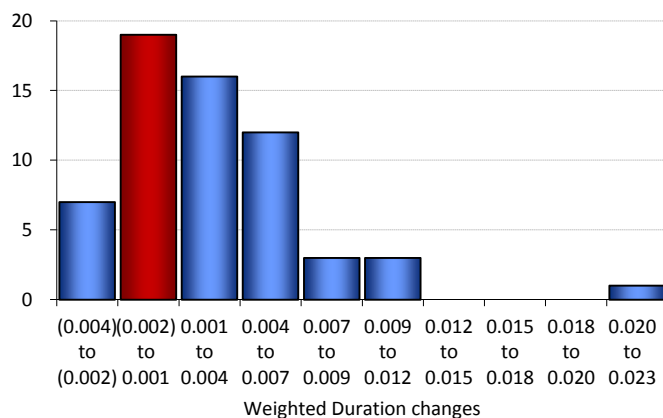
Source: Citi Research

**Figure 11. Netherlands: Maturity split of projected index changes**



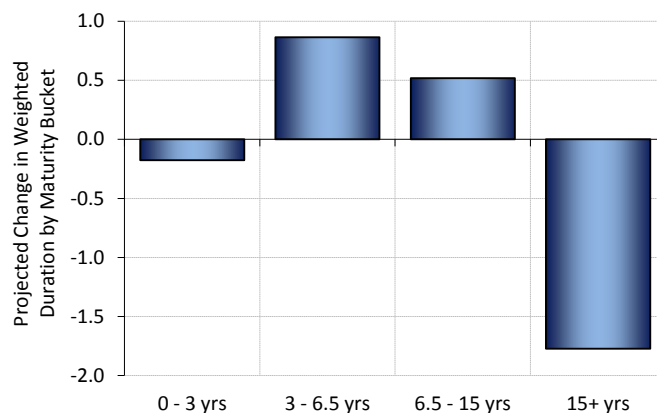
Source: Citi Research

**Figure 12. Austria: Distribution of month-end duration changes over the last five years (weighted duration)**



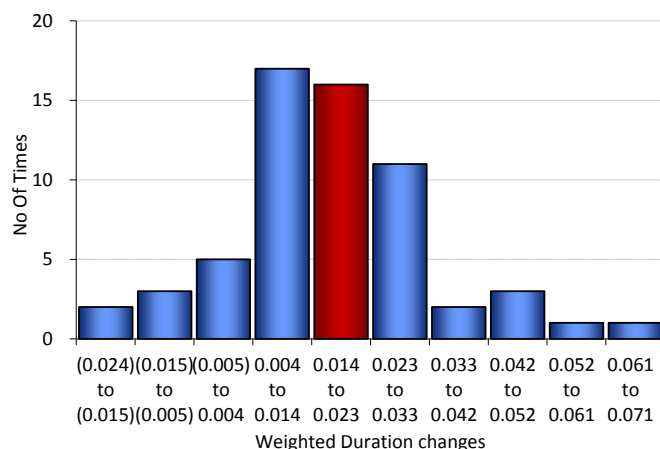
Source: Citi Research

**Figure 13. Austria: Maturity split of projected index changes**



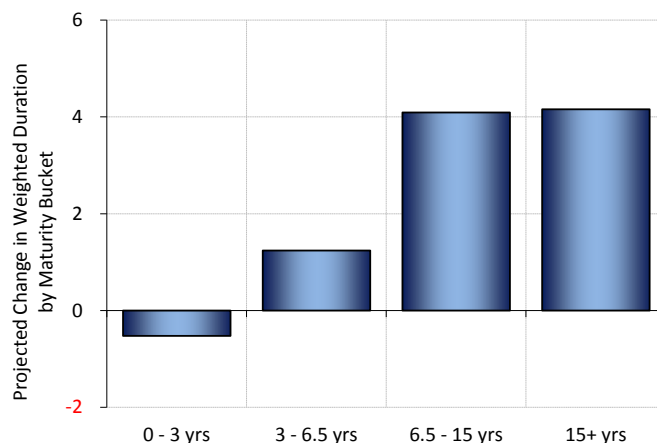
Source: Citi Research

**Figure 14. France: Distribution of month-end duration changes over the last five years (weighted duration)**



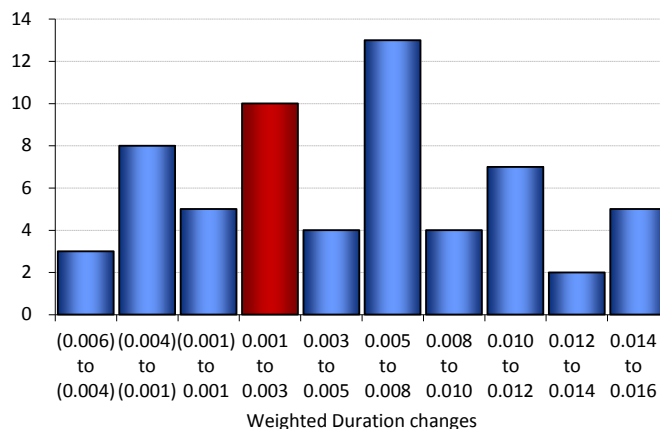
Source: Citi Research

**Figure 15. France: Maturity split of projected index changes**



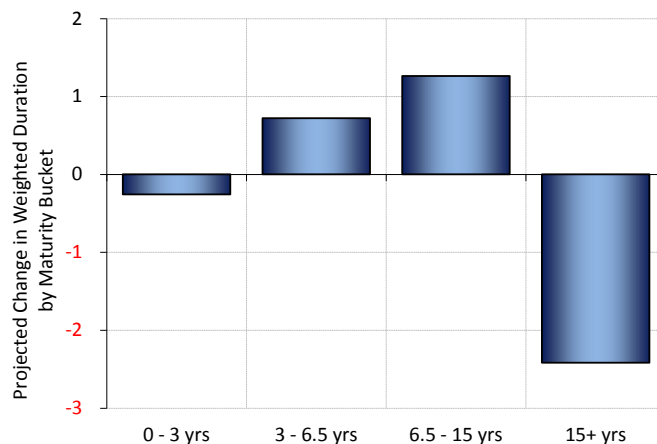
Source: Citi Research

**Figure 16. Belgium: Distribution of month-end duration changes over the last five years (weighted duration)**



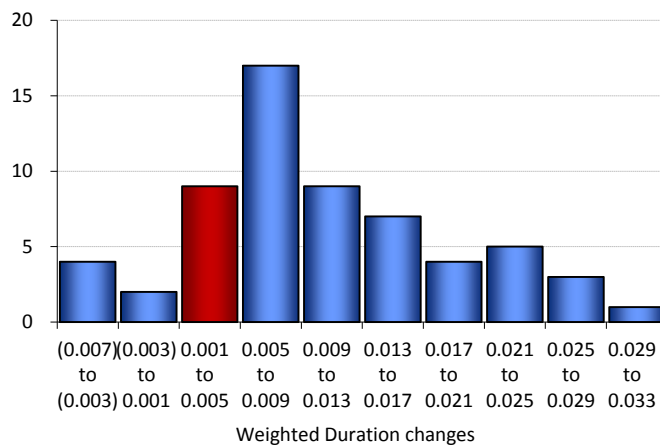
Source: Citi Research

**Figure 17. Belgium: Maturity split of projected index changes**



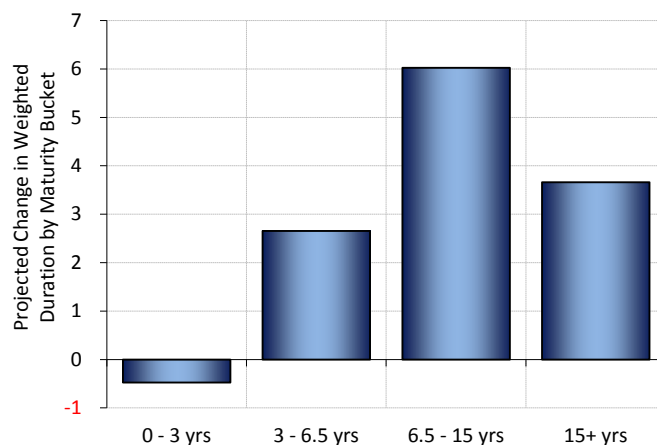
Source: Citi Research

**Figure 18. Spain: Distribution of month-end duration changes over the last five years (weighted duration)**



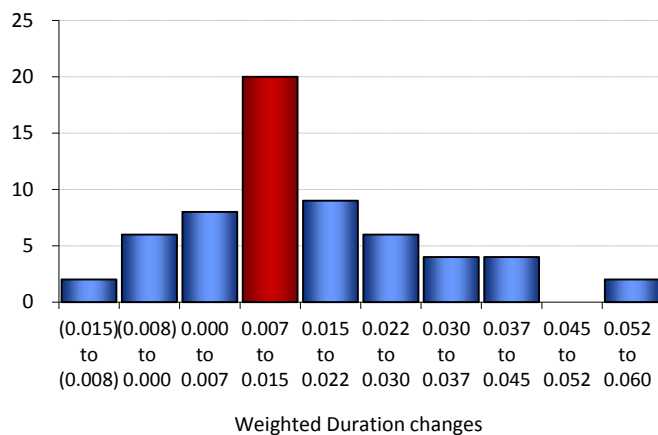
Source: Citi Research

**Figure 19. Spain: Maturity split of projected index changes**



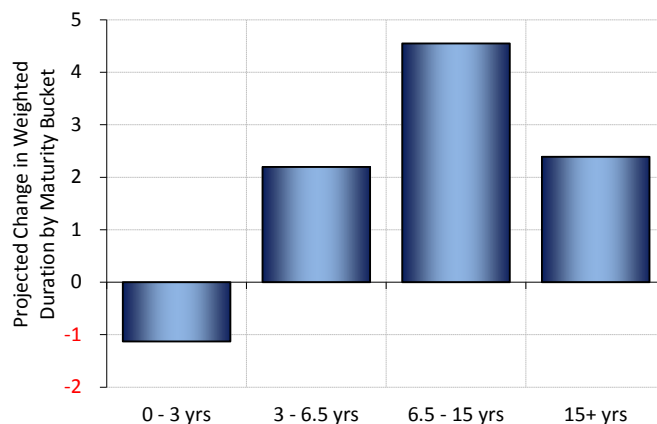
Source: Citi Research

**Figure 20. Italy: Distribution of month-end duration changes over the last five years (weighted duration)**



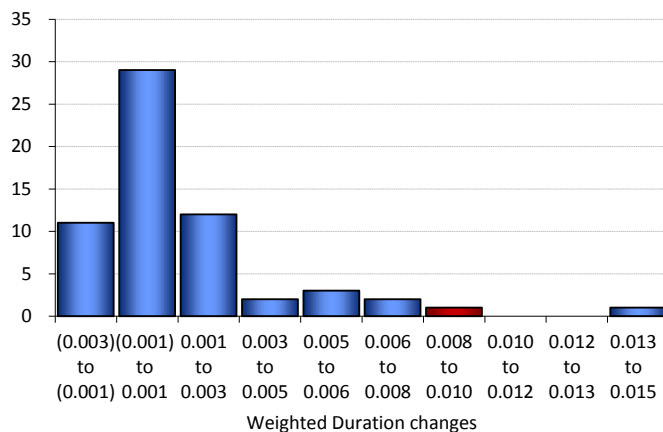
Source: Citi Research

**Figure 21. Italy: Maturity split of projected index changes**



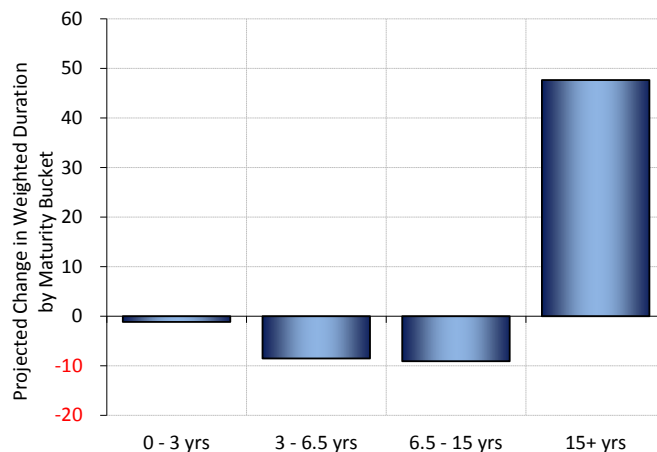
Source: Citi Research

**Figure 22. Ireland: Distribution of month-end duration changes over the last five years (weighted duration)**



Source: Citi Research

**Figure 23. Ireland: Maturity split of projected index changes**



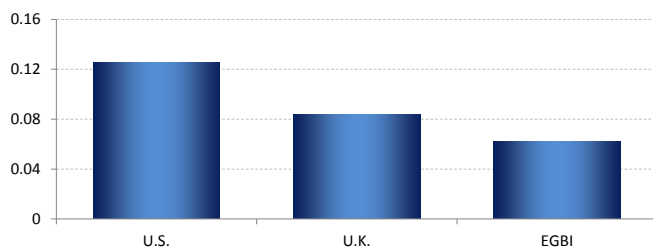
Source: Citi Research

## EGBI extension in context of the US and UK

Here we look at the relative extensions in EMU, US and UK (Figure 24) and place them in the context of their respective 12-month ranges (Figure 25).

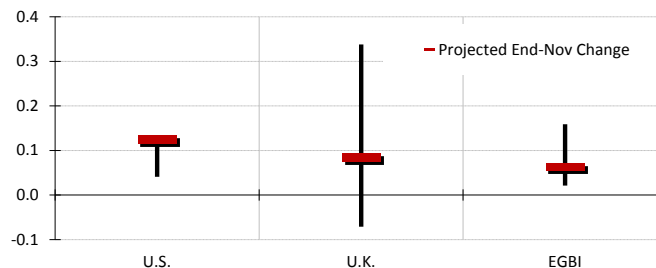
Among the three indices, the Treasury index is expected to extend the most at the end of November, followed by the gilt index. The extension in the gilt index is being driven by the syndication of 3.5% Treasury Gilt 2068 at the end of October. Please see [Citi Treasury Index November Compositional Adjustment](#) for details of the Treasury index.

Figure 24. Relative extensions in EMU, US and UK



Source: Citi Research

Figure 25. Projected duration changes vs 12-month range



Source: Citi Research

Figure 26 shows the detailed breakdown of the projected changes.

Figure 26. Details of month-end changes in EMU, US and UK

18-Nov-14	Nov Index	Dec Index*	Projected Change	5yr Z-Score	Duration change range over last year		
					Minimum	Maximum	Average Absolute Change
EGBI	6.97	7.03	0.06	(0.09)	0.02	0.16	0.07
U.S.	5.31	5.43	0.13	1.60	0.04	0.13	0.09
U.K.	10.32	10.40	0.08	0.23	(0.07)	0.34	0.09

Source: Citi Research



## Appendix A-1

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