

EMU Month-end Index Projections

Changes supportive for Germany and France

- **EMU Government Bond Index (EGBI):** The EGBI is projected to extend by 0.07 at the end of March. This would be the largest March change in 4 years. Projected changes should be most supportive for Germany and France.
- **Changes at a country level:** At an individual country level, we expect the Belgian index to extend by its largest amount in 5 years and the German index by its largest amount in 8 months. This should put flattening pressure on the two cash curves.
- **Changes on domestic curves:** We expect index changes to be most supportive for the long-end of Belgium and 10yr Netherlands. The changes should also put flattening pressure on 10s30s Belgium and steepening pressure on 10s30s Netherlands.
- **EGBI extension in the context of the US and UK:** Among the three indices, the EGBI is expected to extend the most at the end of March, followed by the Treasury Index. Please see [Citi Treasury Index March Compositional Adjustment](#) for more details. The gilt index is projected to contract this month. This is because of a lack of long-end issuance during the fixing month.

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Figure 1. EGBI: Projected month-end duration change

EGBI Effective Duration			Spectrum of duration changes over last year		
Mar Index	Apr Index (e)	Duration Change (e)	Minimum	Maximum	Average Absolute Change
6.54	6.61	0.070	0.02	0.15	0.06

Source: Citi Research

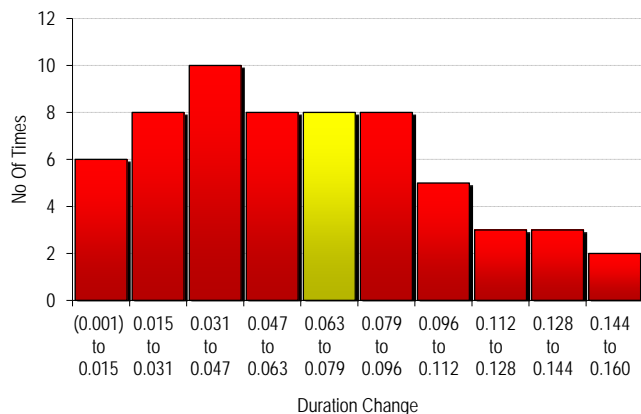
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End-March EGBI changes

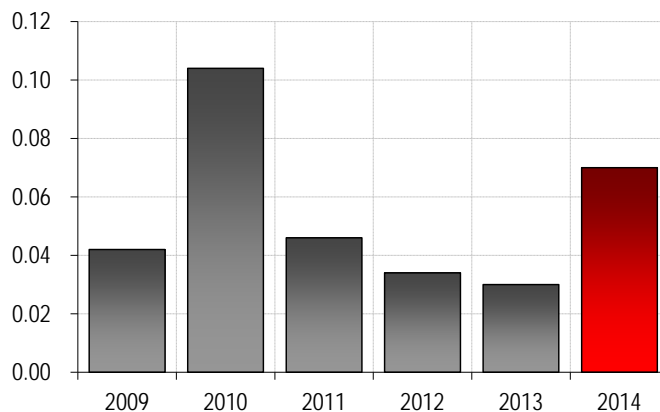
We expect the effective duration of the EGBI to increase by 0.07 at the end of March (Figure 1)¹. This would be the largest March change in four years (Figure 3).

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



Source: Citi Research

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



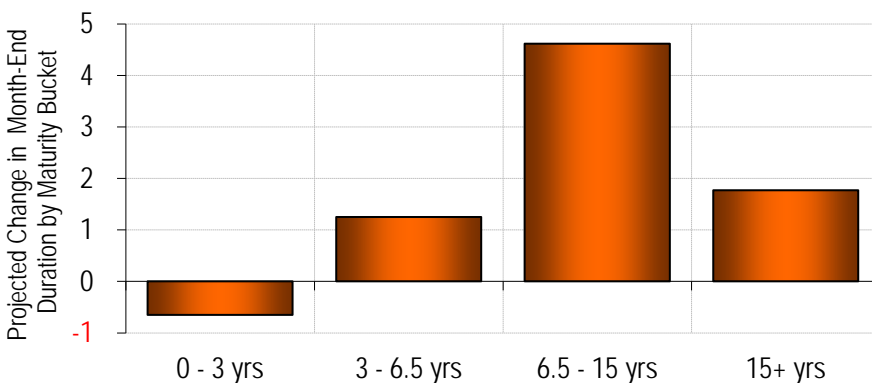
Source: Citi Research

Projected changes on the curve

Support for the 10yr sector on the curve

The projected changes should be supportive for the 10yr sector on the curve. The changes should also put flattening pressure on 2s10s part of the curve (Figure 4).

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



Source: Citi Research

Figure 5. Bonds dropping out of the EGBI

Country	Bond	Outstanding Amount (€bn)
Italy	2.5% Mar15	13.3
Germany	0.25% Mar15	15
Belgium	8% Mar15	6.2
Belgium	3.5% Mar15	9.80
Total		44.3

Source: Citi Research

€44bn of bonds to drop out of the EGBI

Issuance over the fixing period — 25 February to 25 March — will be eligible for inclusion in the index at the end of March. On the other hand, bonds that fall below 1 year of residual maturity on the last calendar day of the month are excluded from the index. Based on this criterion, €44bn of bonds across Italy, Germany and Belgium will drop out of the EGBI at the end of March (Figure 5).

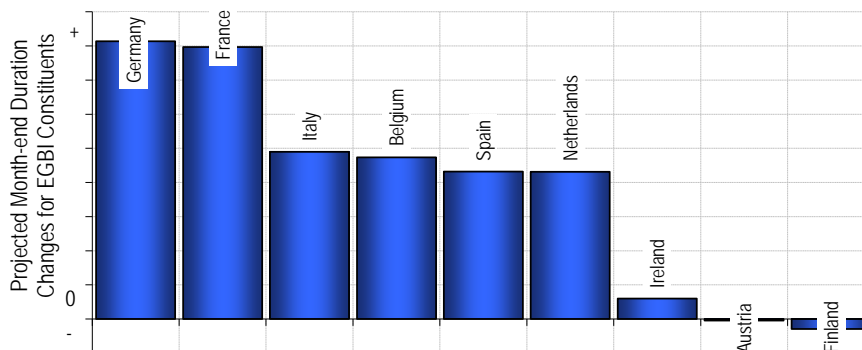
¹ Based on Citi supply estimates. Supply is the main driver of duration projections, but other factors, e.g. yield level and curve shape, also affect the calculations and are subject to change.

Projected changes most supportive for Germany and France

Projected changes supportive for Germany and France

We project Germany and France to extend the most, distantly followed by Italy, Belgium, Spain and the Netherlands (Figure 6). The two country indices expected to register a mild contraction are Austria and Finland (weighted duration).

Figure 6. Weighted duration change at the end of March



Source: Citi Research

Belgian index projected to extend by its largest amount in 5 years (on standalone basis)

Detailed analysis of the changes

Figure 7 shows detailed analysis of end-March EGBI changes. Among the individual country indices that make up the EGBI, we expect the Belgian index to extend by its largest amount in 5 years. This can be largely attributed to €16bn of OLO 8% Mar15 and OLO 3.5% Mar15 dropping out of the index and significant size of 20yr supply. This is followed by the German index, which should extend by its largest amount in 8 months. This should put flattening pressure on the two cash curves.

For EGBI portfolios, it is the weighted duration change that is most relevant². On this metric, Germany and France are expected to extend the most this month.

Figure 7. Breakdown of end-March EGBI projections

20-Mar-14	Mar Index		Apr Index*		Projected Change			Duration change range over last year (unweighted)			5yr Z-score	
	% weight in EGBI	Duration	% weight in Index	Duration	Weighted Dur Change X 100	Weight Change	Duration Change	Minimum	Maximum	Average Absolute Change	Unweighted duration	Weighted Duration
Germany	19.9	6.75	19.8	6.88	1.63	(0.11)	0.12	(0.04)	0.13	0.07	0.94	0.46
Italy	23.5	6.27	23.4	6.34	0.98	(0.09)	0.07	0.01	0.18	0.07	(0.10)	(0.37)
France	23.6	6.78	23.8	6.79	1.59	0.22	0.00	(0.02)	0.17	0.06	(0.70)	0.01
Spain	12.7	5.83	12.9	5.83	0.86	0.15	0.00	(0.03)	0.17	0.08	(0.55)	(0.19)
Belgium	6.4	7.09	6.2	7.56	0.95	(0.27)	0.47	(0.01)	0.47	0.08	3.41	0.84
Netherlands	6.3	6.81	6.4	6.82	0.86	0.12	0.01	(0.04)	0.36	0.08	(0.39)	0.54
Ireland	1.9	5.31	1.9	5.35	0.12	0.01	0.04	(0.03)	0.16	0.04	(0.06)	(0.07)
Austria	3.9	7.24	3.9	7.24	(0.01)	0.00	(0.00)	(0.03)	0.36	0.09	(0.50)	(0.57)
Finland	1.6	6.30	1.6	6.30	(0.06)	(0.01)	0.00	(0.01)	0.55	0.12	(0.58)	(0.67)

Source: Citi Research

*Projected

² 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 from the projected index changes

Summary of pressures on individual country curves³

Figure 8 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 9 to Figure 24.

Figure 8. Summary of price pressures on individual domestic curves

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

Source: Citi Research

Support for
- 30yr Belgium
- 10yr Netherlands, Ireland and Italy

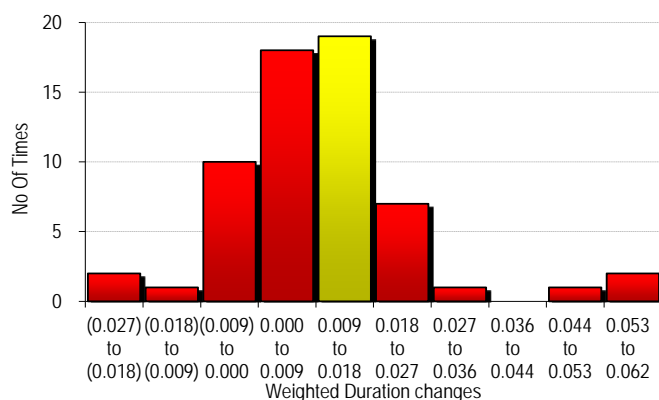
Flattening pressure on 10s30s Belgium
and steepening pressure on 10s30s
Netherlands

Putting projected country changes in perspective

Below we show the distributions of weighted duration changes (charts on the left) and the curve splits (charts on the right) of the projected changes. Based on this, the most historically significant extension is likely in Belgium (Figure 17).

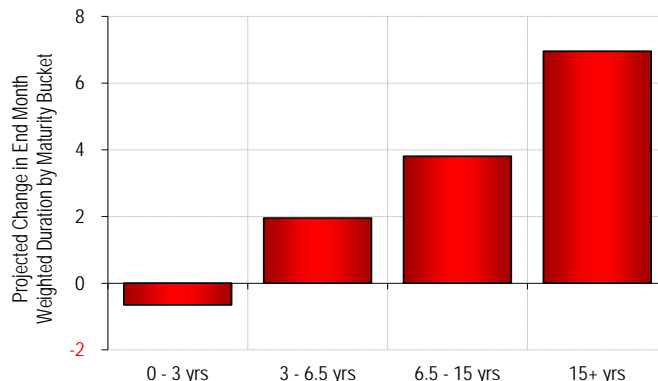
On domestic curves, we expect index changes to be supportive for the long-end of Belgium (Figure 18) and Germany (Figure 10), and the 10yr sector in the Netherlands (Figure 12), Ireland (Figure 24) and Italy (Figure 22). The changes should also put flattening pressure on 10s30s Belgium and steepening pressure on 10s30s Netherlands.

Figure 9. Germany: Distribution of month-end duration changes over the last five years (weighted duration)



Source: Citi Research

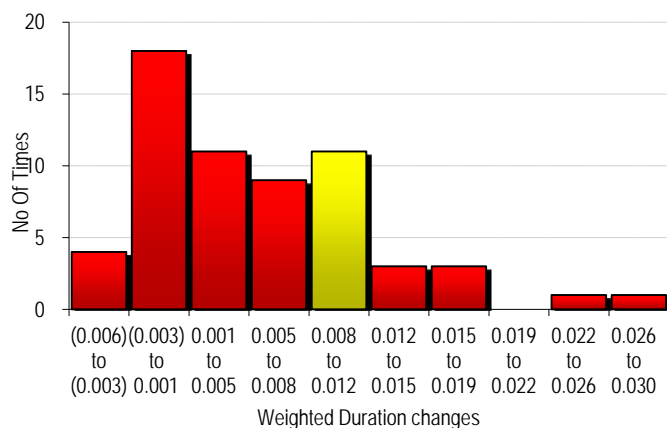
Figure 10. Germany: Maturity split of projected index changes (weighted duration)



Source: Citi Research

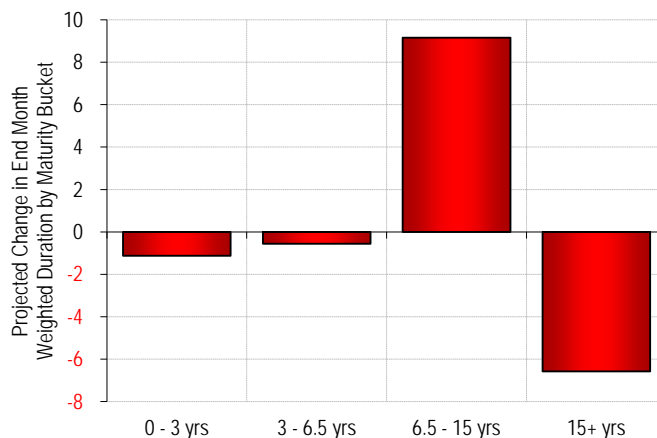
³Note that all these changes are on the domestic curve only, and should not be viewed as necessarily indicating cross-market opportunities.

Figure 11. Netherlands: Distribution of month-end duration changes over the last five years (weighted duration)



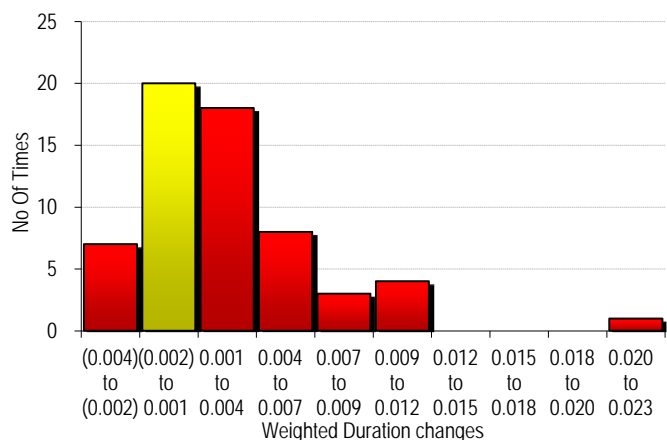
Source: Citi Research

Figure 12. Netherlands: Maturity split of projected index changes (weighted duration)



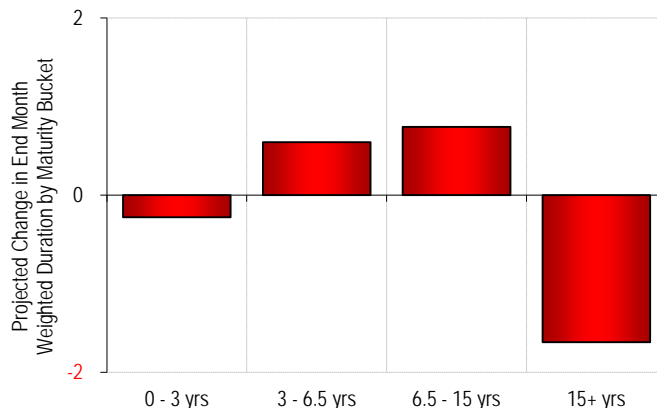
Source: Citi Research

Figure 13. Austria: Distribution of month-end duration changes over the last five years (weighted duration)



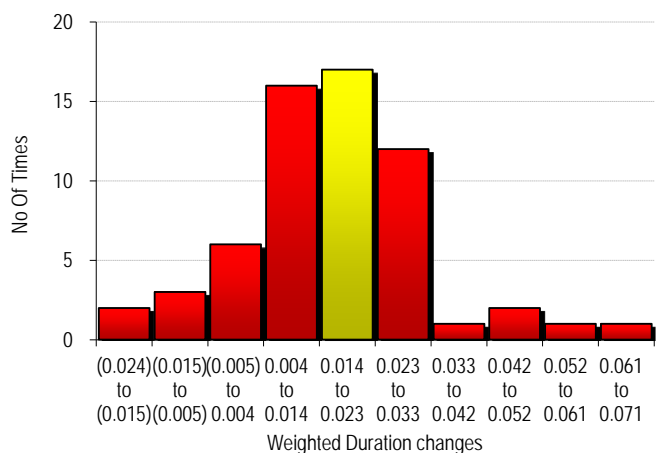
Source: Citi Research

Figure 14. Austria: Maturity split of projected index changes (weighted duration)



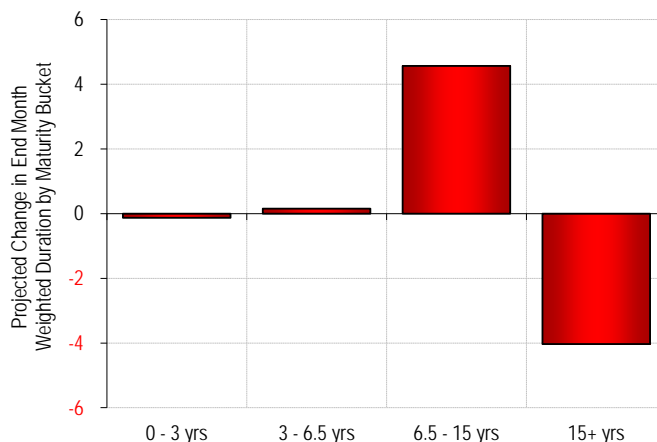
Source: Citi Research

Figure 15. France: Distribution of month-end duration changes over the last five years (weighted duration)



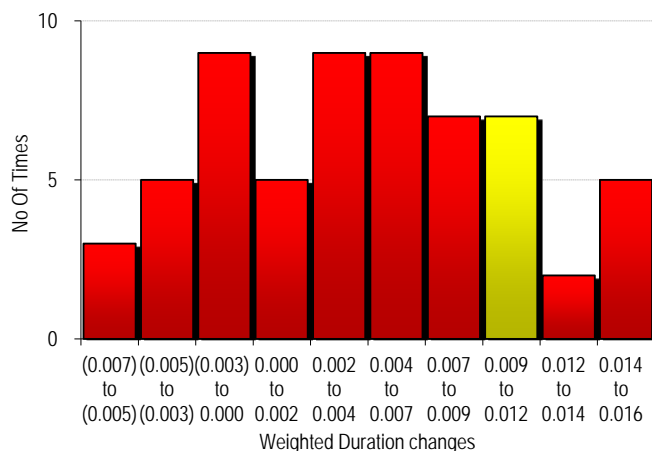
Source: Citi Research

Figure 16. France: Maturity split of projected index changes (weighted duration)



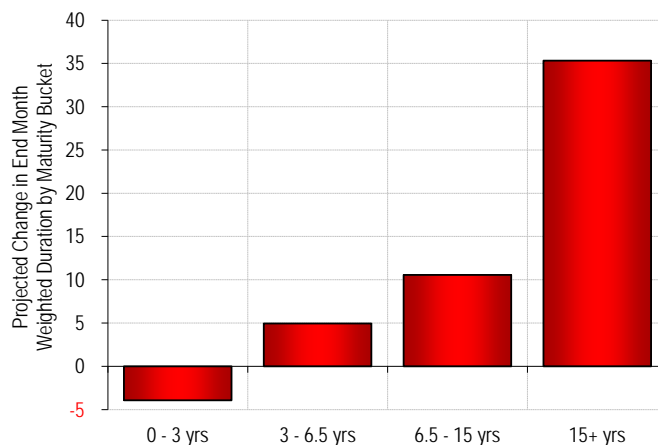
Source: Citi Research

Figure 17. Belgium: Distribution of month-end duration changes over the last five years (weighted duration)



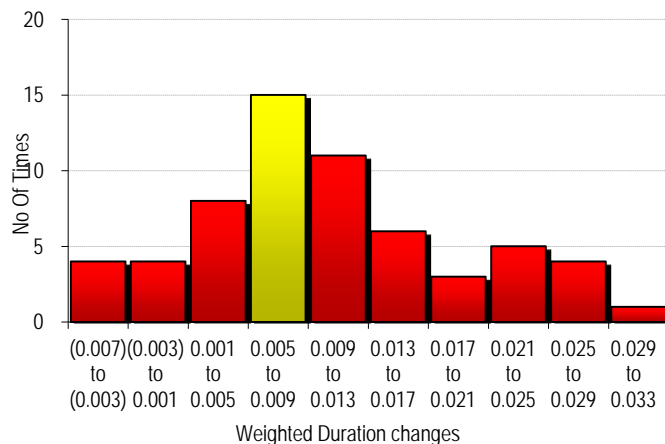
Source: Citi Research

Figure 18. Belgium: Maturity split of projected index changes (weighted duration)



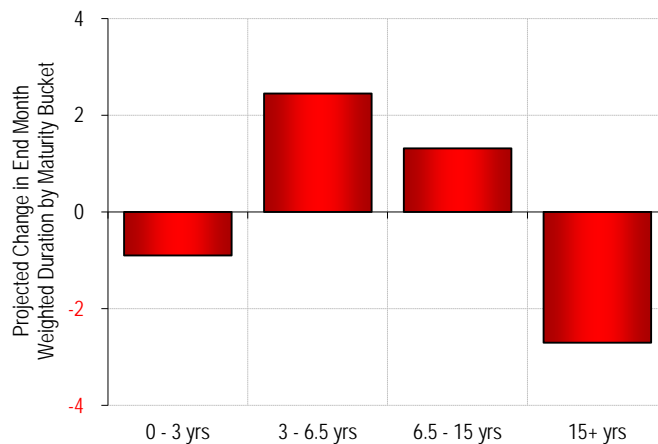
Source: Citi Research

Figure 19. Spain: Distribution of month-end duration changes over the last five years (weighted duration)



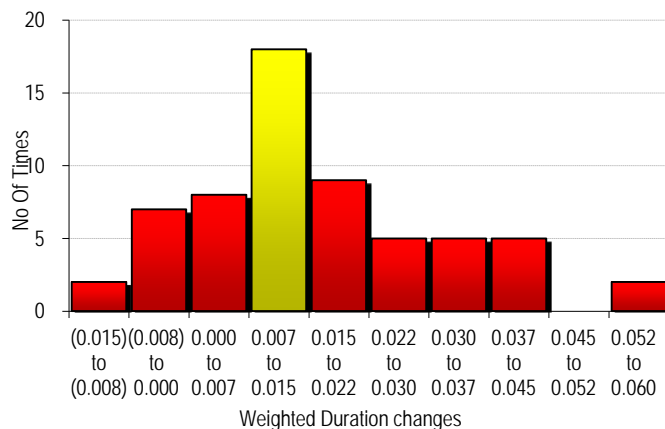
Source: Citi Research

Figure 20. Spain: Maturity split of projected index changes (weighted duration)



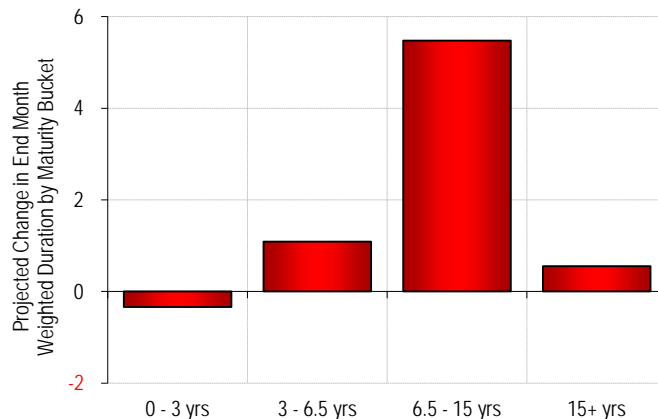
Source: Citi Research

Figure 21. Italy: Distribution of month-end duration changes over the last five years (weighted duration)



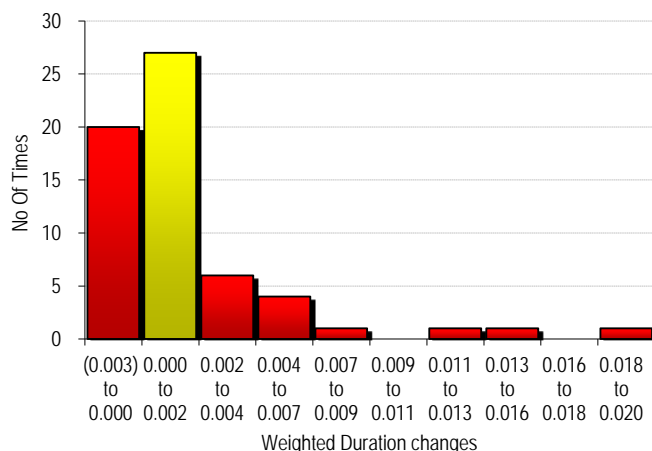
Source: Citi Research

Figure 22. Italy: Maturity split of projected index changes (weighted duration)



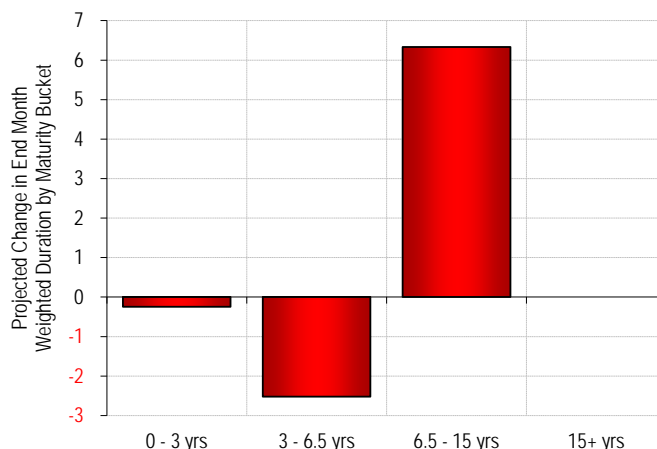
Source: Citi Research

Figure 23. Ireland: Distribution of month-end duration changes over the last five years (weighted duration)



Source: Citi Research

Figure 24. Ireland: Maturity split of projected index changes (weighted duration)



Source: Citi Research

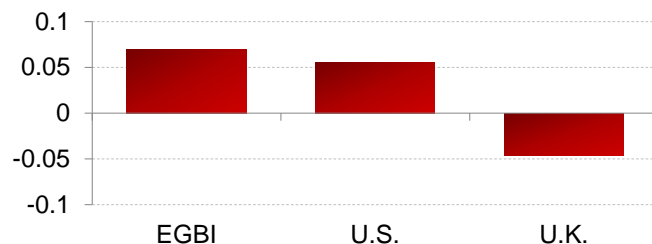
EGBI extension in context of the US and UK

Here we look at the relative extensions in EMU, US and UK (Figure 25) and place them in the context of their respective 12-month ranges (Figure 26).

EGBI to extend the most followed by the Treasury Index

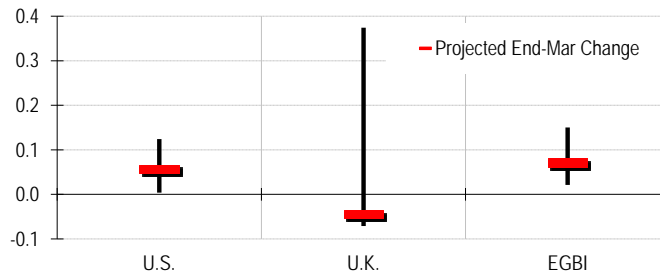
Among the three indices, the EGBI index is expected to extend the most at the end of March, followed by the Treasury Index. Please see [Citi Treasury Index March Compositional Adjustment](#) for more details. The gilt index is projected to contract this month. This is because of a lack of long-end issuance during the fixing month. The BoE buybacks to reinvestment APF coupons and redemptions are likely to be largely duration neutral.

Figure 25. Relative extensions in EMU, US and UK



Source: Citi Research

Figure 26. Projected duration changes vs 12-month range



Source: Citi Research

Figure 27 shows the detailed breakdown of the projected changes.

Figure 27. Details of month-end changes in EMU, US and UK

20-Mar-14	Mar Index	Apr Index*	Projected Change	5yr Z-Score	Duration change range over last year		
					Minimum	Maximum	Average Absolute Change
EGBI	6.54	6.61	0.07	0.16	0.02	0.15	0.06
U.S.	4.98	5.04	0.06	0.06	0.00	0.12	0.07
U.K.	9.85	9.81	-0.05	(0.58)	(0.07)	0.37	0.12

Source: Citi Research

Appendix A-1

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