

## Developed Market Rates

20 July 2011 | 10 pages

# Global Month-End Index Projections

## End-July 2011 EGBI and WGBI Projections

- **EGBI:** We expect the largest extension in the effective duration of the EGBI in the last year at the end of July. The projected index changes should support the 2yr sector of Europe. The most supportive weighted-duration increases are in France and Germany, and also Italy.
- **Individual Euro country curves:** Projected index changes point to bull-steepening pressure on the German curve and bull-flattening pressure on the Dutch curve.
- **WGBI:** We also project index changes due to changes in composition for the US, UK and Japan components of the WGBI.

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EGBI Effective Duration			Largest Duration changes over last year		
End Jun	End Jul(e)	Duration Change(e)	-ve	+ve	Average Absolute Change
6.17	6.31	0.14	(0.00)	0.14	0.06
EGBI excl. Portugal and Ireland	6.21	6.36	0.15		

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

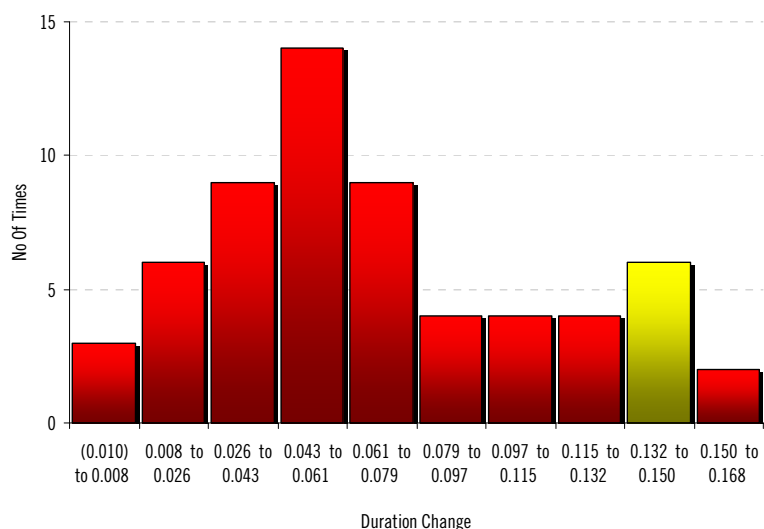
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## End-July EGBI Projections

### Significant extension in the EGBI

The effective duration of the EGBI should extend by 0.14 at the end of July<sup>1</sup>. This would be the largest extension in the last year and is 1.8 standard deviations above its 5-year mean. The five year frequency distribution of month-end changes is shown in Figure 1.

Figure 1. Five Year Distribution of Month-End EGBI Duration Changes (July Projection Highlighted)



Source: Citi Investment Research and Analysis

### Ratings and eligibility

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

If Portugal or Ireland were excluded from the index – something that would require downgrade by only S&P to non-investment grade (Figure 2) – we calculate an index extension of 0.17, or 0.19 if both of them are removed (Figure 3).

Figure 2. Portugal and Ireland's EGBI Eligibility

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

Source: Citi Investment Research and Analysis

Figure 3. EGBI extension in case of a rating event

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

Source: Citi Investment Research and Analysis

<sup>1</sup> Please see the supply section of our weekly *International Interest Rate Strategist* for details of the estimated issuance on which this and related projections are based. Supply is the main driver of projections but other factors, e.g., yield level and curve shape, also affect the calculations and are subject to change.

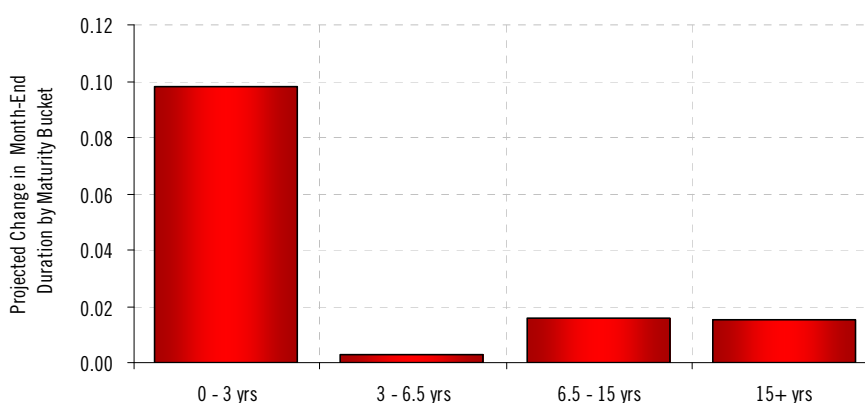
## Bonds dropping out of the EGBI at the end of July

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

## Curve breakdown of end-July EGBI projection

As shown by the curve breakdown of the projected changes (Figure 4), nearly all the index extension is concentrated in the 2yr sector. Ceteris paribus, this should put downward pressure on 2yr yields relative to other maturities as previously matched investors buy these sectors to rematch the index.

Figure 4. End-July Projected Index Changes by Curve Sector (Unweighted Duration)

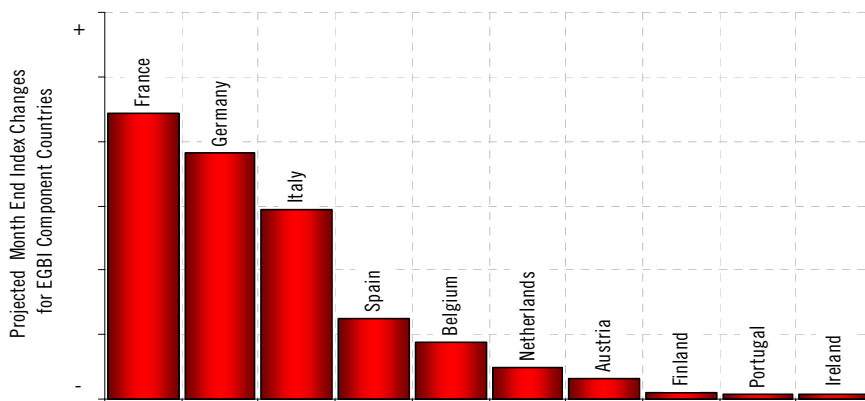


Source: Citi Investment Research and Analysis

## Country breakdown of end-July EGBI projection

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

Figure 5. End-July Projected Index Changes by Country (Weighted Duration)



Source: Citi Investment Research and Analysis

<sup>2</sup> it will increase for the eleventh consecutive month.

## Detailed breakdown of end-July EGBI projections

Figure 6 shows the detailed breakdown of projected end-July duration and index weight changes by country. The changes for the Netherlands, Austria and Germany are the largest in a year. Looking at a longer history, the 5yr z-scores of the three are 2.3, 2.2 and 1.8 respectively.

Figure 6. End-July EGBI Projections

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

Source: Citi Investment Research and Analysis

## Pressures on individual country curves

Figure 7 summarises the pressures on individual country curves from the projected index changes. Green arrows indicate support for prices and red arrows indicate downward pressure on prices, relative to the domestic curve. Double arrows indicate strong pressure on that part of the domestic curve relative to other maturities. The underlying detail is shown in Figure 8 to Figure 21.

Projected index changes indicate strong support for the 10yr sector, especially for the Netherlands (Figure 17) and Austria (Figure 21). The changes also imply bull-steepening pressure on the German curve (Figure 9) and bull-flattening pressure on the Dutch curve. The changes point to a downward pressure on curvature of the Austrian curve in 5-30yr sector<sup>3</sup>.

Figure 7. Summary of Pressure on Prices of Individual Country Curve Sectors

	2yr	5yr	10yr	30yr	
Germany		↑	↑↑	↑	Germany
Italy			↑↑		Italy
France			↑↑		France
Spain			↑↑		Spain
Netherlands			↑↑	↑	Netherlands
Belgium			↑	↓	Belgium
Austria		↑	↑↑	↑	Austria
Finland					Finland
	2yr	5yr	10yr	30yr	

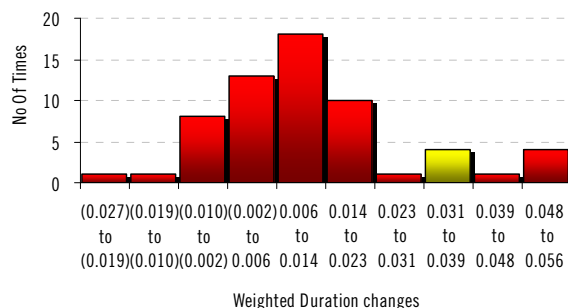
Source: Citi Investment Research and Analysis

<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.

## Putting projected country changes in perspective

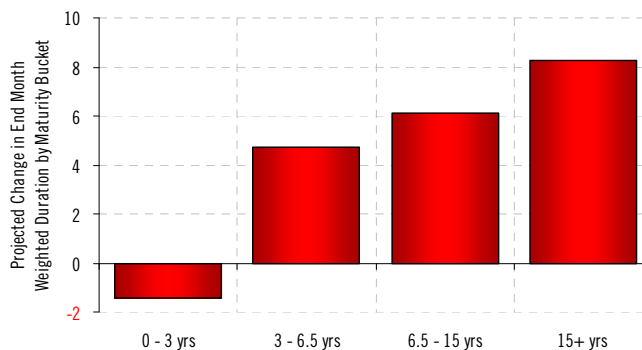
Below we show the distributions of weighted duration changes and the curve splits of the projected end-July changes. The most significant changes from the historical perspective are Germany (Figure 8), France (Figure 12) and Belgium (Figure 18).

**Figure 8. Germany: Distribution of Month-End Duration Changes Over The Last Five Years (Weighted Duration)**



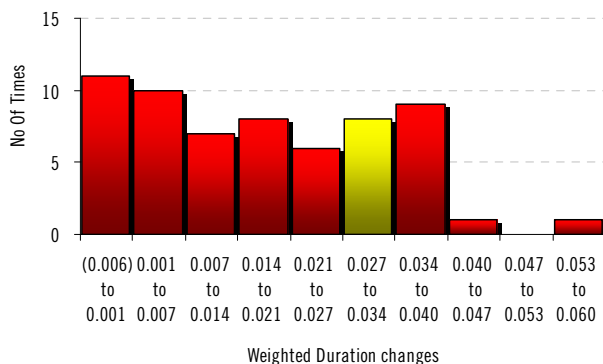
Source: Citi Investment Research and Analysis

**Figure 9. Germany: End-July Projected Index Change by Maturity (Weighted Duration)**



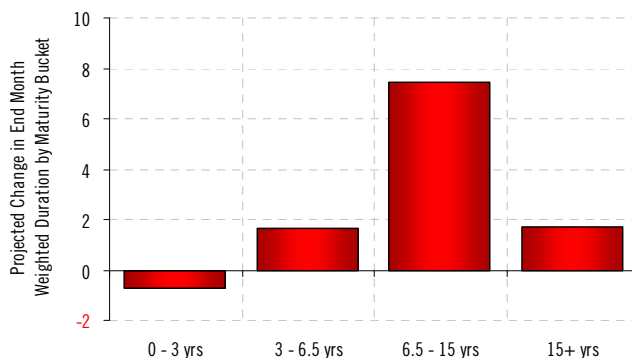
Source: Citi Investment Research and Analysis

**Figure 10. Italy: Distribution of Month-End Duration Changes Over The Last Five Years (Weighted Duration)**



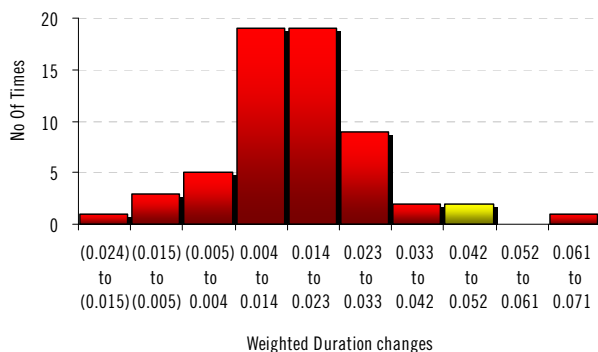
Source: Citi Investment Research and Analysis

**Figure 11. Italy: End-July Projected Index Change by Maturity (Weighted Duration)**



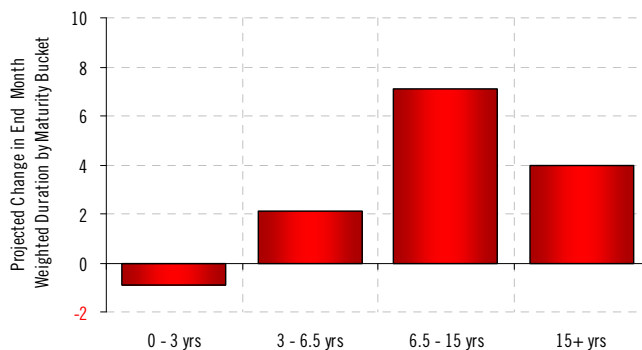
Source: Citi Investment Research and Analysis

**Figure 12. France: Distribution of Month-End Duration Changes Over The Last Five Years (Weighted Duration)**



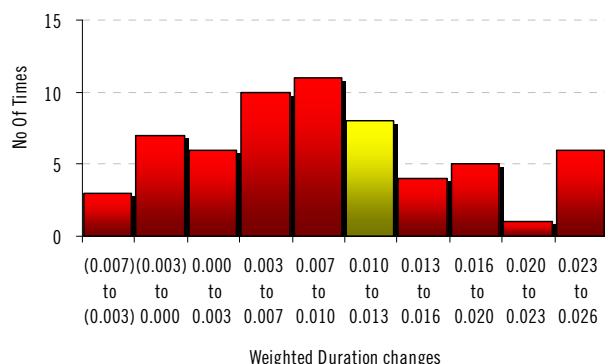
Source: Citi Investment Research and Analysis

**Figure 13. France: End-July Projected Index Change by Maturity (Weighted Duration)**



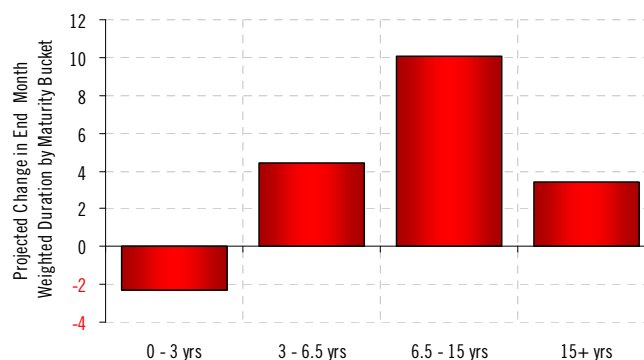
Source: Citi Investment Research and Analysis

**Figure 14. Spain: Distribution of Month-End Duration Changes Over The Last Five Years**



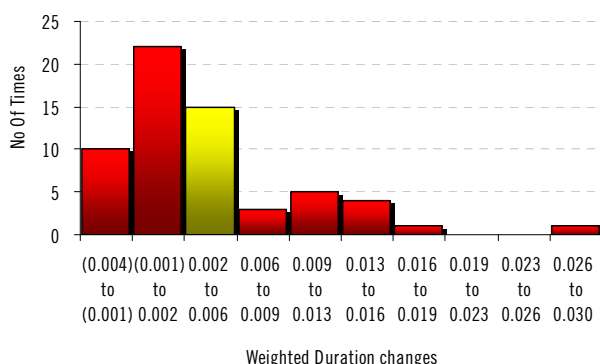
Source: Citi Investment Research and Analysis

**Figure 15. Spain: End-July Projected Index Change by Maturity (Weighted Duration)**



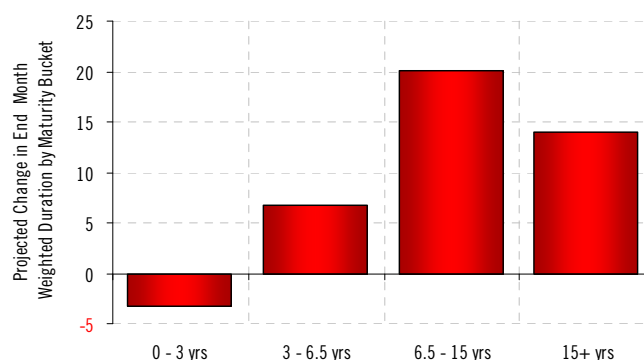
Source: Citi Investment Research and Analysis

**Figure 16. Netherlands: Distribution of Month-End Duration Changes Over The Last Five Years (Weighted Duration)**



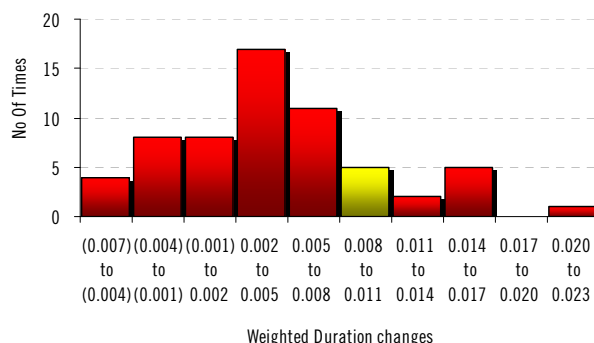
Source: Citi Investment Research and Analysis

**Figure 17. Netherlands: End-July Projected Index Change by Maturity (Weighted Duration)**



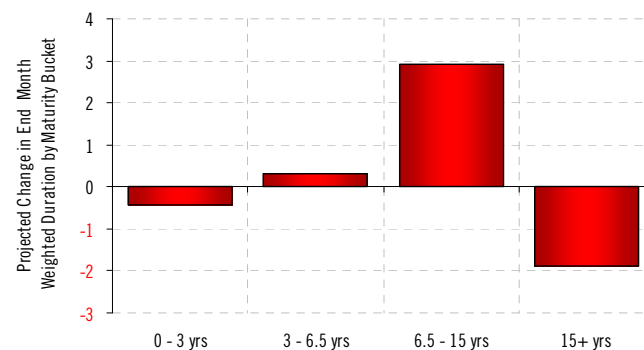
Source: Citi Investment Research and Analysis

**Figure 18. Belgium: Distribution of Month-End Duration Changes Over The Last Five Years**



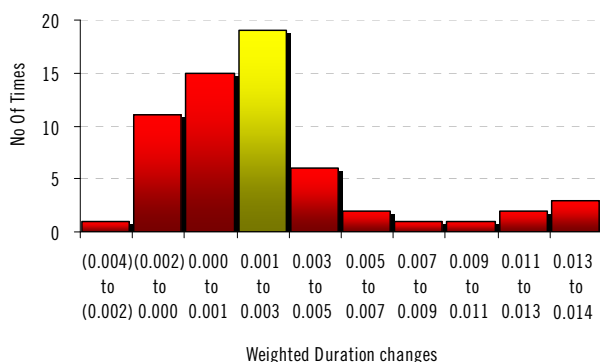
Source: Citi Investment Research and Analysis

**Figure 19. Belgium: End-July Projected Index Change by Maturity (Weighted Duration)**



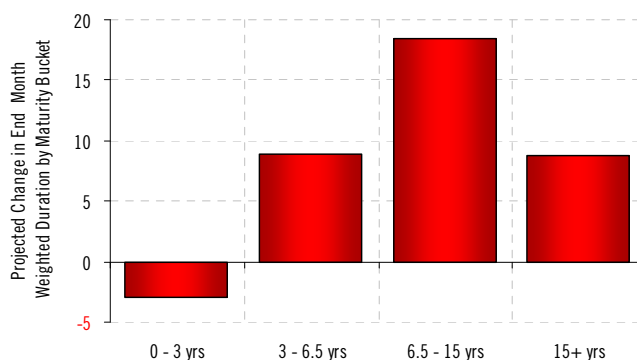
Source: Citi Investment Research and Analysis

Figure 20. Austria: Distribution of Month-End Duration Changes Over The Last Five Years



Source: Citi Investment Research and Analysis

Figure 21. Austria: End-July Projected Index Change by Maturity (Weighted Duration)

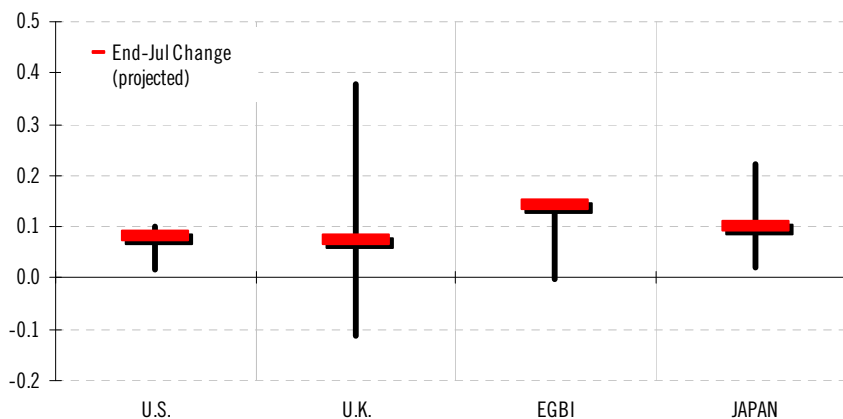


Source: Citi Investment Research and Analysis

## End-July WGBI Projections

**Error! Reference source not found.** shows the projected end-July index changes for the EGBI, Japan, UK and US components of the WGBI, and places them in the context of their respective 12-month ranges.

Figure 22. Projected Duration Changes for WGBI Components and 12-Month Range



Source: Citi Investment Research and Analysis

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Figure 23. End July Projected Duration Changes for the Main Components of the WGBI

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

Source: Citi Investment Research and Analysis

## Appendix A-1

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