

# US Rate Strategy Notes

## Citi Treasury Index August Compositional Adjustment

- **Treasury Index Extension of 0.114 Years:** The Treasury Index is estimated to extend by 0.114 years due to the compositional adjustment.
- **TIPS Contraction of 0.060 Years:** The TIPS Index is estimated to contract by 0.060 years due to the inclusion of the 5 year TIPS re-opening.

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

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## Treasury & TIPS Index Duration Change Expectations at the End of August 2014

Since the beginning of Operation Twist, and now continuing into QE 3, the Citi Treasury Index month end duration change has been impacted by the Federal Reserve's purchases and sales. To calculate the estimated month-end duration change we must account not only for new Treasury issuance and the roll-off of securities that drop below 1-year to maturity, but also for Federal Reserve transactions in Treasuries.

### Treasury Index Expected to Extend 0.114 Years

In aggregate we expect that the Treasury Index will extend by 0.114 years in effective duration. The extension due to new issuance and roll-off of existing securities is 0.143 years. The contraction due to Federal Reserve SOMA transactions is 0.029 years.

**Figure 1. Estimated duration adjustment to the Citigroup Treasury Index owing to compositional change**

Duration (yrs) of the August Index	5.192
Duration (yrs) of the September Index	5.306
<b>Total Compositional Duration (yrs) Adjustment</b>	<b>0.114</b>
Due to New Issuance and Roll-Off	0.143
Due to FED SOMA Operations	(0.029)

Source: Citi Research, Treasury, Federal Reserve

### Duration Adjustment Due to New Issuance and Roll-Off

Figure 2 shows the issues that will be added to the September Treasury Index.

**Figure 2. Issues to be added to the Citigroup Treasury Index**

	Coupon	Maturity	Auction Date	Par Amount (\$MM)*
2-Year Treasury	0.500%	31-July-16	24-July-14	\$29,000
3-Year Treasury	0.875%	15-August-17	12-August-14	\$27,000
5-Year Treasury	1.625%	31-July-19	25-July-14	\$35,000
7-Year Treasury	2.250%	31-July-21	26-July-14	\$29,000
10-Year Treasury	2.375%	15-Aug-24	13-August-14	\$24,000
30-Year Treasury	3.125%	15-Aug-44	14-August-14	\$16,000

Source: Citi Research, Treasury, \*Par Amount – Auction Size

Treasuries that are currently included in the August Treasury Index and will mature less than one year after the fixing date will be removed from the September Index. These issues are listed in Figure 3.

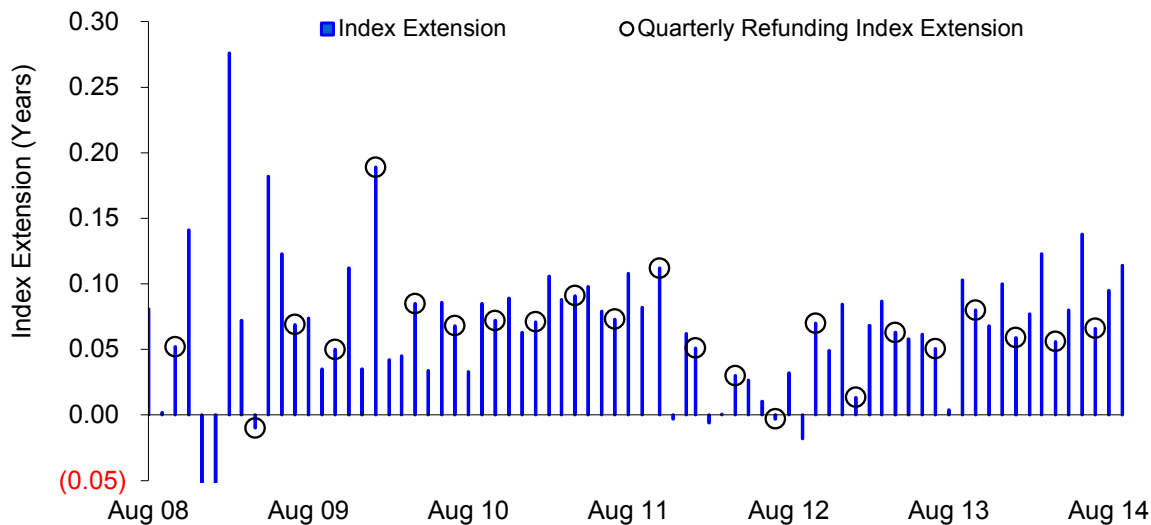
Figure 3. Issues to be removed from the Citigroup Treasury Index

	Coupon	Maturity	Par Amount (\$MM)
Treasury	0.250%	31-July-15	\$35,000
Treasury	1.750%	31-July-15	\$37,000
Treasury	0.250%	15-August-15	\$32,000
Treasury	4.250%	15-August-15	\$31,000

Source: Citi Research, Yield Book

Historical duration adjustments due to compositional changes are shown in Figure 4.

Figure 4. Historical Index Extension Due to Compositional Adjustment, August 2008 – September 2014



Source: Citi Research

## TIPS Expected to Contract 0.060 Years (Modified Duration)

In aggregate we expect that the TIPS Index will contract by 0.060 years in modified duration. A summary of the duration changes is listed below, in Figure 5:

**Figure 5. Estimated duration adjustment to the Citigroup TIPS Index owing to compositional change**

	Modified Duration	Effective Duration
Duration (yrs) of the August Index	8.581	7.733
Duration (yrs) of the September Index	8.521	7.677
Total Compositional Duration (yrs) Adjustment	-0.060	-0.056

Source: Citi Research, Yield Book

## Duration Adjustment Due to New Issuance and Roll-Off

There was one new TIPS re-opening within our fixing dates for this period. A summary of the auction is shown in Figure 6:

**Figure 6. New Issuances to be added to the Citigroup TIPS Index**

	Coupon	Maturity	Auction Date	Par Amount (\$MM)*
5-Year TIPS	0.250%	15-Apr-19	21-August-14	\$16,000

Source: Citi Research, Treasury, \*Par Amount – Auction Size

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