

US Rates Weekly

Europe drags treasury yields lower

- **Overview** — A risk shift triggered by geopolitical developments and unease about asset valuations led Treasuries higher over the week. We are staying with our short duration position in 5-year swaps.
- **Short-end** — We expect net T-bill issuance to be close to flat for the remainder of the year. An uptick in issuance this month may create a buying opportunity for short-term paper through mid-September. Negative net issuance in late September is likely to take short-rates lower.
- **Volatility** — We estimate tail risk premiums in vols at different tenors, and find that 5y tail vol has the most risk premium. We also find this premium gradually declined post crisis. Those not anticipating any large wing events should consider selling 5y gamma as a source of excess return. Separately we consider the recent drop in upper-left vol, and conclude that current levels are not too low.
- **August Interest Rate Survey** — This survey was distributed on Wednesday, August 6 and closed at end of day on Thursday, August 7. Investors seem to be positioned short duration.

Amitabh Arora

+1-212-723-1090
amitabh.arora@citi.com

Neela Gollapudi

+1-212-723-3075
neela.gollapudi@citi.com

Jabaz Mathai

+1-212-723-1839
jabaz.mathai@citi.com

Andrew Hollenhorst

+1-212-723-3623
andrew.hollenhorst@citi.com

Kevin Shapiro

+1-212-723-3833
kevin.shapiro@citi.com

Bond Portfolio Analysis

Robert Rowe

+1-212-723-1168
robert.rowe@citi.com

Martin Bernstein

+1-212-723-6067
martin.bernstein@citi.com

Rohit Thapliyal

+1-212-723-1696
rohit.thapliyal@citi.com

Shuo Li

+1-212-723-3193
shuo2.li@citi.com

Shiyan Gan

shiyan.gan@citi.com

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

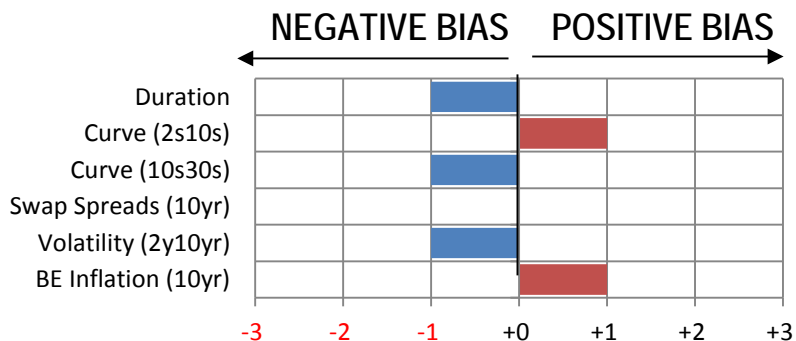
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Summary of Rate Expectations

Figure 1. Summary of Current Views



Source: Citi Research

Note: Duration: Positive = higher price; Curve: Positive = steeper; Swap Spreads: Positive = higher spread; Volatility: Positive = higher; BE Inflation: Positive = higher

Figure 2. Forecasts

	Aug. 07	3Q 2014	4Q 2014	1Q 2015	2Q 2015	3Q 2015	4Q 2015
INTEREST RATE FORECASTS							
Policy Rate (Fed Funds) End Quarter	0.25	0.25	0.25	0.25	0.25	0.75	1.00
3-Month Libor	0.23	0.23	0.23	0.45	0.8	0.9	1.15
2 Year Treasury Yield	0.43	0.7	0.95	1.2	1.4	1.65	1.85
5 Year Treasury Yield	1.60	1.95	2.25	2.4	2.5	2.65	2.75
10 Year Treasury Yield	2.41	2.7	2.95	3	3.1	3.15	3.2
30 Year Treasury Yield	3.22	3.35	3.45	3.5	3.55	3.55	3.6
Primary Mortgage Rate	4.27	4.45	4.73	4.83	4.98	5.08	5.2
SWAP SPREAD FORECASTS							
2 Year Swap Spread (Swap Less Govt), bp	24	18	15	15	15	15	15
10 Year Swap Spread (Swap Less Govt), bp	15	15	15	15	15	15	15
INFLATION FORECAST							
10 Year Breakeven Inflation	223	225	230	235	235	235	235

Source: Citi Research

Summary of Views

Figure 3. Strategy Summary Table

US Rates	View	Recommended Positions
Duration	Short 5y Long 30y	Pay 3m5y and Sell 3m5y Payer swaption Long 30y ATM, -25bp receiver spread
Yield Curve	Front-end steeper 1y10y rate higher relative to 1y5y and 1y30y	2y1y-3y1y steepeners 1y fwd 5s10s30s fly
Swap Spreads	Neutral	None
Gamma	1m3y and 1m5y are a good sell, unhedged	None
Vega	Bearish on intermediate vega	Sell 1y10y ATM Straddles unhedged Sell 1y5y vs. 1y10y straddles
Inflation	Bullish 10y breakevens Bearish 2y fwd 2y real yields	Long 10y breakevens Short 2y fwd 2y real yields
MBS	Short Term: Neutral on the 30Y basis Long Term: Underweight on the 30Y basis	Short 15-year 3.0s vs. 5-year Treasury
Agency And SAS Debt	We like 2.5y-3.5y agency; We like longer tenor callables: 10NC 6m and 7NC 6M 5y and longer Cades looks cheap to their equivalent EUR bonds; Ontario looks attractive in all tenors in the short term	None

Source: Citi Research

Europe drags treasury yields lower

Amitabh Arora

We have been of the view that Q3 growth data will be pivotal in driving long-term yields in the US.¹ In particular, we have argued that the economy would need to grow in excess of 3% for a couple of quarters to dispel market skepticism about the growth forecasts embedded in the FOMC's rate guidance. It seems that the focus on growth will recede for a bit while the Treasury market grapples with a change in risk sentiment.

Europe seems to be the epicenter of this shifting risk sentiment. We can see this in the relative underperformance of European equities (Figure 4) as well as the fact that 10-year yields have seen comparable moves in the US and EUR swap rates despite the fact that EUR rates are typically 25% less volatile than US rates. What is clear is that this rally is not related to the growth data in the US, which was generally positive this week with initial claims coming below 300K.

The risk shift – which seems to be a mix of geopolitical concerns and unease about risk asset valuations – was exacerbated by an ECB meeting where President Draghi dismissed concerns about deteriorating inflation expectations. Inflation markets do not share his sanguine attitude; for the first time since the ECB began hinting at policy easing in March of this year, real 5-year swap rates have risen, partially offsetting the ECB's monetary easing (Figure 5).

We take developments in the Euro area seriously; much like sharp changes in Fed policy (taper tantrum, operation twist) affected yield curves globally, so should the impact of ECB policies. Our view is that the ECB will work to prevent a further decline in inflation expectations via a stronger commitment to QE targeted at ABS and/or sovereign bonds.

For the moment we will stay with our short duration position via being paid in 5-yr swap rates. We will closely monitor messages from the ECB to gauge whether they are taking due note of this unintended monetary tightening and will reassess our duration posture if necessary. Please see the trade sheet in this publication for more details of the trade construction.

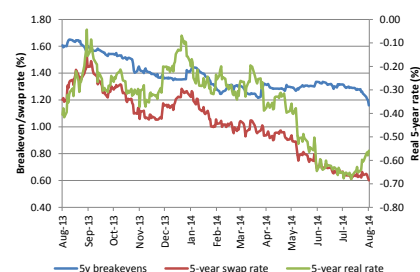
Figure 4. European assets react more to market developments

	EUR	USD
10-yr swap rate (bp)	-6	-5
Equities (%)	-1.9	-0.7

Source: Bloomberg

Notes: changes between 8/1 and 8/7

Figure 5. Decline in inflation expectations partially offset ECB easing



Source: Bloomberg

¹ Please see the overview in the US Rates Weekly dates July 24th.

T-bill issuance update

Andrew Hollenhorst

Treasury is leaving 2y and 3y auction sizes \$1 billion larger per month than we had expected.

2y and 3y coupon auction sizes have stabilized

This week the TBAC released their [recommended issuance schedule](#) for the US Treasury for the remainder of 2014. The biggest surprise was the decision to leave front-end coupon issuance unchanged rather than reducing the monthly 2y and 3y auction sizes by an additional \$1 billion as TBAC had recommended last quarter. This only slightly changes our supply estimates for 2014 and we continue to think that Treasury may need to increase these auction sizes in the second half of 2015 when growing deficits will once again be on the horizon. We do not expect this small change in issuance plans to have a material effect on 2y and 3y yields.

Figure 6. Citi Treasury coupon auction size forecasts for 2014

	2y	3y	5y	7y	10y	30y	5y TIPS	10y TIPS	30y TIPS	Gross	Redeem	Net
Jan-14	32	30	35	29	21	13		15		175	118	57
Feb-14	32	30	35	29	24	16			9	175	126	49
Mar-14	32	30	35	29	21	13		13		173	101	72
Apr-14	32	30	35	29	21	13	18			178	117	61
May-14	31	29	35	29	24	16		13		177	132	45
Jun-14	30	28	35	29	21	13			7	163	105	58
Jul-14	29	27	35	29	21	13		15		169	131	38
Aug-14	29	27	35	29	24	16	16			176	132	44
Sep-14	29	27	35	29	21	13		13		167	108	59
Oct-14	29	27	35	29	21	13			7	161	109	52
Nov-14	29	27	35	29	24	16		13		173	138	35
Dec-14	29	27	35	29	21	13	16			170	111	59
Total	363	339	420	348	264	168	50	82	23	2,057	1428	629
vs. 2013	-45	-38	0	0	0	0	0	0	0	-83	182	-265

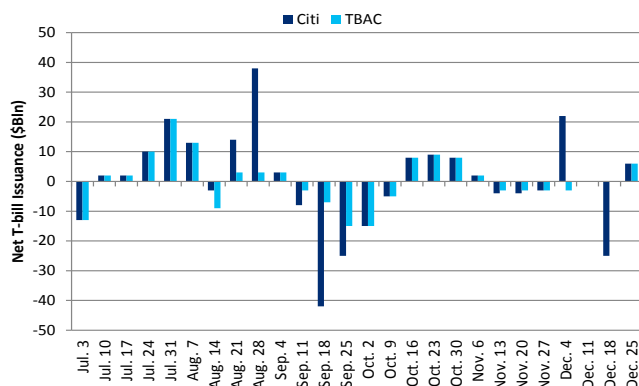
Source: Citi Research, US Treasury

T-bill issuance close to flat over the remainder of 2014

Positive net T-bill issuance in August may be higher than TBAC suggests.

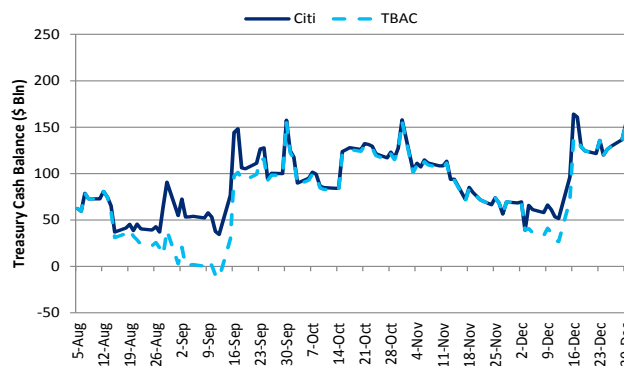
Net T-bill issuance on the year has been -\$182 billion, close to our expectation for negative net issuance over the course of the year. As such we are forecasting flat to slightly positive net T-bill issuance over the remainder of 2014, similar to TBAC's \$11 billion positive net T-bill issuance recommendation. While we largely agree with TBAC's bill issuance schedule, we expect slightly higher issuance in August, and lower in September (Figure 7) to smooth Treasury's cash balance. (Figure 8)

Figure 7. Treasury may increase issuance in August and December...



Source: Citi Research, US Treasury, includes CMB

Figure 8. ...smoothing out low points in cash balance



Source: Citi Research, US Treasury, Cash balance is Citi's projection

Expect larger 1m bill auction sizes and/or CMB in August.

In particular, we think Treasury may take 1m bill auction sizes as high as \$50 billion in the next few weeks and possibly issue a cash management bill (CMB) of around \$25 billion in the last two weeks of August, maturing in mid-September. To the extent Treasury does not increase 1m auction sizes further from the current \$40 billion, we would expect larger and/or earlier CMB. We expect 3m bill auction sizes to remain in a \$25-30 billion range, 6m from \$23-27 billion and 12m to hold steady at \$25 billion.

Next chance of an uptick in issuance is likely December.

Following the pickup in issuance this month, we expect issuance to turn negative in September and then moderate to close to flat for the remainder of the year. Following August we think the next potential for an uptick in bill issuance is December when Treasury may choose to issue more CMB as we are forecasting cash balance to dip slightly.

Short-rates should move higher with increased issuance.

Repo and other short-term rates typically move higher when bill issuance increases as the supply of short-term investable assets grows and dealers have more collateral that needs to be financed. To the extent positive issuance comes in the form of CMB this effect can be magnified as end users are less interested in off-cycle bills, leading dealers to take down larger percentages of the auction.

Changes in the repo market have magnified the impact of T-bill issuance on short-rates.

In recent months, the usual response of short-rates to issuance has changed for two reasons:

1. **Fed reverse repo** – The Fed reverse repo facility represents up to \$1.39 trillion in supply of overnight Treasury repo at a fixed yield of 5bp. This forms a floor on market rates and has kept reductions in issuance from taking rates below 5bp for sustained periods.
2. **Dealer balance sheet pressure** – In the past, dealers with large balance sheets have served as something as a shock absorber for upticks in issuance by buying and holding T-bills (and particularly CMB) that come to the market at cheap levels. Regulatory developments like the supplementary leverage ratio (SLR) have led dealers to focus on keeping balance sheets small, which means bills and other short-term rates are likely to move higher for the same amount of issuance. Indeed, we have noted in recent weeks that relatively small changes in the supply of Treasury collateral have resulted in what we would have previously viewed as outsize responses from repo rates.

Late August is likely to be a buying opportunity for short-term paper.

With rates floored at 5bp and dealers likely to remain constrained in absorbing the positive T-bill supply in August, we expect repo rates to continue to trade at somewhat elevated levels through mid-September. At that time repo and other short-rates are likely to drop as T-bill issuance turns negative. Following this, repo rates are likely to stay closer to the 5bp floor through the remainder of the year, with a possible move up in December. Given this view, we expect late August to be a buying opportunity for T-bills and other short-term paper.

Interest Rate Derivatives

Neela Gollapudi

Over the past week, implied volatility in US rates declined in short tenors, but held steady in long tenors.

Figure 9. Changes to implied vol over the past week – Thu to Thu (bp/annum)

Exp/Tail	2Y	5Y	10Y	30Y
1M	-4	-3	-1	1
3M	-3	-1	1	3
6M	-5	-3	-1	1
1Y	-3	-2	-1	1
5Y	0	0	0	0
10Y	0	0	0	0

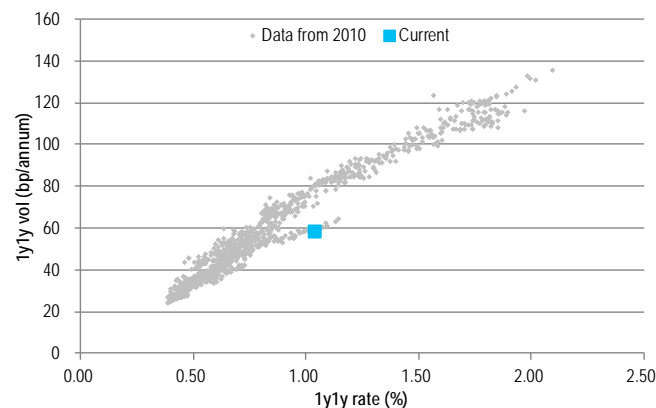
Source: Citi Research

The sharp decline in upper-left vol is interesting in the context of the large bear-steepening following the Q2 GDP print, and the subsequent rally following the NFP number. Clearly, the NFP print and associated data appears to have had some impact on market expectations of Fed activity. We discuss these and related issues next.

Despite recent decline, upper-left vol is not low

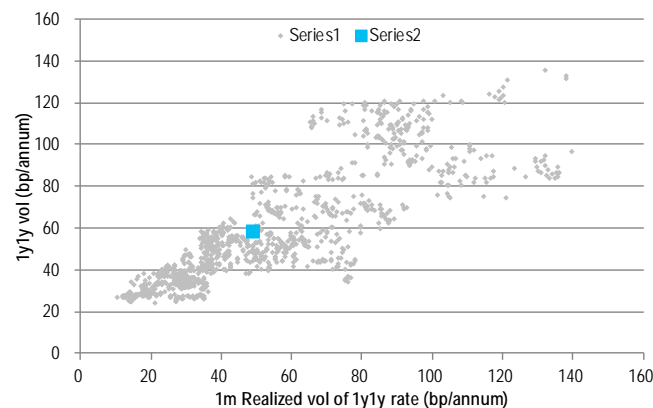
We consider upper-left vol in relation to a) the level of appropriate forward rate, and b) the realized vol in the appropriate forward rate over the past month.

Figure 10. Level of 1y1y vol fell relative to the level of forwards at the start of 2014



Source: Citi Research

Figure 11. ... but the level of 1y1y vol appears fair given the level of realized vol in 1y1y forwards



Source: Citi Research

The level of 1y1y implied vol is currently around 58.5bp/annum. Given 1y1y forwards of about 1.02%, this suggests a logvol of about 57.3%. At a similar point in the cycle in 2003 (about a year before the first Fed hikes²), when forwards were at 1.87% and 1y1y vol was at 90.5, implied logvol was 48.3%. Therefore, despite the recent drop, we judge current levels of upper-left to be not low based on the two metrics we considered.

Tail-risk premium priced in the market

We provide an estimate of the tail-risk premium priced into the vol surface, and offers a few conjectures on how this premium has evolved, and why it is different in different tenors.

We take a simple approach to estimating tail risk premium. We draw upon the idea that even when realized vol drops to very low levels, implied vols do not follow suit. Part of the reason is clearly that the drop in realized vol is backward looking, while implied vols are forward looking. The more interesting reason is that implied vols also reflect tail risks that do not materialize month-to-month, and therefore do not necessarily show up in any particular realized vol estimate.

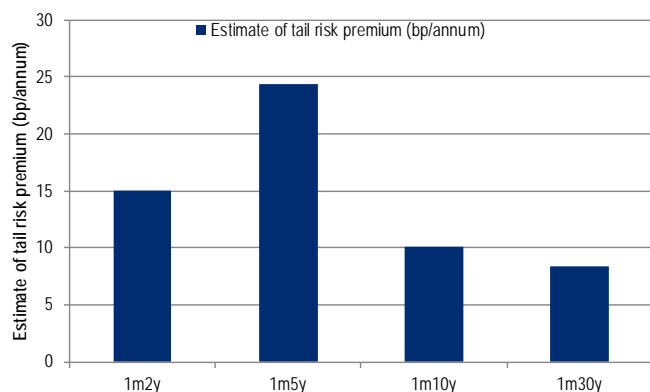
We estimate tail risk premium as the intercept in the regression of implied vols on realized vols. In order to at least roughly adjust for forward expectations of realized

² To be accurate, we do not know when the first hikes are likely to be in the current cycle, but we will pretend we do, because market pricing suggests mid-2015 as the possible start of hikes.

vol, we also add lagged measures of realized vol into the regression. The intuition is that if realized vol is low in a persistent manner, over many months, then implieds can be low due to forward expectations of low realized vol. On the other hand, if only recent realized vol is low, but implieds are low, then probably the embedded tail-risk premium is low.

We present estimates of the tail risk premium both cross-sectionally across tails, as well as how it evolved over time.

Figure 12. 1m5y has the most tail risk premium embedded in it



Source: Citi Research

Figure 13. Measured tail risk premium appears to have declined post crisis



Source: Citi Research

We can make three interesting observations from the above two charts. First, at the current time, 1m5y has the largest tail risk premium embedded in it at around 24bp/annum. This is not surprising given that market concerns are most pronounced around the risk of an early start to Fed hikes, given that market pricing is below the Fed “dots”.

The second point of interest is that tail risk premium measured in the above way does not adequately reflect forward expectations of realized volatility. Otherwise, one would not have wide variability in the measured tail risk premium. Intuition suggests that actual tail risk premium embedded in vols is likely to change only gradually.

The third point of interest is that the secular decline in tail risk premium likely reflects the large influence of a very accommodative Fed that tends to reduce the probability of wing events.

The observation that 1m5y has the most tail risk premium would also mean that it is the most attractive point to short gamma if one had a benign view of the path of Fed Funds.

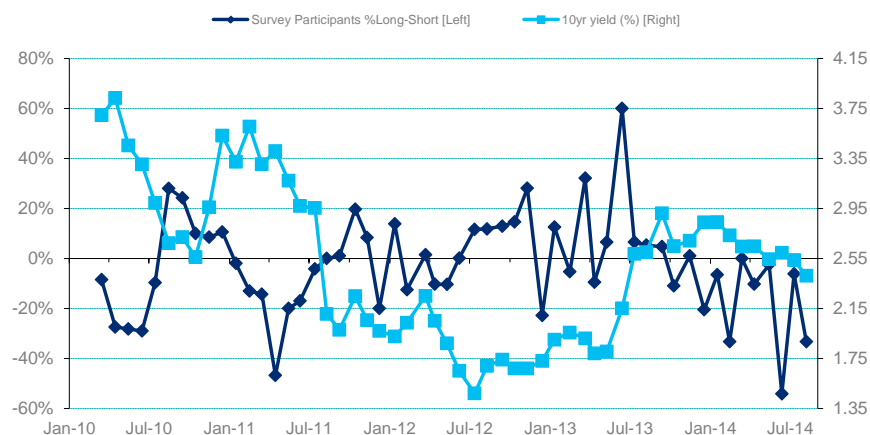
Results of the August Interest Rate Survey

Neela Gollapudi

This survey was distributed on Wednesday, August 6 and closed at end of day on Thursday, August 7. The following are the key takeaways:

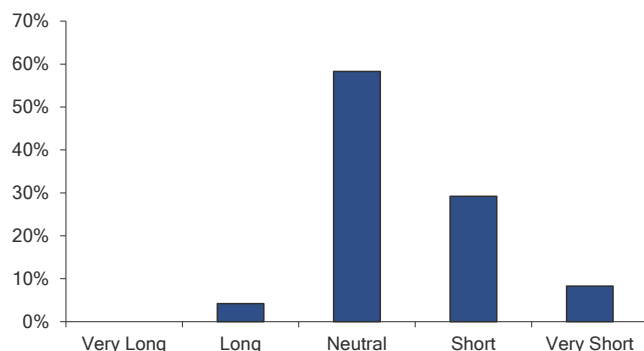
- Shorts outnumber longs by a third. Almost 60% of respondents were neutral duration.
- Investors prefer duration risk and credit risk as sources of excess return.
- More than half the respondents expect near-term (6m to 2y) inflation to be 2% or less.
- Half the respondents are neutral on mortgages, and a third were underweight.
- Almost 80% of the respondents expect the first Fed hike rate to be sometime in Q2 or Q3 2015.
- A 3% terminal Fed Funds rate appears to be the median expectation.
- Only a quarter of the respondents expect geopolitical stress in Europe to be resolved in the next two months. On resolution, about two thirds of the respondents expected to move 10bp higher.
- About 60% of respondents felt that concerns about the Chinese economy have caused US 10y rates to be 10-25bp lower.

Figure 14. Survey Results from the August Citigroup Interest Rate Survey



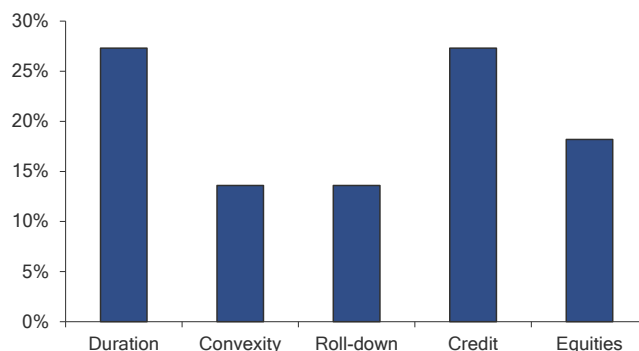
Source: Citi Research

Figure 15. My current duration position is



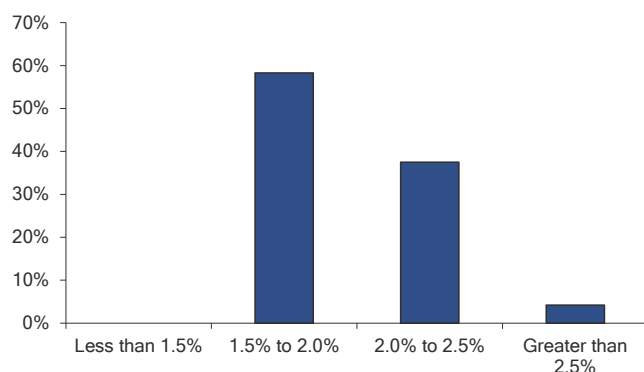
Source: Citi Research;

Figure 16. Where do you see excess returns coming from over the next three months



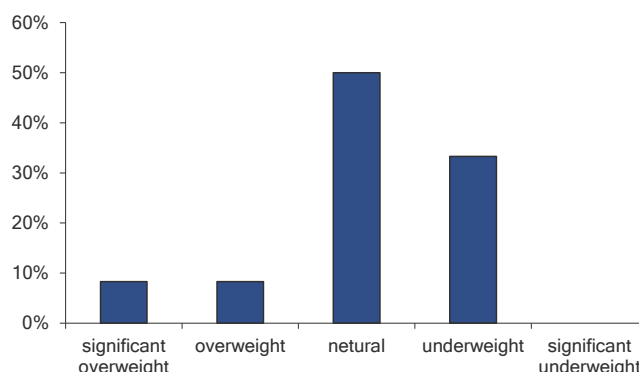
Source: Citi Research;

Figure 17. What are your expectations for headline CPI over the near term (6m to 2y)



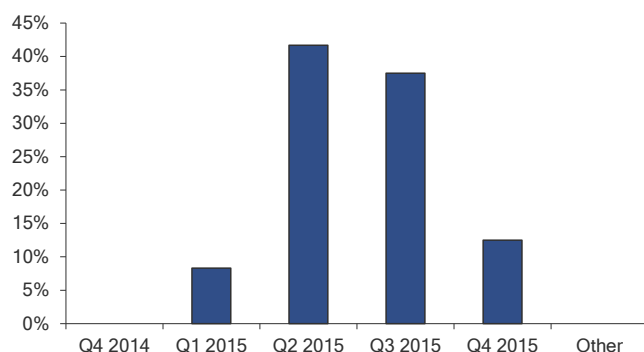
Source: Citi Research;

Figure 18. My current positioning in the agency MBS market is:



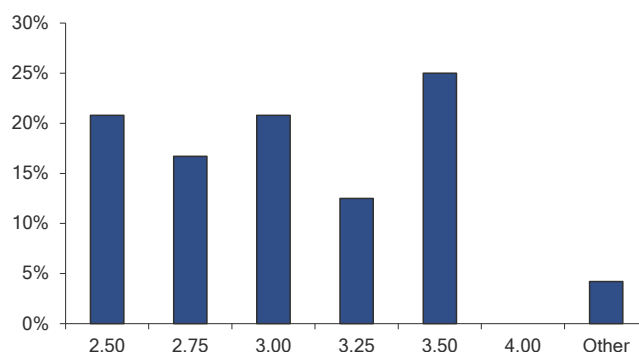
Source: Citi Research;

Figure 19. The first Fed rate hike is in



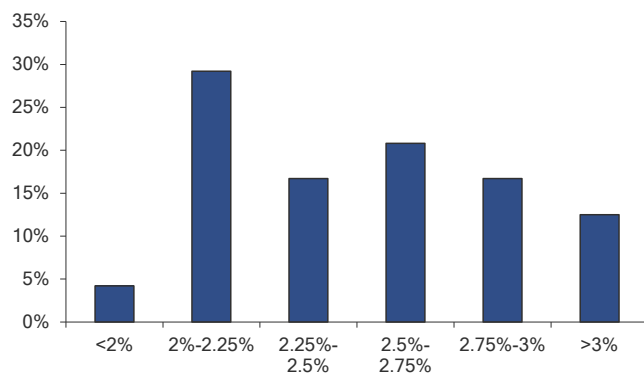
Source: Citi Research;

Figure 20. The terminal Fed Funds rate priced into the market right now is



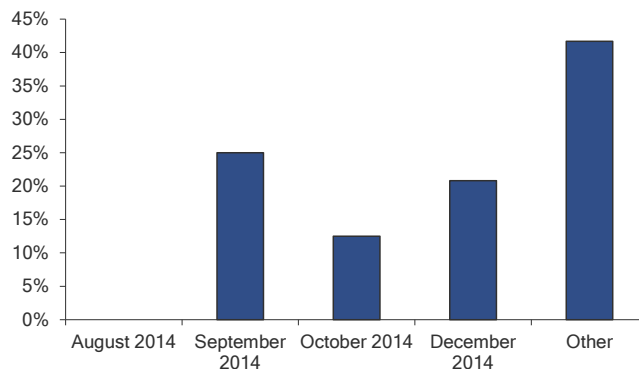
Source: Citi Research;

Figure 21. The first read of US Q3 GDP growth will print



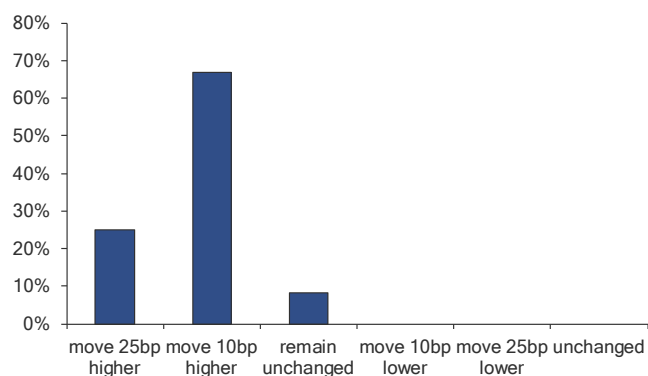
Source: Citi Research;

Figure 22. Geopolitical stress in Europe will stop affecting the US Rates market by the end of



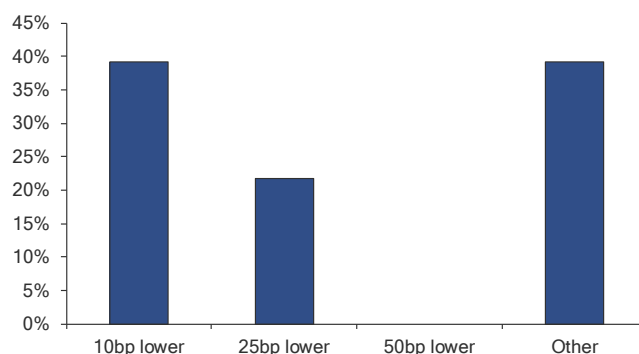
Source: Citi Research;

Figure 23. If geopolitical stresses in Europe are resolved, US rates will



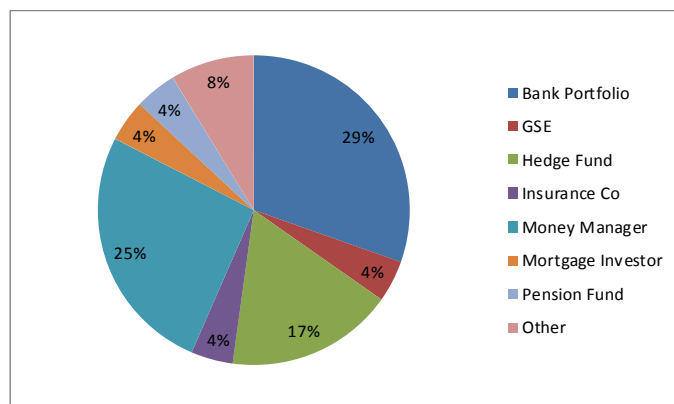
Source: Citi Research

Figure 24. The effect of concerns about the Chinese economy have caused US 10y rates to be



Source: Citi Research

Figure 25. Please select your region and business type



Source: Citi Research

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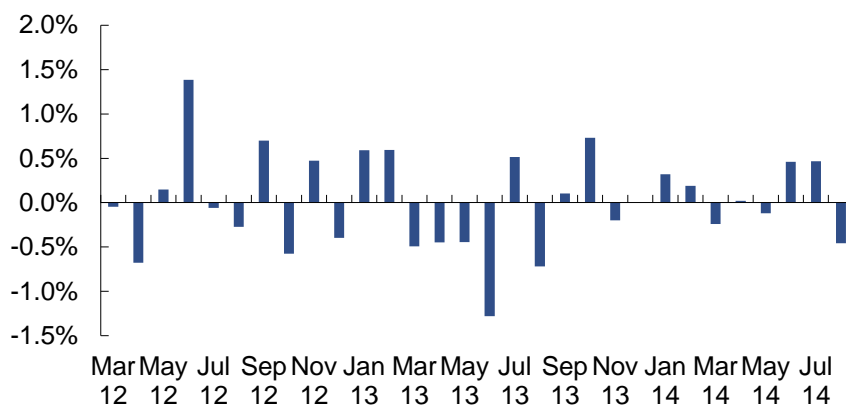
US Rates Strategy Model Portfolio Update

Kevin Shapiro

The US Rates Strategy Model Portfolio is down by 0.46% so far in August.

Figure 26 shows the monthly model portfolio returns since March 2012. **Error! Reference source not found.** shows the P&L from our outstanding trades, while Figure 28 shows all trades closed in 2014. To see the older trades, please refer to a previous publication. All closed trades since the beginning of 2013 are listed in the Appendix.

Figure 26. Monthly Returns for the US Rate Strategy Model Portfolio, Mar 2012 – August 2014



Past performance is no indicator of future results. Calculations do not include transaction costs and other fees.
Source: Citi Research

Outstanding Trade Recommendations

Pay the belly of the 1y fwd 5s10s30s Fly: Opened July 25, 2014, horizon 6 months; see [Two trades for a Q3 Range Break](#)

Buy 3m30y receiver spread: Opened July 25, 2014, horizon 3 months; see [Two trades for a Q3 Range Break](#)

Sell 2y fwd 2y real yields: Opened July 18, 2014, horizon 6 months; see [Sell 2y forward 2y real yields](#)

Sell 1y5y vs 1y10 straddles, unhedged: Opened June 6, 2014, horizon 6 months; see [Sell 1y5y vs. 1y10y straddles, unhedged](#)

Short 5-year position: Opened June 6, 2014, horizon 3 months; see [Initiate short 5-year position](#)

Initiate 2y1y 3y1y Steepeners: Opened May 13, 2014, horizon 3 months; see [USD 2y1y 3y1y Steepeners](#)

Sell 1y10y Straddles unhedged: Opened April 11, 2014, horizon 6 months; see [US Rates Trade Recommendation](#)

Buy 6m10y a+25 vs a+75 Payer Spreads: Opened March 14, 2014, horizon 6 months; see [US Rates Trade Recommendation](#)

Long 10y Breakevens: Opened September 19, 2013, horizon 12 months; see [US Rate Strategy Notes](#)

Figure 27. Summary of US Rates Strategy Model Portfolio Performance as of August 7, 2014

	Trade	Levels	Rationale + Publication Date		
Curve	Pay the belly of 1y fwd 5s10s30s Fly	Fly level at Open 16.2 bp Fly level Current 16.6 bp	1y fwd 5s10s30s at extreme levels, led by growth disappointment and bad positioning. A strong growth number should offset skepticism and cheapen the 10s vs. 5s and 30s.		Profit
	Pay 200mm USD 1y10y @ 2.957% Receive 187mm USD 1y5y @ 2.388% Receive 45mm USD 1y30y @ 3.364%	P&L 39K Target P&L 1500K Stop P&L -750K	US Rates Trade Recommendation (25 Jul 2014)		
Direction	Buy 3m30y ATM, -25bp receiver spread	30y Swap at Open 3.22% 30y Swap Current 3.2%	If Q3 growth falls short of 2.5%, market will price lower long term rates prospects. Structure breaks even at 4.5bp rally, very plausible if we can't achieve broad-based growth		Profit
	Buy 50mm 3m30y ATMF Receiver @ 237c Sell 50mm 3m30y -25bp Receiver @ 67c	P&L 94K Target P&L 1100K Stop P&L -550K	US Rates Trade Recommendation (25 Jul 2014)		
Inflation	Long 10Y Breakevens	Breakevens at Open 222.6bp Breakevens Current 223bp	10y BEs have cheapened up on the 5s10s30s fly, and dealer holdings are at very low levels. We like buying the new 10y TIPS issue.		Profit
	Buy \$50 MM TII 0.375 7/23 @ 98.80 Sell \$41.8 MM T 2.50 8/23 @ 98.05 Buy \$50 MM TII 0.125 7/24 @ 98.96 Sell \$56.6 MM T 2.50 5/24 @ 100.46	P&L 514K Target P&L 1250K Revised Stop P&L -500K	US Rates Trade Recommendation (24 July 2013)		
Inflation	Sell 2y fwd 2y real yields	2y2y fwd at Open -5.5 bp 2y2y fwd Current -9.3 bp	2y2y real yields are inconsistent with the current 2y2y BEs		Profit
	Buy 100mm July 16 TIPS @ -1.4925% Sell 100mm July 18 TIPS @ -0.774%	P&L 28K Target P&L 1000K Stop P&L -300K	US Rates Trade Recommendation (18 Jul 2014)		
Volatility	Sell 1y5y straddles vs 1y10y straddles (unhedged)	Vol Spread at Open 5.7 abp vol Vol Spread Current 1.6 abp vol	1y5y vol seems rich relative to 1y10y given historical correlations of 5y spot to 10y spot		Profit
	Sell 106.5MM 1y5y Straddles Buy 100MM 1y10y Straddles	P&L 368K Target P&L 1200K Stop P&L -600K	US Rates Trade Recommendation (13 Jun 2014)		
Direction	Pay 3m5y. Sell 3m5y Payer Swaption	5y Swap at Open 172bp 5y Swap Current 176bp	The OIS curve is pricing a significant probability of delayed hikes into 2016. The only thing holding the Fed back at this point is inflation, which is unlikely to stay low into 2016.		Loss
	Pay \$100mm 3m5y @ 1.878 Sell \$100mm 3m5y A+25 Payer	P&L -78K Target P&L 1200K Stop P&L -750K	US Rates Trade Recommendation (6 Jun 2014)		
Curve	2y1y 3y1y Steepener	Steepness at Open 82bp Steepness Current 77bp	The 2y1y 3y1y curve is at its flattest levels in a year. Historical precedent for steepening ahead of rate hikes and 7bps of 3m carry make this an attractive entry point.		Loss
	Receive \$100MM USD 2y1y Pay \$100MM USD 3y1y	P&L -40K Target P&L 200K Stop P&L -100K	US Rates Trade Recommendation (13 May 2014)		
Volatility	Sell 1y10y Straddles (unhedged)	1y10y Vol at Open 74 abp vol 1y10y Vol Current 77.8 abp vol	We expect 10y realized vol for the remainder of 2014 to be below 50bp, with implied trading in a 60-75bp range.		Profit
	Sell \$100MM 1y10y straddles	P&L 43K Target P&L 1000K Stop P&L -500K	US Rates Trade Recommendation (11 Apr 2014)		
Volatility	Buy 6m10y a+25bp vs a+75bp payer spreads	NPV at Open 764K NPV Current 8K	Current low rates due to geopolitical stress offer a good entry point to buy payer spreads		Loss
	Buy \$100MM 6m10y payer ATMF + 25 Sell \$100MM 6m10y payer ATMF + 75	P&L -756K Target P&L 1500K Stop P&L -763K	US Rates Trade Recommendation (14 Mar 2014)		

*Units in thousand dollars, unless if specified

Source: Citi Research. (a) For a detailed list of all closed trades from May 2006 to May 2007, please see "US Rate Strategy — Trade Closeout," US Rate Strategy — Bond Market Roundup: Strategy, Citi, May 11, 2007. For a detailed list of all closed trades from May 2007 to May 2008, please see "US Rate Model Portfolio One-Year Anniversary Recap," US Rate Strategy — Bond Market Roundup: Strategy, Citi, May 30, 2008. Between May 2007 and May 2008, the group made a total of 87 trade recommendations, with 50 producing positive results, 36 negative, and one breaking even. This produced a 15.4% total return, with a 1.68 Sharpe ratio. Note: Return on risk is based on Citi's return-on-risk methodology and is calculated by taking the largest two-week change in the trade since January 1997. Return on portfolio based off \$300 million model portfolio sizing. Note: Past performance does not indicate future results. Calculations do not include transaction fees and other costs.

Appendix: Model Portfolio Closed Trades

Figure 28. US Rates Strategy Closed Trades in 2014

	Inception Date	Unwind Date	Initial	Unwind	P&L (\$000s)	Target P&L	Stop Loss	Risk Return	Portfolio Return
Short 5yr Real Rates	Nov 15, 2013	Dec 19, 2013	110-13+	108-22	\$940	650	400	94%	0.31%
3yr - 7yr Flatteners, DV01-Neutral	Jan 3, 2014	Jan 23, 2014	166.0bp	150.6bp	\$1,452	1,400	1,000	145%	0.48%
Long 5yr Duration	Feb 21, 2014	Mar 18, 2014	1.56	1.53	\$320	1,800	1,200	32%	0.11%
Buy Belly of 2yr-5yr-10yr Treasury Fly	Jan 24, 2014	Mar 19, 2014	2.6bp	21.3bp	(\$750)	1,250	750	-75%	-0.25%
Long 2yr Duration	Mar 18, 2014	Mar 19, 2014	0.360%	0.385%	(\$196)	3	4	0%	0.00%
10s30s real yield curve flattener	Feb 14, 2014	Mar 20, 2014	84.75bp	74bp	\$524	500	300	105%	0.17%
Sell 2s5s10s Payer Fly @-15, Pay fixed	Feb 21, 2014	Mar 21, 2014	(50,000)	(121,000)	(\$71)	500	250	-14%	-0.02%
7s30s Yield Curve Steepener	Apr 8, 2014	Apr 24, 2014	1.297%	1.19%	(\$503)	15	12	-50%	-0.17%
Sell 1m10y Straddles for May	May 5, 2014	May 28, 2014	1.26%	1.87%	(\$606)	1,264	632	-61%	-0.20%
Long 5Y Breakevens	Dec 19, 2013	Jun 24, 2014	1.740%	2.020%	\$1,580	1,600	800	158%	0.53%
Pay \$200MM 6m6m FedFunds OIS	Apr 25, 2014	Jul 25, 2014	0	(23,000)	(\$23)	50	50	-2%	-0.01%
Buy 2y2y ATMF+50bp Payers	Jan 17, 2014	Jul 31, 2014	2.186%	2.350%	\$225	2,000	1,000	23%	0.08%

Source: Citi Research.

Appendix: Event Calendar

Figure 29. August 11, 2014 – September 5, 2014

Monday	Tuesday	Wednesday	Thursday	Friday
11 - -	12-Aug Fed Purchase Operation \$0.95-1.15 bln 2036-44 mty - Auc 3-yr Note: \$26.0B(E)	13 Fed Purchase Operation \$0.35-0.45 bln 2019-44 mty <u>Retail Sales (Jul)</u> Auc 10-yr Note: \$24.0B(E)	14 Fed Purchase Operation \$1.60-1.90 bln 2019-20 mty Auc 30-yr Note: \$16.0B(E) Ann 5-yr TIPS: \$16.0B(E)	15 - <u>PPI (Jul)</u> <u>Industrial Production (Jul)</u> - - -
18 Fed Purchase Operation \$0.95-1.15 bln 2036-44 mty - -	19-Aug Fed Purchase Operation \$0.25-0.35 bln 2024-31 mty <u>CPI (Jul)</u>	20 - 04:30 BOE Minutes 14:00 FOMC minutes released	21 Fed Purchase Operation \$2.05-2.50 bln 2021-24 mty <u>Existing Home Sales (Jul)</u> <u>Leading Index (Jul)</u> Ann 2-yr Notes: \$28.0B (Est) Ann 5-yr Notes: \$35.0B (Est) Ann 7-yr Notes: \$29.0B (Est) Auc 5-yr TIPS: \$16.0B(E)	22 - - - - - -
25 - -	26-Aug Fed Purchase Operation \$2.00-2.50 bln 2020-21 mty <u>Durable Goods Orders (Jul, 8:30)</u> Auc 2-yr Note: \$28.0B(E)	27 Fed Purchase Operation \$0.95-1.15 bln 2036-44 mty - Auc 5-yr Note: \$35.0B(E) Auc 2-yr FRN: \$13.0B(E)	28 <u>GDP - Second Release (2Q, 8:30)</u> - Auc 7-yr Note: \$29.0B(E)	29 - <u>Personal Consumption (Jul, 8:30)</u> - - - -
1 Labor Day - -	2-Sep <u>ISM Manufacturing</u>	3 <u>Factory Orders (Jul)</u> 14:00 Beige Book Released BOJ Monetary Base Target	4 <u>ADP Employment (Aug)</u> <u>Trade Balance (Jul)</u> <u>ISM Non-Manf (Aug)</u> BOE Rate Decision ECB Rate Decision	5 - <u>Nonfarm Payrolls (Aug)</u> <u>Unemployment (Aug)</u> <u>Average Hourly Earnings (Aug)</u> - -

Appendix A-1

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