



Economics Group

Interest Rate Weekly

John E. Silvia, Chief Economist
john.silvia@wellsfargo.com • (704) 410-3275
Mark Vitner, Senior Economist
mark.vitner@wellsfargo.com • (704) 410-3277
Michael A. Brown, Economist
michael.a.brown@wellsfargo.com • (704) 410-3278

Fed Tightening Cycles and Yield Spreads: Flatter

With the next Fed tightening cycle around the corner, our expectation is that the yield curve will continue to become flatter, setting up the possibility for the mispricing of future fed funds rate hikes.

Economic Data Continue to Support Fed Move in June

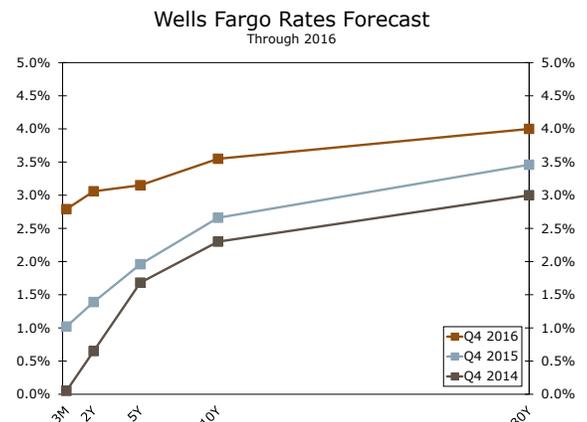
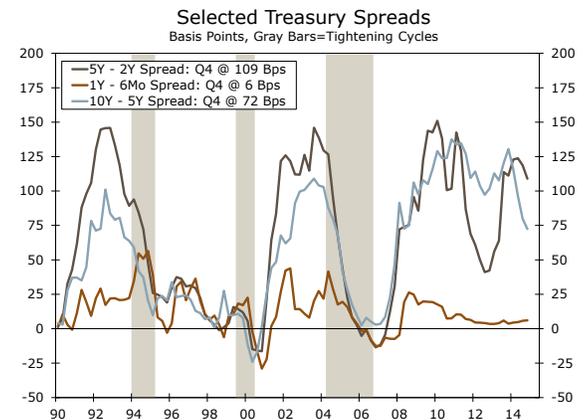
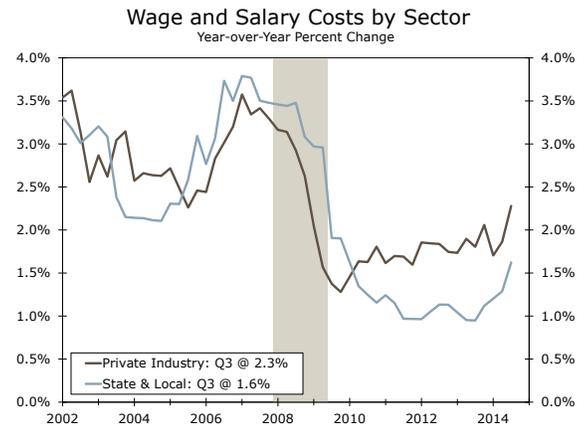
Economic data in recent weeks on the U.S. economy continue to support the case for the FOMC to raise the Fed Funds rate next June. Labor market data show signs of reduced labor market slack, and there are now signs that core inflation could be edging higher as evidenced by higher wage costs (top figure). As the expected Fed Funds rate hike approaches next year, we want to explore some of the past Fed tightening cycles and their effect on the yield curve. We then turn to our expectation for the shape and potential areas of mispricing within the yield curve in the upcoming tightening cycle.

Where Have Spreads Narrowed in Prior Tightening Cycles?

A look back at the prior two Fed tightening cycles (1999-2000 and 2004-2006) indicates that there has been a shift in the compression, or tightness, of the yield spread within the curve (middle figure). In the 1999 cycle, the tightest yield spreads between tenors during the cycle were observed in the 5-year/2-year spread and the 10-year/5-year spread. Conversely, during the 2004 cycle, the tightest spread between tenors was between the 1-year/6-month bills. With the tight spread between these two shorter-term rates, there were points in which future Fed actions were not accurately reflected in the short-term yields. Thus, there were some parts of the curve, particularly at the shorter end, that had not fully priced in future Fed Funds rate hikes.

The Potential for Mispricing Fed Moves

Our expectation for this tightening cycle is for a much flatter yield curve (bottom figure). This curve flattening could again have the effect of not fully pricing in actual Fed actions given how much flatter we expect the curve to become. In anticipation of the upcoming tightening cycle, we expect that there will once again be mismatches between short-term yields and the actual pace of Fed tightening behavior. In our forecast, we can see this represented by how tight/compressed the spread is between the 3-month/6-month bills. One of the trends that has become clear following the recession has been the decoupling of rates from economic fundamentals, leading to yields along the curve moving more independently of one another. We expect that the shorter end of the curve will pose the greatest pricing challenges for market participants given that the longer-end of the curve remains so well-anchored as we have pointed out before. The result is that most of the upward movement in rates will likely be contained in the shorter end of the curve, which also makes it more susceptible for mispricing future Fed moves. The unwinding of unconventional monetary policy along with the new regulatory regime should make for an interesting cycle ahead.



Wells Fargo U.S. Interest Rate Forecast

	Actual				Forecast							
	2014				2015				2016			
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
Quarter End Interest Rates												
Federal Funds Target Rate	0.25	0.25	0.25	0.25	0.25	0.50	0.75	1.00	1.25	1.75	2.25	2.75
3 Month LIBOR	0.23	0.23	0.24	0.24	0.38	0.70	0.95	1.20	1.45	1.95	2.45	2.95
Prime Rate	3.25	3.25	3.25	3.25	3.25	3.50	3.75	4.00	4.25	4.75	5.25	5.75
Conventional Mortgage Rate	4.34	4.16	4.16	4.14	4.16	4.20	4.30	4.40	4.48	4.80	5.20	5.30
3 Month Bill	0.05	0.04	0.02	0.05	0.20	0.54	0.78	1.02	1.28	1.77	2.28	2.79
6 Month Bill	0.07	0.07	0.03	0.09	0.24	0.58	0.80	1.03	1.29	1.80	2.30	2.80
1 Year Bill	0.13	0.11	0.13	0.14	0.25	0.65	0.95	1.25	1.55	2.05	2.55	3.05
2 Year Note	0.44	0.47	0.58	0.65	0.66	0.98	1.18	1.39	1.61	2.09	2.57	3.06
5 Year Note	1.73	1.62	1.78	1.68	1.71	1.83	1.90	1.96	2.05	2.40	2.76	3.15
10 Year Note	2.73	2.53	2.52	2.30	2.40	2.51	2.59	2.66	2.76	3.12	3.37	3.55
30 Year Bond	3.56	3.34	3.21	3.00	3.19	3.37	3.40	3.46	3.54	3.75	3.85	4.00

Forecast as of: December 10, 2014

Wells Fargo U.S. Economic Forecast and FOMC Central Tendency Projections

	<u>2014</u>	<u>2015</u>	<u>2016</u>
Change in Real Gross Domestic Product			
Wells Fargo	2.0	2.7	3.0
FOMC	2.0 to 2.2	2.6 to 3.0	2.6 to 2.9
Unemployment Rate			
Wells Fargo	5.8	5.4	5.1
FOMC	5.9 to 6.0	5.4 to 5.6	5.1 to 5.4
PCE Inflation			
Wells Fargo	1.4	1.8	2.1
FOMC	1.5 to 1.7	1.6 to 1.9	1.8 to 2.0

Forecast as of: December 10, 2014

NOTE: Projections of change in real gross domestic product (GDP) and in inflation are from the fourth quarter of the previous year to the fourth quarter of the year indicated. PCE inflation is the percentage rate of change in the price index for personal consumption expenditures (PCE). Projections for the unemployment rate are for the average civilian unemployment rate in the fourth quarter of the year indicated.

Fed Data as of: September 17, 2014

Wells Fargo Securities, LLC Economics Group

Diane Schumaker-Krieg	Global Head of Research, Economics & Strategy	(704) 410-1801 (212) 214-5070	diane.schumaker@wellsfargo.com
John E. Silvia, Ph.D.	Chief Economist	(704) 410-3275	john.silvia@wellsfargo.com
Mark Vitner	Senior Economist	(704) 410-3277	mark.vitner@wellsfargo.com
Jay H. Bryson, Ph.D.	Global Economist	(704) 410-3274	jay.bryson@wellsfargo.com
Sam Bullard	Senior Economist	(704) 410-3280	sam.bullard@wellsfargo.com
Nick Bennenbroek	Currency Strategist	(212) 214-5636	nicholas.bennenbroek@wellsfargo.com
Eugenio J. Alemán, Ph.D.	Senior Economist	(704) 410-3273	eugenio.j.aleman@wellsfargo.com
Anika R. Khan	Senior Economist	(704) 410-3271	anika.khan@wellsfargo.com
Azhar Iqbal	Econometrician	(704) 410-3270	azhar.iqbal@wellsfargo.com
Tim Quinlan	Economist	(704) 410-3283	tim.quinlan@wellsfargo.com
Eric Viloría, CFA	Currency Strategist	(212) 214-5637	eric.viloria@wellsfargo.com
Sarah Watt House	Economist	(704) 410-3282	sarah.house@wellsfargo.com
Michael A. Brown	Economist	(704) 410-3278	michael.a.brown@wellsfargo.com
Michael T. Wolf	Economist	(704) 410-3286	michael.t.wolf@wellsfargo.com
Zachary Griffiths	Economic Analyst	(704) 410-3284	zachary.griffiths@wellsfargo.com
Mackenzie Miller	Economic Analyst	(704) 410-3358	mackenzie.miller@wellsfargo.com
Erik Nelson	Economic Analyst	(704) 410-3267	erik.f.nelson@wellsfargo.com
Alex Moehring	Economic Analyst	(704) 410-3247	alex.v.moehring@wellsfargo.com
Donna LaFleur	Executive Assistant	(704) 410-3279	donna.lafleur@wellsfargo.com
Cyndi Burris	Senior Admin. Assistant	(704) 410-3272	cyndi.burris@wellsfargo.com

Wells Fargo Securities Economics Group publications are produced by Wells Fargo Securities, LLC, a U.S. broker-dealer registered with the U.S. Securities and Exchange Commission, the Financial Industry Regulatory Authority, and the Securities Investor Protection Corp. Wells Fargo Securities, LLC, distributes these publications directly and through subsidiaries including, but not limited to, Wells Fargo & Company, Wells Fargo Bank N.A., Wells Fargo Advisors, LLC, Wells Fargo Securities International Limited, Wells Fargo Securities Asia Limited and Wells Fargo Securities (Japan) Co. Limited. Wells Fargo Securities, LLC ("WFS") is registered with the Commodities Futures Trading Commission as a futures commission merchant and is a member in good standing of the National Futures Association. Wells Fargo Bank, N.A. ("WFBNA") is registered with the Commodities Futures Trading Commission as a swap dealer and is a member in good standing of the National Futures Association. WFS and WFBNA are generally engaged in the trading of futures and derivative products, any of which may be discussed within this publication. Wells Fargo Securities, LLC does not compensate its research analysts based on specific investment banking transactions. Wells Fargo Securities, LLC's research analysts receive compensation that is based upon and impacted by the overall profitability and revenue of the firm which includes, but is not limited to investment banking revenue. The information and opinions herein are for general information use only. Wells Fargo Securities, LLC does not guarantee their accuracy or completeness, nor does Wells Fargo Securities, LLC assume any liability for any loss that may result from the reliance by any person upon any such information or opinions. Such information and opinions are subject to change without notice, are for general information only and are not intended as an offer or solicitation with respect to the purchase or sales of any security or as personalized investment advice. Wells Fargo Securities, LLC is a separate legal entity and distinct from affiliated banks and is a wholly owned subsidiary of Wells Fargo & Company © 2014 Wells Fargo Securities, LLC.

Important Information for Non-U.S. Recipients

For recipients in the EEA, this report is distributed by Wells Fargo Securities International Limited ("WFSIL"). WFSIL is a U.K. incorporated investment firm authorized and regulated by the Financial Conduct Authority. The content of this report has been approved by WFSIL a regulated person under the Act. For purposes of the U.K. Financial Conduct Authority's rules, this report constitutes impartial investment research. WFSIL does not deal with retail clients as defined in the Markets in Financial Instruments Directive 2007. The FCA rules made under the Financial Services and Markets Act 2000 for the protection of retail clients will therefore not apply, nor will the Financial Services Compensation Scheme be available. This report is not intended for, and should not be relied upon by, retail clients. This document and any other materials accompanying this document (collectively, the "Materials") are provided for general informational purposes only.

SECURITIES: NOT FDIC-INSURED/NOT BANK-GUARANTEED/MAY LOSE VALUE

WELLS
FARGO

SECURITIES