

CHRISTOPHER S. RUPKEY, CFA
MANAGING DIRECTOR
CHIEF FINANCIAL ECONOMIST
ECONOMIC RESEARCH OFFICE (NEW YORK)
(212) 782-5702
crupkey@us.mufg.jp

12 MAY 2017

MUFG | 1251 Avenue of the Americas
 New York, New York 10020

COMMERCIAL REAL ESTATE CONSTRUCTION ACTIVITY REMAINS STRONG

Office building construction continues unchecked. While office construction fell 2.6% in March, the level of \$65.637 billion is 17.7% higher than it was in 2016 and higher than the prior two peak building tops before the last two recessions. There is a lot of talk from some Fed policymakers that business investment is



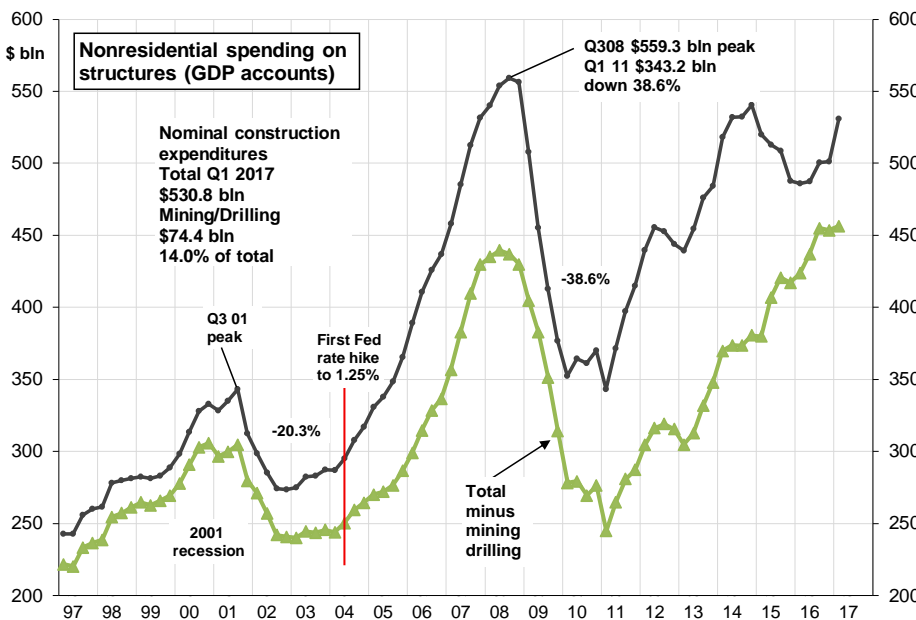
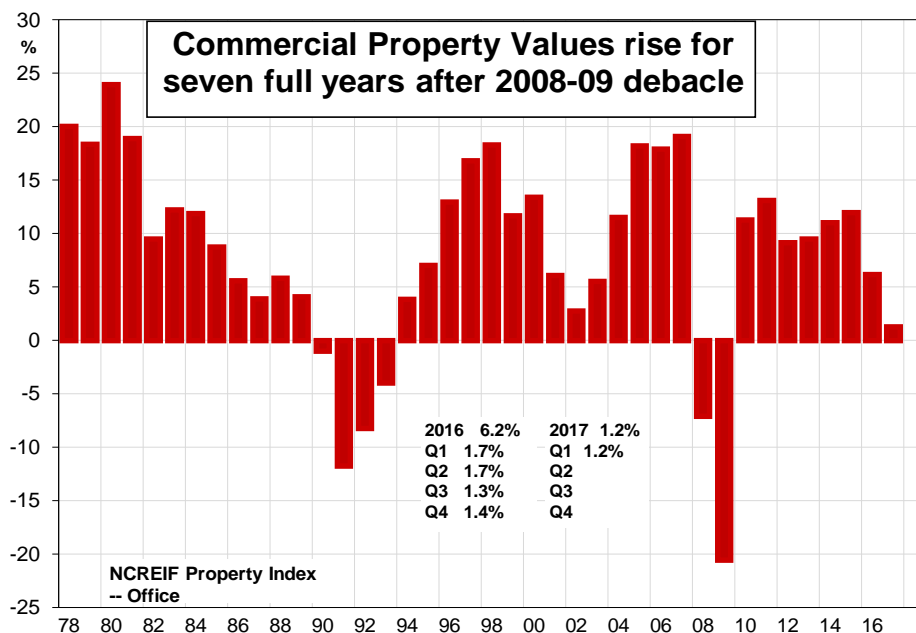
weak, but business investment in office buildings is sure not weak. Boston Fed President Rosengren continues to warn about excessive building or better said he is wondering if building and price appreciation of properties has gone beyond the economic fundamentals. He is watching the potential risks of this commercial real estate sector closely, as it has figured prominently in many historical economic downturns, and he is one FOMC member who wants to hike rates four times this year.

Commercial Construction \$bln					Peak	Peak
	Mar 17	% Chg	2017 YTD	2016 YTD	Year 2007	% Chg
Total Commercial	77.593	15.0	78.983	68.686	85.466	-7.6
Automotive	7.112	19.0	7.284	6.123	6.259	16.4
Food/beverage	7.948	5.4	7.954	7.550	7.970	-0.2
Multi-retail	20.743	10.2	21.882	19.850	34.570	-36.7
General merchandise	2.193	20.7	2.493	2.066	7.486	-66.7
Shopping center	14.216	1.5	14.541	14.323	22.117	-34.3
Shopping mall	4.102	63.9	4.487	2.738	4.004	12.1
Other commercial	5.493	-6.5	6.103	6.530	13.505	-54.8
Warehouse	25.578	37.2	25.002	18.220	16.882	48.1

Commercial construction is larger than office building and building here is up 15% from last year to \$77.593 billion in March. Apparently you can have bricks and mortar and Amazon retail sales too.

For all the talk of consumers making purchases from their mobile phones and shunning the shops and malls, construction of malls has picked up dramatically finally in this great and long economic expansion from the Great Recession. Shopping mall construction rose over 60% in March 2017 year-to-date from 2016 to \$4.487 billion. Shopping mall construction is now greater than it was in 2007 the final year before the recession. The other standout in commercial construction is warehouses which is likely tied to companies like Amazon who need to move product closer to consumers wherever they are in the country for quicker delivery. Warehouse construction totaled \$25.578 billion in March 2007 about 50% higher than the 2007 peak year on this new internet sales trend.

While commercial and office investment is soaring, business spending on structures that is part of “investment” had lagged overall because oil & gas drilling structures had collapsed during the oil crash. Fed officials hopefully realized business investment’s weakness was closely tied to crude oil and not to overall economic demand. Business spending on structures soared in Q1 2017, adding 0.6 percentage points to the 0.7% real GDP growth, but most of this came from the resurgence in oil & gas drilling structures. Fracking is back.



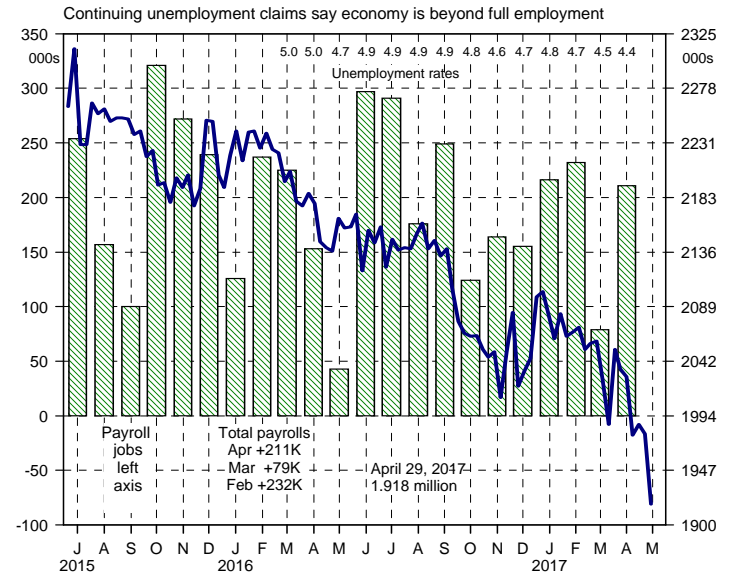
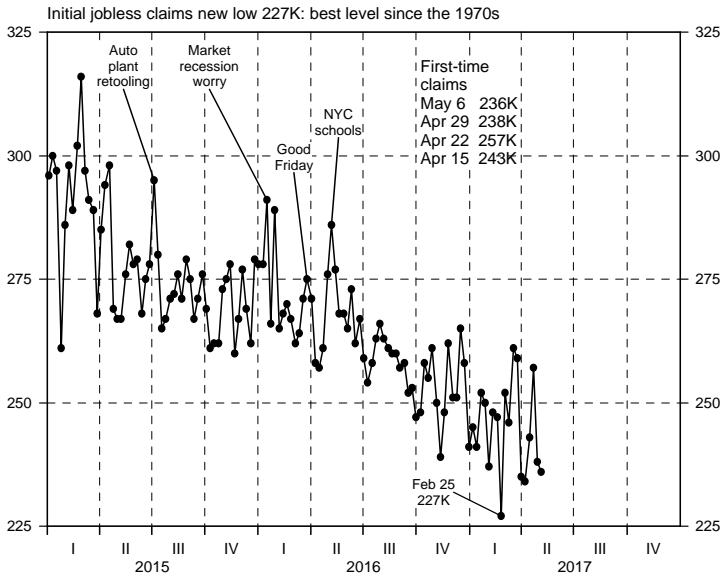
Business spending on structures soared in Q1 2017, adding 0.6 percentage points to the 0.7% real GDP growth, but most of this came from the resurgence in oil & gas drilling structures. Fracking is back.

	Q1 15	Q2 15	Q3 15	Q4 15	YOY%	Q1 16	Q2 16	Q3 16	Q4 16	YOY%	Q1 17	%
Structures (\$billion)	519.8	512.9	508.5	487.8	-9.7	486.0	487.3	500.5	501.3	2.8	530.8	23.5
Commercial and health care	134.3	141.7	145.8	149.0	9.8	156.2	162.8	174.4	179.4	20.4	181.1	3.8
Manufacturing	72.8	76.5	78.9	75.5	11.4	73.3	72.2	75.1	69.2	-8.3	66.1	-17.9
Power and communication	93.4	103.5	106.9	105.3	9.5	105.2	107.4	108.0	107.4	2.0	111.1	13.8
Mining exploration, shafts, and wells	140.0	106.1	87.9	70.7	-55.8	62.4	50.4	45.6	47.8	-32.4	74.4	222.6
Other structures *	79.2	85.2	89.0	87.3	7.9	88.8	94.5	97.4	97.6	11.8	98.0	1.6
* Religious, educational, vocational, lodging, railroads, farm, and amusement and recreational structures, other											Annual Rate %	

JOBLESS CLAIMS—BETTER THAN BEST TIMES NOW FOR LABOR MARKET

Unemployment claims stuck at the new lower level for a second week: 236K for the May 6 week, so next month's monthly payroll jobs could be another 200K-plus. The labor market continues to tighten up with the new low in the official unemployment rate to 4.4% in April and the number of people receiving unemployment benefits are also at a new low for this "recovery from the Great Recession." More Fed officials are saying the economy is at full employment even though wages are not seeing much pick up. Low unemployment argues for a June Fed meeting rate hike.

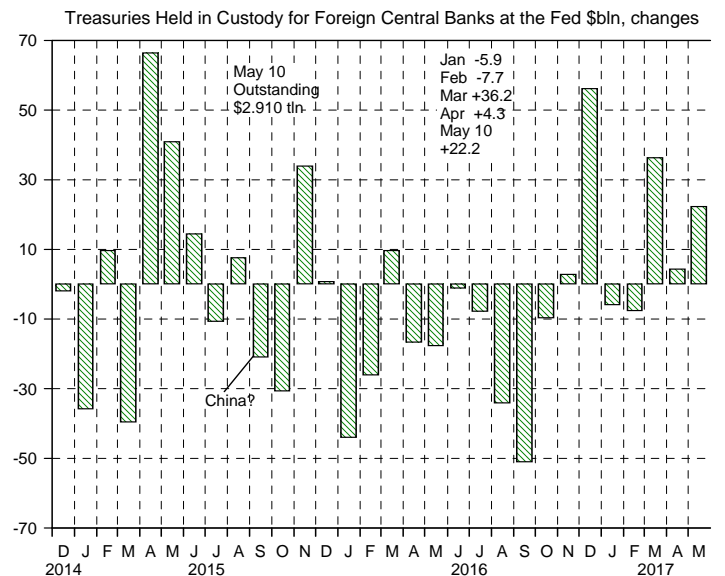
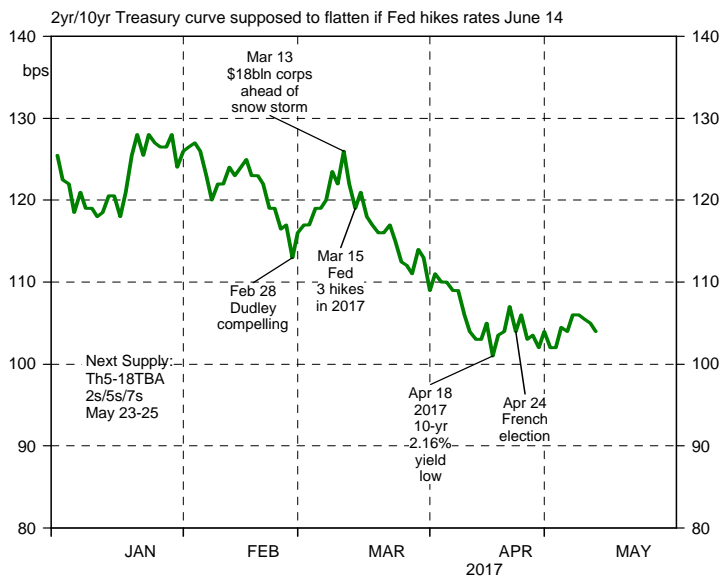
President takes Office	Unemployment
Clinton	Jan 1993 7.3%
Bush	Jan 2001 4.2%
Obama	Jan 2009 7.8%



TREASURY CURVE FLATTENING STOPS AT 100 BPS, WAITING ON FED HIKES

The yield curve between 2-yrs and 10-yrs was 104 bps on Friday versus 104 bps last week. 10-yr yields moved a little higher from supply perhaps during the Treasury quarterly refunding auctions of 3-yrs, 10-yrs, and 30-yrs. The closing high was Wednesday after the 10-yr auction at 2.41%. The rally on Friday was dramatic following 0.1% core CPI and 0.4% retail sales "missing" 0.6% expectations; bonds rallied to 2.33% as the market thought a Fed rate hike on June 14 was somewhat less probable.

	31-Mar 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Q2 2018	Q3 2018
30-Yr Bond	3.03	3.10	3.20	3.40	3.60	3.70	3.80
10-Yr Note	2.40	2.50	2.70	3.00	3.20	3.40	3.50
5-Yr Note	1.93	2.10	2.40	2.70	3.00	3.20	3.30
2-Yr Note	1.25	1.50	1.75	2.00	2.25	2.50	2.75
3-month Labor	1.15	1.50	1.70	1.95	2.20	2.45	2.70
Federal Fund Rate	1.00	1.25	1.50	1.75	2.00	2.25	2.50
2s/10s spread	115	100	95	100	95	90	75



FEDERAL RESERVE POLICY

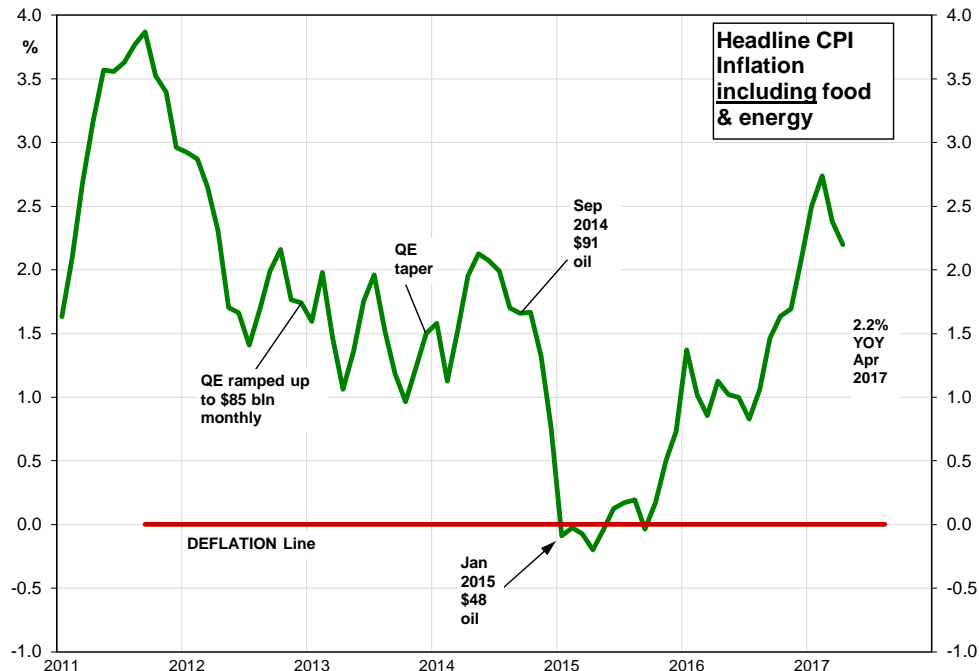
The Fed meets June 13-14 to consider its monetary policy. It is a press conference meeting where we expect great things to happen. Even uber-Dove Chicago Fed President Evans came out saying this week that the market underestimates the path of interest rates over the next few years: 1.0% today, 1.5% end of 2017, 2.25% end of 2018, and the finish line 3.0% at the end of 2019. Meanwhile, the market in its wisdom judged the data on Friday made a June rate hike less probable. The economic slowdown in the first quarter wasn't as transitory as the Fed May meeting statement said at least for the market's liking. Retail sales rose just 0.4% in April where a 0.6% gain was expected, nevermind that March's original 0.2% decline was revised to +0.1%. We think it is really core CPI that is the biggest problem for the market in terms of its Fed expectations where after falling 0.1% last month, core CPI bounced back by just 0.1% in April. This means that core PCE inflation for April released on May 30, the last inflation report before the June Fed decision, could fall back to just 1.4% year-on-year, falling further away from the Fed's 2.0% objective.

Anyway, the market based odds of a June meeting rate hike (July Fed funds futures) fell back to 68% on Friday after retail sales and CPI from 78% Thursday night, still flashing the green-go light, but not quite as brightly. Fed policy needs to look ahead always so inflation running short of target may not be the relevant driver of monetary policy. Fed officials may put greater emphasis on the

low 4.4% unemployment rate: with the economy at full employment inflation pressures start to build it is just a matter of time. Besides the Fed funds rate is still way too low and accommodative at just 1%. We think they will raise rates on June 14, but we always think they will or should raise rates at a bare minimum at every press conference meeting each year all four of them until they get rates up to normal. Stay tuned. Story developing.

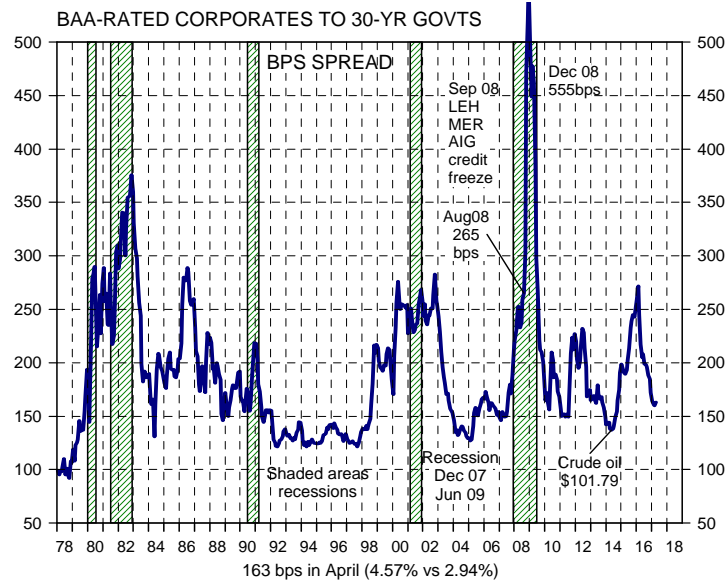
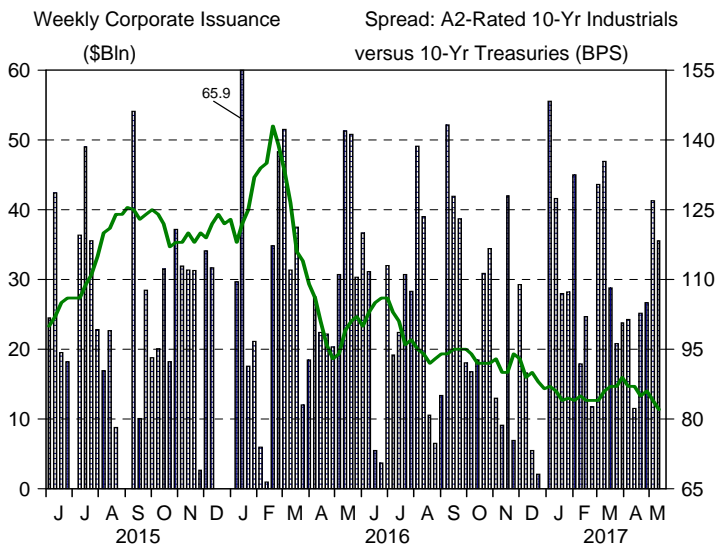
Selected Fed assets and liabilities					Sep 10
Fed H.4.1 statistical release	10-May	3-May	26-Apr	19-Apr	2008**
billions, Wednesday data					pre-LEH
Factors adding reserves					
U.S. Treasury securities	2464.815	2464.792	2464.730	2464.638	479.782
Federal agency debt securities	11.829	11.829	11.829	11.829	0.000
Mortgage-backed securities	1769.016	1769.015	1769.013	1776.917	0.000
Primary credit (Discount Window)	0.000	0.024	0.011	0.043	23.455
Term auction credit (TAF auctions)	0.000	0.000	0.000	0.000	150.000
Asset-backed TALF	0.000	0.000	0.000	0.000	
Maiden Lane (Bear)	1.709	1.709	1.709	1.708	29.287
Maiden Lane II (AIG)	0.000	0.000	0.000	0.000	0.000
Maiden Lane III (AIG)	0.000	0.000	0.000	0.000	0.000
<u>Central bank liquidity swaps</u>	0.035	0.035	0.080	0.035	62.000
Federal Reserve Assets	4520.0	4517.6	4516.5	4525.6	961.7
3-month Libor %	1.18	1.17	1.17	1.16	2.82
Factors draining reserves					
Currency in circulation	1548.378	1546.200	1542.724	1541.322	834.477
Term Deposit Facility	0.000	0.000	0.000	0.000	0.000
Reverse repurchases w/others	187.269	186.667	122.323	116.567	0.000
Reserve Balances (Net Liquidity)	2219.918	2200.821	2200.670	2256.670	24.964
Treasuries within 15 days	20.483	20.483	14.058	14.058	14.955
Treasuries 16 to 90 days	37.862	37.862	46.551	46.550	31.549
Treasuries 91 days to 1 year	223.204	223.203	200.650	200.648	69.272
Treasuries over 1-yr to 5 years	1170.574	1170.570	1194.564	1194.549	170.807
Treasuries over 5-yrs to 10 years	384.944	384.939	381.211	381.191	91.863
Treasuries over 10-years	627.747	627.733	627.696	627.642	101.337

**September 10, 2008 is pre-Lehman bankruptcy of 9-15-08



CORPORATE BONDS: INTEL, AMGEN, VERIZON, NISOURCE, UPS, PPL CORP

Corporate offerings were \$35.6 billion in the May 12 week versus \$41.3 billion in the May 5 week. On Tuesday, Costco sold \$3.8 billion 4s/5s/7s/10s. It priced \$1 billion 3.0% 10-yrs (m-w +15bp) at 70 bps (A1/A+). The mass retailer will use the proceeds for its \$7 per share special dividend. Corporate bonds (10-yr Industrials rated A2) were 82 bps above 10-yr Treasuries on Friday versus 84 bps last Friday.



TREASURY MARKET OUTLOOK

EXPECTED 10-YR 2-3 WEEK TRADING RANGE 2.00% to 2.75%

Week's 10-YR Range

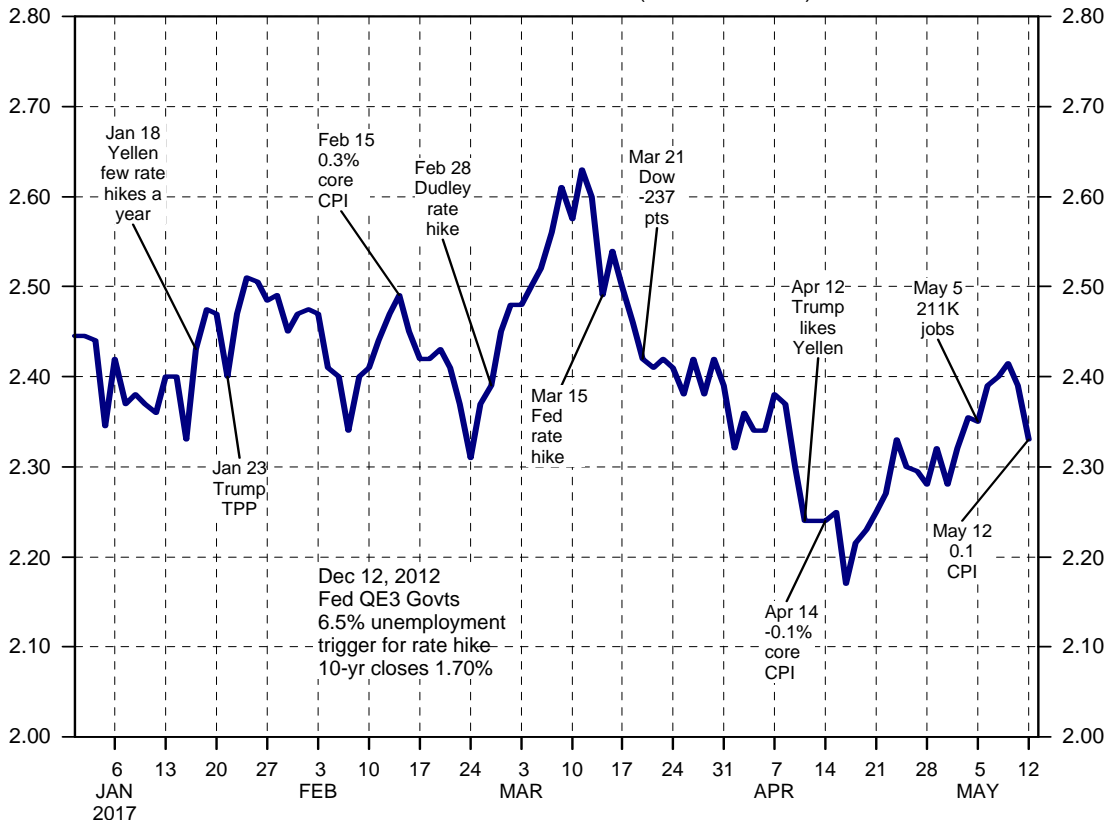
HIGH 100-15+ 2.32%

Friday, May 12, retail sales 0.4%, core CPI 0.1%

LOW 99-19 2.42%

Thursday, May 11, PPI inflation 0.5% April after -0.1% March

RECENT TREND IN 10-YR GOVERNMENT NOTES (N.Y. CLOSING)



Analyst Certification

The views expressed in this report accurately reflect the personal views of **Christopher S. Rupkey**, the primary analyst responsible for this report, about the subject securities or issuers referred to herein, and no part of such analyst's compensation was, is or will be directly or indirectly related to the specific recommendations or views expressed herein.

The information herein is provided for information purposes only, and is not to be used or considered as an offer or the solicitation of an offer to sell or to buy or subscribe for securities or other financial instruments. Neither this nor any other communication prepared by The Bank of Tokyo-Mitsubishi UFJ, Ltd. (collectively with its various offices and affiliates, "BTMU") should be construed as investment advice, a recommendation to enter into a particular transaction or pursue a particular strategy, or any statement as to the likelihood that a particular transaction or strategy will be effective in light of your business objectives or operations. Before entering into any particular transaction, you are advised to obtain such independent financial, legal, accounting and other advice as may be appropriate under the circumstances. In any event, any decision to enter into a transaction will be yours alone, not based on information prepared or provided by BTMU. BTMU hereby disclaims any responsibility to you concerning the characterization or identification of terms, conditions, and legal or accounting or other issues or risks that may arise in connection with any particular transaction or business strategy. While BTMU believes that any relevant factual statements herein and any assumptions on which information herein are based, are in each case accurate, BTMU makes no representation or warranty regarding such accuracy and shall not be responsible for any inaccuracy in such statements or assumptions. Note that BTMU may have issued, and may in the future issue, other reports that are inconsistent with or that reach conclusions different from the information set forth herein. Such other reports, if any, reflect the different assumptions, views and/or analytical methods of the analysts who prepared them, and BTMU is under no obligation to ensure that such other reports are brought to your attention.

Copyright 2017 MUFG All Rights Reserved

The articles and opinions in this publication are for general information only, are subject to change, and are not intended to provide specific investment, legal, tax or other advice or recommendations. The information contained herein reflects the thoughts and opinions of the noted authors only, and such information does not necessarily reflect the thoughts and opinions of MUFG or its management team. We are not offering or soliciting any transaction based on this information. We suggest that you consult your attorney, accountant or tax or financial advisor with regard to your situation. Although information has been obtained from sources we believe to be reliable, neither the authors nor MUFG guarantee its accuracy, and such information may be incomplete or condensed. Neither the authors nor MUFG shall be liable for any typographical errors or incorrect data obtained from reliable sources or factual information.

About MUFG Americas Holdings Corporation

Headquartered in New York, MUFG Americas Holdings Corporation is a financial holding company and bank holding company with total assets of \$148.1 billion at December 31, 2016. Its main subsidiaries are MUFG Union Bank, N.A. and MUFG Securities Americas Inc. MUFG Union Bank, N.A. provides an array of financial services to individuals, small businesses, middle-market companies, and major corporations. As of December 31, 2016, MUFG Union Bank, N.A. operated 365 branches, comprised primarily of retail banking branches in the West Coast states, along with commercial branches in Texas, Illinois, New York and Georgia, as well as two international offices. MUFG Securities Americas Inc. is a registered securities broker-dealer which engages in capital markets origination transactions, private placements, collateralized financings, securities borrowing and lending transactions, and domestic and foreign debt and equities securities transactions. MUFG Americas Holdings Corporation is owned by The Bank of Tokyo-Mitsubishi UFJ, Ltd. and Mitsubishi UFJ Financial Group, Inc., one of the world's leading financial groups. The Bank of Tokyo-Mitsubishi UFJ, Ltd. is a wholly owned subsidiary of Mitsubishi UFJ Financial Group, Inc. Visit <http://www.unionbank.com/> or <http://www.mufgamericas.com/> for more information.

About MUFG (Mitsubishi UFJ Financial Group, Inc.)

MUFG (Mitsubishi UFJ Financial Group, Inc.) is one of the world's leading financial groups, with total assets of approximately \$2.6 trillion (USD) as of December 31, 2016. Headquartered in Tokyo and with approximately 350 years of history, MUFG is a global network with more than 2,200 offices in nearly 50 countries. The Group has more than 140,000 employees and about 300 entities, offering services including commercial banking, trust banking, securities, credit cards, consumer finance, asset management, and leasing. The Group's operating companies include Bank of Tokyo-Mitsubishi UFJ, Mitsubishi UFJ Trust and Banking Corporation (Japan's leading trust bank), and Mitsubishi UFJ Securities Holdings Co., Ltd., one of Japan's largest securities firms.

Through close partnerships among our operating companies, the Group aims to "be the world's most trusted financial group," flexibly responding to all of the financial needs of our customers, serving society, and fostering shared and sustainable growth for a better world. MUFG's shares trade on the Tokyo, Nagoya, and New York (MTU) stock exchanges. Visit www.mufg.jp/english/index.html.