

Economics Group

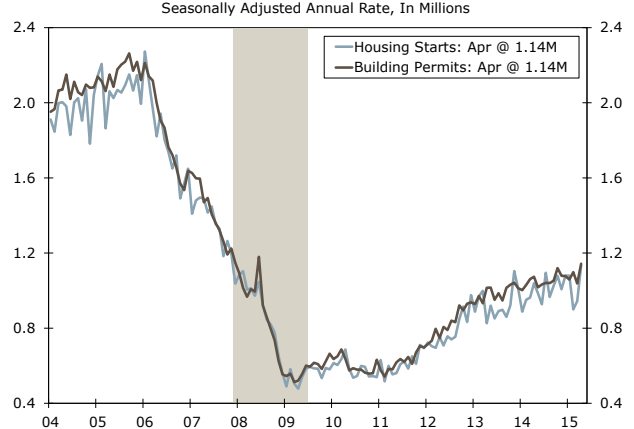
Weekly Economic & Financial Commentary

U.S. Review

Modest Bounce Back for Q2

- Industrial production weakened for a fifth straight month. Utilities and mining were predictably weak amid weather changes and a pullback in the energy industry, while manufacturing was flat.
- The Regional PMIs do not suggest much of a rebound in Q2, with Kansas City and Philadelphia slipping in May.
- The housing market is generally looking better this year now that housing starts and permits snapped back in April and homebuilder confidence is higher than a year ago. Existing home sales, however, fell in the month.

Housing Starts and Building Permits

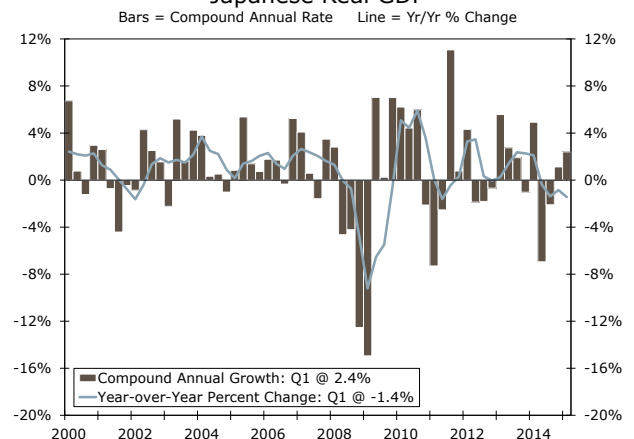


Global Review

Stronger Growth in Japan...With a Few Qualifications

- Japan's better-than-expected GDP report for Q1 was largely a function of inventory building, but domestic demand is firming as well.
- Purchasing manager surveys for the Eurozone were mixed in May with the manufacturing sector looking better than expected, but the services sector growing at a slightly slower pace.

Japanese Real GDP



Wells Fargo U.S. Economic Forecast													
	Actual				Forecast				Actual			Forecast	
	2014				2015				2012	2013	2014	2015	2016
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q					
Real Gross Domestic Product ¹	-2.1	4.6	5.0	2.2	0.2	1.7	2.4	3.6	2.3	2.2	2.4	2.2	2.9
Personal Consumption	1.2	2.5	3.2	4.4	1.9	2.8	3.0	3.0	1.8	2.4	2.5	3.0	2.8
Inflation Indicators ²													
PCE Deflator	1.1	1.6	1.5	1.1	0.3	0.2	0.3	0.9	1.8	1.2	1.3	0.4	2.0
Consumer Price Index	1.4	2.1	1.8	1.2	-0.1	-0.2	0.1	0.8	2.1	1.5	1.6	0.1	2.2
Industrial Production ¹	3.9	5.7	4.1	4.6	-0.7	0.0	3.5	3.1	3.8	2.9	4.2	2.2	3.2
Corporate Profits Before Taxes ²	-4.8	0.1	1.4	-0.2	4.8	5.0	4.6	4.5	11.4	4.2	-0.8	4.7	4.1
Trade Weighted Dollar Index ³	76.9	75.9	81.3	85.1	92.1	88.5	89.3	90.8	73.5	75.9	78.5	90.1	93.7
Unemployment Rate	6.6	6.2	6.1	5.7	5.6	5.4	5.3	5.2	8.1	7.4	6.2	5.4	5.0
Housing Starts ⁴	0.93	0.98	1.03	1.06	0.97	1.14	1.21	1.24	0.78	0.92	1.00	1.13	1.22
Quarter-End Interest Rates ⁵													
Federal Funds Target Rate	0.25	0.25	0.25	0.25	0.25	0.25	0.50	0.75	0.25	0.25	0.25	0.44	1.56
Conventional Mortgage Rate	4.34	4.16	4.16	3.86	3.77	4.05	4.15	4.23	3.66	3.98	4.17	4.05	4.51
10 Year Note	2.73	2.53	2.52	2.17	1.94	2.25	2.35	2.41	1.80	2.35	2.54	2.24	2.66

Forecast as of: May 22, 2015
¹ Compound Annual Growth Rate Quarter-over-Quarter
² Year-over-Year Percentage Change
³ Federal Reserve Major Currency Index, 1973=100 - Quarter End
⁴ Millions of Units
⁵ Annual Numbers Represent Averages

Source: U.S. Department of Commerce, U.S. Department of Labor, Federal Reserve Board, IHS Global Insight and Wells Fargo Securities, LLC

Inside

U.S. Review	2
U.S. Outlook	3
Global Review	4
Global Outlook	5
Point of View	6
Topic of the Week	7
Market Data	8

Together we'll go far



U.S. Review

Factory Sector Cools Down

After an exceptionally weak first quarter, the U.S. economy is struggling to bounce back like it did last year. As a result, we expect only a 1.7 percent annualized gain in real GDP in Q2. Although the initial rebound will be smaller, most of the negatives, such as winter weather, will prove temporary and the economy will likely accelerate into the second half of the year.

The factory sector is also following this broader trend. Industrial production fell for the fifth straight month in April. The decline in utilities is likely ongoing payback from the surge that was seen during colder months, while mining has been negatively affected by the pullback coming from the energy industry in the presence of low oil prices. Meanwhile, manufacturing was flat over the month, and weakness in the industry has been exacerbated by the stronger dollar. Despite the ongoing weakness in industrial production, output is still 1.9 percent higher than a year ago, and even mining is 1.3 percent higher than last year.

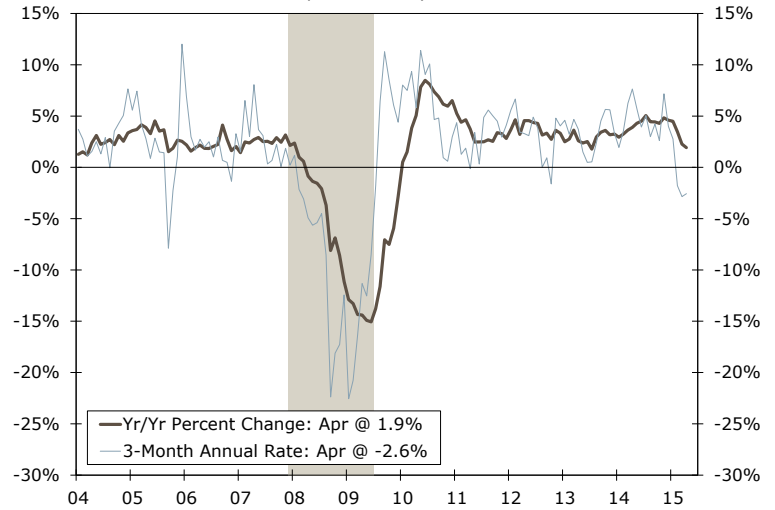
The regional PMIs do not offer much hope that the factory sector will come roaring back soon. The Kansas City Fed Manufacturing Index fell even further into negative territory in May, reflecting the ongoing weakness in energy-producing states. The Philadelphia Fed's manufacturing survey also weakened relative to April. However, that survey still remains above zero, indicating expansion, and the underlying details show some positive trends, including new orders rising significantly and shipments reentering positive territory. The Empire Manufacturing Index also rebounded into positive territory for the month.

Housing Heating Up...a Little

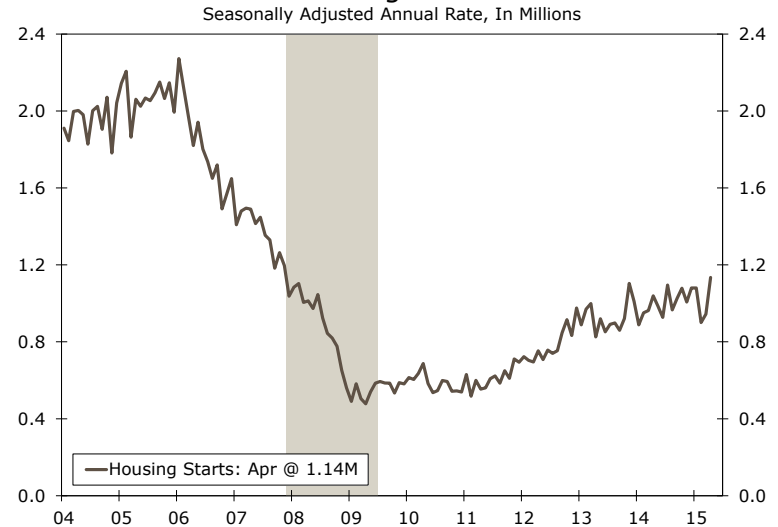
The housing market looks firmer than it did this time last year, but gains remain modest. The most positive housing data of late come from housing starts and permits, which grew 20.2 percent and 10.1 percent, respectively, in April. At a 1.14 million unit pace, housing starts are running at a rate not seen since November 2007. Although the monthly gain was encouraging, it came after considerable weakness in prior months. Weakness earlier in the year and the bounce-back we are seeing now has been heavily influenced by the winter weather. In the Northeast, which was hit particularly hard this winter, housing starts surged 85.9 percent in April. Permits also rebounded in the month and have generally been running slightly ahead of starts, which should provide some upside for residential construction moving forward. Despite relatively muted construction, homebuilders remain fairly positive, and although the National Association of Homebuilders index fell in May, it remains firmly above year-ago levels.

Although existing home sales slid back in April, they remain 6.1 percent higher than a year ago. Furthermore, it appears that demand for housing continues to be strong, but that the lack of supply of available homes continues to constrain sales. The median price of existing homes sold is rising again, and the average days a home is on the market fell to just 39 days, down from 69 days in January. Furthermore, pending home sales look strong, running 13.4 percent higher than a year ago.

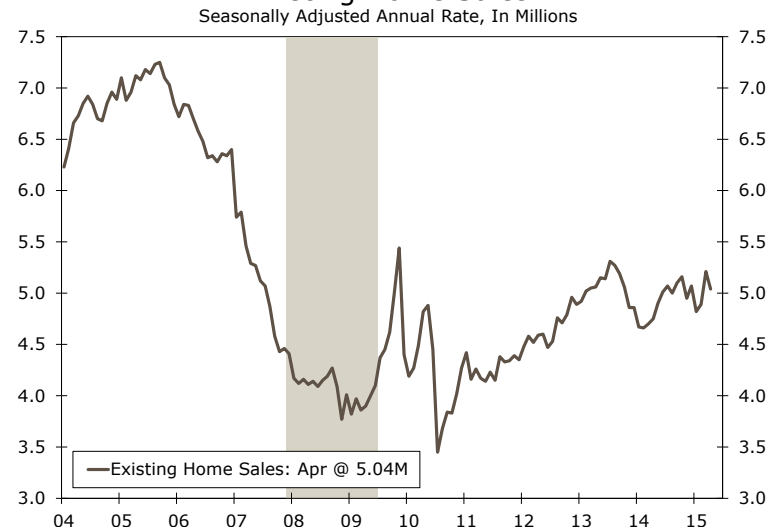
Total Industrial Production Growth
Output Growth by Volume



Housing Starts



Existing Home Sales



Source: Federal Reserve Board, U.S. Department of Commerce, National Association of Realtors and Wells Fargo Securities, LLC

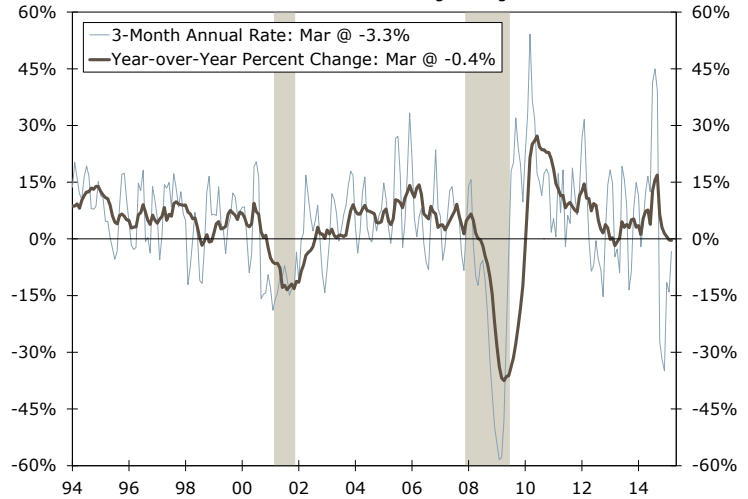
Durable Goods • Tuesday

March saw a strong reading for durable goods orders, which increased 4.7 percent on a month-over-month basis and received an outsized boost from nondefense aircraft orders. Despite the strong growth reading, we suspect that weakness still persists in the manufacturing sector. Core capital goods orders declined for the seventh straight month, with four out of the six major categories posting declines. Core capex shipments declined on the month as well.

We forecast that durable goods orders contracted 1.5 percent on a month-over-month basis in April. Recent indicators, including a drop in industrial output and a reduction in production employees, corroborate our outlook. Although we expect shipments and capital spending to improve over the course of the year, the pace of spending may remain rather modest in 2015.

Previous: 4.7% **Wells Fargo: -1.5%**
Consensus: -0.4% (Month-over-Month)

Durable Goods New Orders
 Series are 3-Month Moving Averages



New Home Sales • Tuesday

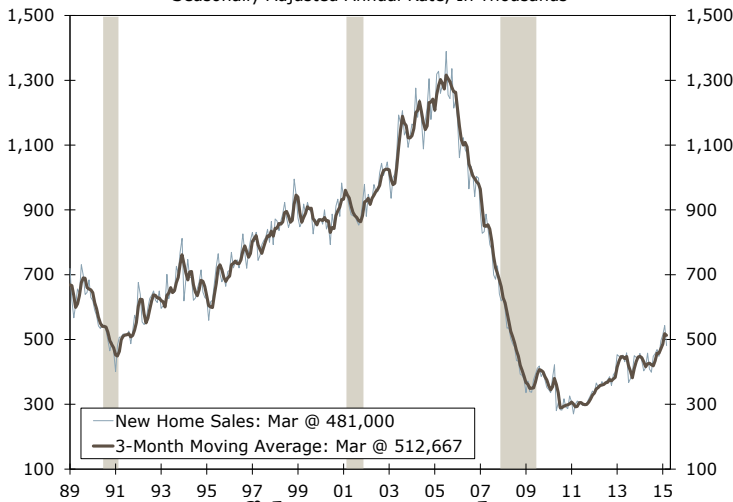
Following a plunge of 11.4 percent in March, we suspect that new home sales rebounded in April to grow at a 5.6 percent month-over-month pace. Lingering effects from harsh winter weather likely contributed to the weakness in March, reducing the annual rate to 481,000 units.

We believe that new home sales picked up in April to a 508,000 unit pace, and we expect to see continued strength throughout the year. Mortgage rates have continued to fall, making home purchases even more affordable. In addition, there have been other positive indicators for the housing market; housing starts for single- and multifamily homes both picked up in April, while the past consumer confidence report indicated that 5.2 percent of consumers planned to purchase a home within six months—a 0.4 percentage point rise from the March survey.

Previous: 481K **Wells Fargo: 508K**
Consensus: 507K

New Home Sales

Seasonally Adjusted Annual Rate, In Thousands



Consumer Confidence • Tuesday

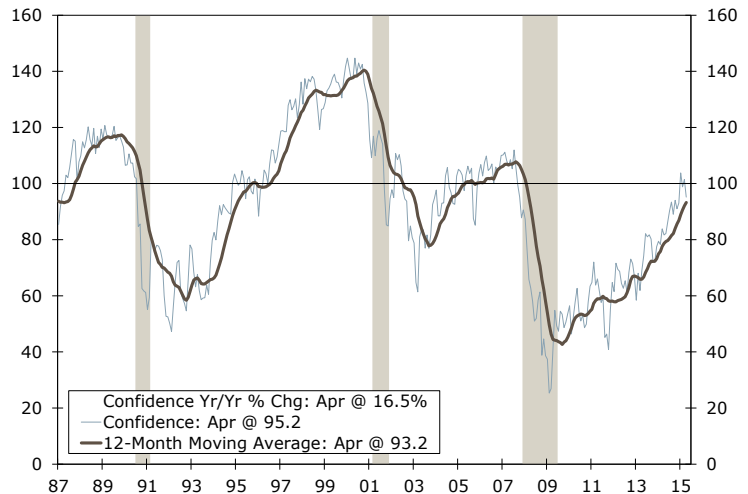
Consumer confidence surprised in April with a 6.2-point drop compared to expectations of a one-point increase. A variety of factors likely weighed on the headline number, including a rebound in gasoline prices during the month. The present and expectations series both fell, and the proportion of consumers expecting more jobs to be created over the next six months fell 1.5 percentage points to 13.8 percent.

We believe that consumer confidence likely ticked up slightly to give a headline reading of 96. A stronger April jobs report, a drop in the unemployment rate and more stable gasoline prices should have given consumers more to feel confident about. However, weakness in the Q1 GDP reading, as consumers increased spending at an annualized rate of just 1.9 percent (compared to 4.4 percent in Q4), indicates that some consumers may still be wary of economic conditions.

Previous: 95.2 **Wells Fargo: 96.0**
Consensus: 95.0

Consumer Confidence Index

Conference Board



Source: U.S. Department of Commerce, The Conference Board and Wells Fargo Securities, LLC

Global Review

Japanese GDP Gets Inventory Boost

The Japanese economy grew at a 2.4 percent annualized rate in the first quarter, beating consensus expectations. Growth was fairly broad based, with a boost from consumer spending, which added 0.8 percentage points to the top-line figure. Business spending and government spending picked up slightly as well, with each adding a tenth of a percentage point to overall growth.

While we are encouraged by the better-than-expected report, it is somewhat concerning that the largest positive contributor was inventory growth, which added 1.8 percent to the headline figure. When inventory accumulation is your engine for growth, you might be in for a short ride. In this case, however, the increase in stockpiles follows two straight quarterly declines. Given the fact that it comes against the backdrop of stronger consumer spending, we are not presently worried about bloated inventories.

It bears noting, however, that for three straight years, we have seen a surge in first quarter growth in Japan only to be followed by disappointment in the subsequent quarter. From 2012-2014, the average first quarter growth rate in Japan was 4.9 percent; the same figure for the second quarter was -2.0 percent. For 2014 at least, this can be attributed to the consumption tax hike, but 2012 and 2013 saw a much better performance in the first quarter as well.

The Bank of Japan (BoJ) increased the pace of its quantitative and qualitative easing program (QQE) in October 2014 such that the monetary base is expected to increase by ¥80 trillion annually. At the time, the BoJ said that it “will examine both upside and downside risks to economic activity and prices, and make adjustments as appropriate.” This week’s report shows a Japanese economy that is not too hot and not too cold. That is just right for the BoJ to remain on hold.

Eurozone Purchasing Managers' Indices

Earlier this month, we learned that Eurozone real GDP grew 0.4 percent (not annualized) in the first quarter. While that may not sound terribly impressive, it ties the second quarter of 2013 for the fastest quarterly growth rate in the past four years.

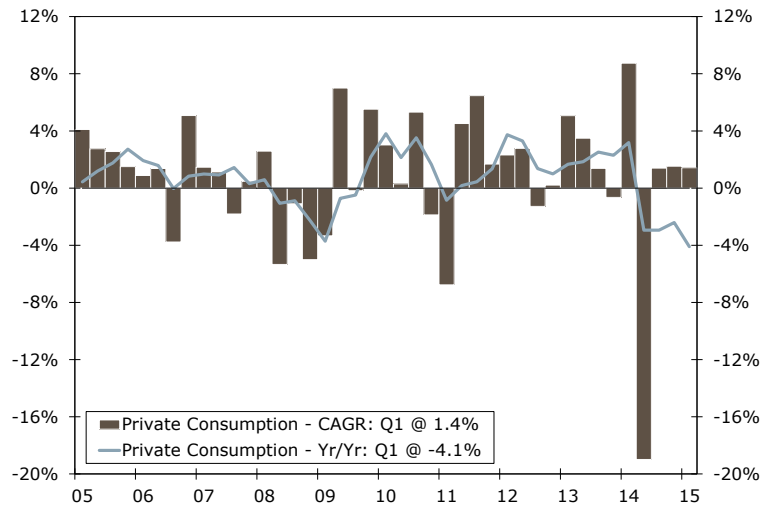
While sovereign debt problems and anxieties about Greece have not gone away, the Eurozone has a few things going for it right now that, on balance, suggest continued economic growth. The Eurozone is a net-importer of crude, so lower energy prices boost real income. The euro has depreciated on balance since last summer, which helps to improve the price competitiveness of Eurozone exports. In addition, ECB programs to boost bank lending appear to be having their intended effects.

The purchasing manager surveys for May offer a current read on activity in the Eurozone business sector. The composite index slipped to 53.4, slightly weaker than the 53.9 reported in April, but a bit higher than the 53.3 average in the first quarter.

The service sector PMI has been running hotter than the factory sector measure for the past year or so, but the spread between them has narrowed. Overall, PMIs in expansion territory are consistent with our forecast for continued Eurozone growth.

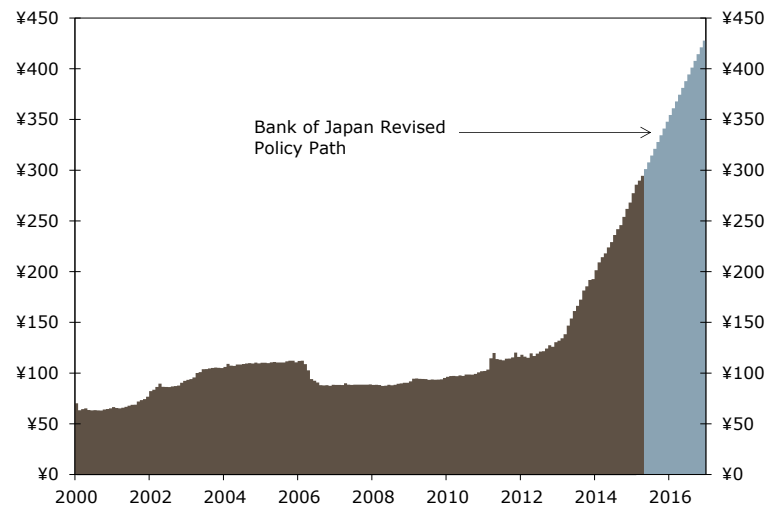
Japanese Private Consumption

Bars = Compound Annual Rate Line = Yr/Yr % Change



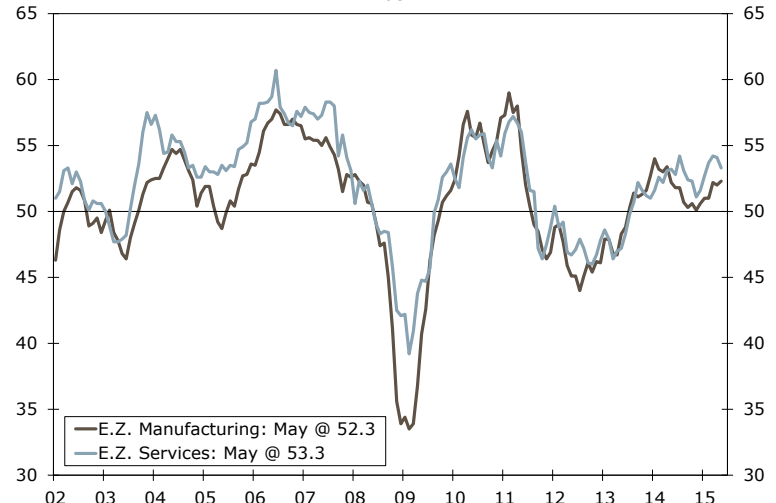
Japan's Monetary Base

Trillions of Yen



Eurozone Purchasing Managers' Indices

Index



Source: IHS Global Insight, Bank of Japan, Bloomberg LP and Wells Fargo Securities, LLC

Japan Industrial Production • Thursday

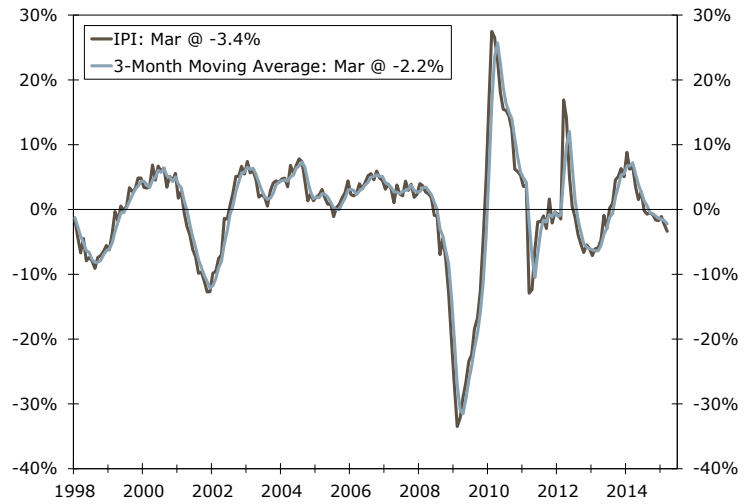
Next week will be a busy week for Japanese economic data with the release of retail sales, the jobless rate, the consumer price index, housing starts, vehicle production and industrial production, among others. Overall, data from Japan have been mixed, so this month's releases will give us a better indication of how the Japanese economy is faring in the second quarter.

After a surge in industrial production in January, up 4.1 percent, February and March's reports showed some payback declines and were down 3.1 percent and 0.8 percent, respectively. After back-to-back declines, output is expected to pick up in April. Similarly, retail sales are expected to climb in April after sequential declines in two of the past three months.

Previous: -0.8% (Month-over-Month)

Consensus: 1.0%

Japanese Industrial Production Index
Year-over-Year Percent Change, Seasonally Adjusted



Brazil Q1 GDP • Friday

Brazilian GDP will be released on Friday, and the expectation is for the country's economy to have continued to deteriorate from last year's already weak performance. In fact, the monthly economic activity index has been all over the place, from dropping in January and February by 2.5 percent and 4.1 percent year over year, respectively, to a 0.5 percent increase in March.

Meanwhile, the seasonally adjusted index was down 0.3 percent in January, up 0.6 percent in February and down again by 1.1 percent in March to finish a first quarter that will be disappointing and will challenge policymakers for the rest of the year. The biggest challenge will be for the Brazilian central bank, which is facing a recessionary economy with increasing inflation, or what is normally called stagflation. Thus, we expect a very disappointing number on Friday with expectations of further weakening in Q2 2015 before we start to see some improvement in the second half of the year.

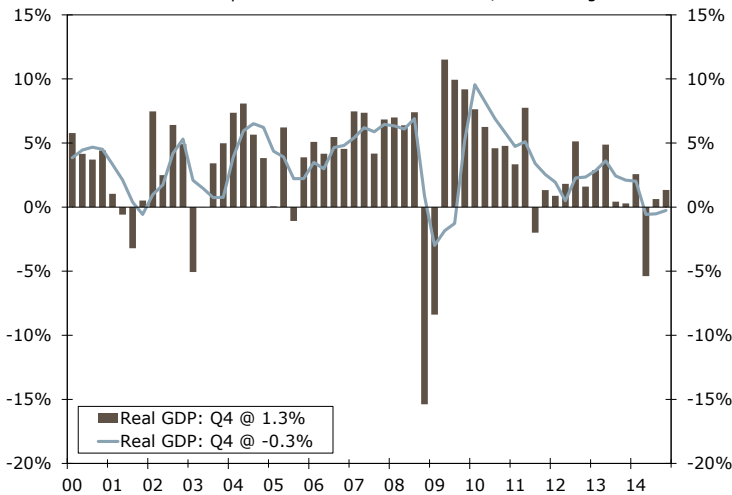
Previous: -0.2%

Wells Fargo: -1.2%

Consensus: -1.5% (Year-over-Year)

Brazilian Real GDP

Bars = Compound Annual Rate Line = Yr/Yr % Change



Canada GDP Q1 • Friday

On Friday we will get first quarter GDP for the Canadian economy and will probably get a good reason as to the why the Bank of Canada surprised markets earlier this year cutting interest rates. In fact, there is a real possibility that growth in first quarter GDP actually fell to negative territory, although it is still not our current call.

The Canadian economy was one of the economies that benefited the most during the petroleum price boom and it will probably reflect the slump in petroleum prices during the past several quarters. However, although we are expecting a slow period as the economy transitions to the new petroleum reality, we see economic growth returning to close to the 2.5 percent mark in 2016 after growing at a slower, 1.9 percent during this year. Thus, expect some disappointing but transitory news on Friday for the performance of the Canadian economy.

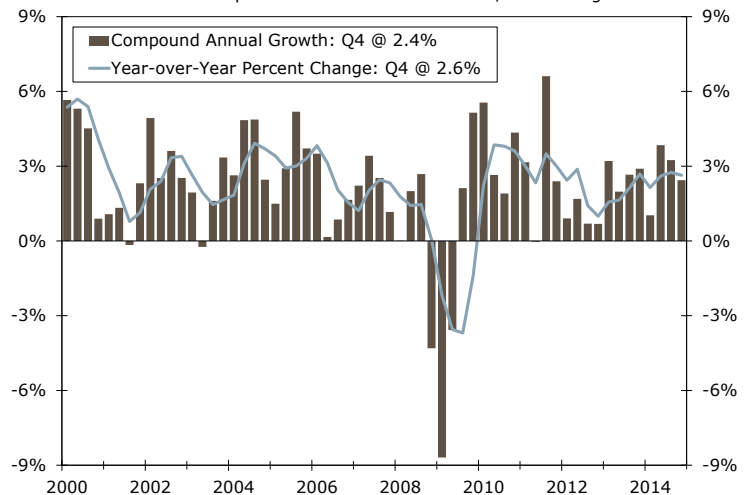
Previous: 2.4%

Wells Fargo: 0.4%

Consensus: 0.2% (Quarter-over-Quarter, Annualized)

Canadian Real GDP

Bars = Compound Annual Rate Line = Yr/Yr % Change



Source: IHS Global Insight and Wells Fargo Securities, LLC

Interest Rate Watch

Range Bound

Bond yields generally retreated this week on softer economic news in the United States and some clarification about the course of quantitative easing in Europe. The European Central Bank is set to increase securities purchases in coming weeks and there is no indication that QE will end prematurely. Lower bond yields helped pull Treasury securities lower on the week, although Friday's stronger core inflation reading, which showed a 0.3 percent increase, appears to have brought the rally to an end. We look for the 10-Year Treasury yield to remain range bound between 2.10 and 2.30 percent until we get another employment number that resets expectations for U.S. growth.

The minutes of the April FOMC meeting reveal little new information, but confirmed that a rate hike in June is unlikely. The Fed continues to make the case that the decision on when, and by how much, to raise rates is data dependent. Nevertheless, the bulk of economists, including ourselves, see the first rate hike coming in September. The futures market is more amorphous, however, and sees no more than one rate hike this year and has that move coming later in the year.

Economists and the futures market are in agreement with the latest mantra from the Fed, which is that regardless of when the Fed makes its first move, interest rates are likely to remain low for longer. The Fed has consistently lowered the trajectory of its dot plot, which shows the anticipated course of the federal funds rate over the next couple of years, and has dramatically reduced its expectations for the long-term federal funds rate since the Fed began publishing its forecast back in 2011.

With so many people expecting interest rates to remain low for some time to come, the potential for a surprise remains considerable, as Janet Yellen reminded the markets a few weeks ago. The reach for yield now casts a considerable shadow over the U.S. and global economies. Credit spreads have been compressed and investors have been moving aggressively into alternative assets, where risks are harder to quantify and understand.

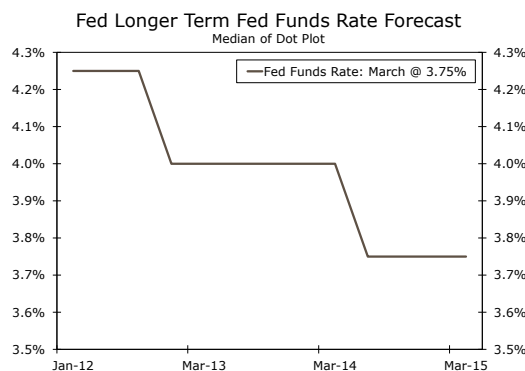
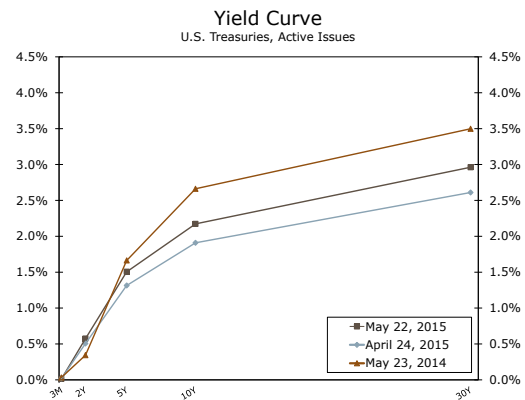
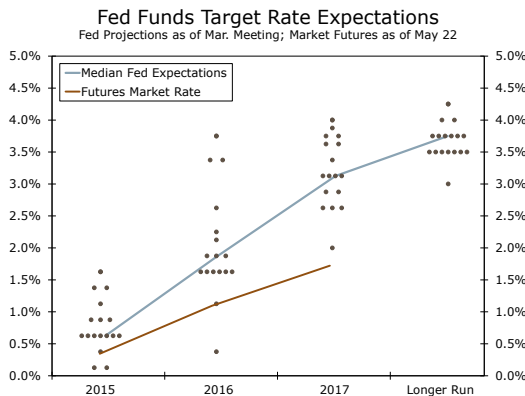
Credit Market Insights

This Rent Is too High!

In a recently released report, Freddie Mac looked to answer the question: Is higher rent driving renters into purchasing a home? It discovered the same thing that we are noticing—higher rent is not causing people to rush out and purchase homes.

The average national effective rent has been on the rise every quarter for the past five years and is at \$115.76 per square foot for Q1 2015, according to Reis. Yes, growing rent is an issue and we should be seeing more renters transitioning into homeownership, but we are not. Actually, the opposite appears to be happening; homeownership continues on its downward trend. A reason behind this, in addition to the increased burden of student loans and personal debt, is supply. We are seeing an increase in employment and even modest gains in wages, but unlike the constantly increasing supply of apartments coming on line, there is actually a shortage in homes for sale in the market. This tight inventory is raising the price of homes and making renting more attractive for many who are deciding whether to renew their lease or search elsewhere for their next residence. In essence, it is a renters' market when it comes to apartments and a sellers' market when it comes to homes.

All hope is not lost on the matter, however; as the home buying season progresses, we expect to see more new and existing homes out on the market and alleviate some of the current tightness.



Source: IHS Global Insight, Bloomberg LP and Wells Fargo Securities, LLC

Credit Market Data					
Mortgage Rates		Current	Week Ago	4 Weeks Ago	Year Ago
	30-Yr Fixed	3.84%	3.85%	3.68%	4.14%
	15-Yr Fixed	3.05%	3.07%	2.94%	3.25%
	5/1 ARM	2.88%	2.89%	2.85%	2.96%
1-Yr ARM	2.51%	2.48%	2.49%	2.43%	
Bank Lending		Current Assets (Billions)	1-Week Change (SAAR)	4-Week Change (SAAR)	Year-Ago Change
	Commercial & Industrial	\$1,859.5	-2.78%	8.45%	11.69%
	Revolving Home Equity	\$451.8	-5.26%	-2.26%	-3.18%
	Residential Mortgages	\$1,594.3	-14.44%	-1.55%	2.00%
	Commerical Real Estate	\$1,653.1	-0.61%	-1.64%	7.51%
Consumer	\$1,215.9	4.02%	5.82%	4.54%	

Source: Freddie Mac, Federal Reserve Board and Wells Fargo Securities, LLC

Topic of the Week

Sensitivity of Treasuries to Fed Funds Surprises

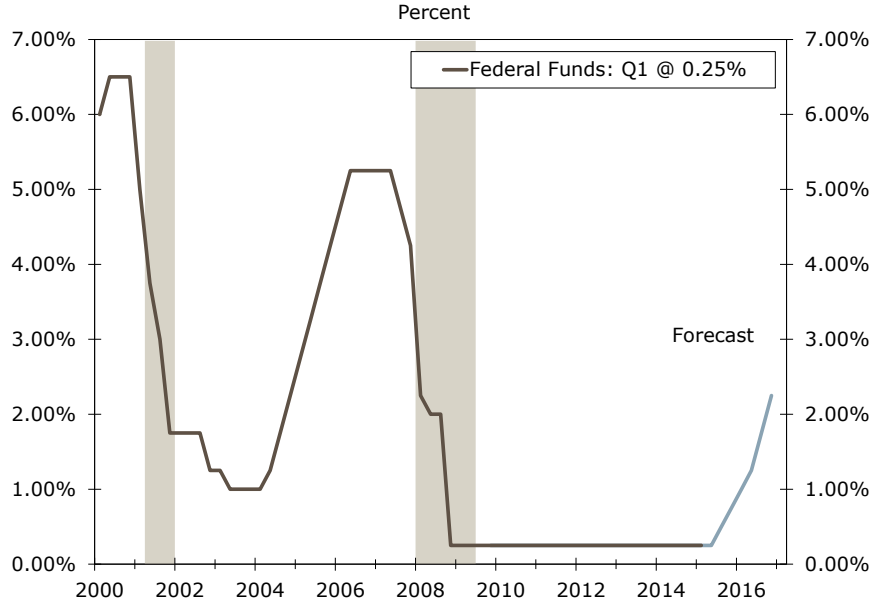
In a recent report, we studied the sensitivity of Treasury securities to surprises in the federal funds rates (difference in actual announced fed funds rate and expectations leading up to the release). As the impending rate hike approaches, there is significant uncertainty about what will happen to the yield curve when the Fed finally moves. This study fills in some of the gap, looking at the behavior of the yield curve immediately following surprises in the fed funds rate.

We find that on the short end of the yield curve, fed funds surprises significantly affect yields on Treasury securities. This effect is significant for maturities up to five years. Somewhat surprising, however, was that we found that shocks in the federal funds rate did not significantly affect yields for Treasury securities with maturities greater than five years.

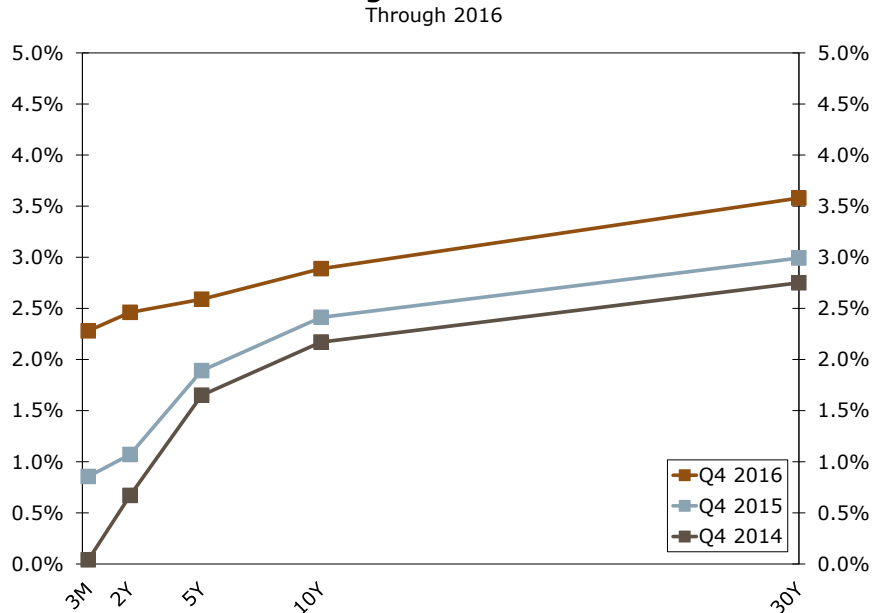
This has implications for when the Fed does begin to move. We currently expect the yield curve to flatten in the coming cycle. Admittedly, our analysis only looked at surprises in the fed funds rate, however, the lower sensitivity of long-term Treasury securities supports our forecast of the yield curve flattening in this cycle. We expect short-term rates to migrate upward, while we will see more moderate increases in longer-term rates. Our analysis suggests we will not see a repeat of the “Taper Tantrum” experienced in the summer of 2013. One scenario in which this could play out is if Fed actions caused revisions to expectations for the funds rate out into the future. However, we do not expect this to occur.

To view the entire analysis, including our methodology and full results, see our report, “*Fed Funds Surprises & Treasury Yields: Part 2*,” which is available on our website. This report is the second of a three-part series, the first of which found that the foreign exchange value of the dollar was not significantly affected by fed funds surprises, at least immediately following the release. In the final report, we will investigate the sensitivity of broad equity indices.

Federal Funds Target Rate



Wells Fargo Rates Forecast



Source: Federal Reserve Board, IHS Global Insight and Wells Fargo Securities, LLC

Subscription Info

Wells Fargo's *Weekly Economic & Financial Commentary* is distributed to subscribers each Friday afternoon by e-mail.

To subscribe please visit: www.wellsfargo.com/economicsemail

The *Weekly Economic & Financial Commentary* is available via the Internet at www.wellsfargo.com/economics

Via The Bloomberg Professional Service at WFRE.

And for those with permission at www.wellsfargoresearch.com

Market Data ♦ Mid-Day Friday

U.S. Interest Rates

	Friday 5/22/2015	1 Week Ago	1 Year Ago
3-Month T-Bill	0.02	0.01	0.03
3-Month LIBOR	0.28	0.28	0.23
1-Year Treasury	0.20	0.14	0.11
2-Year Treasury	0.62	0.54	0.34
5-Year Treasury	1.57	1.46	1.54
10-Year Treasury	2.22	2.14	2.55
30-Year Treasury	3.00	2.93	3.43
Bond Buyer Index	3.81	3.74	4.28

Foreign Exchange Rates

	Friday 5/22/2015	1 Week Ago	1 Year Ago
Euro (\$/€)	1.103	1.145	1.366
British Pound (\$/£)	1.552	1.573	1.687
British Pound (£/€)	0.711	0.728	0.810
Japanese Yen (¥/\$)	121.450	119.250	101.740
Canadian Dollar (C\$/\\$)	1.228	1.201	1.089
Swiss Franc (CHF/\\$)	0.944	0.916	0.894
Australian Dollar (US\$/A\\$)	0.783	0.803	0.923
Mexican Peso (MXN/\\$)	15.298	15.008	12.879
Chinese Yuan (CNY/\\$)	6.197	6.207	6.235
Indian Rupee (INR/\\$)	63.521	63.516	58.460
Brazilian Real (BRL/\\$)	3.067	2.997	2.216
U.S. Dollar Index	96.088	93.135	80.254

Source: Bloomberg LP and Wells Fargo Securities, LLC

Foreign Interest Rates

	Friday 5/22/2015	1 Week Ago	1 Year Ago
3-Month Euro LIBOR	-0.01	-0.02	0.29
3-Month Sterling LIBOR	0.57	0.57	0.53
3-Month Canada Banker's Acceptance	1.00	1.00	1.27
3-Month Yen LIBOR	0.10	0.10	0.14
2-Year German	-0.22	-0.20	0.07
2-Year U.K.	0.56	0.49	0.72
2-Year Canadian	0.68	0.65	1.06
2-Year Japanese	0.00	-0.01	0.09
10-Year German	0.61	0.62	1.41
10-Year U.K.	1.95	1.88	2.65
10-Year Canadian	1.78	1.71	2.32
10-Year Japanese	0.42	0.40	0.60

Commodity Prices

	Friday 5/22/2015	1 Week Ago	1 Year Ago
WTI Crude (\\$/Barrel)	59.79	59.69	103.74
Gold (\\$/Ounce)	1204.29	1224.06	1294.02
Hot-Rolled Steel (\\$/S.Ton)	450.00	450.00	685.00
Copper (\\$/Pound)	282.70	294.90	315.20
Soybeans (\\$/Bushel)	9.35	9.58	15.22
Natural Gas (\\$/MMBTU)	2.93	3.02	4.36
Nickel (\\$/Metric Ton)	12,957	13,739	19,485
CRB Spot Inds.	468.29	474.72	542.77

Next Week's Economic Calendar

	Monday 25	Tuesday 26	Wednesday 27	Thursday 28	Friday 29
U.S. Data		Durable Goods March 4.0% April -1.5% (W)		Pending Home Sales (MoM) March 1.1% April 1.0% (C)	GDP (2nd Revision) 1st Q1 0.2% 2nd Q1 -1.0% (W)
		New Home Sales March 481K April 508K (W)			
	Global Data			Japan Industrial Production Previous (Mar) -3.4%	Brazil GDP (YoY) Previous (Q4) -1.5%
				United Kingdom GDP (YoY) Previous (Q4) 2.4%	Canada GDP (YoY) Previous (Q4) 2.4%

Note: (W) = Wells Fargo Estimate (C) = Consensus Estimate

Source: Bloomberg LP and Wells Fargo Securities, LLC

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 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
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 © 2015 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