

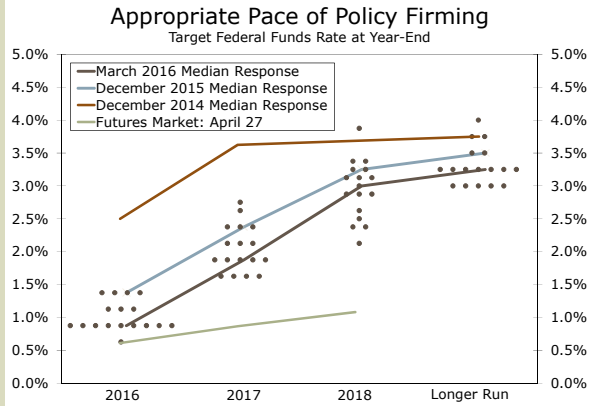
Global Economic Outlook

Tim Quinlan, Senior Economist
May 2016



Pace of Policy Firming: Two Increases in 2016

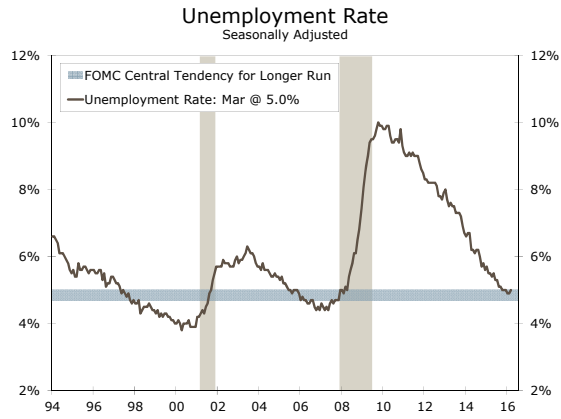
Normalization is underway, but there remains wide variation between the market and Fed officials themselves about the appropriate path of the fed funds rate



Source: Federal Reserve Board, Bloomberg LP and Wells Fargo Securities, LLC

Unemployment

The labor market is steadily firming, the unemployment rate is in line with the FOMC's central tendency target

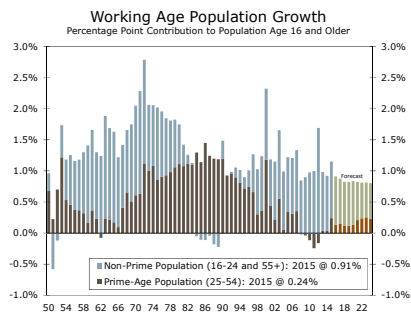


Source: U.S. Department of Labor, Federal Reserve Board and Wells Fargo Securities, LLC

Potential Growth—Little Help from Labor

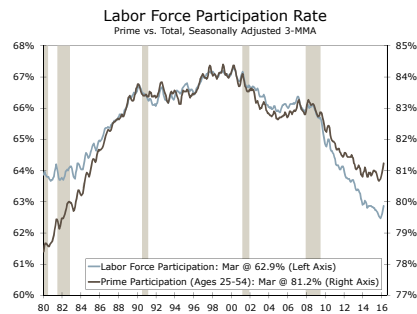
Labor supply growth is slowing, particularly for prime-age workers. Participation has been lower in this cycle but has been turning up more recently.

Working Age Population



Source: U.S. Department of Labor and Wells Fargo Securities, LLC

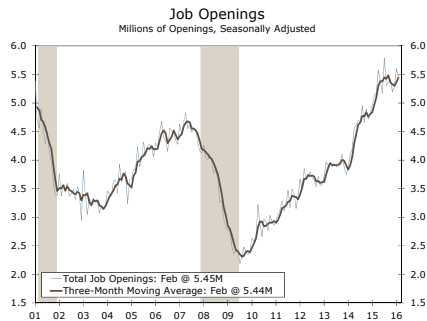
Labor Force Participation



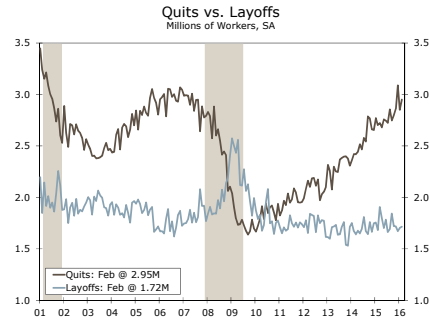
Labor Turnover

Job openings appear to be leveling off, while the mix of turnover in the labor market remains healthy

Openings



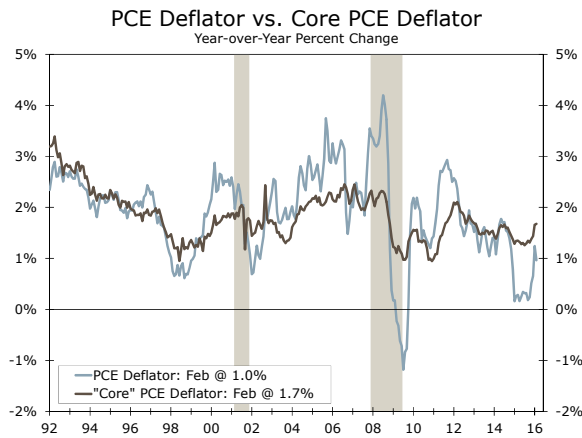
Separations



Source: U.S. Department of Labor and Wells Fargo Securities, LLC

Inflation

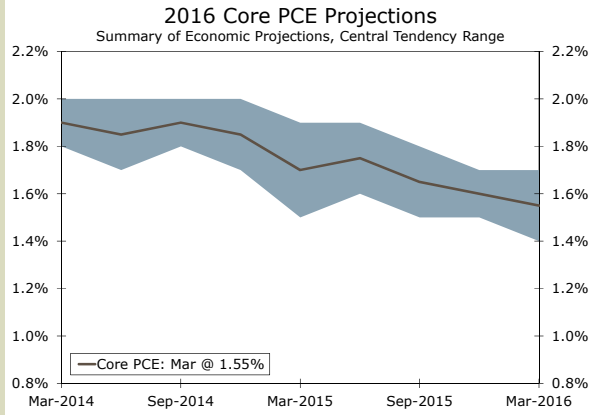
Inflation has moved higher but remains below the Fed's 2 percent target



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

FOMC Projections

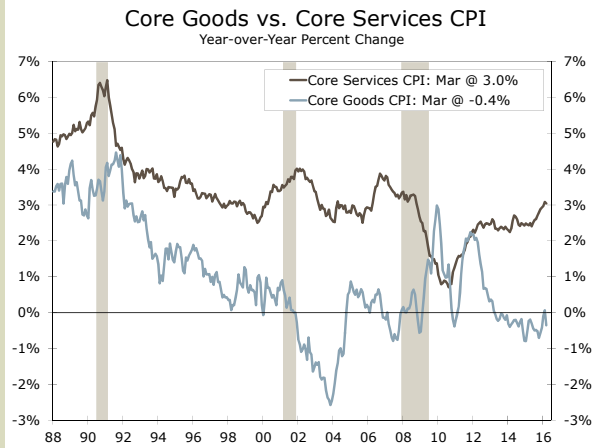
The FOMC's expectations for inflation in 2016 have steadily declined



Source: Federal Reserve Board and Wells Fargo Securities, LLC

Inflation: A Divide in Goods vs. Services

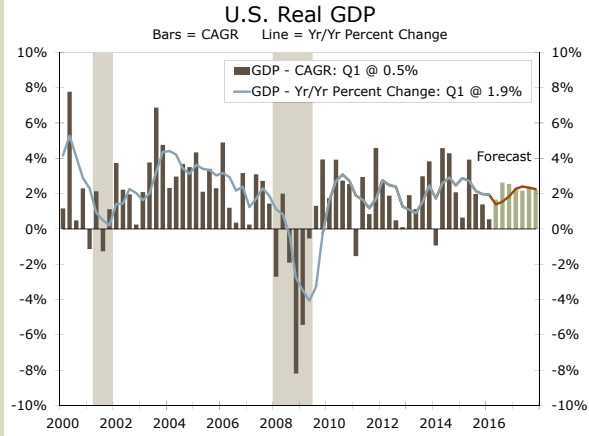
Inflation for services has been much firmer than for goods



Source: U.S. Department of Labor and Wells Fargo Securities, LLC

Real GDP Forecast

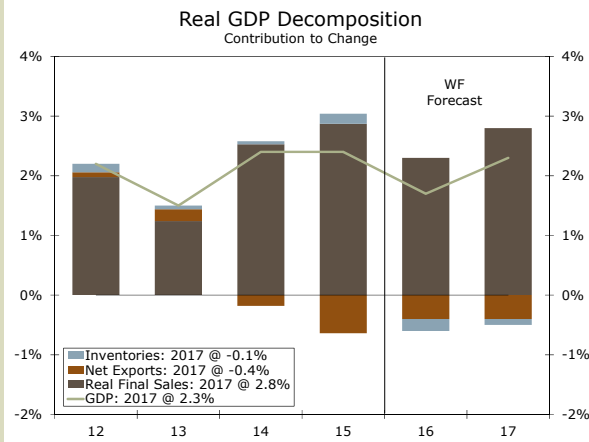
Outlook is for below-trend growth to continue



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

Domestic Strength

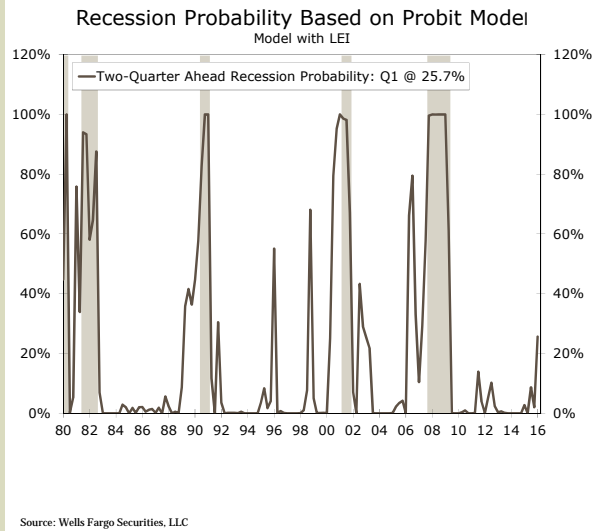
Domestic growth has held up relatively well, trade has been a drag over past two years and again in 2016



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

Recession in 2016?

Recession probability has ticked up, but still no recession in our outlook



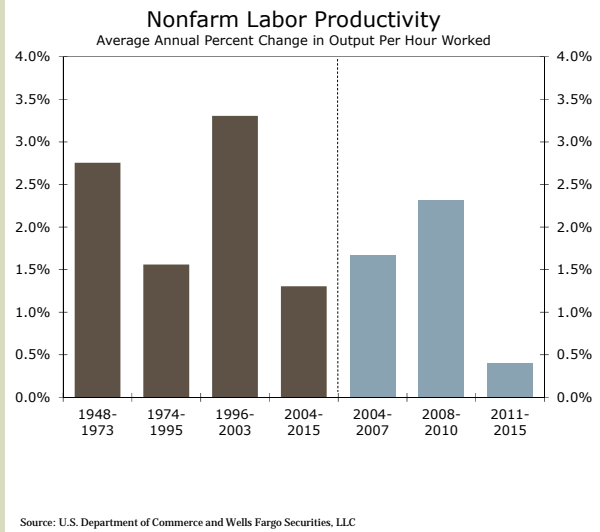
Economics

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Wells Fargo Securities

Potential Growth—Little Help From Productivity

Productivity growth has downshifted over the past cycle



Economics

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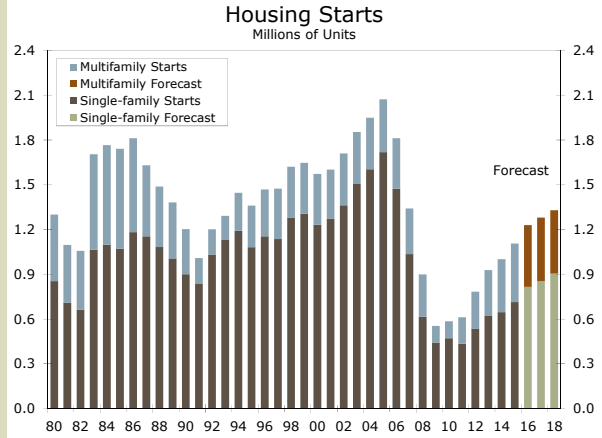
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Housing

We continue to look for a gradual recovery in homebuilding.

Apartment demand remains exceptionally strong but supply is catching up with demand.

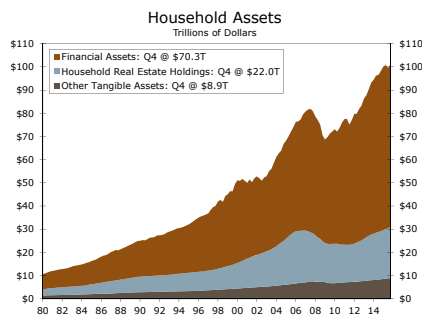
Single-family housing starts are beginning to ramp back up. Gains will be more modest than in past building cycles.



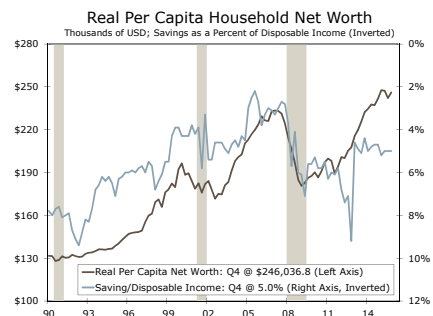
Household Balance Sheets

A recovery in household asset values has boosted net worth, but households continue to save at a higher rate than during the past expansion

Household Assets



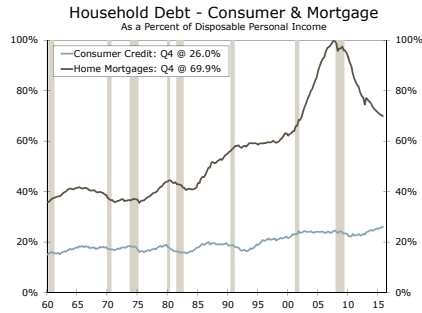
Household Net Worth



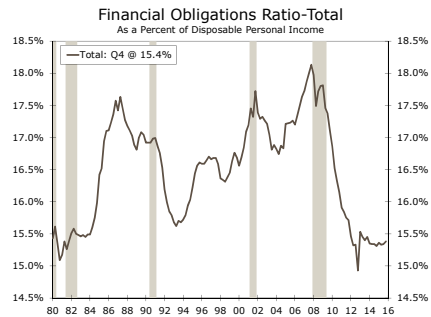
Household Balance Sheets

Consumer deleveraging may be nearing an end, but monthly debt and other financial obligation payments remain near historic lows

Household Debt



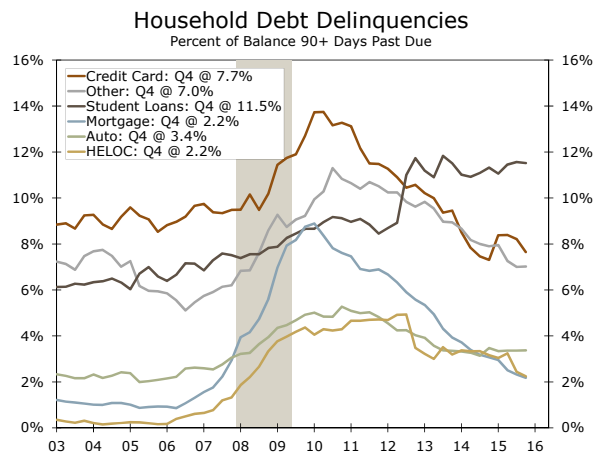
Financial Obligations Ratio



Source: Federal Reserve Board and Wells Fargo Securities, LLC

Household Debt Delinquencies: Student Loans the Exception

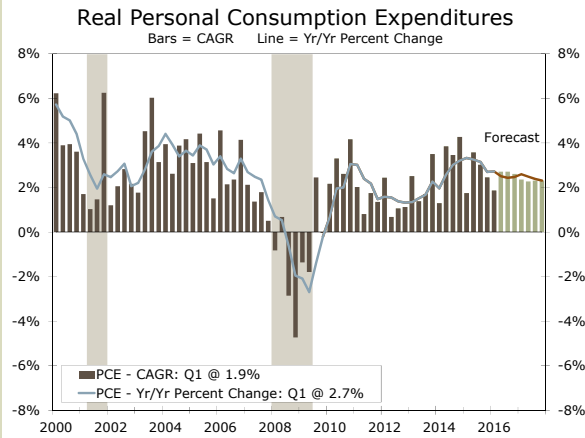
Tighter credit standards and a strengthening economy have helped to improve the credit position of households over the past three years—with the exception of student debt



Source: FRBNY and Wells Fargo Securities, LLC

Real PCE Forecast

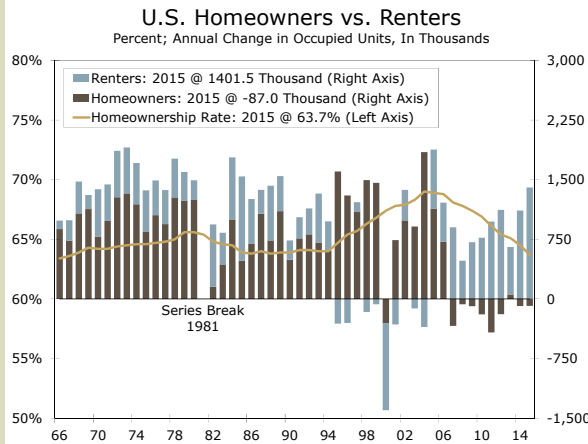
Consumer spending growth is set to moderate but remain positive throughout the forecast horizon



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

Housing: Emergence of Renters as Occupants

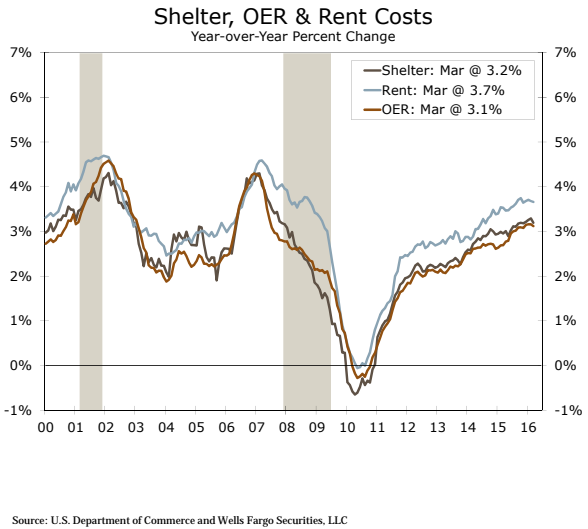
The number of renters has been growing steadily since 2007, while homeowners have been declining.



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

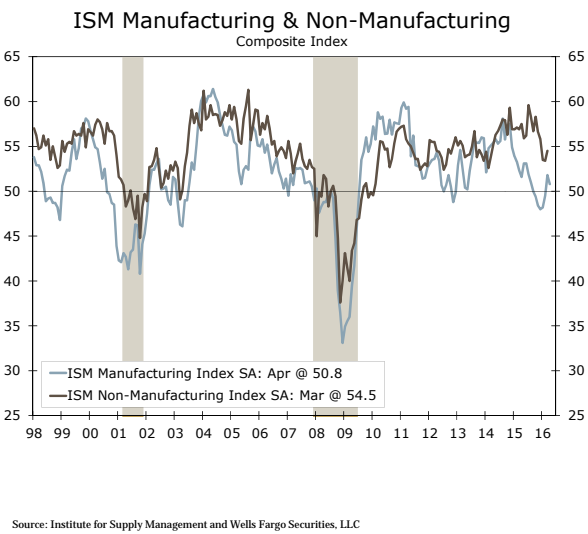
Inflation Dynamics: Try Telling a Renter That Inflation is Low

Along with higher healthcare and service costs, rents have been rising faster than broader inflation for the past several years.



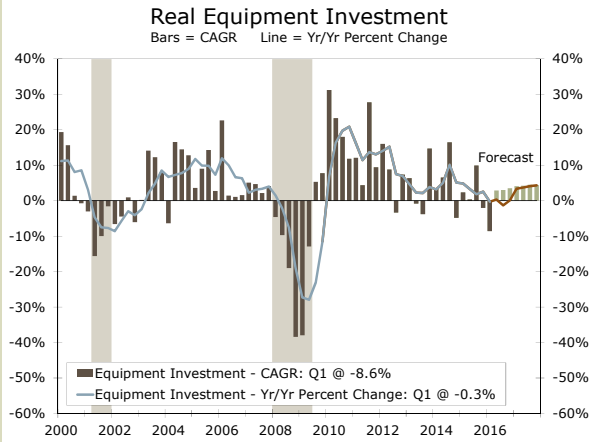
Manufacturing & Services: A Divide

Indexes on business activity suggest continued growth for 2016. Services have been a bulwark, while manufacturing has been impacted by the dollar and collapse in commodities.



Business Spending

Tough to find reasons to get excited about prospects for capital outlays

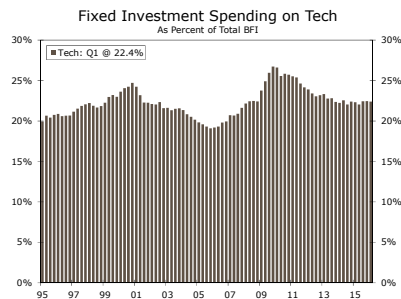


Source: U.S. Department of Commerce and Wells Fargo Securities, LLC

Business Fixed Investment: 2016 Not Reprise of 1999-2000

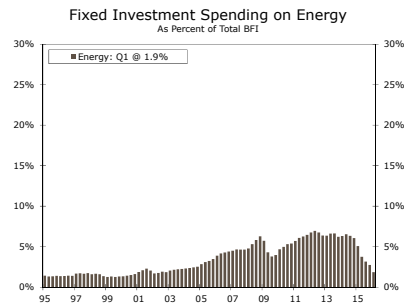
Capex in the tech sector comprises a 23% share of all business investment spending. Investment in the energy sector has already fallen by half and should be less of a headwind to total business fixed investment later this year.

Tech Investment



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

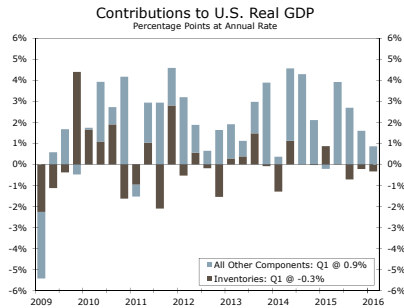
Energy Investment



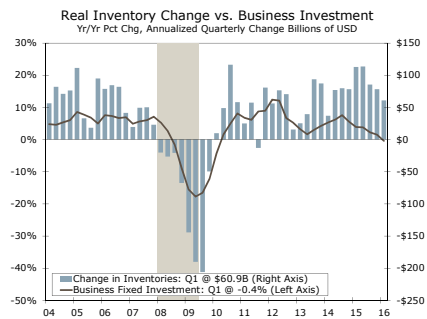
Inventories

Businesses have begun to right-size inventories to the slower pace of final sales growth, but more adjustment may be in store

Inventory Contribution



Inventory Change & Investment



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

Economics

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U.S. Forecast

Wells Fargo U.S. Economic Forecast

| | Actual | | | | Forecast | | | | Actual | | | Forecast | |
|---|--------|------|------|-------|----------|------|------|------|--------|------|------|----------|------|
| | 2015 | | | | 2016 | | | | 2013 | 2014 | 2015 | 2016 | 2017 |
| | 1Q | 2Q | 3Q | 4Q | 1Q | 2Q | 3Q | 4Q | | | | | |
| Real Gross Domestic Product ¹ | 0.6 | 3.9 | 2.0 | 1.4 | 0.5 | 1.7 | 2.6 | 2.5 | 1.5 | 2.4 | 2.4 | 1.7 | 2.3 |
| Personal Consumption | 1.8 | 3.6 | 3.0 | 2.4 | 1.9 | 2.7 | 2.7 | 2.6 | 1.7 | 2.7 | 3.1 | 2.5 | 2.4 |
| Inflation Indicators ² | | | | | | | | | | | | | |
| PCE Deflator | 0.2 | 0.3 | 0.3 | 0.5 | 1.0 | 0.9 | 1.1 | 1.4 | 1.4 | 1.4 | 0.3 | 1.1 | 2.0 |
| Consumer Price Index | -0.1 | 0.0 | 0.1 | 0.4 | 1.1 | 0.9 | 1.2 | 1.6 | 1.5 | 1.6 | 0.1 | 1.2 | 2.2 |
| Industrial Production ¹ | -1.9 | -2.7 | 1.5 | -3.3 | -2.2 | -0.8 | 1.1 | 2.2 | 1.9 | 2.9 | 0.3 | -1.0 | 1.9 |
| Corporate Profits Before Taxes ² | 4.6 | 0.6 | -5.1 | -11.5 | -3.3 | -0.7 | 1.9 | 1.8 | 2.0 | 1.7 | -3.1 | -0.1 | 1.6 |
| Trade Weighted Dollar Index ³ | 92.1 | 90.0 | 92.3 | 94.5 | 89.8 | 88.5 | 90.3 | 92.0 | 75.9 | 78.4 | 91.1 | 90.1 | 94.1 |
| Unemployment Rate | 5.6 | 5.4 | 5.2 | 5.0 | 4.9 | 4.8 | 4.7 | 4.6 | 7.4 | 6.2 | 5.3 | 4.7 | 4.5 |
| Housing Starts ⁴ | 0.98 | 1.16 | 1.16 | 1.14 | 1.13 | 1.22 | 1.23 | 1.24 | 0.92 | 1.00 | 1.11 | 1.23 | 1.28 |
| Quarter-End Interest Rates ⁵ | | | | | | | | | | | | | |
| Federal Funds Target Rate | 0.25 | 0.25 | 0.25 | 0.50 | 0.50 | 0.75 | 0.75 | 1.00 | 0.25 | 0.25 | 0.27 | 0.75 | 1.63 |
| Conventional Mortgage Rate | 3.77 | 3.98 | 3.89 | 3.96 | 3.69 | 3.89 | 3.95 | 4.06 | 3.98 | 4.17 | 3.85 | 3.90 | 4.28 |
| 10 Year Note | 1.94 | 2.35 | 2.06 | 2.27 | 1.78 | 1.94 | 2.01 | 2.13 | 2.35 | 2.54 | 2.14 | 1.97 | 2.40 |

Forecast as of: April 29, 2016

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

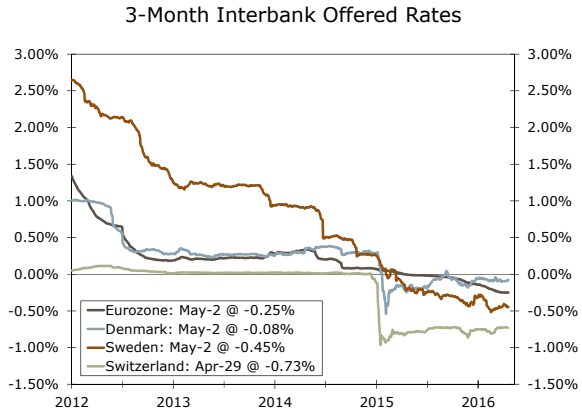
Economics

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Negative Rates

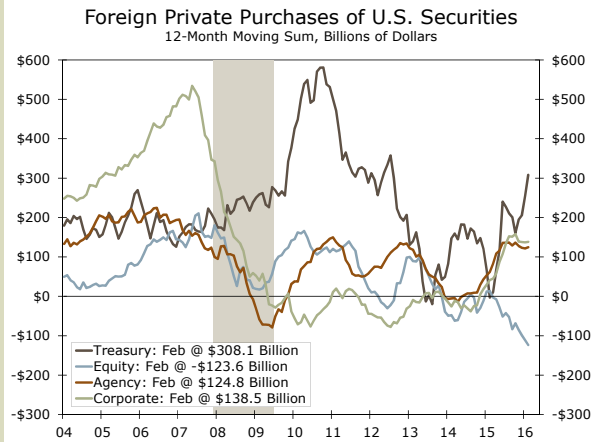
Negative rates have become more prevalent over the past year



Source: Bloomberg LP and Wells Fargo Securities, LLC

Foreign Purchases of U.S. Securities: Still Solid

Capital flows and asset allocation by global investors play a strong role in rate determinations



Source: U.S. Department of the Treasury and Wells Fargo Securities, LLC

Global Exports

Global trade has slowed over the past year



Source: IHS Global Insight and Wells Fargo Securities, LLC

Five Takeaways

Growth

- Continued moderate growth led by domestic consumer and housing

Inflation

- Rising, but is the pace slow enough to delay Fed move?

Interest Rates

- Rising short rates, but flat long rates as capital flows favor the U.S.

Dollar

- Stronger dollar as rates and growth favor U.S.

Profits

- A late cycle slowdown

International Developments

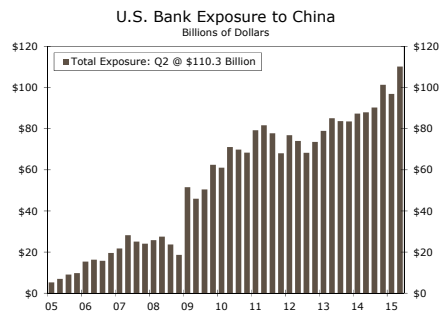
How Exposed is the U.S. Economy to China?

- U.S. exports to China comprise about 7% of all U.S. exports and less than 1% of GDP.
- U.S. imports from China are roughly 4X the size of exports to China.
- American banks have about \$100 billion on the hook to China (less than 1% of loans).
- Total Chinese external debt is roughly \$900 billion – small potatoes compared to Chinese foreign assets of \$6+ trillion.

Lopsided Trade Relationship



Lending to China



Source: Bank for International Settlements, IHS Global Insight and Wells Fargo Securities, LLC

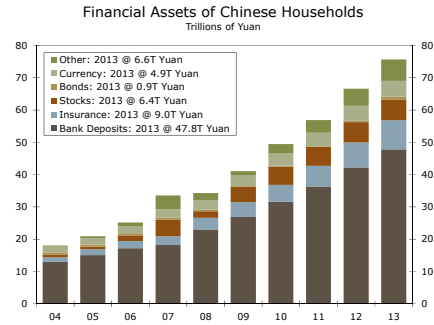
Will Chinese Stock Market Selloff Ruin Transition to Domestic Demand?

- Since last summer the Shanghai and Shenzhen composites have introduced greater volatility in global financial markets.
- Unlike many developed economies, however, equity holdings of the typical household in China comprise less than 10% of total financial assets.

Stock Prices



Value Added



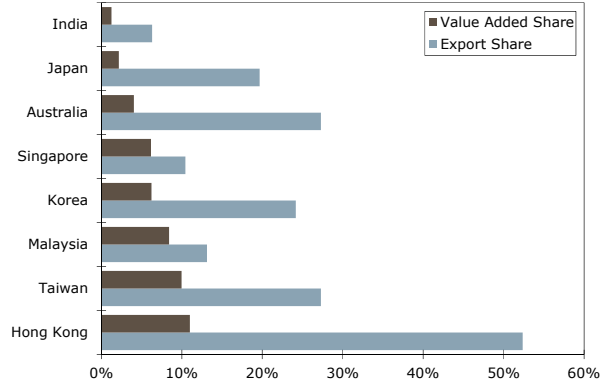
Source: Bloomberg LP, CEIC and Wells Fargo Securities, LLC

How Important is China to Other Asian Economies?

- The rest of Asia sends about 13% of its total exports to China. However the best way to measure the true economic effect that China has on other countries in the Asian region is via the contribution that its final domestic demand (final spending by Chinese consumers, businesses and the government) makes to value added in those other economies.

Country-Level Exposure to China

Share of Exports; Value Added Attributable to Chinese FDD, 2011



Source: Organisation for Economic Cooperation and Development, IMF and Wells Fargo Securities, LLC

Will a Construction Slowdown Take Down the Chinese Economy?

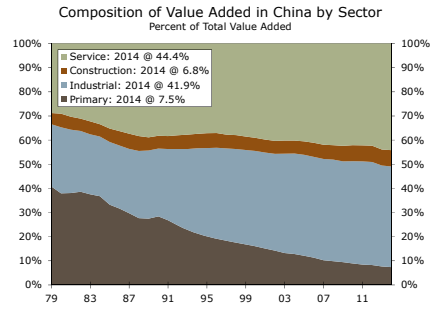
- Although the construction sector in China is experiencing its worst downturn since 1989, the sector accounts for just 7% of value added.
- Even if the situation worsened, Chinese policymakers would not hesitate to recapitalize the banking system (and/or) lower borrowing rates.

Construction Sector in China



Source: CEIC, The United Nations and Wells Fargo Securities, LLC

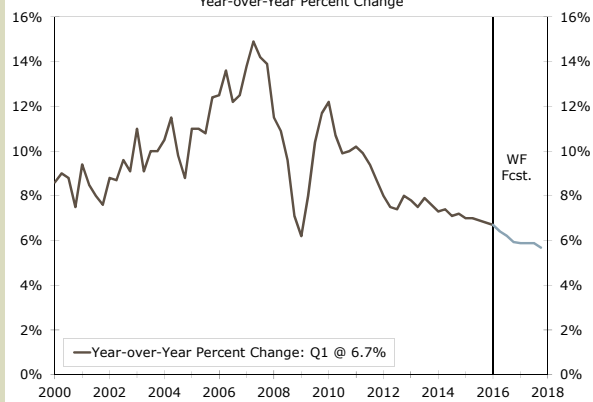
Value Added



China Real GDP

Growth in China has stabilized, but we do not expect it to return to the double-digit growth rates seen in the past

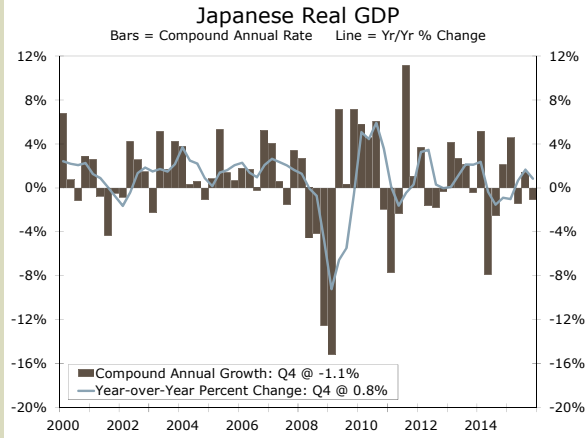
Chinese Real GDP Forecast



Source: Bloomberg LP and Wells Fargo Securities, LLC

Japanese GDP

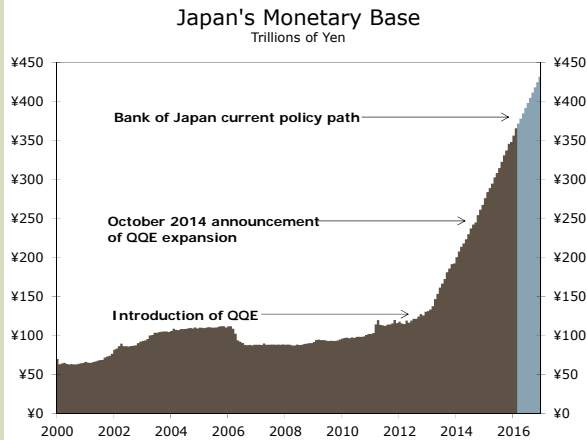
Mixed track record for Abenomics



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

Japanese Monetary Base

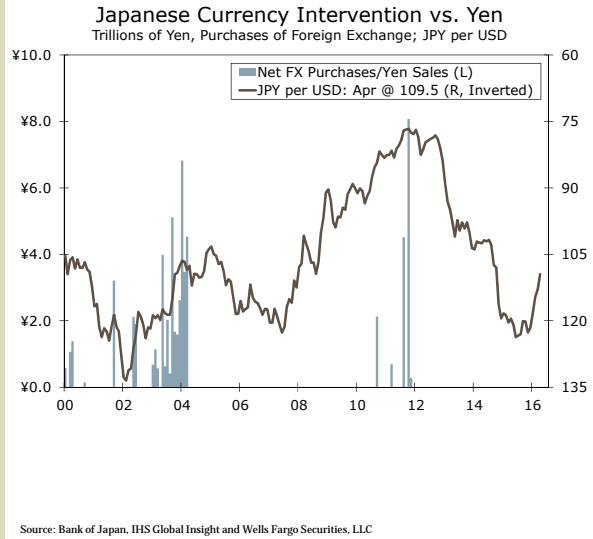
The expansion of the monetary base will continue to expand the size of the BoJ's balance sheet considerably;
 The move into negative rates is dangerous and uncharted ground



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

Japanese Currency Intervention?

Talk of currency intervention is misplaced in our view



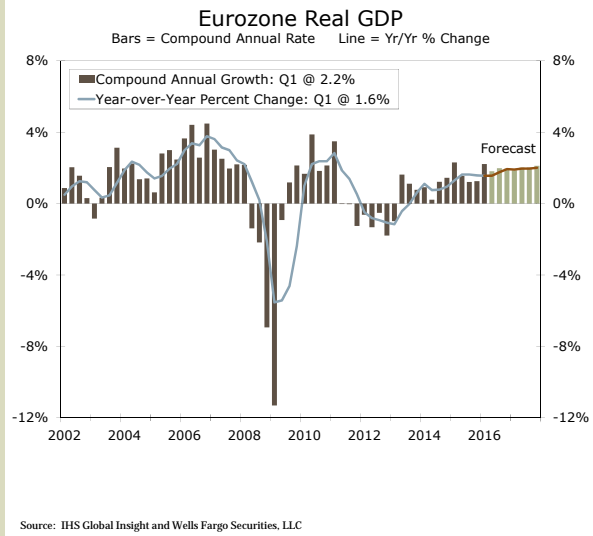
Economics

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Eurozone Real GDP

2 Years of Uninterrupted Growth



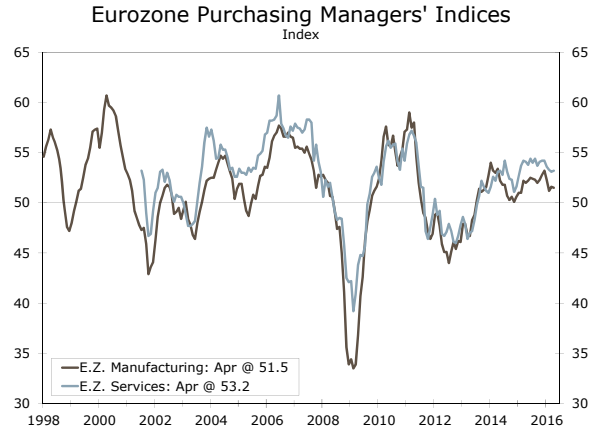
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Eurozone PMIs

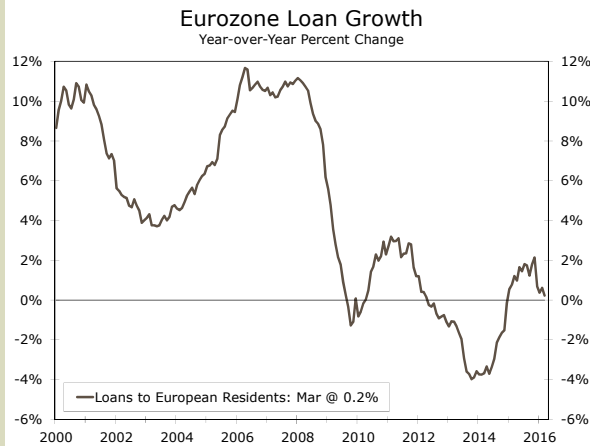
The Eurozone purchasing managers' indices are pointing to continued recovery



Source: Bloomberg LP and Wells Fargo Securities, LLC

Eurozone Bank Lending

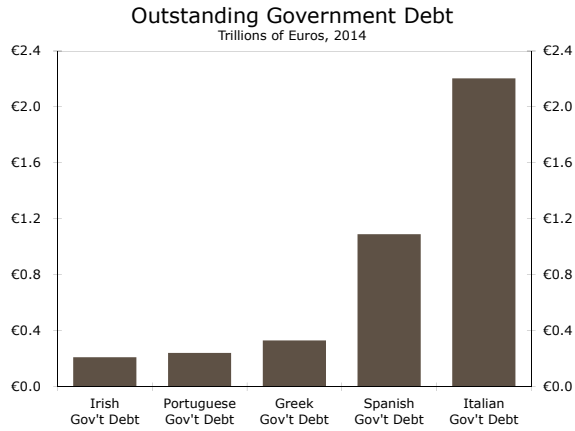
Bank lending growth in the euro area has turned positive but remains weak



Source: IHS Global Insight and Wells Fargo Securities, LLC

Outstanding Government Debt

The outstanding debt of the Spanish and Italian governments swamps the others



Source: IHS Global Insight Wells Fargo Securities, LLC

Global Forecast

Growth in the global economy likely will grind closer to long term trend

| Wells Fargo International Economic Forecast | | | | | | |
|---|-------|-------|------|-------|------|------|
| (Year-over-Year Percent Change) | | | | | | |
| | GDP | | | CPI | | |
| | 2015 | 2016 | 2017 | 2015 | 2016 | 2017 |
| Global (PPP Weights) | 2.9% | 2.8% | 3.2% | 3.3% | 3.3% | 3.6% |
| Global (Market Exchange Rates) | 2.8% | 2.5% | 3.0% | n/a | n/a | n/a |
| Advanced Economies¹ | 2.0% | 1.7% | 2.2% | 0.2% | 0.9% | 1.8% |
| United States | 2.4% | 1.7% | 2.3% | 0.1% | 1.4% | 2.3% |
| Eurozone | 1.5% | 1.7% | 2.0% | 0.0% | 0.3% | 1.1% |
| United Kingdom | 2.3% | 1.6% | 1.9% | 0.1% | 0.7% | 1.5% |
| Japan | 0.5% | -0.1% | 0.7% | 0.8% | 0.4% | 1.1% |
| Korea | 2.6% | 2.7% | 3.1% | 0.7% | 0.9% | 1.9% |
| Canada | 1.2% | 1.8% | 2.5% | 1.1% | 1.3% | 1.9% |
| Developing Economies¹ | 3.7% | 3.8% | 4.2% | 6.1% | 5.6% | 5.3% |
| China | 6.9% | 6.3% | 5.8% | 1.4% | 2.0% | 1.9% |
| India ² | 7.2% | 7.5% | 7.2% | 6.0% | 4.9% | 4.9% |
| Mexico | 2.5% | 2.4% | 2.6% | 2.7% | 3.2% | 3.2% |
| Brazil | -3.9% | -3.5% | 1.4% | 9.0% | 9.6% | 8.4% |
| Russia | -3.7% | -0.5% | 2.2% | 15.6% | 7.4% | 6.1% |

Forecast as of: April 6, 2016

¹Aggregated Using PPP Weights

²Forecasts Refer to Fiscal Year

Source: International Monetary Fund and Wells Fargo Securities, LLC

Wells Fargo Securities, LLC Economics Group

Global Head of Research and Economics

Diane Schumaker-Krieg diane.schumaker@wellsfargo.com
Global Head of Research & Economics

Chief Economist

John E. Silvia john.silvia@wellsfargo.com

Senior Economists

Mark Vitner, Senior Economist mark.vitner@wellsfargo.com
 Jay H. Bryson, Global Economist jay.bryson@wellsfargo.com
 Sam Bullard, Senior Economist sam.bullard@wellsfargo.com
 Nick Bennenbroek, Currency Strategist nicholas.bennenbroek@wellsfargo.com
 Anika R. Khan, Senior Economist anika.khan@wellsfargo.com
 Eugenio J. Aleman, Senior Economist eugenio.j.aleman@wellsfargo.com
 Azhar Iqbal, Econometrician azhar.iqbal@wellsfargo.com
 Tim Quinlan, Senior Economist tim.quinlan@wellsfargo.com

Economists

Eric J. Vioria, Currency Strategist eric.vioria@wellsfargo.com
 Sarah House, Economist sarah.house@wellsfargo.com
 Michael A. Brown, Economist michael.a.brown@wellsfargo.com
 Jamie Feik, Economist jamie.feik@wellsfargo.com

Economic Analysts

Erik Nelson, Economic Analyst erik.f.nelson@wellsfargo.com
 Alex Moehring, Economic Analyst alex.v.moehring@wellsfargo.com
 Misa Batcheller, Economic Analyst misa.n.batcheller@wellsfargo.com
 Michael Pugliese, Economic Analyst michael.d.pugliese@wellsfargo.com
 Julianne Causey, Economic Analyst julianne.causey@wellsfargo.com

Administrative Assistants

Donna LaFleur, Executive Assistant donna.lafleur@wellsfargo.com
 Dawne Howes, Administrative Assistant dawne.howes@wellsfargo.com

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