

**WELLS
FARGO**

SECURITIES

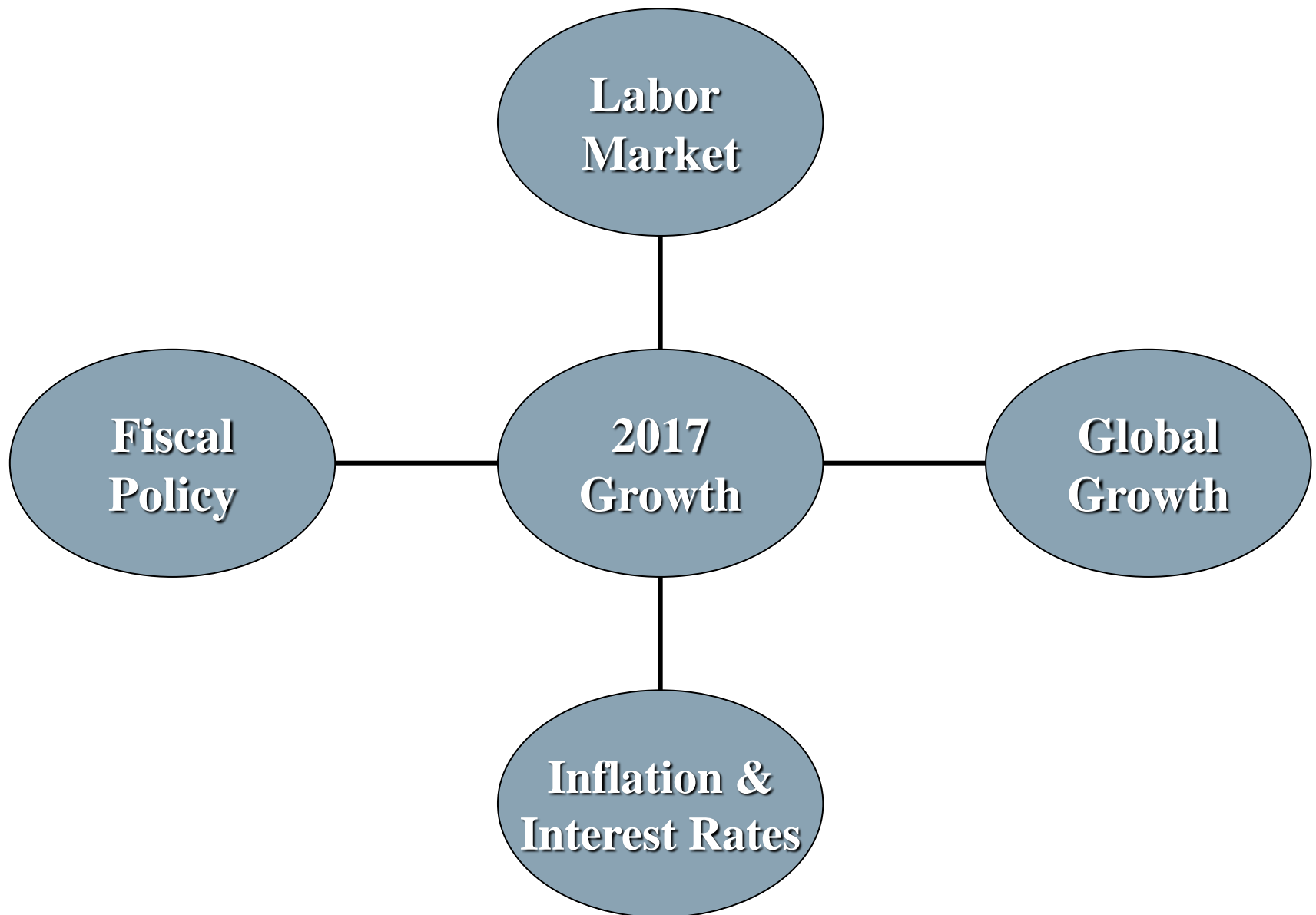
Economic Outlook for 2018 and Beyond

Michael A. Brown, Economist

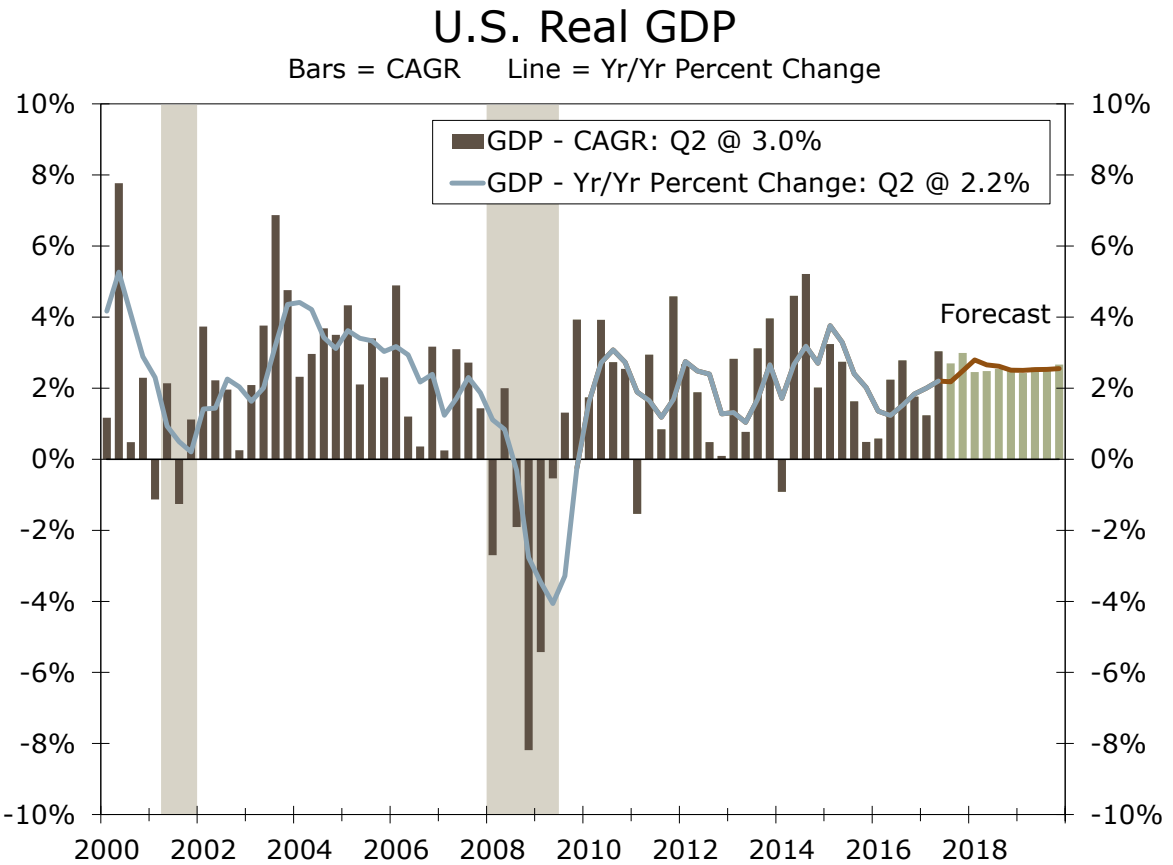
September 2017

Together we'll go far





Economic growth should continue at a modest pace over the coming quarters even with a fiscal bump

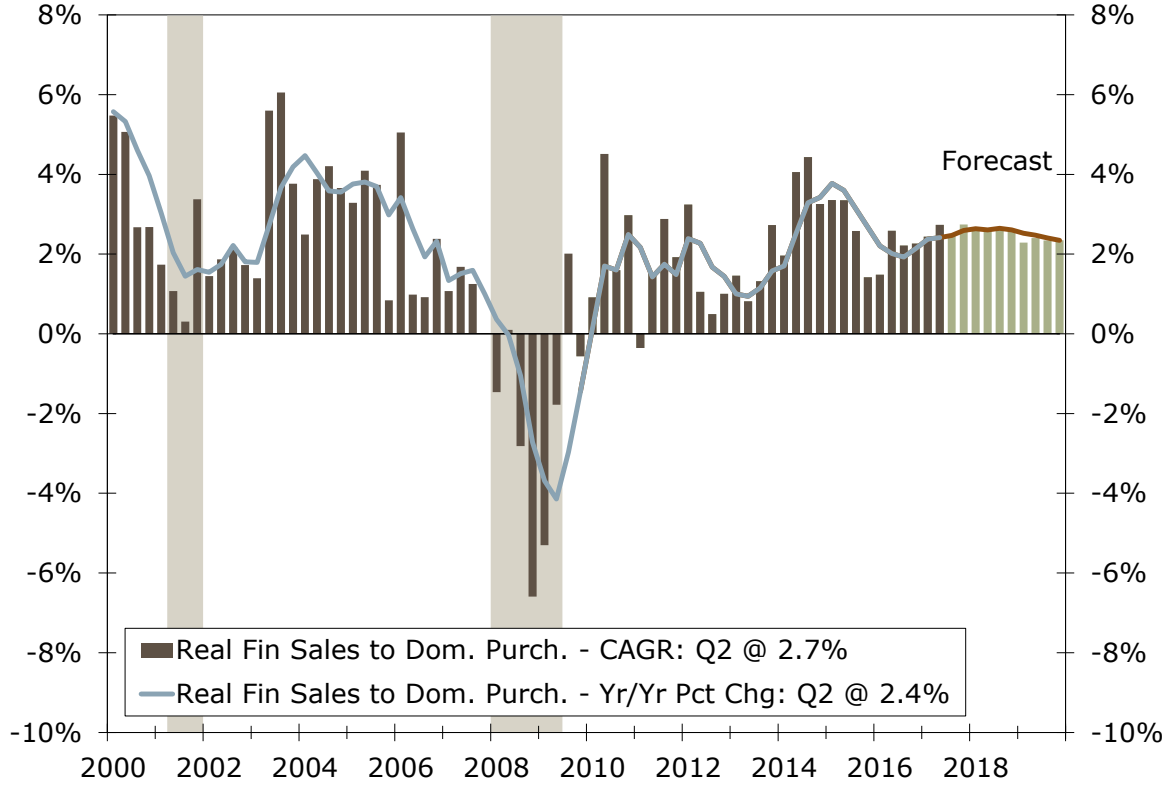


Source: U.S. Department of Commerce and Wells Fargo Securities

Growth in domestic spending is expected to accelerate this year

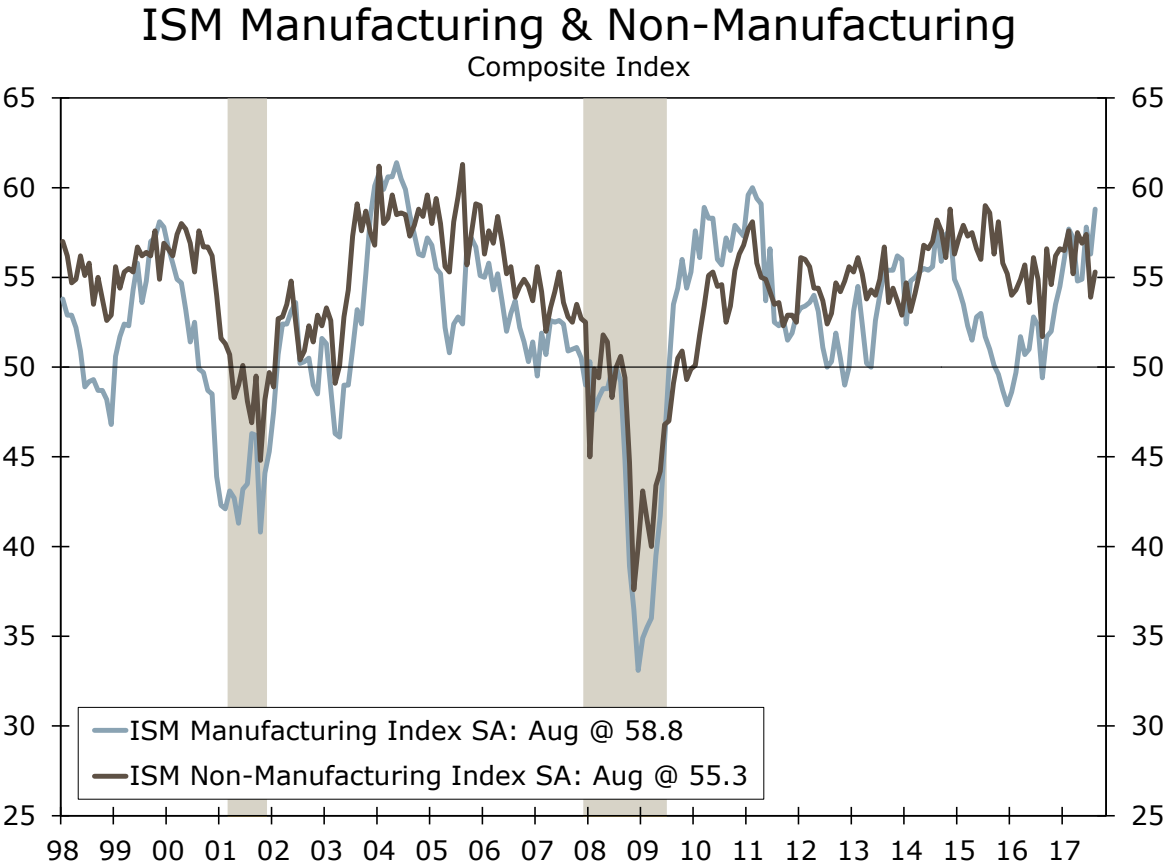
Real Final Sales to Domestic Purchasers

Bars = CAGR Line = Yr/Yr Percent Change



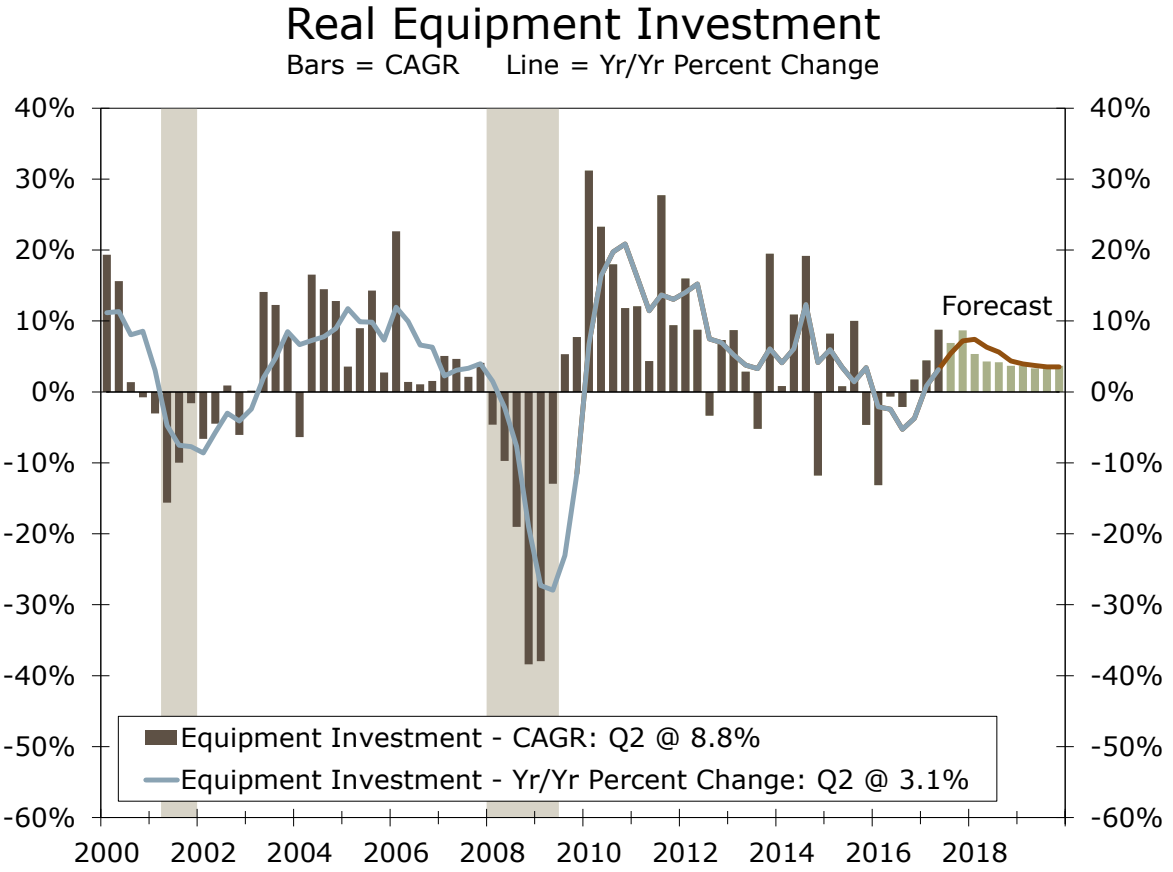
Source: U.S. Department of Commerce and Wells Fargo Securities

Indices on business activity suggest an improving outlook for both services and manufacturing



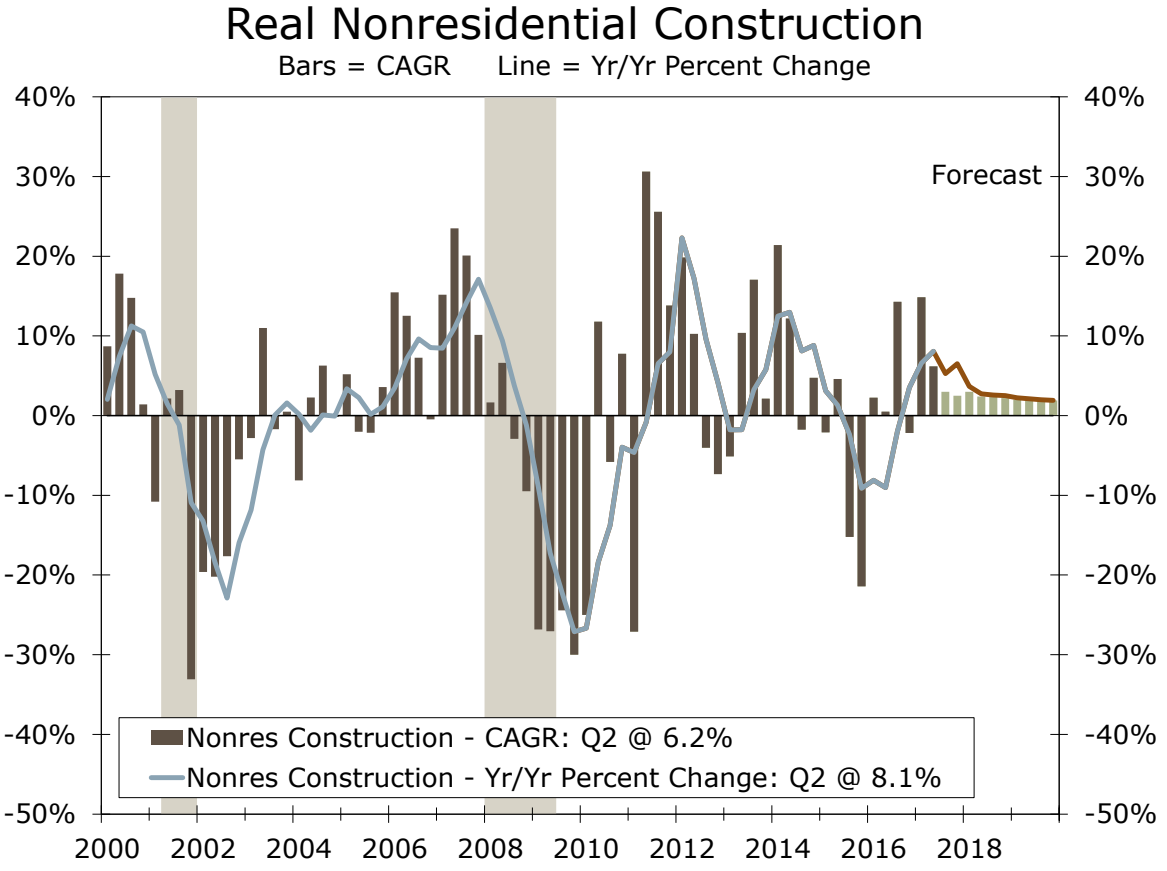
Source: Institute for Supply Management and Wells Fargo Securities

Growth in equipment spending has turned around



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

The drag from oil and gas on commercial construction has begun to diminish



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

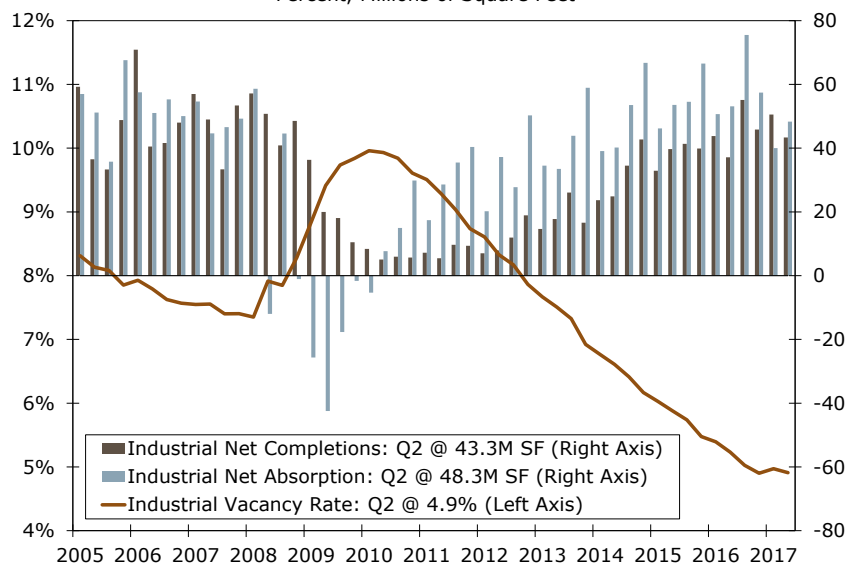
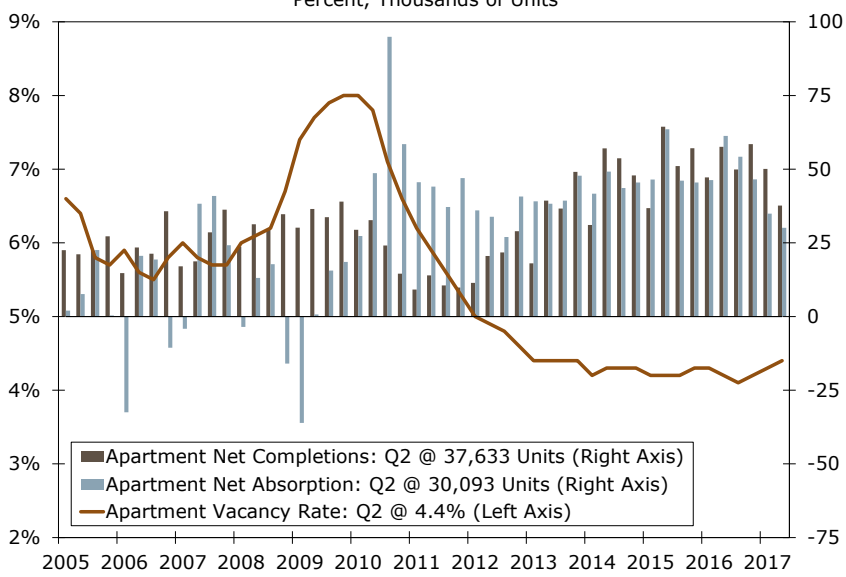
Apartment vacancy rates have begun to show signs of stabilizing.
 The industrial market has also improved quite significantly.

Apartment Supply & Demand

Industrial Supply & Demand

Apartment Supply & Demand

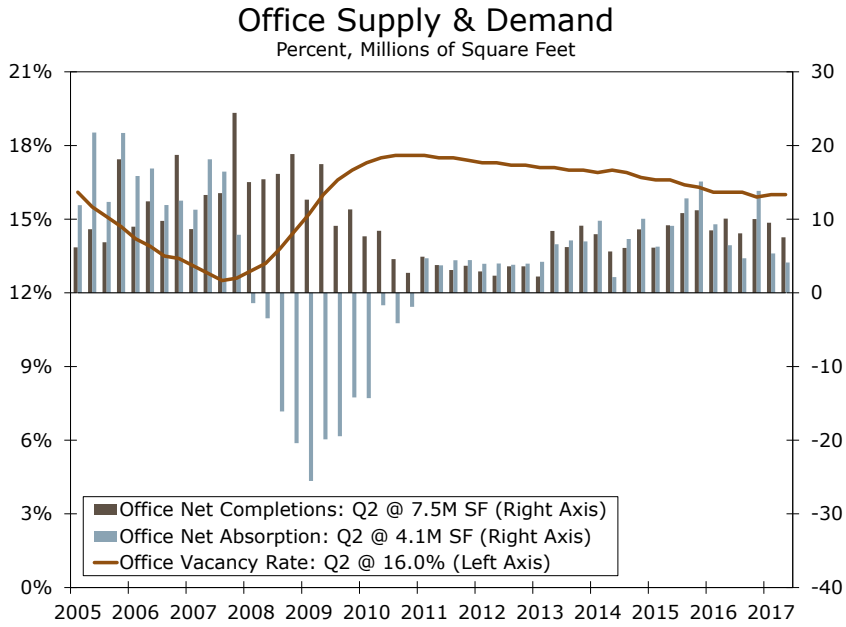
Industrial Supply & Demand



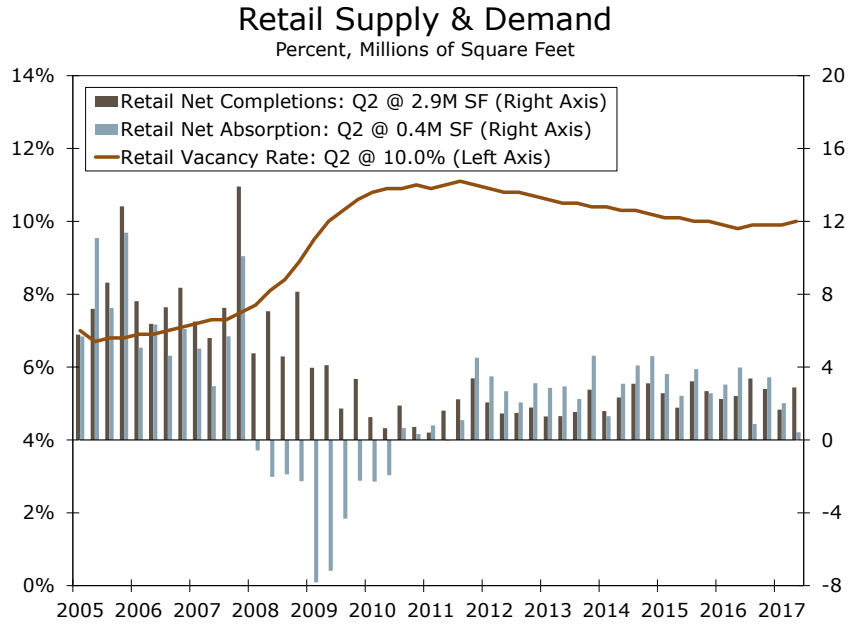
Source: Reis, Inc., CoStar Realty Information, Inc. and Wells Fargo Securities

Office and retail commercial real estate have not seen the same type of improvement as the apartment and industrial space, as vacancy rates remain somewhat elevated.

Office Supply & Demand

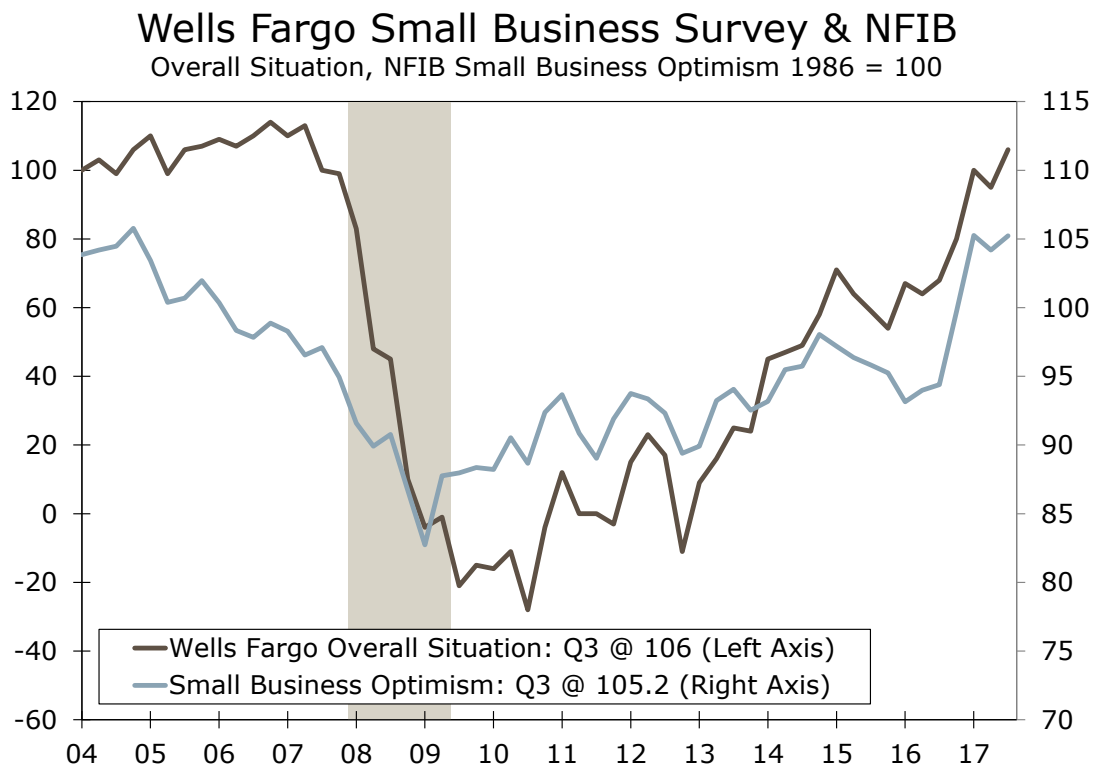


Retail Supply & Demand



Source: Reis, Inc., and Wells Fargo Securities

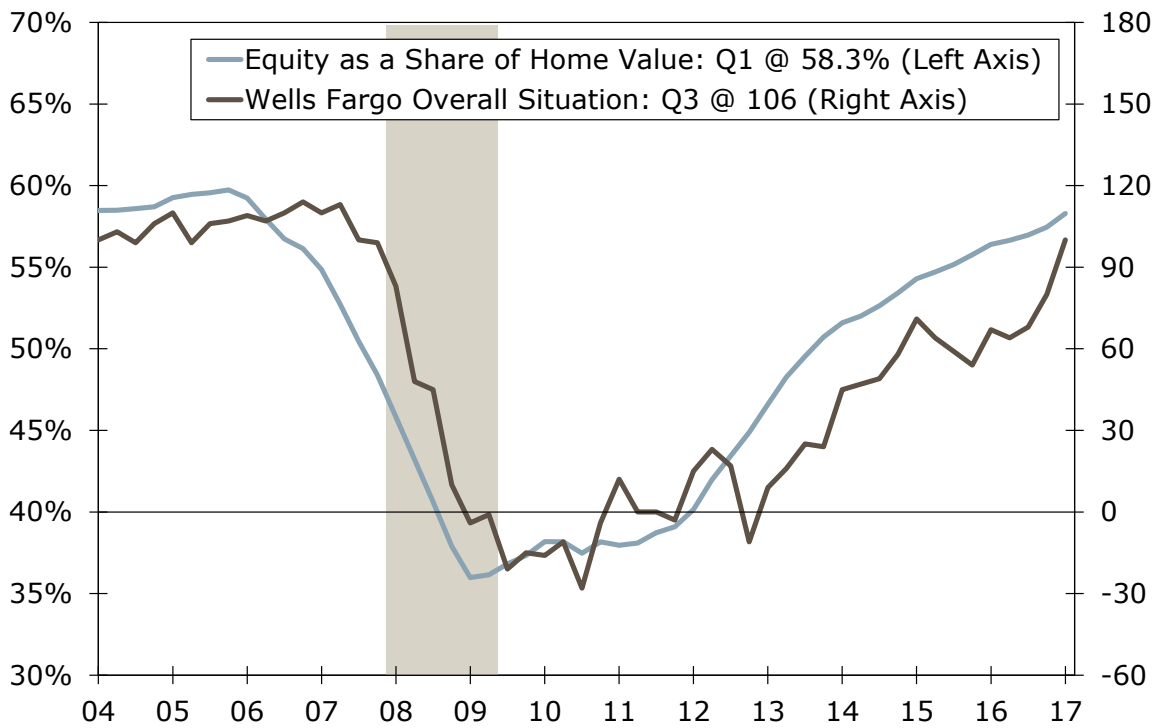
Small business optimism has finally turned around



Source: National Federation of Independent Businesses, Gallup, Wells Fargo Bank and Wells Fargo Securities

Recovery in home equity values has supported small business activity

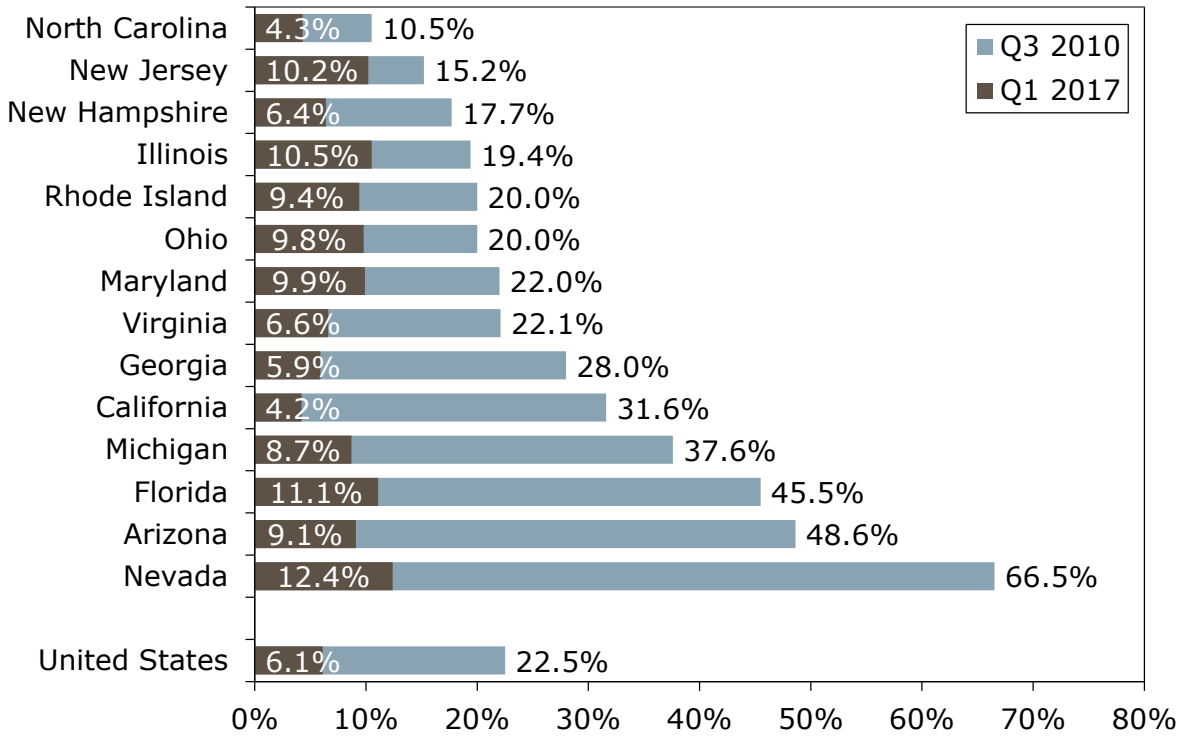
Homeowners' Equity vs. WF Small Business Survey
Percent Share of Home Values, Index



Source: Federal Reserve Board, Wells Fargo Bank, Gallup and Wells Fargo Securities

The rise in home prices has helped bring down the share of owners who owe more on their home than their home is worth

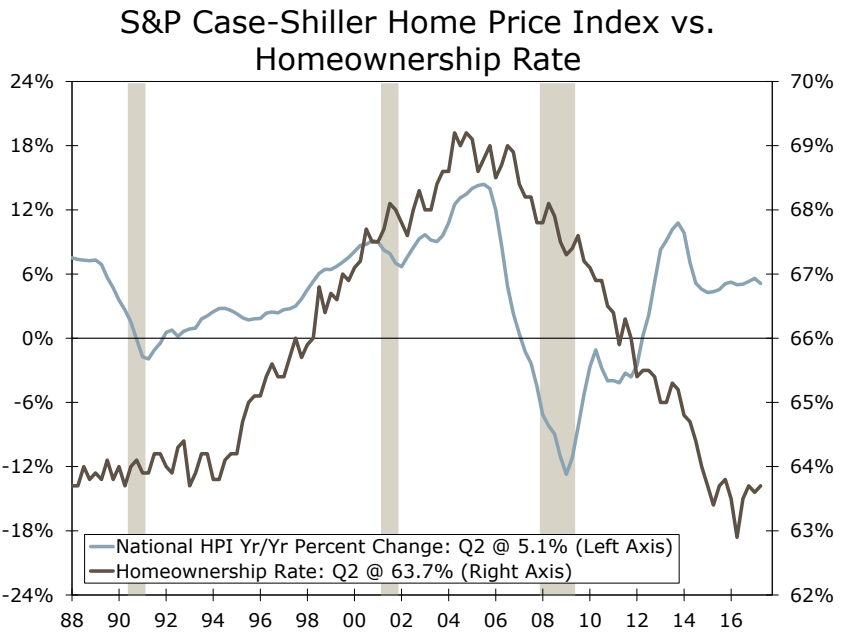
Negative Equity by State
Percent of Mortgages Outstanding



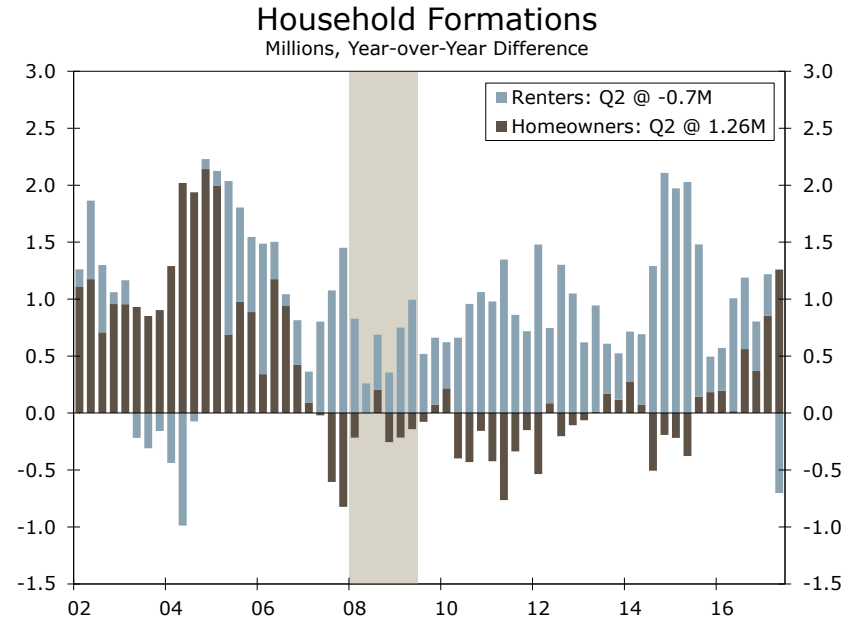
Source: CoreLogic and Wells Fargo Securities

Despite some recent setbacks, we continue to look for a gradual recovery in homebuilding. The homeownership rate appears to have leveled off at its pre-housing bubble levels.

Homeownership



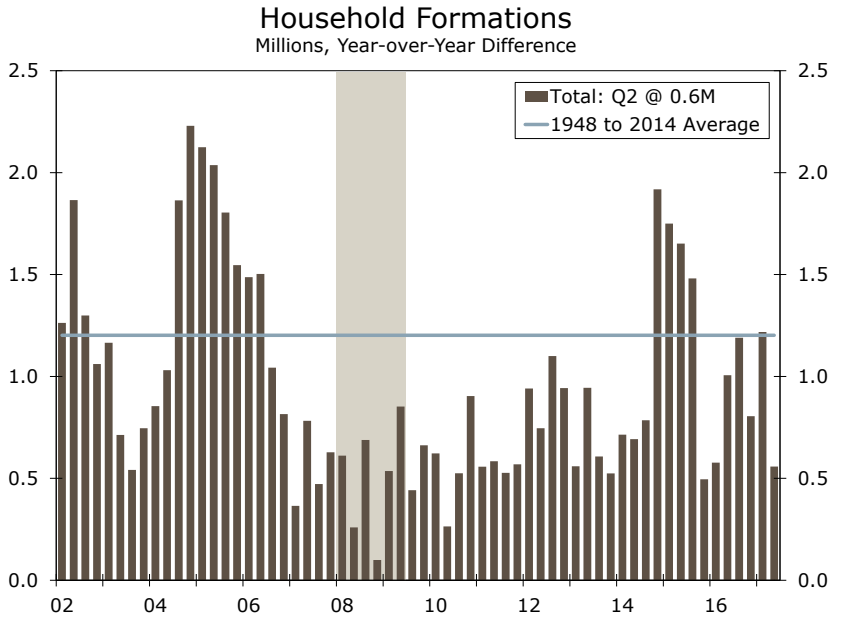
Owners vs. Renters



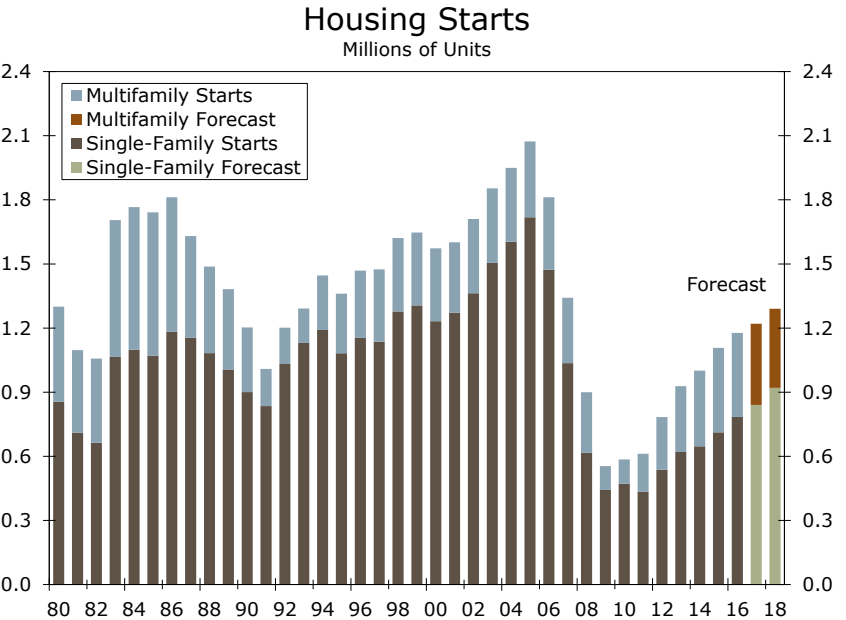
Source: NAR, CoreLogic, U.S. Department of Commerce and Wells Fargo Securities

Household formations are rising, albeit slowly, however a larger share of new households are becoming renters rather than traditional homeowners

Household Formation



Housing Starts

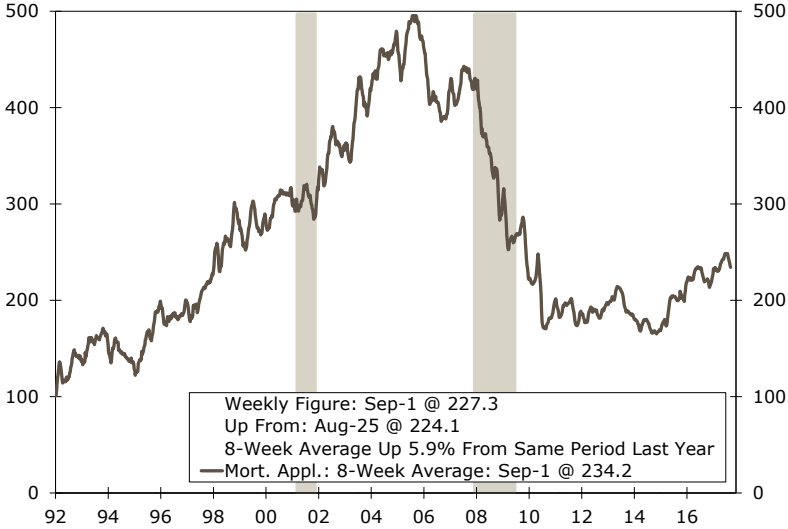


Source: U.S. Department of Commerce and Wells Fargo Securities, LLC

Mortgage applications have picked up, but remain well below their pre-recession peaks amid tighter lending standards

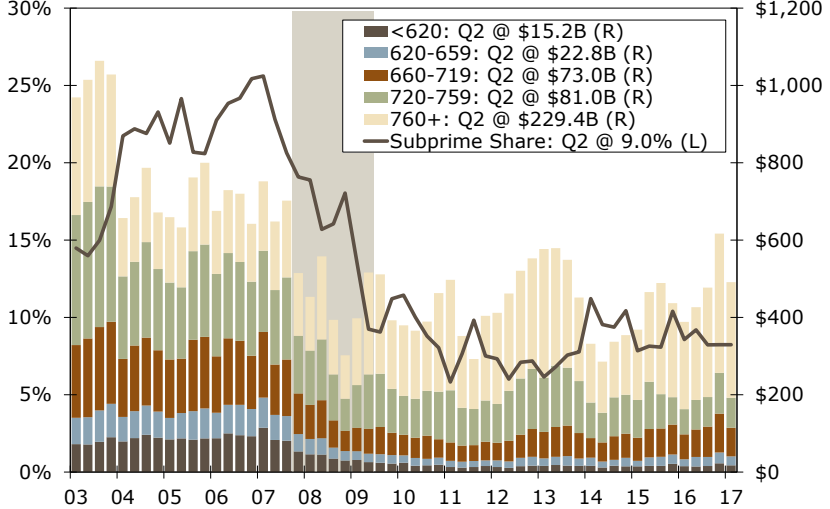
Mortgage Applications

Mortgage Applications for Purchase
Seasonally Adjusted Index, 1990=100



Credit Standards

Mortgage Origination by Credit Score
Billions of Dollars

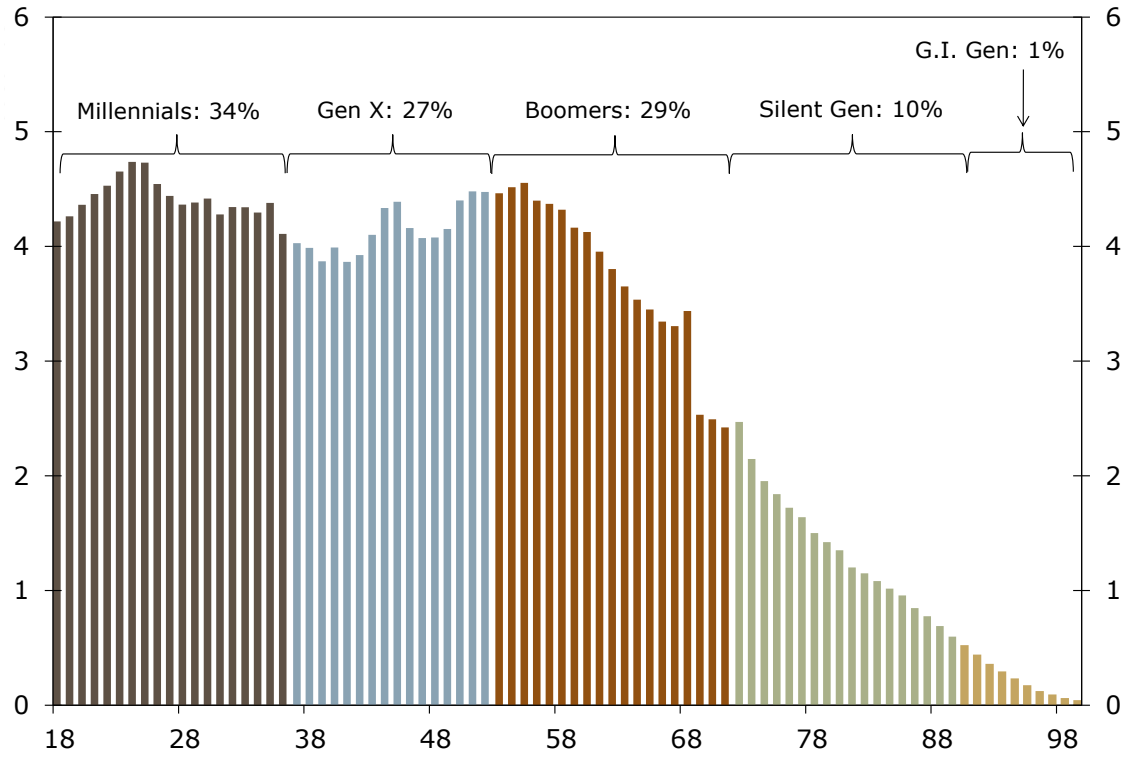


Source: MBA, FRBNY and Wells Fargo Securities, LLC

Millennials are now the country's largest and most diverse generation

U.S. Adult Population Distribution

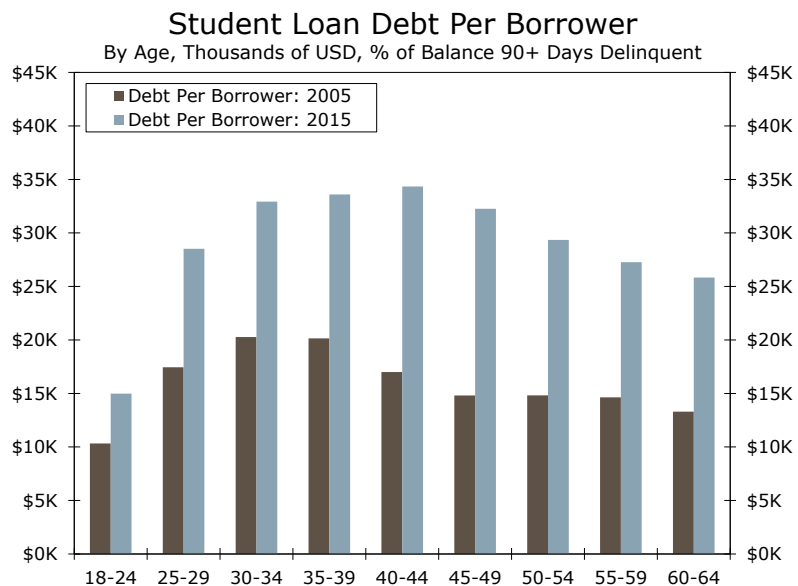
Millions of Persons in Age Group, 2015



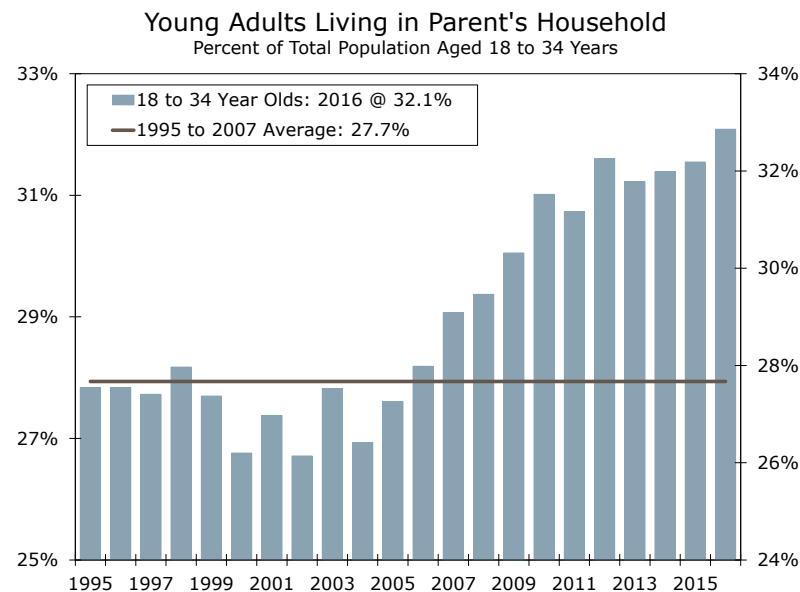
Source: U.S. Department of Commerce and Wells Fargo Securities

Higher student debt burdens are hindering young adults' ability to form new households

Student Loans



Household Formation

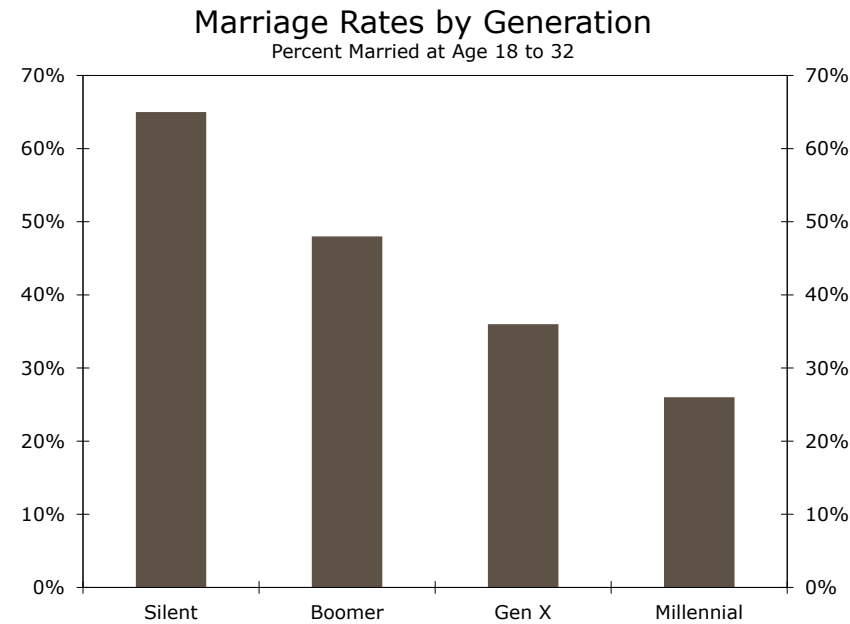
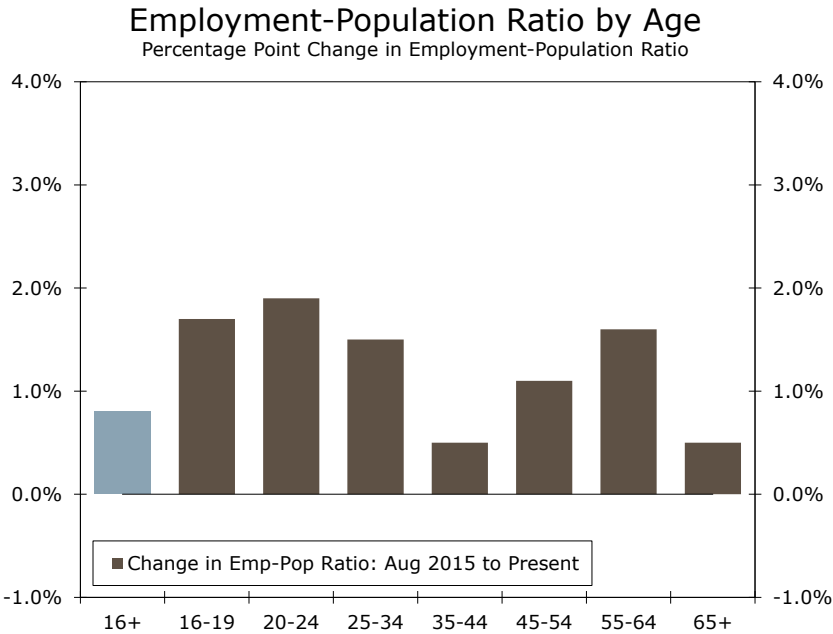


Source: Federal Reserve Board, U.S. Department of Commerce and Wells Fargo Securities

A greater share of millennials are participating in the labor market.
Fewer millennials getting married implies slower or delayed growth in household formations.

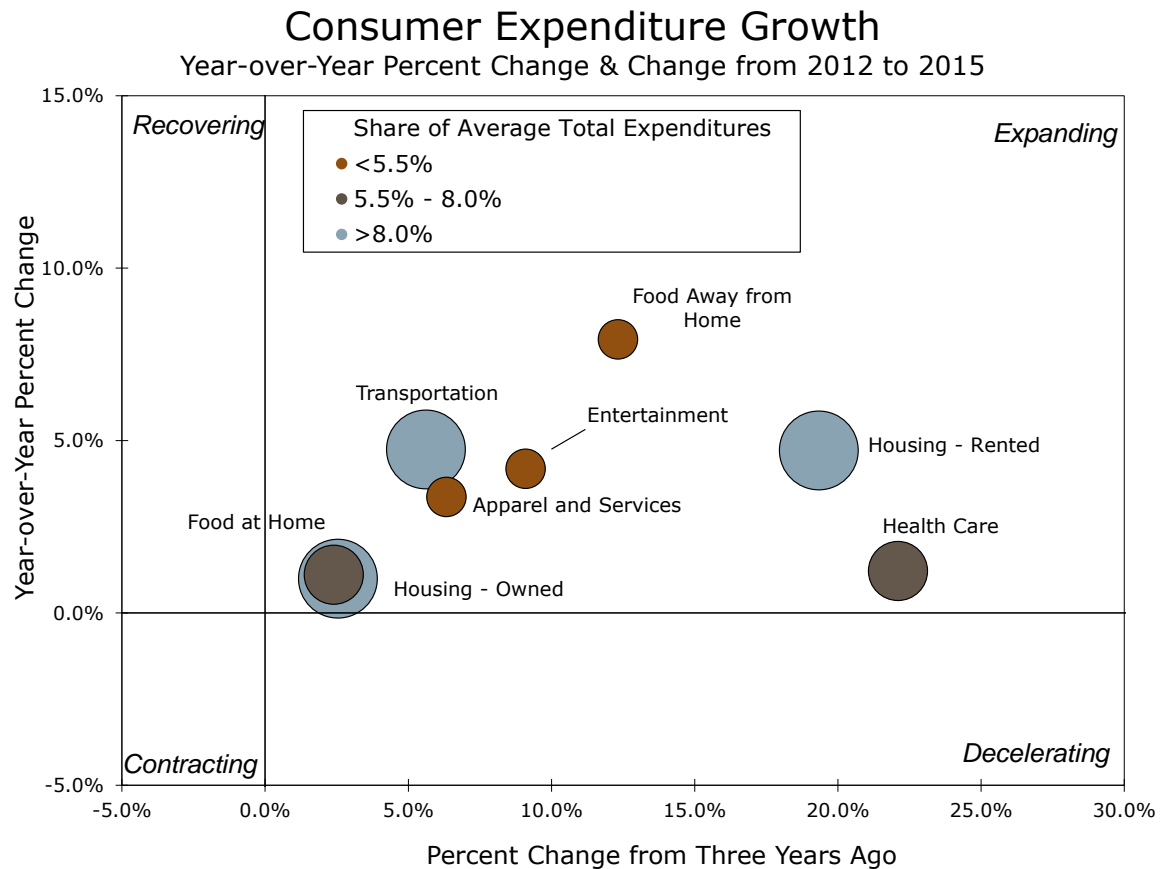
Employment-Population Growth by Age

Marriage Rates by Generation



Sources: U.S. Department of Labor and Wells Fargo Securities
Pew Research Center . (March 2014). "Millennials in Adulthood: Detached from Institutions, Networked with Friends."

Food away from home, entertainment, and apparel spending have improved over the past year as the economy has picked up

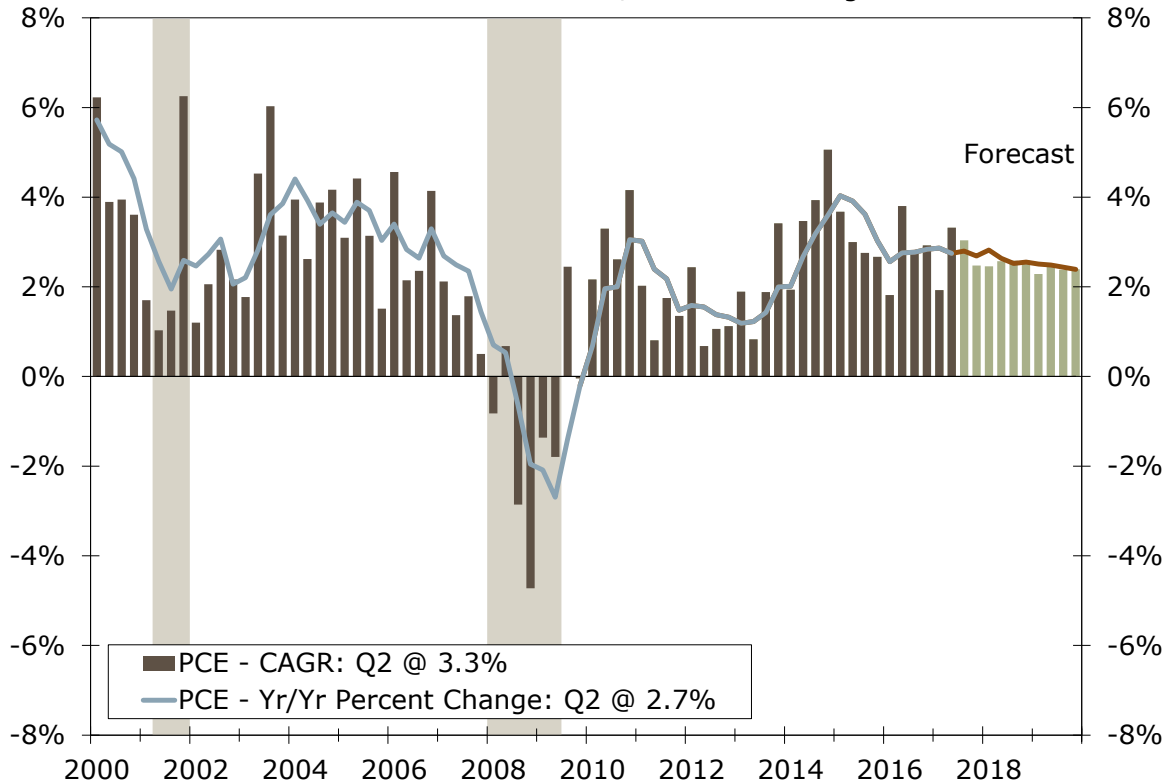


Source: U.S. Department of Labor and Wells Fargo Securities

Consumer spending growth will continue to average around 2.5 percent

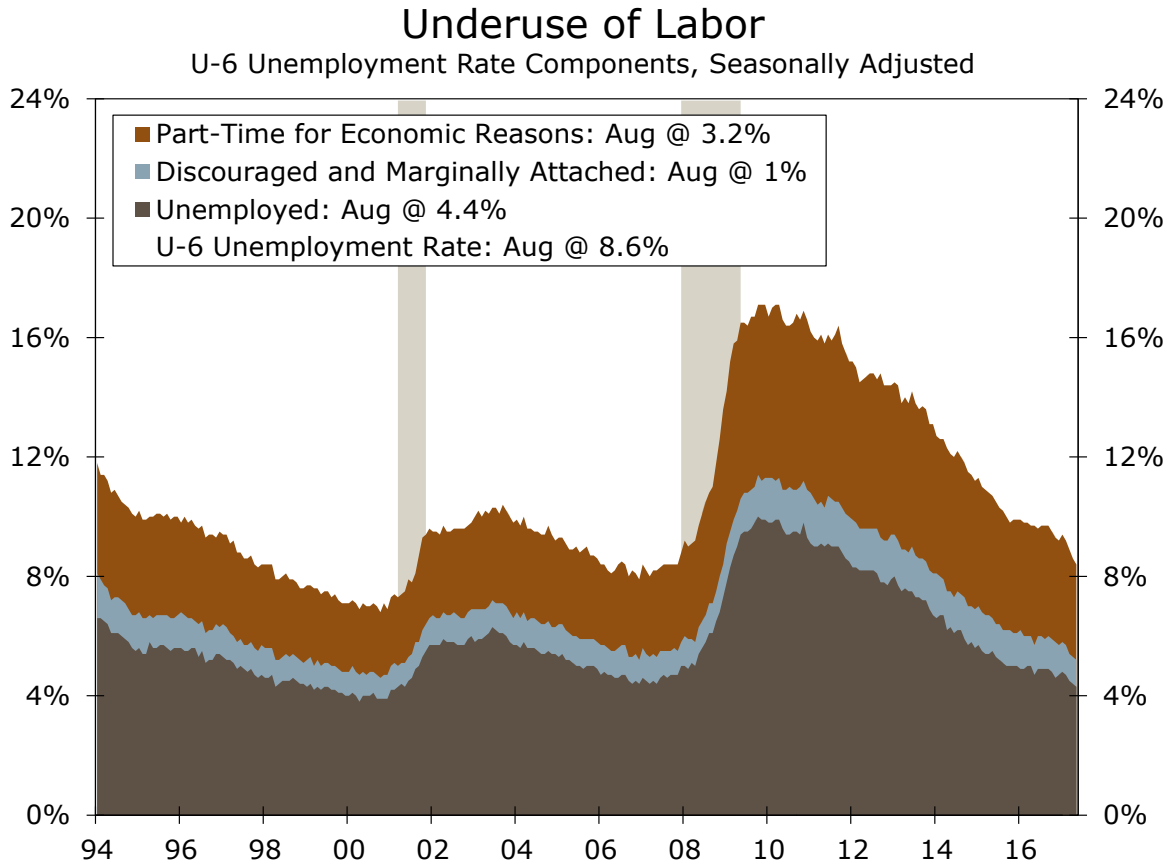
Real Personal Consumption Expenditures

Bars = CAGR Line = Yr/Yr Percent Change



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

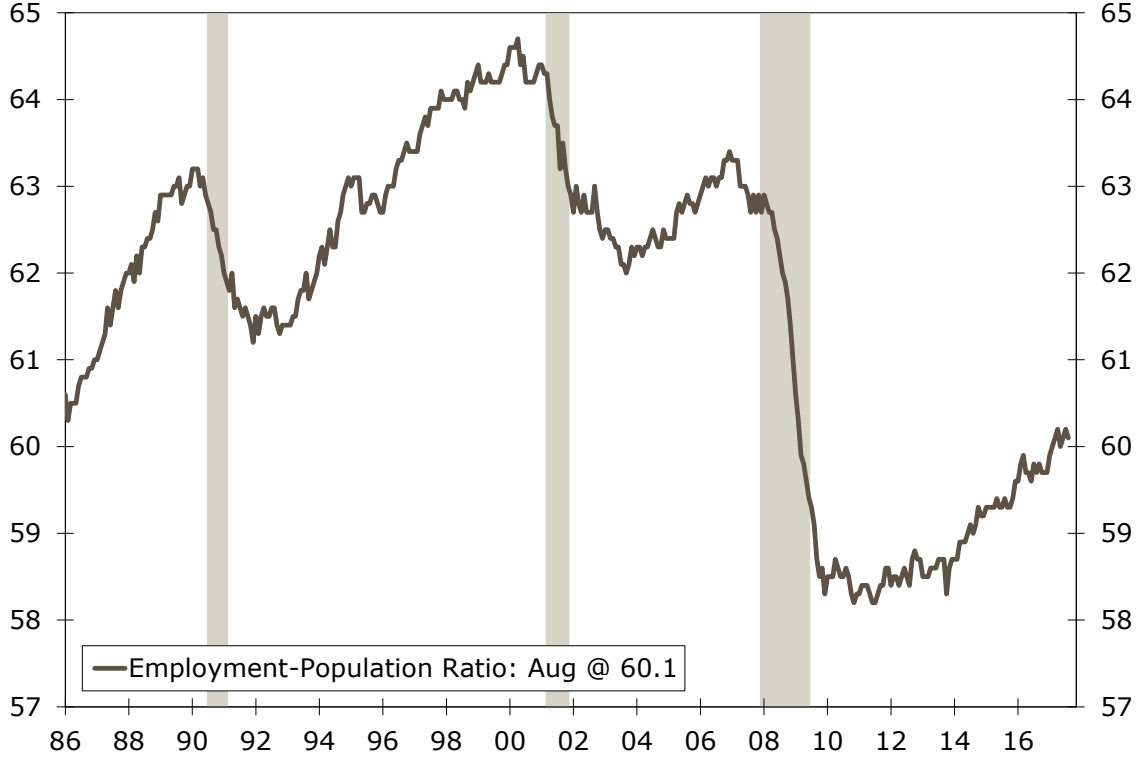
Alternative measures of unemployment show a historically high level of underemployment



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

Slower growth in the workforce combined with lower labor force participation will limit potential GDP growth

Employment-Population Ratio 16 Years and Over, Seasonally Adjusted

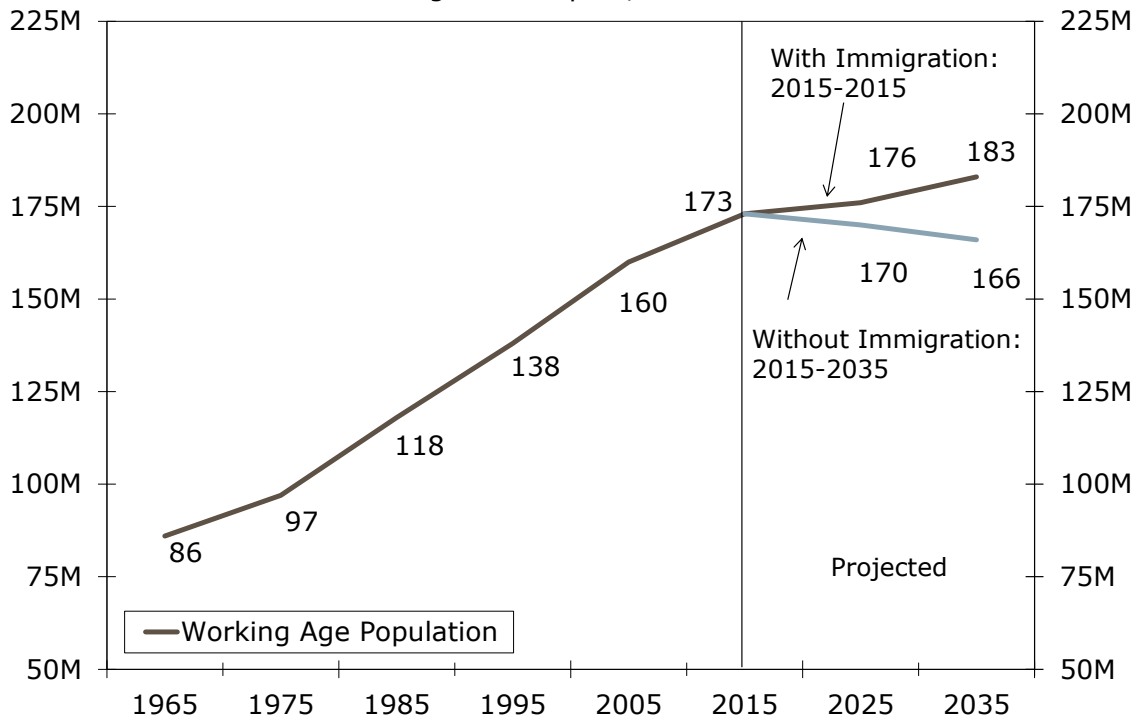


Source: U.S. Department of Labor and Wells Fargo Securities

In the absence of immigration, the labor force size is expected to contract over the next two decades

Working Age Population

Immigration Impact; In Millions

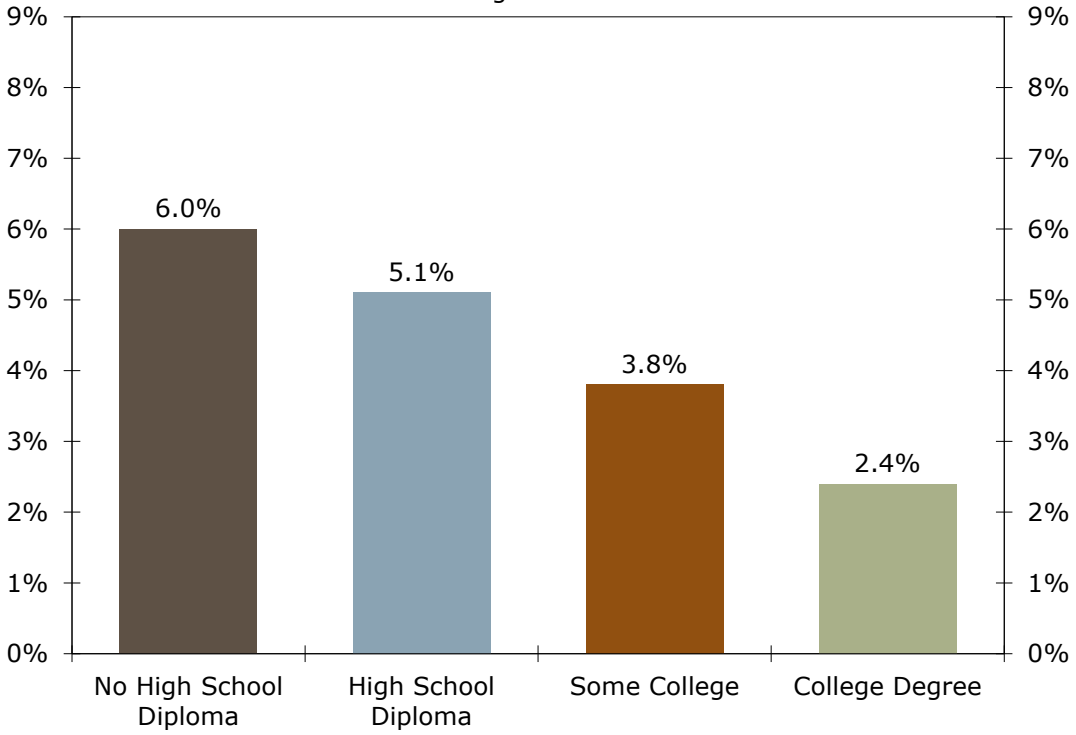


Source: Pew Research Center and Wells Fargo Securities

The employment picture is mixed across different levels of education

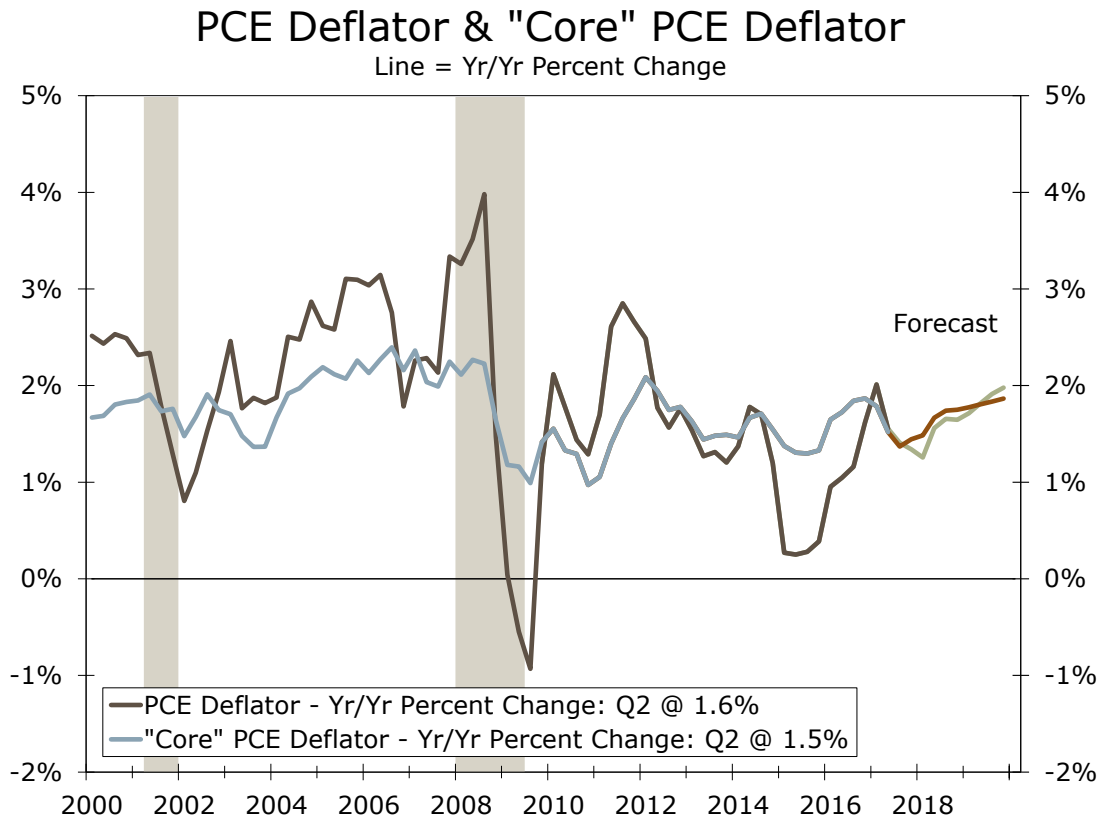
Unemployment Rate by Education Level

August 2017



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

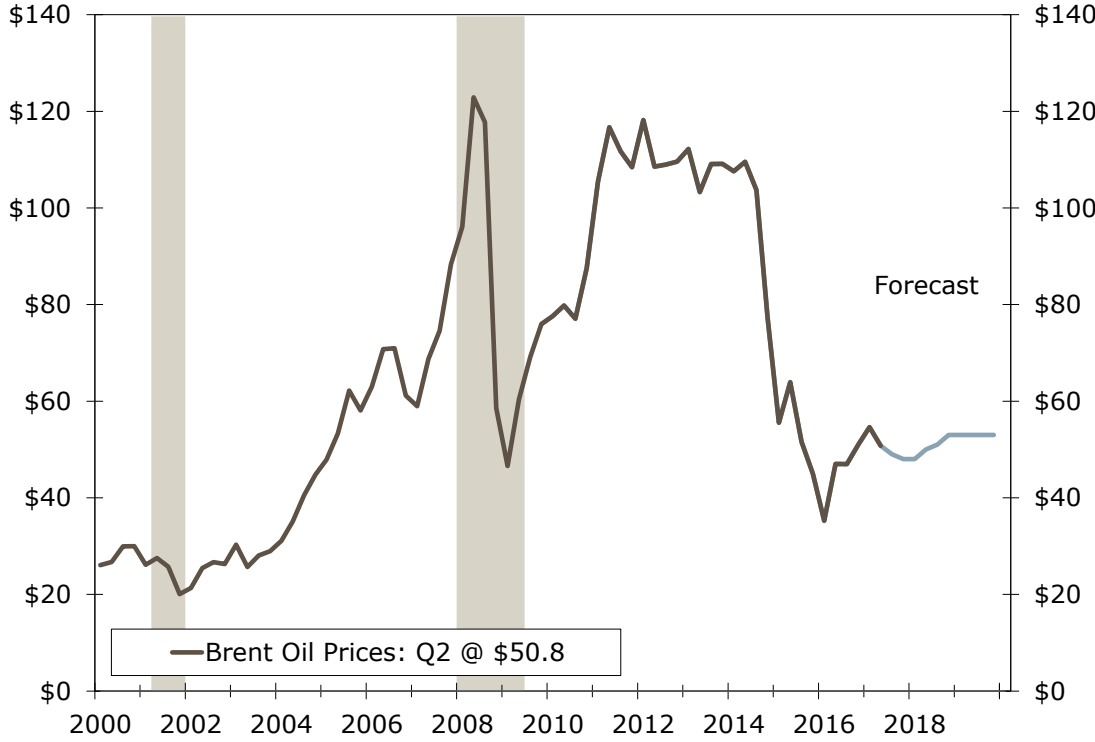
Inflation has begun to pick up and we expect it to gradually accelerate



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

Oil prices have continued to slump

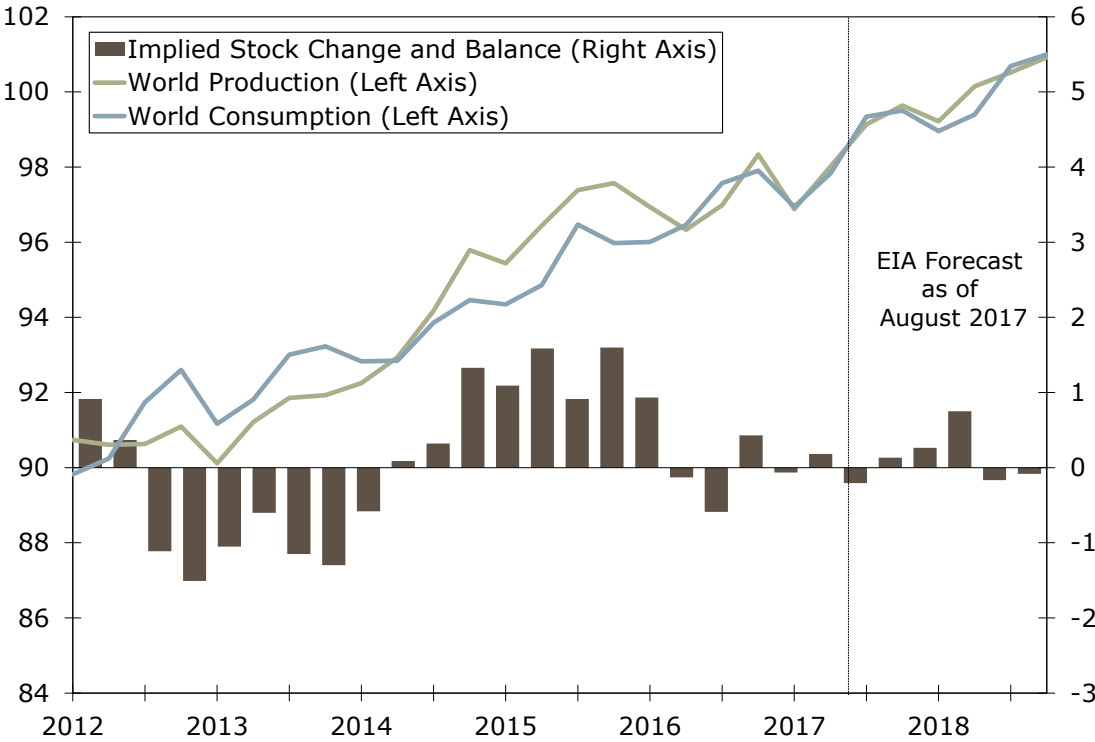
Brent Oil Front Contract Price Forecast
Quarterly Average of Daily Close



Source: IHS Global Insight and Wells Fargo Securities

The implied supply & demand imbalance is expected to come down in the third quarter

World Fuel Production and Consumption Balance
Liquid Fuels, Millions of Barrels Per Day



Source: Energy Information Administration and Wells Fargo Securities

Federal Fiscal Policy Outlook: How Much of A Trump Bump?

The fiscal policy checklist

Key Issues to Watch in the 115th Congress

Budget Debates

- Currently the government is funded through Dec. 8th
- Debt ceiling will need to be increased likely in Q1 2018
- Budget Reconciliation will be used to make policy changes

Repeal & Replace the Affordable Care Act

- Efforts have stalled in the Senate at this time. Congress may revisit the issue after they attempt tax cuts/reforms

Corporate Tax Cuts (Jan. 2018)

- We are assuming the top statutory corporate tax rate is cut to 25% from the current 35% rate
- The tax cut will be at least partially paid for by reducing the tax rate for repatriated corporate profits

Individual Tax Cuts (Jan. 2018)

- Cuts are likely but reforms are not likely to occur
- We expect a doubling of the standard deduction and a doubling of the child care tax credit

Timeline

<u>Key Dates</u>	<u>Policy Action Expected</u>
Sep. 30 th	Children's Health Insurance Program (CHIP) Expires Federal Aviation Administration (FAA) Authorization Expires
Oct./Nov.	Fiscal Year 2018 Budget Resolution (Vehicle for Tax Cuts) Individual/Corporate Tax Cut Framework Expected
Dec. 8 th	Debt Ceiling Re-established Federal Funding (CR) Expires National Flood Insurance Program Expires
Dec. 31 st	Section 702 of the Foreign Intelligence Surveillance Act Expires
Q1 2018	Extraordinary Measures Run Out (Debt Ceiling Deadline)
March 2018	Deferred Action for Childhood Arrivals (DACA) Deadline Primary Elections Begin

The fiscal policy checklist

Key Issues to Watch in the 115th Congress

Infrastructure Spending

- There is currently no political appetite nor a funding mechanism to pass another infrastructure plan

Immigration Reform

- Attempts to restrict immigration have faced court challenges
- Major reforms would require congressional approval

Trade Policy Changes

- Congress has delegated many powers to the executive branch related to trade policy
- NAFTA is currently being renegotiated but we expect very few major changes to the agreement
- Tariffs or backing out of existing trade deals without replacements represents the greatest downside fiscal policy risk

We expect some marginal changes to the regulatory environment

Potential Regulatory Changes

General Regulatory Changes

- Many pending actions/regulations have already been halted through an executive order
- Congress and the White House can remove regulations through the Congressional Review Act
- Changes to existing regulations will take time

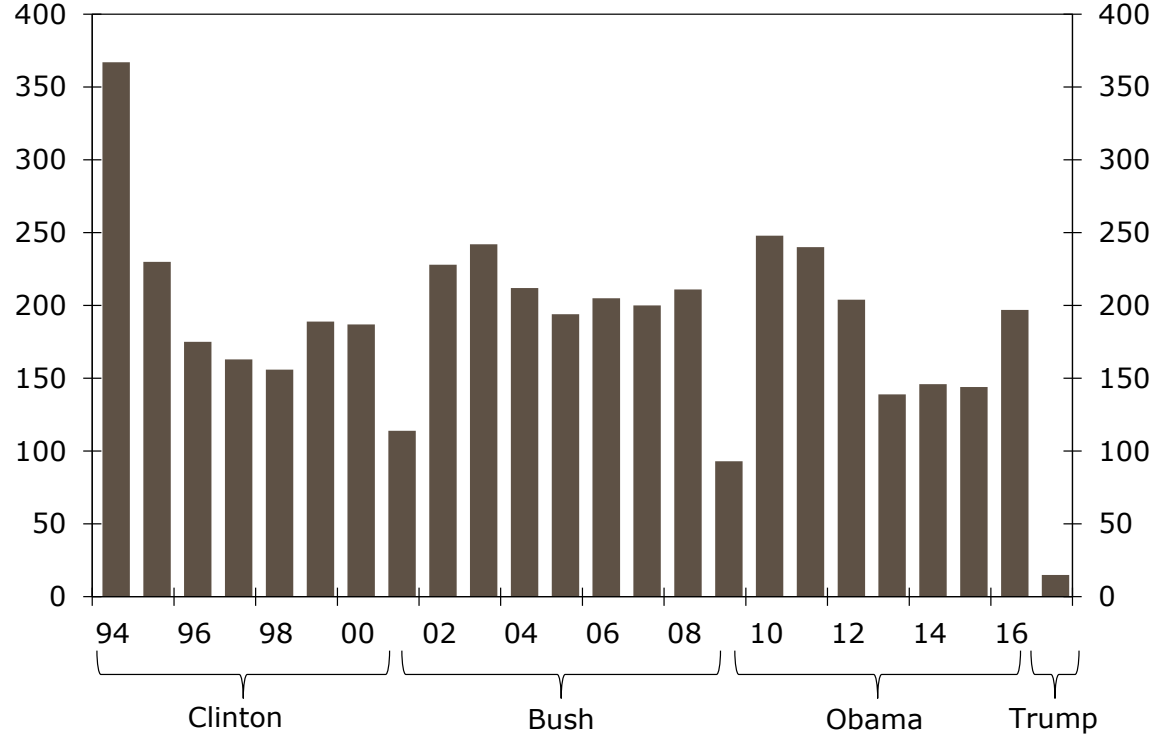
Financial Regulatory Changes

- Randy Quarles nomination for Vice Chairman of Supervision is expected to be confirmed this fall
- We do not expect Dodd-Frank to be changed or amended but rather “reinterpreted”
- CHOICE Act 2.0 (by Rep. Hersarling) is not likely to become law

The number of new regulations put in place in the first five months of the Trump administration is the lowest among the last four administrations

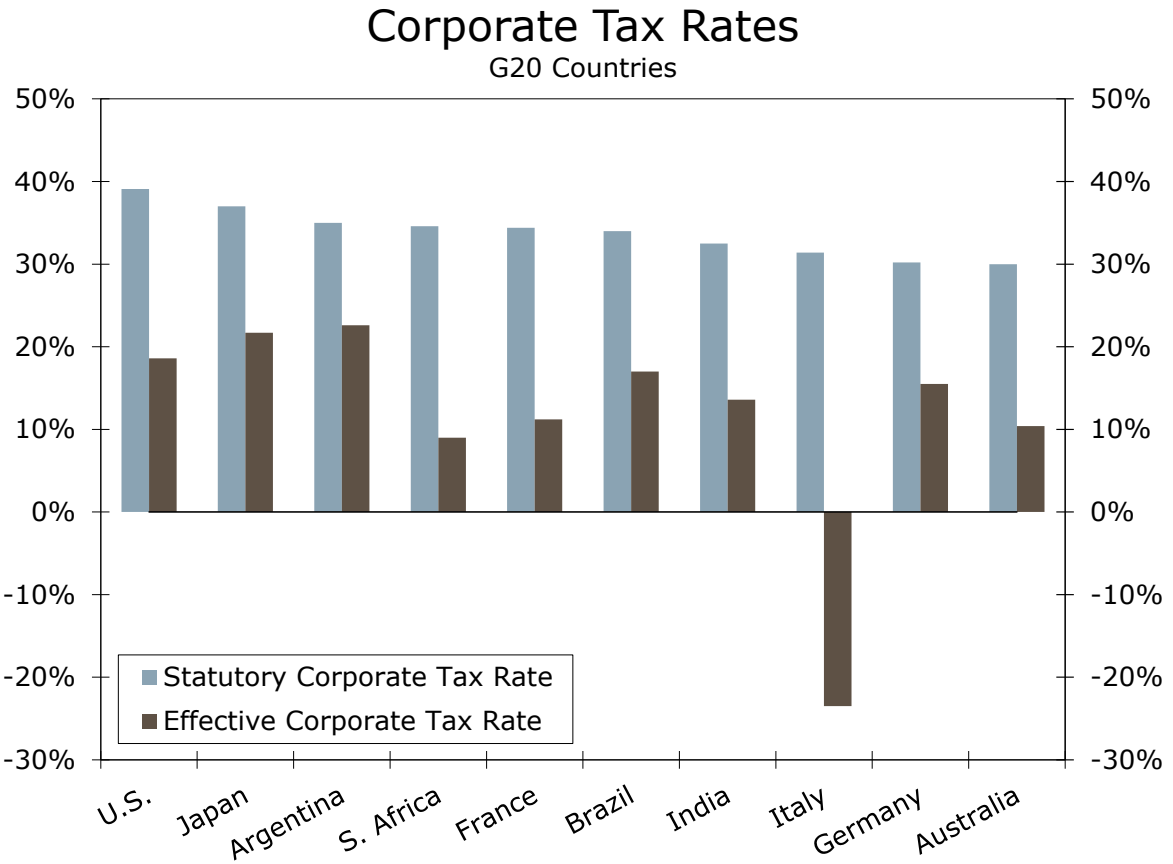
Major New Regulatory Changes

By the OIRA, President's First Five Months of the Year



Source: Office of Information and Regulatory Affairs and Wells Fargo Securities

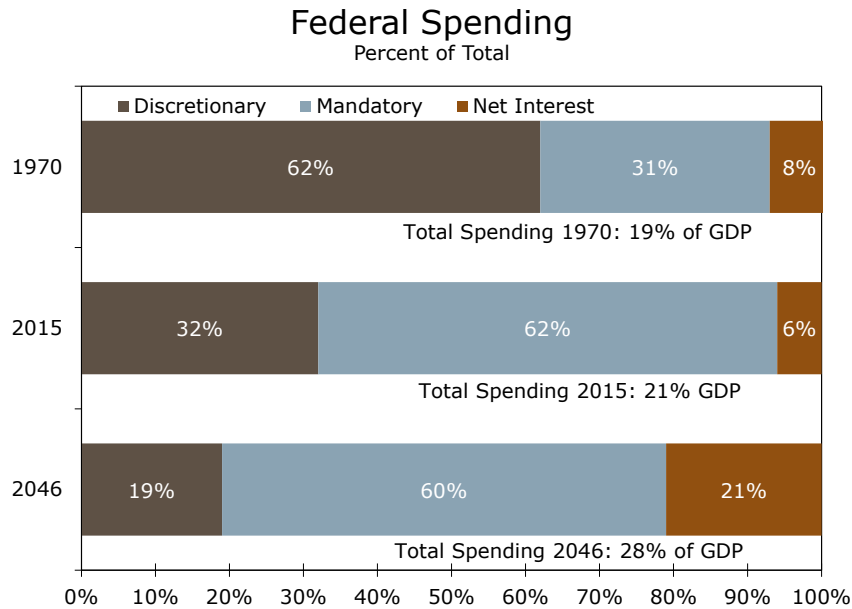
Effective corporate tax rates are not likely to change dramatically



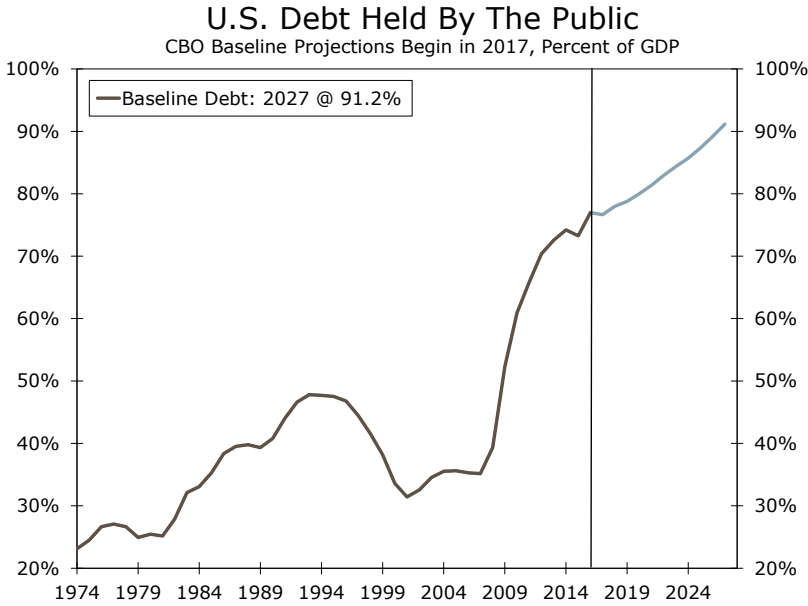
Source: Congressional Budget Office and Wells Fargo Securities

The composition of federal spending has shifted dramatically. The CBO projects that the debt-to-GDP ratio will surpass 91.2 percent by 2027.

Composition of Federal Spending

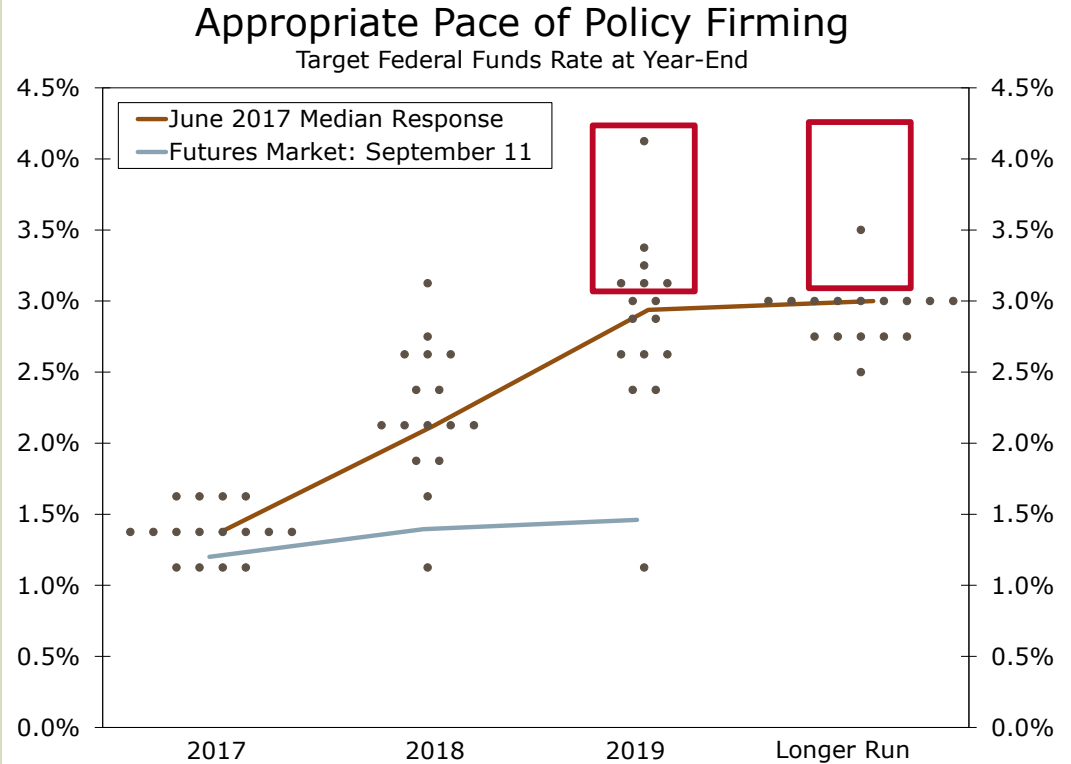


Federal Debt Continues to Rise



Source: Congressional Budget Office and Wells Fargo Securities

It is interesting that six FOMC members now think the fed funds rate will overshoot the long-run rate



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

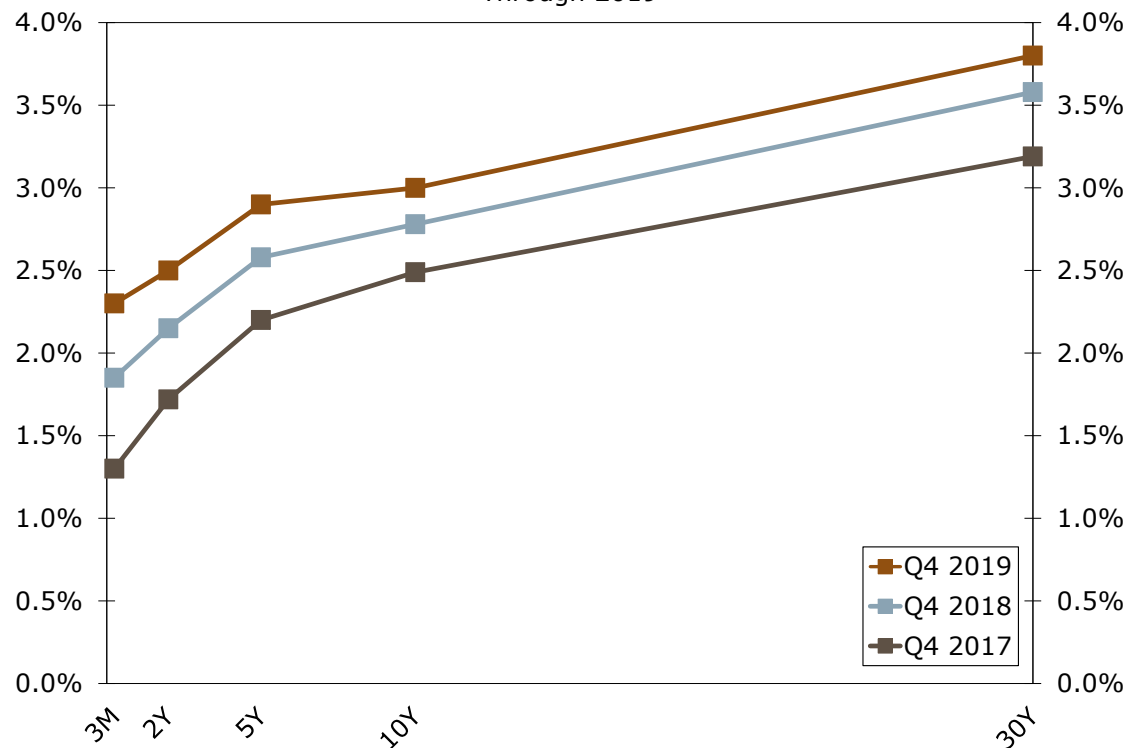
Monetary Policy Comparison to Last Year

	<u>March 2016</u>	<u>March 2017</u>
FOMC Projected Number of Hikes	4	3
FOMC Projected Inflation (PCE Deflator)	1.6%	1.9%
Unemployment Rate	4.9%	4.5%
Blue Chip Consensus GDP	2.1%	2.3%
S&P 500 Change (Jan 1 – April 10)	0.5%	5.7%

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

The yield curve is expected to flatten further as the Fed raises short-term interest rates

Wells Fargo Rates Forecast Through 2019

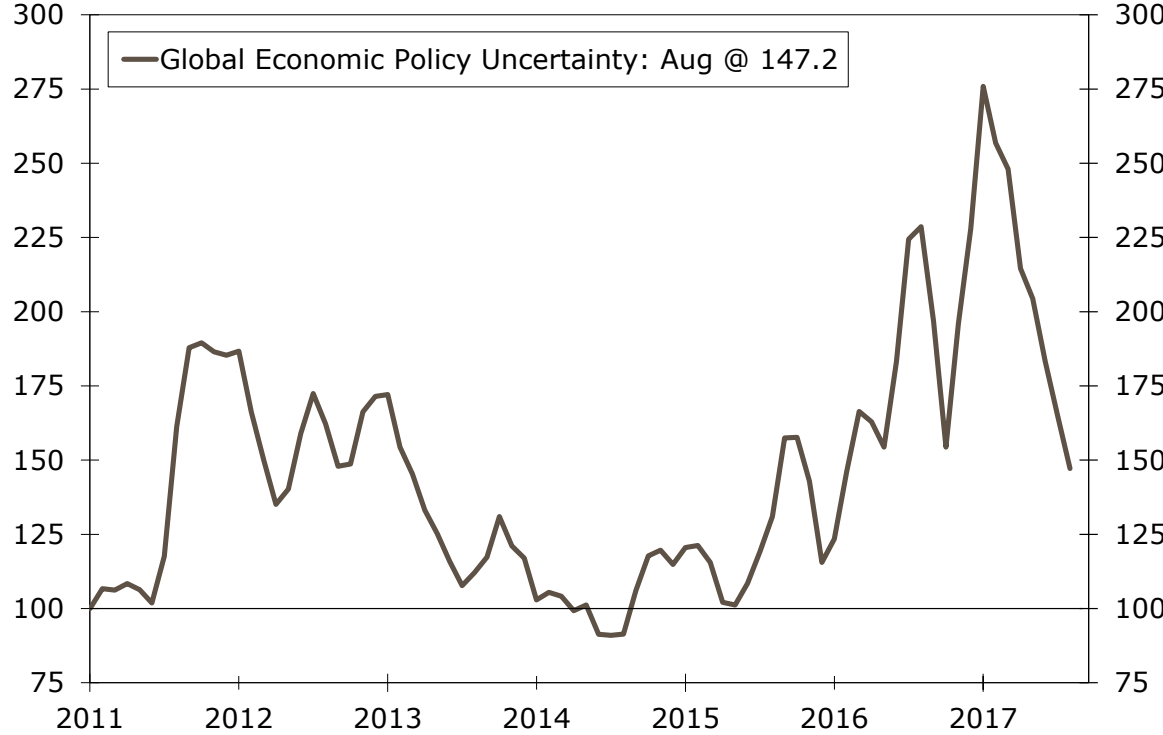


Source: IHS Global Insight and Wells Fargo Securities

Economic policy uncertainty has edged down recently, but remains high

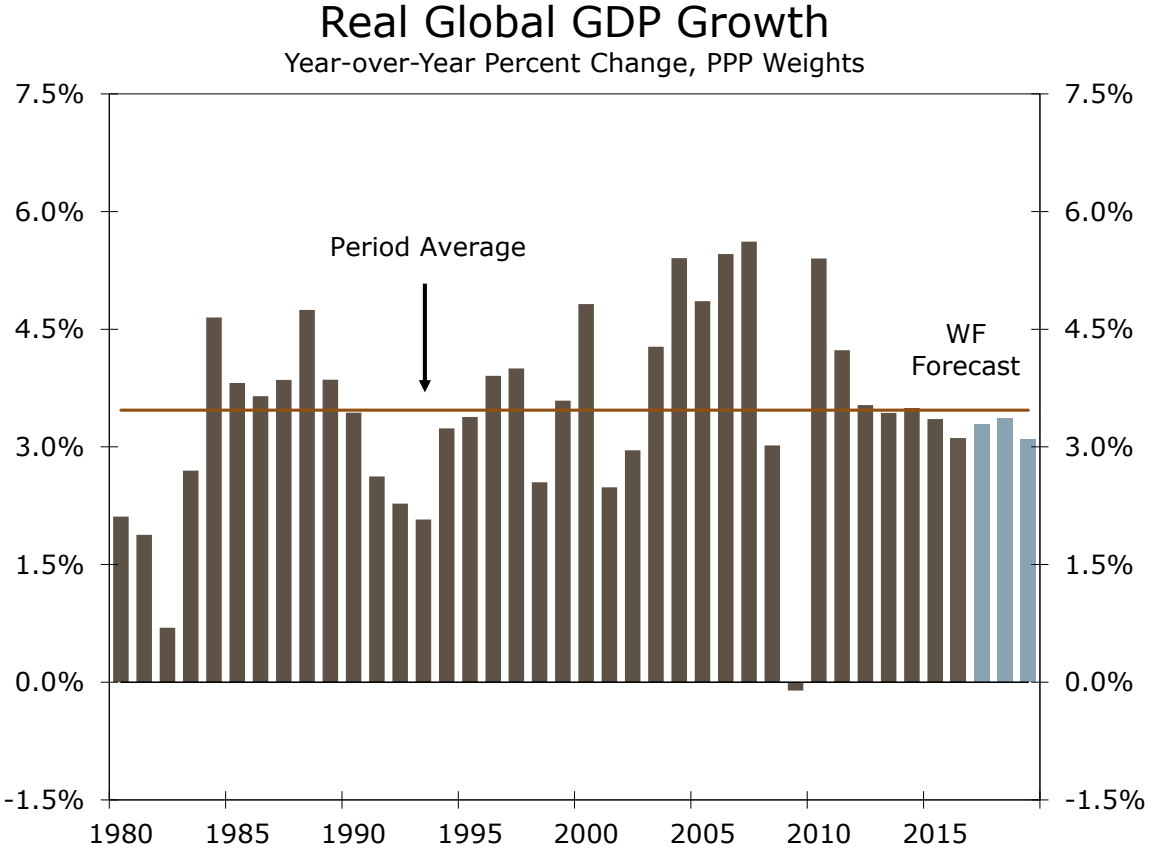
Global Economic Policy Uncertainty

3-month moving average, Jan 2011 = 100



Source: PolicyUncertainty.com and Wells Fargo Securities

Growth in the global economy remains below its long-term trend



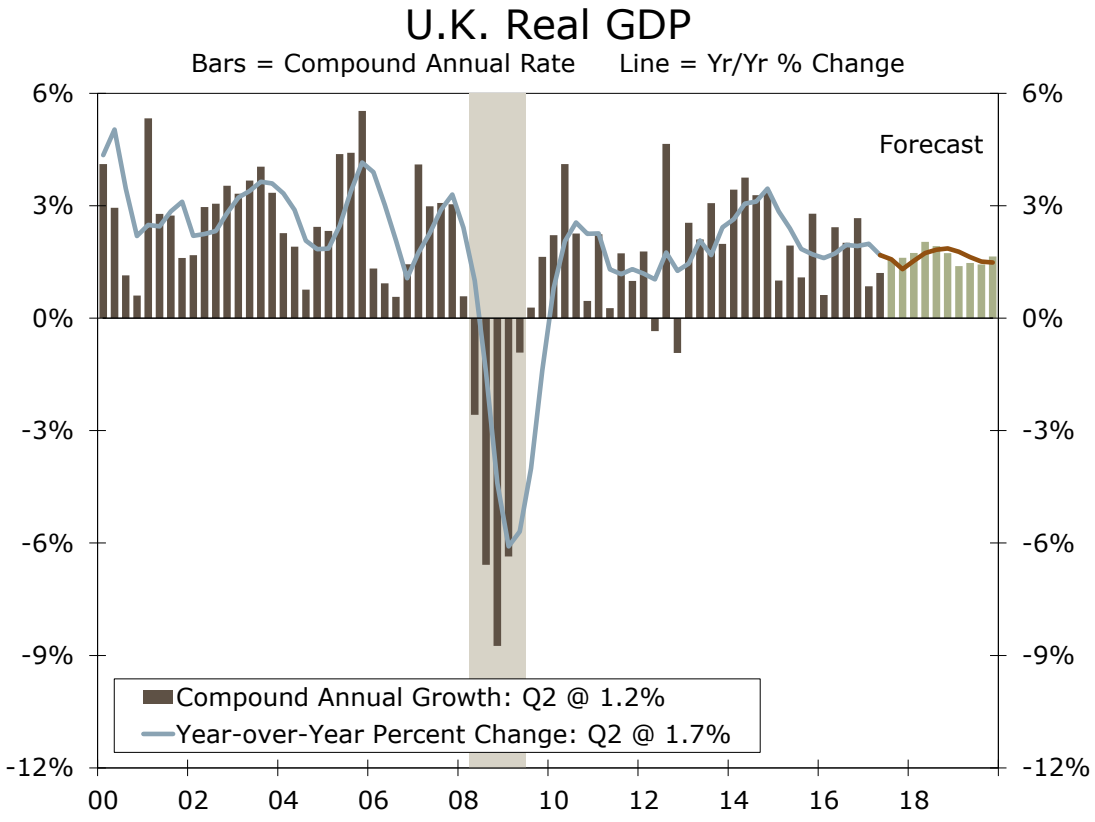
Source: International Monetary Fund and Wells Fargo Securities

Brexit...what's next?

Key Points

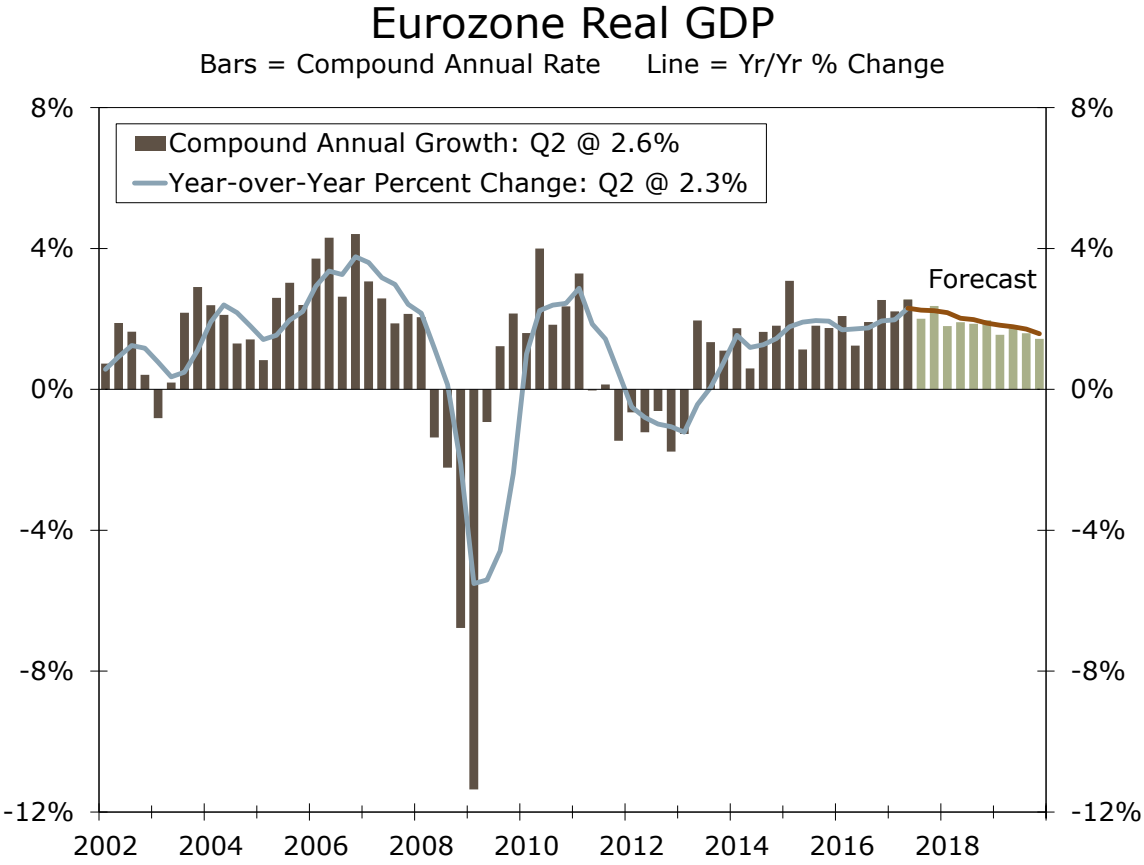
- The U.K. needs to formally notify Brussels that they are leaving the European Union by triggering Article 50 of the Lisbon Treaty which occurred on March 29th
- The mechanics of the Brexit need to be negotiated with the EU, which could take as long as 2 years
- The U.K. will remain a member of the EU until the exit is negotiated
- The two biggest issues for the U.K. to address:
 - Renegotiate trade agreements with the EU
 - Determine immigration rules, including the status of EU-27 citizens currently residing in the U.K.

In our view, the uncertainty created by Brexit will lead to a downshift in U.K. GDP growth



Source: IHS Global Insight and Wells Fargo Securities

We expect modest growth to continue in the Eurozone next year

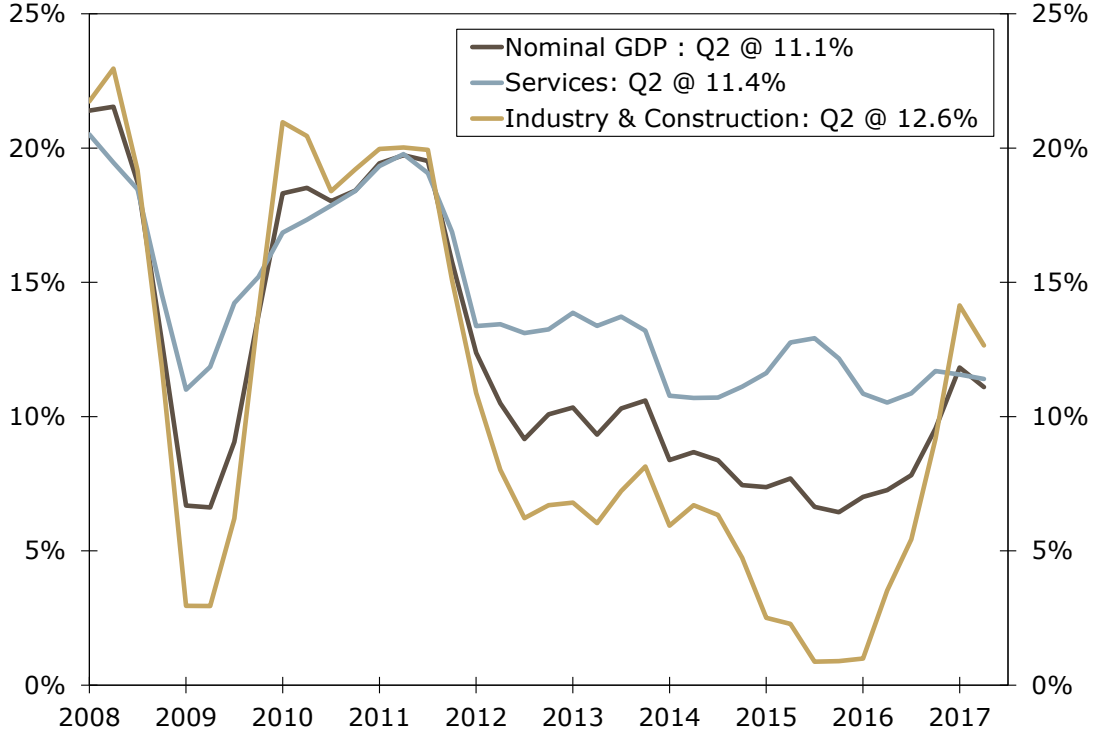


Source: IHS Global Insight and Wells Fargo Securities

Chinese authorities hope to rebalance growth toward the service sector

Nominal Value-Added in China

Year-over-Year Percent Change

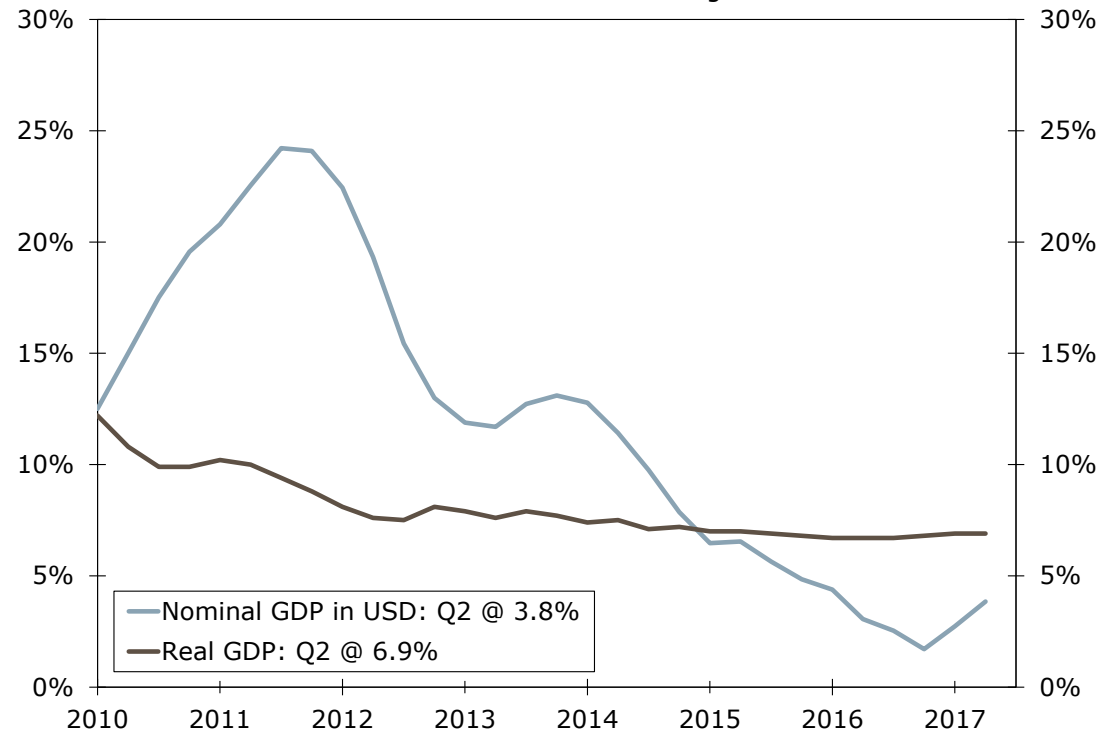


Source: CEIC and Wells Fargo Securities

Chinese growth appears slower to U.S. market participants due, in part, to the strength of the U.S. dollar relative to the renminbi

Chinese GDP Growth

Year-over-Year Percent Change

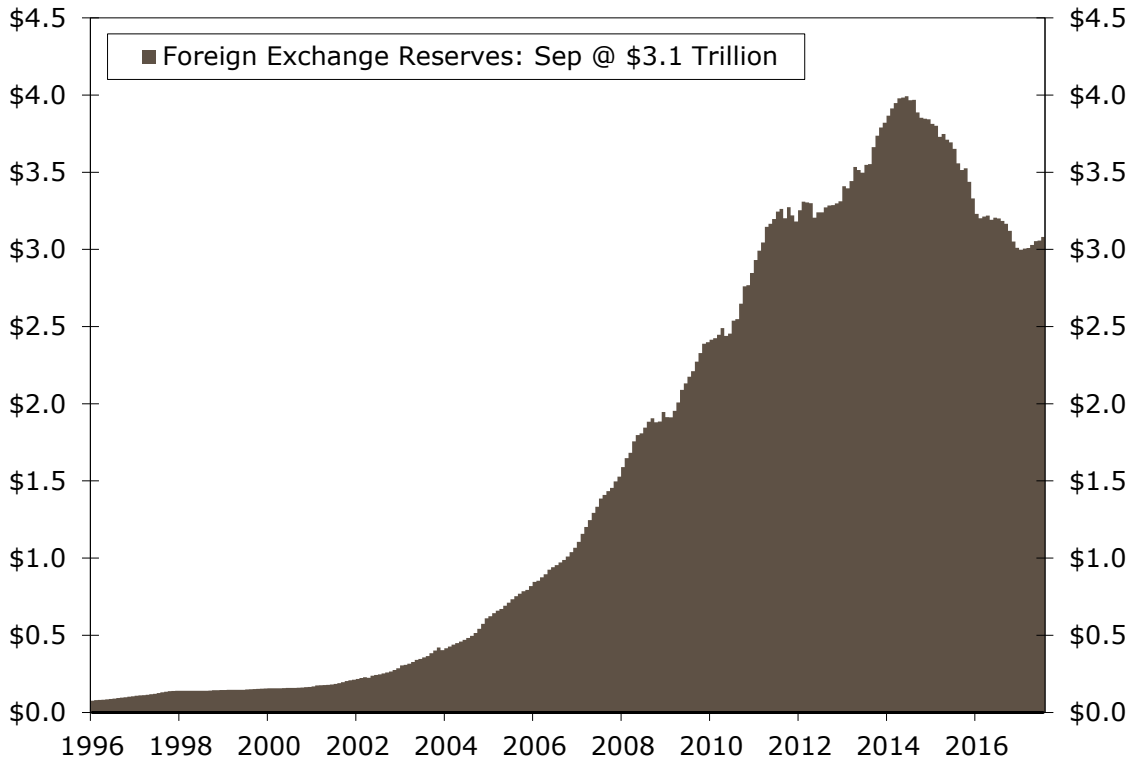


Source: Bloomberg LP and Wells Fargo Securities

Chinese authorities have ample FX reserves to smooth the depreciation of the yuan

Chinese Foreign Exchange Reserves

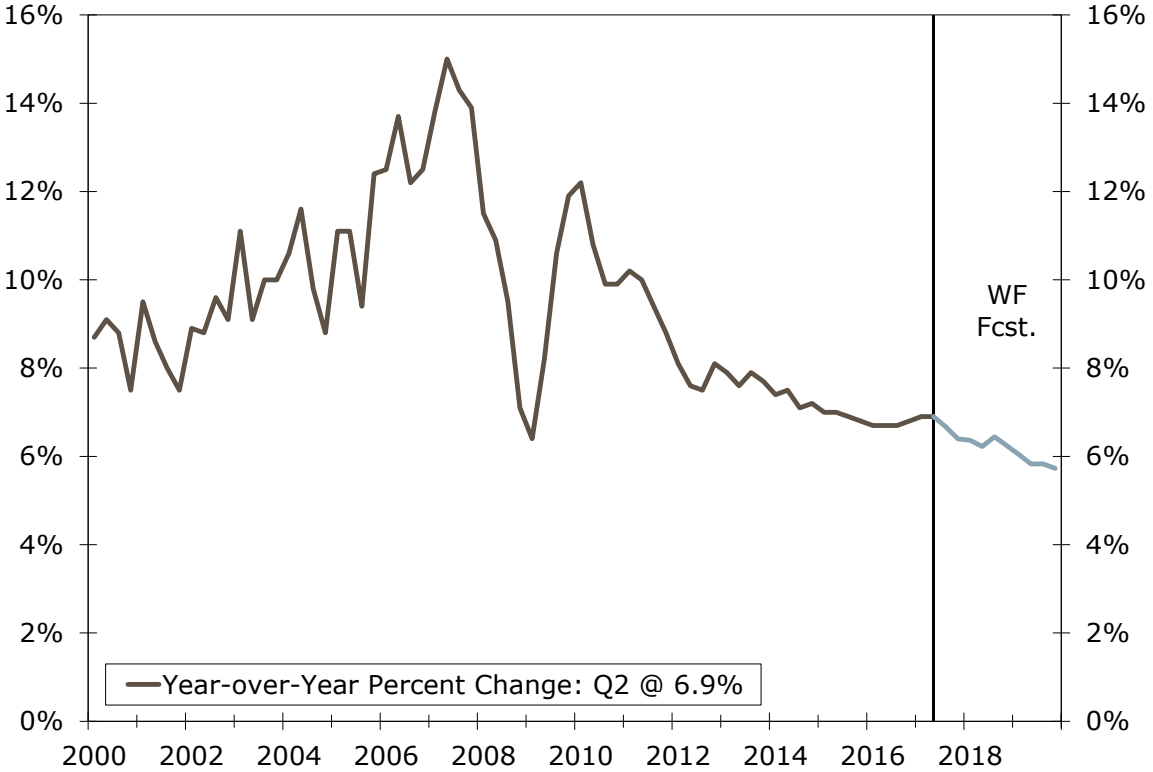
Trillions of USD



Source: Bloomberg LP and Wells Fargo Securities

Growth in China will likely continue to downshift to a more sustainable pace

Chinese Real GDP Forecast
Year-over-Year Percent Change



Source: Bloomberg LP and Wells Fargo Securities

Economic Outlook

Headwinds from overseas will weigh on growth, but the U.S. economy should weather the storm. Look for real GDP to rise 2.2 percent in 2017.

Consumer Spending should remain modest

We expect consumer spending will continue to be a key driver of economic activity. The composition of consumer spending continues to shift towards experiences rather than physical goods.

The Housing Recovery Will Gain Momentum

Demand for single-family homes has begun to bounce back slightly. Apartment construction is close to peaking.

Interest Rates and the Federal Reserve

The Fed has begun the process of raising short-term rates from record lows and the process of balance sheet normalization should begin this fall.

Global Growth Will Be Below Average In 2017

Global economic data has been surprising to the upside including data in China and the Eurozone. We are now entering a “less divergent” global monetary policy environment.

Wells Fargo U.S. Economic Forecast

	Actual				Forecast								Actual		Forecast		
	2017				2018				2019				2015	2016	2017	2018	2019
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q					
Real Gross Domestic Product ¹	1.2	3.0	2.7	3.0	2.5	2.5	2.5	2.6	2.4	2.6	2.6	2.7	2.9	1.5	2.2	2.6	2.5
Personal Consumption	1.9	3.3	3.0	2.5	2.5	2.6	2.6	2.6	2.3	2.5	2.4	2.4	3.6	2.7	2.8	2.6	2.5
Business Fixed Investment	7.1	6.9	5.3	6.2	4.8	4.1	4.0	3.7	3.6	3.5	3.5	3.6	2.3	-0.6	4.8	4.9	3.7
Equipment	4.4	8.8	6.9	8.7	5.4	4.3	4.2	3.7	3.7	3.3	3.5	3.7	3.5	-3.4	4.1	5.9	3.7
Intellectual Property Products	5.8	4.9	4.4	5.0	5.2	4.8	4.7	4.5	4.6	4.6	4.6	4.6	3.8	6.3	4.3	4.9	4.6
Structures	14.8	6.2	3.0	2.5	3.0	2.4	2.4	2.2	2.0	1.9	1.9	1.9	-1.8	-4.1	6.6	2.9	2.1
Residential Construction	11.1	-6.5	-3.0	6.5	6.5	6.5	6.5	6.5	4.5	4.5	4.5	4.0	10.2	5.5	1.8	4.4	5.2
Government Purchases	-0.6	-0.3	-0.5	0.4	0.7	0.8	0.8	0.8	0.7	0.7	0.7	0.7	1.4	0.8	-0.2	0.5	0.7
Net Exports ²	0.2	0.2	0.0	-0.3	-0.2	-0.2	-0.1	0.0	0.1	0.1	0.2	0.2	-0.7	-0.2	-0.2	-0.2	0.0
Inventories ²	-1.5	0.0	0.7	0.5	0.0	0.0	0.0	-0.1	0.0	0.0	-0.1	0.0	0.2	-0.4	-0.1	0.2	0.0
Nonfarm Payroll Change ³	166	187	148	153	170	160	160	155	150	150	145	145	226	187	164	161	148
Unemployment Rate	4.7	4.4	4.4	4.3	4.2	4.1	4.0	4.0	3.9	3.8	3.9	3.8	5.3	4.9	4.4	4.1	3.9
PCE Deflator ⁴	2.0	1.6	1.4	1.3	1.3	1.6	1.7	1.6	1.7	1.8	1.9	2.0	0.3	1.2	1.6	1.5	1.9
Quarter-End Interest Rates ⁵																	
Federal Funds Target Rate	1.00	1.25	1.25	1.50	1.50	1.75	1.75	2.00	2.00	2.25	2.25	2.50	0.27	0.52	1.25	1.75	2.25
3 Month LIBOR	1.15	1.30	1.35	1.65	1.65	1.90	1.90	2.15	2.15	2.40	2.40	2.65	0.32	0.74	1.36	1.90	2.40
Prime Rate	4.00	4.25	4.25	4.50	4.50	4.75	4.75	5.00	5.00	5.25	5.25	5.50	3.27	3.52	4.25	4.75	5.25
Conventional Mortgage Rate	4.20	3.90	4.03	4.20	4.28	4.36	4.40	4.46	4.49	4.55	4.57	4.65	3.85	3.65	4.08	4.38	4.56
3 Month Bill	0.76	1.03	1.08	1.30	1.45	1.60	1.67	1.85	1.95	2.10	2.15	2.30	0.05	0.32	1.04	1.64	2.13
6 Month Bill	0.91	1.14	1.15	1.40	1.55	1.70	1.77	1.95	2.05	2.20	2.25	2.40	0.17	0.46	1.15	1.74	2.23
1 Year Bill	1.03	1.24	1.27	1.55	1.68	1.80	1.87	2.05	2.15	2.25	2.30	2.45	0.32	0.61	1.27	1.85	2.29
2 Year Note	1.27	1.38	1.46	1.72	1.83	1.93	2.00	2.15	2.23	2.33	2.38	2.50	0.69	0.83	1.46	1.98	2.36
5 Year Note	1.93	1.89	1.95	2.20	2.29	2.39	2.45	2.58	2.65	2.75	2.80	2.90	1.53	1.33	1.99	2.43	2.78
10 Year Note	2.40	2.31	2.30	2.49	2.57	2.66	2.71	2.78	2.82	2.88	2.91	3.00	2.14	1.84	2.38	2.68	2.90
30 Year Bond	3.02	2.84	2.95	3.19	3.29	3.41	3.49	3.58	3.62	3.68	3.71	3.80	2.84	2.59	3.00	3.44	3.70

Forecast as of: September 7, 2017

¹ Compound Annual Growth Rate Quarter-over-Quarter

² Percentage Point Contribution to GDP

³ Average Monthly Change

⁴ Year-over-Year Percentage Change

⁵ Annual Numbers Represent Averages

Source: IHS Global Insight and Wells Fargo Securities

Wells Fargo International Economic Forecast

(Year-over-Year Percent Change)

	GDP			CPI		
	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>
Global (PPP Weights)	3.4%	3.4%	3.1%	3.2%	3.3%	3.1%
Global (Market Exchange Rates)	3.2%	3.3%	2.8%	3.2%	3.3%	3.1%
Advanced Economies ¹	2.3%	2.3%	1.8%	1.7%	1.9%	1.4%
United States	2.2%	2.6%	2.5%	1.9%	1.7%	2.2%
Eurozone	2.1%	2.0%	1.7%	1.5%	1.7%	1.9%
United Kingdom	1.6%	1.7%	1.6%	2.6%	2.1%	2.0%
Japan	1.9%	1.1%	0.7%	0.3%	0.7%	0.3%
Korea	2.9%	2.8%	3.0%	2.1%	2.0%	2.4%
Canada	3.0%	2.0%	1.9%	1.6%	1.9%	2.0%
Developing Economies ¹	4.5%	4.5%	4.3%	4.8%	4.8%	4.8%
China	6.6%	6.3%	5.9%	1.5%	2.0%	1.9%
India ²	7.1%	6.4%	7.2%	3.1%	4.1%	4.3%
Mexico	2.1%	2.3%	2.4%	6.0%	5.0%	5.2%
Brazil	0.6%	2.0%	2.2%	3.5%	3.5%	3.8%
Russia	1.7%	2.0%	2.2%	4.2%	4.3%	4.5%

Forecast as of: September 7, 2017

¹Aggregated Using PPP Weights

Source: International Monetary Fund and Wells Fargo Securities

Wells Fargo Bank Currency Strategy Group Forecast

(End of Quarter Rates)

	2017	2018				2019
	Q4	Q1	Q2	Q3	Q4	Q1
Major Currencies						
Euro (\$/€)	1.21	1.22	1.24	1.26	1.27	1.27
U.K. (\$/£)	1.33	1.34	1.35	1.35	1.35	1.36
U.K. (£/€)	0.91	0.91	0.92	0.93	0.94	0.94
Japan (¥/\$)	111	110	109	108	108	107
Canada (C\$/US\$)	1.20	1.19	1.17	1.15	1.14	1.14
Australia (US\$/A\$)	0.81	0.82	0.83	0.84	0.84	0.85
Switzerland (CHF/\$)	0.95	0.95	0.94	0.92	0.92	0.92
Other Currencies						
China (CNY/\$)	6.52	6.49	6.46	6.43	6.42	6.41
South Korea (KRW/\$)	1130	1130	1120	1110	1107	1103
Singapore (SGD/\$)	1.33	1.31	1.29	1.28	1.28	1.27
Taiwan (TWD/\$)	30.00	30.00	29.75	29.50	29.42	29.33
India (INR/\$)	63.75	63.50	63.00	62.50	62.33	62.17
Mexico (MXN/\$)	17.80	17.80	17.50	17.20	17.10	17.00
Brazil (BRL/\$)	3.10	3.08	3.06	3.02	3.01	2.99
Colombia (COP/\$)	2925	2900	2875	2850	2842	2833

Forecast as of: September 12, 2017

Source: Wells Fargo Securities

Appendix

A Sampling of Our Recent Special, Regional & Industry Commentary

Recent Special Commentary

Date	Title	Authors
U.S. Macro		
September-08	Do We Need to Wait for a Yield Curve Inversion to Predict a Recession? No.	Silvia, Iqbal & Pershing
September-08	Impact of Hurricane Harvey	Vitner, Feik & Carmichael
August-31	Do Wages Still Matter for Inflation?	House & Vaisey
August-25	Which American Exporters Have the Best Prospects?	Bryson & Kinnaman
August-24	Capitol Hill Update: Fall Legislative Preview	Brown, Pugliese & Kinnaman
U.S. Regional		
August-18	Another Strong Job Gain For Florida in July	Vitner, Feik & Carmichael
August-18	Jobless Rate Drops as Texas' Workforce Shrinks	Vitner, Feik & Carmichael
August-18	North Carolina's Unemployment Rate Falls to 4.1 Percent	Vitner, Feik & Carmichael
August-17	New Jersey Adds Jobs but Unemployment Still Rose in July	Vitner, Feik & Carmichael
August-17	Minnesota's Year-to-Year Growth Is the Strongest of the Cycle	Vitner, Feik & Carmichael
Global Economy		
September-08	Global Chartbook: September 2017	Bryson & Pugliese
September-07	Argentina's Economic Recovery Just in Time for the Mid-term Elections	Alemán
September-06	Bank of Canada: Actions Speak Louder than Cautious	Quinlan
September-06	Soft Print for Australian GDP Masks Underlying Improvement	Quinlan
September-06	Mexican Economy Transformation	Alemán & Seery
Interest Rates/Credit Market		
August-23	Corporate Finance: Perspective, Leverage and Causality	Silvia
August-16	Fed's Balance Sheet Drives Benchmark Treasury Rates	Silvia & Iqbal
August-07	Q3-2017 Net Treasury Issuance Forecast Update	Silvia & Iqbal
August-02	Late Credit Cycle in a Tightening Phase of Monetary Policy	Silvia & Iqbal
July-27	Predicting FOMC Rate Decisions: Takes Two to Tango	Silvia, Iqbal & Pershing
Real Estate		
August-31	Growing the Gridiron: The Stadium Boom	Khan, Carmichael & Vaisey
August-28	Hotel Revenues: How Much Room to Run?	Khan & Vaisey
August-14	CRE Deal Volume Shows Late-Cycle Behavior: Q2 Chartbook	Khan, Carmichael & Vaisey
August-07	Real Structure Investment: Outlook Dampens in 2018	Khan
August-04	Housing Chartbook: August 2017	Vitner & Carmichael

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