

KEYNOTE SPEAKER

Ms. Sarah Watt House

Vice President & Economist

The Wells Fargo logo is displayed in a red square. The words "WELLS" and "FARGO" are stacked vertically in a bold, yellow, serif font.

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SECURITIES

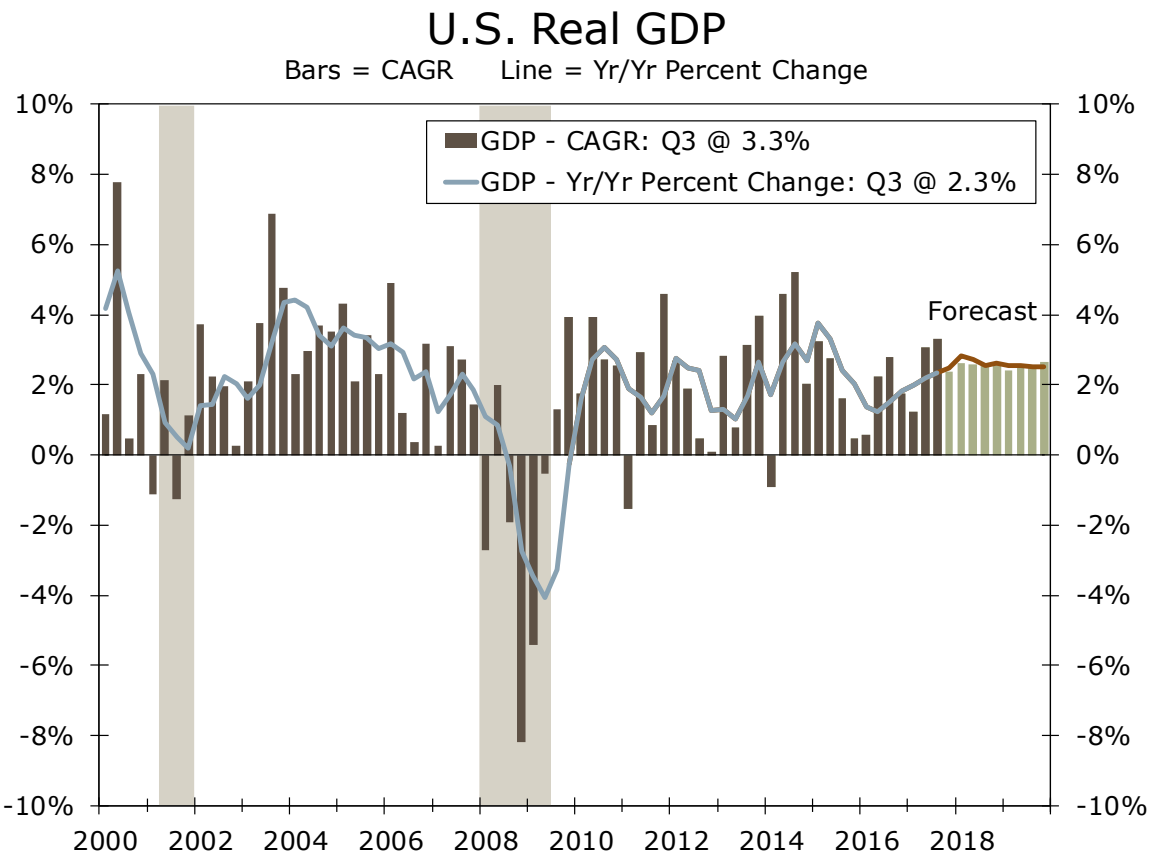
2018 Economic Outlook

Sarah House, Economist
December 14, 2017

Together we'll go far



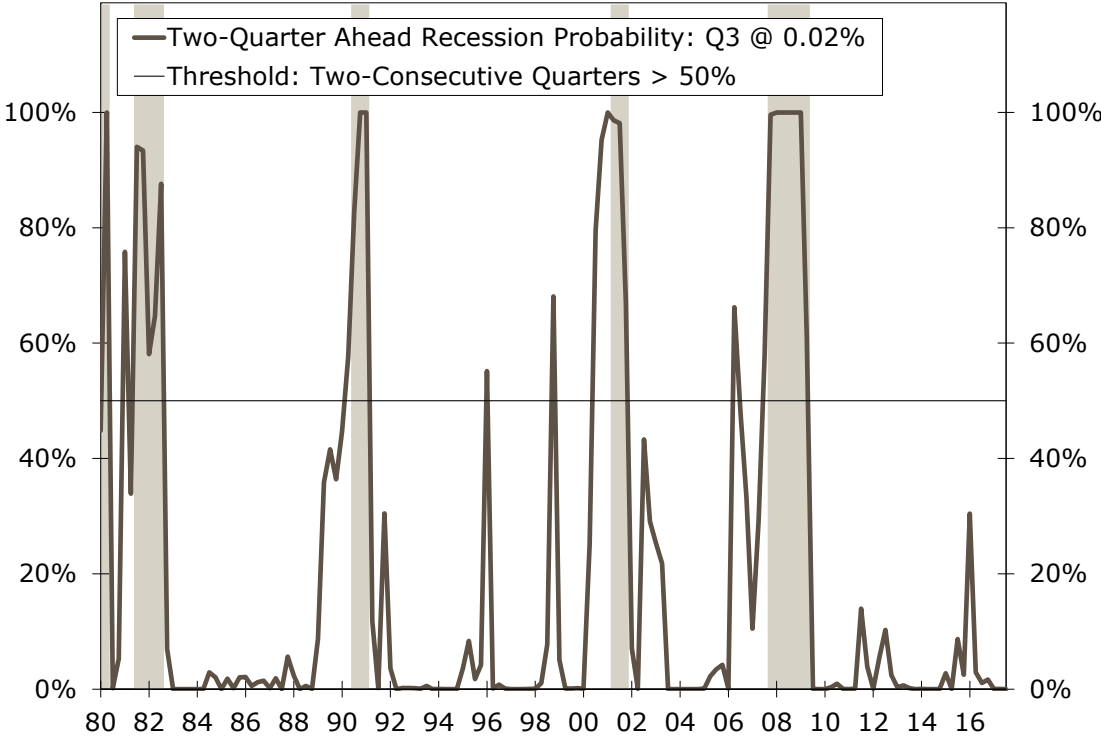
Our baseline forecast looks for growth of around 2.5% through 2019



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

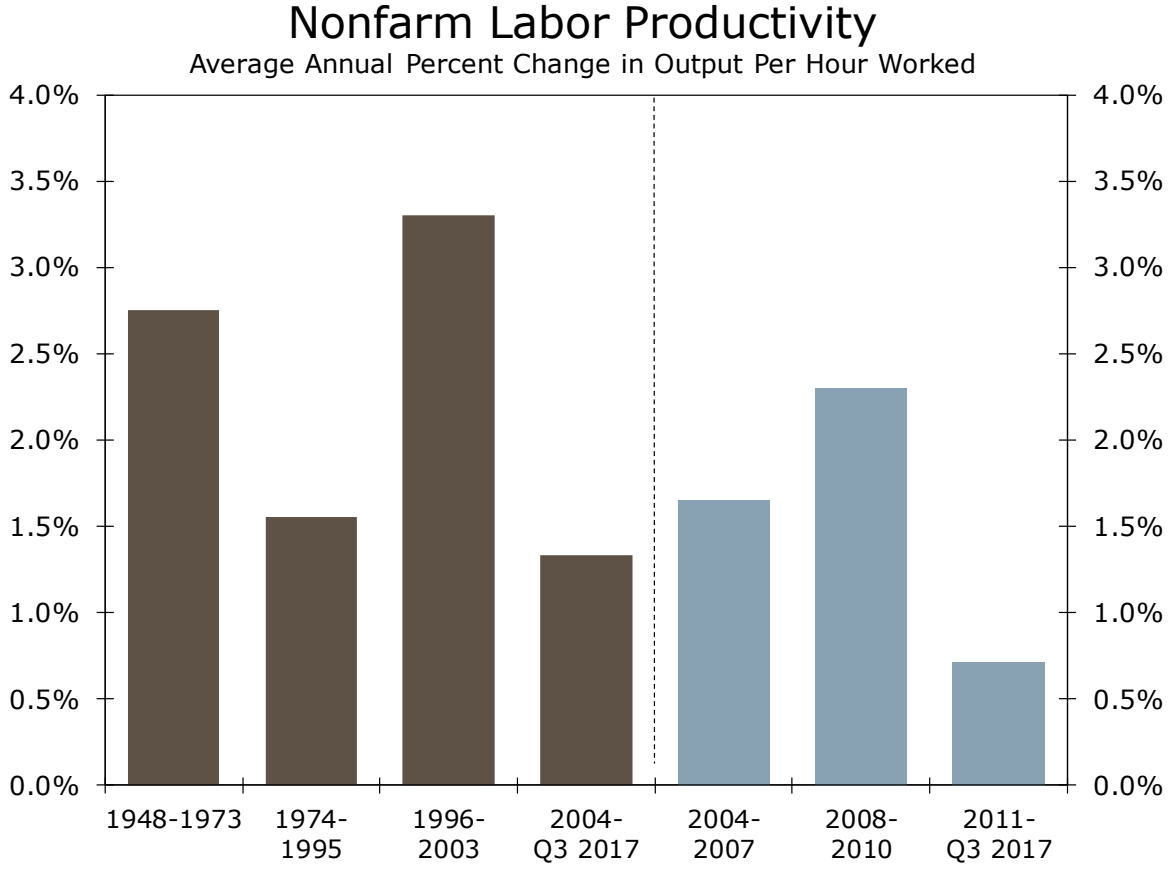
The probability of a recession over the next six months remains very low

Recession Probability Based on Probit Model
Model with LEI



Source: Wells Fargo Securities

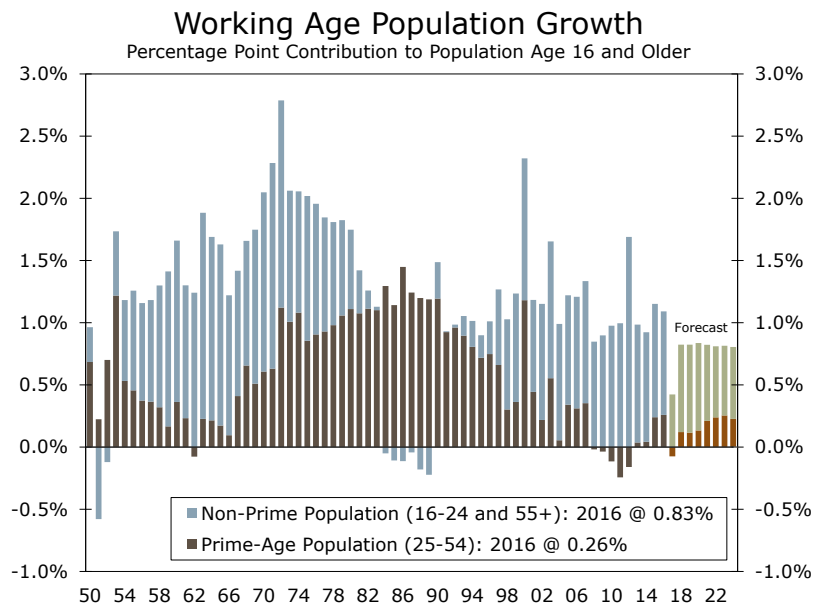
Productivity growth has downshifted over the past cycle, limiting the long-term rate of U.S. growth



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

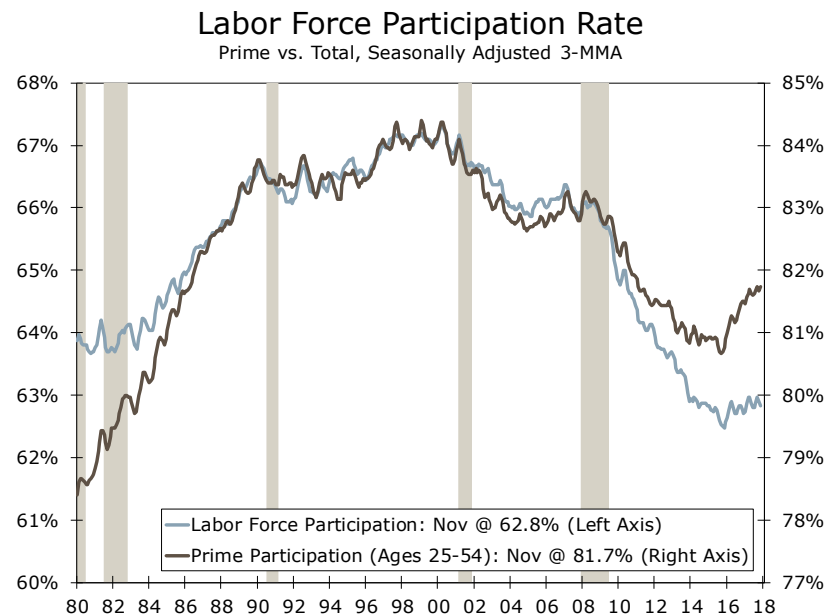
Labor supply growth is slowing, while labor force participation remains historically low

Working Age Population



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

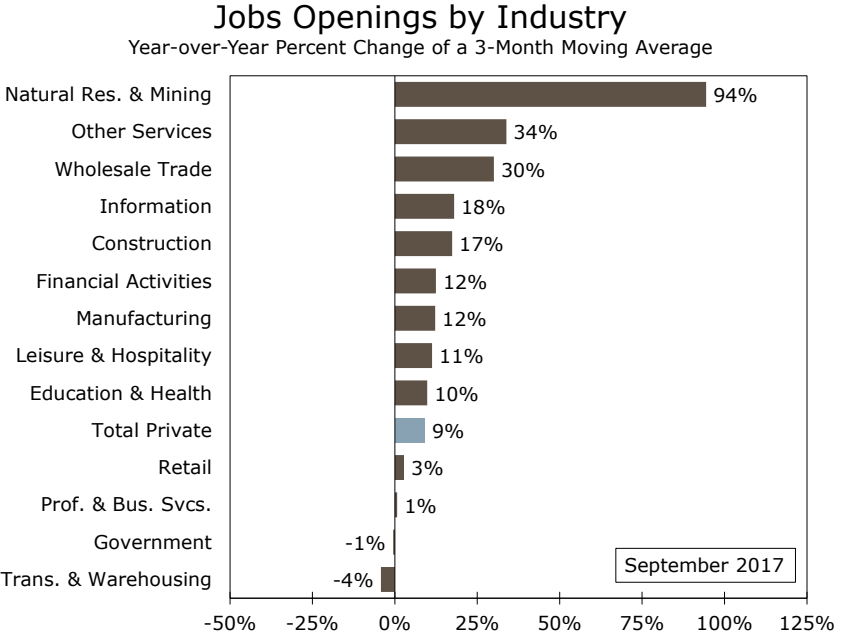
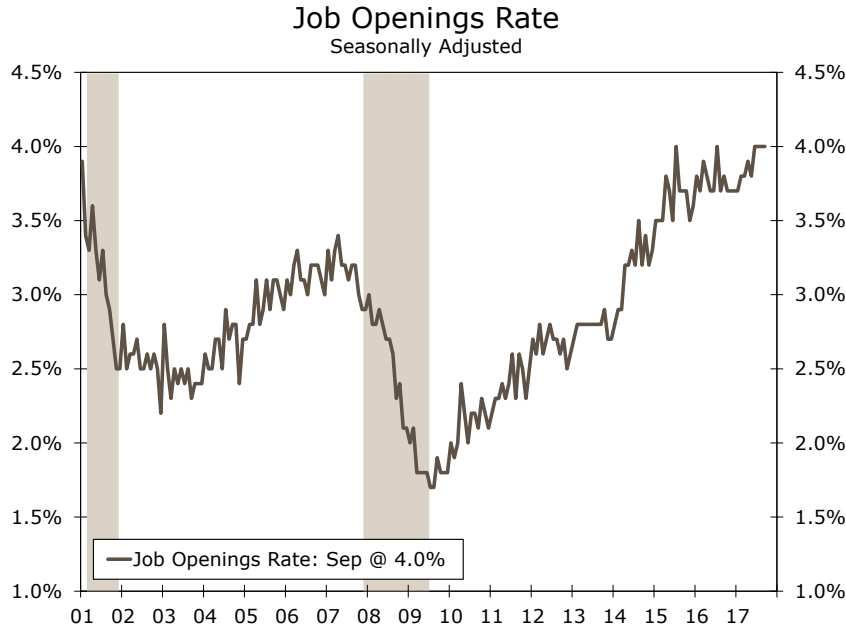
Labor Force Participation



Job openings are near record highs, fueled in part by the rebound in commodity prices

Job Openings

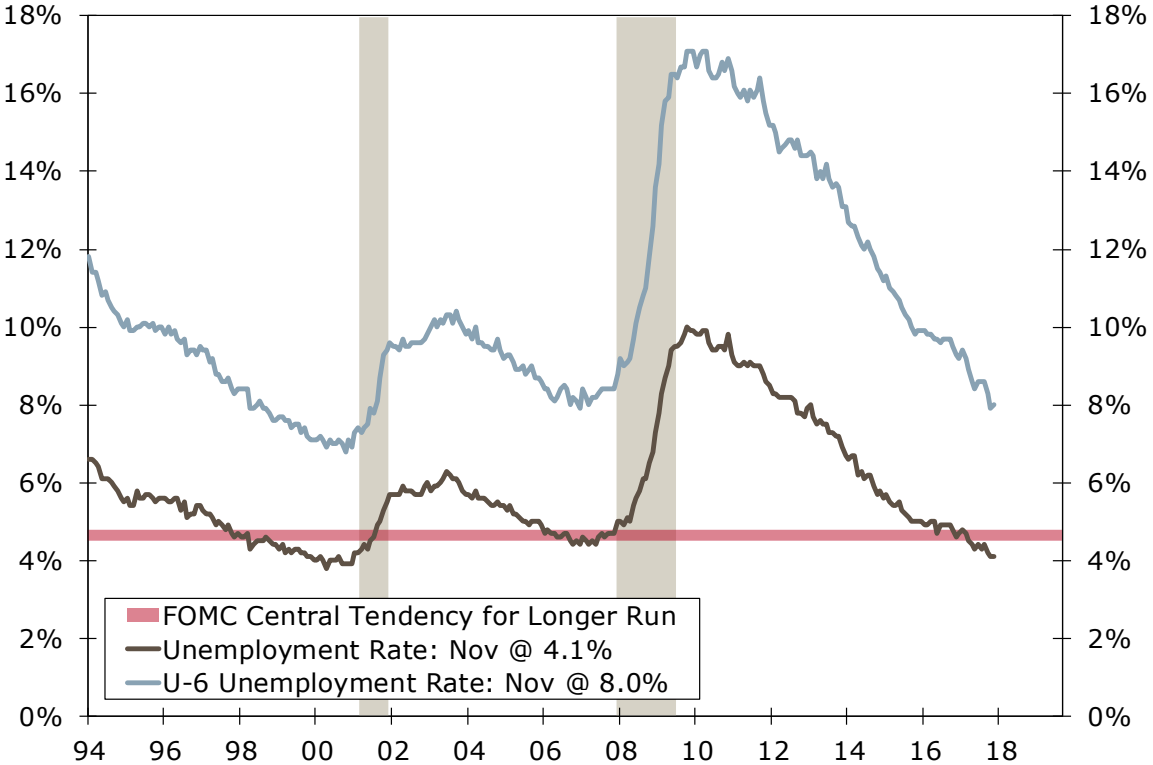
Openings by Industry



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

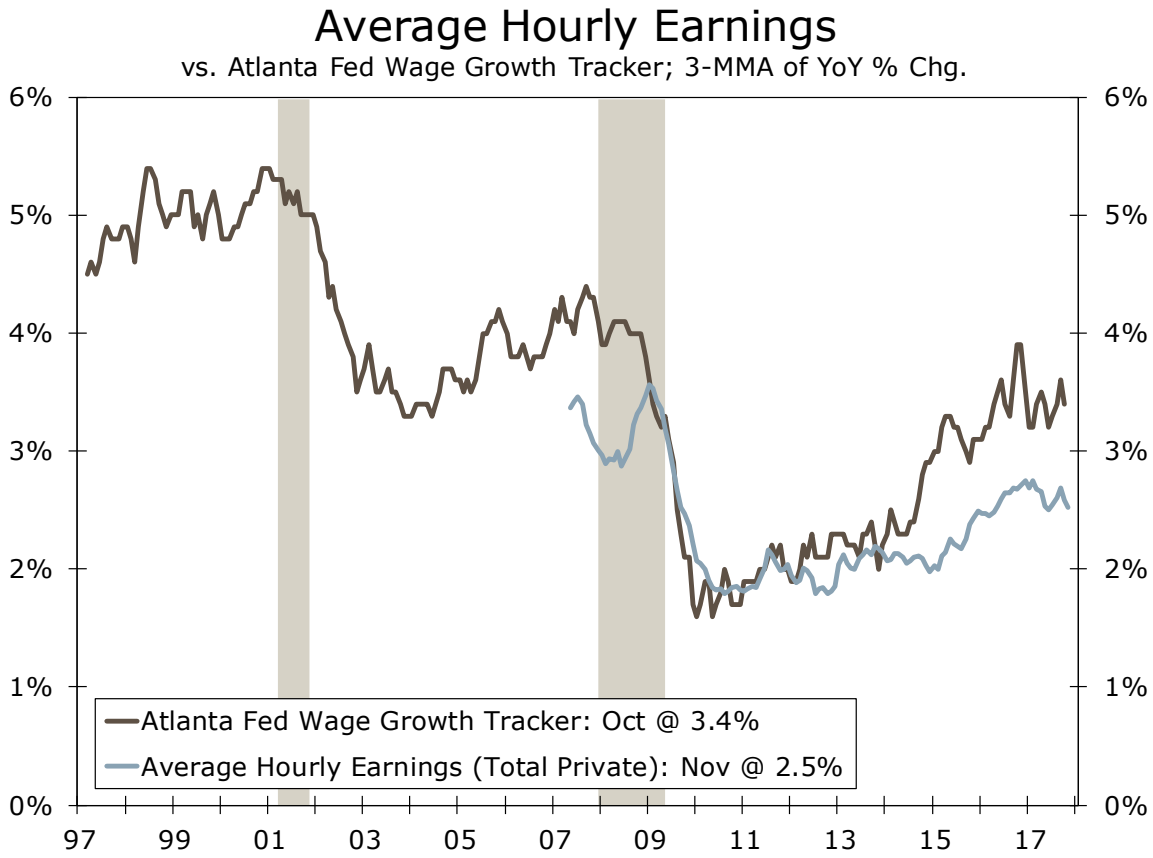
The labor market is at “full employment”

Unemployment Rates Seasonally Adjusted



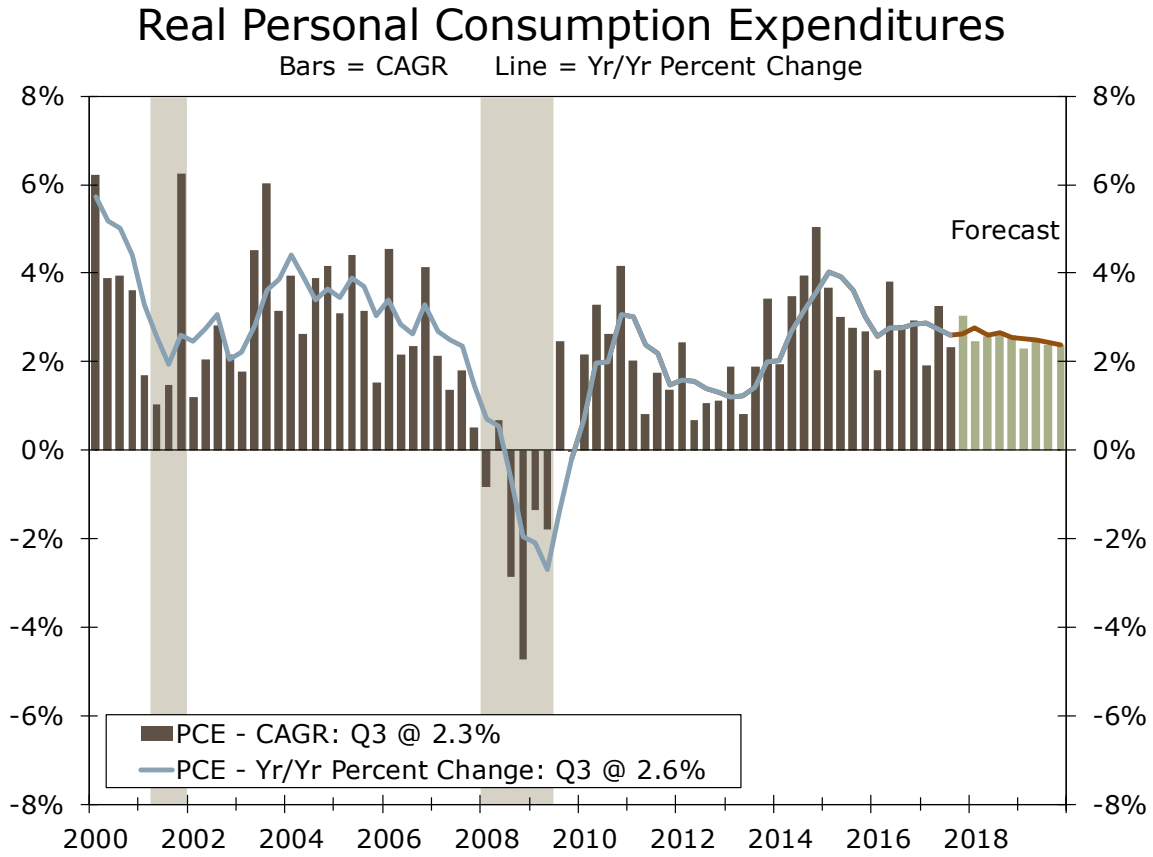
Source: U.S. Department of Labor, Federal Reserve Board and Wells Fargo Securities

Average hourly earnings' growth has picked up since the early stage of the expansion but remains inhibited by low inflation and productivity



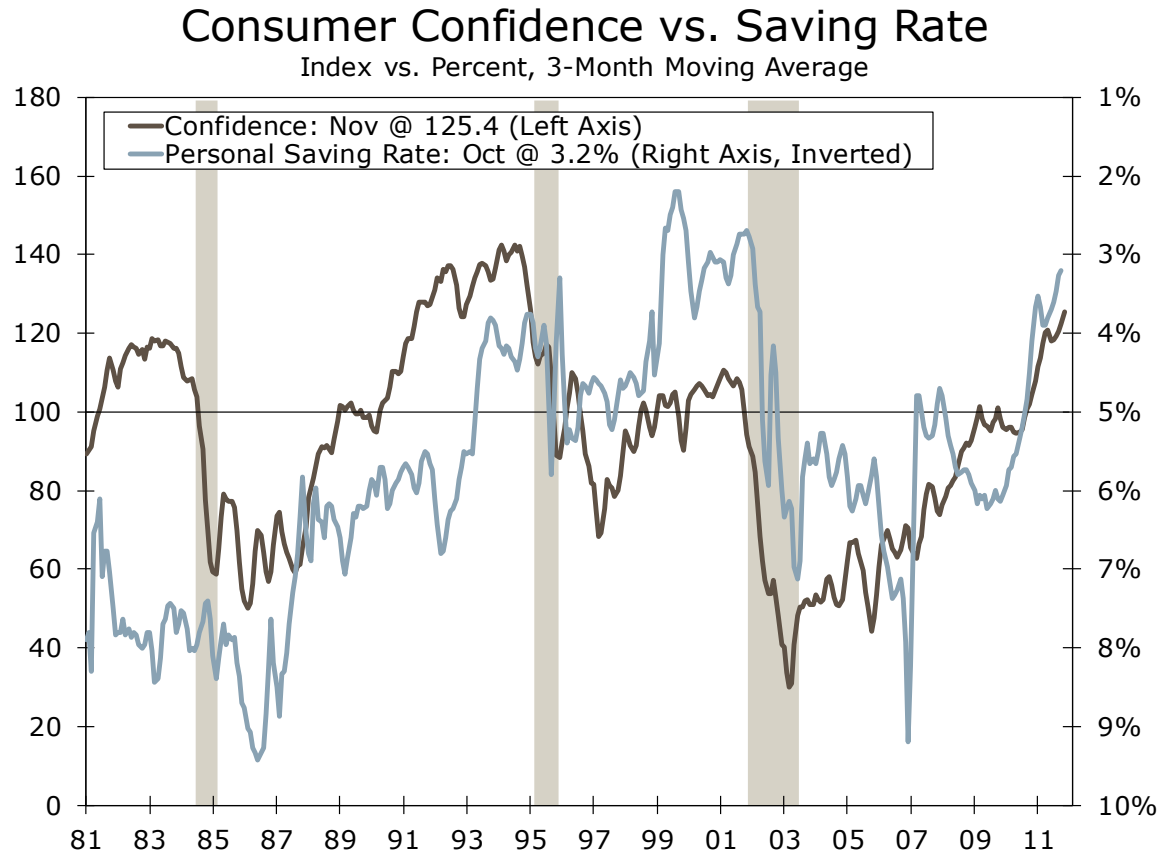
Source: U.S. Department of Labor, Federal Reserve Bank of Atlanta and Wells Fargo Securities

Solid labor income and low inflation have supported real consumer spending



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

Spending has been fueled by rising consumer confidence and households saving less over the past two years

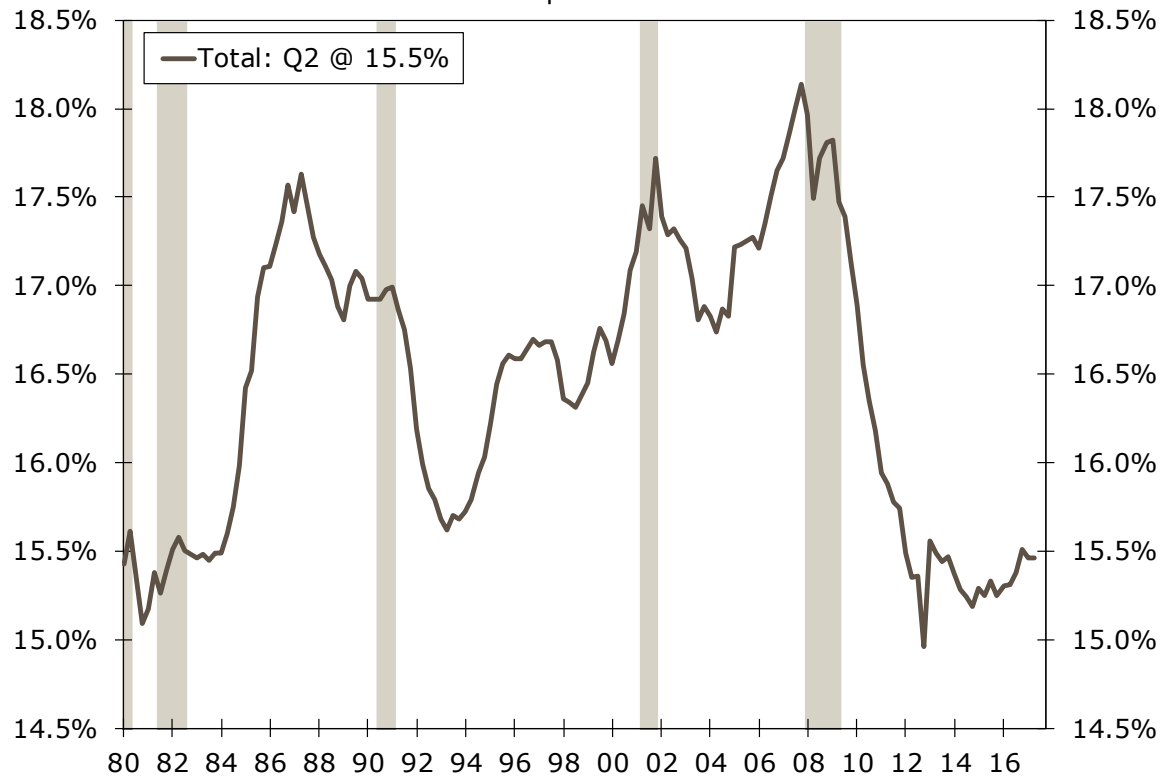


Source: Conference Board, U.S. Department of Commerce and Wells Fargo Securities

Debt service remains at low levels

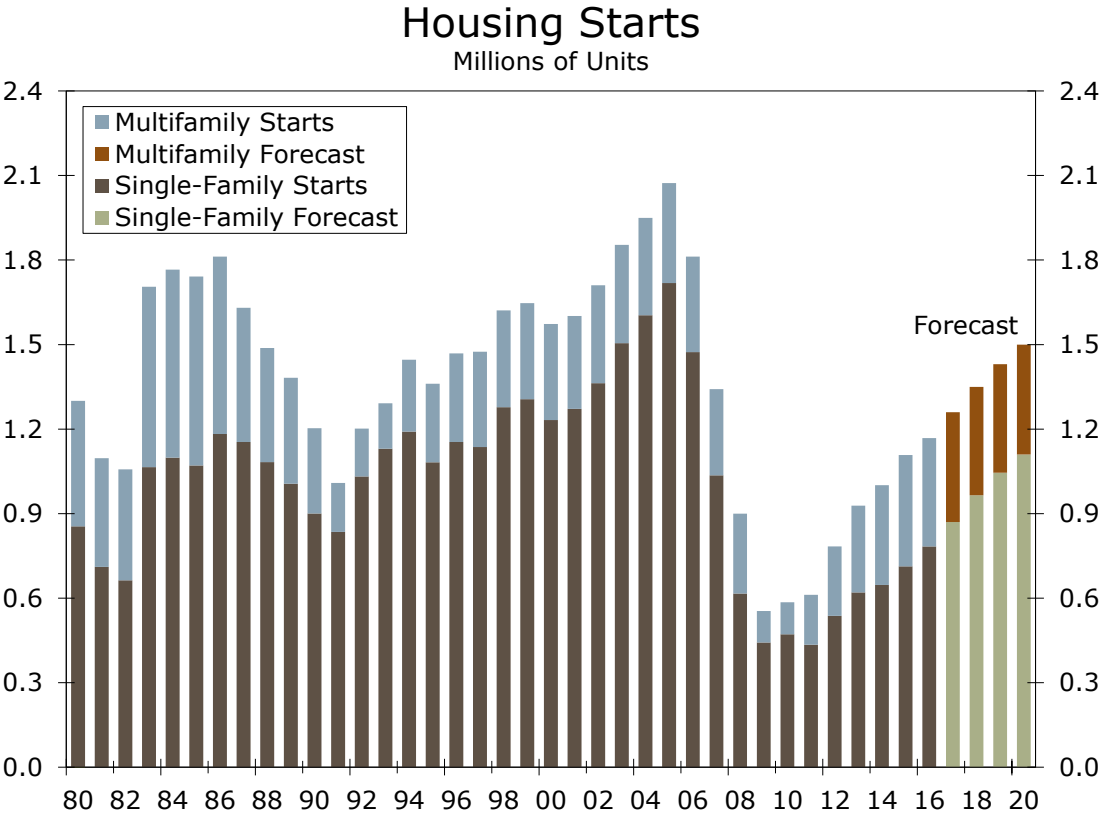
Financial Obligations Ratio-Total

As a Percent of Disposable Personal Income



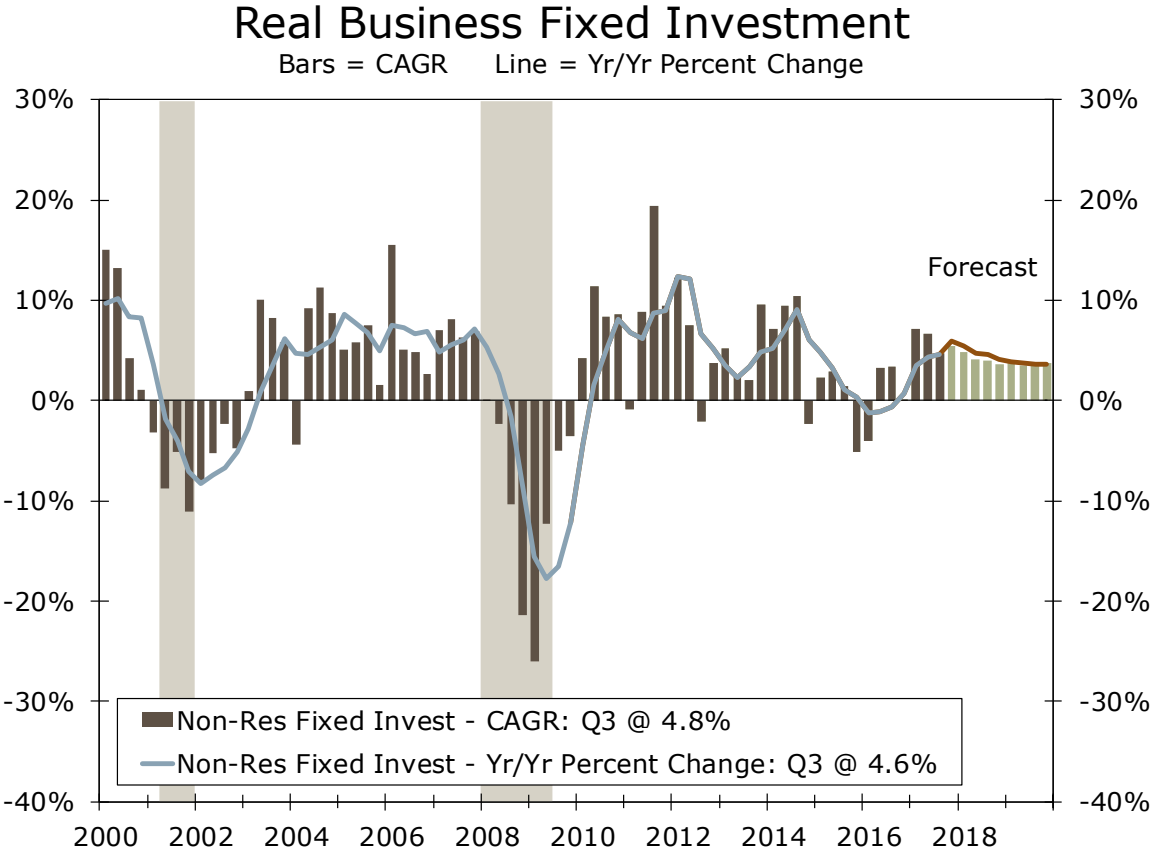
Source: Federal Reserve Board and Wells Fargo Securities

Residential investment is expected to pick up next year, especially as the mix of new construction is shifting back toward single-family homes



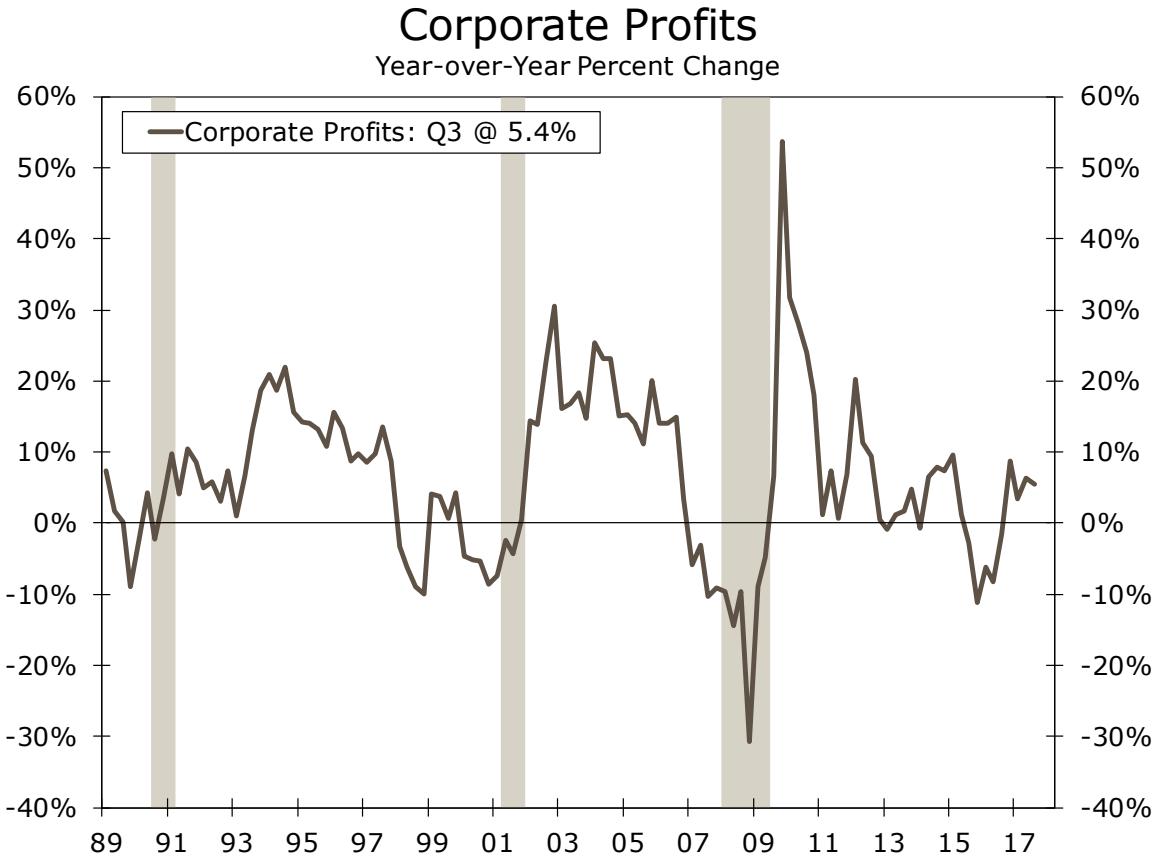
Source: U.S. Department of Commerce and Wells Fargo Securities

Investment spending has recovered and should continue to add to growth over the next two years



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

The improving growth backdrop along with weaker dollar have helped corporate profits rebound. If passed, tax reform/cuts would also support stronger profits.



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

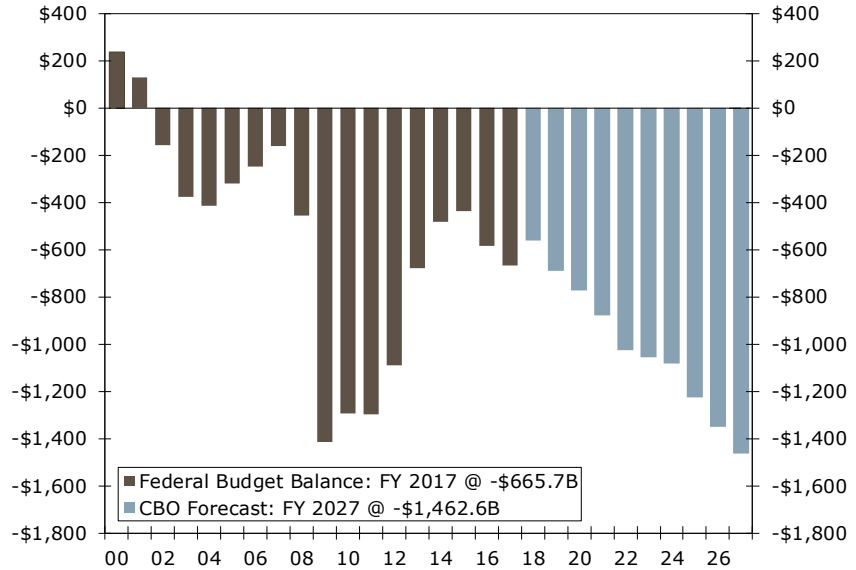
Government investment is not expected to add meaningfully to growth the next few years as the deficit is already expected to rise due to mandatory spending

U.S. Federal Budget Balance

Spending as a Share of GDP

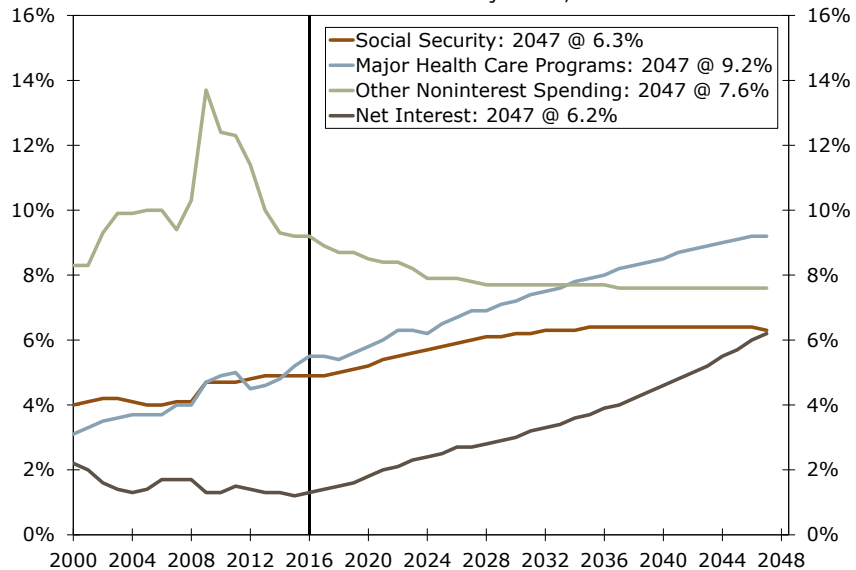
U.S. Federal Budget Balance

Billions of Dollars



Federal Spending Breakdown

CBO Extended Baseline Scenario Projections, Percent of GDP



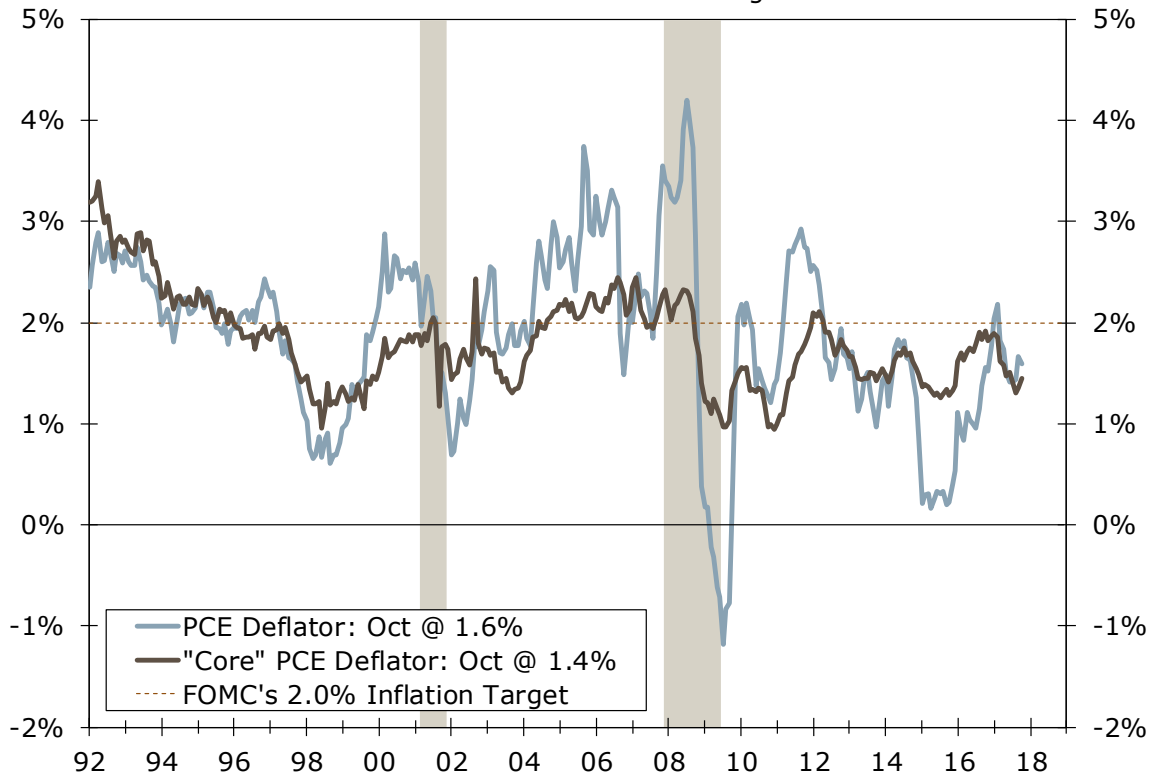
Source: Congressional Budget Office and Wells Fargo Securities

Financial Conditions & Monetary Policy

The Fed's 2 percent inflation target remains elusive

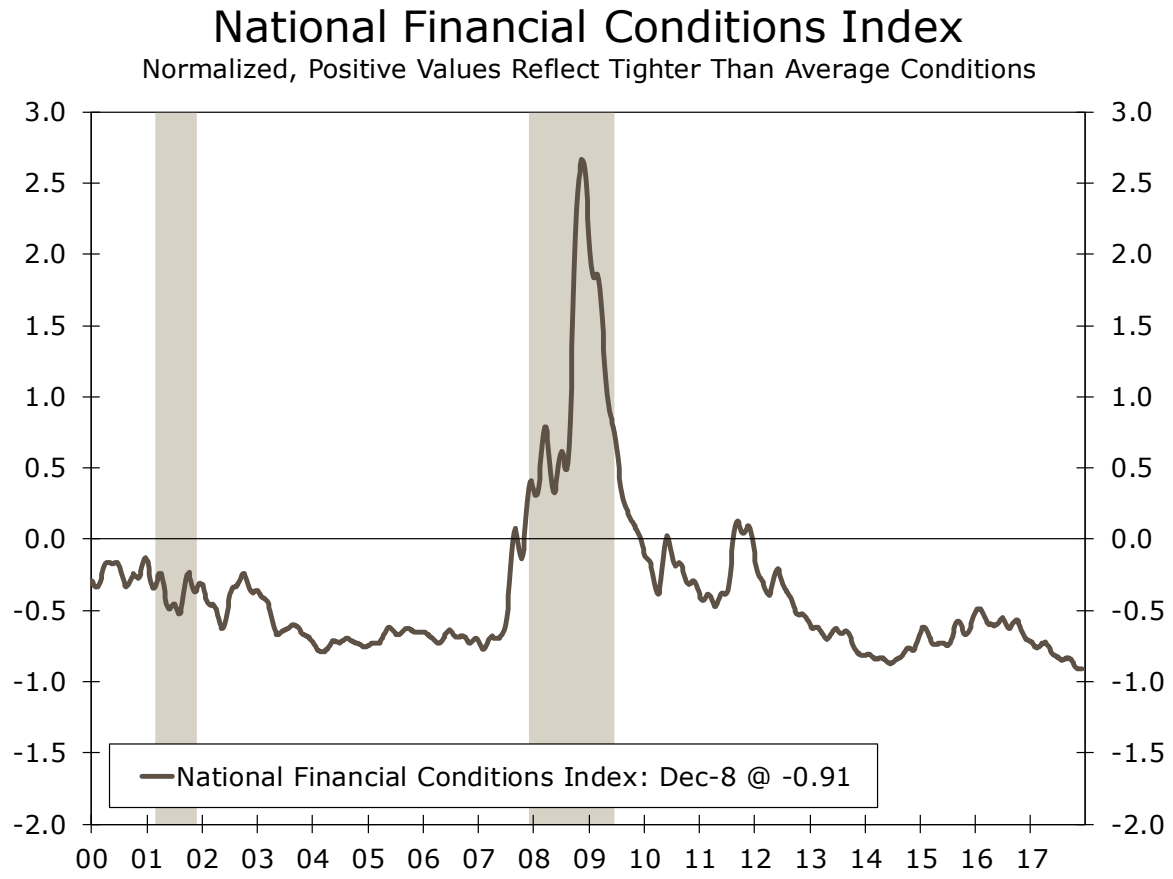
PCE Deflator vs. Core PCE Deflator

Year-over-Year Percent Change



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

Broader financial conditions have eased over the past year, giving the Fed room to further normalize policy

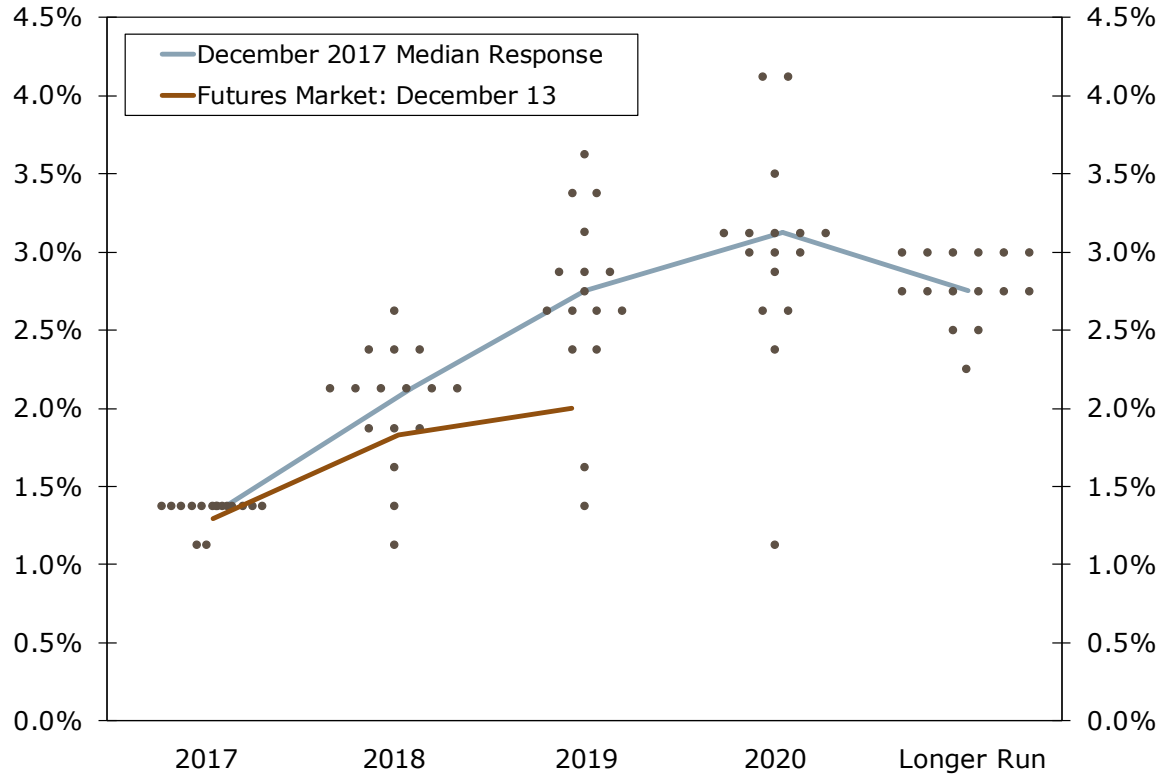


Source: Bloomberg LP and Wells Fargo Securities

The Fed expects to raise rates further over the next year

Appropriate Pace of Policy Firming

Target Federal Funds Rate at Year End

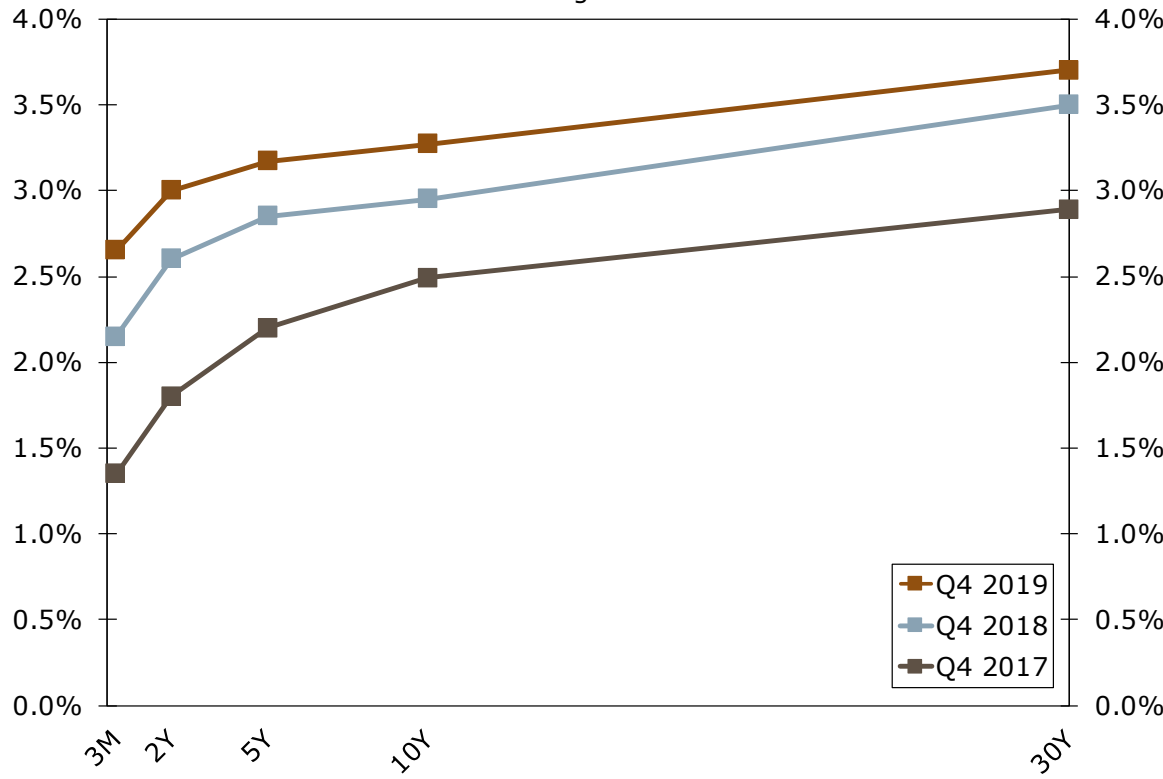


Source: Federal Reserve Board, Bloomberg LP and Wells Fargo Securities

Further Fed rate hikes and the reduction of the balance sheet should push up benchmark yields. Moderate inflation and low global yields, however, will keep the long end of the curve from rising dramatically.

Wells Fargo Rates Forecast

Through 2019



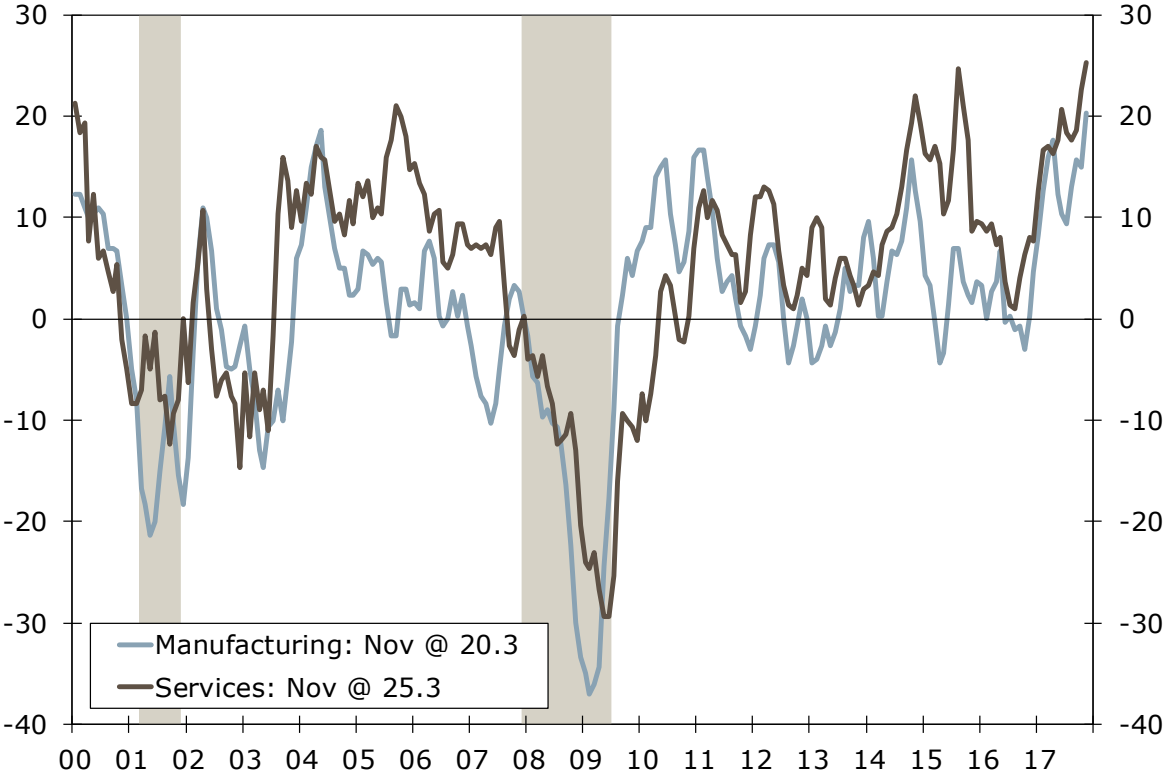
Source: Bloomberg LP and Wells Fargo Securities

Southwest Virginia

Business activity is expanding at a solid pace across the region

Richmond Fed Business Activity

Diffusion Index, 3-Month Moving Averages



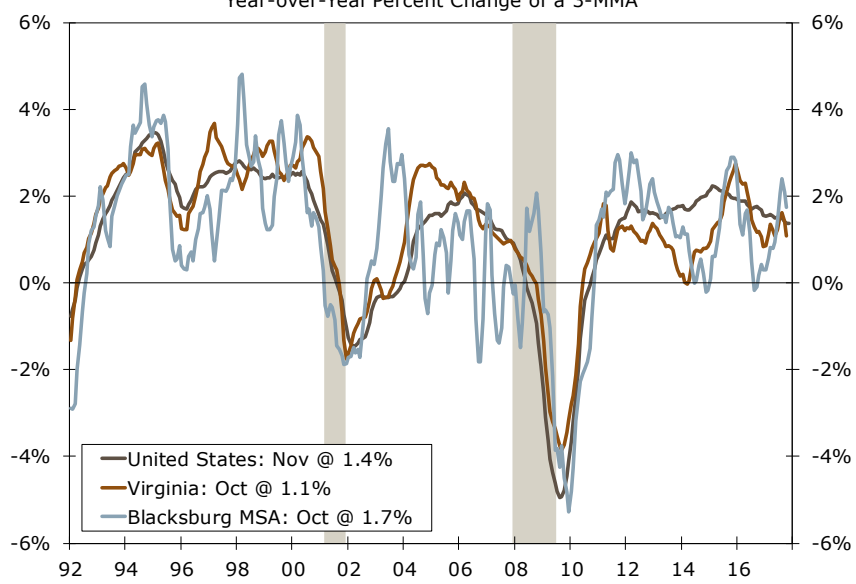
Source: Federal Reserve Bank of Richmond and Wells Fargo Securities

Employment growth has picked up in recent months and is outpacing the nation

Employment

Blacksburg MSA Employment Growth

Year-over-Year Percent Change of a 3-MMA

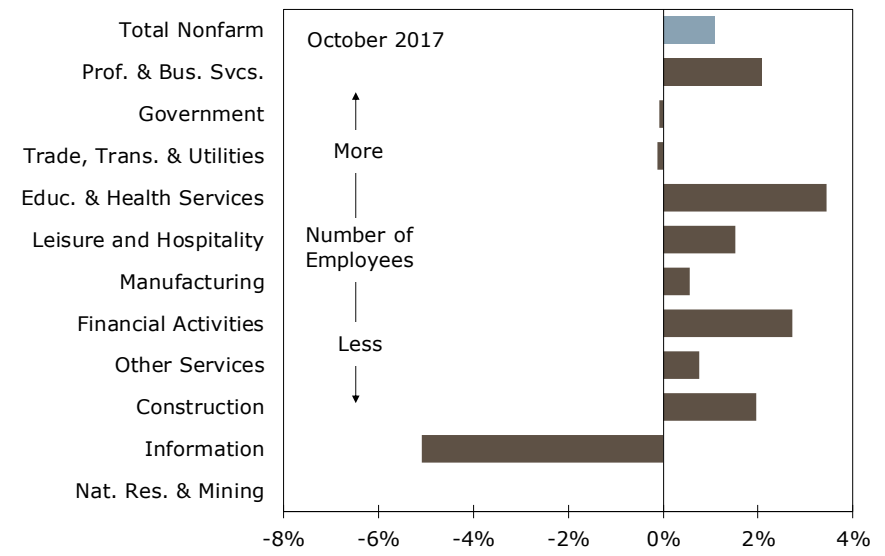


Source: U.S. Department of Labor and Wells Fargo Securities

Employment by Industry

Virginia Employment Growth By Industry

Year-over-Year Percent Change, 3-MMA

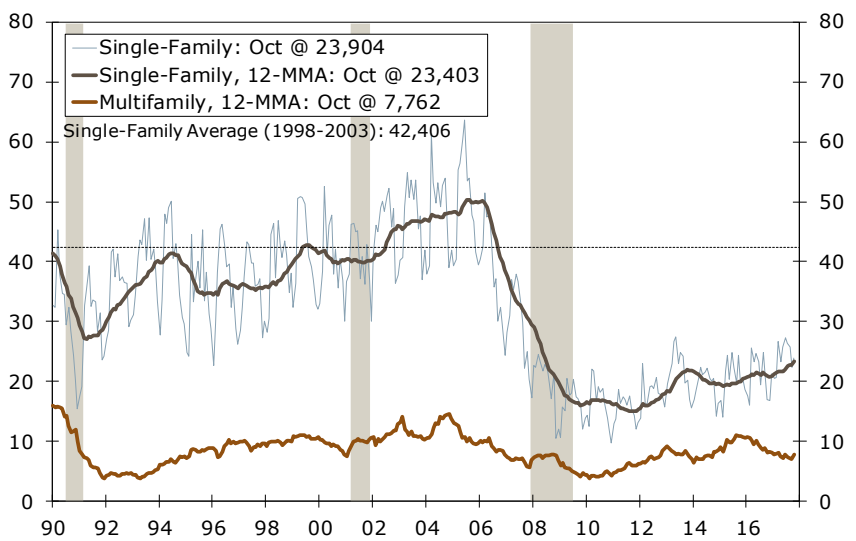


Although increasing statewide over the past year, single-family home construction has cooled off in the Blacksburg metro

Virginia

Virginia Housing Permits

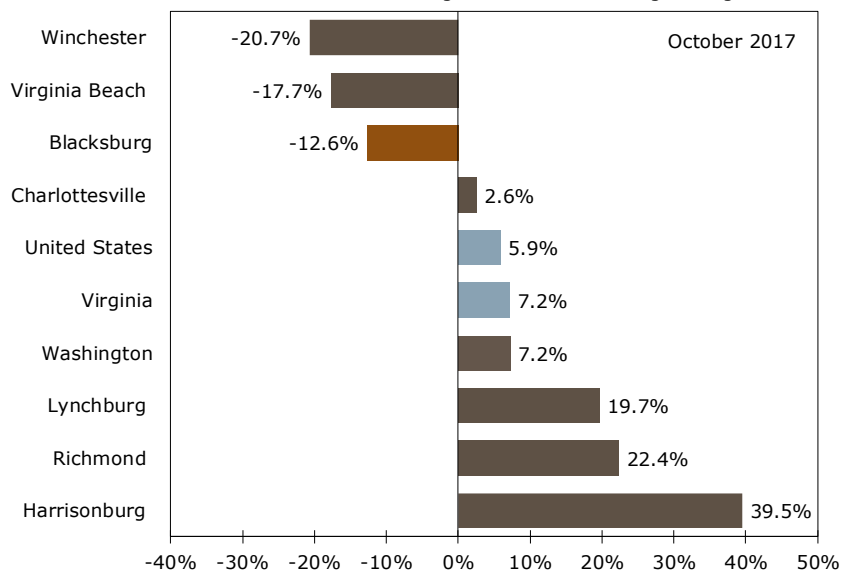
Thousands of Permits, Seasonally Adjusted Annual Rate



Virginia Metros

Virginia Building Permits

Year-over-Year Percent Change of 12-Month Moving Average

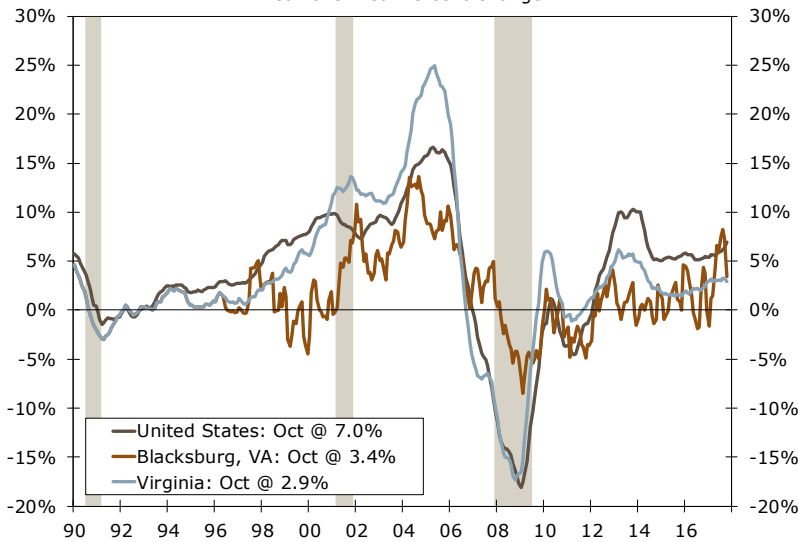


Source: U.S. Department of Commerce and Wells Fargo Securities

Home prices have risen modestly in Virginia relative to the nation as a whole

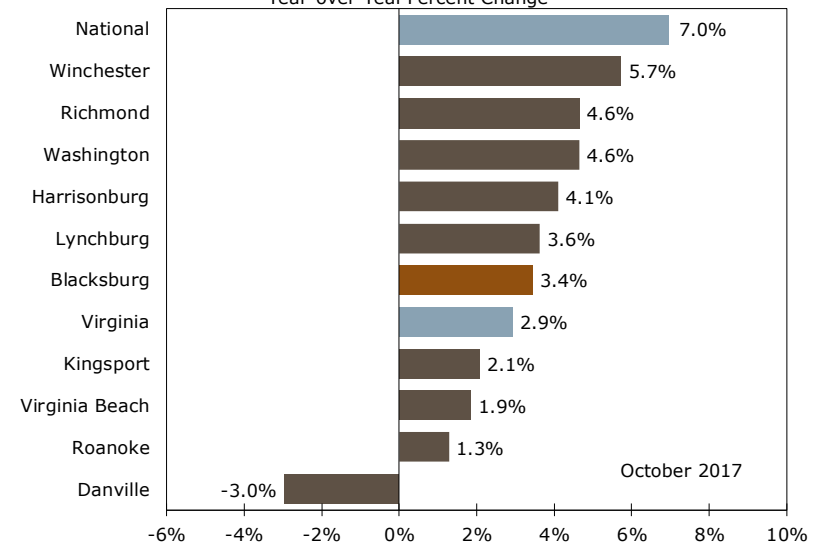
Home Price Index

CoreLogic HPI: U.S. vs. Blacksburg
Year-over-Year Percent Change



Home Price Growth by MSA

Virginia Home Prices
Year-over-Year Percent Change



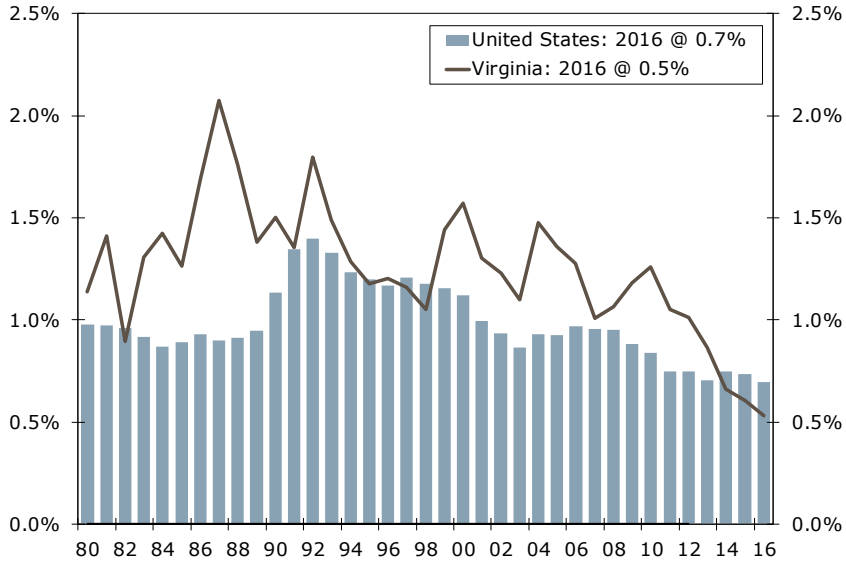
Source: CoreLogic and Wells Fargo Securities

Strong population growth will underpin a more favorable pace of economic activity

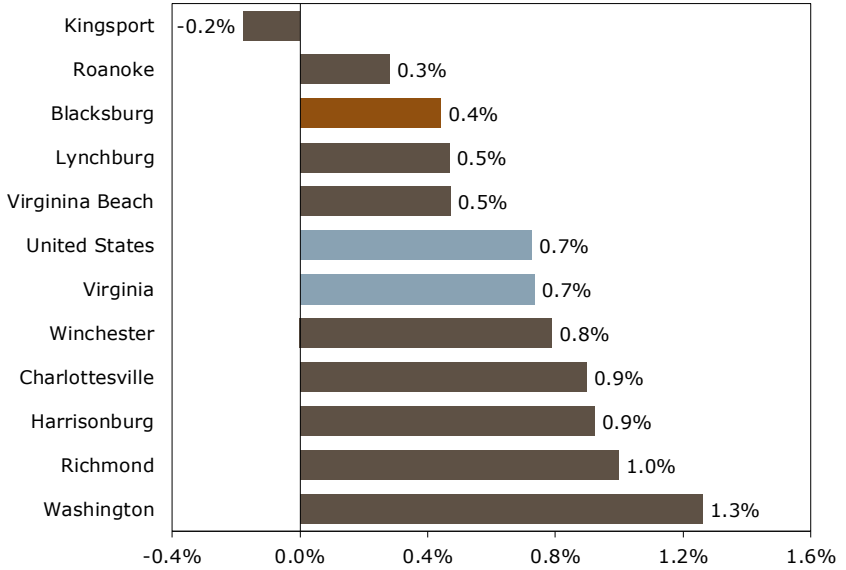
Population Growth

Population Growth by MSA

Population Growth
Annual Percent Change



Virginia Population Growth
Average Annual Percent Change, 2012 - 2016



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

U.S. GDP Outlook

- **GDP growth of around 2.5% through 2019**
 - **Stronger growth driven by business and residential investment**
-

Fiscal Policy

- **If passed, tax policy changes would provide some near-term support for corporate profits and capital spending, but not much of a boost to consumer spending**
-

Labor Market & Inflation

- **Sustained—but slower—job growth; rising wages**
 - **Low inflation is concerning the Fed, but the weaker dollar and rising labor costs still point to higher inflation ahead**
-

Monetary Policy

- **Labor market gains and loose financial conditions supportive of further Fed tightening**
 - **Balance sheet run-off has begun, three more rate hikes likely before the end of 2018**
-

Recession Watch

- **Low probability of recession in the next six months**
- **...But structural forces point to growth remaining historically slow**

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	3.1	3.3	2.4	2.6	2.6	2.6	2.6	2.4	2.5	2.5	2.6	2.9	1.5	2.3	2.7	2.5
Personal Consumption	1.9	3.3	2.3	3.0	2.5	2.6	2.6	2.6	2.3	2.5	2.4	2.4	3.6	2.7	2.7	2.6	2.5
Business Fixed Investment	7.2	6.7	4.7	5.4	4.8	4.1	4.0	3.7	3.7	3.6	3.6	3.7	2.3	-0.6	4.6	4.7	3.7
Equipment	4.4	8.8	10.4	7.6	5.4	4.3	4.2	3.7	3.7	3.3	3.5	3.7	3.5	-3.4	4.5	6.1	3.7
Intellectual Property Products	5.7	3.7	5.8	4.2	5.2	4.8	4.7	4.5	4.6	4.6	4.6	4.6	3.8	6.3	4.2	4.8	4.6
Structures	14.8	7.0	-6.8	1.0	3.0	2.4	2.4	2.2	2.5	2.4	2.4	2.4	-1.8	-4.1	5.3	1.4	2.4
Residential Construction	11.1	-7.3	-5.1	4.5	5.0	8.0	7.5	7.0	5.5	5.0	5.0	4.5	10.2	5.5	1.2	3.8	6.0
Government Purchases	-0.6	-0.2	0.4	2.5	0.2	0.8	0.8	0.8	0.7	0.7	0.7	0.7	1.4	0.8	0.0	0.9	0.7
Net Exports ²	0.2	0.2	0.4	-0.5	-0.2	-0.1	-0.1	0.0	0.0	0.0	0.1	0.2	-0.7	-0.2	-0.2	-0.1	0.0
Inventories ²	-1.5	0.1	0.8	0.0	0.2	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	128	212	170	165	160	155	150	150	145	145	226	187	173	163	148
Unemployment Rate	4.7	4.4	4.3	4.1	4.1	4.0	3.9	3.8	3.8	3.7	3.8	3.7	5.3	4.9	4.4	4.0	3.8
Consumer Price Index ⁴	2.6	1.9	2.0	2.0	1.8	2.4	2.5	2.0	2.0	2.1	2.2	2.3	0.1	1.3	2.1	2.2	2.1
Quarter-End Interest Rates ⁵																	
Federal Funds Target Rate	1.00	1.25	1.25	1.50	1.75	2.00	2.25	2.25	2.50	2.50	2.75	2.75	0.27	0.52	1.25	2.06	2.63
Conventional Mortgage Rate	4.20	3.90	3.81	3.89	4.06	4.20	4.30	4.35	4.45	4.50	4.62	4.67	3.85	3.65	3.95	4.23	4.56
2 Year Note	1.27	1.38	1.47	1.80	2.00	2.25	2.45	2.60	2.70	2.80	2.93	3.00	0.69	0.83	1.48	2.33	2.86
10 Year Note	2.40	2.31	2.33	2.49	2.66	2.80	2.90	2.95	3.05	3.10	3.22	3.27	2.14	1.84	2.38	2.83	3.16

Forecast as of: December 14, 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

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		
	2017	2018	2019	2017	2018	2019
Global (PPP Weights)	3.5%	3.4%	3.4%	3.1%	3.5%	3.5%
Global (Market Exchange Rates)	3.3%	3.3%	3.2%	3.1%	3.5%	3.5%
Advanced Economies ¹	2.4%	2.4%	2.2%	1.8%	1.9%	2.0%
United States	2.3%	2.7%	2.5%	2.1%	2.2%	2.1%
Eurozone	2.4%	2.1%	1.9%	1.5%	1.6%	1.8%
United Kingdom	1.5%	1.4%	1.8%	2.7%	2.3%	2.0%
Japan	1.5%	1.1%	1.0%	0.4%	0.9%	1.1%
Korea	3.3%	3.0%	2.6%	2.0%	1.8%	2.1%
Canada	2.9%	2.0%	1.7%	1.6%	2.0%	2.0%
Developing Economies ¹	4.7%	4.5%	4.5%	4.4%	5.0%	5.1%
China	6.6%	6.4%	6.0%	1.6%	2.2%	2.2%
India ²	7.1%	6.7%	7.1%	3.3%	5.0%	4.7%
Mexico	2.0%	1.9%	2.9%	5.9%	5.0%	5.1%
Brazil	1.0%	2.6%	3.0%	3.5%	3.8%	4.4%
Russia	1.8%	2.1%	2.2%	3.7%	3.4%	4.5%

Forecast as of: December 14, 2017

¹Aggregated Using PPP Weights

²Forecast Refers to Fiscal Year

Source: International Monetary Fund and Wells Fargo Securities

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