

Economic Outlook

Natalie Mullis

Chief Economist, Legislative Council Staff

303-866-4778 | Natalie.Mullis@state.co.us

www.colorado.gov/lcs

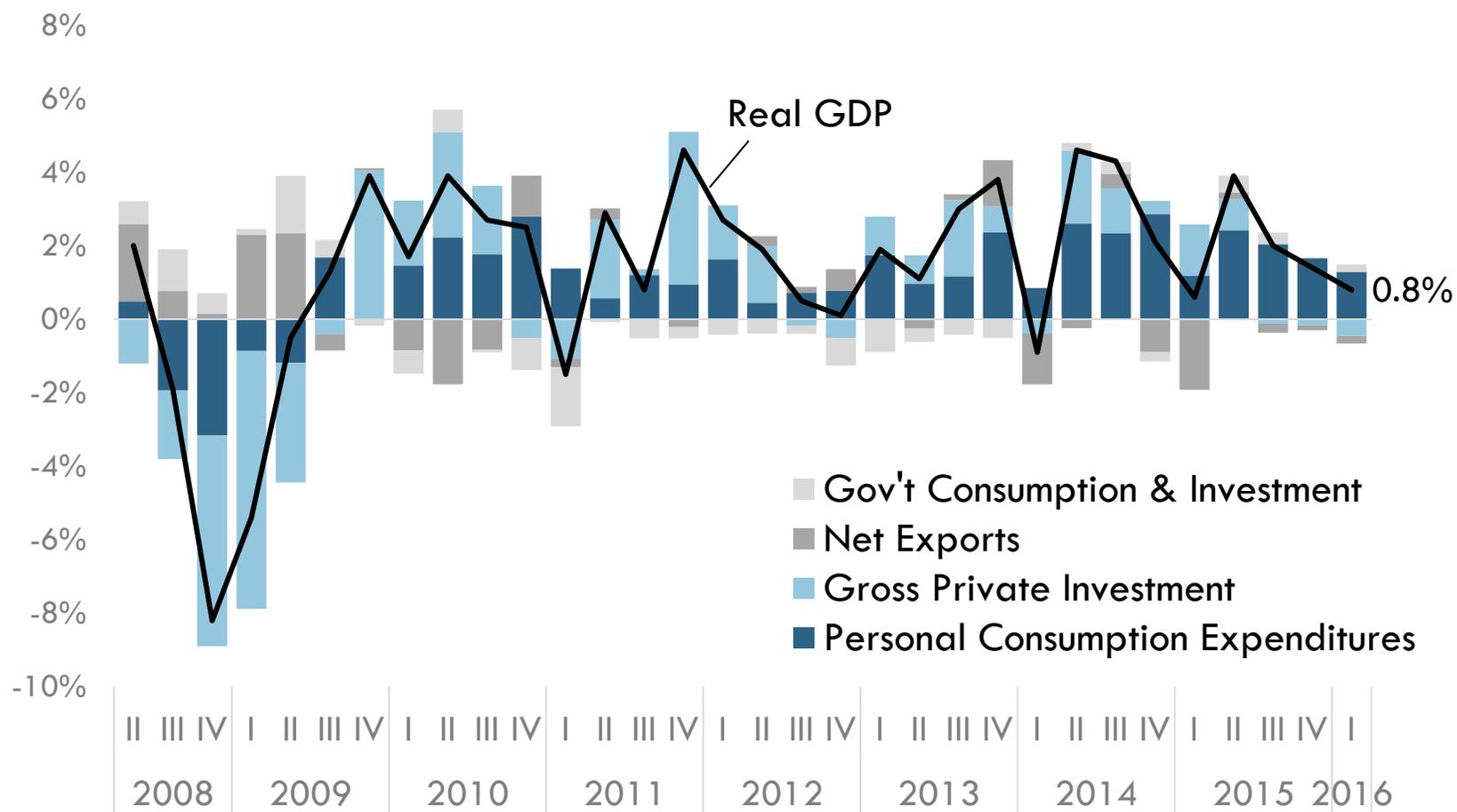
Mountain States Employers Council

June 29, 2016



Six years of moderate growth...

Contributions to Real Gross Domestic Product (GDP)



Source: Bureau of Economic Analysis. Seasonally adjusted annual rates.

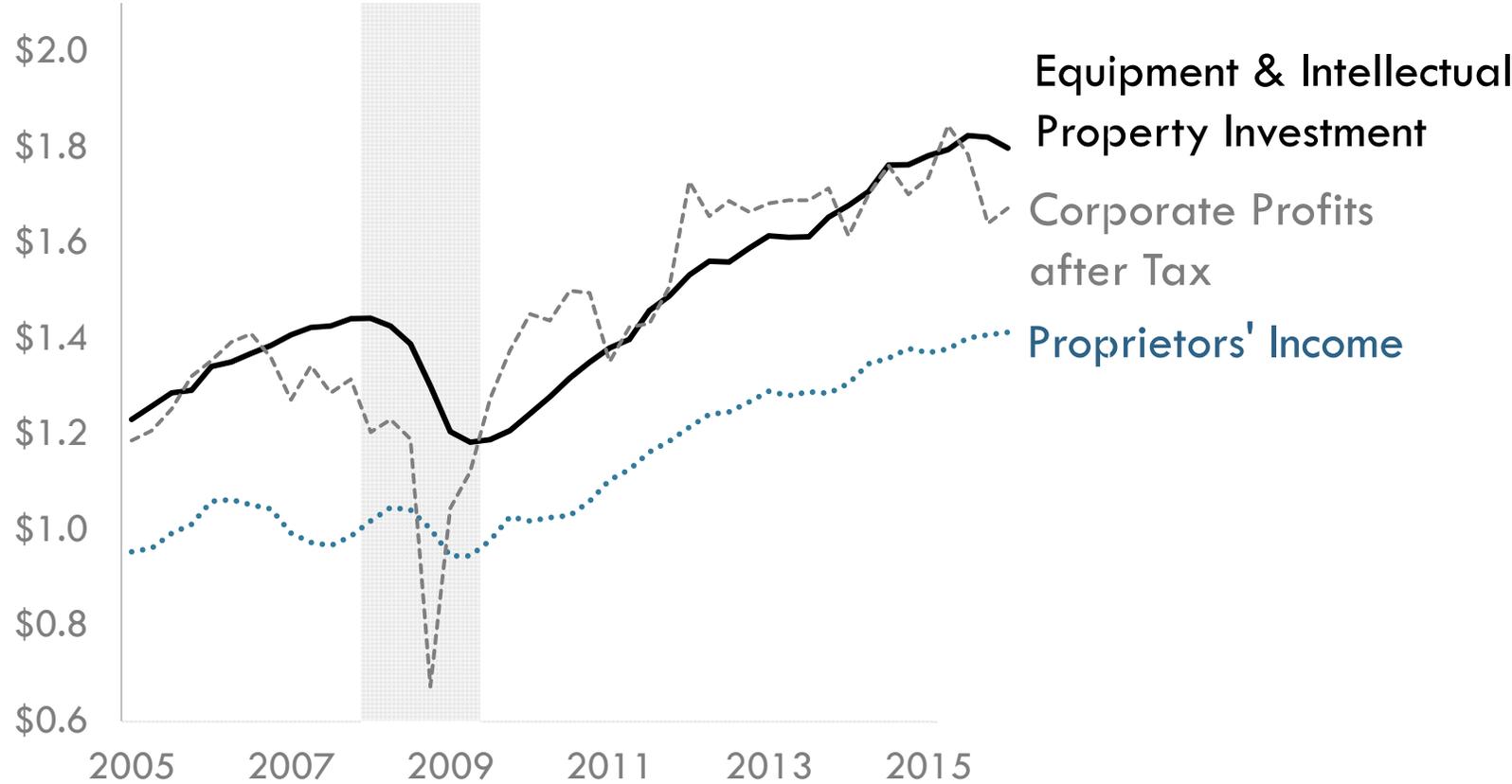
The Business Cycle is Mature

- Businesses led the recovery...
- But the consumer is driving growth now
 - Labor market near full employment
 - Households budgets balanced
(some spending, some saving, and record low debt burdens)
 - Better credit conditions
 - Household net worth up
- Weighing on growth:
 - Global economy
 - Oil
 - High housing costs
 - Tightening monetary policy
 - Low labor force and productivity growth

Business drove the recovery...

Business Investment, Income and Profits

Trillions of Dollars

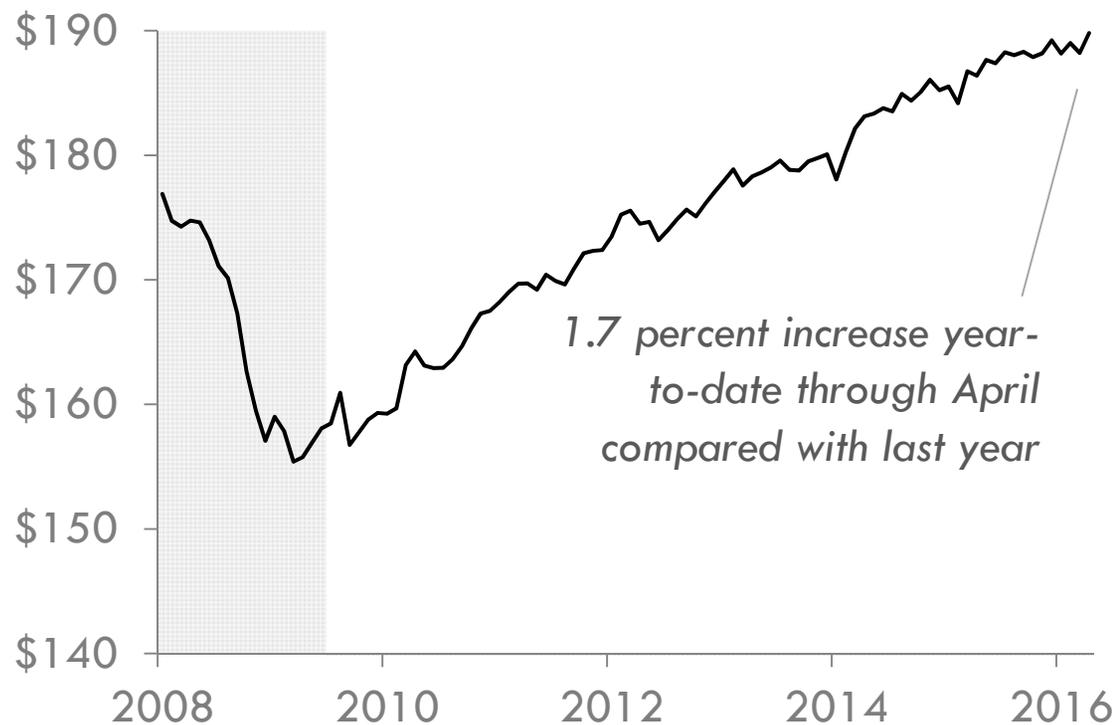


Source: Bureau of Economic Analysis. Profits and income with inventory valuation and capital consumption adjustments.

...but consumers took the reins for the expansion

Real U.S. Retail & Food Service Sales

Billions of 2015 Dollars



Source: U.S. Census Bureau; adjusted for inflation using the consumer price index for all urban areas (CPI-U) to the dollar value of most recent month of data. Data are seasonally adjusted.

Low gas prices are muting consumer statistics

Change in U.S. Retail Sales, *Not Adjusted for Inflation*
Year-to-date through May

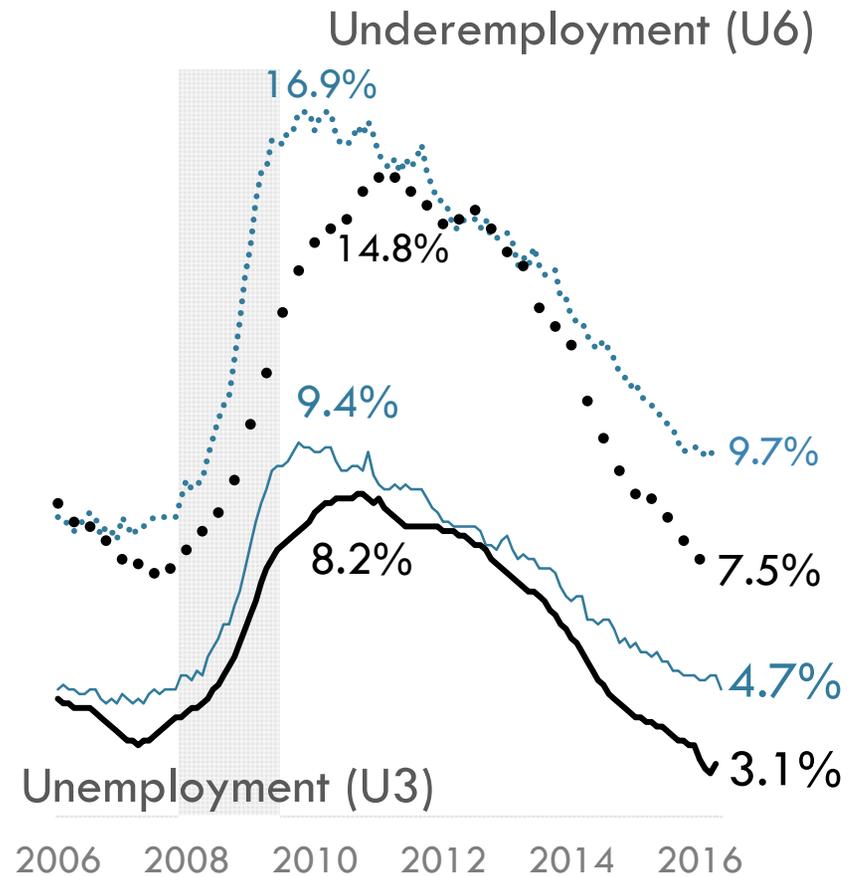
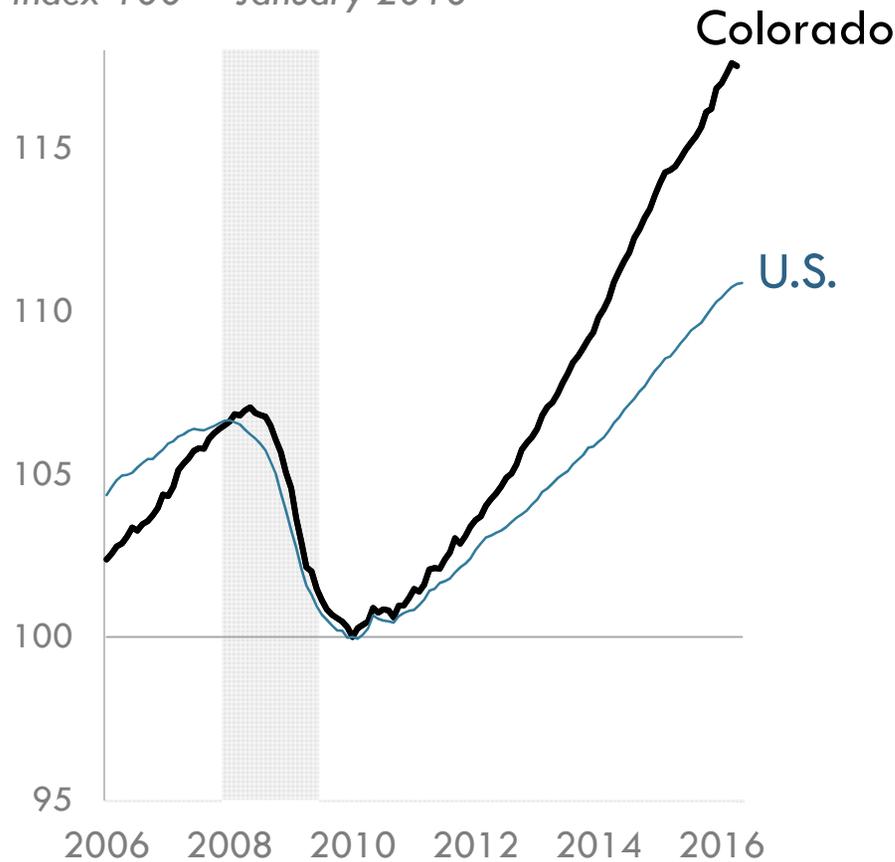
Total U.S. Retail Sales	2.7%	Share of Sales
Building, Garden & Supplies Dealers	7.5%	6.2%
Nonstore Retailers	9.8%	10.1%
Health & Personal Care Stores	6.6%	6.1%
Food Services & Drinking Places	6.4%	12.0%
Sporting Goods & Hobby	5.9%	1.7%
Furniture & Home Furnishings Stores	3.5%	2.0%
Motor Vehicle & Parts Dealers	3.4%	20.4%
Miscellaneous Store Retailers	4.1%	2.3%
Food & Beverage Stores	1.8%	12.9%
Clothing & Clothing Accessory Stores	0.2%	4.7%
General Merchandise Stores	0.0%	12.3%
Electronics & Appliance Stores	-2.6%	1.9%
Gasoline Stations	-10.8%	7.4%

Source: U.S. Census Bureau; adjusted for inflation using the consumer price index for all urban areas (CPI-U) to the dollar value of most recent month of data. Data are seasonally adjusted.

The labor market is nearing full employment...

Total Nonfarm Employment

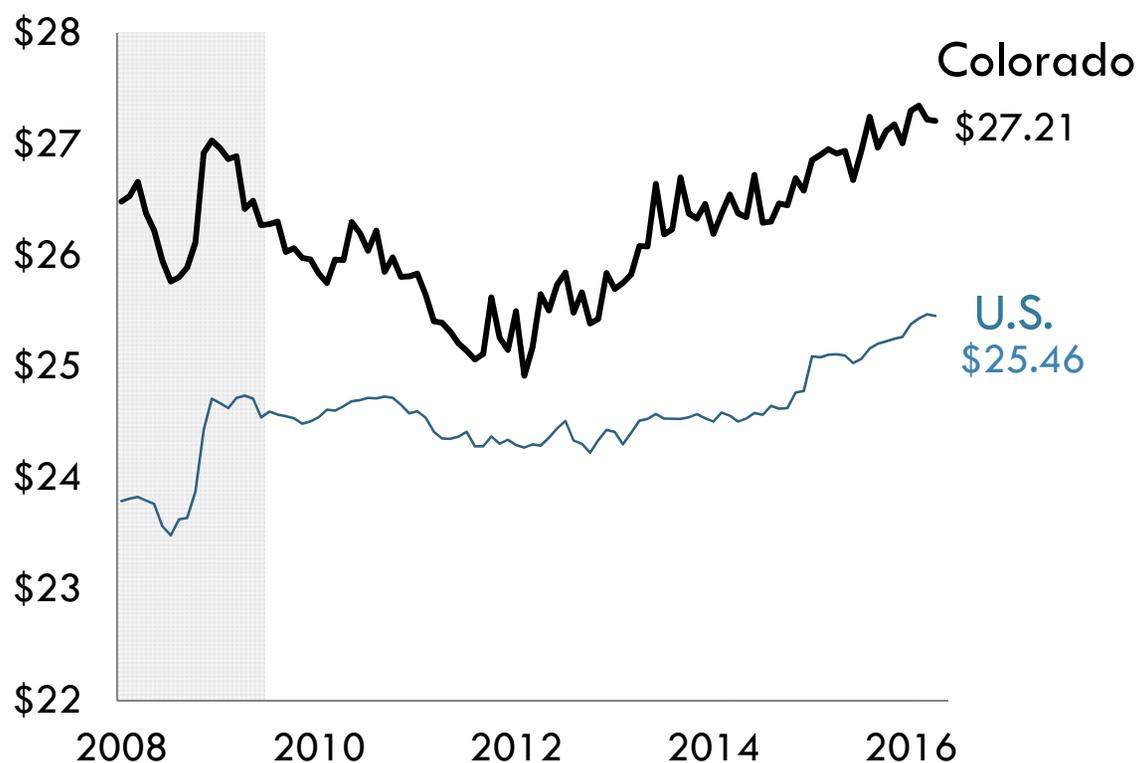
Index 100 = January 2010



...which should put upward pressure on wages

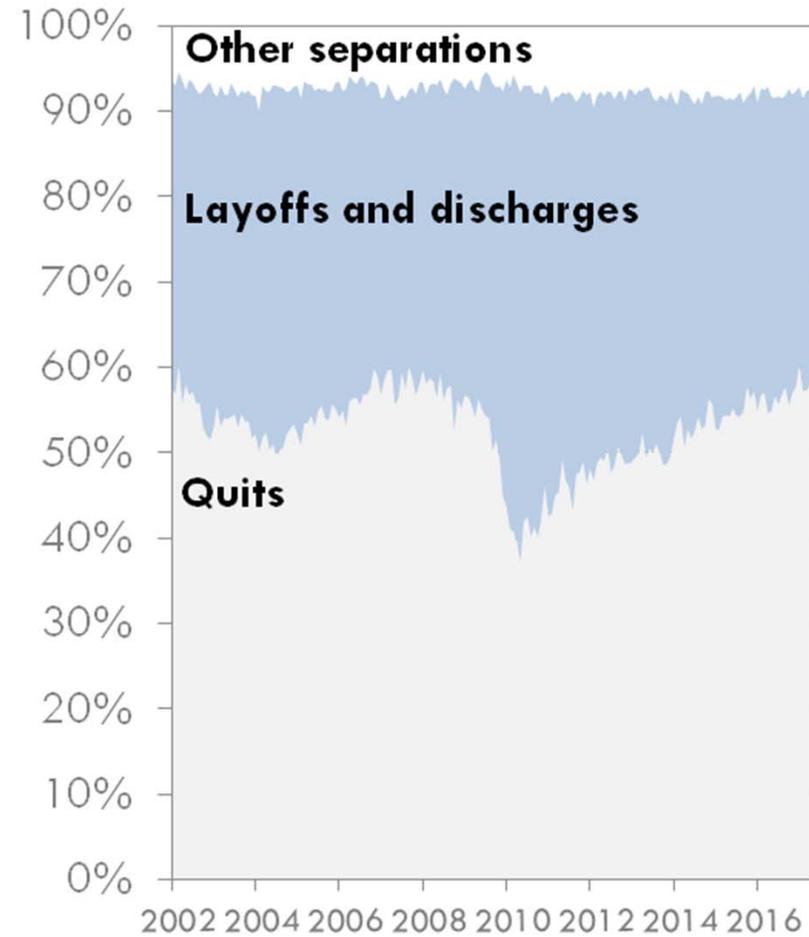
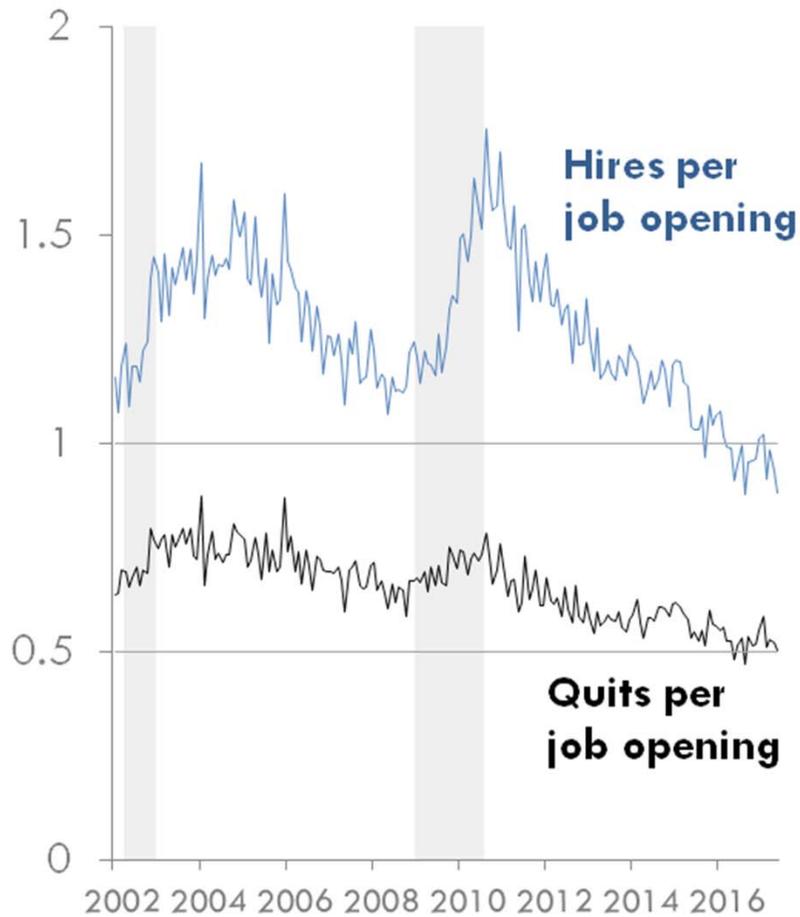
Real Average Hourly Earnings

2015 Dollars



Source: Bureau of Labor Statistics. Seasonally adjusted. Adjusted for inflation using the CPI-U for all urban areas.

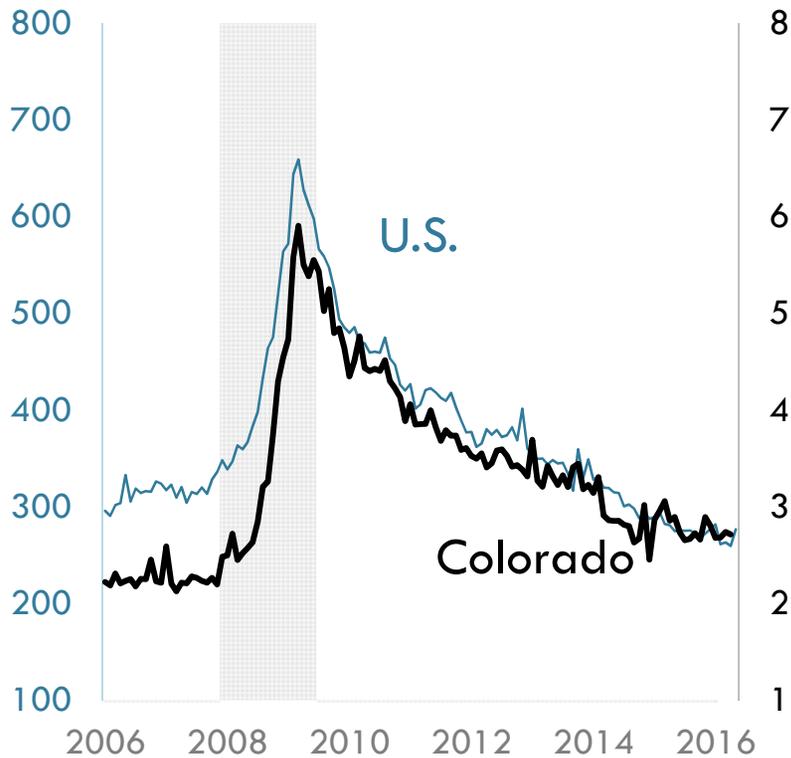
Positions are going unfilled



Unemployment Claims

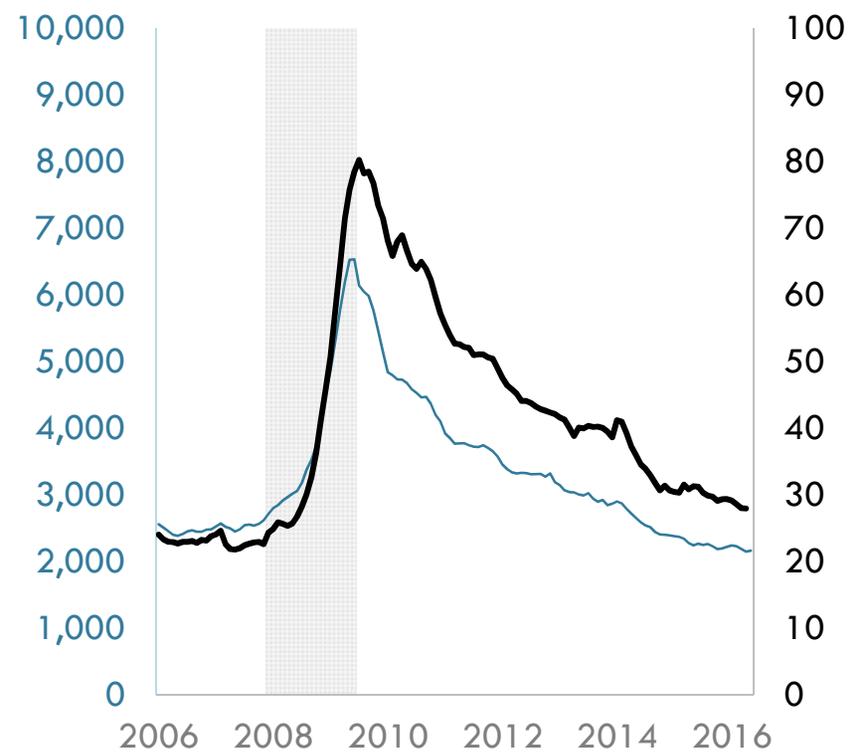
Initial Claims for Unemployment Insurance

Thousands of Claims



Continued Claims

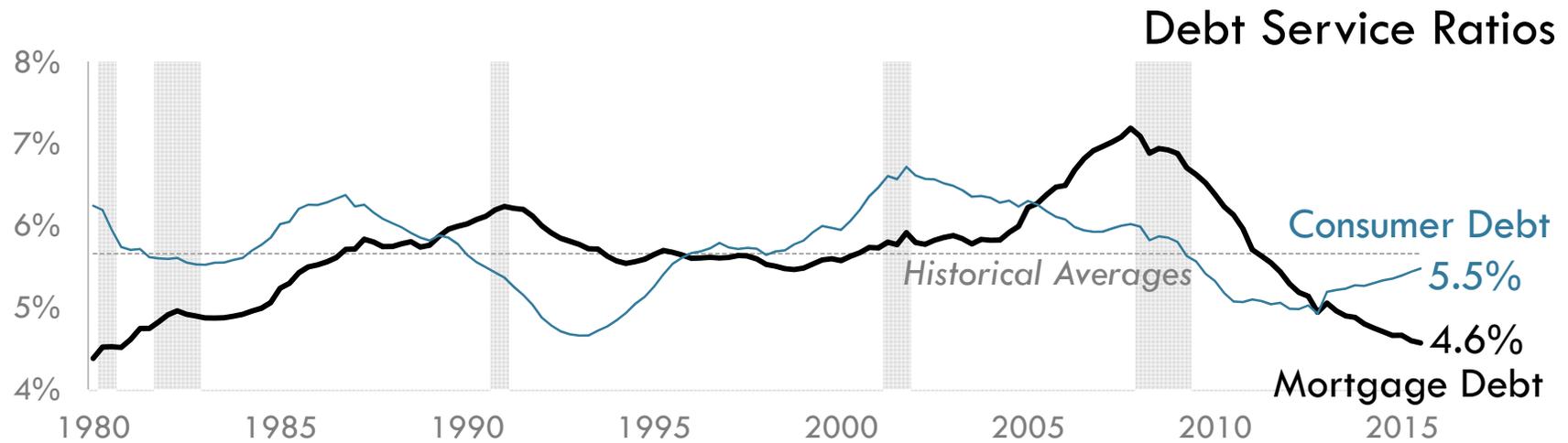
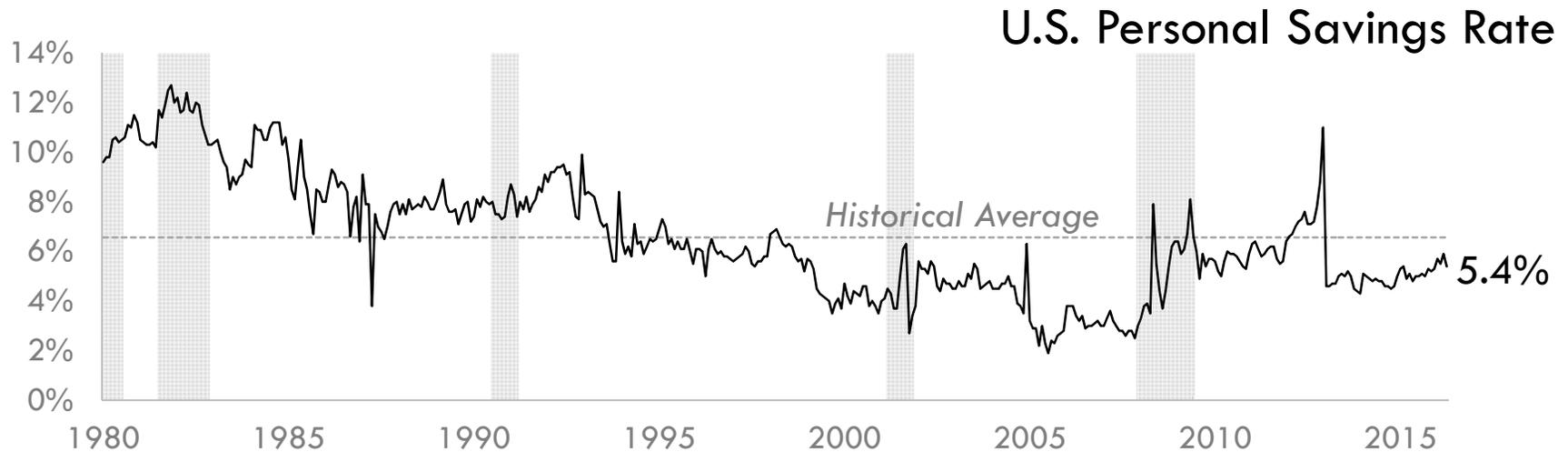
Thousands



Source: U.S. Department of Labor. Seasonally adjusted.

Household budgets are more balanced

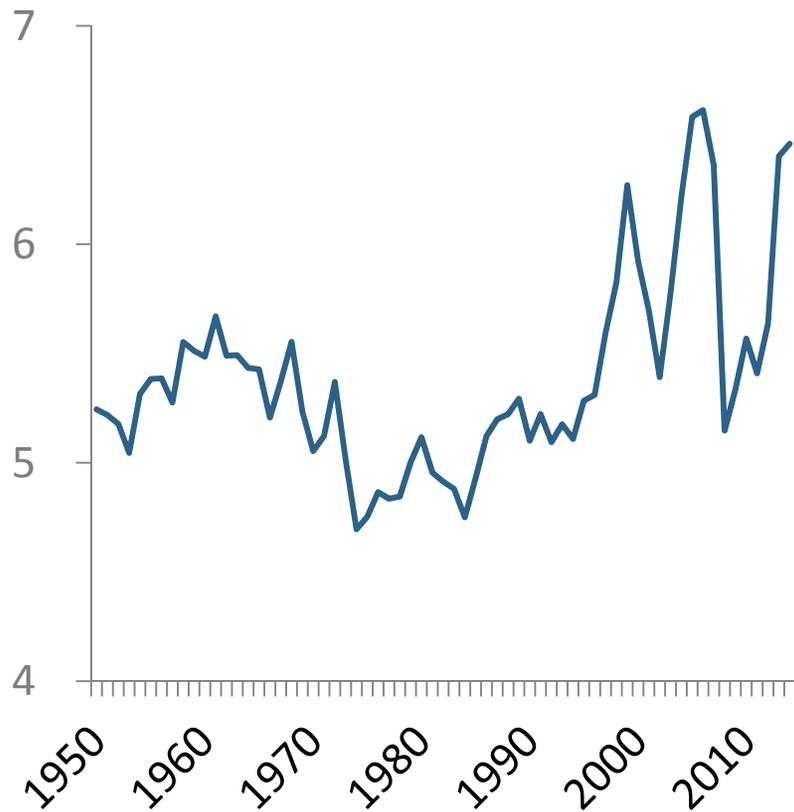
Some spending, some saving, and record low debt burdens



Source: Bureau of Economic Analysis. Seasonally adjusted annual rates. Calculated as personal savings and debt service payments as a percent of disposable personal income.

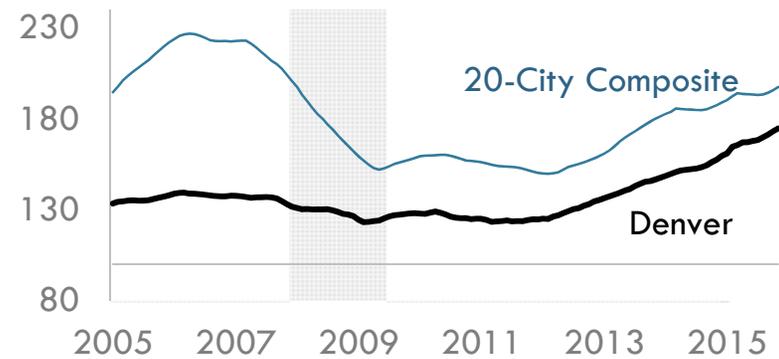
Household net worth is at historic highs

Ratio of Household Net Worth to Personal Disposable Income



Case-Shiller Home Price Indices

Index 100 = January 2000



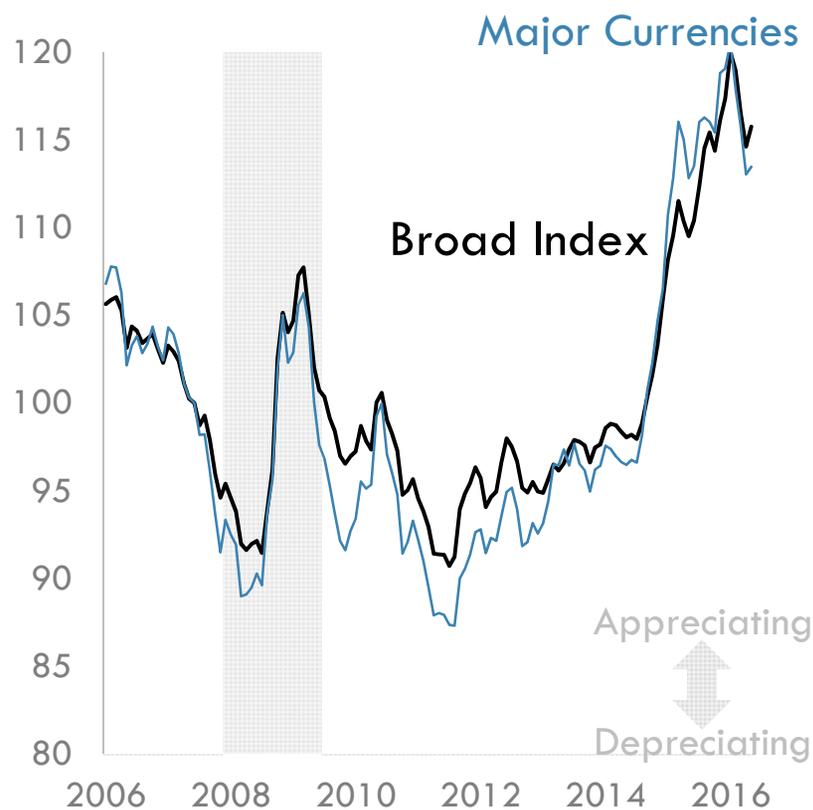
Dow Jones Industrial Average



The global economy is weighing on growth

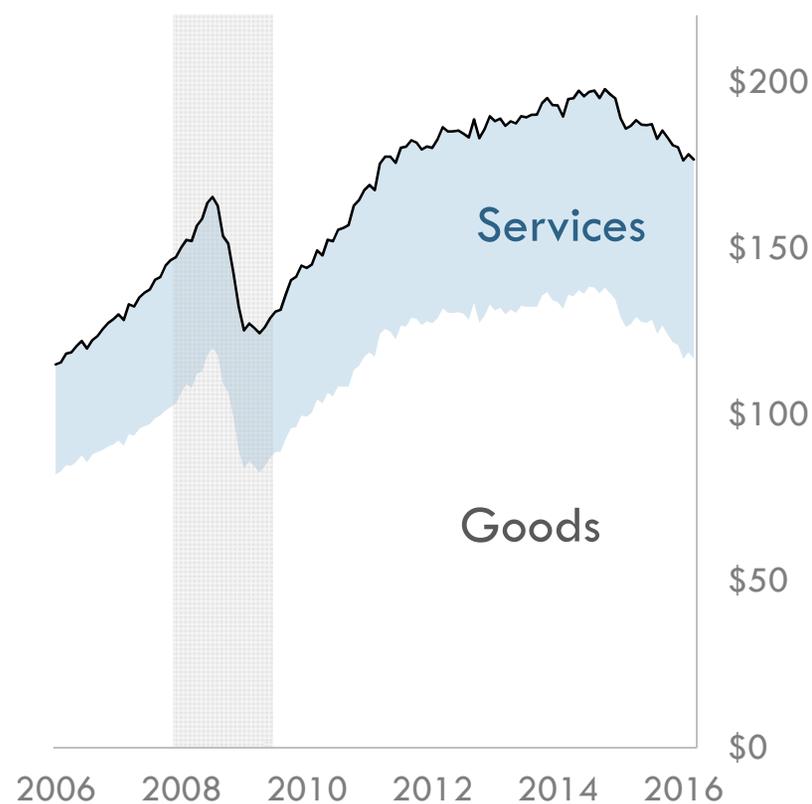
Trade Weighted U.S. Dollar

Index of the Dollar to Foreign Currencies



U.S. Exports

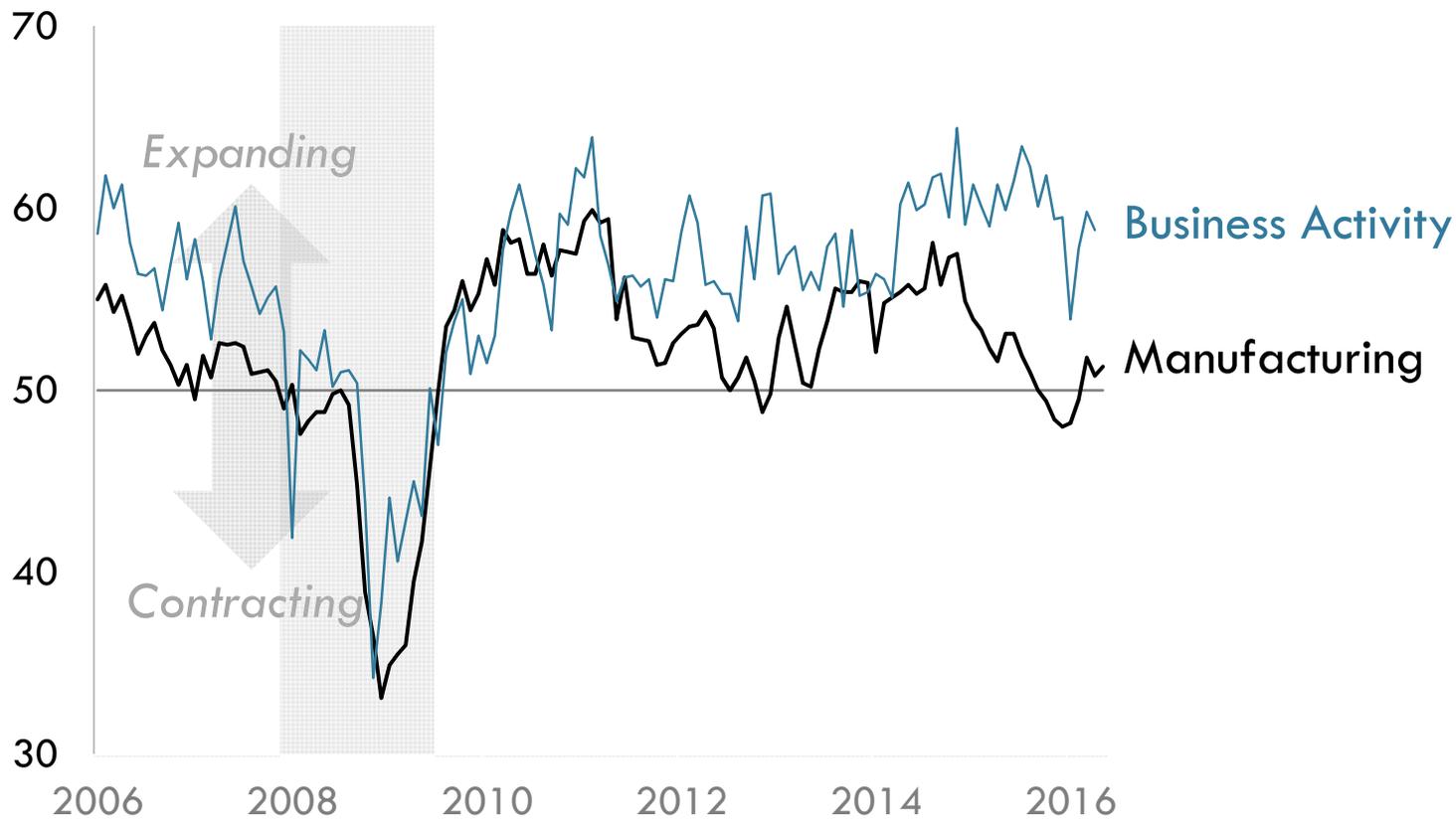
Millions of Dollars



Manufacturing activity is slowing

Institute for Supply Management Indices

Diffusion Index

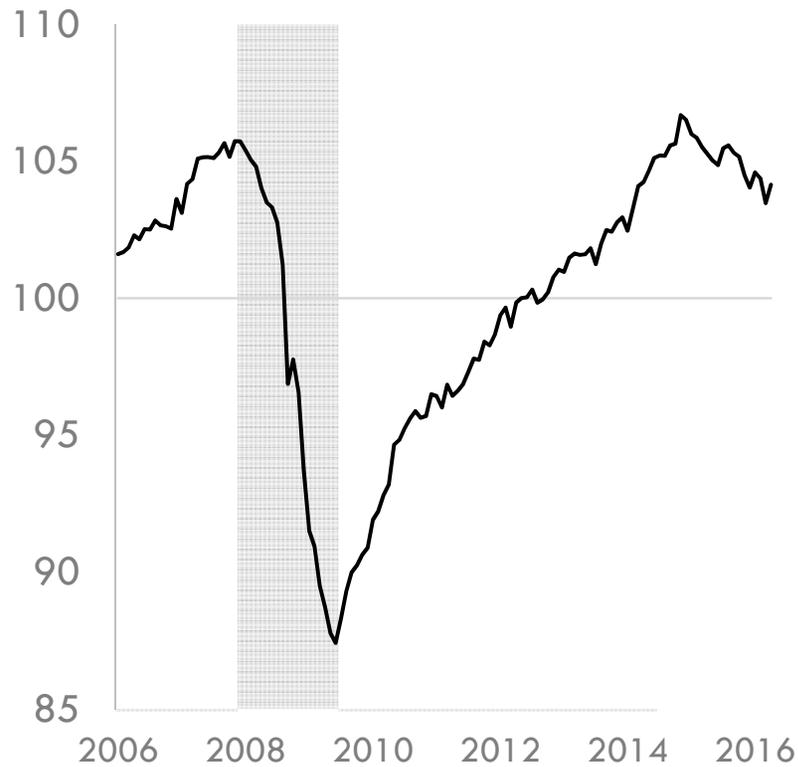


Source: Institute for Supply Management.

Manufacturing activity is slowing

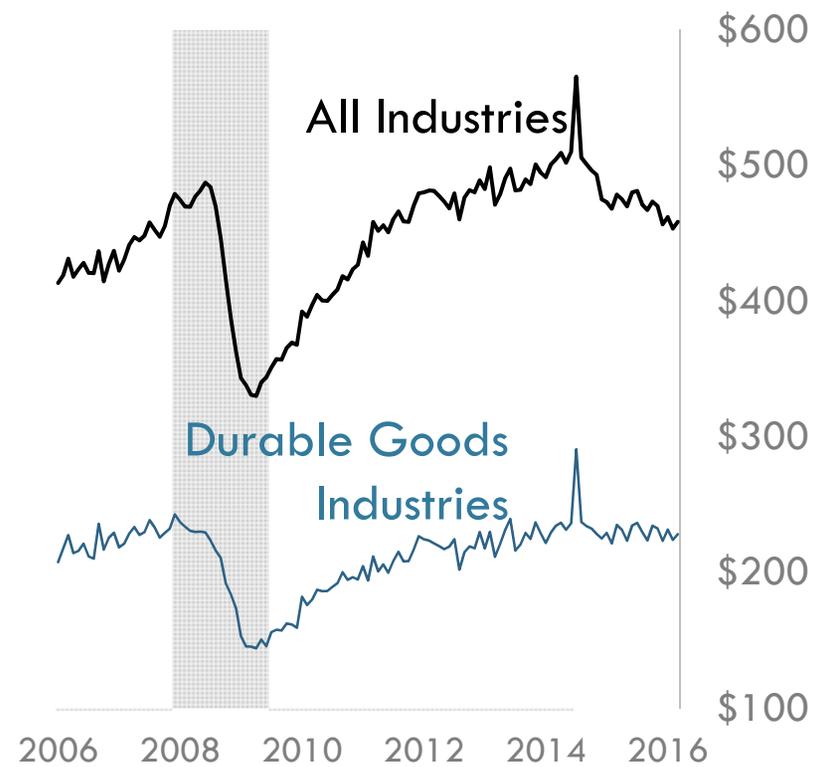
Industrial Production Index

Index 2007 = 100



New Manufacturers' Orders

Billions of Dollars



Low energy prices are weighing on regional growth

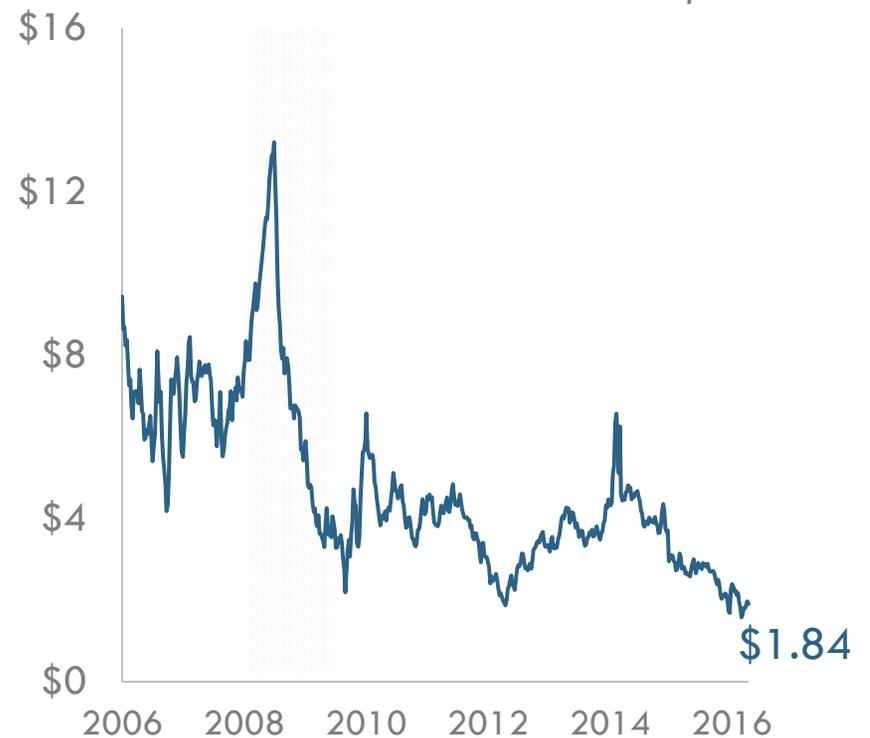
West Texas Intermediate
Crude Oil Price

Dollars per Barrel



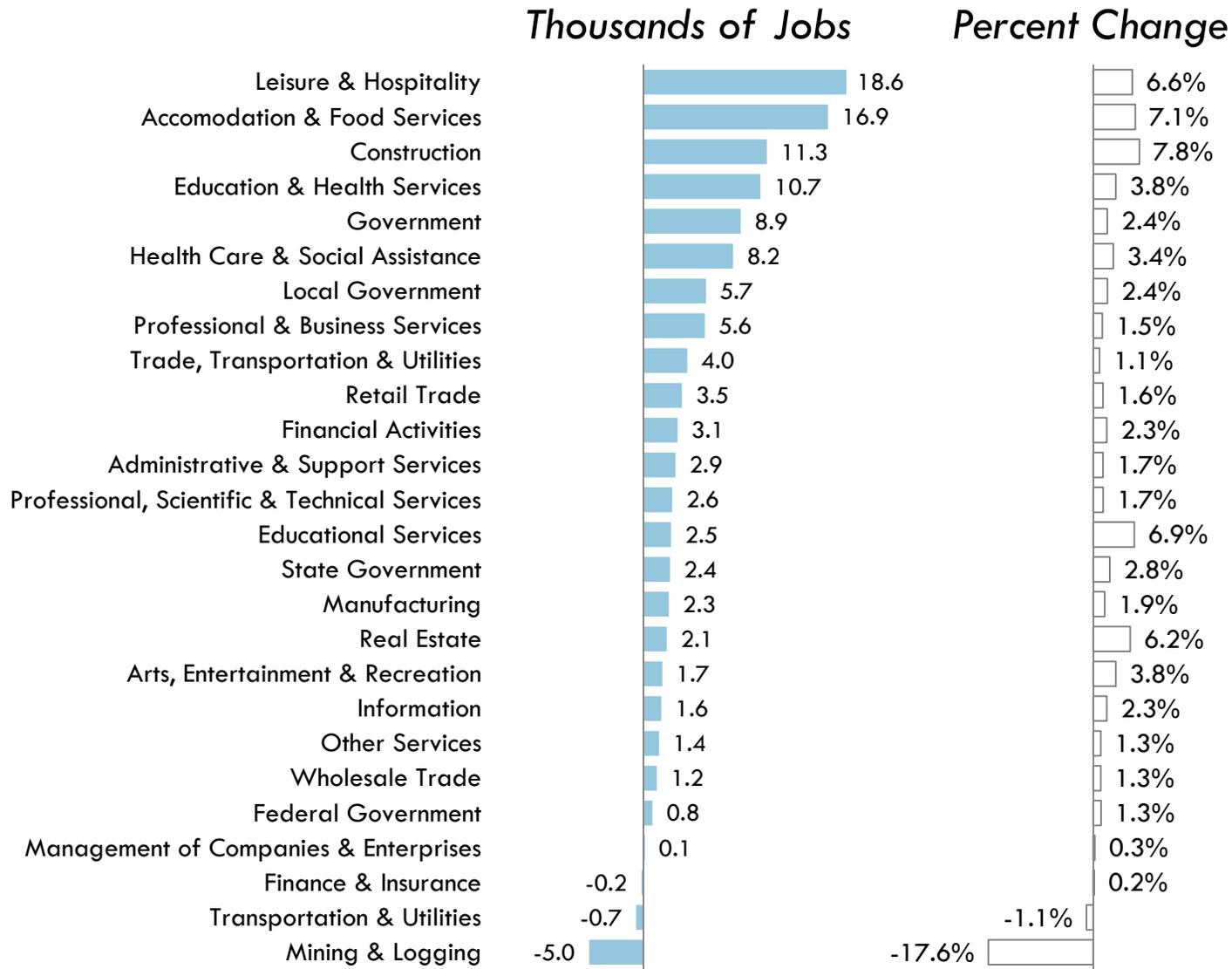
Henry Hub
Natural Gas Price

Dollars per Mcf



Colorado Nonfarm Employment

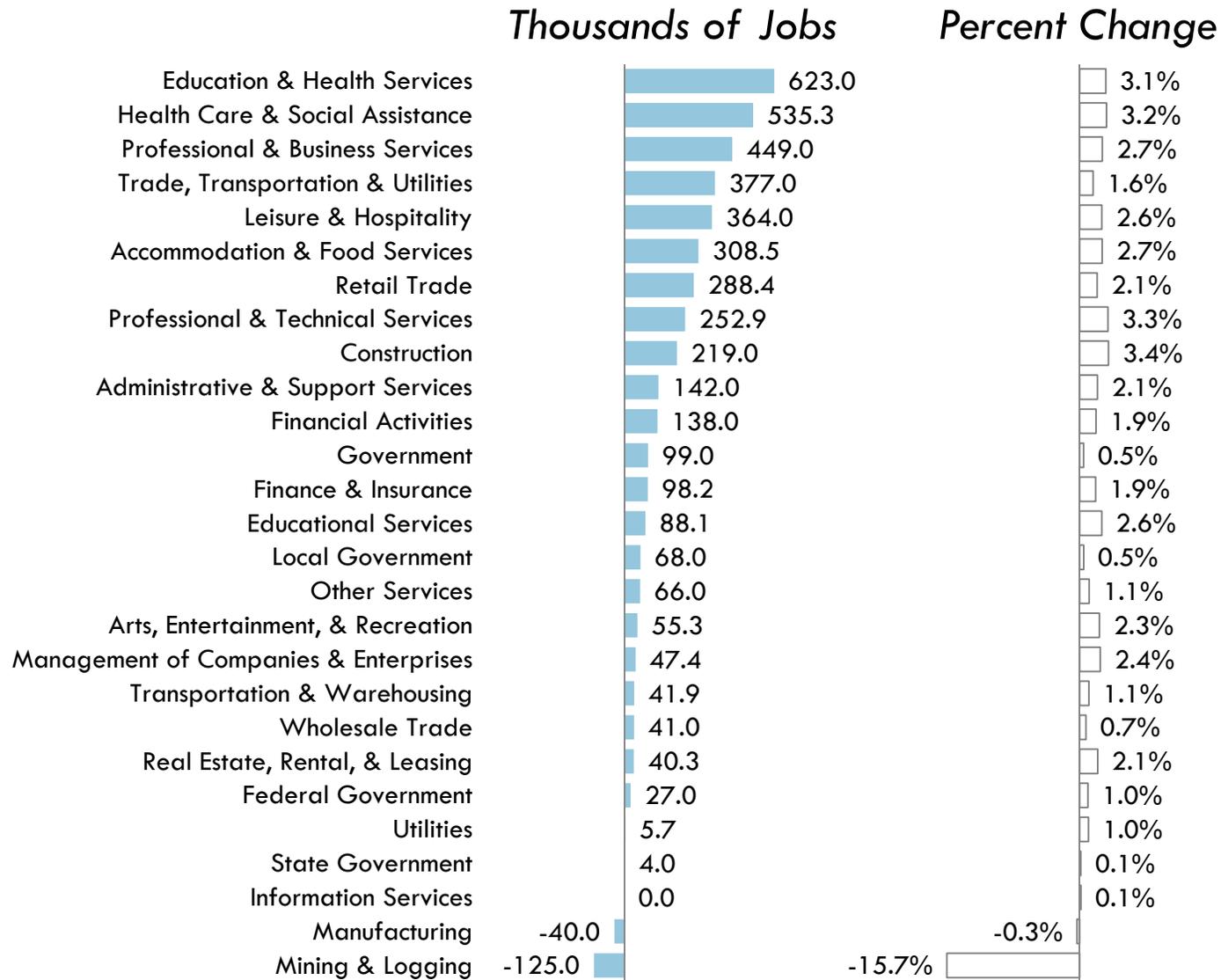
Year-over-Year Change in April 2016



Source: Bureau of Labor Statistics. Seasonally adjusted.

U.S. Nonfarm Employment

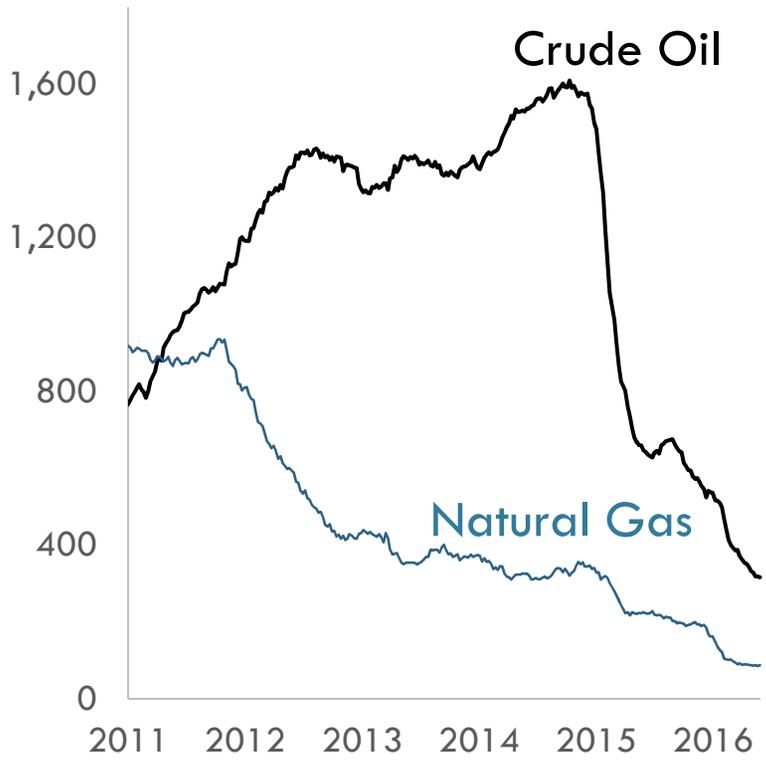
Year-over-Year Change in May 2016



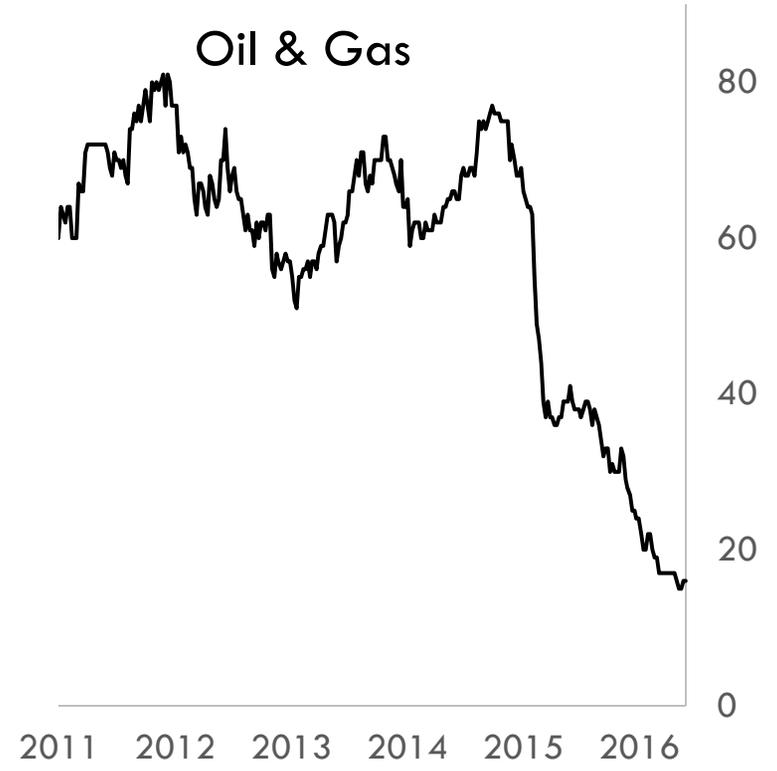
Source: Bureau of Labor Statistics. Seasonally adjusted.

Rig counts and investment have plummeted

U.S. Active Drilling Rig Counts



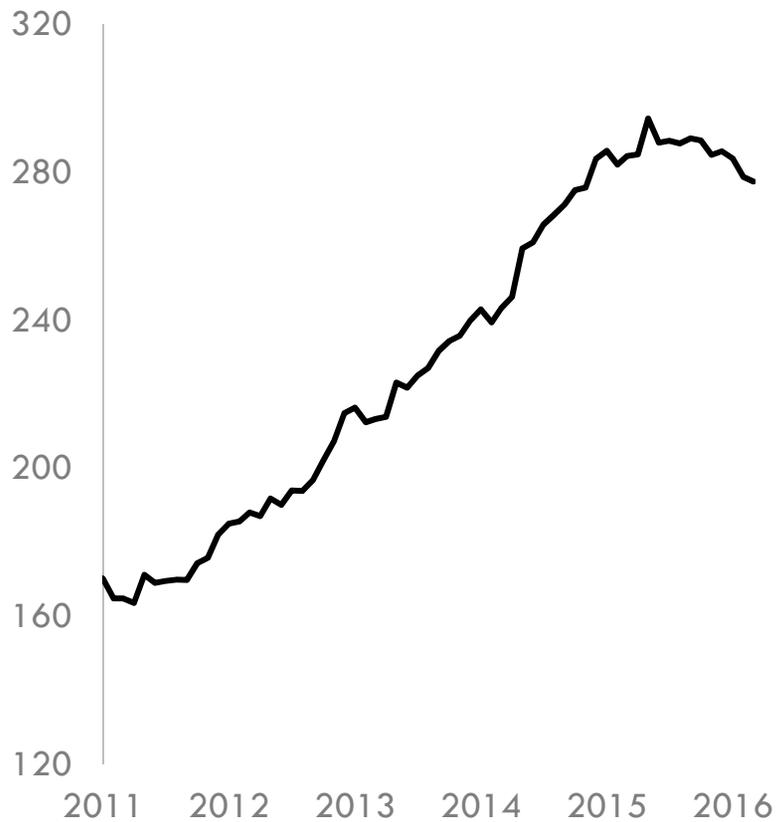
Colorado Rig Counts



But oil companies continue to operate the best wells

U.S. Crude Oil Production

Millions of Barrels per Month



U.S. Crude Oil Stocks

Billions of Barrels

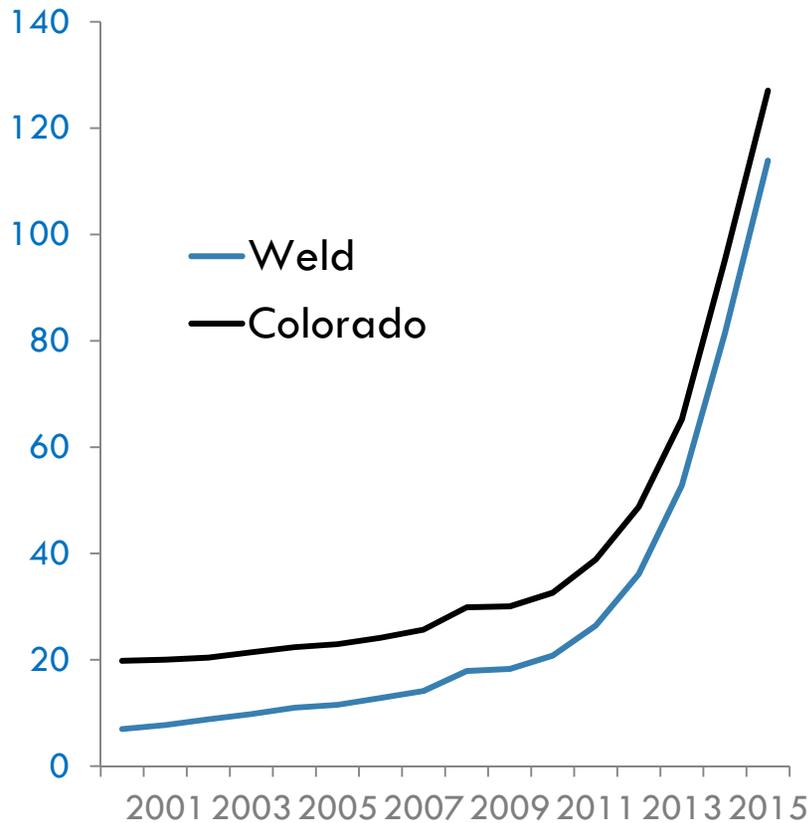


Source: Energy Information Administration (production shown as three-month moving averages).

...and they've found many of them in Weld County

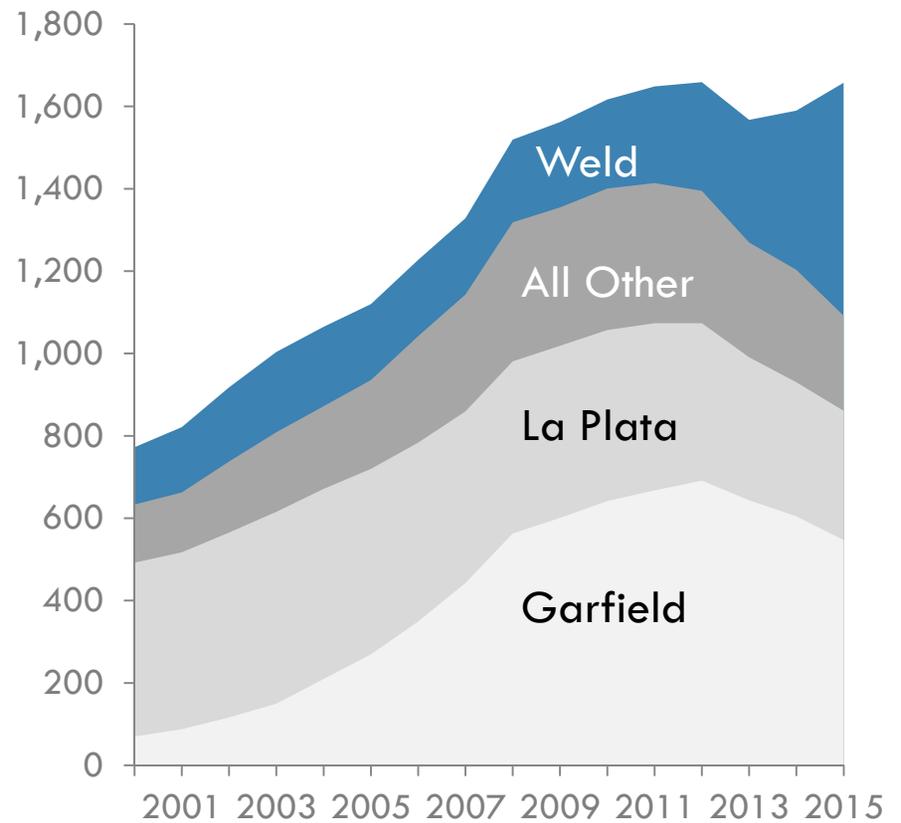
Colorado Crude Oil Sales

Millions of Barrels per year

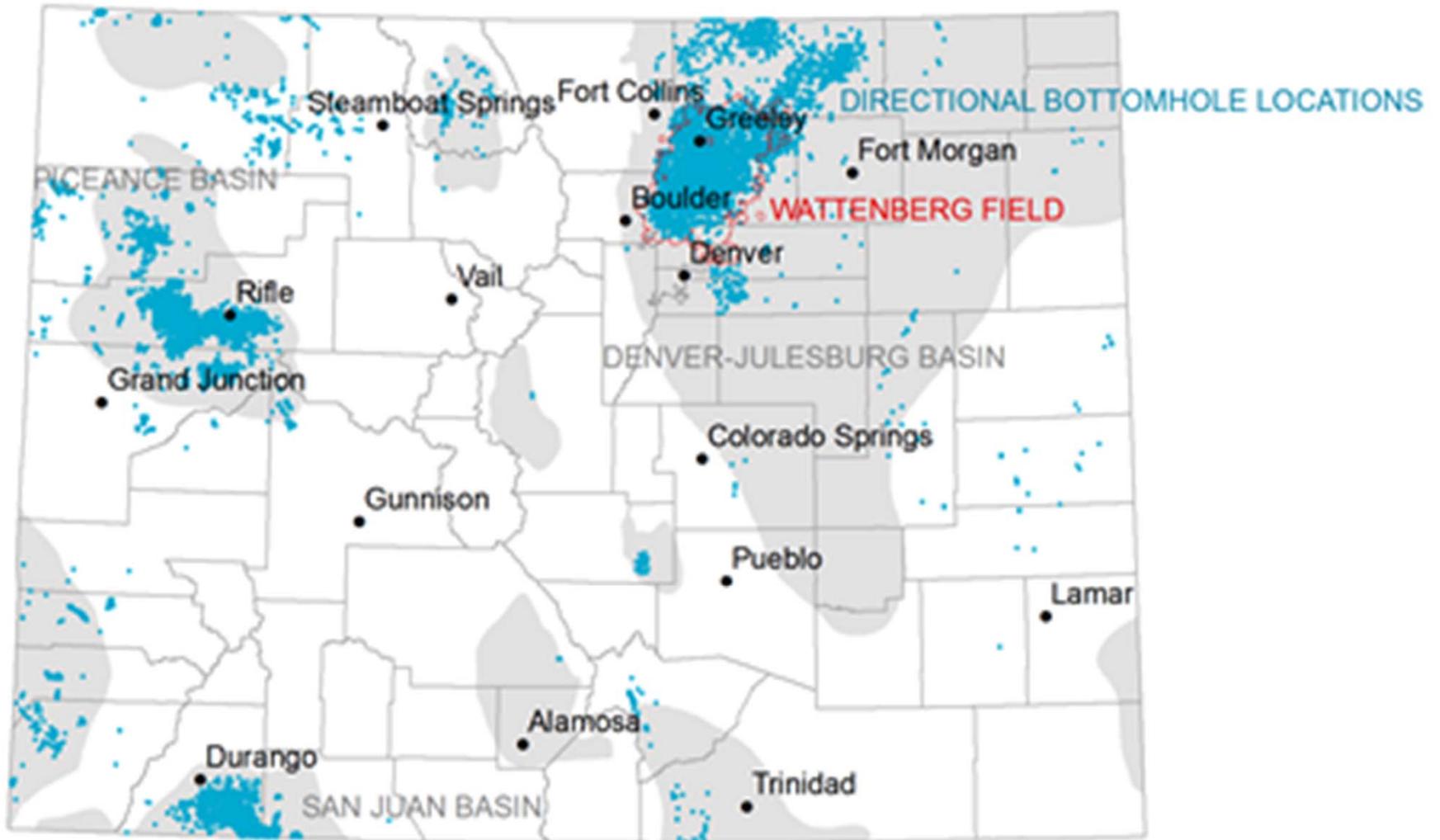


Colorado Natural Gas Sales

Millions of Mcf

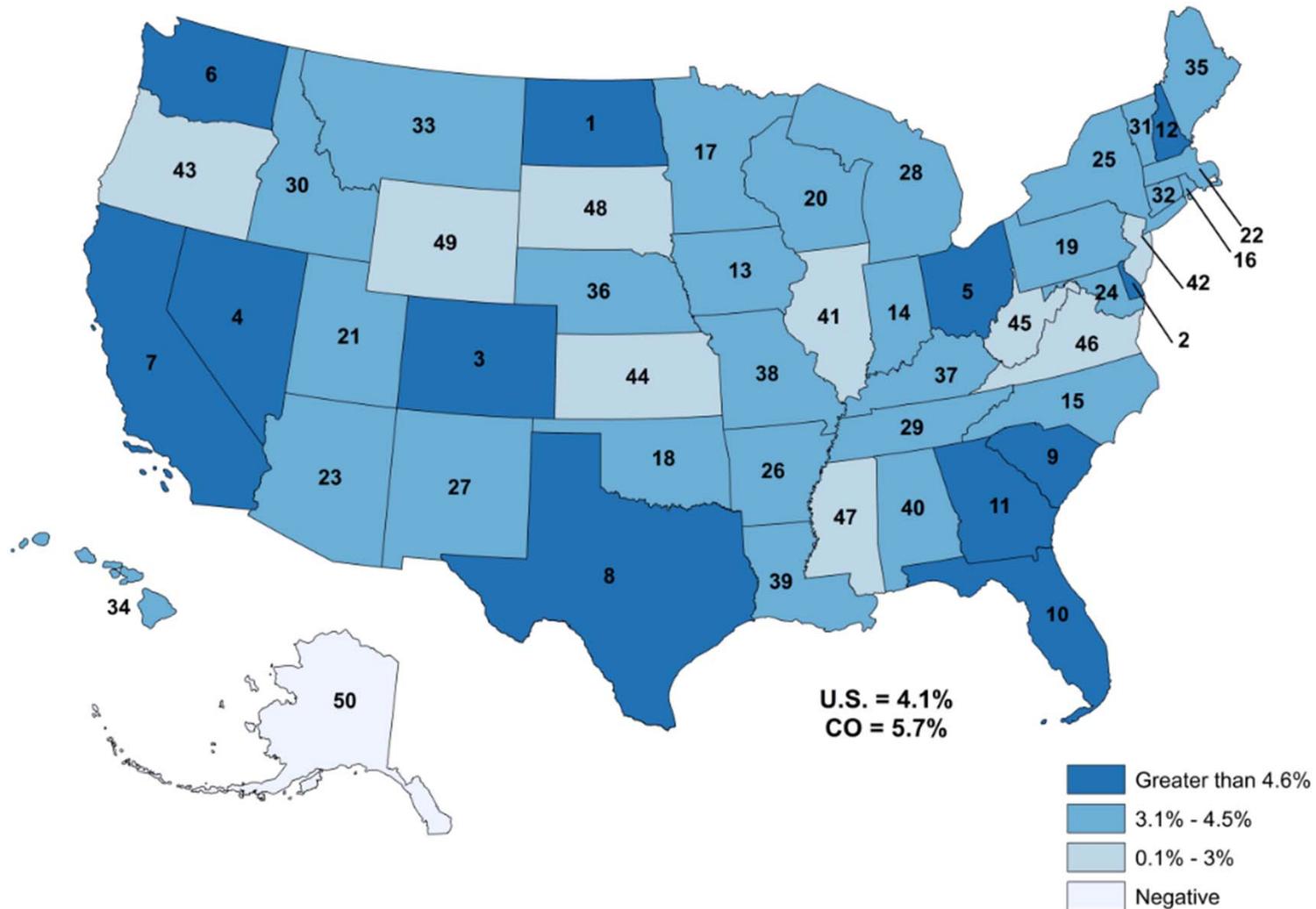


Geography of Colorado Oil and Gas Activity



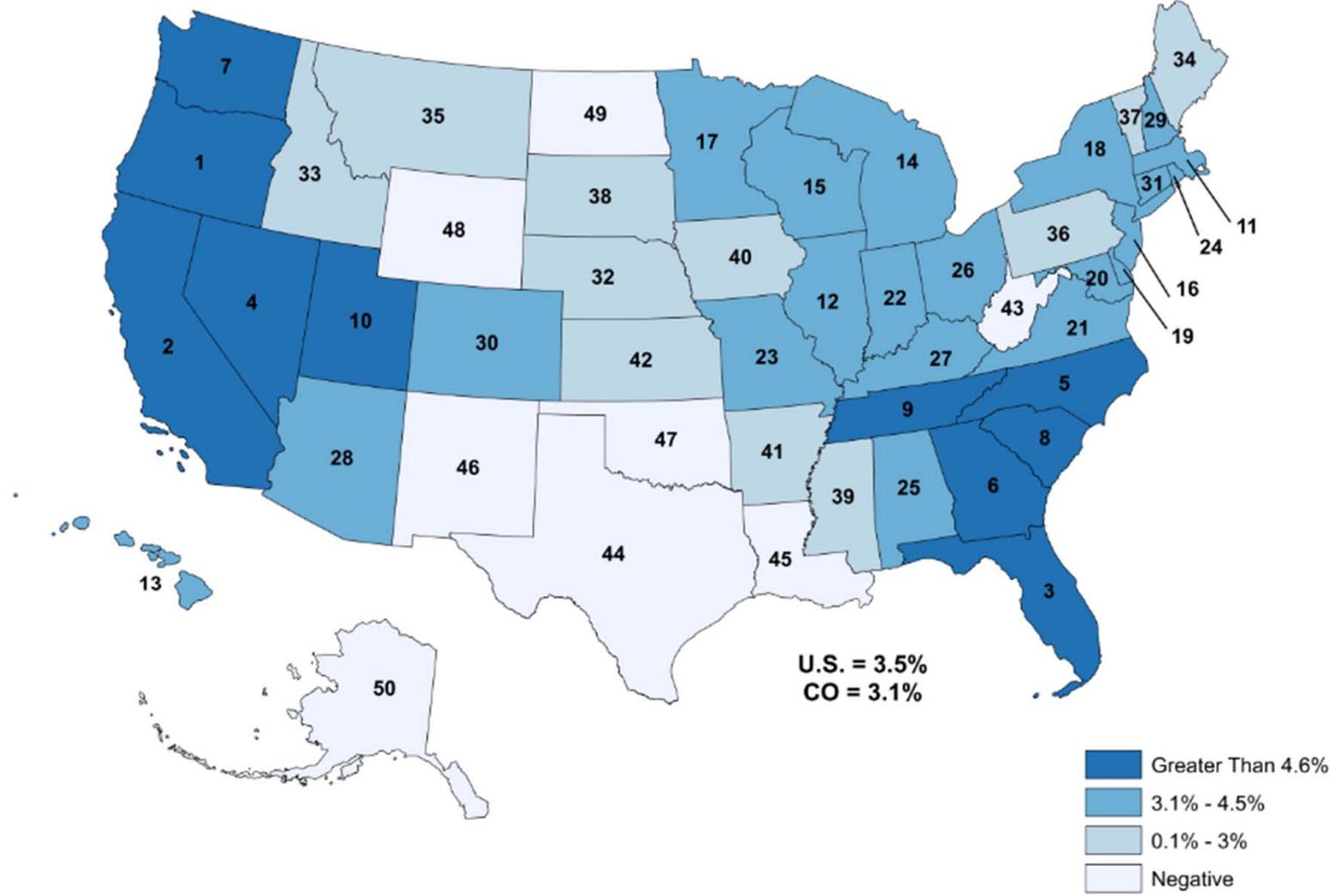
Colorado outgrew most states in recent years...

State Rank in Percent Change in Nominal GDP
2013 to 2014

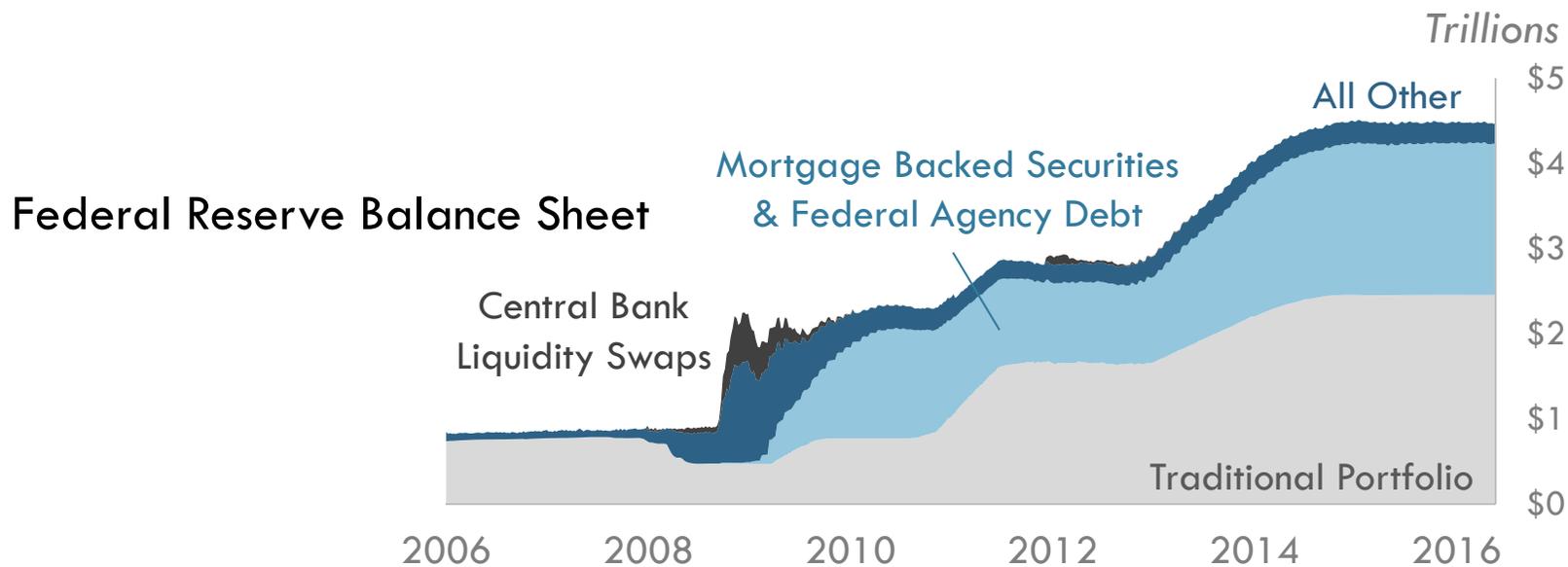
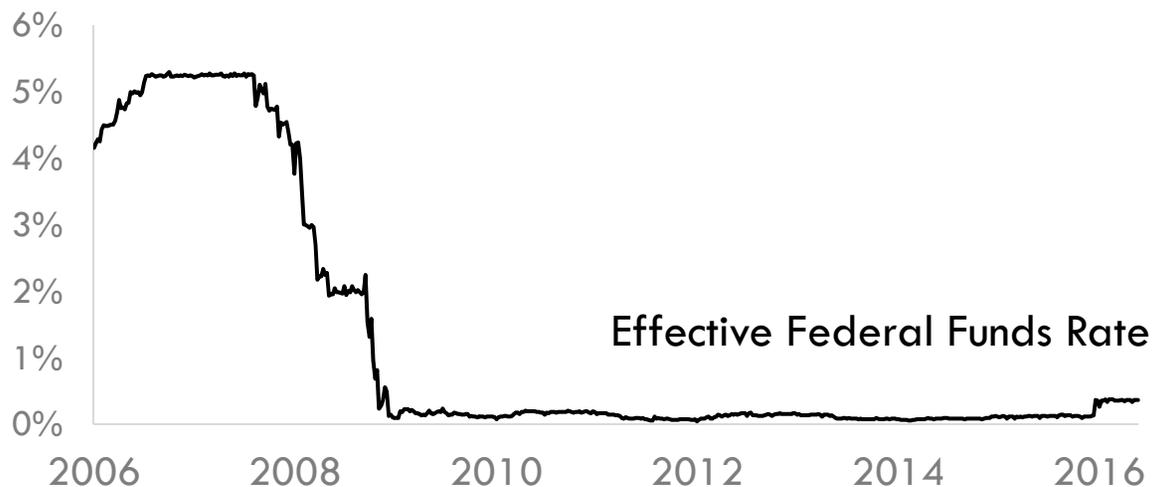


..but lost ground in 2015 because of energy

State Rank in Percent Change in Nominal GDP
2014 to 2015



Tighter monetary policy will weigh on growth

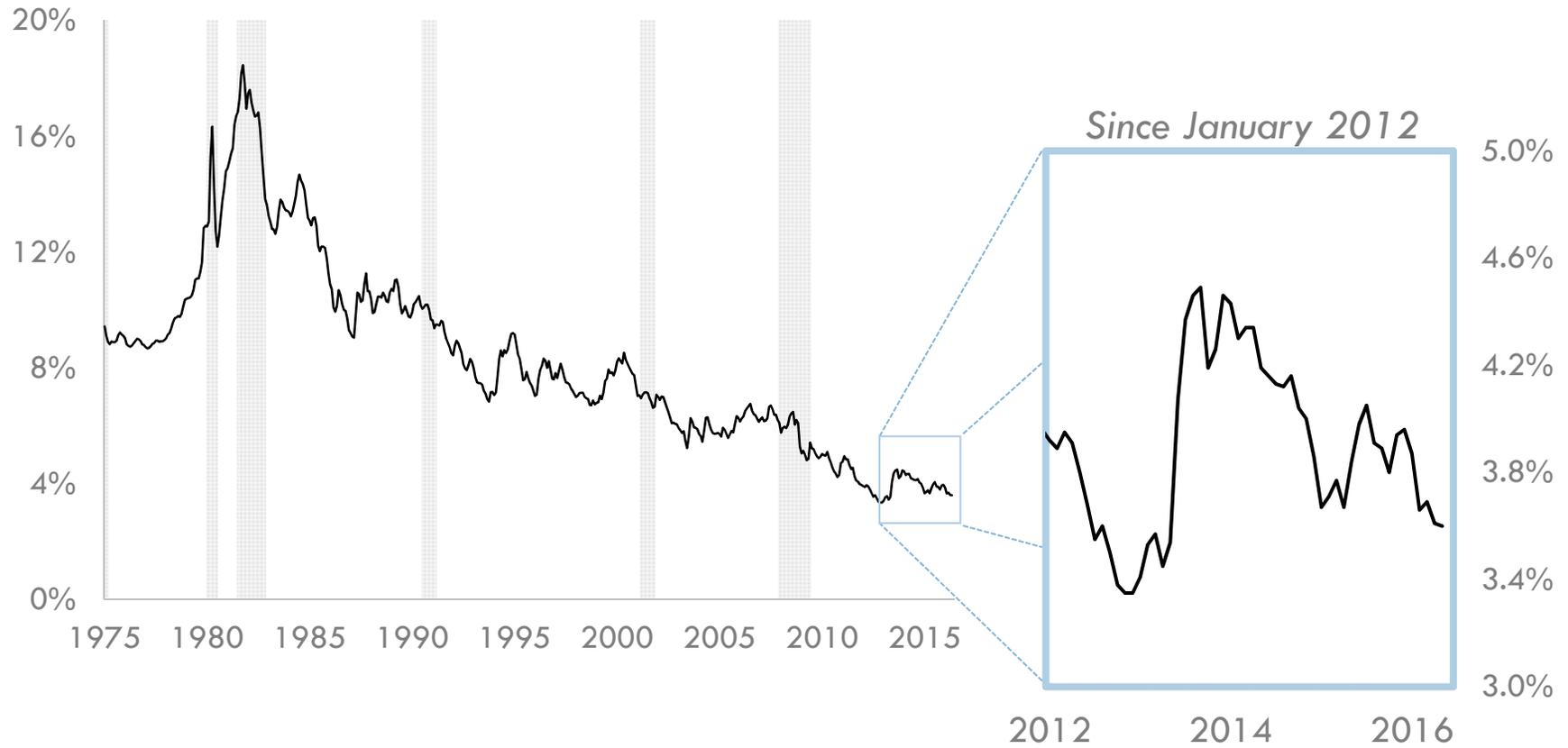


Source: Federal Reserve Board of Governors.

Although the timing matters, the pace matters more

U.S. 30-Year Fixed Mortgage Rate

History since 1975

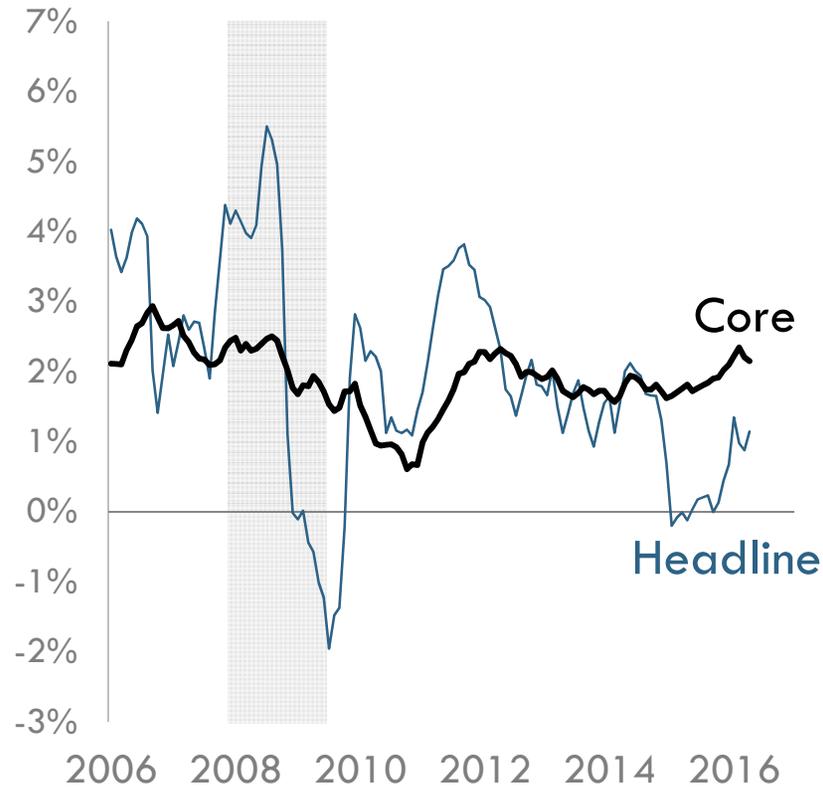


Source: Freddie Mac, Primary Mortgage Market Survey. Monthly average.

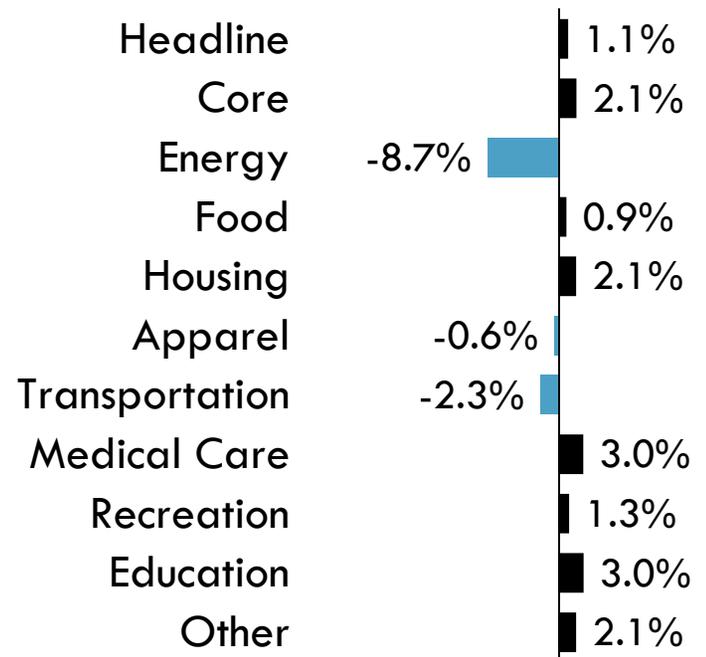
U.S. Inflation

CPI-U Inflation

Year-over-Year Change in Prices



April 2016 over April 2015

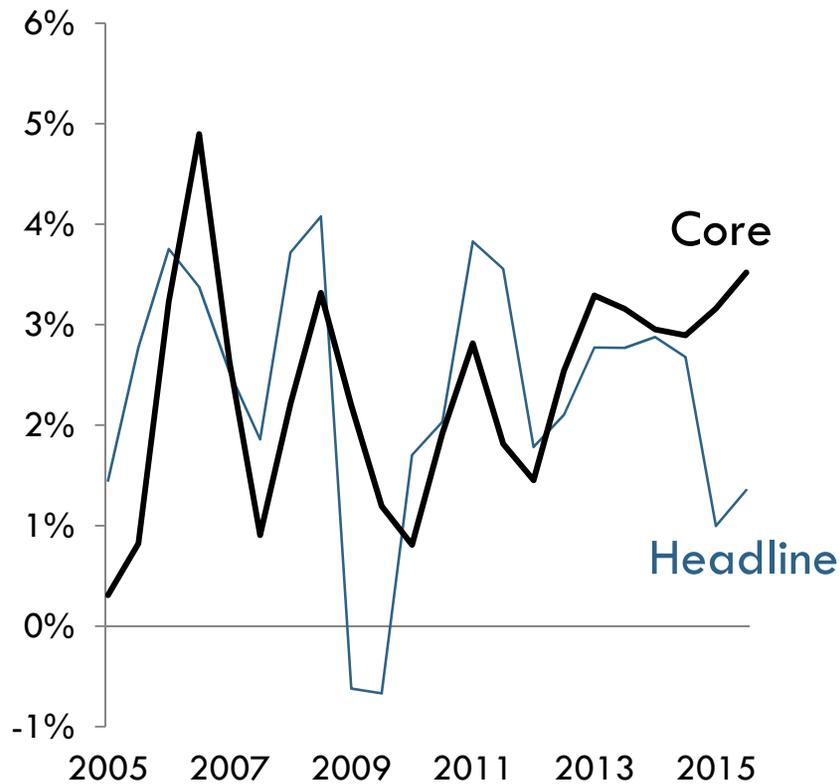


Source: U.S. Census Bureau. Seasonally adjusted.

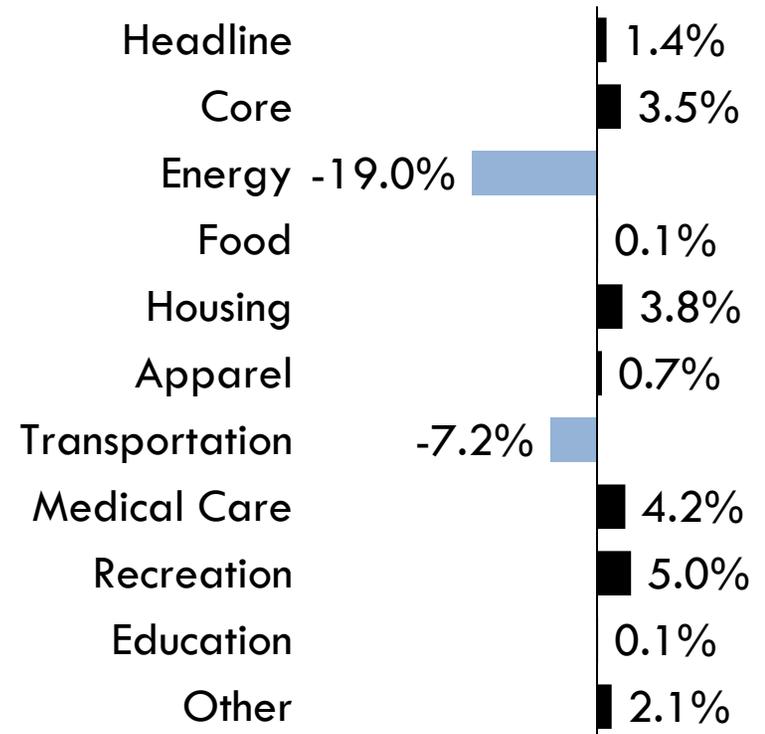
Denver-Boulder-Greeley Inflation

CPI-U Inflation

Year-over-Year Change in Prices



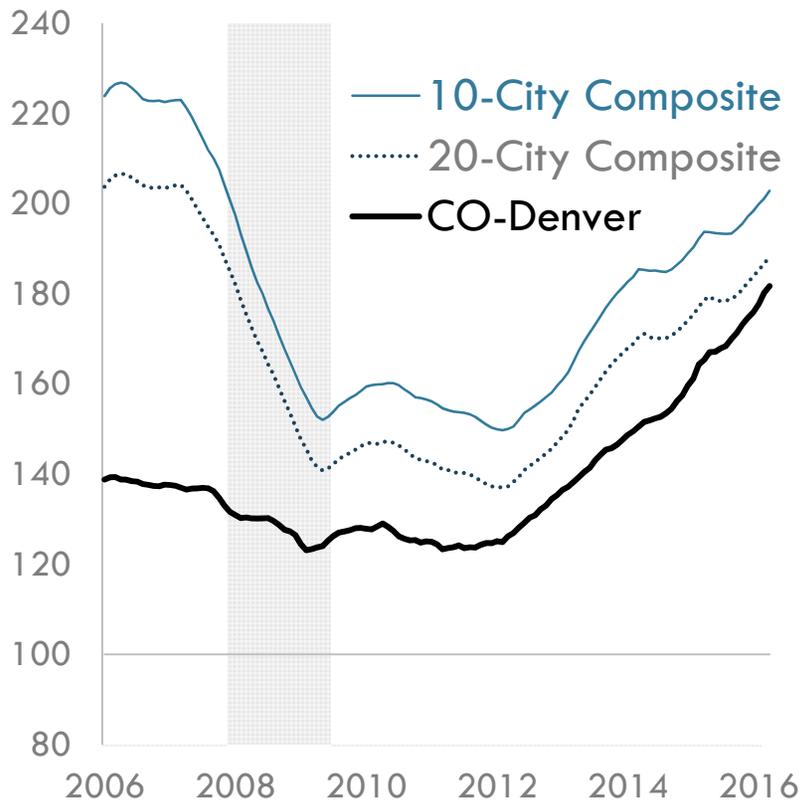
Second half of 2015 over prior year



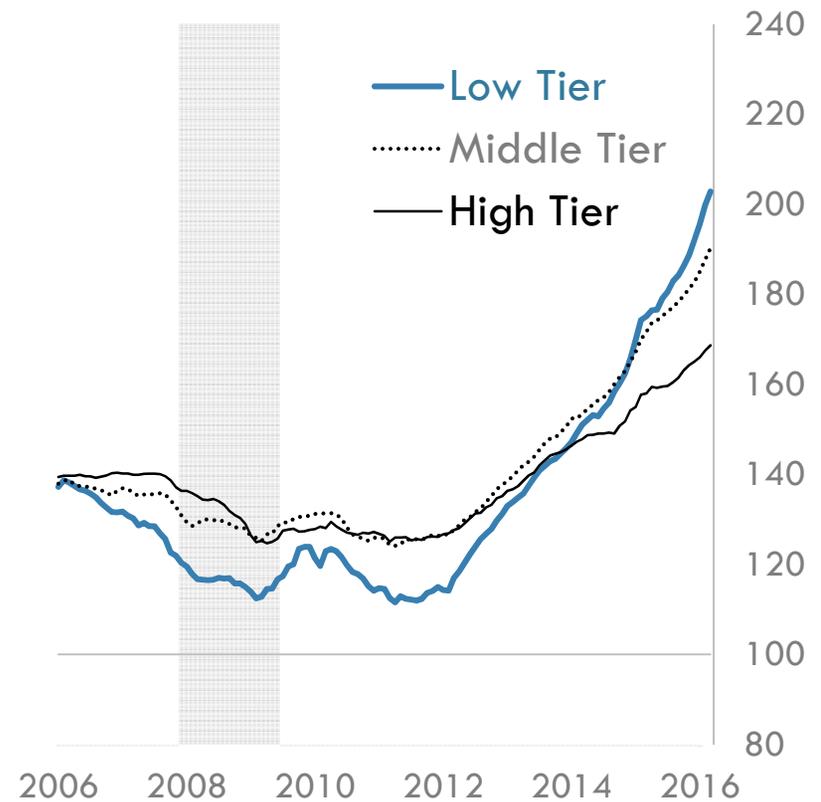
Housing costs will weigh on consumer spending

Case-Shiller Home Price Indices

Index 100 = January 2000



Denver Home Prices

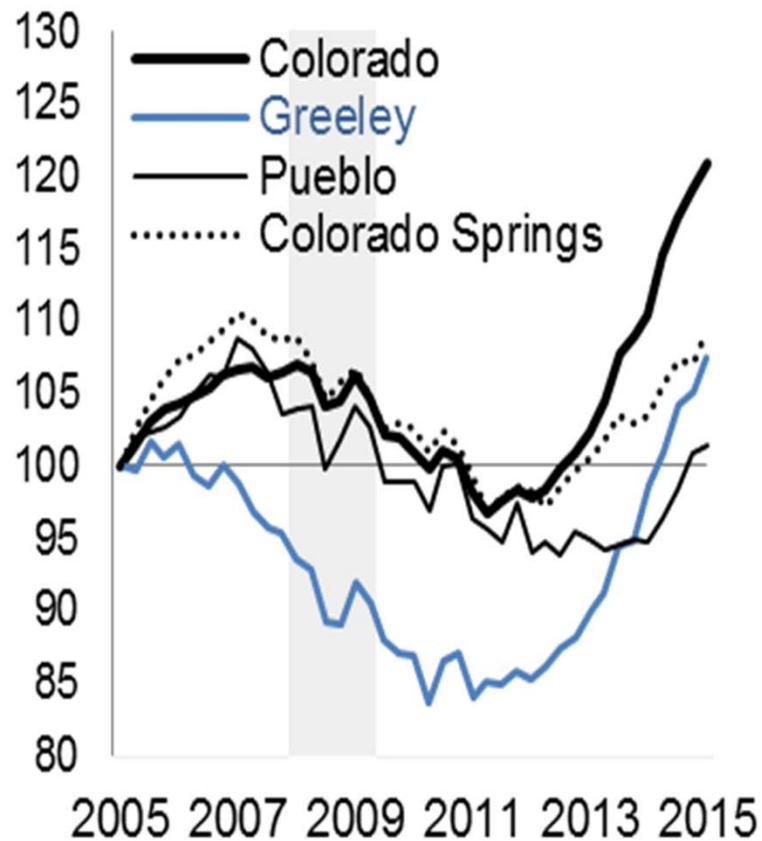
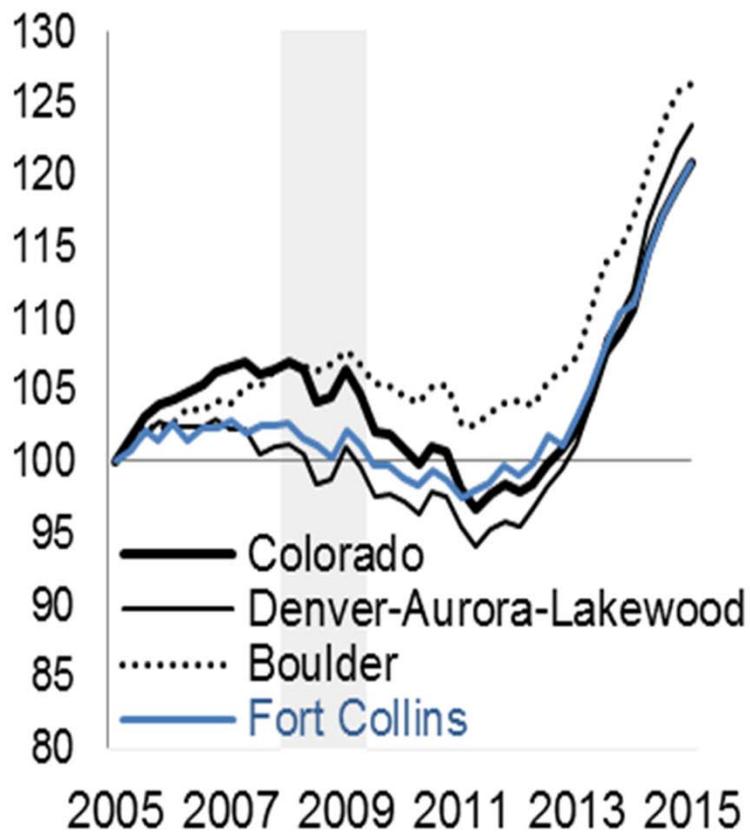


Source: S&P Dow Jones Indices, LLC.

Home price appreciation varies around the state

Federal Housing Finance Authority, All Transactions Home Price Index

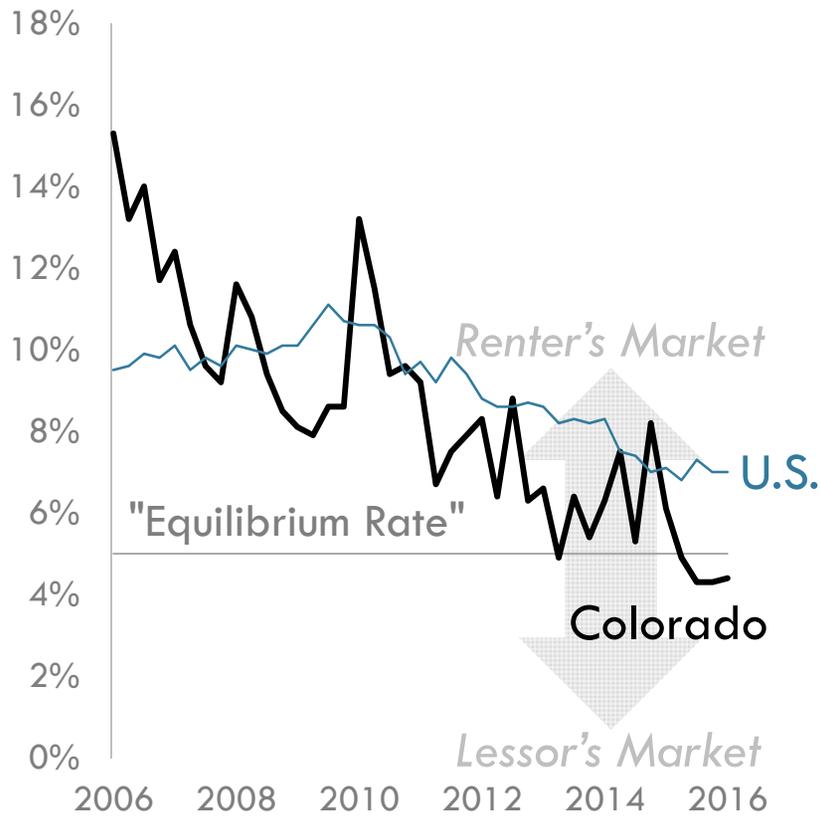
Index 100 = January 2005



Housing supply is lower than demand

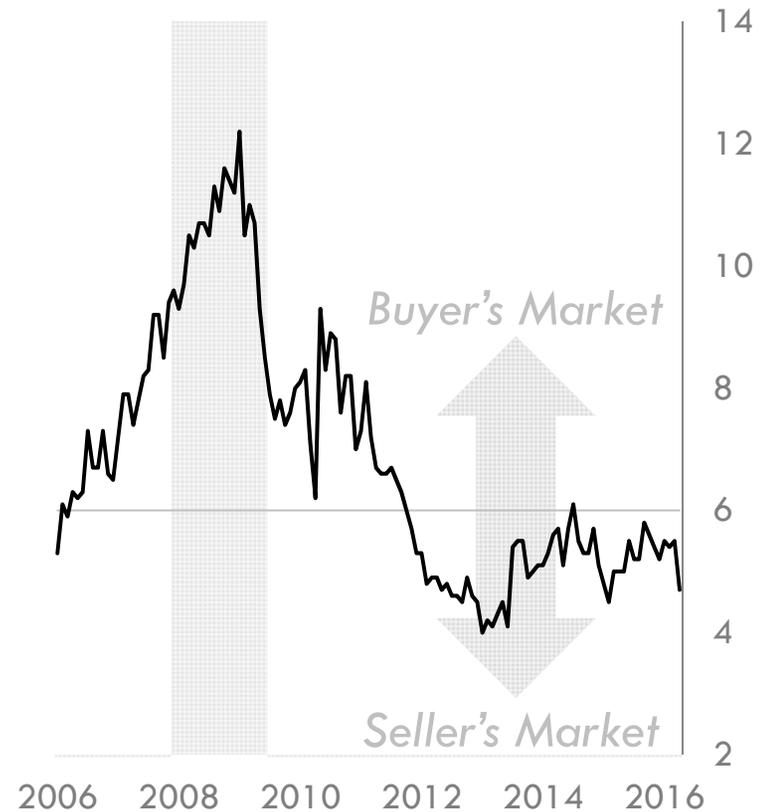
Rental Vacancy Rates

Percent of Rentals Vacant



U.S. Month's Supply of Homes

Number of Months

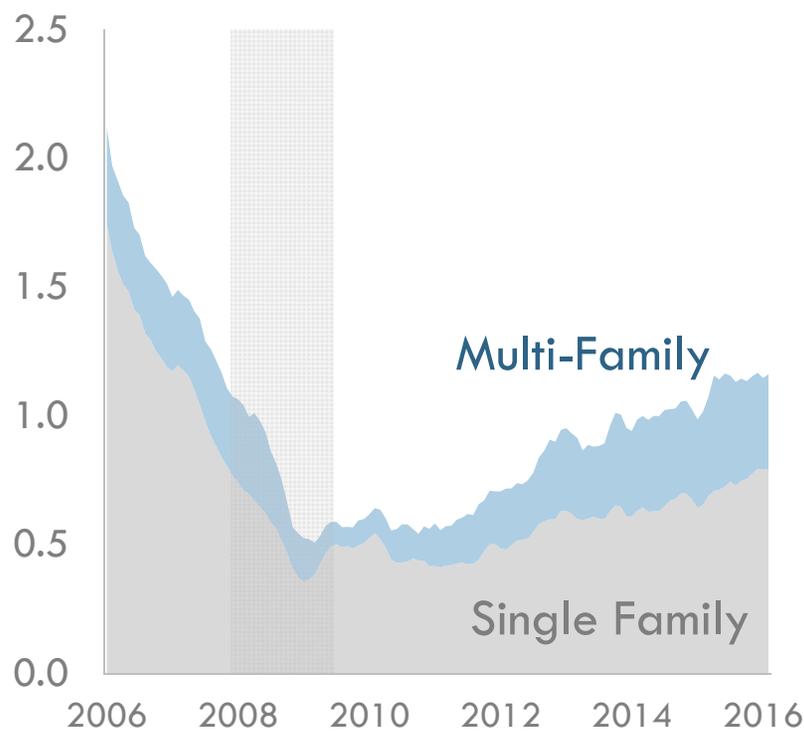


Source: U.S. Census Bureau & National Association of Realtors. Seasonal adjustments to month's supply by St. Louis Fed.

In many areas of Colorado, builders can't keep up

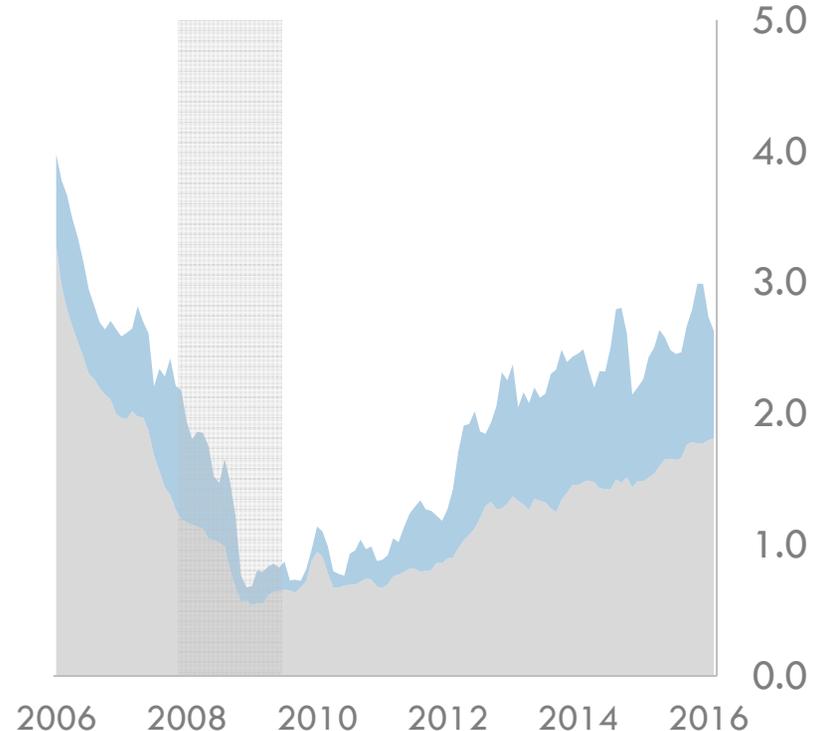
U.S. Housing Permits

Millions of Units



Colorado Housing Permits

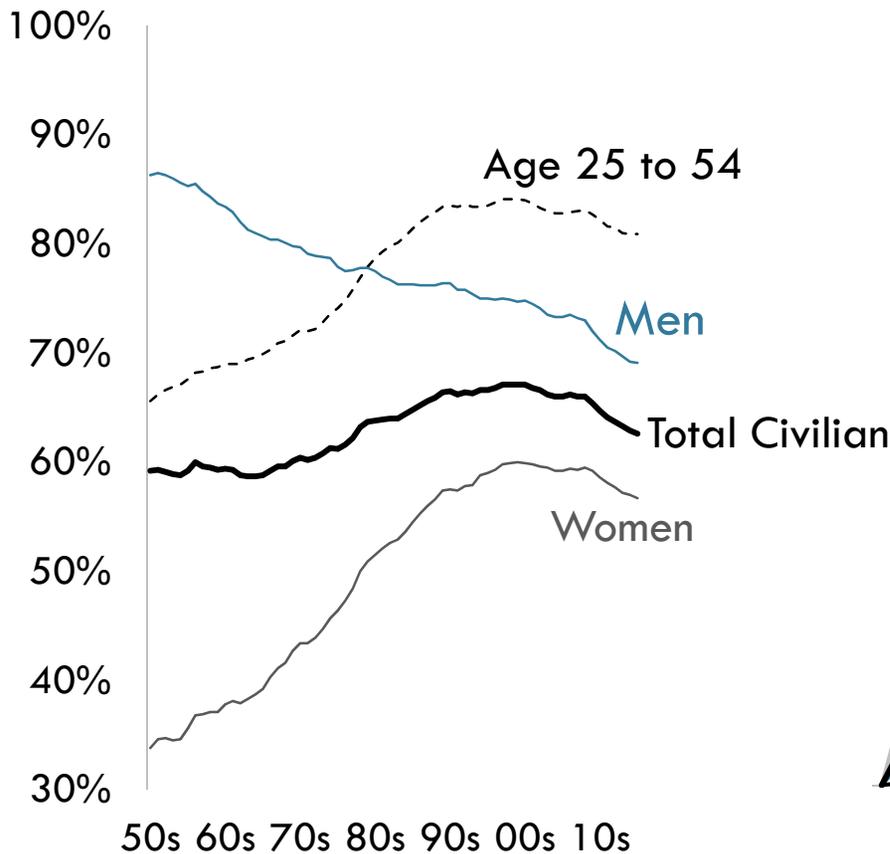
Thousands of Units



Source: U.S. Census Bureau. Seasonally adjusted three-month moving averages.

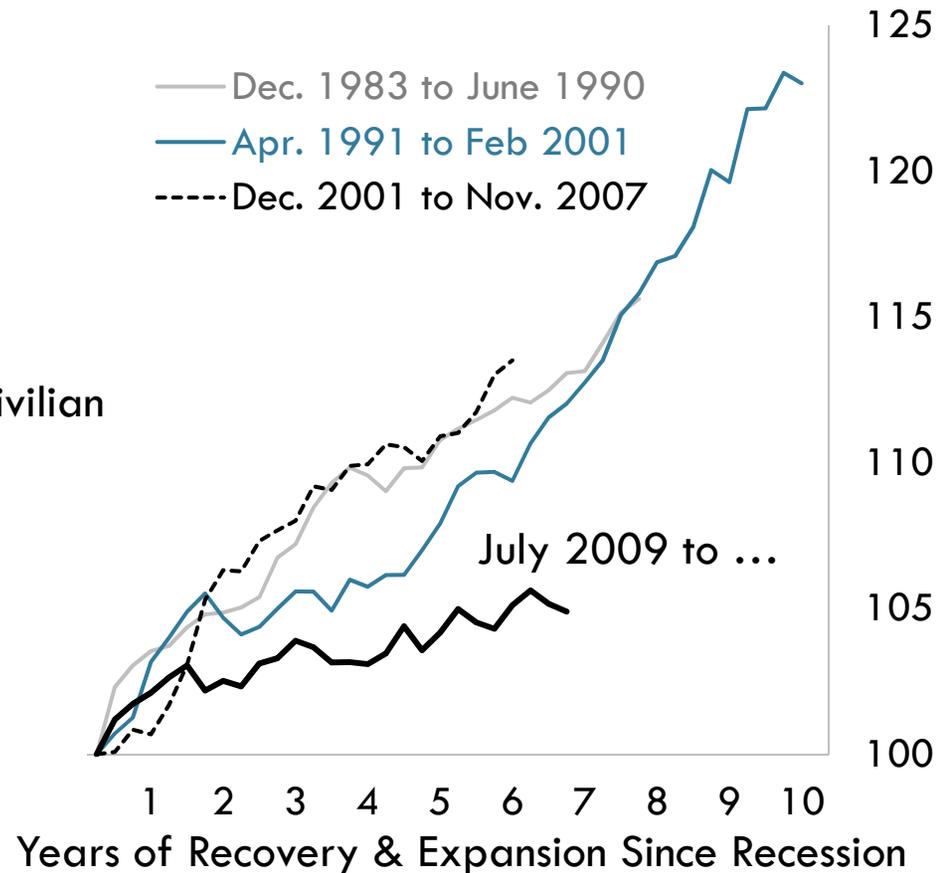
Demographic changes will weigh down both the economy and wage growth

U.S. Labor Participation Rate



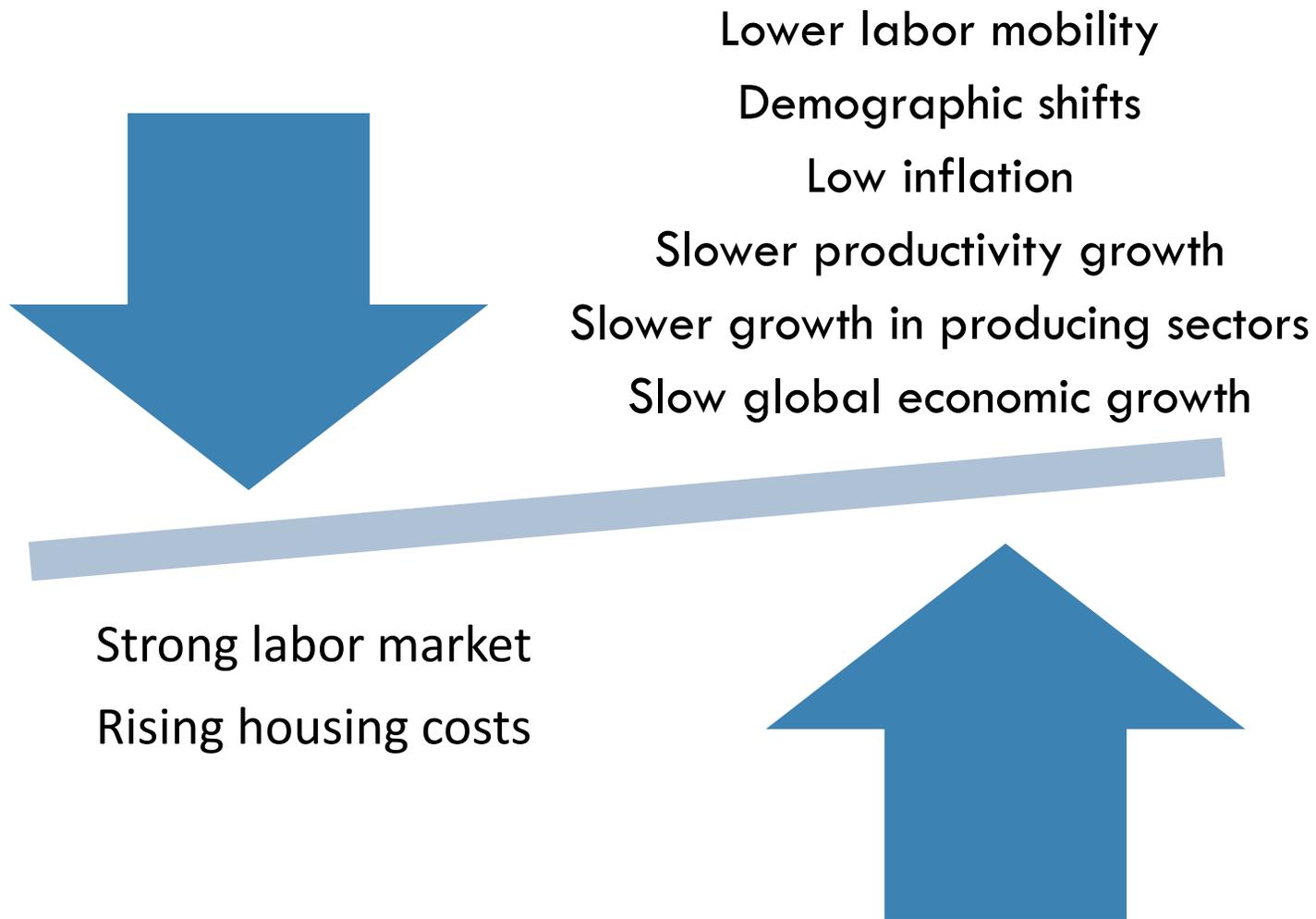
Productivity Growth

Real Output per Hour



Source: Bureau of Labor Statistics. Seasonally adjusted.

What's going on with wages?



**Table 15
Colorado Economic Indicators**

Calendar Years	2011	2012	2013	2014	2015	Legislative Council Staff Forecast		
						2016	2017	2018
Population (<i>Thousands, as of July 1</i>) ¹	5,119.7	5,191.7	5,272.1	5,355.9	5,456.6	5,551.8	5,649.3	5,762.3
Percent Change	1.4%	1.4%	1.5%	1.6%	1.9%	1.7%	1.8%	2.0%
Nonfarm Employment (<i>Thousands</i>) ²	2,259.0	2,313.2	2,382.3	2,464.7	2,541.7	2,602.7	2,657.4	2,723.8
Percent Change	1.7%	2.4%	3.0%	3.5%	3.1%	2.4%	2.1%	2.5%
Unemployment Rate ²	8.3	7.8	6.7	4.9	3.8	3.3	3.4	3.7
Personal Income (<i>Millions</i>) ³	\$227,052	\$240,905	\$246,448	\$261,735	\$275,107	\$289,138	\$305,619	\$323,344
Percent Change	7.4%	6.1%	2.3%	6.2%	5.1%	5.1%	5.7%	5.8%
Wage and Salary Income (<i>Millions</i>) ³	\$118,558	\$125,014	\$129,509	\$138,654	\$146,397	\$154,303	\$162,789	\$172,882
Percent Change	4.2%	5.4%	3.6%	7.1%	5.6%	5.4%	5.5%	6.2%
Retail Trade Sales* (<i>Millions</i>) ⁴	\$75,548	\$80,073	\$83,569	\$90,653	\$94,920	\$98,812	\$103,357	\$108,732
Percent Change	6.8%	6.0%	4.4%	8.5%	4.7%	4.1%	4.6%	5.2%
Housing Permits (<i>Thousands</i>) ¹	13.5	23.3	27.5	28.7	31.9	33.8	35.3	37.2
Percent Change	16.5%	72.6%	18.1%	4.3%	11.1%	6.0%	4.5%	5.5%
Nonresidential Building (<i>Millions</i>) ⁵	\$3,923	\$3,695	\$3,617	\$4,312	\$4,792	\$5,190	\$5,424	\$5,722
Percent Change	24.7%	-5.8%	-2.1%	19.2%	11.1%	8.3%	4.5%	5.5%
Denver-Boulder-Greeley Inflation ²	3.7%	1.9%	2.8%	2.8%	1.2%	2.4%	2.4%	2.4%

Sources

¹U.S. Census Bureau. Residential housing permits are the number of new single and multi-family housing units permitted for building.

²Bureau of Labor Statistics. Nonfarm employment estimates include revisions to 2015 data expected by Legislative Council Staff from the Bureau of Labor Statistic's annual re-benchmarking process. Inflation shown as the year-over-year change in the consumer price index for Denver-Boulder-Greeley metro areas.

³Bureau of Economic Analysis. Personal income and wages and salaries not adjusted for inflation.

⁴Colorado Department of Revenue.

⁵F.W. Dodge.

**Table 14
National Economic Indicators**

Calendar Years	2011	2012	2013	2014	2015	Legislative Council Staff Forecast		
						2016	2017	2018
Real GDP (<i>Billions</i>) ¹	\$15,020.6	\$15,354.6	\$15,583.3	\$15,961.7	\$16,348.9	\$16,610.4	\$16,909.4	\$17,264.5
Percent Change	1.6%	2.2%	1.5%	2.4%	2.4%	1.6%	1.8%	2.1%
Nonfarm Employment (<i>Millions</i>) ²	131.9	134.2	136.4	138.9	141.8	144.2	146.1	148.5
Percent Change	1.2%	1.7%	1.6%	1.9%	2.1%	1.7%	1.3%	1.6%
Unemployment Rate	8.9%	8.1%	7.4%	6.2%	5.3%	4.9%	5.0%	5.1%
Personal Income (<i>Billions</i>) ¹	\$13,254.5	\$13,915.1	\$14,068.4	\$14,694.2	\$15,350.7	\$16,041.5	\$16,891.7	\$17,820.7
Percent Change	6.2%	5.0%	1.1%	4.4%	4.5%	4.5%	5.3%	5.5%
Wage and Salary Income (<i>Billions</i>) ¹	\$6,633.2	\$6,930.3	\$7,114.4	\$7,477.8	\$7,834.9	\$8,195.3	\$8,605.1	\$9,087.0
Percent Change	4.0%	4.5%	2.7%	5.1%	4.8%	4.6%	5.0%	5.6%
Inflation ²	3.1%	2.1%	1.5%	1.6%	0.1%	1.3%	2.1%	2.3%

Sources

¹U.S. Bureau of Economic Analysis. Real gross domestic product (GDP) is adjusted for inflation. Personal income and wages and salaries not adjusted for inflation.

²U.S. Bureau of Labor Statistics. Inflation shown as the year-over-year change in the consumer price index for all urban areas (CPI-U).