

Colorado Economic Insights

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Please see the disclosure appendix of this publication for certification and disclosure information. All estimates/forecasts are as of 08/08/2018 unless otherwise stated.

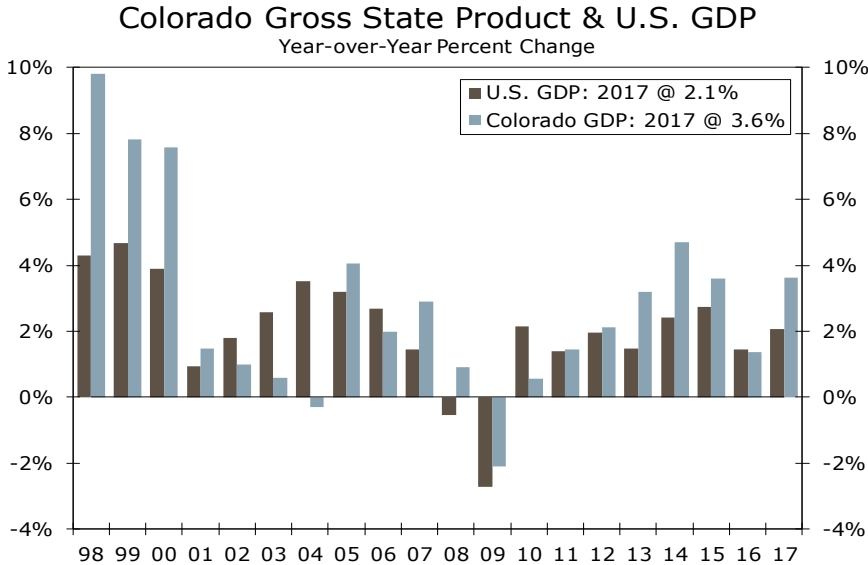
Together we'll go far



- Colorado's economy continues to outpace the nation, led by a rebound in the energy sector and continued growth in construction.
 - Real GDP grew at a 3.0 percent annual rate in the first quarter, topping the national growth rate for the seventh consecutive quarter.
 - Colorado has continued to see strong employment gains, despite having an exceptionally low unemployment rate of 2.8 percent, tied for the fourth lowest of any state.
 - The tech and defense industries in Denver and Colorado Springs continue to attract highly skilled labor and business investment.
 - Affordability pressures are really starting to bite, and soaring housing costs especially in Denver are causing residents to migrate to other parts of the state, boosting Colorado Springs and Fort Collins.

Colorado Outperforms Most of the Nation

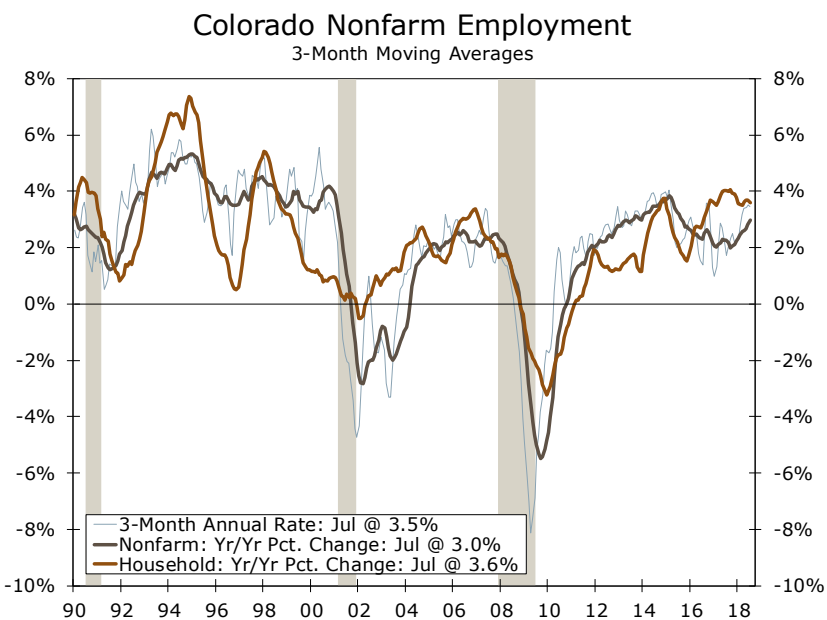
- Colorado posted the **second highest year-over-year growth rate of any state in the first quarter, as energy and construction rebounded.**
- Fiscal policy has provided an additional boost as tax cuts augment household income and spending and increased defense outlays bolster the state's defense and aerospace sectors.
- The lift from trade may be tempered, or even reversed, if contentious trade negotiations cut into manufacturing and agriculture exports.



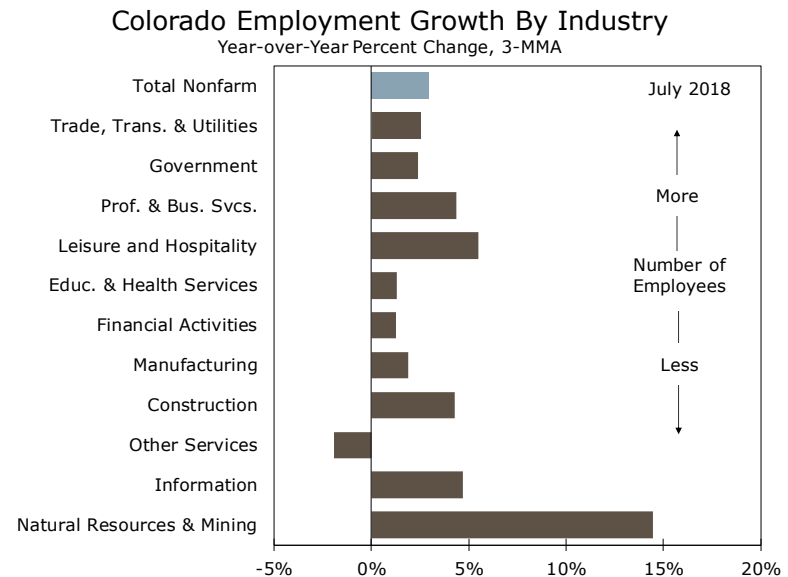
Source: U.S. Department of Commerce and Wells Fargo Securities

Colorado Employment

- Colorado employment grew 3.0 percent over the past year, the sixth fastest rate of any state, despite an extremely tight labor market with unemployment at a mere 2.8 percent.
- The leisure and hospitality sector added the most jobs of any sector, as the state attracted a record 84.7 million tourists this past year.
- Construction has finally begun to pick up, spurred by rapidly appreciating home prices.



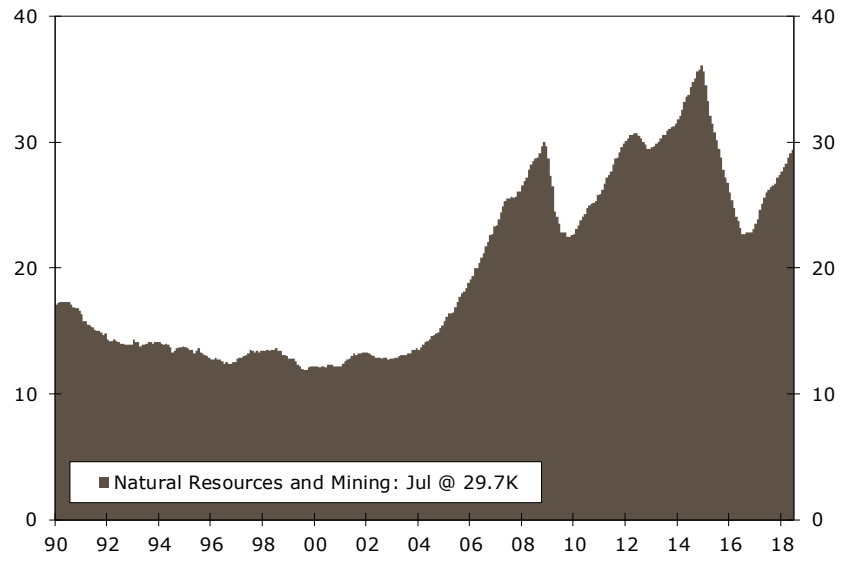
Source: U.S. Department of Labor and Wells Fargo Securities



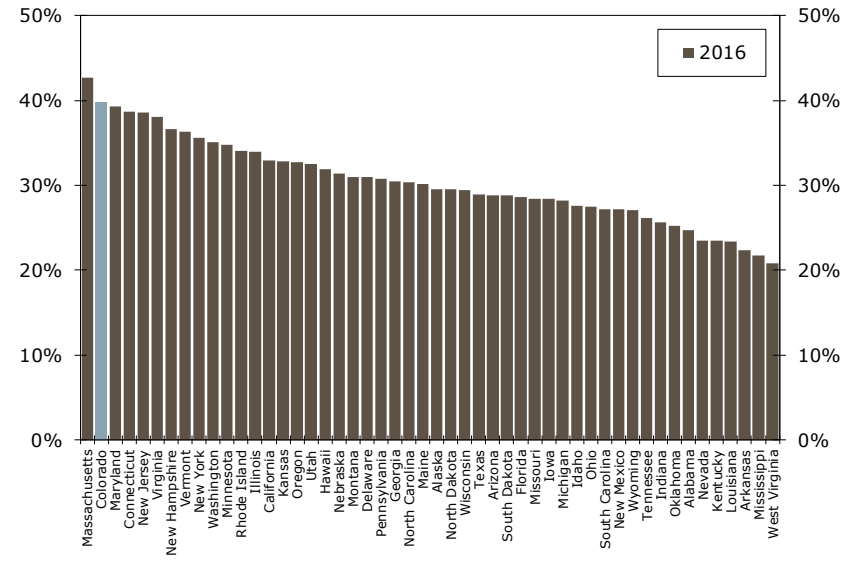
Skilled Labor Key for Colorado

- Energy sector employment has rebounded, but remains below the 2014 peak. Producers are more efficient and need less labor to ramp up production.
- The Front Range and energy-intensive Weld County have seen employment surge this past year. Hiring would be even stronger if firms could find all the workers they need.
- Colorado has the second highest proportion of college-educated residents of any state, which is a key advantage given the strong growth in creative industries, including tech, aerospace and life sciences.

Colorado Natural Resources & Mining Employment
Thousands, Seasonally Adjusted

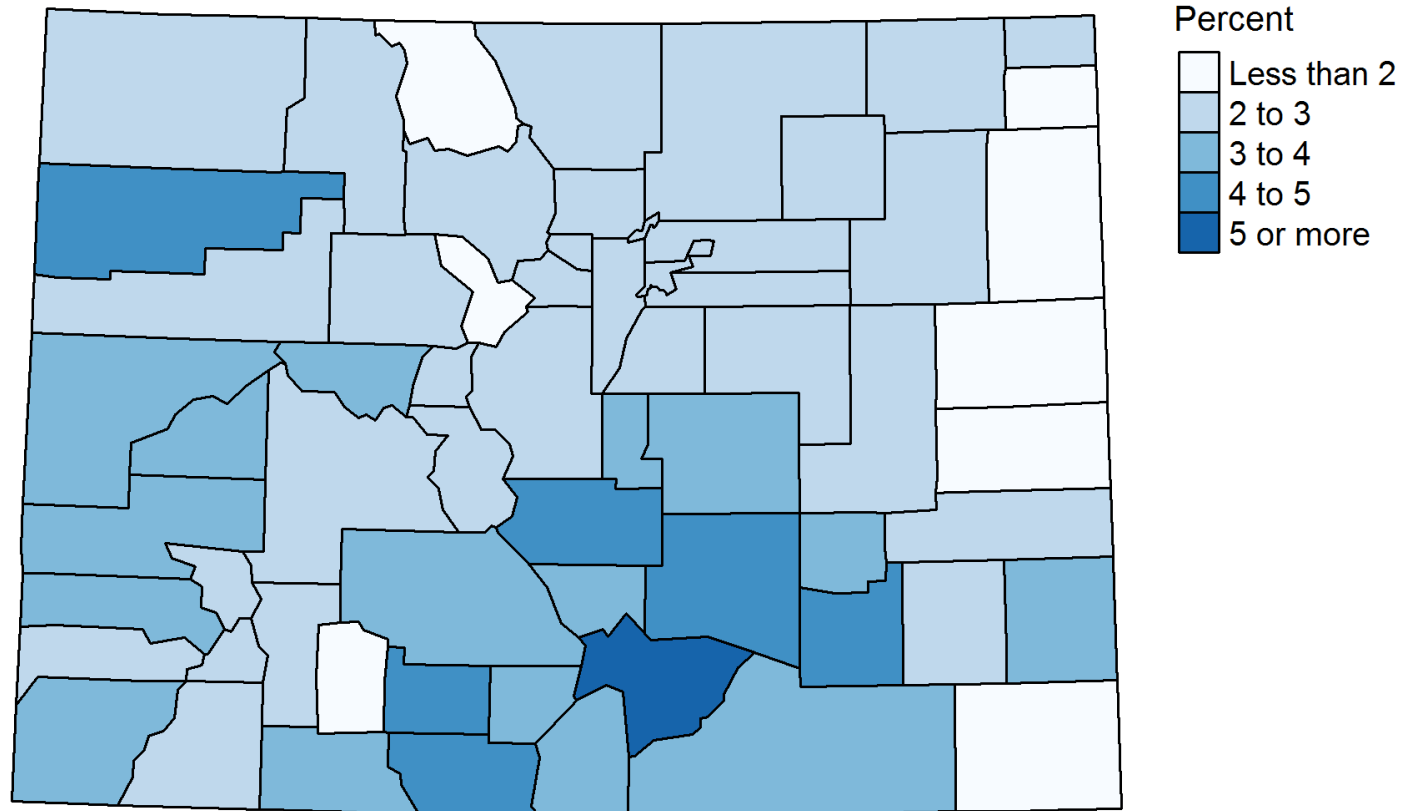


Educational Attainment
Share of Population with Bachelor's Degree, Percent



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

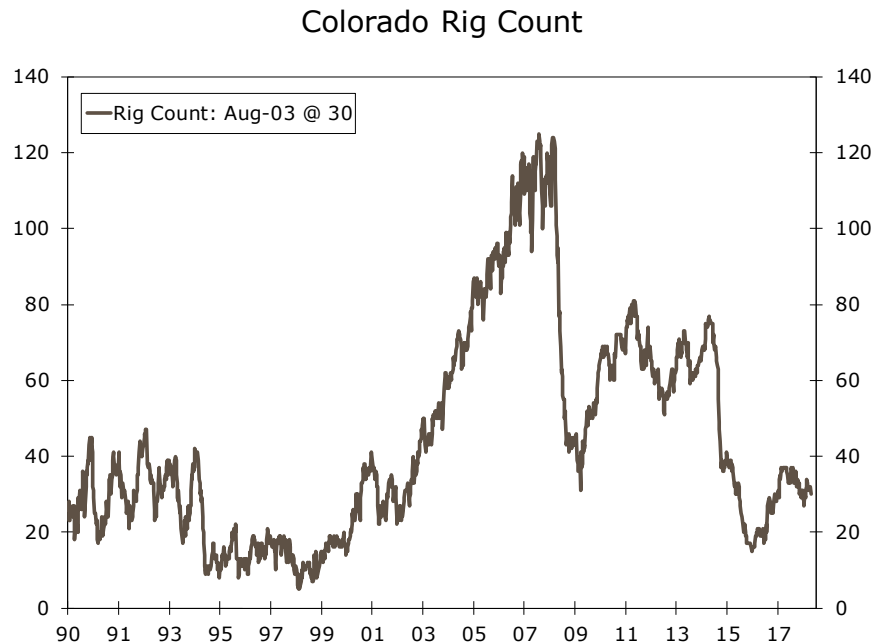
Colorado Unemployment Rate by County in June 2018



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

Energy Sector Producing More, Employing Less

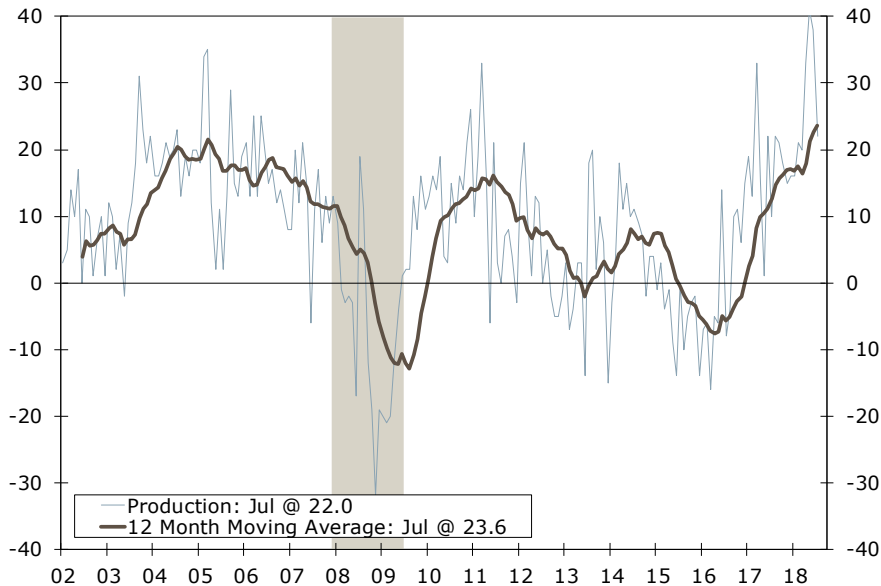
- Hiring in the natural resource sector is up 15 percent over the past year, as oil prices and rig counts have rebounded from their mid-decade lows.
- Fossil fuel production may never regain its share of employment, as oil and gas production is significantly more efficient than it was earlier in the decade.
- Colorado now ranks ninth in wind production and has made major inroads in solar energy.



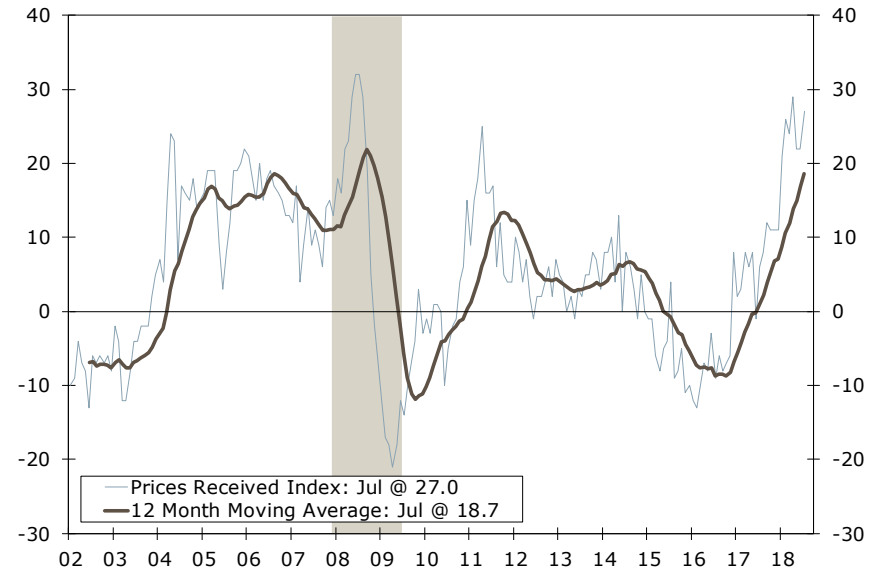
Source: U.S. Department of Energy and Wells Fargo Securities

- After surging during the second quarter, the Kansas City Fed manufacturing index fell back in line with its recent trend. The production series fell 16 points to 22 in July, which is just slightly below its 12-month average.
- The prices paid index continues to trend higher, as newly imposed tariffs may be increasing costs to the region's major manufacturers, which are electronic products, food products and machinery.

Kansas City Fed Production Index
Diffusion Index



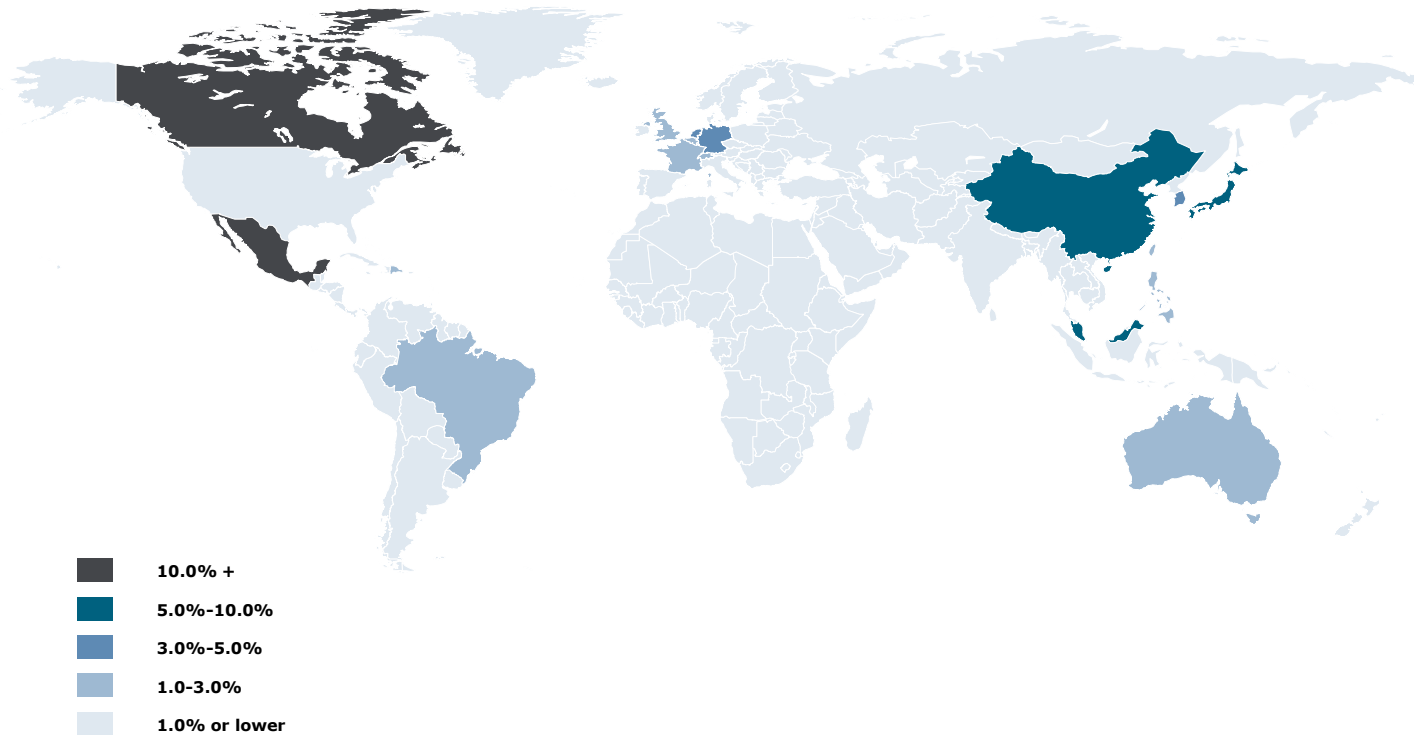
Kansas City Manufacturing Prices Paid
Diffusion Index



Source: Kansas City Federal Reserve Bank and Wells Fargo Securities

Trade: NAFTA Key to Colorado

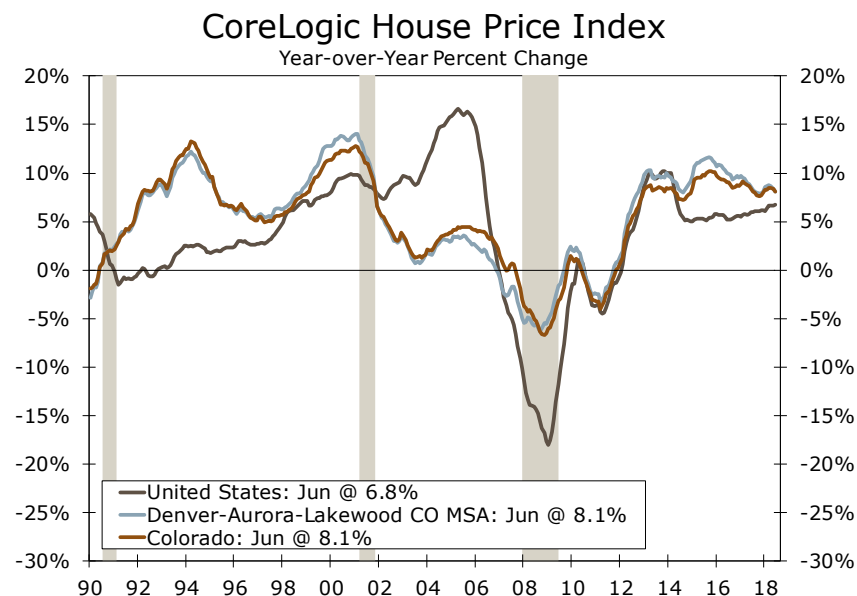
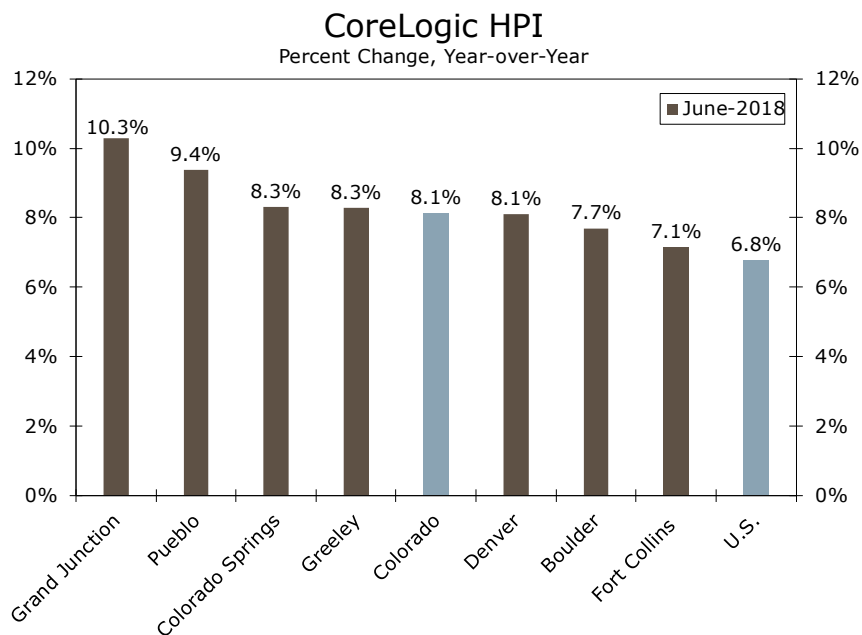
- Canada and Mexico account for more than one third of Colorado's exports, making a potential NAFTA renegotiation important to the state. China accounts for 7 percent of exports but shipments to China have actually declined modestly over the past five years.



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

Home on the Front Range?

- Years of rapid population growth, much of which includes resettlement from higher priced areas of California and Seattle, have helped fuel home price appreciation. Home prices are rising three times faster than incomes.
- Millennials are increasingly unable to afford down payments and are being priced out of Boulder and Denver, which has a median home price of \$411,270.

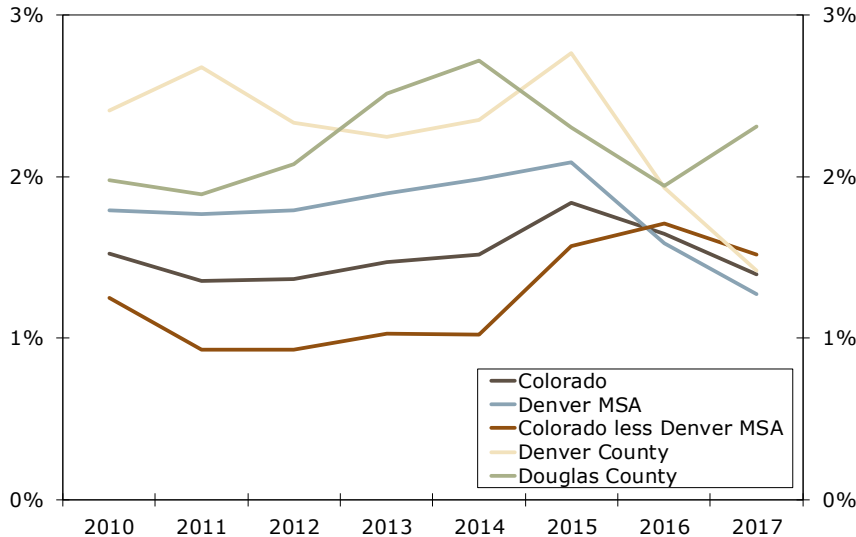


Source: CoreLogic and Wells Fargo Securities

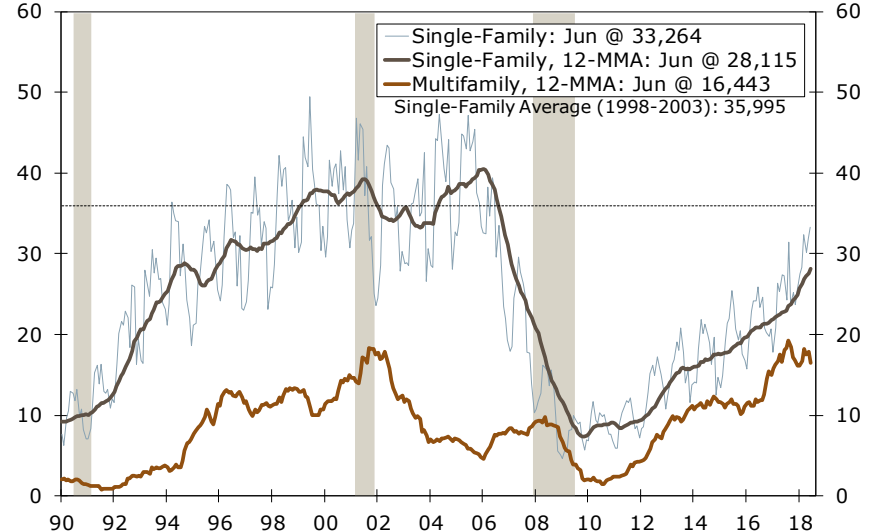
Consequences of Housing Affordability Crisis

- Harvard's Joint Center for Housing Studies estimates that 25 percent of Denver residents spend more than 30 percent of their income on housing.
- Higher housing costs have caused domestic in-migration to decelerate, contributing to an overall moderation in state population growth.
- New construction should help alleviate the housing crunch. There has been a significant uptick in permits and construction so far this year.

Population Growth within Colorado
Year-over-Year Percent Change in Resident Population



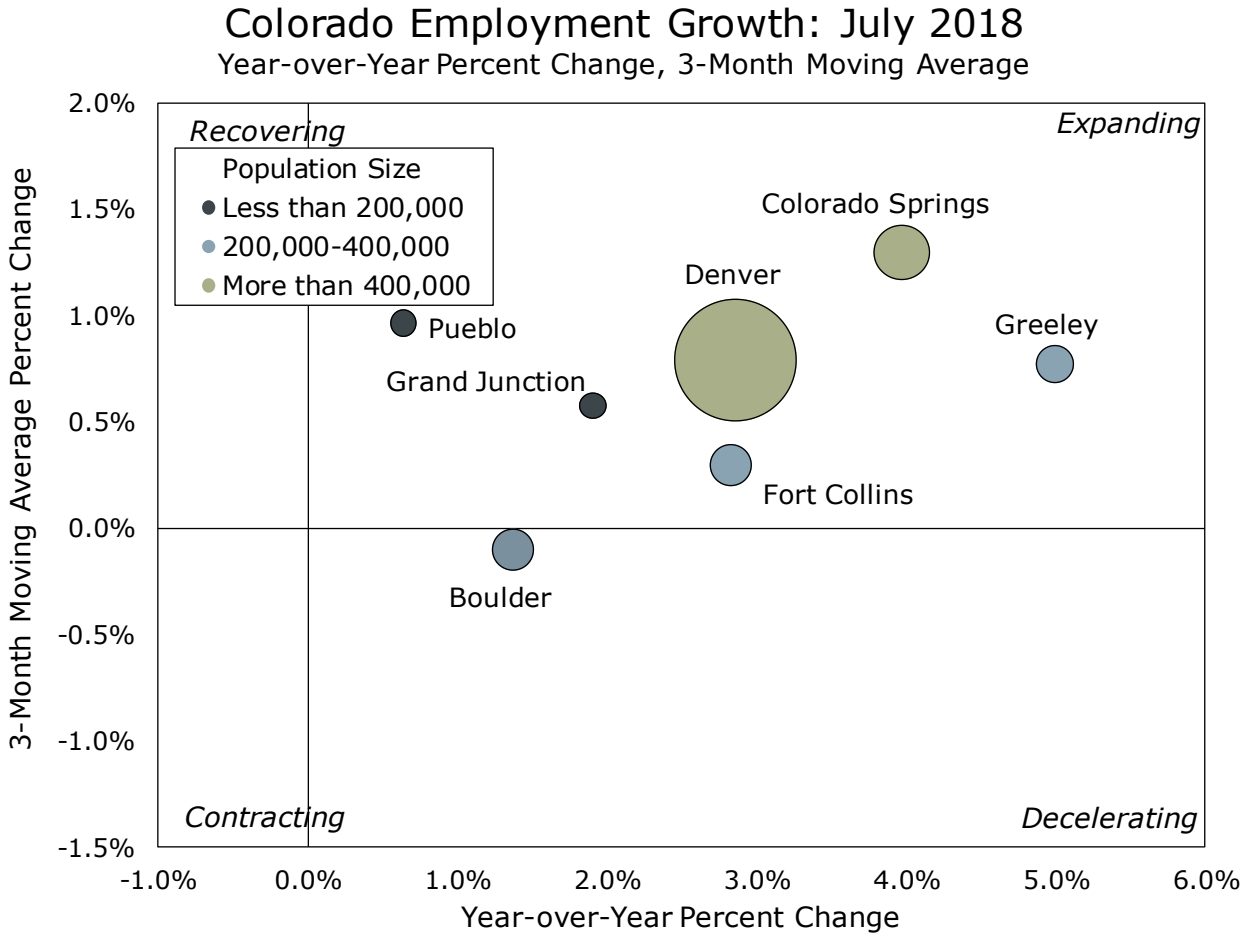
Colorado Housing Permits
Thousands of Permits, Seasonally Adjusted Annual Rate



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

Employment Growth Remains Strong

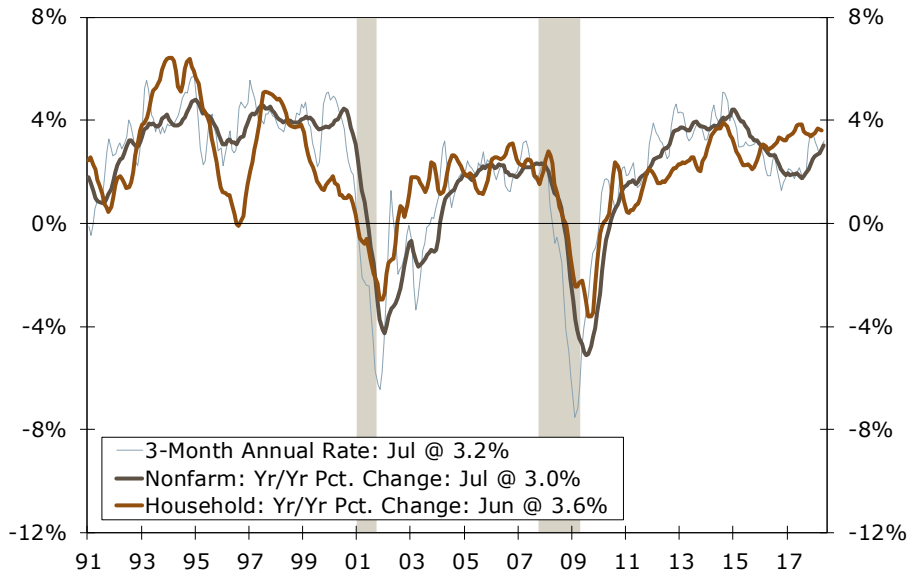
- Denver has served as a beacon for millennials, yet Colorado Springs has now emerged as a more affordable alternative.



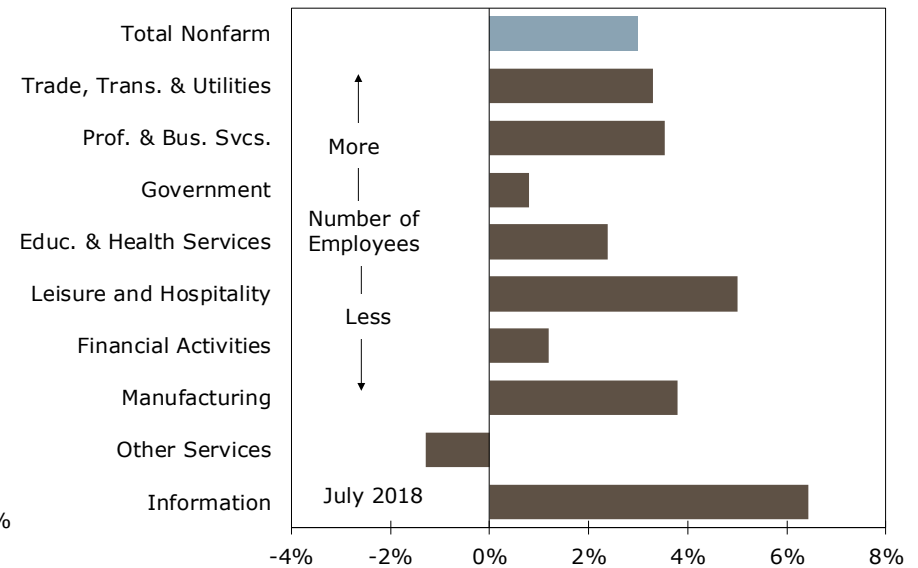
Source: U.S. Department of Labor and Wells Fargo Securities

- The Mile High City attracts both tourists and millennial movers, and added 83,162 people aged 20-34 from 2010 to 2016, the tenth largest gain in the nation.
- **Affordability is a real issue**, and migration into the MSA has fallen from the top ten largest of any metro area to 18th in 2017.

Denver MSA Nonfarm Employment
3-Month Moving Averages



Denver MSA Employment Growth By Industry
Year-over-Year Percent Change, 3-MMA

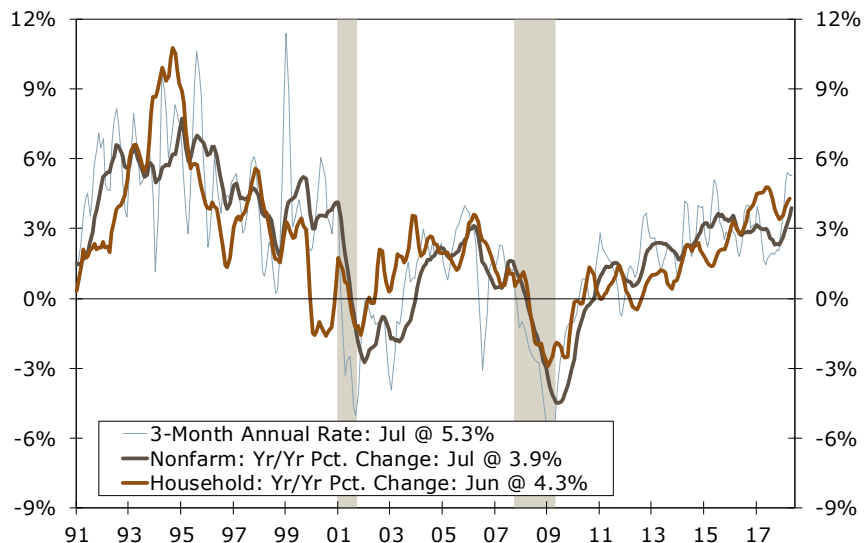


Source: U.S. Department of Labor and Wells Fargo Securities

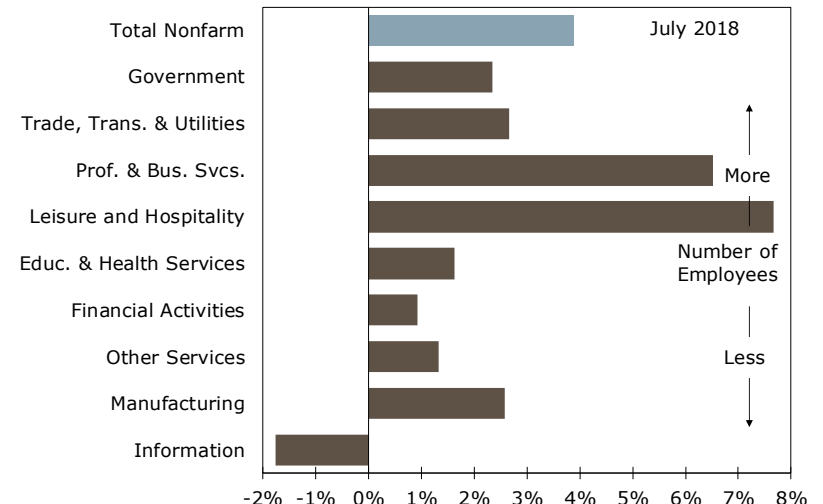
Colorado Springs

- The I-25 corridor to Colorado Springs is booming, as Castle Rock was the seventh fastest growing city in the nation in 2017. Millennials seeking out more affordable housing are also settling in Colorado Springs, which is more affordable than Boulder or Denver, with a median home price of \$300,203.
- Colorado Springs' **19.1 percent increase in the millennial population since 2010 is number one in the nation.**

Colorado Springs MSA Nonfarm Employment
3-Month Moving Averages



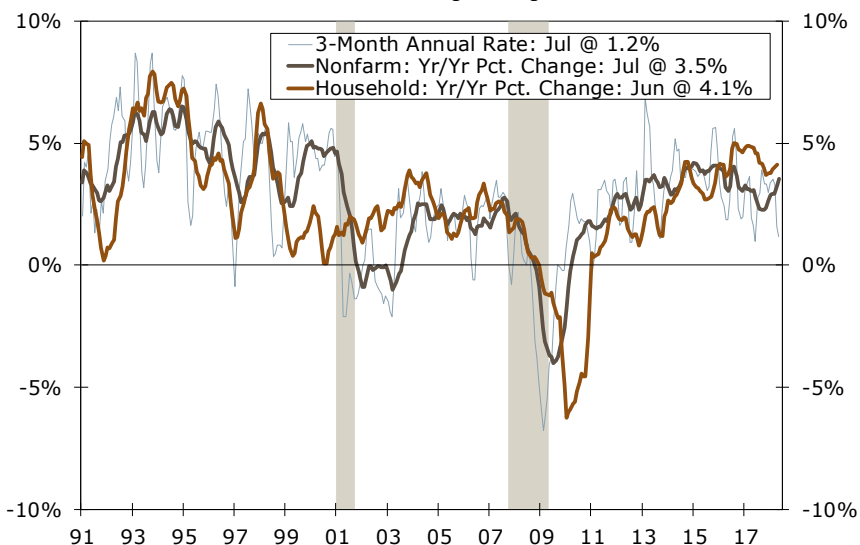
Colorado Springs MSA Employment Growth By Industry
Year-over-Year Percent Change, 3-MMA



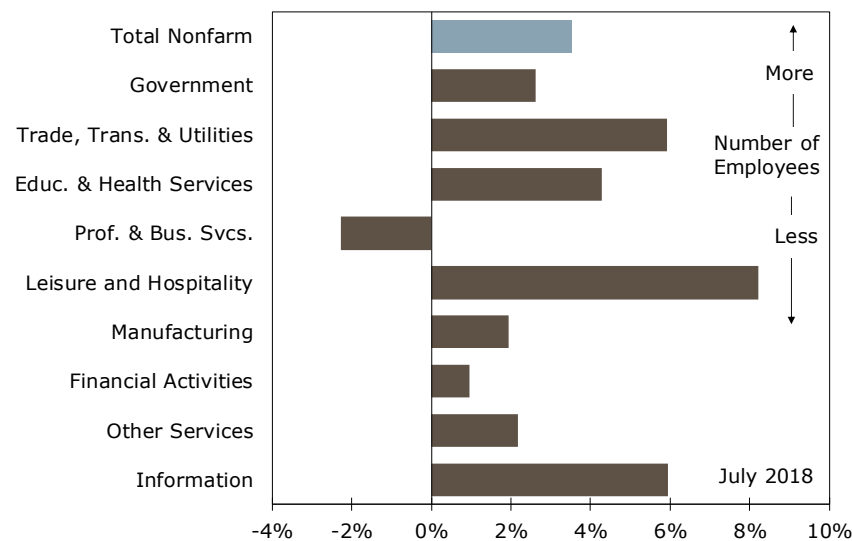
Source: U.S. Department of Labor and Wells Fargo Securities

- Fort Collins is home to Colorado State University and a whole host of federal and state agencies. The region is seeing strong, broad-based employment growth and posted an unemployment rate as low as 2.0 percent in June.
- The 48 percent of residents holding a college degree attracts significant research facilities and business incubators. The metro area is home to several semiconductor manufacturers, including Broadcom, HP-E and Intel.

Fort Collins MSA Nonfarm Employment
3-Month Moving Averages



Fort Collins MSA Employment Growth By Industry
Year-over-Year Percent Change, 3-MMA



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

Wells Fargo U.S. Economic Forecast

| | Actual | | | | Forecast | | | | Actual | | | Forecast | |
|---|--------|------|------|------|----------|------|------|------|--------|------|------|----------|------|
| | 2017 | | | | 2018 | | | | 2015 | 2016 | 2017 | 2018 | 2019 |
| | 1Q | 2Q | 3Q | 4Q | 1Q | 2Q | 3Q | 4Q | | | | | |
| Real Gross Domestic Product ¹ | 1.8 | 3.0 | 2.8 | 2.3 | 2.2 | 4.1 | 3.2 | 3.3 | 2.9 | 1.6 | 2.2 | 2.9 | 3.0 |
| Personal Consumption | 1.8 | 2.9 | 2.2 | 3.9 | 0.5 | 4.0 | 2.6 | 2.8 | 3.7 | 2.7 | 2.5 | 2.6 | 2.7 |
| Inflation Indicators ² | | | | | | | | | | | | | |
| PCE Deflator | 2.0 | 1.6 | 1.6 | 1.8 | 1.9 | 2.2 | 2.3 | 2.2 | 0.3 | 1.1 | 1.8 | 2.1 | 2.4 |
| Consumer Price Index | 2.6 | 1.9 | 2.0 | 2.1 | 2.3 | 2.6 | 2.7 | 2.4 | 0.1 | 1.3 | 2.1 | 2.5 | 2.5 |
| Industrial Production ¹ | 1.0 | 5.0 | -1.5 | 7.7 | 2.4 | 6.0 | 2.7 | 2.4 | -1.0 | -1.9 | 1.6 | 3.7 | 2.7 |
| Corporate Profits Before Taxes ² | 3.0 | 3.6 | 2.8 | 3.3 | 5.9 | 4.1 | 3.2 | 0.8 | -2.9 | -1.1 | 3.2 | 3.5 | -0.6 |
| Trade Weighted Dollar Index ³ | 94.0 | 90.5 | 88.1 | 87.5 | 86.3 | 90.0 | 90.0 | 90.3 | 91.0 | 91.5 | 91.1 | 89.1 | 87.1 |
| Unemployment Rate | 4.7 | 4.3 | 4.3 | 4.1 | 4.1 | 3.9 | 3.9 | 3.8 | 5.3 | 4.9 | 4.4 | 3.9 | 3.6 |
| Housing Starts ⁴ | 1.23 | 1.17 | 1.17 | 1.26 | 1.32 | 1.26 | 1.31 | 1.32 | 1.11 | 1.17 | 1.20 | 1.30 | 1.38 |
| Quarter-End Interest Rates ⁵ | | | | | | | | | | | | | |
| Federal Funds Target Rate | 1.00 | 1.25 | 1.25 | 1.50 | 1.75 | 2.00 | 2.25 | 2.50 | 0.27 | 0.52 | 1.13 | 2.13 | 2.75 |
| Conventional Mortgage Rate | 4.20 | 3.90 | 3.81 | 3.94 | 4.44 | 4.57 | 4.65 | 4.80 | 3.85 | 3.65 | 3.99 | 4.62 | 5.08 |
| 10 Year Note | 2.40 | 2.31 | 2.33 | 2.40 | 2.74 | 2.85 | 3.05 | 3.20 | 2.14 | 1.84 | 2.33 | 2.96 | 3.48 |

Forecast as of: August 8, 2018

¹ Compound Annual Growth Rate Quarter-over-Quarter

² Year-over-Year Percentage Change

³ Federal Reserve Major Currency Index, 1973=100 - Quarter End

⁴ Millions of Units

⁵ Annual Numbers Represent Averages

Source: IHS Markit and Wells Fargo Securities

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