National & Colorado Economic Update

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Federal Reserve Bank of Kansas City Denver Branch
The U.S. economy is expected to continue to grow at a moderate pace.

**REAL GROSS DOMESTIC PRODUCT (GDP)**

*Annualized Percent Change from Previous Period*

2011 2012

<table>
<thead>
<tr>
<th>Quarter</th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1</td>
<td>2.4%</td>
<td>2.0%</td>
</tr>
<tr>
<td>Q2</td>
<td>2.5%</td>
<td>1.3%</td>
</tr>
<tr>
<td>Q3</td>
<td>1.3%</td>
<td>2.0%</td>
</tr>
<tr>
<td>Q4</td>
<td>4.1%</td>
<td>2.7%</td>
</tr>
</tbody>
</table>

2012 2013 2014

FOMC Central Tendency Projections

- **2012**: 2.0% (High), 1.7% (Low)
- **2013**: 2.5% (High), 3.0% (Low)
- **2014**: 3.8% (High), 3.0% (Low)

*Source: Bureau of Economic Analysis & Federal Open Market Committee (FOMC) September 2012 Projections*
Consumer spending has been the primary driver of economic growth to in 2012.

### Contributions to Real GDP

*Percent Change at Seasonally Adjusted Annualized Rates*

![Graph showing contributions to Real GDP](chart.png)

- Personal Consumption Expenditures
- Gross Private Domestic Investment
- Govt. Consumption & Investment
- Net Exports

Source: Bureau of Economic Analysis
Unemployment rates remain elevated and are expected to gradually decline in coming years.

### Unemployment Rates

*Seasonally Adjusted*

#### United States

- 2005: 9.6%
- 2006: 8.9%
- 2007: 8.2%
- 2008: 7.3%
- 2009: 7.9%
- 2010: 7.6%
- 2011: 7.3%
- 2012: 6.7%
- 2013: 6.0%
- 2014: 5.5%

#### Colorado

- 2005: 5.1%
- 2006: 5.1%
- 2007: 5.1%
- 2008: 5.1%
- 2009: 5.1%
- 2010: 5.1%
- 2011: 5.1%
- 2012: 5.1%
- 2013: 5.1%
- 2014: 5.1%

*Source: Bureau of Labor Statistics & Federal Open Market Committee (FOMC)  *September 2012 FOMC Central Tendency Projections*
Inflation remains near the 2 percent target.

**Personal Consumption Expenditure Price Index (PCEPI)**

*Percent Change Year-over-Year*

![Graph of Headline and Core Inflation Indexes from October 2002 to October 2012. The graph shows the percent change in the PCEPI, with Headline Inflation and Core Inflation depicted over time. The y-axis represents the percentage change, ranging from -2% to 6%, and the x-axis represents the years from Oct. 02 to Oct. 12. The graph indicates that Inflation remains near the 2 percent target.]

*Source: Bureau of Economic Analysis*
“... the Committee decided today to keep the target range for the federal funds rate at 0 to 1/4 percent and currently anticipates that this exceptionally low range for the federal funds rate will be appropriate at least as long as the unemployment rate remains above 6.5 percent, inflation between one and two years ahead is projected to be no more than a half percentage point above the Committee’s 2 percent longer-run goal, and longer-term inflation expectations continue to be well anchored.”

**Effective Federal Funds Rate**

- FOMC December Statement
“...the Committee will continue purchasing additional agency mortgage-backed securities at a pace of $40 billion per month.

-FOMC December Statement

FEDERAL RESERVE BALANCE SHEET

Trillions

Assets

Foreign Currency Swaps
Short-Term Lending
Federal Agency & Mortgage-Backed Securities
Traditional Portfolio
Currency in Circulation

Liabilities

Reserves
Other

2006 2007 2008 2009 2010 2011 2012

Source: Board of Governors of the Federal Reserve System
“The Committee also will purchase longer-term Treasury securities after its program to extend the average maturity of its holdings of Treasury securities is completed at the end of the year, initially at a pace of $45 billion per month.”

- FOMC December Statement

Source: Board of Governors of the Federal Reserve System
FEDERAL RESERVE BANK DISTRICTS

Source: Federal Reserve Bank of Kansas City
Job gains continue, with Colorado outpacing the nation in growth.

**Nonfarm Employment**

*Index 100 = November 2002, Seasonally Adjusted*

<table>
<thead>
<tr>
<th>Percent Change</th>
<th>Past 10 Years</th>
<th>Past Year</th>
<th>Peak to Current</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>2.7%</td>
<td>1.4%</td>
<td>-3.1%</td>
</tr>
<tr>
<td>Colorado</td>
<td>6.0</td>
<td>1.9</td>
<td>-2.1</td>
</tr>
</tbody>
</table>

Source: Bureau of Labor Statistics
Most states have experienced positive job growth over the past year.

**October 2012 Nonfarm Employment**
*Year-over-Year Percent Change, Seasonally Adjusted*

<table>
<thead>
<tr>
<th>Percent Change Year-over-Year</th>
<th>United States</th>
<th>1.4%</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 to 5.3%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 to 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0 to 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-1 to 0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-1.5 to -1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Labor market conditions vary across Colorado.

**OCTOBER 2012 UNEMPLOYMENT RATES**

*Seasonally Adjusted*

- **Over 10%**
- **8 to 10**
- **7 to 8**
- **5 to 7**
- **Under 5%**

*Source: Bureau of Labor Statistics/Haver Analytics*
Colorado continues to enjoy broad-based growth across industries.

### October 2012 Payroll Employment

*Seasonally Adjusted*

<table>
<thead>
<tr>
<th>Industry</th>
<th>Year-over-Year Percent Change</th>
<th>Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private Educational Services</td>
<td>6.5%</td>
<td>1.5%</td>
</tr>
<tr>
<td>Natural Resources &amp; Mining</td>
<td>4.7%</td>
<td>1.3%</td>
</tr>
<tr>
<td>Construction</td>
<td>4.6%</td>
<td>5.0%</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>3.8%</td>
<td>5.8%</td>
</tr>
<tr>
<td>Retail Trade</td>
<td>2.7%</td>
<td>10.7%</td>
</tr>
<tr>
<td>Professional &amp; Business Services</td>
<td>2.6%</td>
<td>15.3%</td>
</tr>
<tr>
<td>State Government</td>
<td>2.5%</td>
<td>4.3%</td>
</tr>
<tr>
<td>Health Care &amp; Social Assistance</td>
<td>1.6%</td>
<td>12.1%</td>
</tr>
<tr>
<td>Leisure &amp; Hospitality</td>
<td>1.5%</td>
<td>4.0%</td>
</tr>
<tr>
<td>Wholesale Trade</td>
<td>1.4%</td>
<td>4.2%</td>
</tr>
<tr>
<td>Other Services</td>
<td>1.0%</td>
<td>6.3%</td>
</tr>
<tr>
<td>Financial Activities</td>
<td>0.6%</td>
<td>10.6%</td>
</tr>
<tr>
<td>Local Government</td>
<td>-1.1%</td>
<td>2.4%</td>
</tr>
<tr>
<td>Federal Government</td>
<td>-2.6%</td>
<td>2.9%</td>
</tr>
<tr>
<td>Transportation &amp; Utilities</td>
<td>-3.3%</td>
<td>3.0%</td>
</tr>
</tbody>
</table>

*Source: Bureau of Labor Statistics*
Despite increases over the past year, construction employment is still 30 percent below pre-recession levels.

_October 2012 Payroll Employment_

*Seasonally Adjusted*

<table>
<thead>
<tr>
<th>Sector</th>
<th>Change from Peak (Dec. 2007)</th>
<th>Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Private Educational Services</td>
<td>19.7%</td>
<td>1.5%</td>
</tr>
<tr>
<td>State Government</td>
<td>15.0%</td>
<td>4.3%</td>
</tr>
<tr>
<td>Health Care &amp; Social Assistance</td>
<td>14.3%</td>
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<td>Natural Resources &amp; Mining</td>
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</tr>
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<td>Wholesale Trade</td>
<td>-6.6%</td>
<td>4.0%</td>
</tr>
<tr>
<td>Financial Activities</td>
<td>-7.6%</td>
<td>6.3%</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>-9.1%</td>
<td>5.8%</td>
</tr>
<tr>
<td>Information</td>
<td>-11.6%</td>
<td>3.0%</td>
</tr>
<tr>
<td>Transportation &amp; Utilities</td>
<td>-12.0%</td>
<td>2.9%</td>
</tr>
<tr>
<td>Construction</td>
<td>-30.0%</td>
<td>5.0%</td>
</tr>
</tbody>
</table>

Source: Bureau of Labor Statistics
Residential construction activity has picked up considerably.

**Value of Residential Construction**

*Percent Change, Cumulative Year-to-Date January through October 2012*

*Source: McGraw Hill/F.W. Dodge*
Construction activity remains at low levels relative to historical highs.

**RESIDENTIAL PERMITS**

*Index 100 = October 2002, Seasonally Adjusted*

<table>
<thead>
<tr>
<th>Percent Change</th>
<th>Past Year</th>
<th>Peak to Current</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year-to-Date thru October</td>
<td>United States</td>
<td>33.1%</td>
</tr>
<tr>
<td></td>
<td>Colorado</td>
<td>55.8</td>
</tr>
</tbody>
</table>

Source: Census Bureau
Note: Monthly permit data is unrevised and may not sum to year-end totals.
Construction activity is strongest in the Denver metro area.

2012 RESIDENTIAL PERMITS BY COUNTY
Number Issued Year-to-Date through October

Source: Census Bureau
Activity is about half of what it was at peak levels.

**Residential Permits by County**

*Number Issued Year-to-Date through October*

- Denver
- El Paso
- Douglas
- Larimer
- Arapahoe
- Weld
- Adams
- Jefferson
- Boulder
- Mesa
- Pueblo
- Grand
- La Plata
- Chaffee
- Summit
- All Other Counties

*Source: Census Bureau*
Home prices are rising in most states...

FHFA PURCHASE-ONLY HOME PRICE INDEX (2012Q3)

Seasonally Adjusted

Percent Change
Year-over-Year

- 5+%  
- 2 to 5  
- 0 to 2  
- -2 to 0  
- -2.6 to -2  

United States
4.0%

Source: Federal Housing & Finance Agency (FHFA)
...yet prices remain well below peak values.

**FHFA Purchase-Only Home Prices (2007Q1 – 2012Q3)**

*Seasonally Adjusted*

![Map of United States showing percent change in home prices.](image)

- **United States**: -16.6%
- **Percent Change**
  - 10+%
  - 0 to 10%
  - -10 to 0%
  - -20 to -10%
  - -53.7 to -20%

*Source: Federal Housing & Finance Agency (FHFA)*
Improvements in infrastructure and non-residential construction activity have varied across the country.

Value of Non-Residential & Non-Building Construction
Percent Change, Cumulative Year-to-Date January through October 2012

United States
-6.4%

Percent Change
Year-to-Date

-74 to -20
-20 to 0
0 to 20
20 to 40
40+%
Oil drilling has increased sharply over the past two years, but natural gas drilling has declined.

Active Drilling Rig Counts

Source: Baker Hughes
Mining activity made up slightly more than 4% of Colorado state domestic product in 2011 and is a growing sector in the regional economy.
Manufacturing activity has slowed and contracted slightly in November.

MANUFACTURING ACTIVITY
Diffusion Index, Seasonally Adjusted, Month-over-Month

Source: Institute for Supply Management & Federal Reserve Bank of Kansas City
Manufacturers in the Tenth District still expect higher levels of activity over the next six months but have become less optimistic.

Tenth District Manufacturing Expectations

Diffusion Index, Seasonally Adjusted, Six Months Ahead

Source: Federal Reserve Bank of Kansas City
Growth has slowed sharply in Europe this year and is expected to remain slow in 2013.

**World Economic Outlook Projections**

*Percent Change over Prior Year*

Source: International Monetary Fund (IMF) (October 2012 World Economic Outlook)
Exports to Europe have declined over the past two years.

**COLORADO EXPORT GROWTH**

*Percent Change over Prior Year*

`October 2012`

- **Eurozone**  -14.6%
- **All Other Countries**  1.5%

(Source: WISERTrade  
Note: Eurozone includes the 27 EU member countries.)
Exports to Europe make up 19 percent of total exports from Colorado.

**Colorado Exports by Trading Partner**

<table>
<thead>
<tr>
<th>Trading Partner</th>
<th>Billions</th>
<th>2011 Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Other</td>
<td>5.0</td>
<td>30.9%</td>
</tr>
<tr>
<td>Japan</td>
<td>12.3</td>
<td>5.4</td>
</tr>
<tr>
<td>Mexico</td>
<td>12.8</td>
<td>10.3</td>
</tr>
<tr>
<td>Canada</td>
<td>33.7</td>
<td>21.0</td>
</tr>
<tr>
<td>China</td>
<td>7.5</td>
<td>13.5</td>
</tr>
<tr>
<td>Eurozone</td>
<td>-5.2</td>
<td>19.0</td>
</tr>
</tbody>
</table>

Source: WISERTrade
Note: Eurozone includes the 27 EU member countries and China includes Hong Kong, Taiwan, and Macao.

*2011 Share
National & Colorado Economic Update

This presentation will be available at http://www.KansasCityFed.org/Denver/

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