Scanning the Economic Horizon: Economic Update & Outlook

2018 ARPA Convention
Based on Data Available
June 20, 2018
Consensus: No Recession in Sight for U. S. or Arizona Economies

<table>
<thead>
<tr>
<th>Year</th>
<th>Odds</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>14%</td>
</tr>
<tr>
<td>2019</td>
<td>27%</td>
</tr>
</tbody>
</table>

Blue Chip Economic Indicators, Consensus of leading national economists, June 10, 2018
The U.S. Economy Continues Longest Job Expansion On Record – 92 Months*

# Two Cheers For 2017 GDP

<table>
<thead>
<tr>
<th>GDP Components</th>
<th>2016 Growth</th>
<th>2017 Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>U. S. (Real) GDP</td>
<td>1.5%</td>
<td>2.3%</td>
</tr>
<tr>
<td>Consumer Spending</td>
<td>2.7</td>
<td>2.8</td>
</tr>
<tr>
<td>Gross Investment</td>
<td>-1.6</td>
<td>3.3</td>
</tr>
<tr>
<td><em>Residential Construction</em></td>
<td>5.5</td>
<td>1.8</td>
</tr>
<tr>
<td>Exports</td>
<td>-0.3</td>
<td>3.4</td>
</tr>
<tr>
<td>Imports</td>
<td>1.3</td>
<td>4.0</td>
</tr>
<tr>
<td>Government Spending</td>
<td>0.8</td>
<td>0.1</td>
</tr>
</tbody>
</table>

*U. S. Bureau of Economic Analysis, GDP Accounts, April 27, 2018*
12 Years of Below Normal GDP Growth
(Average 1965 – 2005 = 3.3% Real GDP Growth)

Annual Percent Change

U. S. Bureau of Economic Analysis, March 28, 2018
What Optimists are Saying

• Tax cuts will boost growth
• Deregulation will help to stimulate economy
• Wage gains will increase consumer spending (70% of GDP)
• Weaker dollar will raise export sales and jobs
• Confidence & job growth remain strong
What Pessimists are Saying

• Slow grow of productivity and labor force are critical problems
• Infrastructure plan “squeezed out” by tax cuts, mandatory spending
• Tax cuts and Federal spending will increase deficit, raise interest rates
• Mistakes by Fed, Congress or the Executive branch can collapse business & consumer confidence
## U.S. Economic Outlook

### 14th Year of GDP Growth Under 3.0%

<table>
<thead>
<tr>
<th>Indicator</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Real GDP Growth</td>
<td>2.3%</td>
<td>2.9%</td>
<td>2.6%</td>
</tr>
<tr>
<td>Inflation (CPI)</td>
<td>2.1%</td>
<td>2.5%</td>
<td>2.2%</td>
</tr>
<tr>
<td>Employment Growth</td>
<td>2.3 mil</td>
<td>2.4 mil</td>
<td>2.3 mil</td>
</tr>
<tr>
<td>Unemployment Rate</td>
<td>4.4%</td>
<td>3.9%</td>
<td>3.6%</td>
</tr>
<tr>
<td>10 Year Treasury Note</td>
<td>2.4%</td>
<td>3.0%</td>
<td>3.4%</td>
</tr>
</tbody>
</table>

*W. P. Carey School of Business, based on data available June 2018*
Arizona 4th in Growth of Gross State Product in 2017

Top 10 GSP Growth States

GSP Decreased

Ranked by % Change: (2017 over 2016)

U. S. Bureau of Economic Analysis & W. P. Cary School of Business
## ARIZONA Economic Outlook

<table>
<thead>
<tr>
<th>Indicators</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal Income (% change)</td>
<td>4.3</td>
<td>5.2</td>
<td>6.3</td>
</tr>
<tr>
<td>Nonfarm Employment (% change)</td>
<td>2.4</td>
<td>2.5</td>
<td>3.0</td>
</tr>
<tr>
<td>New Jobs (thousands)</td>
<td>63.9</td>
<td>69.3</td>
<td>85.2</td>
</tr>
<tr>
<td>Population (% change)</td>
<td>1.6</td>
<td>1.6</td>
<td>1.7</td>
</tr>
<tr>
<td>Single Family Permits (thousands)</td>
<td>27,588</td>
<td>31,725</td>
<td>35,530</td>
</tr>
</tbody>
</table>

*W. P. Carey School of Business, based on data available June 2018*
Arizona 5th in Personal Income Gains Among States in 2017

Top 10 Personal Income Growth States

Ranked by % Change: (2017 over 2016)

U. S. Bureau of Economic Analysis & W. P. Cary School of Business
Arizona 5th in Job Creation Among States in 2017

Top 10 Job Growth

Lost Jobs

Arizona Construction Ranked 3rd In Job Growth In 2017

Ranked by % Change: (2017 over 2016)

U. S. Bureau of Labor Statistics & W. P. Cary School of Business
Arizona Ranked 6th Fastest in Population Growth in 2017

U. S. States Ranked by Percent Change 2016-2017

U. S. Census Bureau, Dec. 2017
Arizona was the Third Leading State for Sand & Gravel (Value) Production in 2017

<table>
<thead>
<tr>
<th>State</th>
<th>Rank</th>
<th>Value ($ 000)</th>
<th>Metric Tons (000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>California</td>
<td>1</td>
<td>$1,220,000</td>
<td>98,700</td>
</tr>
<tr>
<td>Texas</td>
<td>2</td>
<td>$827,000</td>
<td>80,300</td>
</tr>
<tr>
<td>Arizona</td>
<td>3</td>
<td>$381,000</td>
<td>39,100</td>
</tr>
<tr>
<td>Washington</td>
<td>4</td>
<td>$326,000</td>
<td>36,800</td>
</tr>
<tr>
<td>Michigan</td>
<td>5</td>
<td>$309,000</td>
<td>46,200</td>
</tr>
<tr>
<td>Minnesota</td>
<td>6</td>
<td>$297,000</td>
<td>54,900</td>
</tr>
</tbody>
</table>

According to the U. S. Geological Survey, Arizona ranked third in the nation in the value of sand and gravel produced in 2017 and fifth based on metric tons of production.
Arizona Rock Products Industry
$4.9 Billion Economic Impact in 2017

Arizona Rock Products Industry
Total Impact
$4.9 billion

Arizona Jobs Supported
25,674

Income to Arizona Workers
$1.4 billion

Purchases from Arizona Business
$2.4 billion
Arizona Rock Products Industry

$4.9 Billion Economic Impact in 2017

DIRECT IMPACTS

$2.5 Billion Direct Output

7,745 Direct Jobs

$2.4 Billion Secondary Output

17,929 Secondary Jobs

$4.9 Billion Total Output

25,674 Total Jobs

• Every $1 billion of direct Rock Products industry output stimulates an additional $960 million of secondary Arizona output

• Every Rock Product industry worker supports an additional 2.3 jobs in the overall Arizona labor market
Arizona Rock Products Industry

Direct Economic Impact

7,745 Workers

$470 Million Payroll

$2.5 Billion ARPA Output
Arizona Rock Products Industry
Supports 145,500 Construction Jobs

- 28,800 Workers, Construction of Buildings
- 16,800 Workers, Heavy Construction
- 99,900 Workers, Special Trades

Each Rock Products Worker Supports 19 Arizona Construction Jobs

7,745 Workers, Rock Products Industry
Arizona Rock Products Industry
Benefits The Arizona Economy

- 25,674 total Arizona jobs created
- 7,745 direct Rock Products jobs
- 17,929 secondary Arizona jobs
- 1 ARPA job supports 2.3 more jobs
- $236 million in state & local taxes
No Recession in Sight – As of Now

- Arizona is firmly established as a top 10 state for job creation, income gains, and population growth
- Arizona construction jobs grew 10% in 2017 (3rd) and year-to-date jobs are up 8.6% (3rd)
- What to watch: will the Fed “get it right?”
- Labor force, quality of life, cost structure will drive Arizona growth – the U.S. business cycle is major risk - but as of now recession probability is low
ASU Football Victory in 2017 Assures Arizona Economy Will Improve in 2018

Annual Percentage Change in Arizona Employment


UA Wins 2001 Recession 2001


UA Wins 2014 Slight Dip

UA Wins 2016 Slight Dip

ASU Wins 2017 Outlook Improves!