2018 Annual Economic Forecast
Dragas Center for Economic Analysis and Policy
PRESENTING SPONSOR

CHARTWAY®
FEDERAL CREDIT UNION

EVENT PARTNERS

Old Dominion University
Strome College of Business

Hampton Roads Chamber of Commerce
The forecasts and commentary do not constitute an official viewpoint of Old Dominion University, its President, John R. Broderick, the Board of Visitors, the Strome College of Business, or the generous donors who support the activities of the Dragas Center for Economic Analysis and Policy and the Economic Forecasting Project.
2018 National and Virginia Economic Forecast

Accelerating Growth, Increasing Risk

Professor Robert McNab

January 31, 2018
## Current and Historical Expansions

<table>
<thead>
<tr>
<th>Expansion</th>
<th>Duration In months</th>
<th>Annual Employment Growth</th>
<th>Annual Real GDP Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>October 1949 – July 1953</td>
<td>45</td>
<td>4.35%</td>
<td>6.14%</td>
</tr>
<tr>
<td>May 1954 – August 1957</td>
<td>39</td>
<td>2.51%</td>
<td>3.67%</td>
</tr>
<tr>
<td>April 1958 – April 1960</td>
<td>24</td>
<td>3.58%</td>
<td>4.86%</td>
</tr>
<tr>
<td>February 1961 – December 1969</td>
<td>106</td>
<td>3.23%</td>
<td>4.68%</td>
</tr>
<tr>
<td>November 1970 – November 1973</td>
<td>36</td>
<td>3.38%</td>
<td>4.60%</td>
</tr>
<tr>
<td>March 1975 – January 1980</td>
<td>58</td>
<td>3.52%</td>
<td>4.01%</td>
</tr>
<tr>
<td>December 1982 – July 1990</td>
<td>91</td>
<td>2.81%</td>
<td>3.81%</td>
</tr>
<tr>
<td>March 1991 – March 2001</td>
<td>120</td>
<td>2.01%</td>
<td>3.45%</td>
</tr>
<tr>
<td>November 2001 – December 2007</td>
<td>73</td>
<td>0.88%</td>
<td>2.66%</td>
</tr>
<tr>
<td>June 2009 – Present*</td>
<td>103</td>
<td>1.38%</td>
<td>2.14%</td>
</tr>
</tbody>
</table>

Source: Bureau of Labor Statistics, Bureau of Economic Analysis, National Bureau of Economic Research, and Old Dominion University Economic Forecasting Project. Real GDP in chained 2009 dollars. CAGR = Compound Annual Growth Rate. Annual Real GDP CAGR derived from quarterly series. Annual employment CAGR derived from monthly series. Current expansion data ends in 2017 Q3. Average annual Real GDP CAGR of previous expansions = 4.21% while average annual employment CAGR from previous expansions = 2.92%
Growth in Real Gross Domestic Product
United States and Virginia, 2010 - 2017 Q4

United States Real GDP
Virginia Real GDP

Source: Bureau of Economic Analysis and Old Dominion University Economic Forecasting Project. Real GDP measured in chained 2009 dollars. U.S. Q4 and VA Q3 are advance estimates. VA Q4 is our forecast. Quarterly numbers are annualized rates of growth.
Total Nonfarm Employment
United States, January 2007 – December 2017

Thousands of Jobs
150,000
145,000
140,000
135,000
130,000
125,000
120,000

Jan-07 Jun-07 Jan-08 Jun-08 Jan-09 Jun-09 Jan-10 Jun-10 Jan-11 Jun-11 Jan-12 Jun-12 Jan-13 Jun-13 Jan-14 Jun-14 Jan-15 Jun-15 Jan-16 Jun-16 Jan-17 Jun-17

129,733
147,380

+ 17.65 Million Jobs

Source: Bureau of Economic Analysis and Old Dominion University Economic Forecasting Project. Seasonally adjusted data. Data for December 2017 are preliminary. Trough was February 2010.
Thousands of Jobs

Total Nonfarm Employment
Virginia, January 2007 - December 2017

+400,400 Jobs

Source: Bureau of Economic Analysis and Old Dominion University Economic Forecasting Project. Seasonally adjusted data. Data for December 2017 are preliminary. Trough is February 2010.
Source: Bureau of Labor Statistics and Old Dominion University Economic Forecasting Project. Peak employment for the United States was January 2008. Peak employment for Virginia was April 2008.
Seasonally adjusted data through December 2017. December 2017 data are preliminary. Data measure the number of reported jobs by the Current Employment Statistics (CES) program.
Headline Unemployment Rate (U3)
Virginia and United States, January 2007 - December 2017

Source: Bureau of Labor Statistics and Old Dominion University Economic Forecasting Project. Seasonally adjusted unemployment rates. December 2017 data are preliminary.
Alternative Measure of the Unemployment Rate (U6)
Virginia and the United States, 2003-2017

Source: Bureau of Labor Statistics and Old Dominion University Economic Forecasting Project. U-6 measures total unemployed, plus all marginally attached workers, plus total employed part time for economic reasons, as a percent of the civilian labor force plus all marginally attached workers. State level data based on 4-quarter moving average. Annual averages are presented.
Month-to-Month Change in Labor Force
Virginia, December 2016 to December 2017

Source: Bureau of Labor Statistics and Old Dominion University Economic Forecasting Project. Local Area Unemployment Statistics. Seasonally adjusted data. December 2017 data are preliminary.
Month-to-Month Change in Employment
Virginia, December 2016 to December 2017

Source: Bureau of Labor Statistics and Old Dominion University Economic Forecasting Project. Local Area Unemployment Statistics. Seasonally adjusted data. December 2017 data are preliminary.
Civilian Labor Force Participation Rate
United States, January 1980 – December 2017

77.9%
63.7%
51.5%
69.0%
62.7%
57.0%

Source: Bureau of Labor Statistics and Old Dominion University Economic Forecasting Project. Seasonally adjusted data.
Labor Force Participation Rate
Virginia, January 1976 to December 2017

Source: Bureau of Labor Statistics and Old Dominion University Economic Forecasting Project. Seasonally adjusted data.
Source: Office of Management and Budget and Old Dominion University Economic Forecasting Project. Federal deficits in nominal dollars.
Source: Bureau of Economic Analysis and Old Dominion University Economic Forecasting Project. Corporate Profits After Tax Without Inventory Adjustment. 2017 is through the 3rd quarter.
Cyclically Adjusted Price/Earnings Ratio
Standard and Poor’s Composite Price Index
January 1881 – January 2018

Growth in Real Gross Domestic Product
Virginia and the United States, 2012-2018

Source: Bureau of Economic Analysis and Old Dominion University Economic Forecasting Project. Real GDP measured in chained 2009 dollars. 2017 US is an advance estimate. 2017 VA and 2018 are our forecasts.
<table>
<thead>
<tr>
<th></th>
<th>2017 Forecast</th>
<th>2017 Actual</th>
<th>2018 Forecast</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. Real Gross Domestic Product</td>
<td>2.2%</td>
<td>2.3%</td>
<td>3.0%</td>
</tr>
<tr>
<td>Civilian Job Growth</td>
<td>1.5%</td>
<td>1.2%</td>
<td>1.1%</td>
</tr>
<tr>
<td>Unemployment Rate</td>
<td>4.7%</td>
<td>4.1%</td>
<td>3.8%</td>
</tr>
<tr>
<td>Consumer Price Index</td>
<td>2.8%</td>
<td>2.2%</td>
<td>2.9%</td>
</tr>
<tr>
<td>Core Consumer Price Index</td>
<td>2.4%</td>
<td>1.7%</td>
<td>2.2%</td>
</tr>
<tr>
<td>3-month Treasury Bill</td>
<td>1.3%</td>
<td>1.4%</td>
<td>2.0%</td>
</tr>
<tr>
<td>10-year Treasury Bill</td>
<td>3.2%</td>
<td>2.4%</td>
<td>3.2%</td>
</tr>
<tr>
<td>30-year Treasury Bill</td>
<td>--</td>
<td>2.8%</td>
<td>3.6%</td>
</tr>
<tr>
<td>30-year Conventional Mortgage</td>
<td>4.3%</td>
<td>4.0%</td>
<td>5.0%</td>
</tr>
<tr>
<td>Federal Deficit</td>
<td>---</td>
<td>-$655 Billion</td>
<td>-$750 Billion</td>
</tr>
<tr>
<td>Virginia Real GDP*</td>
<td>1.5%</td>
<td>1.7%</td>
<td>2.2%</td>
</tr>
<tr>
<td>Virginia Employment Growth</td>
<td>---</td>
<td>1.4%</td>
<td>1.3%</td>
</tr>
</tbody>
</table>

Source: 2017 data reflects the annual rate of growth, last month, or day business day of 2017 where appropriate. 2017 VA GDP is an estimate based on the first 3 quarters. Data are rounded to nearest tenth.
To receive updates from the Dragas Center for Economic Analysis and Policy, please leave your card with us.

You may also text CEAPODU to 66866 to join our email list and follow CEAPODU on Facebook and Twitter.

You will not only receive access to our reports and presentations but also monthly economic updates for Hampton Roads. As we launch new products, you will be included in the distribution list.

We put the economy into context so that you can better understand the numbers.