Vinod Agarwal, Ph.D.
Professor
Strome College of Business
Old Dominion University
Rate of Growth of Real Gross Domestic Product (U.S.) and Gross Regional Product (Hampton Roads)
Selected Time Periods from 2001 to 2017*

Source: Bureau of Economic Analysis and the Old Dominion University Economic Forecasting Project. Data on GDP incorporates latest BEA revisions in September 2016. * numbers for 2016 are estimates.
Caps on Department of Defense (DOD) Discretionary Spending, FY 2012 to FY 2021

The legislated cap on spending increased by $27B (5.18%) during FY 2016 and by only $3B or 0.55% during FY 2017; is expected be $2B less in FY 2018.

Source: BCA 2011, Budget Requests for FY14, CBO Sequestration Update Report, BA 2015, and the Old Dominion University Economic Forecasting Project.
What can we expect from President Trump’s Administration?

Three among many possibilities...
1). Good times are here again!! or  2). Remember the Good Times? or 3). Status Quo becomes the new Normal

Source: BCA2011, Budget Requests for FY14, CBO Sequestration Update Report and the Old Dominion University Economic Forecasting Project.
Between 2000 and 2012, DOD spending in our region increased by an annual average of 5.8%. In 2017, it will be about 1% lower than its peak in 2012.

Source: U.S. Department of Defense and the Old Dominion University Economic Forecasting Project. *Includes Federal Civilian and Military Personnel and Procurement
## Estimated Average Compensation (Wages, Salaries and Fringe Benefits): Selected Categories

Hampton Roads: 2014 and 2015

<table>
<thead>
<tr>
<th>Category</th>
<th>Earnings in 2014</th>
<th>Earnings in 2015</th>
<th>Percent change 2014 to 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Military</td>
<td>$91,531</td>
<td>$91,283</td>
<td>-0.27%</td>
</tr>
<tr>
<td>Federal Civilian Govt.</td>
<td>$103,583</td>
<td>$107,521</td>
<td>3.80%</td>
</tr>
<tr>
<td>Employees</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>State and Local Govt.</td>
<td>$59,150</td>
<td>$60,088</td>
<td>3.28%</td>
</tr>
<tr>
<td>Employees</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Private Nonfarm</td>
<td>$41,279</td>
<td>$42,185</td>
<td>2.19%</td>
</tr>
</tbody>
</table>

Source: U.S. Bureau of Economic Analysis (BEA) and the Old Dominion University Economic Forecasting Project. * BEA calls compensation as earnings. Data updated on November 17, 2016
The 2007-2009 Recession and its Recovery through December 2016

% Change in Total Non-farm Payroll Employment from Pre-Recession Peak

Pre-Recession Peak Dates:
U.S.: January, 2008
Virginia: April, 2008
Hampton Roads: July, 2007

Months After Pre-Recession Peak

% Change from Pre-Recession Peak

USA | VA | HR
Net New Civilian Jobs Gained/Lost in Selected MSA’s, Virginia, and North Carolina From 2007* to 2016

Source: U.S. Department of Labor CES seasonally unadjusted data and the Old Dominion University Economic Forecasting Project. * Peak employment in Raleigh, Durham, Northern Virginia, and Virginia occurred in 2008. Change for these areas is shown for 2008 through 2016.
Unemployment Rates in U.S., Virginia, and Hampton Roads

Source: Bureau of Labor Statistics
### Old Dominion University 2017 Forecast for Hampton Roads MSA

<table>
<thead>
<tr>
<th></th>
<th>2016*</th>
<th>2017</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal Gross Regional Product</td>
<td>$98.96B</td>
<td>$103.17B</td>
<td></td>
</tr>
<tr>
<td>Real Gross Regional Product**</td>
<td>$86.73B</td>
<td>$87.95B</td>
<td>+1.41%</td>
</tr>
<tr>
<td>Civilian Employment</td>
<td>771,817</td>
<td>775,676</td>
<td>+0.50%</td>
</tr>
<tr>
<td>Unemployment Rate</td>
<td>4.57%</td>
<td>4.40%</td>
<td></td>
</tr>
<tr>
<td>Taxable Sales</td>
<td>$22.18B</td>
<td>$22.76B</td>
<td>+2.60%</td>
</tr>
<tr>
<td>Hotel Revenue</td>
<td>$804.70M</td>
<td>$840.11M</td>
<td>+4.40%</td>
</tr>
<tr>
<td>General Cargo Tonnage</td>
<td>20.87M</td>
<td>21.43M</td>
<td>+2.70%</td>
</tr>
<tr>
<td>Housing Permit Value</td>
<td>$843.13M</td>
<td>$865.05M</td>
<td>+2.60%</td>
</tr>
</tbody>
</table>

** Base year is 2009
Tom Dillon
Senior Vice President
Union Bank & Trust
Fed Eyes Aggressive Rate Increases

Banks Cool on Apartments

Firms Flee Mortgage-Backed Bond Business
Smaller players retreat while big banks continue to issue the securities

Bank Mergers Heading for Seven-Year High, Pushed by Costly Rules
(Bloomberg, August 19, 2016)

US REGULATOR SAYS BANKS LOOSENED LENDING STANDARDS FOR FOURTH YEAR IN A ROW
Dec 21, 2016 | Erik Olson-Jeppesen, Bisnow

UNION
WHAT’S CHANGING...
Community banks are being acquired:
- Southern Bank bought Heritage Bank
- Dollar Bank of Pittsburgh bought Bank @lantec
- Richmond based Xenith Bank bought Bank of Hampton Roads
- TowneBank acquired Monarch Bank
What’s Changing...

Banks Retreat From Apartment Market
wsj 2/21/2017

SunTrust Among Banks Pulling Back Apartment Construction Lending
Dec 14, 2016 Jarred Schenke, Bisnow, Atlanta

US REGULATOR SAYS BANKS LOOSEned LENDING STANDARDS FOR FOURTH YEAR IN A ROW
Dec 21, 2016 | Erik Dolan-Del Vecchio, Bisnow
WHAT’S CHANGING...

- Commercial mortgage backed securities originations are diminishing:
Fed Officials Indicate Rate Increase is Likely in March

BLOOMBERG CONSENSUS ECONOMIC FORECAST - SELECT INTEREST RATES

ACTUAL

FORECAST

Fed funds Rate
3 Month Rate
2 year Note
10 year Note

Q4 15 Q1 16 Q2 16 Q3 16 Q4 16 Q1 17 Q2 17 Q3 17 Q4 17 Q1 18
WHAT’S CHANGING...

- If interest rates change, cap rates will follow:

Cap Rate Spreads Against 10-Year Treasury Rate
2007Q4 – 2016Q4

Source: Reis

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Interim financing arranged by Towne Bank for City Center at Oyster Point, Newport News

Loan Amount: $54,000,000 First mortgage
Lenders: Towne Bank (50%) and Union Bank & Trust (50%)
Terms: 5/25 (term/amortization); fixed rate
Bridge financing provided by Union Bank & Trust
Bank of America Buildings/One & Two Commercial Place

Loan Amount: $12,000,000 first mortgage
Terms: One year loan, interest only
ADP Building/Two Commercial Place
Construction Financing by BB&T

Loan Amount: $34,800,000 first mortgage
Terms: Two year loan, interest only, with term options
Construction permanent financing for ICON at City Walk (Bank of America Tower) by Virginia Housing & Development Authority

Loan Amount: $57,000,000 First mortgage
Mortgage banker: John B. Levy & Co.
Terms: 30 year term/amortization after 2 year construction/lease up period
Construction/permanent loan arranged by AGM Financial, Southern Pines Apartments, Virginia Beach

Loan Amount: $36,492,700

Lender: GNMA bonds insured under Federal Housing Administration’s 221(d)4 program

Terms: 40 year term & amortization after 2 year construction/lease up period
Financing arranged by Grandbridge Real Estate Capital for Residence Inn Oceanfront, Virginia Beach

Loan Amount: $9,500,000
Lender: Life Insurance Company
Terms: 10/25 (Term/Amortization) Fixed, Non-Recourse
Financing Summary

- Money for good projects will still be available in 2017
- It will be more expensive as rates go up
- While the landscape is changing for types of lenders active in the market (community banks, conduit/CMBS lenders), other lenders appear willing and able to fill any gaps in the market
- Financing may be more difficult to obtain for certain property types (e.g. multi-family)
- With lenders constrained by portfolio management parameters and regulations, & with rates going up, deal terms may not be as attractive
John M. Profilet, SIOR
Senior Vice President
S.L. Nusbaum Realty
QUARTERLY VACANCY RATE

Source: CoStar Group, Inc. 2016
2016 QUARTERLY
SUBLEASE SPACE AVAILABLE (SF)

Source: CoStar Group, Inc. 2016
Figure 8: Medical Office Space Under Construction vs. Growth in Healthcare Employment

Source: CBRE EA/Dodge Pipeline, BLS, Moody’s Analytics, 2016.
Lang Williams, SIOR
Senior Vice President
CBRE, Hampton Roads
Industrial

Lang Williams, SIOR
CBRE, Hampton Roads
Hampton Roads Industrial Market

- 2016 Hampton Roads Year In Review
- U.S. National Industrial Market Performance
- Comparison of Hampton Roads to East Coast Markets
- Trends & Opportunities for 2017 & Beyond
Vacancy & Absorption for Hampton Roads

Source: CBRE | Hampton Roads Research
2016 New Industrial Construction

- Hoffman Beverage
  160,000 SF expansion
  S. Military Highway, Chesapeake

- FedEx Freight
  New 49,000 SF Truck Terminal
  on 23 acres, Chesapeake
2016 New Industrial Construction

- Emser Tile
  401,000 SF Build-to-Suit
  CenterPoint Intermodal Center-Suffolk

- Tilt Wall Panels at Panattoni’s
  284,580 SF
  Virginia Regional Commerce Park-B
Largest 30 US Industrial Markets

Hampton Roads
44th Largest
77.8 Million SF

35th Highest
$4.69

30th Lowest
5.3%

Source: CBRE Research
East Coast Peer Market Comparison: Industrial Market Size (Total Square Footage of Buildings in 1,000s)

- New Jersey: 808,253
- Baltimore: 159,956
- Richmond: 95,868
- Hampton Roads: 77,823
- Charleston: 52,079
- Savannah: 49,669

Source: CBRE Research

East Coast Peer Market Comparison - Annual Port TEU Volume

- 2014:
  - New York / New Jersey: 6,500,000
  - Baltimore: 2,500,000
  - Richmond: 2,000,000
  - Hampton Roads: 1,500,000
  - Charleston: 1,000,000
  - Savannah: 800,000

- 2015:
  - New York / New Jersey: 6,000,000
  - Baltimore: 2,000,000
  - Richmond: 1,500,000
  - Hampton Roads: 1,000,000
  - Charleston: 700,000
  - Savannah: 500,000

- 2016:
  - New York / New Jersey: 5,500,000
  - Baltimore: 1,500,000
  - Richmond: 1,000,000
  - Hampton Roads: 700,000
  - Charleston: 400,000
  - Savannah: 300,000

Source: Port Authority Web Sites
East Coast Industrial Market Net Absorption and Vacancy

Source: CBRE Research

East Cost Peer Market Comparison - Annual Industrial Net Absorption

- New Jersey
- Baltimore
- Richmond
- Hampton Roads
- Charleston
- Savannah

Source: CBRE Research
• 50% OF U.S. Population Lives East Of The Line

• Projected 30 Million New Residents East Of The Line By 2040
U.S. E-COMMERCE SALES, 2014-2018

E-commerce sales will reach nearly $500 B by 2018. Sales (in Billions)

Source: EMARKETER, FORRESTER RESEARCH
Annual requirement of 50-60 MSF of additional DC space.
Virginia International Gateway
536 Acres

- PHASE I: 231 acres, > 1 Million TEUs Annual Capacity, opened in 2007
- PHASE II: $320 million capital expansion underway on 60 acres
- To provide another 1 Million TEUs in capacity, 2019 completion

Norfolk International Terminals
567 Acres

- Capacity: +820,000 containers, +1.426 Million TEUs annually
- $350 million capital investment underway at NIT South
- Will increase capacity by 46 percent
- Scheduled completion 2020
Regional Infrastructure Investment

$3.90 Billion
2017-2021

Source: VDOT; HRPDC; ERT
Christopher E. Rouzie
Senior Vice President, Regional Manager
Cushman & Wakefield/Thalhimer
38% of all online sales

#1 Apparel Retailer in 2017 (projected)

2016 Sales = $136 Billion (up 27%)
### TOP 8 RETAILERS VS. AMAZON

<table>
<thead>
<tr>
<th>RETAILER</th>
<th>2016 VALUE ($B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sears</td>
<td>$1.1</td>
</tr>
<tr>
<td>JC Penney</td>
<td>$2.6</td>
</tr>
<tr>
<td>Nordstrom</td>
<td>$8.3</td>
</tr>
<tr>
<td>Kohl’s</td>
<td>$8.8</td>
</tr>
<tr>
<td>Macy’s</td>
<td>$11.0</td>
</tr>
<tr>
<td>Best Buy</td>
<td>$13.2</td>
</tr>
<tr>
<td>Target</td>
<td>$40.6</td>
</tr>
<tr>
<td>Walmart</td>
<td>$212.4</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>$297.8 BILLION</strong></td>
</tr>
<tr>
<td><strong>AMAZON</strong></td>
<td><strong>$398.8 BILLION</strong></td>
</tr>
</tbody>
</table>
Who’s feeling the pain?
Closing 100 stores  
(1 local 2017)

Closing 140 stores  
(3 local 2016)

Closing 100 stores  
(3 local 2016)

Closing 88 stores  
(3 local 2017)
Who’s doing well?
Grocery Stores—Who’s Growing?
- 59 New Stores in 2017
- $11-13B in Capital Investment
- 2017 - Investment in E-Commerce & Store Renovations

40 Stores

20 Stores
4 Marketplace Stores open

Greenbrier Square - Opened August 2016

Hampton & Chesapeake under construction

Pending Site in Norfolk
- 11 sites
- 4-6 stores will open this summer
- Still expanding
# Hampton Roads Grocery Market Leaders

<table>
<thead>
<tr>
<th>Market Leader</th>
<th>2016 Sales</th>
<th>Existing</th>
<th>Under Construction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Walmart</td>
<td>$906M</td>
<td>78</td>
<td>0</td>
</tr>
<tr>
<td>Harris Teeter</td>
<td>$759M</td>
<td>27</td>
<td>1</td>
</tr>
<tr>
<td>Kroger</td>
<td>$656M</td>
<td>38</td>
<td>0</td>
</tr>
<tr>
<td>MARTIN'S</td>
<td>$313M</td>
<td>14</td>
<td>0</td>
</tr>
<tr>
<td>Aldi</td>
<td>$247M</td>
<td>11</td>
<td>4</td>
</tr>
<tr>
<td>Trader Joe's</td>
<td>$66M</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Lidl</td>
<td>$45M</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>N/A</td>
<td>$46M</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>N/A</td>
<td>N/A</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>N/A</td>
<td>N/A</td>
<td>0</td>
<td>11</td>
</tr>
</tbody>
</table>

Legend:
- **Existing**
- **Under Construction**
Who’s Not Growing?
New Players
What does the future hold?
More Closures
Grocery Competition has Reached a Tipping Point
Chris McKee
President of Operations
The Franklin Johnston Group
Multifamily

Chris McKee
The Franklin Johnston Group
U.S. apartment market is modestly oversupplied

National Market Deliveries and Net Absorption 2008 to 2020e

Historical Average Deliveries = 133,149 units
Historical Average Net Absorption = 121,336 units

Key demand drivers are weakening slightly

Key Economic/Demographic Metrics
U.S. 2012 to 2016 vs. 2017e to 2021e

<table>
<thead>
<tr>
<th>Metric</th>
<th>2012-2016</th>
<th>2017 - 2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employment Growth</td>
<td>1.8%</td>
<td>1.1%</td>
</tr>
<tr>
<td>Personal Income Growth</td>
<td>3.8%</td>
<td>4.6%</td>
</tr>
<tr>
<td>Population Growth</td>
<td>0.8%</td>
<td>0.7%</td>
</tr>
</tbody>
</table>

Rent growth is moderating

Effective Rent Growth

Historical Average = 2.1%

Occupancy is reverting to historic mean

Supply and demand reverting to levels more consistent with historical norms

Hampton Roads Market
Deliveries and Net Absorption 2008 to 2020e


Specific Note: [1] 2008 to 2016 represents the average of REIS and CoStar historical figures for those years. Not all figures were available for all providers in all time periods.
Demand drivers in Hampton Roads have lagged the national averages in recent years.

Key Economic/Demographic Metrics 2012 to 2016

- **Job Growth**
  - US: 1.8%
  - Hampton Roads: 0.8%

- **Personal Income Growth**
  - US: 3.8%
  - Hampton Roads: 3.2%

- **Population Growth**
  - US: 0.8%
  - Hampton Roads: 0.5%

Demand drivers in Hampton Roads will strengthen but continue to lag U.S. average

Key Economic Metrics - 2017e to 2021e

Effective Rent Growth

Hampton Roads Market
Effective Rental Rate Growth 2005 to 2020e

Sources:

Specific Note: [1] 2005 to 2016 represents the average of REIS, AXIOMetrics and CoStar historical figures for those years. Not all figures were available for all providers in all time periods.
Occupancy

Hampton Roads Market
Occupancy Trend 2005 to 2020e

Historical Average = 94.5%

Closing Comments
J. Scott Adams, CCIM
Regional President
CBRE, Hampton Roads
Investment

Scott Adams
CBRE, Hampton Roads
COMMERCIAL REAL ESTATE CONTINUES AS THE TOP INVESTMENT ALTERNATIVE

- A “real asset”
- Strong income component
- Solid market fundamentals
- Supported by interest rates near historic lows
### 2016 Sales Nationally

$435 billion

<table>
<thead>
<tr>
<th>Rank</th>
<th>Type</th>
<th>Sales</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1</td>
<td>Multi-family</td>
<td>$158.4 B</td>
</tr>
<tr>
<td>#2</td>
<td>Office</td>
<td>$141.7 B</td>
</tr>
<tr>
<td>#3</td>
<td>Retail</td>
<td>$75.7 B</td>
</tr>
<tr>
<td>#4</td>
<td>Industrial</td>
<td>$59.2 B</td>
</tr>
</tbody>
</table>

Source: Real Capital Analytics
COMMERCIAL PRICES DRAMATICALLY HIGHER IN THE MAJOR MARKETS

SOURCE: MOODY’S /REAL CAPITAL ANALYTICS COMMERCIAL PROPERTY PRICE INDICES (CPPI)
INVESTORS SHIFTING APPETITE AWAY FROM MAJOR MARKETS IN SEARCH OF YIELD

2016 VOLUME IN MAJOR MARKETS: -9%

2016 VOLUME IN NON-MAJOR MARKETS: +2%

SHARE OF TRANSACTIONS IN NON-MAJOR MARKETS

2015: 53.8%

2016: 59.7%
“The mix of jobs being created is skewed toward higher-paying occupations”

“The outlook for the defense sector is favorable”

“The Port of Virginia should also see increased levels of activity due to the expansion of the Panama Canal”
Current deal in the market

GSA SOCIAL SECURITY ADMINISTRATION BUILDING
Norfolk, Virginia

Top 5 offers from investors based in 5 different states
J. Van Rose, Jr.
President
Rose & Womble Realty Company
Residential

Van Rose

Rose & Womble Realty Company
Begin with the End in Mind
Slow. Steady. Strong.
Resale

2011: $207,755, 15,817
2015: $232,400, 20,591
2016: $238,214, 22,452
New Construction

- 2011: $305,242, 2,364
- 2015: $328,503, 2,954
- 2016: $339,547, 3,217
The Changing Landscape

Peninsula Market Share
- 23.60% All Others
- 29.00% Spot/Infill
- 47.40% Ryan Homes

South Hampton Roads Market Share
- 33.80% Spot/Infill
- 55.90% All Others
- 10.30% Ryan Homes
Think different.
by 2020, **Millennials** will comprise at least **50%** of the workforce

Baby Boomers & Generation X  Millennials
THE NEXT NEW COMMUNITY COMING TO WILLIAMSBURG IS PROMENADE @5
Coming Soon to Bennett's Creek

- 2 Story Seafood Restaurant
- 24 Residences
- 54 Boat Slips
- Gas Pump Station at Dock (nearest one in Newport News)
- Blind Dog Tiki Bar
- In Ground Pool
- Ship Store
Sentiment

created and collected by,
The E.V. Williams Center for Real Estate

Nancy Dove
Valbridge Property Advisors
Sponsored by Valbridge Property Advisors
Q.1. Please identify your primary Hampton Roads real estate activity (select one).

Primary Hampton Roads Real Estate Activity: Spring 2017

n = 113

Real Estate Activity

- Consumer - agriculture property
- Consumer - commercial property
- Consumer - industrial property
- Consumer - homeowner or renter
- Entrepreneurial (Developing)
- Governing
- Investing
- Lending
- Professional - accountant
- Professional - appraiser
- Professional - architect
- Professional - broker/sales
- Professional - civil engineer
- Professional - consultant
- Professional - law
- Professional - property management
- Successor entrepreneurial
- None of the above. Please explain below.

Percentage of Participants

0% 5% 10% 15% 20% 25%
Q.3. Please identify your primary real estate market affiliation (select one).

Primary Market Affiliation: Spring 2017
n = 113

- Agriculture
- Industrial
- Land
- Multi-family residential
- Office
- Retail
- Single-family residential
- No response

Source: E.V. Williams Center for Real Estate
Q.4 and 5. Please rate current and anticipated 6 month sentiment levels for the following Hampton Roads real estate market segments.

![Average Sentiment - Present and 6 Month Projection: Spring 2017](image)

Source: E.V. Williams Center for Real Estate
Q.6. Over the next 6 months, which Hampton Roads real estate property sector has the best investment potential? (select one).

![Bar chart showing the percentage of participants' views on the best Hampton Roads investment potential sectors for Spring 2016 and Spring 2017.](chart)

- **Single-family residential**
- **Retail**
- **Office**
- **Multi-family residential**
- **Land**
- **Industrial**
- **Agricultural**

**Best Hampton Roads Investment Potential - Next 6 Months:**
- Spring 2016
- Spring 2017

**Percentage of Participants**
Q.7. We would like to understand your anticipated real estate usage over the next 6 months. Please indicate if you plan to expand or contract your use or ownership of space (please answer each row).

Source: E.V. Williams Center for Real Estate
Q.9. Please choose the statement below which best reflects the impact of sea-level rise on your Hampton Roads real estate interests (select one).

Impact of Sea-level Rise on Personal Real Estate Interest:
Spring 2016, Spring 2017

- **Severe Impact**
  - Spring 2016: 0%
  - Spring 2017: 10%

- **Moderate Impact**
  - Spring 2016: 20%
  - Spring 2017: 30%

- **Minimal Impact**
  - Spring 2016: 40%
  - Spring 2017: 50%

- **No Impact**
  - Spring 2016: 50%
  - Spring 2017: 40%

Source: E.V. Williams Center for Real Estate
Recognition and thank you!

- The E.V. Williams Center for Real Estate would like to thank the **volunteer participants** of this survey. This survey would not be possible without your support.

- The E.V. Williams Center for Real Estate would like to thank **Valbridge Property Advisors** for the financial support to conduct this survey.
2017 Hampton Roads Real Estate Market Review & Forecast

E.V. Williams Center for Real Estate
2088 Constant Hall
 Norfolk, VA 23529
www.odu.edu/business/center/creed