Insights brought to you by: Sara Rutledge, NCREIF’s Director of Research
Lower, Long-Term Trend GDP Growth Implications for Commercial Real Estate Performance
Sara Rutledge, NCREIF Director of Research

The downward trend in quarterly NPI total returns has been a theme explored in NCREIF webinars and publications for two years. Moderation, however, has also been a trend for macroeconomic growth both as the current expansion matures and as demographic and productivity trends lower long-term growth expectations. In this article, I will examine expectations for lower long term US economic growth and consider the potential implications for long-term trends in the NPI total return.

Why are long-term GDP growth expectations lower?
Throughout the post-Great Financial Crisis (GFC) economic recovery and expansion, real GDP growth did not achieve the strength seen in prior recoveries. Constraints present in this recovery are weak productivity growth and declines in labor force participation.

Productivity growth, at an annualized pace of 1.0% to date in this recovery, is at an historical low. Only a brief six quarter period in the early 1980s is close, at 1.1% annualized growth. As a measure of output per hour of labor, productivity growth leads to improvements in the standard of living because it supports growth in incomes and profits. Weak productivity growth limits these improvements and implies a lack of technological innovation and/or efficiency gains. A clear cause of lower productivity growth in this cycle is the sluggish return of business investment as it directly impacts output growth and indirectly limits innovation and efficiency, which has longer term implications.

Annualized Growth during Economic Expansions with Long Term Expectations

Growth in the labor force is dependent upon increases in the working age population and their participation rate in that labor force, both of which are slowing. After 30-year annual average growth rate of 1.2% per year, the working age population has expanded by only 0.5% per year since 2007 as the US population ages. The labor force participation rate peaked in 2000 at 67.3% of the working age population, was at 66% when the GFC began and then drifted down to 63%, where it has held relatively stable since 2013. Beneath this overall trend, there has been a convergence in the participation rates for men and women with the boost to labor force growth from sharp increases in female participation in the past. The peak participation rate for men was 87.4% in 1949 and it was 60.2% for women in 2001. As of 1Q 2017, the participation rates are 69.2% for men and 57.1% for women.
Taken together, these trends have led the Congressional Budget Office (CBO) and Federal Reserve to anticipate a lower long-term trend for GDP growth. In their January 2017 Budget and Economic Outlook, the CBO projects 2017-2027 potential real GDP growth of 1.8%, comprised of 1.3% potential labor productivity growth and 0.5% potential labor force growth. The combination of these two growth factors is a common rule of thumb for assessing potential economic growth in long run. The Federal Reserve’s Federal Open Market Committee, in their February 2017 Monetary Policy Report, also expects 1.8% real GDP growth in the longer run, which it defines as rate at which growth converges under appropriate monetary policy in the absence of economic shocks.

As with any long-term view, the outlooks discussed above are intended to reflect long term averages and do not exclude the potential for stronger and weaker periods during economic cycles. This is important context when considering the implications of long term economic trends for commercial real estate performance because the same cyclical fluctuations will apply to total returns.

**What are the implications for commercial real estate performance?**

Borrowing from the NCREIF Indices Review Webinar, the graph below shows annual trends in real GDP growth for the full history of the NPI total return series. Shading in this graph represents recessions. Directional trends for GDP and total returns are similar, although not perfectly aligned.

**Annual Real GDP Growth and NPI Total Return**

To more closely track the relationship between real GDP growth and the NPI total return, the trailing year for each was tracked over the NPI history to show the historical sensitivity of commercial real estate performance to different ranges of economic growth. The income and capital return components were used to break out impacts on each. Also, given the importance of employment growth to space demand for real estate, the sensitivity of total employment growth is shown against the same ranges of output growth.

For the 153 observed quarters, there were 70 with strong annual real GDP growth (above 3%), 70 with moderate growth (0%-to-3%) and 13 with economic contractions (less than 0%). The 39 quarters when the strongest (4% or more) annual real GDP growth was observed during the economic expansions at the start of this analysis in 1979, much of the 1980s and the late 1990s. In the mid-1980s, growth shifted to the 3%-to-4% range, which also reflects the pace of growth in the early 1990s and the housing-led expansion in the mid-2000s. These periods of 3%-to-4% growth account for 31 observed quarters.
Annual NPI Return Sensitivity to Annual Real GDP Growth, 1Q 1979 to 1Q 2017

<table>
<thead>
<tr>
<th>Real GDP Growth Range</th>
<th>Over 4%</th>
<th>3% to 4%</th>
<th>2% to 3%</th>
<th>1% to 2%</th>
<th>1% to 0%</th>
<th>0% to -1%</th>
<th>-1% to -2%</th>
<th>Under -2%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Count of Quarters</td>
<td>39</td>
<td>31</td>
<td>30</td>
<td>28</td>
<td>12</td>
<td>6</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Avg. Real GDP Growth</td>
<td>4.80%</td>
<td>3.44%</td>
<td>2.52%</td>
<td>1.70%</td>
<td>0.61%</td>
<td>-0.32%</td>
<td>-1.53%</td>
<td>-2.94%</td>
</tr>
<tr>
<td>Avg. Total Job Growth</td>
<td>2.95%</td>
<td>2.07%</td>
<td>1.48%</td>
<td>0.85%</td>
<td>-0.72%</td>
<td>-0.89%</td>
<td>-2.80%</td>
<td>-4.56%</td>
</tr>
<tr>
<td>Avg. Income Return</td>
<td>8.15%</td>
<td>7.61%</td>
<td>6.81%</td>
<td>6.50%</td>
<td>7.57%</td>
<td>7.23%</td>
<td>6.86%</td>
<td>5.82%</td>
</tr>
<tr>
<td>Avg. Capital Return</td>
<td>4.21%</td>
<td>1.61%</td>
<td>3.91%</td>
<td>4.17%</td>
<td>-1.12%</td>
<td>-2.46%</td>
<td>-7.30%</td>
<td>-24.24%</td>
</tr>
</tbody>
</table>

Moderate real GDP growth includes 30 observed periods of 2%-to-3% growth, 28 of 1%-to-2% growth and 12 positive growth periods of less than 1%. The high end of this range includes the strongest periods of the current expansion. The early 2010s recovery and trailing four quarters represent most of the periods in the 1%-to-2% range. Periods of positive, but less than 1% real GDP growth, reflect a few transition periods as well as 2001 and 2002, during and after a recession that only had two quarters of contraction in GDP.

There were only 13 periods of economic contraction in this analysis. Real GDP contracted by up to 2% in the depths of the early 1980s recession, 1991, and 2008. Only 2009 had trailing year real GDP growth of negative 2% or worse.

Combining the historically observed relationship between economic growth and returns with the lower long-term expectations for GDP growth ahead, the potential performance for commercial real estate does not appear daunting. Double-digit returns, as experienced in economic expansions, are still possible when the US economy is growing at a 1% to 3% annual pace. Annual income returns in these conditions have averaged about 7% with a roughly 4% contribution from appreciation.

Even weak GDP growth or a slight contraction has been observed to allow for potentially positive total returns, although depreciation has been observed during these periods. It is also noteworthy that periods of depreciation are consistent with periods experiencing declines in total employment, even if real GDP is advancing at a weak pace. The economic conditions that put commercial real estate performance most at risk is a financial crisis, as observed during the GFC, when the correction in capital values erases the positive impacts of a weak income return.

*For feedback or comments, please contact:*

Sara Rutledge
Director of Research – NCREIF
SRutledge@NCREIF.org or (312) 819-5890