NAI Global Economic Briefing
With Dr. Peter Linneman – Aug 2, 2016
Cumulative Percent Increase in Real GDP from Start of Recovery: Remains The Weakest Recovery

Percent

Quarters Into Recovery

- 2007
- 2001
- 1990
- 1981
- 1973
- 1957
Cumulative Percent Employment Increase from Start of Recovery: Second Weakest
Economic Policy Uncertainty Index: Election Cycle Uncertainty
Real GDP YOY Percent Growth: Adequate But Not Great
Actual vs. Trend Real GDP: A Huge Gap Mostly About Housing

$2.9T
Actual vs. Trend Real GDP Percent Deviation: Low Rates Have Killed The Recovery

13.8%
Civilian Unemployment Rate: Recovering Especially Among Youth
Employment-to-Population Ratio: Rebounding But Still Low
Weekly Initial Unemployment Insurance Claims: Shows Great Strength
Percent Unemployed By Duration: Returning To More Normal

% of unemployed LT 5 weeks divided by % of unemployed GT 26 weeks

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<thead>
<tr>
<th><strong>Auto &amp; Light Truck Production Shortfall</strong></th>
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<tbody>
<tr>
<td>Average Value per Vehicle</td>
<td>$32,560</td>
<td></td>
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<tr>
<td>Production Shortfall Since 2003</td>
<td>7,602,758</td>
<td>vehicles</td>
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<td>Multiplier</td>
<td>1.5</td>
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<td><strong>Pent-up Production Value</strong></td>
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<td>GDP Gap</td>
<td>$2,920 billion</td>
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<td><strong>Pent-up Auto % of GDP Gap</strong></td>
<td>12.7%</td>
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| **Housing Production Shortfall**         |         |         |
| Multifamily Shortfall (units)            | 966,848 |         |
| Multifamily Average Cost                 | $144,552 |         |
| **MF Shortfall Value**                   | $139.8 billion |         |
| Single Family Shortfall (units)          | 2,397,808 |         |
| Latest SF Average Cost (new)             | 290,144 |         |
| **SF Shortfall Value**                   | $695.7 billion |         |
| MF+SF Shortfall Value                    |         |         |
| **Total Value of Pent-up Housing**       | $1,253.20 billion |         |
| GDP Gap                                  | $2,920 billion |         |
| **Pent-up Housing as % of GDP Gap**      | 42.9%   |         |
Real Income from Interest Payments:
Savers Have Been Robbed By The Fed
Real Household Net Worth: A New High (But Median Lags Still)
Housing Starts and Auto Sales: Rebounding But Housing Lags

1976 = 100


Housing Starts

Auto Sales
Household Debt Service Ratio: Notably Delevered

Minimum Payment as % of GDP

- Mortgage
- Consumer
Consumer Confidence Index: Only About Average
Small Business Optimism Index: Remains Well Below Average
10-Year Treasury vs. Fed Funds Rate:
No Penalty To Holding Cash
Government Receipts, Outlays, and Deficit as a Percent of GDP: Deficit Normal But About Transfer Payments
Real Residential and Commercial Construction: Recovering But Lots To Catch Up

$ Billions

Percent of GDP

Residential + Commercial Construction

% of GDP


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Real Construction Cost Indices: Moving Back Up
NCREIF Transaction Cap Rates Over 10-Year Treasury Rates: Still Wide
Real Public Market Commercial Real Estate Values: Still Below Peak
Real Private Market Commercial Real Estate Values: At New Peak
Net U.S. CMBS Issuance Versus A Decade Earlier

$Billions


-200 -150 -100 -50 0 50 100 150 200 250

44 59 38 61 75 153 176 193

-62 -54 -35 -34 -4 8 1 -68 -143
Real Class A Suburban Office Rent: Up From Bottom But Below Average
Real RCA Office Private Real Estate Values: Around Average
Industrial Construction: Near New High
Real Industrial Rent: Around Average
Real RCA Industrial Private Real Estate
Values: Above Average
Real Multifamily Rent: At New Peak

$ Per Unit

Real Multifamily Construction: Approaching A New High

$ Billions

Real RCA Multifamily Private Real Estate Values: Well Above Average
Excess Rental Unit Vacancy: It Is All Gone
Real RCA Retail Private Real Estate
Values: Above Average

$ per SF

2001 2003 2005 2007 2009 2011 2013 2015
Real Retail Construction: Below Average
Real Hotel RevPar: A New Peak
Real U.S. Hotel Construction: Above Average
Real RCA Hotel Private Real Estate Values: Above Average