Comments on Forecasts

Kenneth T. Rosen

The Sky’s The Limit Conference and Expo

November 3, 2017
Risks to Economic Outlook

• Tax cuts in a full employment economy and a global synchronized expansion leads to higher inflation and faster normalization of monetary policy. Asset prices adjust sharply.

• De-globalization; restrictive immigration, trade, tariffs, travel, and visa policies might negatively impact the economy in the medium term.

• NAFTA negotiations collapse and restrictive trade policies proliferate.

• Geopolitical accident in North Korea or Middle East disrupts financial markets.

• 2018 election produces surprise democratic victories. Impeachment proceedings begin.
10-Year T-Bond Forecast

<table>
<thead>
<tr>
<th></th>
<th>2015</th>
<th>2016</th>
<th>2017f</th>
<th>2018f</th>
<th>2019f</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forward Curve 10/20/2017</td>
<td>2.27%</td>
<td>2.45%</td>
<td>2.44%</td>
<td>2.59%</td>
<td>2.70%</td>
</tr>
<tr>
<td>Implied Rate (Fed dots)</td>
<td>2.27%</td>
<td>2.45%</td>
<td>2.80%</td>
<td>3.60%</td>
<td>4.00%</td>
</tr>
<tr>
<td>Global Recession</td>
<td>2.27%</td>
<td>2.45%</td>
<td>2.80%</td>
<td>1.50%</td>
<td>1.00%</td>
</tr>
</tbody>
</table>

Sources: Federal Reserve, RCG
# Economic Outlook for 2017-2019

## Economic Growth

<table>
<thead>
<tr>
<th></th>
<th>2016</th>
<th>2017f</th>
<th>2018f</th>
<th>2019f</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP Growth:</td>
<td>1.5%</td>
<td>2.1%</td>
<td>2.0%</td>
<td>1.7%</td>
</tr>
</tbody>
</table>

## Employment

<table>
<thead>
<tr>
<th></th>
<th>2016</th>
<th>2017f</th>
<th>2018f</th>
<th>2019f</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unemployment Rate:</td>
<td>4.7%</td>
<td>4.3%</td>
<td>4.2%</td>
<td>4.6%</td>
</tr>
<tr>
<td>Employment Growth:</td>
<td>1.6%</td>
<td>1.3%</td>
<td>1.1%</td>
<td>0.9%</td>
</tr>
<tr>
<td>Jobs Created:</td>
<td>2.3 mil.</td>
<td>1.8 mil.</td>
<td>1.6 mil.</td>
<td>1.3 mil.</td>
</tr>
</tbody>
</table>

## Interest Rates and Inflation

<table>
<thead>
<tr>
<th></th>
<th>2016</th>
<th>2017f</th>
<th>2018f</th>
<th>2019f</th>
</tr>
</thead>
<tbody>
<tr>
<td>T-Bill:</td>
<td>0.5%</td>
<td>1.4%</td>
<td>2.4%</td>
<td>3.0%</td>
</tr>
<tr>
<td>10-Year T-Bond:</td>
<td>2.5%</td>
<td>2.8%</td>
<td>3.6%</td>
<td>4.0%</td>
</tr>
<tr>
<td>CPI:</td>
<td>1.8%</td>
<td>2.5%</td>
<td>3.1%</td>
<td>3.3%</td>
</tr>
</tbody>
</table>

## Single Family

<table>
<thead>
<tr>
<th></th>
<th>2016</th>
<th>2017f</th>
<th>2018f</th>
<th>2019f</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales:</td>
<td>5.4 mil.</td>
<td>5.6 mil.</td>
<td>5.4 mil.</td>
<td>5.4 mil.</td>
</tr>
<tr>
<td>Housing Starts:</td>
<td>782,000</td>
<td>820,000</td>
<td>865,000</td>
<td>850,000</td>
</tr>
<tr>
<td>Price Appreciation:</td>
<td>5.9%</td>
<td>5.5%</td>
<td>4.8%</td>
<td>2.9%</td>
</tr>
</tbody>
</table>
Rebuilding the American Dream: Strategies to Sustainably Increase Homeownership

Kenneth T. Rosen

The Sky’s The Limit Conference and Expo

November 3, 2017
Homeownership in Crisis:

- Where are We Now?
- Understanding the Barriers
- Strategies to Sustainably Increase Homeownership
U.S. Homeownership Rate

Note: Data not seasonally adjusted, latest data as of 3Q17
Source: Census
# Homeownership Rates by Household Age

<table>
<thead>
<tr>
<th>Household Age</th>
<th>Peak</th>
<th>Current</th>
<th>Percentage Point Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under 25 Years Old</td>
<td>25.7%</td>
<td>22.4%</td>
<td>-3.3%</td>
</tr>
<tr>
<td>25 to 29 Years Old</td>
<td>41.8%</td>
<td>32.7%</td>
<td>-9.1%</td>
</tr>
<tr>
<td>30 to 34 Years Old</td>
<td>57.4%</td>
<td>45.9%</td>
<td>-11.5%</td>
</tr>
<tr>
<td>35 to 44 Years Old</td>
<td>69.2%</td>
<td>59.3%</td>
<td>-9.9%</td>
</tr>
<tr>
<td>45 to 54 Years Old</td>
<td>77.2%</td>
<td>69.1%</td>
<td>-8.1%</td>
</tr>
<tr>
<td>55 to 64 Years Old</td>
<td>81.7%</td>
<td>75.0%</td>
<td>-6.7%</td>
</tr>
<tr>
<td>65 Years and Over</td>
<td>81.0%</td>
<td>78.9%</td>
<td>-2.1%</td>
</tr>
</tbody>
</table>

Note: Peak from 2004 to 2007; latest data as of 3Q17
Source: Census
# Homeownership Rates by Household Type

<table>
<thead>
<tr>
<th>Household Type</th>
<th>Peak</th>
<th>Current</th>
<th>Percentage Point Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>76.0%</td>
<td>72.5%</td>
<td>-3.5%</td>
</tr>
<tr>
<td>African American</td>
<td>49.1%</td>
<td>42.0%</td>
<td>-7.1%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>49.7%</td>
<td>46.1%</td>
<td>-3.6%</td>
</tr>
</tbody>
</table>

Note: Peak from 2004 to 2007; latest data as of 3Q17
Source: Census
## Homeownership Rates in Major Markets

**Ranked by Lowest Current Rate**

<table>
<thead>
<tr>
<th>City</th>
<th>Prior Peak</th>
<th>Current</th>
<th>Percent Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Los Angeles</td>
<td>55.0%</td>
<td>46.6%</td>
<td>-8.4%</td>
</tr>
<tr>
<td>Honolulu</td>
<td>61.1%</td>
<td>49.9%</td>
<td>-11.2%</td>
</tr>
<tr>
<td>Silicon Valley</td>
<td>59.4%</td>
<td>49.9%</td>
<td>-9.5%</td>
</tr>
<tr>
<td>New York</td>
<td>54.7%</td>
<td>50.3%</td>
<td>-4.4%</td>
</tr>
<tr>
<td>Austin</td>
<td>66.7%</td>
<td>51.9%</td>
<td>-14.8%</td>
</tr>
<tr>
<td>Las Vegas</td>
<td>63.4%</td>
<td>52.4%</td>
<td>-11.0%</td>
</tr>
<tr>
<td>San Diego</td>
<td>65.7%</td>
<td>54.1%</td>
<td>-11.6%</td>
</tr>
<tr>
<td>San Francisco</td>
<td>59.4%</td>
<td>55.5%</td>
<td>-3.9%</td>
</tr>
<tr>
<td>Seattle</td>
<td>65.4%</td>
<td>59.5%</td>
<td>-5.9%</td>
</tr>
<tr>
<td>Denver</td>
<td>70.7%</td>
<td>61.0%</td>
<td>-9.7%</td>
</tr>
<tr>
<td>Orlando</td>
<td>71.8%</td>
<td>61.1%</td>
<td>-10.7%</td>
</tr>
<tr>
<td>Sacramento</td>
<td>64.2%</td>
<td>61.7%</td>
<td>-2.5%</td>
</tr>
</tbody>
</table>

Note: Peak from 2004 to 2007; latest data as of 3Q17; survey margin of error may account for MSA data fluctuations

Source: Census
U.S. Single Family Housing Starts

Units (Millions)

Sources: Census, RCG
Residential Fixed Invest Share of Real GDP

Note: Data seasonally adjusted, latest data as of 3Q17
Source: Census
Hurdles to Homeownership

• Tight Mortgage Credit Conditions

• Post-Foreclosure Lending Aversion

• Student Debt Burden

• Post-Foreclosure Stress Disorder

• Affordability

• Supply Barriers
Change in Private Debt Balances since Q4 2007

Note: Latest data as of 2Q17
Sources: FRBNY Consumer Credit Panel/Equifax, RCG
Note: Latest data as of 2Q17
Sources: Inside Mortgage Finance, FNMA
Share of Total Mortgage Origination by Credit Score

Note: Latest data as of 2Q17
Sources: Federal Reserve Board of New York, RCG
FHA Share of Purchase Mortgage Origination Volume

Note: Latest data YTD as of 3Q17
Sources: HUD, Mortgage Bankers Association, RCG
Impact of Regulation on Banks

- Moderate Negative Impact: 22%
- Extreme Negative Impact: 18%
- Small Negative Impact: 5%
- No Negative Impact: 55%

Note: Data is from a 2017 survey of 159 banks
Source: American Banker's Association
Primary Drivers of Increased Compliance Costs

Note: 2017 survey of 159 banks
Source: American Banker's Association
Share of Borrowers with $50,000+ in Student Debt Loan

Source: Federal Reserve Board of New York Consumer Credit Panel
Share of Renters Who Would Like to Own a Home at Some Point

- **All Ages**
  - 80%

- **Millennials (Ages 18-34)**
  - 89%

- **Generation X (Ages 35-49)**
  - 90%

- **Baby Boomers (Ages 50-68)**
  - 68%

Note: Latest data as of March 2017
Source: Freddie Mac
Share of Renters Who Can Afford to Own, Yet Continue to Rent

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Ages</td>
<td>14%</td>
</tr>
<tr>
<td>Millennials (Ages 18-34)</td>
<td>17%</td>
</tr>
<tr>
<td>Generation X (Ages 35-49)</td>
<td>16%</td>
</tr>
<tr>
<td>Baby Boomers (Ages 50-68)</td>
<td>10%</td>
</tr>
</tbody>
</table>

Note: Latest data as of March 2017
Source: Freddie Mac
% Able to Afford Median-Priced Home

- United States
- California

Note: RCG Universe of MSAs; latest data as of 2Q17
Sources: RCG, CAR, NAR, FAR, Census
Why Homeownership?

• Accumulate wealth
• Reducing inequality
• Investments in Community
• Civic Engagement
• Economic Growth
Policy Ideas for Sustainably Increasing Homeownership

**Mortgage Availability**

- Improving Access to Credit for Consumers
  - Raising Debt-to-Income Ratio
  - Alternative Measures of Credit Scores
- Reducing Post-Foreclosure Lending Aversion
  - Establish Clear Rules and Guidelines for Lenders
  - Iron-clad Safe Harbor Provisions for Lenders
  - Limit Compliance Costs
- Safe and Sustainable Future for GSEs
Policy Ideas for Sustainably Increasing Homeownership

**Affordability**
- Down Payment Savings Program
- Graduated Payment Mortgages
- Shared Equity Products
- Lease Purchase Agreements

**Student Debt**
- Standardized Mortgage Underwriting
- Student Loan Interest Deductions
- Student Debt Mortgages

**Post-Foreclosure Stress Disorder**
- Public Relations Campaign Promoting Sustainable Homeownership
- Counseling Programs for Potential Homeowners
- Post-Foreclosure Targeted Assistance
Policy Ideas for Sustainably Increasing Homeownership

**Supply Constraints**

- Reducing Regulatory Hurdles to Development
  - Reduce Fees and Streamline Approvals
  - Minimum Lot Sizes
  - Expedite and Simplify Environmental Review
  - Override Local Regulatory Hurdles with Statewide Reforms
  - Localized Reforms

- Increasing New Home Construction
  - Pre-Fabrication and Modular Housing
  - Accessory Dwelling Units
  - Tax Credits for New Construction Homebuyers