Executive Summary

Affordable Housing -- What is it?

- Housing (rental in this case) affordable to households earning less than 60% of median income
- Approximately half of the nation’s 20.4M units of multifamily housing should be classified as “affordable”
- Half of the affordable housing is subsidized, by a wide variety of public policies/subsidies
- Half of our affordable housing is “naturally-occurring,” non-subsidized but in many places at risk of being improved to unaffordable
- Affordable housing is meaningfully driven by for-profit entities, with over half of owners, managers, and developers being for-profit.
The asset class performance is strong -- especially in downturns -- driven primarily by its stability of income.

Interest/appeal correctly driven by (1) consistently high occupancies (2) low turnover, and (3) lower and slower growing operating and capital expenses.

Result -- Per-square-foot revenues and NOIs that are comparable to, if not higher than those at market-rate properties.

Dramatic growth in transaction volume driven by influx of institutional capital

Result -- Cap rates for subsidized assets have compressed to be on par with conventional properties, though volatility remains high.
Executive Summary Cont.

What is the outlook for demand of affordable rental housing?

- Affordability of housing broadly under threat from value add investing and new development unusually focused on high cost locations.
- Regularly expiring subsidy contracts will naturally constrain the supply of subsidized affordable housing.
- Historical and projected trends in housing costs and wage stagnation indicate a persistent and pervasive need for affordable housing.
# Methodology and Sources

<table>
<thead>
<tr>
<th>Source</th>
<th>Data/Publication(s) used</th>
<th>Sample Size</th>
<th>Used in this report for...</th>
<th>Limitations</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Used for RCLCO Analysis</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>National Housing Preservation Database</td>
<td>Main database</td>
<td>~128,000 subsidized properties</td>
<td>Detailed sizing, mapping, and breakdown of subsidized units by subsidy type</td>
<td>Though this data was the most precise, it does not include property performance data</td>
</tr>
<tr>
<td>CoStar</td>
<td>Historical Trends data output</td>
<td>Database of ~55,000 fully or partially subsidized properties</td>
<td>Performance data</td>
<td>Occasionally imprecise labeling of property subsidy status</td>
</tr>
<tr>
<td>Real Capital Analytics</td>
<td>Transaction Listings; Database of Major Players</td>
<td>Database of 3,263 transactions of subsidized apartments</td>
<td>Transactions data (e.g. volume, cap rates), key players/investors</td>
<td>Smaller universe of properties; very broad label categorizing &quot;subsidized&quot; as any property self-reporting rental subsidies</td>
</tr>
<tr>
<td>National Apartment Association</td>
<td>Income and Expense Reports, 2013 – 2017</td>
<td>Variable sample size surveying ~3,500 market-rate and ~300 subsidized properties</td>
<td>Graphic representation of operating metrics (operating and capital expenses, NOI, revenues, turnover)</td>
<td>Limited sample set</td>
</tr>
<tr>
<td><strong>Key Secondary Sources</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CohnReznick</td>
<td>Housing Tax Credit Investments Report, 2017</td>
<td>22,000 surveyed properties</td>
<td>Foreclosure data for LIHTC and other multifamily properties</td>
<td>Limited sample set</td>
</tr>
<tr>
<td>Joint Center for Housing Studies</td>
<td>State of the Nation’s Housing, 2017</td>
<td>N/A</td>
<td>Cumulative number of units with expiring subsidies</td>
<td>N/A</td>
</tr>
<tr>
<td>CoStar</td>
<td>2016 report on Naturally-Occurring Affordable Housing</td>
<td>Database of 300,000+ total communities</td>
<td>Approximating the number of &quot;naturally occurring affordable housing&quot; units, defined to be lower-quality, 1-2 stars</td>
<td>CoStar’s star classifications risk being inconsistent or inaccurate. Moreover, poor building quality might not be tightly correlated with affordability, and vice versa.</td>
</tr>
</tbody>
</table>
I. Size and Scope of the Asset Class
   ▪ HOUSING PRODUCT
   ▪ KEY PLAYERS
   ▪ TRANSACTIONS

II. Performance of the Asset Class
   ▪ IN REAL MARKETS (OPERATIONS)
   ▪ IN CAPITAL MARKETS (PRICING)

III. Fundamental drivers of the Asset Class
   ▪ EROSION OF SUPPLY
   ▪ GROWTH OF DEMAND
I. Size and Scope

Affordable Rental Housing Supply

Key Players

Transactions
Size and segmentation of rental housing

About 25% of rental housing is affordable multifamily

More than half of the rental housing stock is small-format, with 1 to 4 units.

50% of multifamily (5+) units are “affordable,” with or without subsidies.

48% of “affordable” housing receives government subsidies.

Rental Housing

- 5+ Units
  - 20.4 M units

- 1-4 units
  - 23.1 M units

Multifamily Housing

- Rent Subsidized
  - 4.9 M units

- Market-rate, 1-2 stars
  - 5.3 M units

- Market-rate, 3+ stars
  - 10.2 M units

Affordable Housing

- Other Subsidized
  - 1.7 M units

- Public Housing
  - 1.0 M units

- LIHTC
  - 1.0 M units

- Project-Based Section 8
  - 1.2 M units

- Naturally Occurring Affordable Housing
  - 5.3 M units

Total Units: 43.5 million

20.4 million

10.2 million
Class A/B a higher share of subsidized units
LIHTC and IZ incentivize new and/or mixed-income construction

Share of Units by Class, Subsidized vs. Market-Rate 2000 – 2017

Class A: 4% → 15%
Class A: 2% → 9%

Sources: CoStar; RCLCO
Affordable buildings: low-density, older
Reflects lower construction costs and depreciation

Distribution of Units in Subsidized Affordable Buildings, by Building Type 2000 – 2017

<table>
<thead>
<tr>
<th>Building Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>High-rise</td>
<td>15+ stories, 1 or more buildings</td>
</tr>
<tr>
<td>Mid-rise</td>
<td>4-14 stories, 1 or more buildings</td>
</tr>
<tr>
<td>Low-rise</td>
<td>1-3 stories, 1-3 buildings</td>
</tr>
<tr>
<td>Garden</td>
<td>1-3 stories, 4 or more buildings</td>
</tr>
</tbody>
</table>

Median Age of Affordable and Market-Rate Rental Homes 2017

- **Affordable Rental Homes**
  - Median Age: 54 years
- **Market-Rate Rental Homes**
  - Median Age: 37 years

Based on Zillow research. Units surveyed include both multifamily and single-family. “Median Age” stated is the weighted mean of the median age across 100 largest metros.

Sources: CoStar; Zillow; RCLCO
Most affordable housing players are for-profit
Across ownership, management, and development roles

Profit Status of Owners of Actively Subsidized Units
(#{affordable units})
2017

Profit Status of Managers of Actively Subsidized Units
(#{affordable units})
2017

Profit Status of Top 50 Developers,
by Construction Starts in 2016
(#{affordable units})
2016

Sources: National Housing Preservation Database; Affordable Housing Finance; RCLCO
Key players mostly developer/owners

Otherwise, institutional—whose holdings have a higher PPU

**Top 50 U.S. Investors in Subsidized Housing**
(by number of units held)
Data Through 2017

<table>
<thead>
<tr>
<th>Rank</th>
<th>Company</th>
<th>Units</th>
<th>Projects</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The Michaels Organization</td>
<td>42,359</td>
<td>364</td>
</tr>
<tr>
<td>2</td>
<td>Dominium</td>
<td>27,989</td>
<td>208</td>
</tr>
<tr>
<td>3</td>
<td>Millennia Companies</td>
<td>22,998</td>
<td>211</td>
</tr>
<tr>
<td>4</td>
<td>Mercy Housing</td>
<td>22,635</td>
<td>327</td>
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<tr>
<td>5</td>
<td>Volunteers of America</td>
<td>20,088</td>
<td>497</td>
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<tr>
<td>6</td>
<td>National Church Residences</td>
<td>18,348</td>
<td>269</td>
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<tr>
<td>7</td>
<td>GHC Housing Partners</td>
<td>17,673</td>
<td>159</td>
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<tr>
<td>8</td>
<td>Southport Financial Services</td>
<td>17,433</td>
<td>188</td>
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<tr>
<td>9</td>
<td>Beacon Communities</td>
<td>15,774</td>
<td>146</td>
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<tr>
<td>10</td>
<td>Jonathan Rose Cos.</td>
<td>14,052</td>
<td>92</td>
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<tr>
<td>11</td>
<td>Herman &amp; Kittle Properties</td>
<td>14,052</td>
<td>147</td>
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<td>12</td>
<td>Retirement Housing Foundation</td>
<td>14,004</td>
<td>160</td>
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<tr>
<td>13</td>
<td>The NRP Group</td>
<td>13,294</td>
<td>119</td>
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<tr>
<td>14</td>
<td>The Cornerstone Group</td>
<td>13,898</td>
<td>63</td>
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<tr>
<td>15</td>
<td>Winn Companies</td>
<td>13,664</td>
<td>101</td>
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<td>16</td>
<td>McCormack Baron Salazar</td>
<td>13,658</td>
<td>123</td>
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<tr>
<td>17</td>
<td>LIHC Investment Group</td>
<td>13,255</td>
<td>61</td>
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<tr>
<td>18</td>
<td>Omni NY</td>
<td>13,255</td>
<td>61</td>
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<td>19</td>
<td>Conifer Realty</td>
<td>13,158</td>
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<td>20</td>
<td>Gene B. Glick Co.</td>
<td>12,429</td>
<td>91</td>
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<td>21</td>
<td>Capital Realty Group</td>
<td>12,403</td>
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<td>22</td>
<td>Penrose</td>
<td>12,331</td>
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<td>23</td>
<td>Highridge Costa Cos.</td>
<td>12,184</td>
<td>117</td>
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<tr>
<td>24</td>
<td>American Community Developers</td>
<td>12,154</td>
<td>91</td>
</tr>
<tr>
<td>25</td>
<td>L-M Development Partners</td>
<td>11,929</td>
<td>87</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Rank</th>
<th>Company</th>
<th>Units</th>
<th>Projects</th>
</tr>
</thead>
<tbody>
<tr>
<td>26</td>
<td>Bridge Housing Corp.</td>
<td>11,352</td>
<td>105</td>
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<tr>
<td>27</td>
<td>USA Properties Fund</td>
<td>10,996</td>
<td>87</td>
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<tr>
<td>28</td>
<td>Ledic Realty Co.</td>
<td>10,886</td>
<td>77</td>
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<tr>
<td>29</td>
<td>Woda Cooper Cos.</td>
<td>10,866</td>
<td>286</td>
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<tr>
<td>30</td>
<td>Vitus</td>
<td>10,436</td>
<td>107</td>
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<tr>
<td>31</td>
<td>The Pacific Cos.</td>
<td>10,213</td>
<td>167</td>
</tr>
<tr>
<td>32</td>
<td>The Community Builders</td>
<td>10,155</td>
<td>136</td>
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<td>33</td>
<td>The Hallmark Cos.</td>
<td>10,151</td>
<td>264</td>
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<tr>
<td>34</td>
<td>Related California</td>
<td>9,635</td>
<td>82</td>
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<tr>
<td>35</td>
<td>Silver Street Development Corp</td>
<td>9,620</td>
<td>66</td>
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<tr>
<td>36</td>
<td>Preservation of Affordable Housing</td>
<td>9,162</td>
<td>77</td>
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<tr>
<td>37</td>
<td>The Nurock Cos.</td>
<td>8,985</td>
<td>32</td>
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<tr>
<td>38</td>
<td>Eden Housing</td>
<td>8,716</td>
<td>130</td>
</tr>
<tr>
<td>39</td>
<td>Wallick Communities</td>
<td>8,192</td>
<td>112</td>
</tr>
<tr>
<td>40</td>
<td>Security Properties</td>
<td>7,915</td>
<td>57</td>
</tr>
<tr>
<td>41</td>
<td>Jamboree Housing Corp</td>
<td>7,536</td>
<td>84</td>
</tr>
<tr>
<td>42</td>
<td>LDG Development</td>
<td>7,503</td>
<td>74</td>
</tr>
<tr>
<td>43</td>
<td>Standard Communities</td>
<td>7,412</td>
<td>32</td>
</tr>
<tr>
<td>44</td>
<td>Midpen Housing Corp</td>
<td>7,275</td>
<td>104</td>
</tr>
<tr>
<td>45</td>
<td>The Reliant Groupz</td>
<td>7,258</td>
<td>52</td>
</tr>
<tr>
<td>46</td>
<td>LHP Capital</td>
<td>7,128</td>
<td>54</td>
</tr>
<tr>
<td>47</td>
<td>Avanath Capital Management</td>
<td>6,964</td>
<td>62</td>
</tr>
<tr>
<td>48</td>
<td>TM Associates</td>
<td>6,927</td>
<td>167</td>
</tr>
<tr>
<td>49</td>
<td>Enterprise Homes</td>
<td>6,889</td>
<td>68</td>
</tr>
<tr>
<td>50</td>
<td>The Arker Cos.</td>
<td>6,676</td>
<td>48</td>
</tr>
</tbody>
</table>

Sources: Affordable Housing Finance; RCLCO
Transactions in institutional capital
Growth in volume reflects both acceptance and appetite

Institutional Investor* Subsidized Housing Transaction Volume
by Total Value of Acquisitions and Sales 2001 – 2017

*Note: RCA defines “Institutional Investors” to include equity funds, pension funds, insurance companies, banks, investment managers, sovereign wealth funds, open-ended funds, and other financial services firms.

Sources: Real Capital Analytics; RCLCO
Commercial brokers increasingly involved
Brokerage world pushes transactional efficiency


Transactions of Subsidized Properties as a Share of Total Broker Business 2005 - 2017

<table>
<thead>
<tr>
<th>Year</th>
<th>2005</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brokered Transactions of Subsidized Properties as a Share of…</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Transaction Volume</td>
<td>2.7%</td>
<td>8.7%</td>
</tr>
<tr>
<td>Total Transacted Properties</td>
<td>1.9%</td>
<td>10.0%</td>
</tr>
<tr>
<td>Total Brokerage Firms</td>
<td>8.7%</td>
<td>21.8%</td>
</tr>
</tbody>
</table>

Sources: Real Capital Analytics; RCLCO
Acquisitions by institutional capital
Have favored large, high-cost, and/or fast-growing states

Subsidized Apartment Units Acquired and Price Per Unit Paid, By State 2000 – 2017

Note: Size of bubble represents number of units within any fully or partially subsidized properties that were acquired.

Sources: Real Capital Analytics; RCLCO
II. Performance

Real Markets: Operations

Real Markets: Operations

Capital Markets: Pricing
Absorption has outpaced new deliveries
In seven of the eight years since the great recession

Deliveries and Absorption of All Subsidized Affordable Housing, U.S. 2003 – 2017

Sources: CoStar; RCLCO
Occupancy advantage over market-rate
Subsidized: persistently higher occupancies & lower turnover

Sources: CoStar; National Apartment Association Income and Expenses Report; RCLCO

Average Occupancy Rate of Market-Rate vs. Subsidized Properties, by Class 2000 – 2017

Tenant Turnover Rate at Individually-Metered Market-rate and Subsidized Properties 2012 - 2017

Sources: CoStar; National Apartment Association Income and Expenses Report; RCLCO
Rent growth lower, but still positive
As is expected of low-income, rent-restricted units

Rental Growth Rate of Market-rate and Subsidized Affordable Housing, by Class 2000 – 2017

Sources: CoStar; RCLCO
Capital and operating expenses lower
And escalate more slowly, at subsidized properties

PSF Capital Expenses and Capex as % of Gross Potential Revenue at Market-rate and Subsidized Properties 2012 – 2017

Breakdown of Annual PSF Operating Expenses At Market-rate and Subsidized Properties 2013, 2017

Sources: National Apartment Association Income and Expenses Report; RCLCO
Per-square-foot revenues and NOI similar
And revenue as a *share* of the gross potential is much higher

Sources: National Apartment Association Income and Expenses Report; RCLCO

---

**PSF Revenues and Revenues as a % of Gross Potential Revenue at Market-Rate and Subsidized Properties 2012 – 2017**

**PSF NOI as % of Gross Potential Revenue of Market-rate and Subsidized Housing 2012 – 2017**

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**Per-square-foot revenues and NOI similar**

And revenue as a *share* of the gross potential is much higher
Foreclosure rates dramatically lower
For LIHTC properties compared to conventional

Annual LIHTC Foreclosure Rate vs. Conventional Multifamily Delinquency Rate 2000 – 2016

Source: CohnReznick 2017
Cap rate spread has tightened
Cap rate volatility still higher (due to smaller sample)

Sources: Real Capital Analytics; RCLCO

Cap Rates by Product Type
2001 – 2017

Annual Change in Cap Rates by Product
2001 – 2017

Sources: Real Capital Analytics; RCLCO
III. Fundamental Drivers

Eroding Supply

Growing Demand
Changing dynamics of rental housing more broadly
Housing being added disproportionately in high cost locations

Distribution of New and Total Rental Apartment Inventory by Urban Neighborhood Type, 2000-2017; Top 50 MSAs

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<thead>
<tr>
<th></th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Economic Center</td>
<td>9%</td>
<td>12%</td>
<td>15%</td>
<td></td>
</tr>
<tr>
<td>Emerging Economic Center</td>
<td>4%</td>
<td>6%</td>
<td>9%</td>
<td></td>
</tr>
<tr>
<td>Mixed-Use District</td>
<td>16%</td>
<td>18%</td>
<td>19%</td>
<td></td>
</tr>
<tr>
<td>High-End Neighborhood</td>
<td>22%</td>
<td>23%</td>
<td>23%</td>
<td></td>
</tr>
<tr>
<td>Stable Neighborhood</td>
<td>37%</td>
<td>32%</td>
<td>26%</td>
<td></td>
</tr>
<tr>
<td>Challenged Neighborhood</td>
<td>12%</td>
<td>10%</td>
<td>8%</td>
<td></td>
</tr>
</tbody>
</table>

Sources: RCLCO; Axiometrics
Lifespan of subsidies has become shorter
Impending rate of subsidy expiration will be unprecedented

Duration of Housing Subsidy Contracts Over Time 1970 – 2017

Subsidy contracts have clearly trended towards being shorter:
In 1970, no contract was to last fewer than 40 years;
in 2017, no contract was to last more than 40 years.

Sources: National Housing Preservation Database; RCLCO
Existing supply is eroding
Units funded by tax credits set to expire most rapidly

Cumulative Units with Expiring Affordability Periods (Millions) 2017 – 2027

Source: Joint Center for Housing Studies 2017 tabulation of National Housing Preservation Database data, as of January 1, 2017.
Homeownership not an option for many
Low-income renters are increasingly cost-burdened

Source: Bureau of Labor Statistics; Joint Center for Housing Studies 2015 tabulation of U.S. Census and ACS data; RCLCO
Hourly wages have stagnated
Meanwhile, development costs rising – pushing rents

![Graph showing Percentage Increase in Labor Productivity and Hourly Wages 1948 – 2013](image)

![Graph showing Development Costs PSF for Building Type 2013 – 2017 (estimate)](image)

Sources: Bureau of Labor Statistics; Fannie Mae account of RSMeans data; RCLCO
Gross rents outpace household incomes
Reflecting costs of development and wage stagnation

Source: Center on Budget and Policy Priorities analysis of Census ACS data
Most new demand from low-income renters
Fastest-growing jobs over next decade earn ~$22,000

Ten Fastest-Growing Occupations (Occupation, Number of New Employees in Thousands) 2016 – 2026

- Solar PV installers
  - 11.9
- Wind turbine service technicians
  - 5.5
- Home health aides
  - 425.6
- Personal care aides
  - 754
- Physical therapist assistants
  - 27.2
- Physical assistants
  - 39.7
- Statisticians
  - 12.4
- Software developers, applications
  - 253.4
- Nurse practitioners,
  - 56
- Mathematicians
  - 0.9

In the workforce, “barbell growth” in employment at low and high incomes exacerbates existing inequality.

Sources: Bureau of Labor Statistics; RCLCO