Apartment Market Overview and Outlook
NMHC Research Conference
Millennials Reshaping Multifamily Demand
Millennial Cohort Bigger Than Baby Boom
U.S. 2014 Population by Age

20-34 Year Old 5-Year Growth: 1,400,000

Note: Total Baby Boomer Population 75 million. Total Millennial Population 80 million
Sources: Marcus & Millichap Research Services, U.S. Census Bureau
Two-Thirds of Millennials Rent…
…If Not Living with Parents

Millennial Propensity to Rent**
68%

5-Year Growth: 1,400,000

18-34 Year Olds Living With Parents (Mil.)
Long-Term Average: 19.2M
22.8M

Young Adults Living with Parents
3.6M Above Long-Term Average

Note: Unmarried college students living in dormitories are counted as living in their parents’ home
Sources: Marcus & Millichap Research Services, U.S. Census Bureau

* Forecast
** 2013 American Community Survey
Millennials – Live/Work/Play
Economic Gains Support Family Formation Could Push Millennials to Suburbs

Median Age at Marriage
2000: 25-26
2014: 27-29

* Forecast
** Through 4Q 2014
Sources: Marcus & Millichap Research Services, U.S. Census Bureau, BLS
Portland 35-54 Cohort Growth (2014-2019)

- 35-54 Year Old Population Growth -High (Above 1.25%)
- 35-54 Year Old Population Growth -Above Average (0.5% to 1.25%)
- 35-54 Year Old Population Growth -Average (-0.2% to 0.5%)
- 35-54 Year Old Population Growth -Below Average (-0.9% to -0.2%)
- 35-54 Year Old Population Growth –Low (Below -0.9%)
Pacific Region
Apartment Market Trends
Pacific Region
Apartment Construction vs. Employment Growth

*Forecast
Sources: Marcus & Millichap Research Services, BLS, MPF Research
Pacific Region Five-Year Millennial Apartment Demand Growth*

* 2015-2019
** Propensity to rent based on 2012 American Community Survey
Sources: Marcus & Millichap Research Services, U.S. Census Bureau
Pacific Region Housing Affordability
Based on Home Mortgage Payment and Rent Gap

San Francisco  $0
San Jose       $800
Oakland       $1,600
Orange County $2,400
San Diego     $3,200
Seattle       $1,600
Los Angeles   $0
Portland      $800
Sacramento    $1,600
Inland Empire $0

Affordability Gap

As of 4Q 2014
Mortgage payments based on 4Q 2014 median home price for a 30-year fixed rate conventional mortgage, 90% LTV, and 1.5% taxes and insurance
Sources: Marcus & Millichap Research Services, MPF Research, Freddie Mac, National Association of Realtors
Apartment Vacancy Rate Trends

Average Vacancy Rate

2015 U.S. Average: 4.8%

Source: Marcus & Millichap Research Services, MPF Research

* Forecast
Apartment Effective Rent Growth Trends

Y-O-Y Percent Change

2013
2014
2015*

San Francisco
San Jose
Oakland
Sacramento
Los Angeles
Orange County
Inland Empire
San Diego
Seattle
Portland

2015 U.S. Average: 3.4%

* Forecast
Source: Marcus & Millichap Research Services, MPF Research
Southwest/Mountain Region
Apartment Market Trends
Southwest/Mountain Region
Apartment Construction vs. Employment Growth

2015 Apartment Completions* (Units) vs. 2015 Employment Growth*

- Salt Lake City
- Denver
- Las Vegas
- Phoenix
- Austin
- San Antonio
- Houston
- Dallas-Ft. Worth

*Forecast
Sources: Marcus & Millichap Research Services, BLS, MPF Research
Southwest/Mountain Region Five-Year Millennial Apartment Demand Growth*

20-34 Year Old Population Growth
Potential Demand Growth

Population (000s)

Salt Lake City
San Antonio
Denver
Austin
Las Vegas
Houston
Phoenix
Dallas-Ft. Worth

Millennial Propensity to Rent**

Salt Lake City: 54.8%
San Antonio: 68.6%
Denver: 67.4%
Austin: 73.8%
Las Vegas: 72.1%
Houston: 68.6%
Phoenix: 67.2%
Dallas-Ft. Worth: 71.6%

* 2015-2019
** Propensity to rent based on 2012 American Community Survey
Sources: Marcus & Millichap Research Services, U.S. Census Bureau
Southwest/Mountain Region Housing Affordability Based on Home Mortgage Payment and Rent Gap

As of 4Q 2014

Mortgage payments based on 4Q 2014 median home price for a 30-year fixed rate conventional mortgage, 90% LTV, and 1.5% taxes and insurance

Sources: Marcus & Millichap Research Services, MPF Research, Freddie Mac, National Association of Realtors
Apartment Vacancy Rate Trends

2013

2014

2015*

Average Vacancy Rate

Salt Lake City

Denver

Las Vegas

Phoenix

Austin

Dallas-Ft. Worth

Houston

San Antonio

2015 U.S. Average: 4.8%

* Forecast

Source: Marcus & Millichap Research Services, MPF Research
2015 U.S. Average: 3.4%
Apartment Market Overview and Outlook
NMHC Research Conference
NMHC Research Conference
April 1-2, 2015
Supply Wave Puts a Stop to Recovery

National Apartment Supply, Demand, and Vacancy

Source: CoStar Portfolio Strategy As of 4Q14
If You’re Under 40, Good Luck Getting A Loan…

Loans Serviced By Credit Score And Average Credit Scores By Age

Credit Score

Sources: U.S. Federal Housing Finance Agency (FHFA); FreeScore.com; Costar Group, Inc.

As of 15Q1
Young People Still Underemployed

Change In Population And Employment By Age Cohort (20-34-Year-Olds)

Cumulative Change in Population and Employed (000s)

If labor force participation rate (71.9%) returns to historical norm (75%), there is a potential increase of 2 million employed people in primary-renting demographic.

Sources: BLS; Moody's Analytics; CoStar Portfolio Strategy

As of 14Q4
Uncoupling Of Households Leaves Demand Upside

Population And Household Growth For Those 20-34

Sources: US Census Bureau; Moody's Analytics; CoStar Portfolio Strategy As of 14Q4

Growth in 20-34-Year-Olds (Y/Y)

Population
Households

20-34-Year-Old Persons/HH

Return to recent average equates to 1.53 million more young households.

Persons Per Household

Recent Historical Average

As of 14Q4
4 & 5 Star Vacancies To Surpass 3 Star Vacancies

Vacancy Rate for The National Index

Source: CoStar Portfolio Strategy As of 14Q4

As of 14Q4
4 & 5 Star Rents Racing Ahead

National Asking Rents By Class

Average Asking Rent ($/Month)

$170 or 13% above prerecession high

$90 or 9% above prerecession high

4.1% Average Annual Growth

3.2% Average Annual Growth

Source: CoStar Portfolio Strategy

As of 14Q4
Investors Can't Fall Out Of Love With Apartments

U.S. Quarterly Sales Volume and Price Per Unit

Source: CoStar Portfolio Strategy As Of 14Q4
Widening Spread For CBD Over Suburban

Two Quarter Cap Rate Moving Average In "Sexy Six" Metros

*"Sexy Six" metros include: Boston, Chicago, Los Angeles, New York, San Francisco, and Washington, D.C.

Source: CoStar Portfolio Strategy As of 14Q4

**CBD** Cap Rate (2 Qtr Moving Average)

**Suburban** Cap Rate (2 Qtr Moving Average)

As of 14Q4
Northeast Markets
Northeast Markets: Supply Versus Demand

Change In Near Term (14Q4-16Q4) Supply And Demand

Source: CoStar Portfolio Strategy As of 14Q4

Change in Supply

Change in Demand

Source: CoStar Portfolio Strategy

As of 14Q4
Northeast Market Vacancies (Present, Future, Historic)

Marketwide Vacancy Rate

- Washington - NoVA - MD
- Pittsburgh
- Hartford
- Boston
- Baltimore
- Philadelphia
- New York
- Northern New Jersey
- Long Island
- National

Historic Average (2000-2014)

2014, 2015

Source: CoStar Portfolio Strategy

As of 14Q4
Construction Has Spread Throughout DC

Heat Map For New Multifamily Construction

Source: CoStar Portfolio Strategy

As of 14Q4
Northeast Asking Rent Growth By Class - 2014

Year-Over-Year Rent Growth

Source: CoStar Portfolio Strategy As of 14Q4

- Boston
- New York
- Hartford
- Baltimore
- Northern New Jersey
- Washington - NoVA - MD
- Philadelphia
- Long Island
- Pittsburgh

4 & 5 Star
3 Star

Source: CoStar Portfolio Strategy

As of 14Q4
Northeast Asking Rents By Class - Projected 2015

Year-Over-Year Rent Growth

Source: CoStar Portfolio Strategy As of 14Q4

Boston
New York
Hartford
Baltimore
Northern New Jersey
Washington - NoVA - MD
Philadelphia
Long Island
Pittsburgh

4 & 5 Star
3 Star

As of 14Q4
Southeast Markets: Supply Versus Demand

Change In Near Term (14Q4-16Q4) Supply And Demand

Change in Supply vs. Change in Demand

Source: CoStar Portfolio Strategy

As of 14Q4
Southeast Market Vacancies (Present, Future, Historic)

Marketwide Vacancy Rate

- Memphis: 9%
- Richmond: 8%
- Raleigh: 7%
- Atlanta: 6%
- Jacksonville: 5%
- New Orleans: 4%
- Nashville: 3%
- Tampa: 2%
- Ft. Lauderdale: 1%
- Miami: 0%
- Charlotte: 1%
- Orlando: 2%
- Palm Beach County: 3%
- National: 4%

Source: CoStar Portfolio Strategy

As of 14Q4
Southeast Asking Rents By Class - 2014

Year-Over-Year Rent Growth

Source: CoStar Portfolio Strategy As of 14Q4

- Palm Beach County
- Orlando
- Ft. Lauderdale
- Atlanta
- Nashville
- Tampa
- Miami
- Jacksonville
- Charlotte
- New Orleans
- Raleigh
- Memphis

4 & 5 Star
3 Star

As of 14Q4
4&5 Star Vacancies Surging In Nashville

Vacancy Rate By Star Rating – Southeast Region

Change in Vacancy Rate by Rating, 13Q4-14Q4

- Nashville
- Miami
- Raleigh
- New Orleans
- Charlotte
- Atlanta
- Tampa
- Palm Beach
- Memphis
- Orlando
- Jacksonville

Source: CoStar Portfolio Strategy

As of 1Q4
West End-CBD, Nashville: Inventory Doubling By 2016

Heat Map For New Multifamily Construction

Source: CoStar Portfolio Strategy As of 14Q4
Midwest Markets
Midwest Markets: Supply Versus Demand

Change In Near Term (14Q4-16Q4) Supply And Demand

Source: CoStar Portfolio Strategy As of 14Q4
Midwest Vacancies (Present, Future, Historic)

Marketwide Vacancy Rate

Source: CoStar Portfolio Strategy As of 14Q4

2014  2015  Historic Average (2000-2014)

Source: CoStar Portfolio Strategy  
As of 14Q4
## New Construction Pushing 4 & 5 Star Vacancies

### Vacancy Rate By Star Rating - Midwest Region

**Change in Vacancy Rate by Rating, 13Q4-14Q4**

<table>
<thead>
<tr>
<th>City</th>
<th>4&amp;5 Star</th>
<th>3 Star</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cleveland</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indianapolis</td>
<td></td>
<td></td>
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<tr>
<td>Cincinnati</td>
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<tr>
<td>Minneapolis</td>
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<tr>
<td>Columbus OH</td>
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<tr>
<td>Kansas City</td>
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<td>Saint Louis</td>
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<td>Detroit</td>
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<tr>
<td>Milwaukee</td>
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<tr>
<td>Chicago</td>
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</tr>
</tbody>
</table>

Source: CoStar Portfolio Strategy As of 14Q4
Midwest Asking Rents By Class - 2014

Year-Over-Year Rent Growth

Source: CoStar Portfolio Strategy As of 14Q4
Midwest Asking Rents By Class - Projected 2015

Year-Over-Year Rent Growth

Source: CoStar Portfolio Strategy As of 14Q4
Francis Yuen, Senior Real Estate Economist
fyuen@costargroup.com

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