TOPICS

ASSESSING RISK OF SENIOR LIVING OVER-SUPPLY – A LONG-TERM PERSPECTIVE

The ratio of new openings to existing inventory ratio (the "new openings ratio") in combination with the ratio of units currently under construction to existing supply are good current indicators of potential risk of oversupply. According to recent National Investment Center (NIC) reports, Denver, Houston and Minneapolis are registering particularly high new openings ratios, and accordingly, these "supply surges" are generating concern in the lender and investor communities. Taking a longer term view, **is there a discernible pattern where some markets more frequently experience supply surges than others?** Conversely, are there markets that historically have had more limited exposure to supply surge risk?

Arguably metropolitan markets are not the proper geographic level of analysis for most senior living properties. Within a metropolitan area that has a poor history of supply surges there may be neighborhoods that are relatively stable.[1] Furthermore, not all supply is the same and markets will vary in terms of how well new product competes with legacy communities. However, subject to these caveats, markets do appear to exhibit long-term, consistent patterns related to "supply risk".

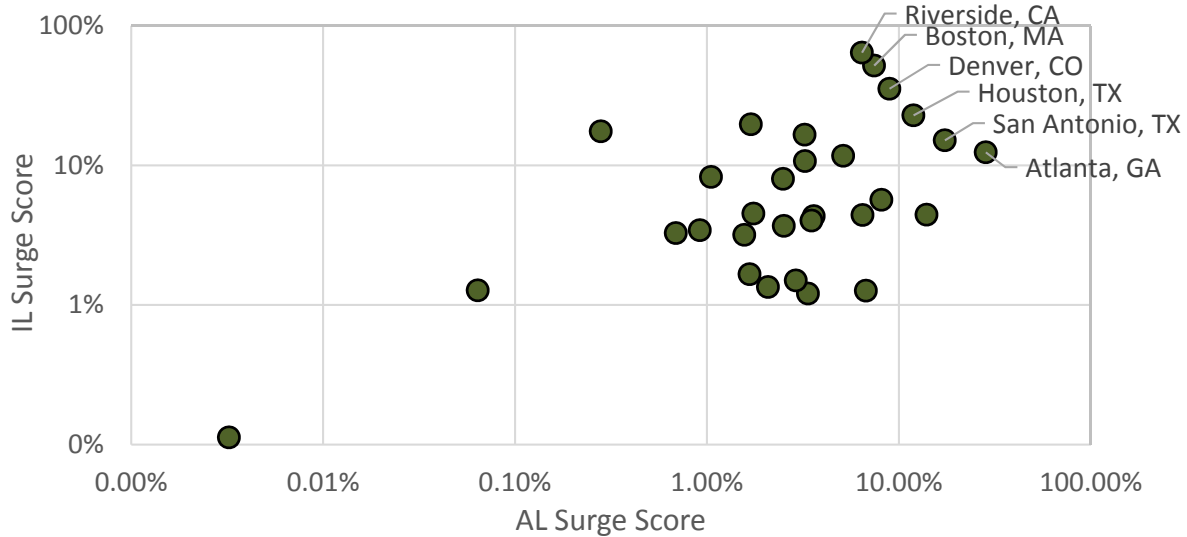### How to Measure Supply Risk?

For assisted living (AL), there was a rapid increase in supply in the late 1980's and then again in the late 1990's in many markets. However, as measured by the new openings ratio, several markets experienced annual supply growth rates well in excess of the average rate for the NIC 30.[2]

Assisted Living (AL) Openings as % of Existing Supply by Year [3]
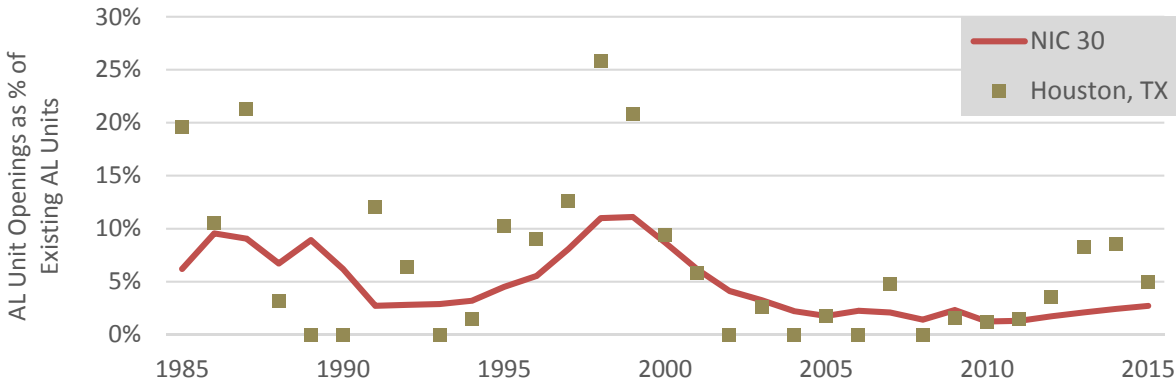
We have developed a "surge score" for both assisted living (AL) and independent living (IL) based on the frequency and magnitude of high new openings ratios in comparison to the NIC 30.

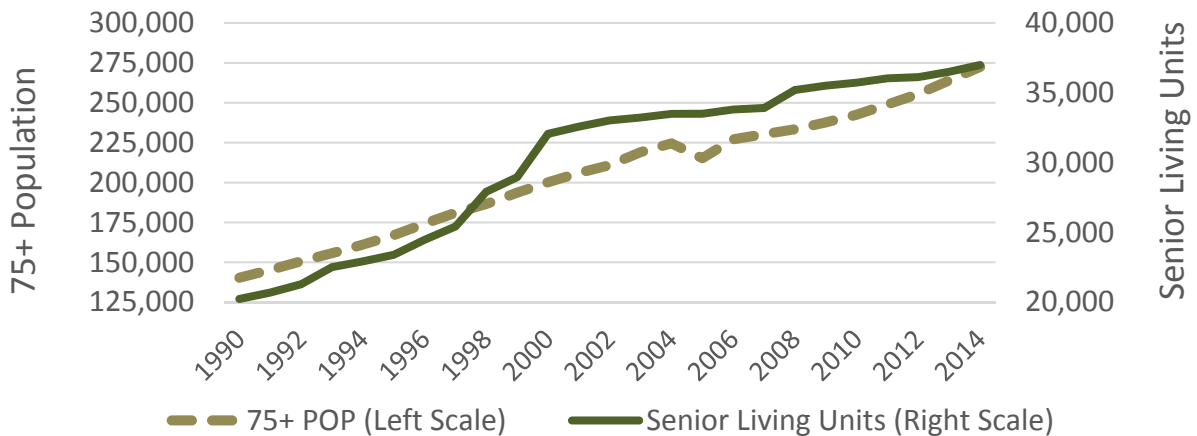*Surge Scores: Independent Living (IL) v. Assisted Living (AL)* [4]

Riverside, CA
Boston, MA
Denver, CO
Houston, TX
San Antonio, TX
Atlanta, GA

IL Surge Score (vertical axis): 100%, 10%, 1%, 0%
AL Surge Score (horizontal axis): 0.00%, 0.01%, 0.10%, 1.00%, 10.00%, 100.00%

Not surprisingly, many markets that are prone to AL surges have also been prone to IL surges.[5] Riverside, Boston, Denver, Houston, San Antonio and Atlanta have historically experienced supply surges both in the IL and AL categories.

**Revisiting the "Equivalent Unit Ratio"**

In our FALL 2013 TOPICS we introduced a unit ratio time series as a new method to gauge senior living need.[6] To recap, this approach attempts to help visualize changes in supply in relation to underlying population growth over many years. For example, the rate of supply growth in Washington D.C. outpaced the population growth of older adults around the year 2000, but since then, the supply growth has generally fallen back in line with population growth.

Washington DC – 75+ Population v. Senior Living Units [7]

75+ Population (left scale): 300,000; 275,000; 250,000; 225,000; 200,000; 175,000; 150,000; 125,000
Senior Living Units (right scale): 40,000; 35,000; 30,000; 25,000; 20,000
X-axis: 1990, 1992, 1994, 1996, 1998, 2000, 2002, 2004, 2006, 2008, 2010, 2012, 2014

- - 75+ POP (Left Scale)   —— Senior Living Units (Right Scale)

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Especially after a surge in new supply around the year 2000, the ratio of supply to the 75+ population (supply ratio) for Washington DC was significantly higher than the average supply ratio for the NIC 30 benchmark, but more recently, this ratio for Washington DC has been converging back towards benchmark averages.

Senior Living Supply Ratio Time Series [8]
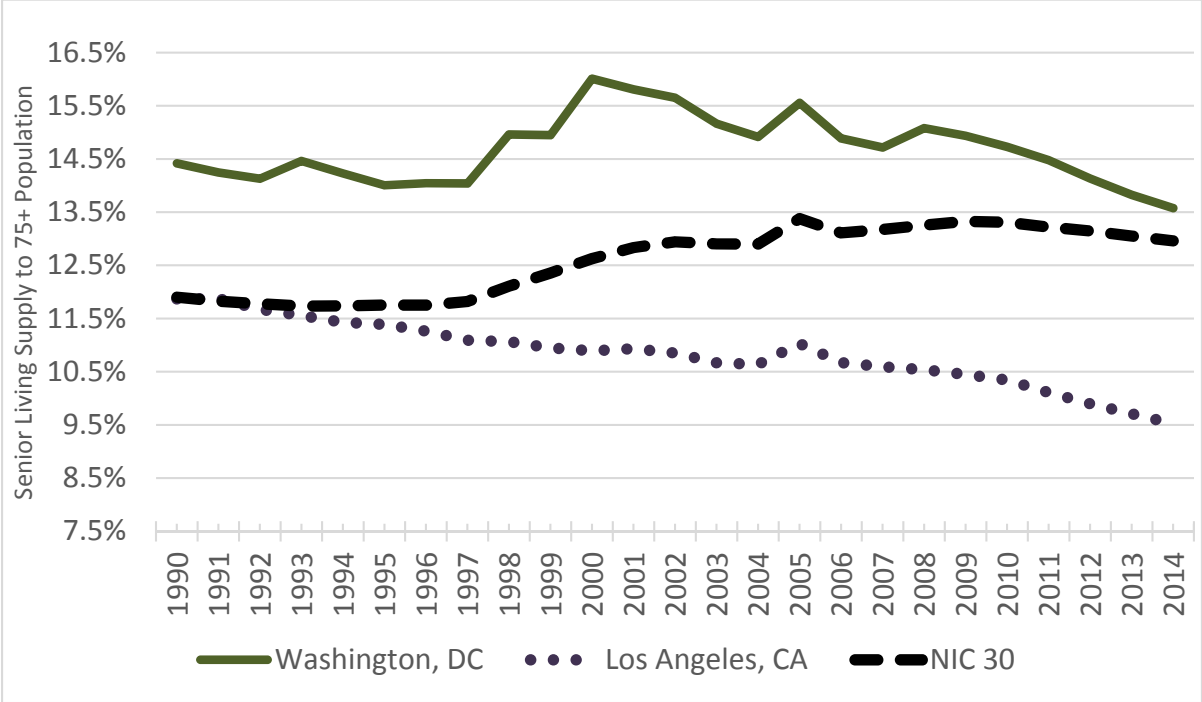
As the chart above illustrates, over the past 24 years, Washington DC and Los Angeles have favorable supply ratio trends.

Markets with Positive Long-Term Supply Risk Attributes [9]

Low Surge Scores	Stable Ratios	Declining Ratios
Los Angeles	San Diego	Riverside
Seattle	San Antonio	Orlando
Phoenix	Los Angeles	San Jose
Orlando	Denver	Sacramento

Low Surge Score locations consistently have modest new openings ratios compared to other markets, the Stable Ratio markets exhibit a generally stable relationship between supply growth and 75+ population growth, and finally, Declining Ratio markets have recent penetration rates well below their peak penetration rates.

Implications

Markets do appear to exhibit long-term patterns related to supply growth, with some markets consistently subject to supply surges while other markets appear to be more insulated from supply surges. Senior living supply is but one component driving overall market performance, albeit an important component. This framework is not expected to be particularly helpful in forecasting near-term changes in occupancy and rent growth, however, it does appear to have merit in gauging risk and in valuing properties.[10]

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ABOUT ROCKWOOD PACIFIC

Rockwood Pacific is a professional real estate services firm serving mission-based organizations committed to advancing wellness and longevity for older adults through better housing and better health care. Services provided include decision support, development services, financial advisory, and real estate transaction services.

ENDNOTES

[1] A challenge with applying this method to smaller areas is that the number of reference senior living properties become small and it becomes necessary to supplement the approach outlined here with other data. In particular, we postulate that at the neighborhood level, changes in barriers to supply of new residential homes may serve as a good proxy for measuring barriers to new senior living supply, however, we could not find any correlation between supply surges in senior living as measured in this paper and the Wharton Residential Land Regulatory Index (WRLRI). The WRLRI was introduced by Joseph Gyourko, Albert Saiz, and Anita A. Summers in *A New Measure of the Local Regulatory Environment for Housing Markets* (2007).

[2] The 30 largest markets tracked by the National Investment Center ("NIC") include: Atlanta, Baltimore, Boston, Chicago, Cincinnati, Cleveland, Dallas, Denver, Detroit, Houston, Kansas City, Los Angeles, Miami, Minneapolis, New York, Orlando, Philadelphia, Phoenix, Pittsburgh, Portland, Riverside, Sacramento, St. Louis, San Antonio, San Diego, San Francisco, San Jose, Seattle, Tampa, and Washington, DC.

[3] Supply counts based on analysis of NIC data by Senior Housing Analytics; ratios reflect the increase in supply of AL units divided by the supply of AL units in the prior period. This analysis does not account for removal of senior living units from the market.

[4] The supply surge score is a function of the new openings ratio for a specific market versus the benchmark new openings ratio for the NIC 30. The supply surge score is based on annual positive variances from 1985 through 2015. Underlying supply information is based on analysis of NIC database provided by Senior Housing Analytics.

[5] While memory care (MC) supply surges are also of high concern, this paper focuses mostly on AL and IL surges; one challenge with MC supply analysis is the small denominator effect, driving extreme ratios.

[6] See white papers tab of www.rockwoodpacific.com.

[7] 75+ population from US Census; senior living supply counts based on NIC data and include all senior living use categories tracked by NIC; namely independent living units, assisted living units, memory care units and nursing care beds.

[8] Ratio of all senior living units (IL units, AL units, MC units, NC beds) to 75+ population by year. Population figures extracted from numerous US Census databases by cross referring federal information processing standard (FIPS) codes to core-based statistical areas (CBSA); unit counts based on analysis of NIC data by Senior Housing Analytics.

[9] See footnote 4 above for description of surge scores. Locations that have low variance in the supply to 75+ population ratios over time (measured annually) are characterized as Stable Markets. Locations where there has been a material decrease in the penetration ratios through 2014 (as reflected in the supply to 75+ population ratio) from their peak penetration ratios (over the period from 1985 to 2014) are characterized as Declining Ratio markets.   Only markets that have above average 75+ population growth (from 1985 to 2014) are included in the table.

[10] In particular, surge scores and other supply risk metrics are useful in assessing and determining forward capitalization rates.

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