CHANGE AGENTS

[Environment]

Economics of Sustainable Investing: Multifamily Properties

AMERICAN REALTY ADVISORS

INSTITUTIONAL CAPITAL MANAGEMENT

ECONOMICS OF SUSTAINABLE INVESTING: MULTIFAMILY PROPERTIES

Real estate investors have no shortage of headlines to interpret: a global pandemic, inflation, interest rates, and a war in Ukraine all impact the asset class. Yet one of the most persistent influences on the built environment is one whose place in the collective consciousness often gets lost – climate change.

While most managers have incorporated sustainability evaluations into their underwriting processes, many of these measures are focused on qualifying or eliminating investments based on risk thresholds and quantifying operational reductions (what we call "below-the-line" savings) to be gained in the event properties are or can be sufficiently greenified. The investor impetus toward ensuring dollars are invested responsibly, increased tendency of government to regulate emissions and penalize building contributors, and savings on ongoing expenses such as water and energy are all great reasons to be investing in sustainable real estate.

But what about the so-called "above-the-line" investment benefits? In the office sector, we've seen there is a marked occupancy benefit for properties that have achieved LEED certification compared to their non-LEED counterparts. This benefit has become even greater in the post-pandemic leasing environment, which should lead to higher rental rates and growth going forward. So we wondered: does the same above-the-line economic benefit exist on the multifamily side?

THE GREEN IMPERATIVE

Buildings account for	Approximately	Global built environment expected to double in size by **2060**, yet only	LEED certified buildings contribute
40%	2/3	3%	50%
of all annual CO2 emissions.	of the global building stock that exists today will still exist in **2040**.	of investment in new construction is green.	fewer emissions.

Source: American Realty Advisors based on data from Architecture 2030, the U.S. Green Building Council, and the World Economic Forum

PROVING OUT THE TOP-LINE ECONOMIC BENEFITS OF GREEN

To answer, we created a comparison of several fundamental metrics that drive net operating income growth, such as occupancy and rents, in LEED and non-LEED certified multifamily buildings. We limited our sample set to Class A buildings built in 2010 or after in a sampling of 20 major cities in the U.S. Our selection criteria aimed to focus on assets that would represent the types of markets and assets most likely to attract institutional investors.

Analyzing occupancy rates over the past decade, we found a persistent superior occupancy profile in LEED certified buildings, beating the occupancy of their non-LEED counterparts in seven of the last 10 years.

LEED buildings' occupancy lead has intensified over the last four years, with the delta between LEED and non-LEED certified occupancy growing each year (*Figure 1*).

While the initial reaction could be to assume this suggests a clear inclination toward LEED properties by renters, we wanted to be sure this wasn't a function of supply, i.e. if the bulk of buildings being constructed during the period were non-LEED, the new supply could be expanding the sample and misrepresenting aggregate occupancy relative to demand. Alternatively, was non-LEED occupancy higher because "if you build it, they will come?"

One way to eliminate this as a "false positive" was to consider the proportionate share of deliveries being added in each subset annually relative to captured share of absorption. The results showed that relative to what was delivered each year, LEED absorption as a percentage of LEED deliveries averaged 121% over the last decade, compared to 88% non-LEED absorption relative to non-LEED deliveries. And as a proportionate share of overall supply and absorption, LEED deliveries accounted for an average of just 3.56% of all deliveries over the last 10 years, but 3.71% of absorption—in effect, punching above its weight class.

2018 seems to mark a meaningful divergence in operational performance between the LEED and non-LEED sets. This rise in environmental awareness among tenants over the past five years seems to have been accelerated coming out of 2017—the costliest year of weather-related disasters—with total damages costing the globe $519 billion[1]. As extreme weather events continue to drain hundreds of billions of dollars per year (in fact, 2021 was the third costliest year on record, with weather events contributing to $343 billion dollars in losses)—governments, institutional investors, and tenants alike have felt increasingly more committed to adopting environmentally friendly living options for themselves and their portfolios.

Given the elevated levels of occupancy and absorption found in LEED certified buildings, one could reasonably expect this premium to materialize into higher relative rent growth. However, of the 10-year history, rent growth outperformance in the LEED certified cohort only occurred in three years, or 36% of the time; however, the remaining 70% of the time the two sets' relative annual rent growth trended nearly in lockstep (*Figure 2*). We believe this could be by virtue of the higher absolute rent level in the LEED cohort. As we've seen more markedly in the differences between Class A and Class B rent growth, for example, lower starting rent typically

FIGURE 1

Occupancy Rate in LEED Certified and Non-LEED Multifamily Buildings

LEED vs. Non-LEED Annual Occupancy Rates (2012 – 2021)

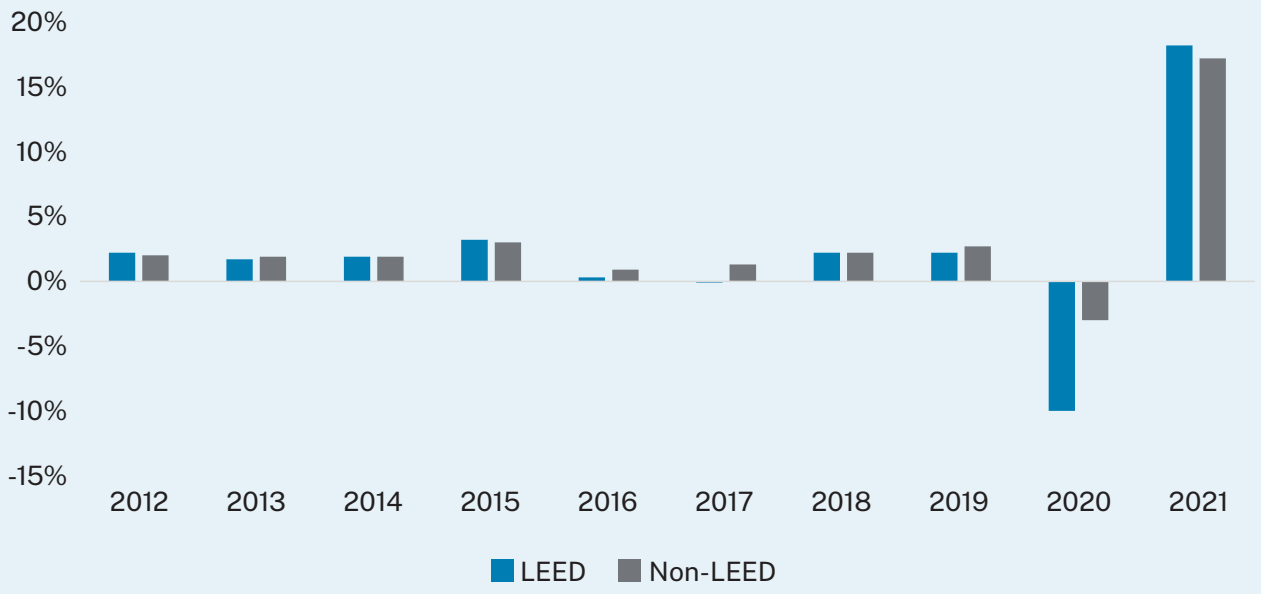
Year	LEED Certified Buildings	Non-LEED Buildings
2012	83.4%	81.2%
2013	72.6%	78.7%
2014	79.9%	77.3%
2015	80.8%	79.7%
2016	81.1%	81.8%
2017	80.4%	83.2%
2018	86.3%	85.4%
2019	86.7%	86.3%
2020	85.9%	84.0%
2021	93.7%	90.4%

Source: American Realty Advisors based on data from CoStar as of April 2022

FIGURE 2

Rent Growth in LEED Certified and Non-LEED Multifamily Buildings

LEED vs. Non-LEED Annual Effective Rent Growth (2012 – 2021)



Source: American Realty Advisors based on data from CoStar as of April 2022

leads to higher rent growth. This seems to hold true for the LEED versus non-LEED set, given LEED rents have started considerably higher.

Effective rents per square foot in LEED buildings have historically been +/-45% higher than LEED buildings over the last decade (Figure 3). This commanding rent premium is even more compelling when considering that both LEED and non-LEED rents are growing at virtually the same pace.

When considered in the aggregate, there is a clear economic benefit to owning LEED apartment buildings versus the alternative. Higher absolute rents, comparable rent growth, and meaningfully higher occupancy create larger numerators for the NOI equation, and lower operating expenses reduce the denominator, typically more than offsetting the incremental cost to buy or build LEED certified buildings.

As environmental conditions continue to dictate a growing need for responsible investing, cities have begun implementing plans to combat further deterioration. Those buildings that are not positioned for the policies of tomorrow not only miss out on the clear NOI growth benefit today but also will become disproportionately impacted by the one-two punch of laggard overall fundamental performance and municipal crackdowns.

GOOD FOR THE OWNER, GOOD FOR THE TENANT

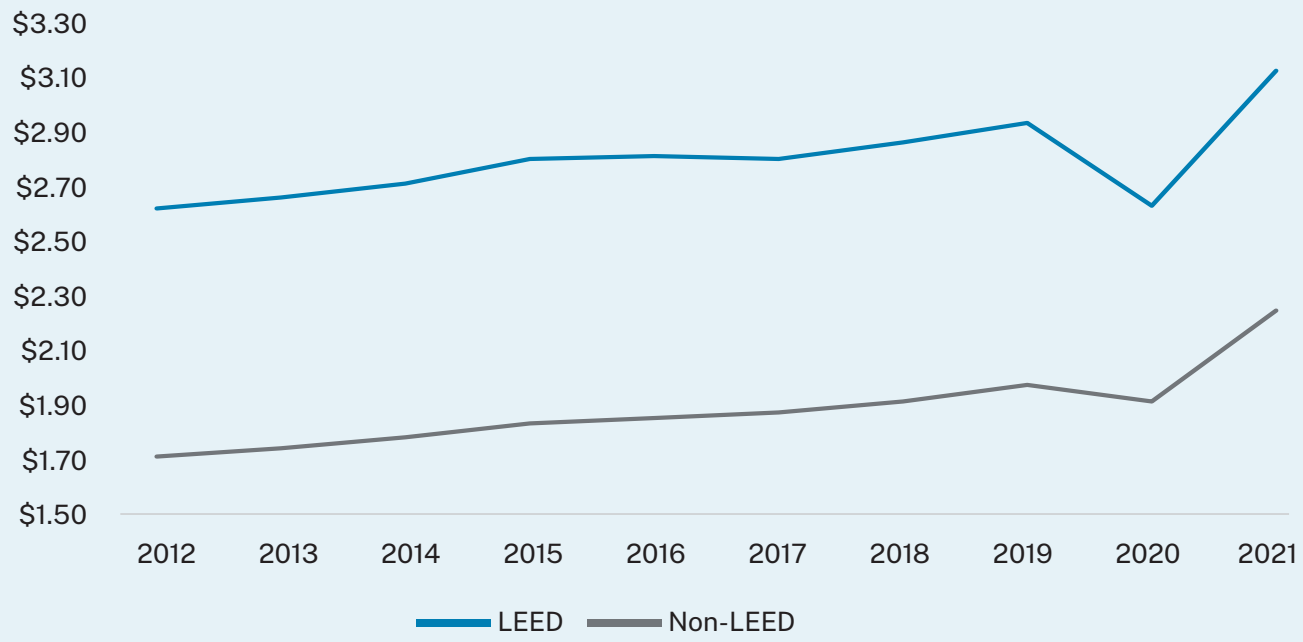
Although there is already an observable inclination toward green buildings by renters, being able to prove an economic benefit—such that paying a modestly higher absolute rent can be partially offset by savings elsewhere in a household budget—presents an opportunity to deepen the divide.

As tenants look for more sustainability in every aspect of their life, investors who promote the environmental, health, and wellness benefits of their buildings will be best positioned to capture the lion's share of mindful renters. On average, LEED certified multifamily buildings use 20%-30% less energy than their non-LEED counterparts due to smart technology and

FIGURE 3

Rent Per Square Foot in LEED Certified and Non-LEED Multifamily Buildings

LEED vs. Non-LEED Annual
Effective Rent Per Square Foot (2012 – 2021)



Source: American Realty Advisors based on data from CoStar as of April 2022

building design. Additional features, such as smart thermostats, smart appliances, and double-pane windows, can further reduce energy, electricity, and gas usage for both landlords and tenants, providing a utility cost savings of approximately 20%-40%, or an average annual savings of $550[2]. With energy costs on the rise, the costs savings of green living will have an even greater impact for tenants on a real-feel basis.

Other health and wellness benefits of residing in a LEED certified building are a lot less quantifiable, like premium indoor air quality. With passive ventilation systems pulling fresh air into the building while pushing stale air out, tenants live in healthier and more sanitary environments, a concern that has increased because of the COVID-19 pandemic. Additional benefits, such as public transit accessibility and walkable locations, provide cost savings by reducing automobile reliance and gas consumption. Recycling programs, bike storage, and ample natural light in dwellings also improve quality of life.

CONCLUSION

With the pace of change seeming to have been permanently shifted into high gear on all fronts post-pandemic, positioning assets for a future of tougher legislation and greater impacts from climate change is a necessity. While some property owners may oblige begrudgingly, fundamentals today show that tenants already value sustainability and are willing to pay more to live in LEED certified buildings.

Forward-looking investors who spot these forces coming down the pike and use this policy grace period to ramp up their green holdings will not only be able to enjoy the NOI growth premium that has benefitted those early adopters of critical environmental standards, but will also be well positioned for the built world of tomorrow.

1 Aon plc, "Aon: $343 Billion In Global Weather-, Catastrophe-Related Economic Losses Reported In 2021, Up From $297 Billion In 2020", January 25, 2022.
2 Architect, "Green Building Saves Money at Affordable Housing Projects", Bendix Anderson, April 30, 2008.

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