

CUSHMAN & WAKEFIELD RESEARCH SPOTLIGHT



LEED-certified office has consistently performed at a premium when it comes to pricing across quality classes and geographies.

Introduction

In Part 1 of this series, we examined the effect of sustainable strategies upon rents and leasing of U.S. office assets. Utilizing LEED-certification as an indicator, we determined that there was a noticeable premium for rents and revenue, controlling for quality, age and class of buildings. In Part 2 of this series, we examine how LEED certification impacts sale pricing.

Over the past 10 years, LEED-certified office buildings made up 29.7% of total office investment sales in the U.S., comprising \$357.4B in transactions. In this analysis, we set out to answer the following questions.

- What was the premium in sales price on a per square foot basis for these assets?
- How did cap rates differ between LEEDcertified and non-LEED-certified product?
- Did these differences fluctuate based on quality class, location (urban vs. suburban), or market type?

Key Findings



Keeping quality and class constant, LEED-certified Class A urban office sales generated a **25.3%** price per square foot (psf) premium over non-certified buildings, while LEED-certified Class A suburban office achieved a **40.9%** premium over non-certified assets.



LEED-certified Class B office achieved the highest premium, **77.5%** over its non-certified comparable set.



LEED certification compressed cap rates relative to non-certified office by **40 - 80** basis points (bps).



When we investigated the fairness of pricing for assets, we determined that LEED-certified Class A suburban properties are undervalued when compared to what a bottoms-up analysis would suggest, using revenues and prevailing cap rates. Class A urban and Class A gateway+¹ asset values corresponded to the bottoms-up valuation, meaning these assets are neither undervalued nor overvalued.

¹ Gateway+ includes all standard gateway markets (New York City, Los Angeles, Chicago, San Francisco, Boston, Washington, DC) with the addition of Seattle.



Data Parameters

To account for other factors that drive variability in sales pricing, we controlled for class quality, location (urban vs. suburban submarkets) and market (gateway+ vs. secondary markets). Utilizing CoStar data, we set the following parameters:

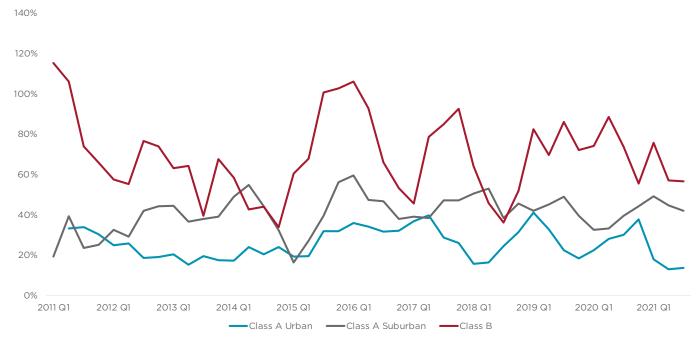
- Quality Class: A and B
- Location: Central Business District (CBD), Urban submarkets not falling within the CBD and Suburban submarkets
- Markets:
 - Gateway+: New York City, Los Angeles, Chicago, San Francisco, Seattle, Boston, Washington, DC
 - · Secondary: Atlanta, Dallas, Denver, Houston, Austin, Miami, Nashville, Phoenix

While in Part 1's exploration of LEED-certified performance we controlled for age, the data set was expanded in Part 2 in order to capture a statistically significant sample size of transactions. However, sales data for Class C assets was excluded as the LEED-certified set was too sparse to draw effective conclusions.

Pricing Trends of LEED-Certified vs. Non-LEED-Certified Office

On average, LEED-certified assets generate a strong pricing premium over non-certified assets across quality classes and the urban and suburban landscape. As shown in Fig. 1, Class A urban office has held an average **25.3% price per square foot (psf) premium** over non-certified buildings since 2011. Intriguingly, while trophy high-rise product in major urban centers has often been the face of sustainable assets, LEED-certified suburban assets actually outperformed their urban counterparts. In Fig. 1, LEED-certified Class A suburban assets maintained an even higher average premium to their non-certified counterparts at **40.9%** for the same period.

Fig. 1 - LEED-certified Office PPSF Premiums

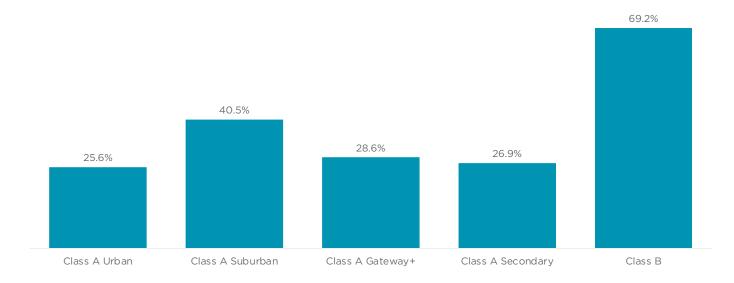


Source: CoStar, Cushman & Wakefield Research

Class B LEED-certified office assets produced the highest average sales price psf premiums—77.5%—over non-certified product, although LEED-certified properties represent a smaller sample, accounting for only 0.9% of the overall office inventory. This premium oscillated over the course of the decade, ranging between 33.9% to 115.2%. We offer a couple of interpretations. First, it may be that investments in sustainability have a greater impact on Class B assets in offsetting the effects of aging and obsolescence on property performance and value. It may also be the case that sustainable Class B assets are greater relative outliers than in other market segments we analyzed.

Geographically, the sales price psf premium for LEED-certified product over non-certified product held strong in both U.S. gateway+ markets¹ and larger secondary² markets. Because premiums have been volatile, it's not possible to discern trends over time, but what is consistent is that there are significant premiums in both market groups. Gateway+ markets averaged a slightly higher premium at 29% vs. secondary markets at 27%.

Fig. 2 - LEED PPSF Premium



Source: CoStar, Cushman & Wakefield Research

LEED-certified Class A urban office sales generated a 25.3% sale price per square foot premium.

¹ New York City, Los Angeles, San Francisco, Chicago, Boston, Seattle and Washington DC

² Atlanta, Austin, Dallas, Denver, Houston, Miami, Nashville and Phoenix



Cap Rate Trends Between LEED-certified vs. Non-certified Office

Cap rates for LEED-certified office buildings are noticeably lower than comparable non-certified office sales. We analyzed the cap rate compression delta between the two groups, quantified in terms of a basis points difference.

For LEED-certified urban Class A properties, cap rates were on average **58 bps lower** than non-certified assets from 2011 to Q3 2021. For LEED-certified suburban Class A properties, cap rates maintained a similar spread of **-55 bps.**

While the delta for urban property cap rates generally oscillated between 40 - 80 bps, the cap rates spreads for suburban properties had bigger swings and briefly rose above those for non-certified properties between Q3 2019 and Q2 2020. Since then, however, the difference has reversed dramatically for suburban product, the spread reaching record levels of -148 bps in Q1 2021 and remaining wide.

100 50 0 -100 -150 2011 Q1 2012 Q1 2013 Q1 2014 01 2015 Q1 2016 Q1 2017 Q1 2018 Q1 2019 Q1 2020 Q1 2021 Q1 Suburban LEED-certified Spread (bps) —Urban LEED-certified Spread (bps)

Fig. 3 - Urban vs. Suburban Class A Leed-certified Cap Rate Spread

Source: CoStar, Cushman & Wakefield Research

Cap rates for LEED-certified office buildings are noticeably lower than comparable non-certified office sales.



For Class B properties, the cap rate spread has been even wider, with an average 118 bps difference between LEED-certified and non-certified through Q1 2020. Since then, as with the suburban Class A dataset, the cap rate delta shifted substantially from Q2 2020 to Q2 2021. By Q1 2021, the non-certified set of comparable building sales had a *lower* cap rate of 160 bps on average.

For both the suburban Class A and overall Class B sales, we believe this temporary flip in the spread was an artifact of the low liquidity in the market at that time. As liquidity has recovered, the LEED-certified premium has returned to historical levels (-119 bp spread).

200 150 100 50 0 -50 -100 -150 -200 -250 2011 Q1 2012 Q1 2013 Q1 2014 Q1 2015 Q1 2016 Q1 2017 Q1 2018 Q1 2019 Q1 2020 Q1 2021 Q1 LEED-certified Spread (bps)

Fig. 4 - Class B LEED-certified Cap Rate Spread

Source: CoStar, Cushman & Wakefield Research

Cap rate premiums for Class A assets in gateway+ and secondary markets have remained fairly aligned for most of the past decade. Both gateway+ and secondary LEED-certified asset sale cap rates were on average **17 bps** lower than cap rates on non-certified assets. Since the start of the pandemic, the spread premium for both gateway+ and secondary market LEED-certified product has noticeably increased, aligning with the flight-to-quality tenant trend in many office markets.

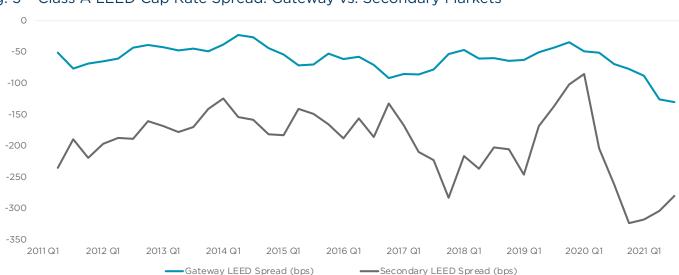


Fig. 5 - Class A LEED Cap Rate Spread: Gateway vs. Secondary Markets

Source: CoStar, Cushman & Wakefield Research

How does Transaction Market Pricing Compare to Bottoms-up Valuations?

In our <u>initial report</u>, we found that sustainable (defined as LEED-certified) office buildings achieved higher rents and delivered cash flow premiums. In this analysis, we built on that foundation to show that sustainable office buildings achieve significant valuation premiums both

in terms of yields and on a price psf basis. The question remains as to whether the achieved price premiums are consistent with our findings with respect to cash flows. The difference between the observed selling price and a bottom-up valuation based on cash flows and prevailing cap rates is a critical metric for investors, as it might suggest where selling prices are heading.

Fig. 6 - LEED-certified Trading Values vs Implied Values

RevPAF x Operating Margin = NOI NOI ÷ CAP Rate = Implied Value

	Class A Urban	Class A Suburban	Gateway Class A
RevPAF	\$29.83	\$25.07	\$36.15
Operating Margin	72%	79%	75%
NOI	\$21.40	\$19.80	\$27.10
Cap Rate	4.8%	5.3%	4.9%
Implied Value	\$450.40	\$374.01	\$557.66
Observed Trading Value	\$462.00	\$262.00	\$565.00
Trading Value vs. Implied Value	3%	-30%	1%

Source: RCA, Costar, NCREIF, Cushman & Wakefield Research Note: all figures based on 2018-2021 period for consistency

Our analysis shows that LEED-certified Class A urban and gateway+ buildings are trading at values consistent with the values implied by prevailing cap rates and our estimates of operating cash flows. Meanwhile, LEED-certified Class A suburban buildings have been trading 30% below their implied value. Such a significant gap suggests a potential opportunity for ESG-focused investors to explore. In contrast, Class A urban properties and gateway+ Class A properties have been trading roughly at their implied value, indicating these assets are more fairly priced.

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What's Next

Looking forward, the sustainable office sector is supported by significant tailwinds that should continue to drive both cash flow and valuation premiums vs. non-LEED-certified comparable buildings. These tailwinds include the growing interest in sustainable office assets among institutional investors and increasing preference for sustainable space among Class A office tenants. As such, we expect the relative premiums on sustainable office to continue in the foreseeable future. In our final piece in this three-part series, we will expand our analysis to determine how performance premiums from ESG certification look across asset types beyond office.

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