

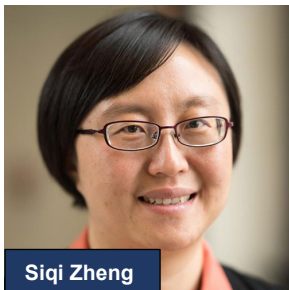


Gaining Green Premiums from Decarbonizing the Built Environment: A Holistic Evaluation Approach for Low-Carbon Investments

Project Overview

What is the relationship between sustainability labels and transaction prices for industrial real estate?

Industrial real estate is a large and fast-growing segment of commercial property markets, propelled by the explosive growth of e-commerce and the systemic reconfiguration of global supply chains. Despite this rapid expansion, empirical evidence on whether (and where) sustainability attributes are capitalized into industrial asset valuations remains limited. While revealing and quantifying green premiums can stimulate investors' willingness to pay for lower-carbon products and practices, in reality, green premiums vary significantly across asset classes, geographies, investor preferences, and policy regimes – complicating the transition to a more sustainable built environment.



This project, led by Professor Siqi Zheng with Dongxiao Niu and Thomas Williams, investigates the relationship between sustainability labels and transaction prices for industrial real estate – developing a holistic framework of measuring green premiums using an economically grounded model calibrated on a geo-sector case study, with the capacity to be generalized to other settings.

settings.

The researchers aim to answer three key questions:

- Do green-certified industrial buildings sell for more than comparable non-green buildings?
- Does that price premium depend on where the building is located? Do local attitudes regarding climate change impact the price?
- Does the type of buyer matter (i.e. private companies, large public or institutional investors)?

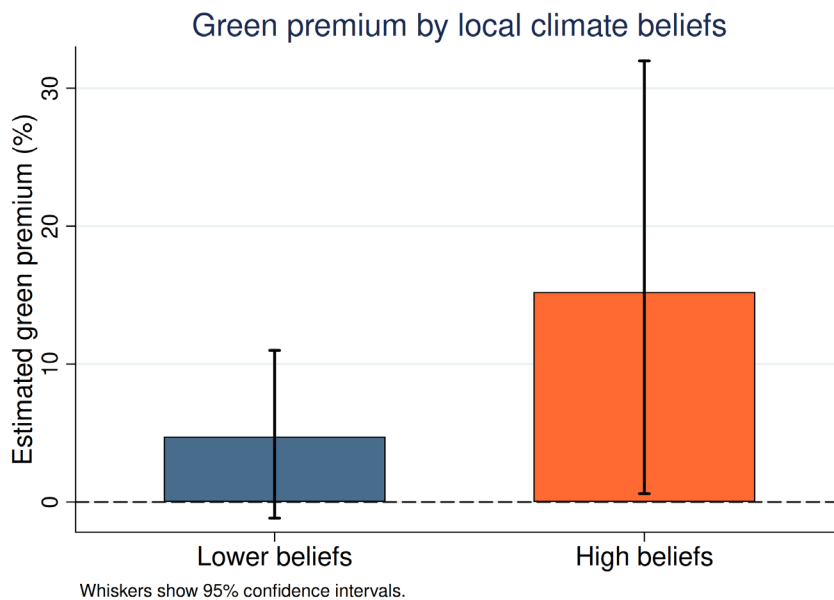


This project aligns with the MCSC's work in Climate Finance.

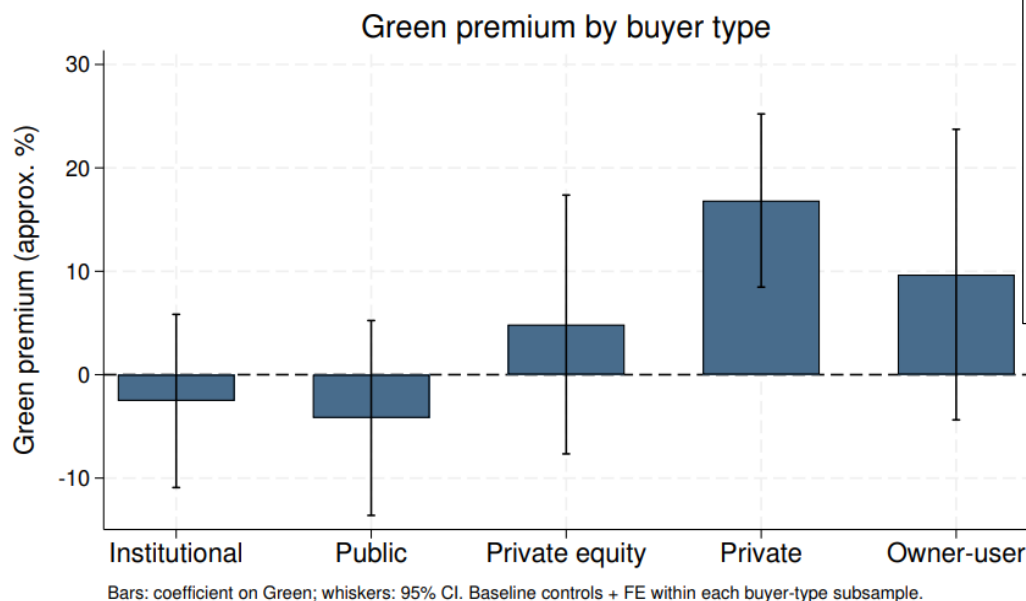
Findings & Outcomes

Green-certified industrial buildings sell for ~6% more on average than comparable non-green properties, but the premium is uneven across markets and depends on location.

The study finds that green-certified industrial buildings sell for about 6% more on average than comparable non-green properties. This premium, however, is highly uneven across markets. It is much larger in areas where climate change concerns are stronger (especially among private buyers) while it is often weak or absent in other market segments.



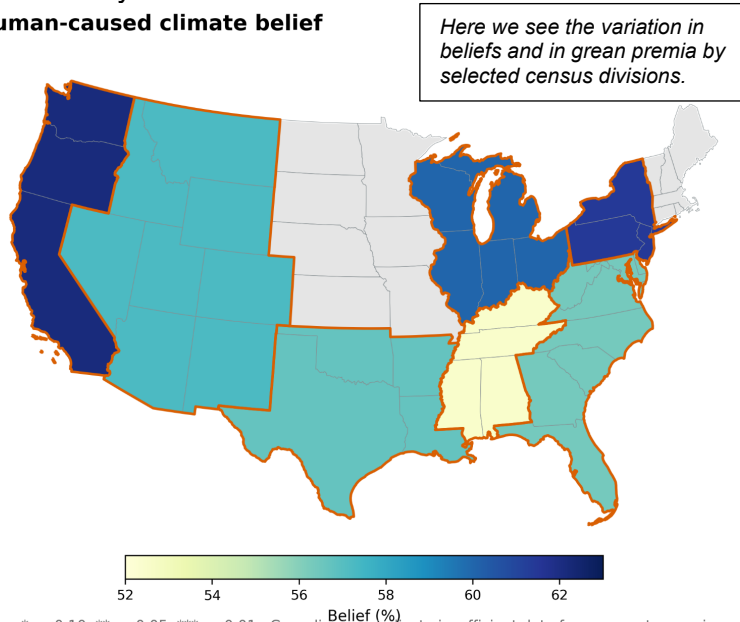
This graph represents premium for green-certified industrial buildings as it relates to local belief in climate. The belief measure used here refers to the share who believe global warming is primarily caused by humans. Blue bars show counties in the lower 75% of the belief distribution, while orange bars show counties in the top 25%.



This chart shows how the estimated green premium varies by buyer type. Buyer types: Institutional buyers include pension funds, endowments, insurers, and similar large investors. Public buyers include REITs and other publicly traded companies. Private equity buyers are investment funds or financial sponsors. Private buyers are privately held companies or private investors. Owner-users are buyers purchasing space for their own operations.

To get these results, the study analyzed over 95,000 U.S. industrial property sales, comparing green (LEED or ENERGY STAR certified) and non-green buildings. This dataset comprised transactions spanning 256 counties in 25 states, including a variety of locations, such as central business district, urban, and suburban regions. This resulted in evidence of heterogeneity. In counties with stronger climate-change beliefs, the estimated premium rises to roughly 12-14%, compared with about 5% in lower-belief counties. The premium also varies by buyer type: it is strongest for private buyers, while estimated premiums for institutional and public buyers are close to zero or negative and are not statistically precise. In analyzing the data, the researchers accounted for other factors such as property characteristics, market conditions, climate beliefs, and buyer types to identify where and for whom sustainability adds value.

Human-caused climate belief



Stars: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Gray divisions indicate insufficient data for a separate premium estimate: New England, West North Central.

Green-premium estimates by division

Middle Atlantic

Belief 61.4% | Premium +25.9%*

East North Central

Belief 60.1% | Premium +9.7%

South Atlantic

Belief 56.4% | Premium +17.2%***

East South Central

Belief 52.5% | Premium -5.5%

West South Central

Belief 56.7% | Premium +20.2%**

Mountain

Belief 57.3% | Premium +27.6%***

Pacific

Belief 62.1% | Premium +11.9%***

The team's findings provide a clearer picture of where sustainability is reflected in industrial real estate values. Although green-certified assets command a premium on average, the size and reliability of that premium vary across market environments and buyer groups. Green certification is more likely to be associated with a sale-price premium in markets with stronger climate-change beliefs and when the likely buyer is private. The premium is less consistent in lower-belief markets and among institutional or public buyers. The map provides geographic context for these patterns, while the study's regression results provide the direct evidence.

Opportunities for Implementation

The findings from this research can guide developers, owners, and brokers in their decision-making – showing that the successful capitalization of a green certification at the point of sale is not a guarantee, but rather, is contingent upon the specific belief environment of the asset's location and the strategic mandates of the likely buyer pool. By identifying these pockets of value, investors can better align their sustainability strategies with market realities to maximize exit valuations. They can apply this research by targeting green investments where they are most likely to succeed, such as in markets with strong climate awareness that value sustainability. The study's insights can guide certification decisions as well as marketing strategies, rather than assuming green features add value everywhere.