

Where are they Now?

The theme of *PREA Quarterly's* Spring 2026 issue is *Where are they Now?* The features in this section examine various real estate sectors, taking lessons from their recent past to pinpoint the current state of the market and provide an outlook for the future.

The *Where are they Now?* feature opens with a Q&A with Professor Kenneth Rosen, who developed the real estate property clock. It follows with *Where are they Now?* articles on these sectors: industrial, data centers, and senior housing.

More sectors will be covered in the *PREA Quarterly* Summer 2026 issue.

Telling time

What the property clock says
about the state of RE sectors

A tool for understanding market cycles, and thus informing decision-making, is the property clock. To set the stage, and place each sector in context of its property clock reading, **Adam Ruggiero**, Senior Vice President at Fidelity Investments and Chair of the PREA Publications Committee, speaks with **Kenneth Rosen**, Chairman of the Fisher Center for Real Estate and Urban Economics and Professor Emeritus at the Haas School of Business at the University of California, Berkeley, and Managing Director at Andersen about the origins and implications of his well-known property clock and what it signals for the future.



Kenneth Rosen

Kenneth Rosen is Chairman of the Fisher Center for Real Estate and

Urban Economics and Professor Emeritus and California State Chair of Real Estate and Urban Economics at the Haas School of Business at the University of California, Berkeley. He is also a Managing Director at Andersen and serves as a member of the advisory board of the Andersen Institute; a trustee of the Urban Land Institute; and a member of the board of directors of several non-profit and for-profit entities that deal with real estate finance and development. He has authored more than 100 articles and four books on real estate and real estate finance.

KEY TAKEAWAYS

PROPERTY CYCLES AREN'T LINEAR

The fortunes of an individual property sector can ebb and flow within a real estate cycle. Decline isn't always followed by growth, nor the opposite.

NICHE IS STILL NICHE, BUT GROWING

Pricing challenges in multifamily and oversupply in office and industrial have increased interest in niche/alternative sectors, and they are increasingly becoming institutional.

STRONG FUNDAMENTALS, PRICED FINANCING

Supply growth has slowed across property types, and the industry is working through recent deliveries. Financing is freely available, but isn't cheap, and rate risks still linger.

What is the origin of the property clock, and what role does it play for you?

I first developed the property clock many years ago after observing similar illustrations of the labor market. The idea was to create a snapshot of relatively complex real estate supply-demand dynamics in a way that was easily understandable.

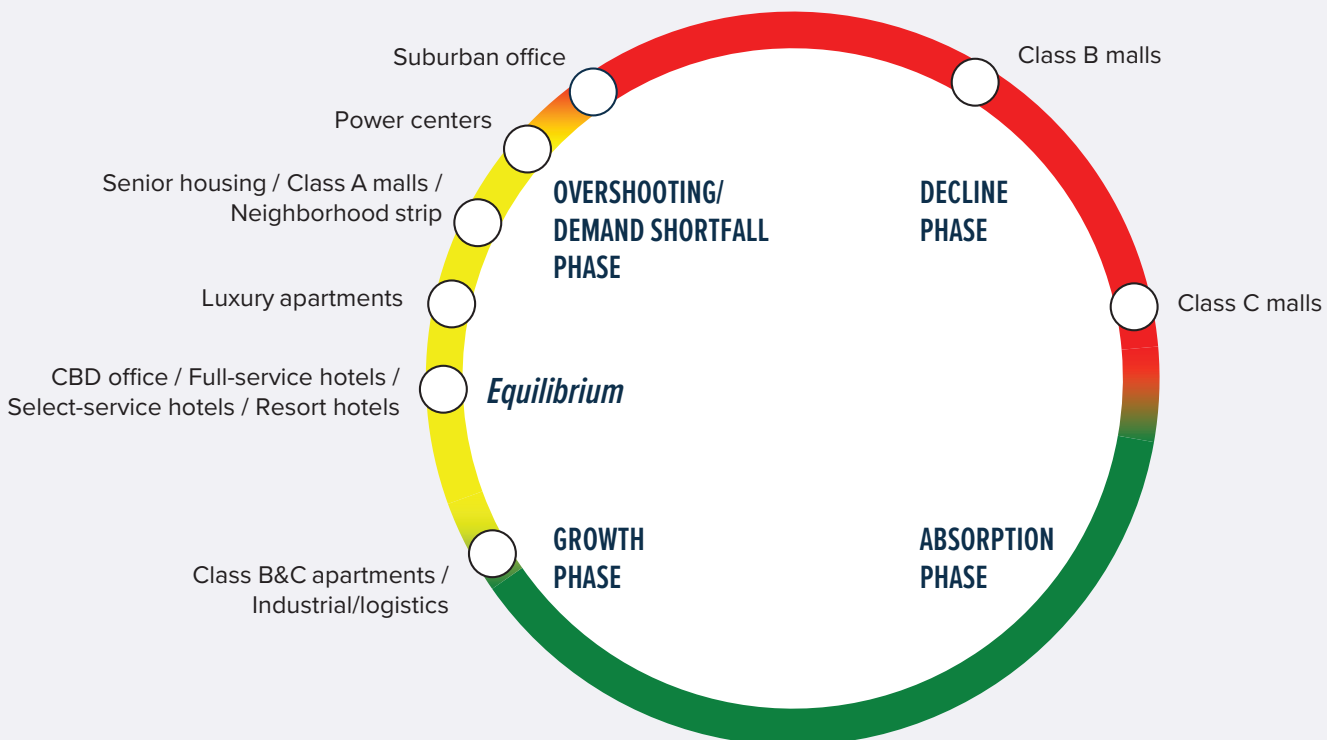
A primary measure of the property clock is vacancy rates; we also look at new construction and absorption. A key question is, 'What is the equilibrium vacancy rate?'

It is somewhat amorphous, but it can be thought of as a function of mobility in the marketplace and the long-term history of vacancy within that region and type.¹

It comes down to the fact that real estate involves a search process. Because it's a search, we have to look at mobility in the market, and how much vacancy corresponds with that mobility. In a higher-mobility market, you would expect a higher vacancy rate because tenants are spending more time searching for space, and vice versa.

2019 Real estate cycle clock fundamentals

Pre-COVID-19 pandemic, the property clock indicated that industrial/logistics, along with Class B/C apartments, were in the growth phase, on the cusp of entering equilibrium. CBD office, hotels, and resorts were at equilibrium. Senior housing and Class A malls were in the overshooting/demand shortfall phase. Class B and C malls were in the decline phase.



Source: Andersen.

In that sense, it's an application of labor market analysis. The labor market is similarly defined by a search and also involves a question of equilibrium, in that case, 'What is the equilibrium unemployment rate?'

Is there an assumption that you will always progress along the clock in the same direction, or is it possible to 'go back in time'?

That's a very good question. You can move backwards, as strange as that sounds within the clock analogy. Let's take Austin, Texas as an example. We had a really strong labor market there that led to overbuilding in all product types, particularly apartments.

Historically, most real estate cycles have been a product of overbuilding. In contrast, in periods like the 2008 to 2010 recession, development all but ceased and the opposite occurred. That is why we really need

to examine both sides of the equation in forecasting vacancy. We also need to apply property type specific factors to those forecasts, like the length of construction cycle, which can lead to prolonged overbuilding in some property types.

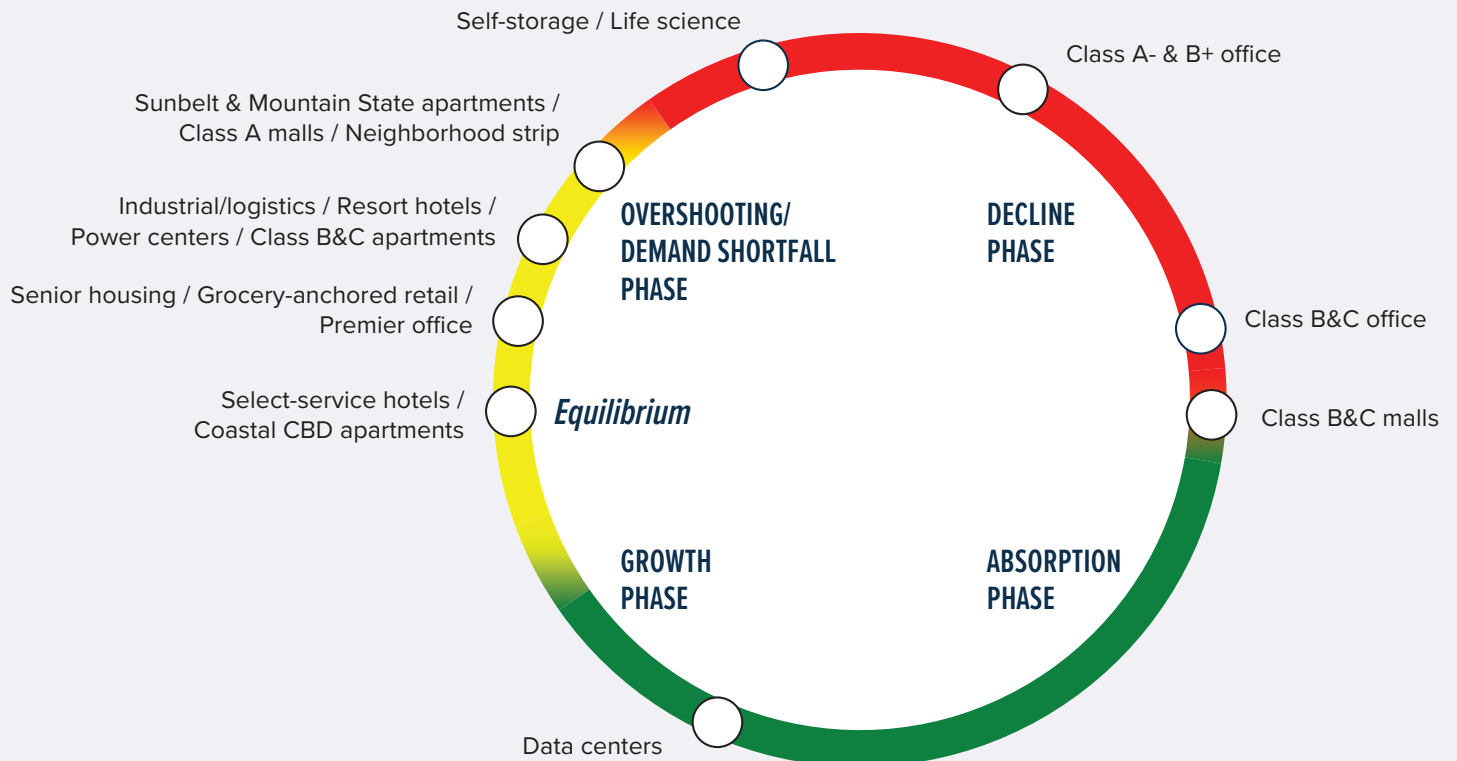
The four food groups

The property clock examines both the demand and supply side of the vacancy equation. Historically, real estate has been hit on both sides of that equation during recessions, but that is not what happened in all property types this time, particularly in multifamily. What drove that and what regional factors are at play?

For multifamily, we look at job creation and in-migration on the demand side. We assess migration at the household level, as each household occupies its own separate living unit.

2025 Real estate cycle clock fundamentals

In 2025, the property clock shows data centers in the growth phase. Senior housing moved 'backward' slightly from the 2019 reading. However, industrial/logistics, Class A malls, and neighborhood strip moved ahead closer to overshooting, along with Sunbelt and Mountain State apartments. Post-pandemic, office is in decline. Class B/C malls are now on the verge of entering the absorption phase.



Source: Andersen.

On the supply side, it's about the response to demand, which is often lagged due to permitting and construction schedules. Those vary by geography and type, with shorter lags in many Sunbelt markets and in housing and industrial, versus typically longer lags in office and in places like New York and San Francisco.

Performance also isn't uniform across markets. Some of the strongest submarkets have actually been located in markets that underperformed overall. That is why it's important to start from the bottom-up, and why we produce property clocks for individual markets as well.

There's been a structural shift over the last five to seven years, where e-commerce has led to demand for more warehouse space for direct shipments from warehouses to consumers.

Industrial has been the most popular property type for the last several years, but the current reading on the property clock puts it at 10 o'clock, approaching midnight. Is that a property sector you're concerned about?

The aggregate national vacancy rate for industrial properties has doubled. It was at 3.5%. It's now at about 7.3%. But at the top quintile of the market, the vacancy rate is below 5%. The bottom quintile has double-digit vacancy rates — that's overbuilt.

There's been a structural shift over the last five to seven years, where e-commerce has led to demand for more warehouse space for direct shipments from warehouses to consumers. We've had a boom in new construction, and returns have been great as well. In the last two and a half years, aggregate supply increasingly outpaced demand. That's why the vacancy rate has gone up. The vacancy rate in some key markets is quite high: 13% in Phoenix, 11% in large buildings in Southern California's Inland Empire. It was 0.7% just three years earlier.

But we have many markets with sub-5% vacancy rates. To my earlier point, there are some submarkets that are tight even in Phoenix. It shows that you have to zoom in for a complete analysis. National rates are guideposts for analysts, but the work should also be done on the local level and by factors like building class.

The recent industrial and multifamily story is very much about supply, but while both involve speculative development, their leasing dynamics are very different. In multifamily, you can cut prices and increase occupancy, but it's zero-sum in industrial. That has meant that overbuilding in industrial resulted in a much more pronounced increase in vacancy. Did operators and allocators not recognize the risk of this happening? Or was there an absence of other options, with office and retail, at the time, 'off the menu'?

There may have been some of that going on, but NCREIF data shows that the best risk-return trade-off over any long period of time has been in these two sectors: multifamily and industrial (see [1](#)). I think the reason for that is the short development timeline. You can turn off supply relatively quickly and, within a two-year period, get back to equilibrium.

Retail and office are tricky to assess because of the combination of structural and cyclical factors. Retail operates in 20-year cycles. We hit the low point half a decade ago, but the best-performing NCREIF sector currently is retail. One thing that distinguishes retail from office and apartments is that it's an operating business.

Over the long term, office also has a mediocre risk-return profile, in part because the development cycles are so long. Office has been facing a structural shift related to work from home. The average office vacancy rate nationally is 20%, yet it is zero among AAA buildings in New York and 30% for Class B buildings in San Francisco. To build a new office building today might cost \$1,200 or \$1,300 per square foot. Existing buildings have been selling at \$200 to \$300 per square foot.

For industrial and retail, the internet is behind big structural shifts in demand. It changed the channels for distribution. Big rent increases happened and more warehouses were built over the past three to four years than had been built in all previous years. That

situation has stabilized. The growth rate in internet sales has declined and is now around 5%. The in-store growth rate is around 3% to 4% but includes restaurants. Within retail, there are subcategories that should be examined separately.

While the property clock is largely macro, we look at micro categories as well. It's not just sectors or geography — age of the building also matters, as well as a bunch of other things. While it's nice to have broad-based guideposts, they're just a starting point.

Alternative sectors

Several of the alternative sectors have found their way onto the property clock over the past several years, including senior housing. In a recent PwC report, senior housing has some of the most positive sentiment around it.² But looking at the property clock, senior housing is a bit over equilibrium. What explains the difference between the clock and current sentiment?

Because of the issues we've been talking about with office, apartments, and industrial, interest has been

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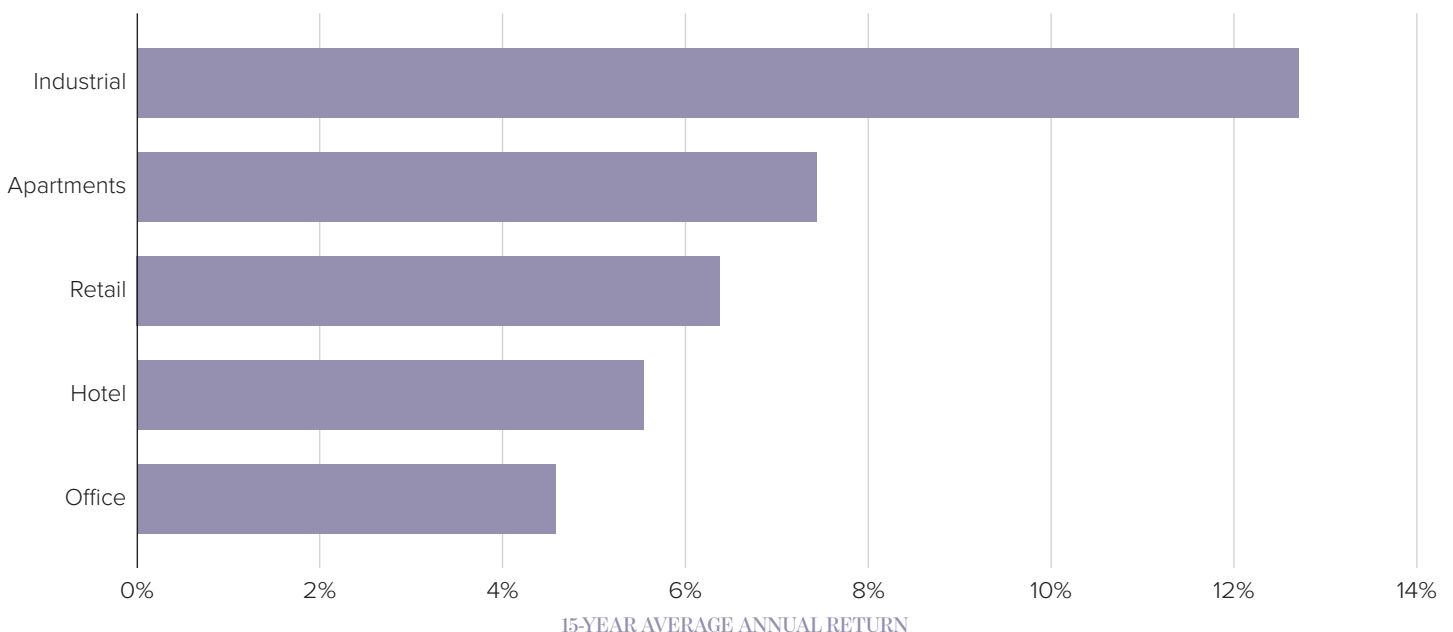
growing in these niche alternative property types that are undersupplied, propelled by compelling demand drivers, or both. They are still small relative to the major property types, but they are growing more institutional, to the point that NCREIF is now reporting separate data for them.

The key here is the age structure of the population, which plays into senior housing, student housing, and

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Industrial and multifamily properties have the best risk-adjusted returns

Short development timelines may contribute to industrial's and multifamily's returns. In contrast, retail and office have long development cycles, as well as structural and cyclical considerations, which may explain lower returns.



Source: NCREIF Property Index data as of December 31, 2025.

others. The actual age of people entering senior housing is typically 75, not 65 as widely believed, and that population is going to increase by 45% over the next decade as the baby boom generation is now hitting 75. Senior housing has some of the strongest tailwinds behind it of any sector. But there are complications: government support programs, the desire among many prospective tenants to remain independent and to remain near family.

It's a similar situation in student housing. Universities don't have the money to build dorms. Over the past decade, they've worked with joint venture partners who put up the money and increased institutional ownership.

Then there's single-family residential. About a decade ago, there was a surplus of this asset, much of it owned by people living in it. Real estate funds entered the business, buoyed by strong demand from people who want to rent single-family homes, don't want to put the money in, or can't qualify for a mortgage.

Self-storage is interesting. All of sudden, it seems to have been overbuilt in the last two years. Vacancy rates are going up and rents are going down. But it, too, is becoming institutionalized, having previously been a mom-and-pop business.

All these niche property types are still relatively small, but growing, compared to office, retail, industrial, and apartments. Are the returns in niche areas going to be better? The supply-demand fundamentals will create real opportunities.

These niche sectors have been seen as a way to enhance returns. But they go through cycles like any property type, as we've seen in self-storage. The other property type where we really saw things go wrong though, was life science, which is practically at midnight on the property clock.

This is a story of changing demand and supply. Life sciences is at the center of huge medical breakthroughs. Many companies have been supported by venture capital and government agencies. The demand for space in places like Boston, San Francisco, San Diego, Cambridge, maybe 10 markets nationally, seemed like it was infinite. Real estate developers are very good at tracking that and responding quickly. We went from very tight markets

to dramatically overbuilt markets, practically everywhere they had emerged.

It gets worse. On average, values are down about 50%. The overbuilding took place before the NIH cutbacks, which have not yet taken hold. So we are nowhere near the end of the cycle. I'd say the subsector is a dead end for three years, but, at the right price, things work.

It's a similar story with Class B and Class C office, where we're seeing a good deal of conversion in places like New York and Philadelphia. Only one of those conversions has happened in San Francisco.

The snapshot of data centers right now shows it at 7 o'clock. I expect the clock to move to 10 or 11 o'clock in three years.

Buildings and markets go through life cycles. I won't say they are predictable, exactly, but you can see the excesses when they're happening. Then [after a crash or downturn] it takes a long time to work them out. If you play the cycle right, you can do very well, which is one of the reasons why you find devoted research departments at the major investment managers. If you ignore cycles you are almost guaranteed to lose money.

The next bubble?

Let's move to a part of the property clock that's very different from life sciences yet also connected to technology: data centers. Based on the clock, the sun has just come up for data centers, but we are starting to hear some concerns about the risk of excess development. Where do you place this property type?

The snapshot of data centers right now shows it at 7 o'clock. I expect the clock to move to 10 or 11 o'clock in three years. There's a structural issue here. The types of data centers that we need today require ten times

the amount of storage that the traditional internet necessitated. AI and learning models are behind these larger requirements.

Five times as much money goes into the infrastructure and processes within the buildings as into the buildings themselves. And the average lifespan of this equipment is widely expected to be five or six years. It could be two or three years because the technology changes so quickly. Could that result in some degree of overbuilding? I would say it's almost certain.

In my opinion, right now AI is a very efficient enhanced search model, but the intelligence isn't there yet. As the AI models are going to become much more efficient, there's a really big risk that technology will change enough in the next few years that we won't need anywhere near the amount of space that developers are planning.

There's talk of a bubble, but we're not there yet. The constraint is power, which is helping place some limits on supply.

My advice is that investors should not rush into this. Opinion changes quickly on the subject. Is this different from life science, from the booms, going further back, that we had in office? I don't think so. Will AI supplant people? I also don't think so. At our company, we're not using AI to lay off any people, but to make our research better.

The outlook for 2026

What is your outlook for commercial real estate in 2026?

Looking ahead, there are three big positives. One is the extension of the 2017 tax law [Tax Cuts and Job Acts]. The tax incentives for real estate are aligned and have gotten better. The second is that interest rates are coming down. Short rates are already down 150 basis points and are likely to cycle down further. Financing is more readily available now and will continue to be more readily available at lower rates, especially in the two- to five-year range. Third, new supply has been reasonably constrained. The lack of new construction is setting the framework for recovery in 2026, 2027, and 2028. Office construction is already at record lows. The AAA buildings are already getting leased pretty quickly. We're down dramatically in new development of industrial. It might be another six months before we

Segmenting by quality

You touched on the importance of segmentation. You can see that in the evolution of the property clock. Pre-COVID, there was less emphasis on the differences in building class. The distinction is much starker today.

You could describe the analysis as 'segmented but linked.' We learned that 50 years ago in graduate school. That's where the word 'filtering' has come from. Buildings built at the top of a market cycle typically filter down over 30 or 40 years to Class B or Class C properties.

But each building has its own cycle. One of the best buildings in San Francisco is the Bank of America building at 555 California Street. It was built in the 1960s. Shorenstein bought it from Bank of America in the 1980s and now Vornado owns it. It's about having intimate knowledge of a market, down to the block and individual asset, in addition to an appreciation of the aggregate.

Many financial institutions have funds that try to operate strategically at a high level. They might ask, 'Should we do apartments in the Sunbelt?' That's more of an aggregate-level question used for underwriting. It's not the end, but the beginning of the analysis.

clear it. Sunbelt apartments probably need another year or two of absorption to get back to equilibrium. Data centers are the only category where supply has not shut off in this way.

The not-so-good news is that the long-term interest rate is going to be a wild card. In light of the debt backdrop, the long rate could actually go up, and the yield curve could steepen. The long rate determines the cap rate. In the long run, cap rates might go up. The outlook is better for short-term interest rates and credit availability, but maybe not for returns. In addition, there will still be fairly high delinquencies and foreclosures in older buildings, office in particular for the next year. Any associated losses, however, come with a silver lining. You can buy some buildings below replacement cost, sometimes by as much as 50%. Demand will eventually recover. [📄](#)

Thank you so much for sharing your insights and expertise with us.

¹ Rosen, K. and L. Smith. 1983. "The Price-Adjustment Process for Rental Housing and the Natural Vacancy Rate." *The American Economic Review* 73(4): 779-786.

² PwC and Urban Land Institute. 2025. "Emerging Trends in Real Estate 2026."