LAST MILE: The User May Not Be That Discerning, but The Investor Needs to Be

US Industrial Market

Industrial real estate has always been full of jargon. Whether the terms used are *bulk, shallow bay, heavy throughput, mission critical, logistics,* or *omnichannel,* market players have always looked to differentiate assets that to the uninitiated eye look very similar and relatively simple: four walls and a roof. In reality, there have always been big warehouses that serve very large regions (the oldest, still-functioning, superregional distribution building in the CoStar database was built in 1955, is 2.4 million square feet, and is occupied by Big Lots), small- to medium-sized warehouses that serve much smaller regions (26,500 warehouses in CoStar are between 50,000 and 400,000 square feet and are occupied by a single tenant), and many other kinds of structures that support the US industrial economy, with more than 500,000 of them standing today.

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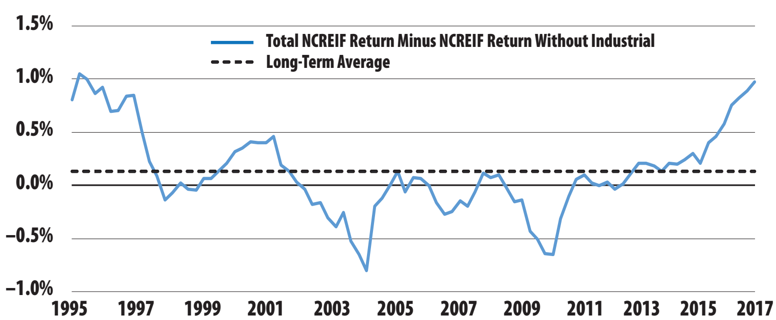
Industrial is the hottest property type in the US right now, and investors that don't have enough exposure are having trouble keeping up with NCREIF (Exhibit 1). China, not Amazon or other e-commerce, first brought this property type to the notice of institutional investors nearly 20 years ago. In the early 2000s, millions of containers started to flow into US ports, generating unprecedented demand for large warehouse/distribution buildings among users and investors.

Exhibit 1: Industrial´s Contribution to NCREIF Returns

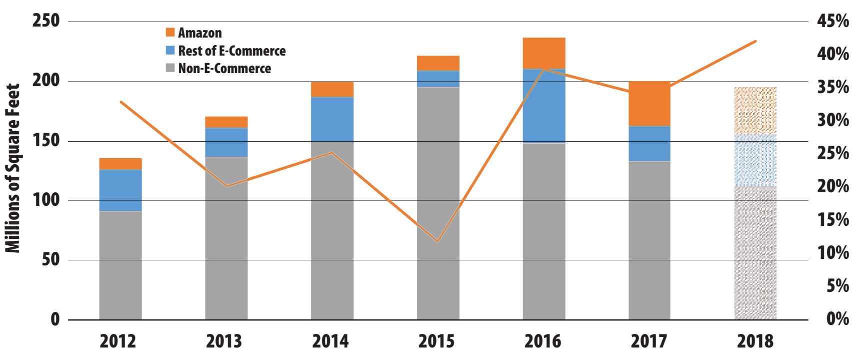


Sources: NCREIF, CoStar Portfolio Strategy
Note: Data are as of 3Q2017.

The current cycle is different:

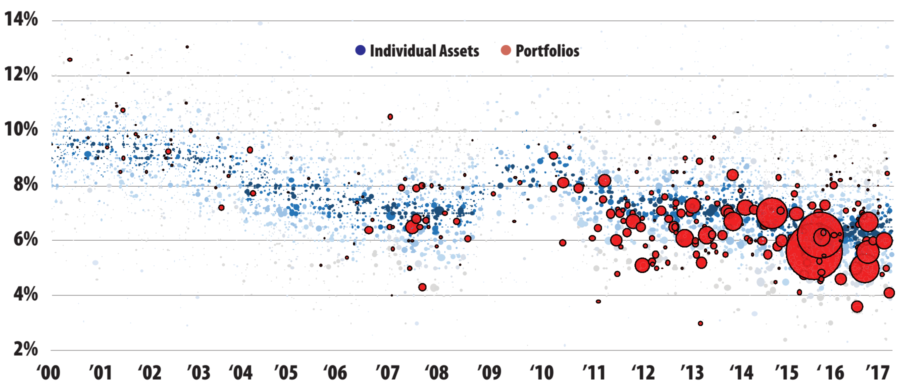
- E-commerce has been the primary driver of demand, contributing as much as 35% of total net absorption in 2016 (Exhibit 2).
- Large buildings have popped up all over the US, not just in the Inland Empire. Since 2010, only 27 million-plus square-foot buildings have been constructed on the West Coast compared with 86 such buildings nearly everywhere between Texas and the East Coast.
- Industrial became investable as large, multibillion-dollar portfolios made it accessible to investors that can't write $20 million checks (Exhibit 3).

Exhibit 2: E-Commerce As a Percentage of Net Absorption



Source: CoStar Portfolio Strategy
Note: Data are as of 3Q2017.

Exhibit 3: Cap Rate



Source: CoStar Portfolio Strategy
Notes: Data are as of 2Q2017. Shading = distance from trailing 90-day mean. Size = price.

E-Commerce

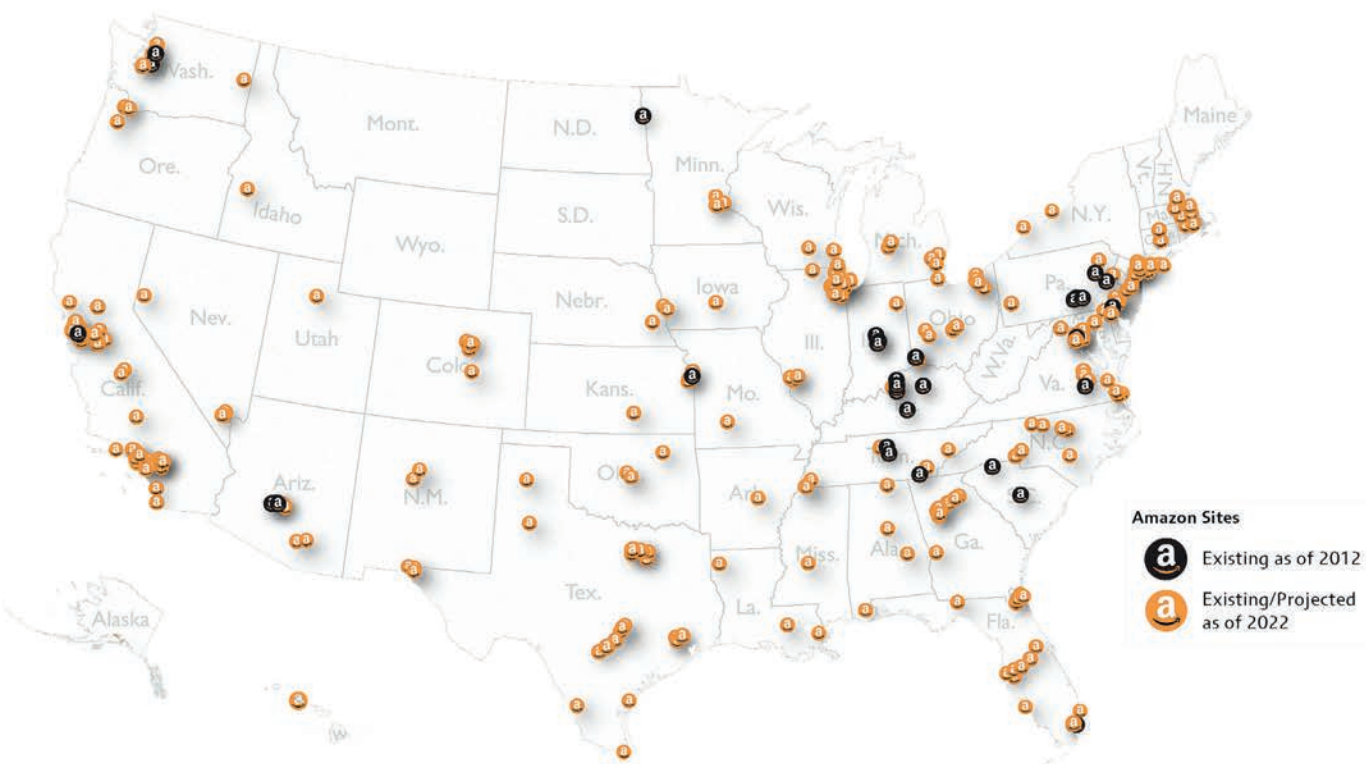
Given how much excitement and disruption Amazon has sparked over recent years, people often forget that Amazon sold its first book only in July 1995 and expanded beyond books and music in 1999. In the early days, Amazon's market share was tiny, but more important, the original business model was about cost. People shopped online to spend less. The savings came through lower prices and the lack of sales taxes. For these savings, people were willing to wait up to five days to get their goods. Industrial real estate had very little to do with e-commerce.

Today, the model is completely different. Monetary savings take a backseat to convenience and speed of delivery, a model that requires many more distribution nodes in many more markets. Amazon is the easiest example of this change. In 2012, Amazon had 62 million square feet of distribution space; by 2017, that had risen to 140 million square feet. By 2022, the retail giant's estimated total will be close to 280 million square feet (Exhibit 4). This tremendous growth in square footage started with fulfillment centers, which are million-plus square feet and are well equipped to handle Amazon Prime's promise of two-day shipping. But speed to market increased to next-day and even two-hour delivery with Prime Now.

Last Mile Includes Both Local and Multinational Businesses

It is tempting to attribute the birth of last-mile distribution to Amazon and date it to 2014, the year the first Prime Now hub opened, but how about Grainger's more than 350 mini-distribution hubs across the nation, consisting of buildings between 15,000 and 50,000 square feet? Those have been around much longer than the Amazon sites. Simply put, last mile is not new. The excitement around it is, however, and for that we can thank Amazon.

Exhibit 4: Amazon Existing and Projected Locations



Source: CoStar Portfolio Strategy
Note: Data are as of 4Q2017.

To fully understand last mile is to realize that it is at least a partial misnomer. Last mile has nothing to do with an actual mile. A better name would be "last touch." From a commercial real estate perspective, a last-mile asset is the last place goods are stored before they trade hands between the seller and the buyer. Most people imagine business-to-consumer (B2C) retail transactions, yet the vast majority of last mile is business-to-business (B2B) operations. Although the retail version is distribution oriented, the wholesale business is split between delivery and pickup.

The list of tenants and industries that support local industrial and construction economies is exhaustive. It ranges from construction, medical, and office supply companies to last-mile delivery providers, such as FedEx, UPS, and the USPS; food distributors; and a more recent growth segment, packaging companies. And the firms involved are not local, small businesses; they are often large brand-name companies that have large superregional distribution nodes supplemented by 25,000- to 50,000-square-foot locations.

Last Mile: What Does the Tenant Want?

The primary change in e-commerce from ten years ago is the emphasis on speed to market. Customer patience has been reduced from days to hours. Fortunately, today's inventory management systems and supply chain technology allow for unprecedented speed of fulfillment. Yet inventory levels in the economy are rising, and demand for industrial space is running twice the growth of GDP. Inventory management uses the equation that for every 10% increase in the number of warehouses, inventories increase by 5%. Thus, getting closer to the customer requires more last-mile space without additional gains in total sales. This is precisely what the past five years of the inventory-to-sales ratio captures.

Industrial tenants want the best locations. Although each tenant understands from where its goods are coming and where its customers operate in the B2B model (making every model unique), the B2C model is much easier to explain. The secret sauce of the 122 Amazon Prime Now locations is income within a 30-minute drive time. Amazon focuses on households with incomes of more than $100,000 that can be reached very quickly (Exhibit 5). With its current network, Amazon can reach 61% of all US households that make more than $100,000 within 30 minutes. In fact, income is more important than age, as the penetration peaks for high-income households for every age cohort, including 15- to 24-year-olds.

Once a location is determined, the selection of buildings for last-mile delivery is much simpler than for large fulfillment centers. The primary inventory differences between large fulfillment centers and last-mile buildings are these:

- **The number of SKUs held:** Last-mile buildings hold much less variety than fulfillment centers.
- **The length of time goods are stored:** The rack life in last-mile buildings is much shorter than in fulfillment centers.
- **The technology deployed:** Last-mile buildings are not dependent on robotics and sophisticated retrieval systems.

The implications of these differences are significant. Last-mile buildings are smaller and often multitenanted. The smallest space Amazon Prime occupies is 11,900 square feet, with the average being around 35,000 square feet. The lack of sophisticated technology makes 24-foot clear height a Class A characteristic. Because the goods are either in small packages or are to be picked up, trailer parking and storage are not necessary. The buildings do need to have sufficient turning radius to accommodate inbound trucks, which can be 54-foot semitrailers, but the outbound traffic is more likely to be box trucks and vans. In an ideal world, last-mile buildings are filled overnight and are empty by the end of the day.

Exhibit 5: Percentage of Households from Amazon Prime Locations Based on Income and Distance

Household Income	0–10 Min	0–20 Min	0–30 Min
20K–25K	4.1%	19.5%	40.1%
25K–30K	4.8%	22.2%	45.8%
30K–35K	4.0%	19.2%	39.8%
35K–40K	4.7%	22.2%	45.9%
40K–45K	4.1%	20.0%	41.6%
45K–50K	4.9%	23.4%	48.8%
50K–60K	2.2%	10.7%	22.2%
60K–75K	3.3%	16.1%	33.7%
75K–100K	3.4%	16.5%	34.6%
100K–125K	6.3%	30.7%	65.3%
125K–150K	7.6%	37.2%	79.9%
150K–200K	4.5%	22.0%	47.7%
Above 200K	5.0%	24.2%	52.5%

Source: CoStar Portfolio Strategy
Note: Data are as of 4Q2017.

Given the infill location requirement, the average age of last-mile assets is much older, and functional obsolescence is much slower. Tenants do look for interior upgrades, such as sprinkler and HVAC systems, as well as operational savings via characteristics such as LED lighting. Still, tens of thousands of light industrial buildings across the US can fulfill the last-mile function. And therein lies the challenge.

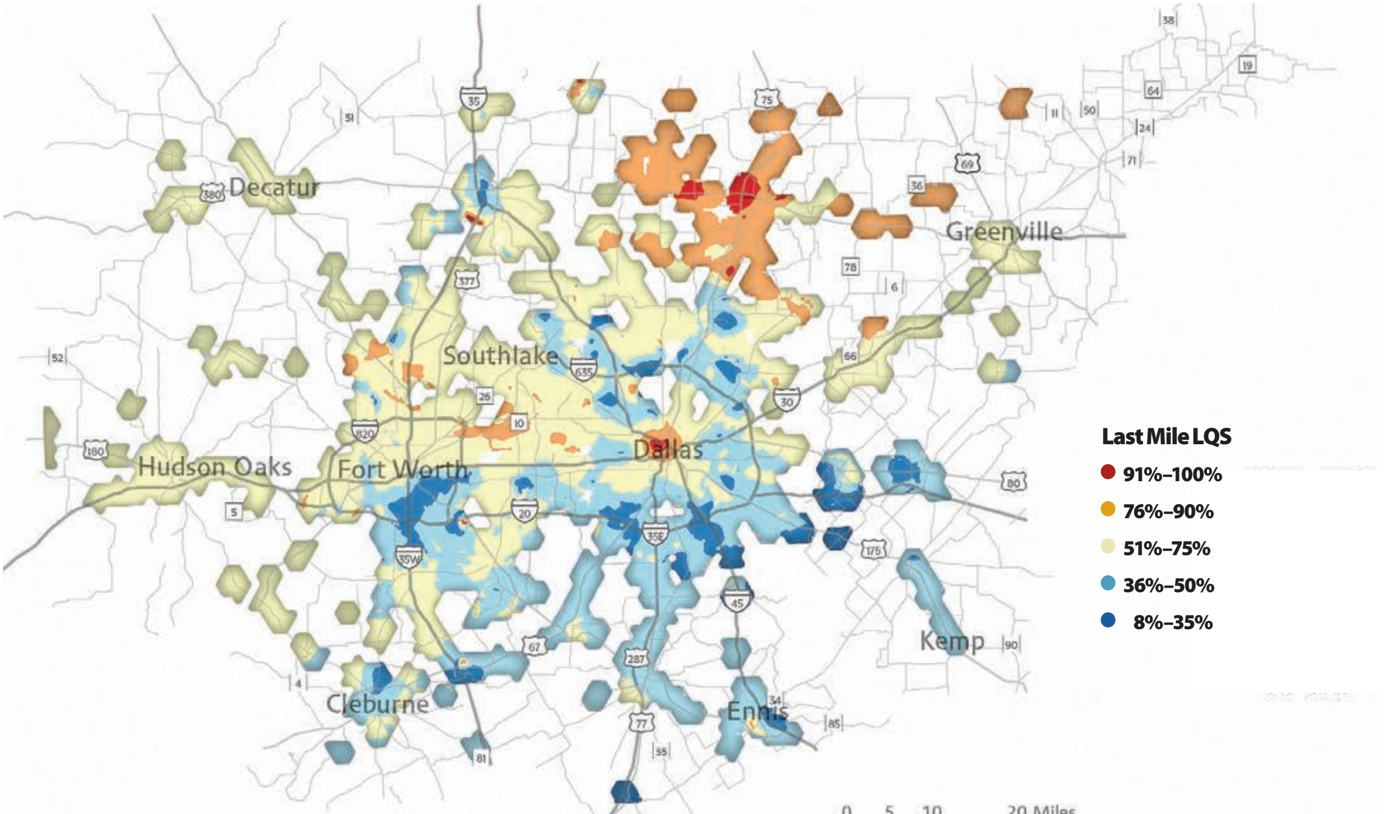
Last-Mile Investors Must Be Discerning

Investing in last-mile space is tricky. On a one-off basis, such investing is very labor intensive. A 100,000-square-foot building, even at $100 per square foot, is just $10 million. Most institutional investors are not set up to write such small checks. This leaves investors chasing the ever-increasing number of portfolios that have been hitting the market over the past few years. Portfolio buys solve the capital deployment problem, but they come at a premium. Over the past few years, portfolio premiums have ranged between 10% and 15%; the portfolio premium was as high as 25% earlier in the cycle.

The real challenge is to be able to identify which buildings are well suited and which are not. Today, nearly every package of small, infill buildings is branded as last mile. Rundown buildings are being sold as last mile just because they are small and infill. Although it is true that many of them are suitable for the last-touch function—it is important to reiterate that the tenant's functional requirements are quite limited—it is also true that many are just rundown, old buildings. And most tenants prefer super-functional over functionally challenged buildings and new over old facilities if the alternative exists.

To address location preference, it is possible to score every land parcel across the country according to its ability to serve the local population. CoStar Portfolio Strategy's Last Mile Location Quotient Score (LQS) combines access to a building (distance to the on-ramp) and access to 500,000 people into

Exhibit 6: Last-Mile Location Quotient Score for the Dallas Market



Source: CoStar Portfolio Strategy
Note: Data are as of 4Q2017

a nationwide score. A look at Dallas, for example, clearly shows that the northern area is much better suited for last mile than the south (Exhibit 6).

Building quality can be addressed through CoStar Portfolio Strategy's Building Quality Score (BQS). This analysis compares a building to its market peers in variables such as clear height, site coverage, and loading and produces an aggregate percentile rating, making it very easy to tell how competitive a building is relative to other buildings around it. The approach is extremely well suited for tenants that don't have very restrictive requirements.

As vacancy rates for the light industrial market hover in low single digits across the country, a direct last-mile investment strategy is not for novice industrial investors. Even if tenants are not extremely discerning when it comes to building characteristics, investors must be. Only buildings with high LQS and BQS can legitimately be called last mile. And just because they score well does not mean they will ever become last mile, especially on the B2C side.

Focusing on a local economy and a property segment that exhibits more stability and long-term rent growth than the large fulfillment assets is good portfolio management. Fortunately, several funds targeting this segment have been set up, and these can offer a targeted alternative entry point into this new, yet very old, segment of the industrial market. ■

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