# Growth in Last-Mile Distribution Facilities

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## The Last Mile of the Distribution Supply Chain

Industrial distribution facilities can generally be grouped into the following three categories:

1) Large, regional distribution facilities that have the ability to serve several markets and are often either located in coastal submarkets that have nearby access to ports or in more central submarkets that have close proximity to transportation infrastructure such as highways or railroads.

2) Mid-sized, market-centric distribution facilities that are typically located in outlying submarkets of a market and often have the ability to serve one to three densely populated markets.

3) Last-mile distribution facilities that are typically located in inner, urban submarkets and are designed to reach large populations within hours.

While the first two distribution facility categories described above generally handle the initial and middle stages of the overall distribution process, the last-mile facilities facilitate the final step of the distribution process (i.e. the point at which the package is finally delivered at the consumer's door). Due to the combination of continued growth in e-commerce sales and a general increase in consumer demand for shorter delivery times, e-commerce and logistics companies have become highly focused on building out this "last mile" of the supply chain.

In terms of specifications, last mile facilities tend to be smaller in size relative to regional and mid-sized distribution facilities as a result of land constraints in urban submarkets. Also, last mile facilities often have more limited building characteristics relative to larger, regional distribution facilities (i.e. a lower number of dock doors, lower clear height, etc.) as location is more important than functionality for last mile facilities. In terms of location, last mile facilities are typically located in the densest areas of markets with strong demographic trends. More specifically, last-mile facilities have historically been located in the top 25 U.S. markets (markets with an aggregate income of more than $100 billion)[1]. Given the close proximity to the consumer, delivery times from these properties are typically measured in hours, and efficiency is measured by the time between the facility and consumer doorsteps.

*1) Prologis Research. "The Modern Supply Chain: A New Model for Defining Logistics Real Estate." September 2019.*


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# Demand Drivers

## Growth in E-Commerce Sales

As shown in Diagram 2, total U.S. e-commerce sales in 2019 are estimated to have reached approximately $604.8 billion, representing an 11.1% increase over 2018. Furthermore, total U.S. e-commerce Sales are expected to rise significantly from 2020-2022 with a projected average annual growth rate of approximately 13.7%. As a result, demand for logistics space that provide tenants with business to consumer (B2C) shipping options is expected to follow a similar growth trajectory.

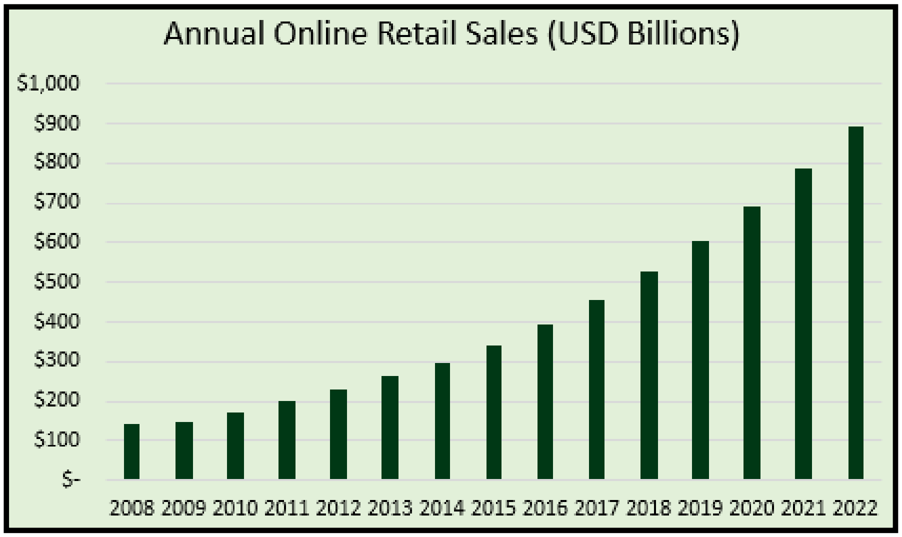


*Diagram 2: CBRE - eMarketer*

## Consumer Preferences for Faster Delivery Times

According to Dropoff's annual consumer survey, which aims to uncover shoppers' motivations and expectations surrounding delivery, 99% of U.S. consumers say "fast delivery" is essential when making online purchases. Additionally, the survey revealed that 74% of consumers are more likely to purchase again from a company after receiving same-day delivery of an item.[(1)] Given efficient delivery options play a significant role in consumers' purchase decisions, corporations are investing capital to modernize their supply chains and incorporate last mile facilities that are located closer to the end customer.

## Impact on Real Estate

While tenant demand for larger regional distribution facilities continues to grow, the increase in consumers' preference for faster delivery times has increased tenants' focus on last-mile distribution facilities as well. According to CBRE, these properties, which are typically smaller, infill facilities, have experienced rapid rent growth due to the combination of user demand and a lack of new development. This supply/demand imbalance is most prevalent in the West region of the U.S., where rent for last mile facilities has grown by more than 10% annually in the past two years. Similar rent growth is expected in other U.S. regions as tenants continue to expand their exposure to last mile facilities in growing primary and secondary markets. [(2)]

1) *Rachel Carollo, . "Consumers Want Faster Delivery and They're Willing to Pay for it." March 2018.*
2) *CBRE. "What Is The Last Mile? The Definitive Guide to Omnichannel Real Estate" Q1 2018.*

## Markets Seeing the Most Profound Impact

When evaluating the location of last mile facilities, corporations are highly focused on the level of consumer income that can be reached by the facility. Furthermore, companies typically analyze aggregate income in the surrounding area. Aggregate income measures the total amount of income generated by the residents of a given city. Densely populated areas are at the top of the list when evaluating aggregate income with New York City being the largest. For example, nearly $600 billion of income can be reached within one hour of the center of Manhattan, while $180 billion is within an hour's drive of the center of Atlanta.(1)

However, companies are not only focused on occupying last mile facilities in the largest markets. Corporations have increased their focus on primary and secondary markets given these markets often have lower cost of labor and more business friendly regulatory environments relative to larger, gateway markets such as New York or Los Angeles. As these primary and secondary markets likely continue to experience positive demographic trends, e-commerce retailers and distribution companies are expected to expand their supply chains to incorporate last mile facilities located in close proximity to primary and secondary markets that are poised for growth in aggregate income. For examples of non-gateway markets that may be well positioned to capitalize on this trend, please see the markets listed in the bottom half of the table below.

| Market | Income Within 1-hour of City Center ($B) | Current Annual Population Growth | Median Household Income | Median Household Income Growth |
|---|---|---|---|---|
| Greater NYC | $557.8 | 0.20% | $74,552 | 3.08% |
| SoCal | $458.2 | 1.33% | $67,891 | 3.02% |
| Greater SF Bay Area | $324.7 | 0.53% | $124,775 | 5.48% |
| Baltimore- DC | $297.1 | 1.21% | $105,298 | 2.78% |
| Chicago | $296.1 | 0.04% | $73,032 | 2.91% |
| Dallas | $226.2 | 1.73% | $72,590 | 4.11% |
| Houston | $213.1 | 1.75% | $68,134 | 3.82% |
| Atlanta | $182.6 | 1.45% | $71,902 | 3.13% |
| South Florida | $142.8 | 0.79% | $53,570 | 2.35% |
| Phoenix | $133.3 | 2.18% | $66,908 | 3.46% |
| Denver | $129.3 | 1.21% | $82,809 | 3.80% |
| Portland | $91.1 | 0.95% | $78,904 | 3.94% |
| Austin-San Antonio | $89.2 | 1.66% | $79,880 | 3.48% |
| Central Florida | $87.9 | 2.38% | $61,218 | 3.97% |
| Charlotte | $83.9 | 1.86% | $64,365 | 3.39% |
| Columbus | $76.9 | 1.07% | $66,197 | 3.10% |
| Cincinnati | $74.7 | 0.32% | $65,411 | 3.89% |
| Indianapolis | $68.8 | 0.76% | $62,641 | 2.42% |
| Nashville | $64.4 | 1.57% | $68,507 | 3.56% |
| Las Vegas | $57.9 | 1.75% | $58,509 | 2.34% |

*Diagram 3: Prologis, CoStar*

## Impact on the Commercial Real Estate Industry

Given the lack of undeveloped land in urban infill areas, there are significant supply constraints for newly constructed last-mile facilities. In order to locate in prime areas, tenants often have to settle for older buildings with lower clear heights relative to regional distribution facilities. While traditional distribution facilities can operate efficiently outside major population centers, last-mile facilities rely on existing, infill locations in city centers to reduce delivery times as much as possible.

1) Prologis Research. "The Modern Supply Chain: A New Model for Defining Logistics Real Estate." September 2019.

## Impact on Real Estate (continued)

Furthermore, due to the lack of undeveloped land in urban areas, ideal sites for last mile facilities are highly sought after and tenants are willing to pay significant rent premiums relative to facilities located in more rural locations. As a result, while last mile facilities do not always feature all of the traditional industrial real estate characteristics incorporated within regional distribution facilities (i.e. 30'+ clear height, high number of doors, etc.), their coveted locations may offer protection against residual real estate risk as an increasing number of tenants are expected to focus on occupying parcels that are optimally located to service consumer demand for shorter delivery timeframes.

Additionally, as a method to partially alleviate supply constraints for last mile facilities due to a limited amount of available land in urban areas, developers may pursue creative alternatives to traditional industrial real estate development. For example, given developers are often forced to settle for smaller sites when selecting urban locations, developers have started to pursue developments of multi-story industrial warehouses. These multi-story last-mile facilities serve as a creative solution to maximize square footage on sites with constrained footprints.

## Companies Reshaping their Last-Mile Supply Chain

Top executives at e-commerce and delivery companies, including Amazon and FedEx have indicated that they will continue to invest significant capital in last-mile initiatives. Due to the rising competition in their respective industries, these companies have come up with creative alternatives to the last-mile of the supply chain as described below.

## Amazon

Amazon is rolling out its last-mile distribution program to better position its e-commerce business to meet the growing desire from consumers for shorter delivery times. Amazon announced in April 2019 that it would roll out one-day shipping for all of its Prime members, replacing the traditional two-day core Amazon Prime membership benefit. On the company's Q3 2019 earnings call, Brian Olsavsky, the Chief Financial Officer of Amazon, claimed the company expected to spend upwards of $1.5 billion in 2019 on one-day shipping and its last-mile network.(1)

While shipping costs have increased as a part of Amazon's roll out of its last mile facilities (shipping costs reached nearly $12.9 billion in the quarter, up 43% versus the previous period), analysts believe Amazon's bet on one-day deliveries has paid off significantly as evidenced by the e-commerce firm reporting a $3.3 billion fourth-quarter profit. Amazon is expected to continue to build out its exposure to last mile facilities across the country as the company looks to become the leader in one-day delivery. (2)

1) *Seeking Alpha. "Amazon.com, Inc. (AMZN) on Q3 2019 Results—Earnings Call Transcript." October 2019.*
2) *Nasdaq. "Amazon.com, Inc (AMZN) Q4 2019 Earnings Call Transcript." January 2020*

## FedEx

On October 15, 2019, FedEx announced the expansion of FedEx Freight Direct to more than 80 percent of the contiguous U.S. population following a pilot in select markets in earlier years of 2019. The new e-commerce solution offers delivery of bulky items such as furniture, TVs, and exercise equipment by FedEx Freight team members into homes and businesses. FedEx Freight Direct provides customers with morning and evening two-hour delivery windows, and regular notifications via text or email for the day of scheduling, day of delivery, and 30 minutes before arrival. (1)

In addition to FedEx Freight Direct, on May 30, 2019, FedEx announced a transformation that builds upon the company's largest transportation network to further serve the fast-growing e-commerce market. Since January 2020, FedEx Ground now delivers seven days per week year-round for the majority of the U.S. population. Before the announcement, FedEx only offered the service during the peak holiday season. These changes implemented by FedEx highlight the investment being made by corporations to decrease delivery times and increase their competitive advantage in the increasingly competitive logistics industry.(2)

## Conclusion

The rise in e-commerce sales has positively affected supply and demand fundamentals for the traditional industrial distribution asset class over the last several years as evidenced by years of rental growth and positive net absorption in the sector. In addition to this e-commerce tailwind positively affecting nearly all industrial distribution assets, changing consumer preferences for faster delivery times is particularly fueling significant demand growth for last-mile facilities. Furthermore, logistics companies and e-commerce companies have shown an increase in investment in last mile facilities over the last couple years. As a result, in order to expedite shipping times, corporations are expected to continue to drive increased demand for urban last mile facilities over the next several years.

In addition to an attractive demand outlook, supply for last mile facilities has been constrained historically given last miles facilities need to be located in urban locations with attractive demographic trends surrounding the site, and the number of sites that meet this criteria is limited. As a result, developers have not been able to fully capitalize on the growth in tenant demand for last mile facilities throughout the last several years. Going forward, this supply and demand imbalance is expected to continue as the amount of available sites that meet the needs of tenants will remain relatively limited, and tenants will compete intensely for the most favorably located last mile facilities. As a result, well located last mile facilities in growing primary and secondary markets may be poised for significant rent growth and asset appreciation over a mid-term horizon.

1) *FedEx "FedEx Announces Expansion of FedEx Freight Direct" October 2019*

2) *FedEx "FedEx Announces Seven-Day Residential Delivery Year-round" May 2019*

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