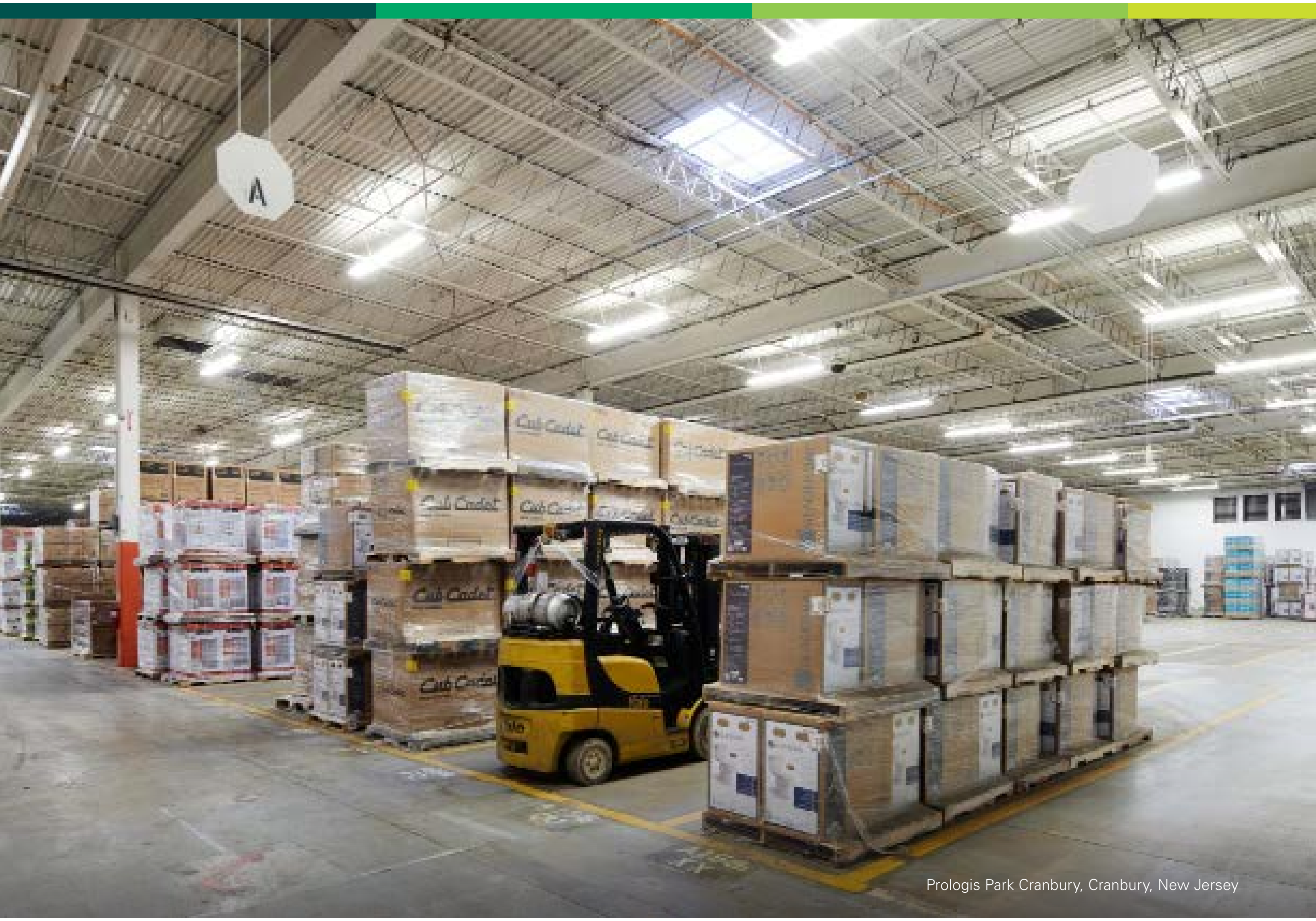
PROLOGIS®
Research

COVID-19 SPECIAL REPORT | Sixth Edition | 17 June 2020

Accelerated retail evolution could bolster demand for well-located logistics space



Prologis Park Cranbury, Cranbury, New Jersey

The pandemic has accelerated changes in the retail environment, bringing significant implications for logistics real estate. In this installment, we revisit the intensity of use ratio between e-commerce and brick-and-mortar sales, examine supply chain patterns of highly impacted retailers, and provide a mid-quarter update on U.S. customer activity and utilization. Findings in these three areas add upside to logistics real estate momentum during the Recovery phase of the pandemic.

Introduction

- **The pandemic has accelerated the retail evolution.** U.S. e-commerce penetration jumped to more than 25% in April 2020 from 15% at year-end 2019,[1] pulling forward several years of adoption. Prologis Research estimates penetration of nearly 20% for 2020 as a whole vs. a pre-pandemic forecast of 16.9%.
- **E-commerce requires more than 3x the logistics space of brick-and-mortar sales**, according to 2019 data. The persistently high ratio supports the need for additional e-fulfilment space should e-commerce penetration keep gains made during the Stay-at-Home Economy phase.
- **Retailers that have recently announced bankruptcies[2] represent a very small portion of logistics demand, and their distribution centers are located farther from population centers.** These retailers together total only 20 bps of occupancy in the U.S. logistics real estate market.
- **Overall activity is holding up as the Prologis IBI™ Activity index jumped +16 pts off April bottom.** Following many other leading indicators of demand, the U.S. IBI™ Activity Index reached 45 in the May 21-26 survey, up from a record low of 29 in April.

E-commerce sales require over three times the logistics space of brick-and-mortar

Growth in e-fulfilment supply chains has been keeping pace with rapid online sales growth. Our study of 30 top U.S. retailers revealed 9% growth in logistics footprints during 2019, compared with 6-7% annual growth during the prior five years, as companies continued to adapt to growing e-commerce volumes.[3] Online retail sales continued to require more than 3x the logistics space of brick-and-mortar sales through 2019. Online order fulfilment requires more logistics space because 100% of inventory is stored within a warehouse (vs. store shelves), which allows for greater product variety, deeper inventory levels, space-intensive parcel shipping operations, and additional value-add activities such as processing returns.

Online sales growth will require additional investments in e-fulfillment capabilities. The intensity-of-use ratio between e-commerce and bricks-and-mortar has remained between 3.0 and 3.5 for the past five years, counter to broadly held expectations for a decline as e-fulfilment operations became more productive. The stability of this ratio suggests that supply chains were not yet optimized for the future balance between online/in-store sales channels prior to the pandemic. Then, e-commerce penetration rates increased faster in the first four months of 2020 than in the prior decade, fueled by the Stay-at-Home economy. Looking to the post-pandemic era, the push for resilient supply chains will likely lift the intensity of use for both e-commerce and brick-and-mortar customers, while persistently higher e-commerce space needs support our expectations for demand tailwinds, as covered in our last piece on Covid-19 and logistics real estate.

Brick-and-mortar disruption should have little impact on logistics demand and supply

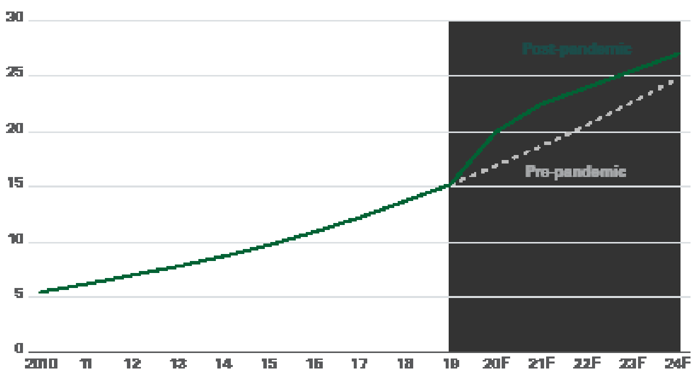
Major retailers who have announced bankruptcies in 2020[4] account for less than 20 bps of total U.S. logistics real estate market occupancy. While bankruptcy does not necessarily imply shutting down operations, even should all occupied space come back, it would have

E-COMMERCE REQUIRES ±3X THE DISTRIBUTION SPACE OF TRADITIONAL RETAIL

	SALES US$, B	FACILITIES SF, M	PRODUCTIVITY US$/SF	EFFICIENCY SF/$1B
Online	$234B	265	$886	**1,174 KSF**
				±3X
Brick and Mortar	$1,343B	449	$2,992	**334 KSF**

Source: Internet Retailer, company filings, Prologis Research
Note: Based on 2019 company 10-K reports

E-COMMERCE SALES PENETRATION, UNITED STATES
E-Commerce as a % of Total Retail Sales



Source: U.S. Census Bureau, Euromonitor, Prologis Research forecast a very limited impact on available logistics supply. A trait of logistics real estate is the wide range of industries who occupy space, including retailers, wholesalers, manufacturers, and service providers. Retailers account for around 40% of logistics real estate demand. Within this category, brick-and-mortar based retail is about 60-70% of demand and 30-40% is driven by e-commerce. In addition to generating incremental demand within the retail segment, the shift to e-commerce is increasing activity for B2B segments of logistics demand, including parcel shipping players and paper/packaging providers.

These retailers occupy logistics locations with half the average income reach of the Prologis portfolio.[5] The Prologis location strategy is focused on access to consumption. A study reveals that the average Prologis U.S. property captures twice the income within 10 miles as compared to the logistics properties occupied by retailers that recently announced bankruptcies, which tend to be in less-populated locations, not well-suited for rapid replenishment or direct-to-consumer delivery. Many had a centralized supply chain network, made up of solely medium-to-large facilities; the average size was 600,000 square feet. This contrasts with recent patterns of expanding retailers who are transitioning to decentralized networks close to consumption centers, leasing City Distribution and Last Touch® properties.

Activity and utilization improve sharply in May

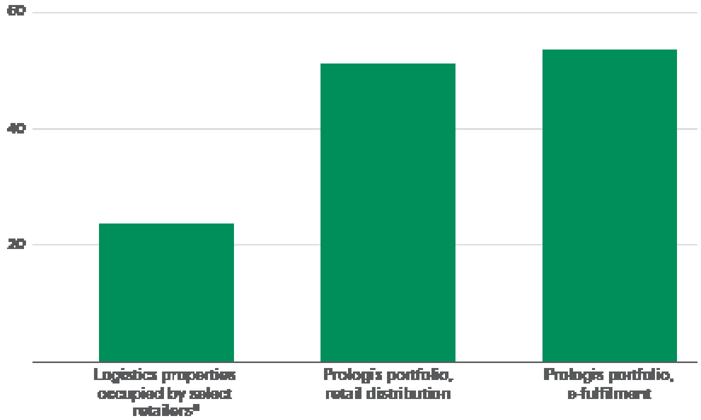
Prologis' Industrial Business Indicator (IBI™) activity index rebounded in May to 45.1 from the historic-low point of 25.8 in April. While this still represents net contraction in activity within warehouses, consistent with a shallow recession (readings above 50 signify growth), the sharp improvement increases the likelihood that any slowdown in demand for logistics real estate will be short-lived. Reflecting continued demand for warehouse space broadly, lease proposals were up about 5.4% year-over-year in April and May within the Prologis portfolio, adjusted for size.

Space utilization increased to 84.0% from 83.1% in April, up 90 bps but still about 150 bps below its pre-COVID-19 level. The combination of improving activity for a portion of customers along with building inventories for customers with closed storefronts is likely putting upward pressure on this number even as activity falls on net. Supporting this trend, retail customers reported the highest utilization rate, with 84.6% in May.

Most customers have adapted operations for COVID-19. Approximately 2/3 of respondents have operational safety measures in place, including staggered shifts, and roughly 5% of respondents reported suspended operations. These two groups had IBI™ activity readings below 40. However, the remaining 28% of respondents that reported business as usual had an average activity reading of nearly 60. Among major customer industries, those in transportation reported the highest level of activity, while services-driven respondents continued to have the lowest activity reading in May. With most operations functioning at some capacity, utilization high and activity improving, rent collection trends—at more than 95% of usual—remained higher in May for logistics properties relative to all other property types.[6]

AVERAGE INCOME WITHIN A 10-MILE RADIUS

$, billions

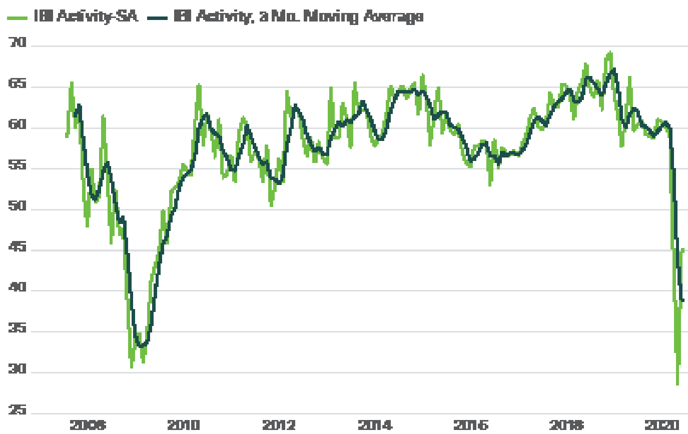


*Major retailers announcing bankruptcy filings in 2020: JC Penney, J. Crew, Stage Stores, Neiman Marcus, Tuesday Morning, Pier 1 Imports

Source: SEC filings, U.S. Census, Prologis Research

IBI ACTIVITY INDEX

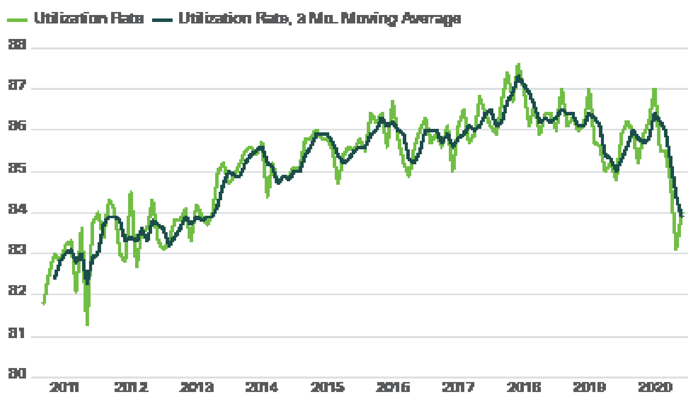
Index, 50 = neutral, seasonally adjusted



Source: Prologis Research

IBI UTILIZATION RATE

%



Source: Prologis Research

Conclusion

The window for customers to act on easing logistics real estate market conditions could be short. A recovering IBI points to the potential for a quick return to growth for logistics users, while e-commerce is likely to remain crucial to revenue generation even as societies re-open. While creative destruction on the retailing front may continue, under-exposure to logistics real estate—particularly in the most in-demand locations—on the part of retailers losing market share means that turnover will offer little relief. Instead, much of the retail industry may be transitioning to include more space-intensive e-fulfilment operations.

Endnotes

1. Adobe Analytics, Euromonitor, U.S. Census
2. JC Penney, J. Crew, Stage Stores, Neiman Marcus, Tuesday Morning, Pier 1 Imports
3. SEC filings, Prologis Research, CBRE, JLL, Cushman & Wakefield, Colliers, CBRE-EA
4. JC Penney, J. Crew, Stage Stores, Neiman Marcus, Tuesday Morning, Pier 1 Imports
5. Income reach within 5 miles for companies in endnote 2 as compared to average of Prologis' U.S. portfolio
6. https://www.reit.com/data-research/research/nareit-research/reit-industry-may-2020-rent-collections

Forward-Looking Statements

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About Prologis Research

Prologis' Research department studies fundamental and investment trends and Prologis' customers' needs to assist in identifying opportunities and avoiding risk across four continents. The team contributes to investment decisions and long-term strategic initiatives, in addition to publishing white papers and other research reports. Prologis publishes research on the market dynamics impacting Prologis' customers' businesses, including global supply chain issues and developments in the logistics and real estate industries. Prologis' dedicated research team works collaboratively with all company departments to help guide Prologis' market entry, expansion, acquisition and development strategies.

About Prologis

Prologis, Inc., is the global leader in logistics real estate with a focus on high-barrier, high-growth markets. As of March 31, 2020, the company owned or had investments in, on a wholly owned basis or through co-investment ventures, properties and development projects expected to total approximately 965 million square feet (90 million square meters) in 19 countries.

Prologis leases modern logistics facilities to a diverse base of approximately 5,500 customers across two major categories: business-to-business and retail/online fulfillment.

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