Industrial Property Trends

A look at what's happening in port real estate domestically and internationally

AAPA Capital Projects Seminar

Norfolk, VA

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AGENDA

- SUPPLY CHAIN DYNAMICS
- ECONOMIC CYCLE & U.S. LOGISTCS MARKET
- INDUSTRIAL REAL ESTATE INVESTOR TRENDS
- DEMAND DRIVERS
- PORT MARKET RANKINGS

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SUPPLY CHAIN DYNAMICS

POPULATION, CONSUMPTION, & ECONOMY

World Cities – Population 1M+

>20M - 40M   >15M - 20M   >10M - 15M   >5M - 10M   >1M - 5M

Source: CBRE Research, United Nations, ESRI, 2015.

SUPPLY CHAIN

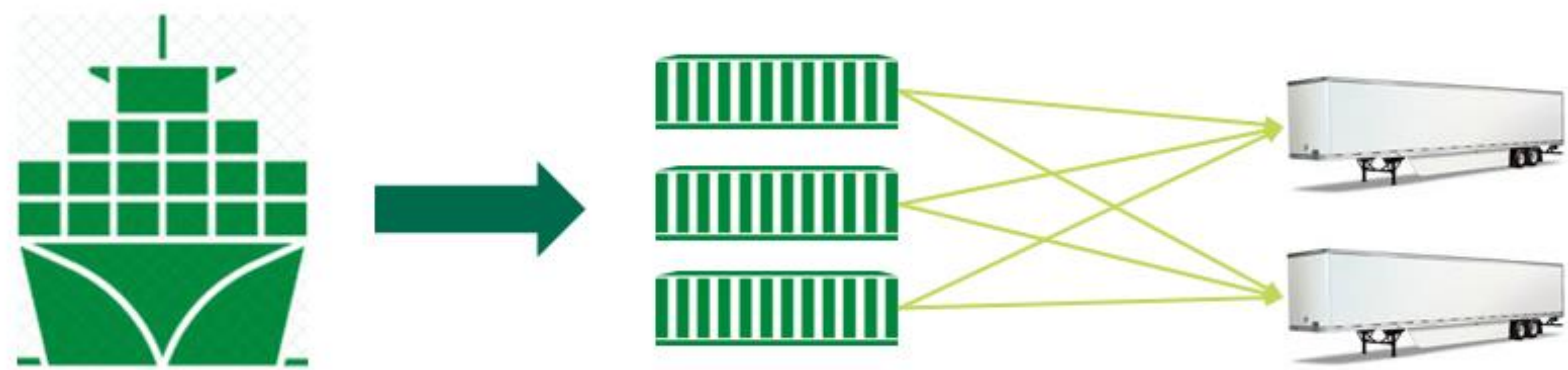
Shippers decide on how to import product largely based on four criteria:

SPEED

COST

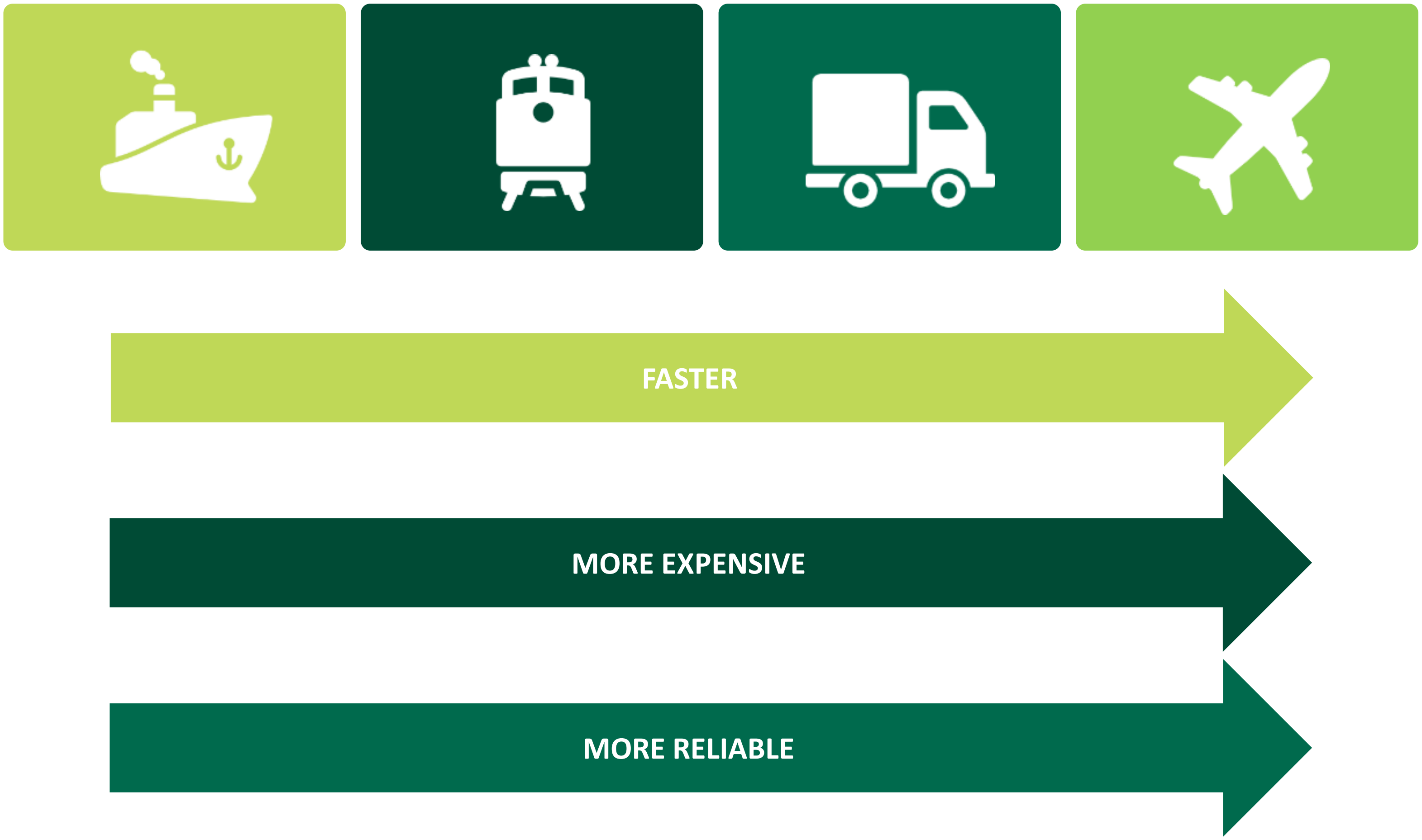
RELIABILITY

COMPLEXITY



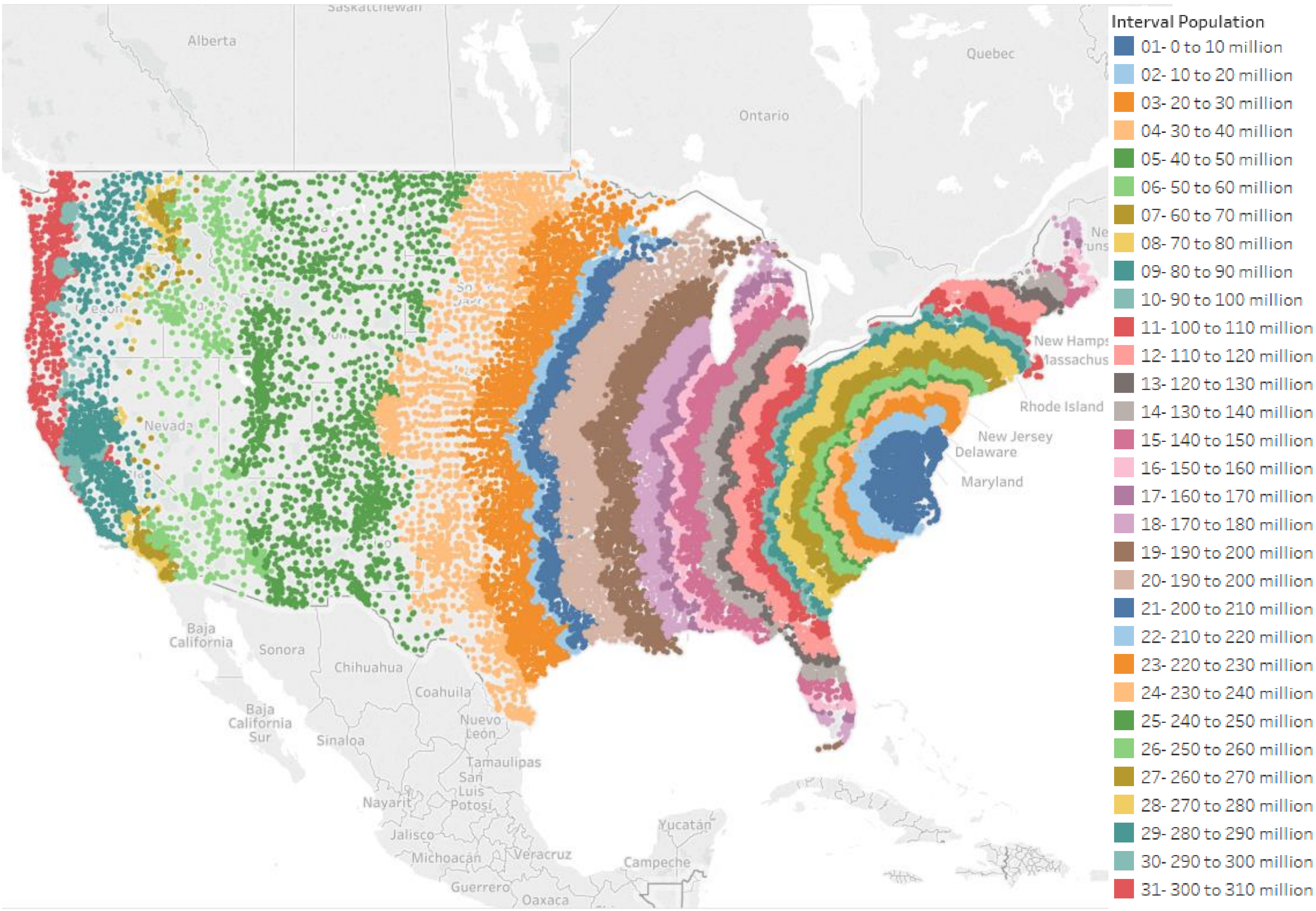
SUPPLY CHAIN ANALYSIS

MOVEMENT CHARACTERISTICS BY MODE



KEY SHIPPER QUESTION

Where shall I locate my facility to reach the most consumers with the lowest transportation costs?



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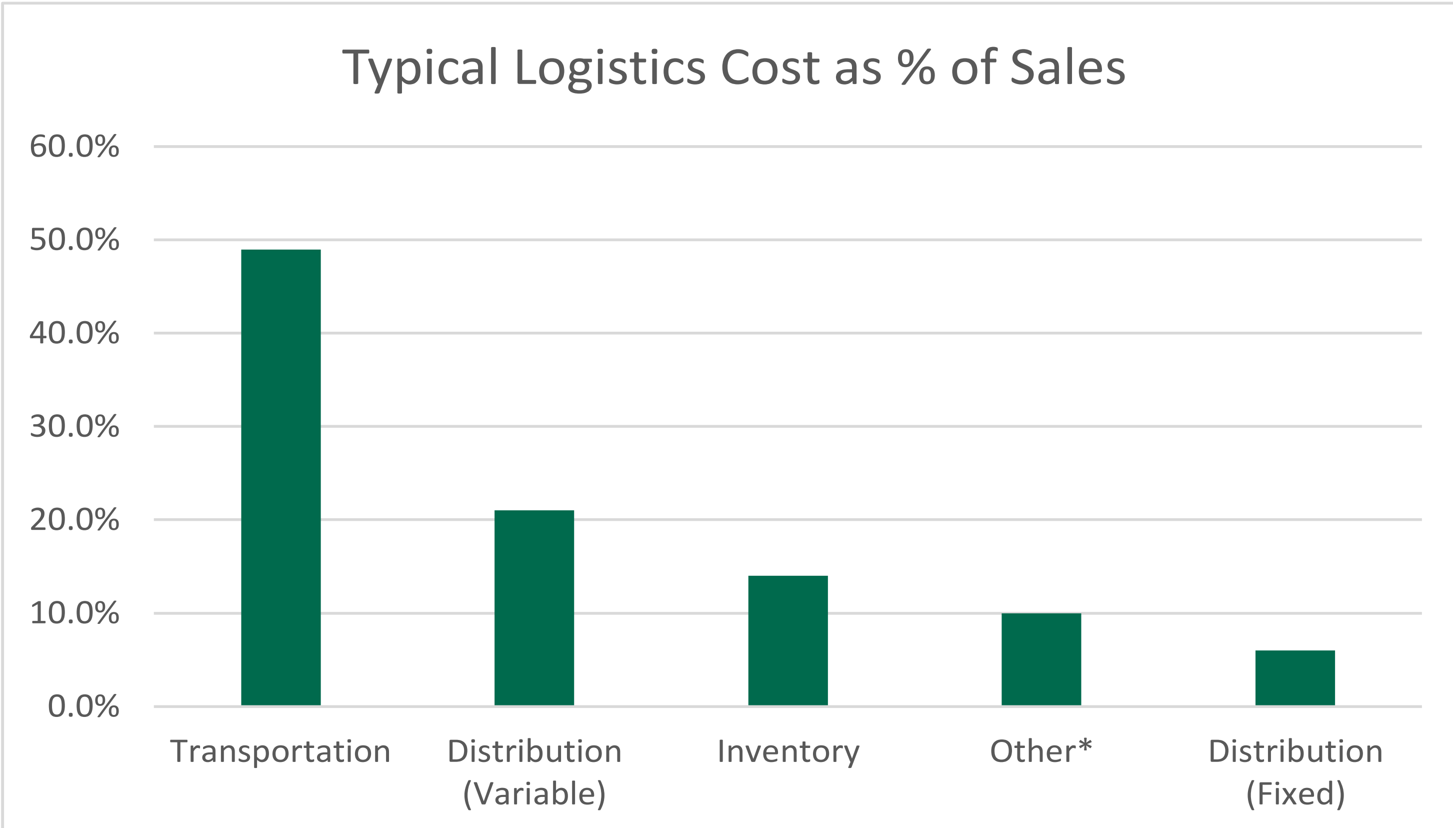
SUPPLY CHAIN ANALYSIS
LOGISTICS COST AS % OF SALE

From year to year, logistics costs as a percentage of sales vary and are mostly derived from distribution fixed / handling along with inbound and outbound transportation cost.



*Other includes reverse logistics, customer services, planning and administrative functions.

Source: CBRE analysis of *2017 CSCMP State of Logistics Report*

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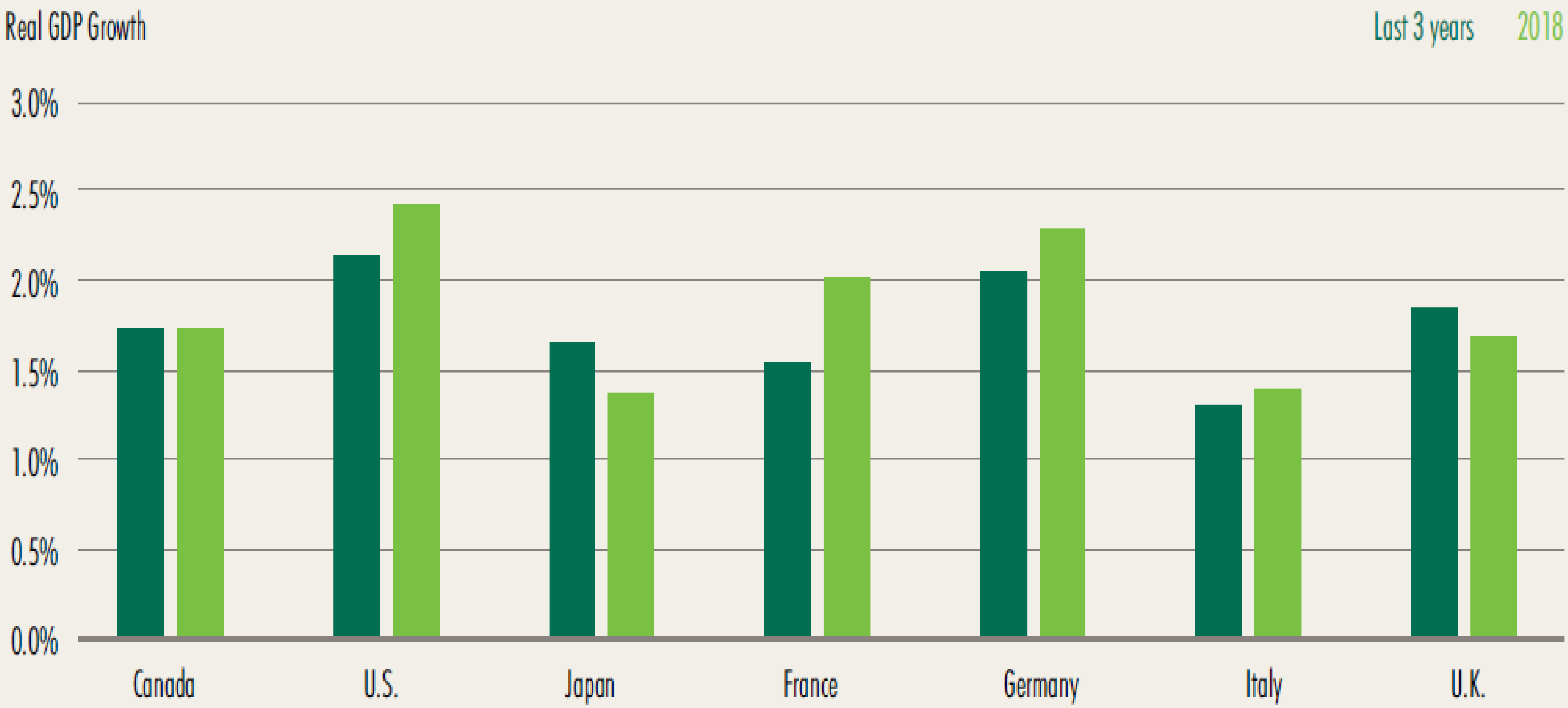
GROWTH BETTER IN 2018

FIGURE 1: GROWTH BETTER IN 2018



Year-over-year GDP growth comparison, measured from year-end.
Source: Various national statistics, forecast - CBRE Research, 2018.

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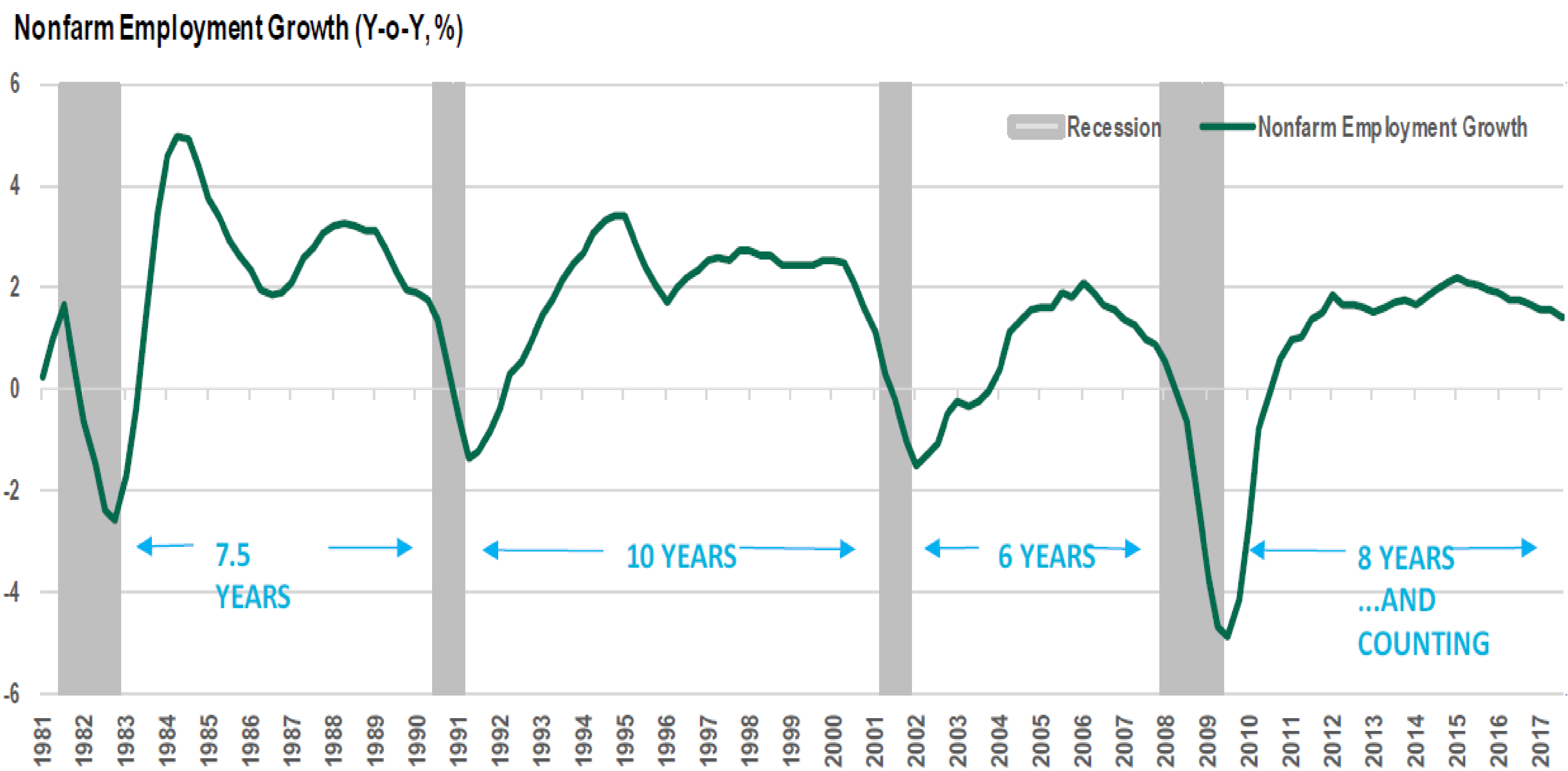
DOES U.S. ECONOMIC CYCLE EQUAL U.S. INDUSTRIAL CYCLE

NONFARM EMPLOYEMENT GROWTH (Y-o-Y, %)



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US INDUSTRIAL MARKET YTD 2018

	Q1 2018	Last 12 Months
VACANCY	4.5%	Flat
NET ASK RENT	$7.01	5.9%
COMPLETIONS	35 msf	203 msf
NET ABSORPTION	41 msf	223 msf

Source: CBRE Research, Q1 2018

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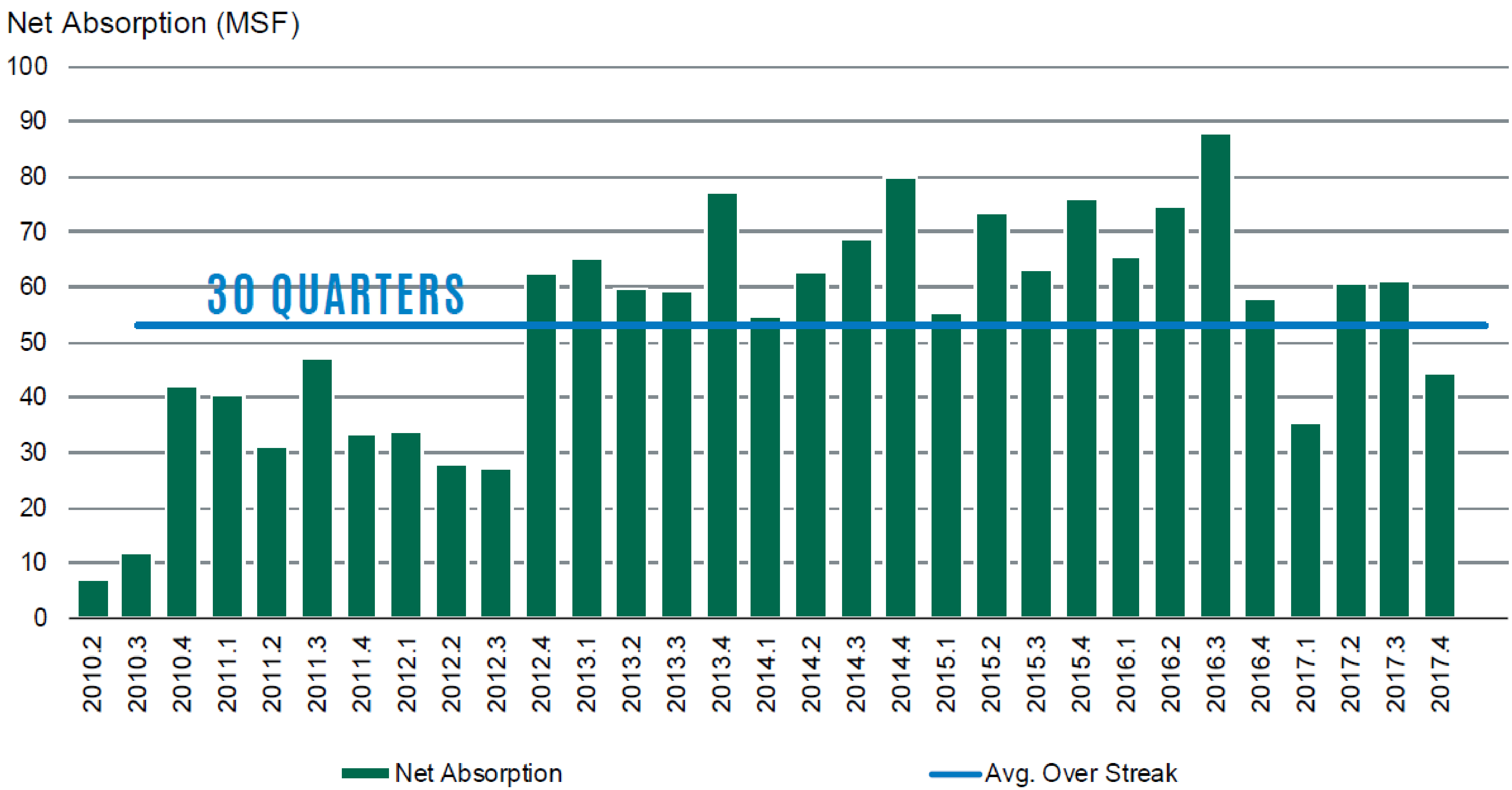
THE U.S. LOGISTICS MARKET

Where are we compared to the previous peak?

	2005 - 2007 (PREVIOUS CYCLE PEAK)	2014 - 2017 (CURRENT CYCLE)
Total Deliveries	566 MSF	680 MSF
Total Absorption	715 MSF	1,023 MSF
Average YOY Rent Growth	5.3%	5.0%
Availability Rate	7.2 - 7.6%	6.7 - 4.5%

POSITIVE NET ABSORPTION STREAK EXTENDS RECORD

LONGEST STREAK IN MORE THAN 20 YEARS



Source: CBRE EA, Q4 2017

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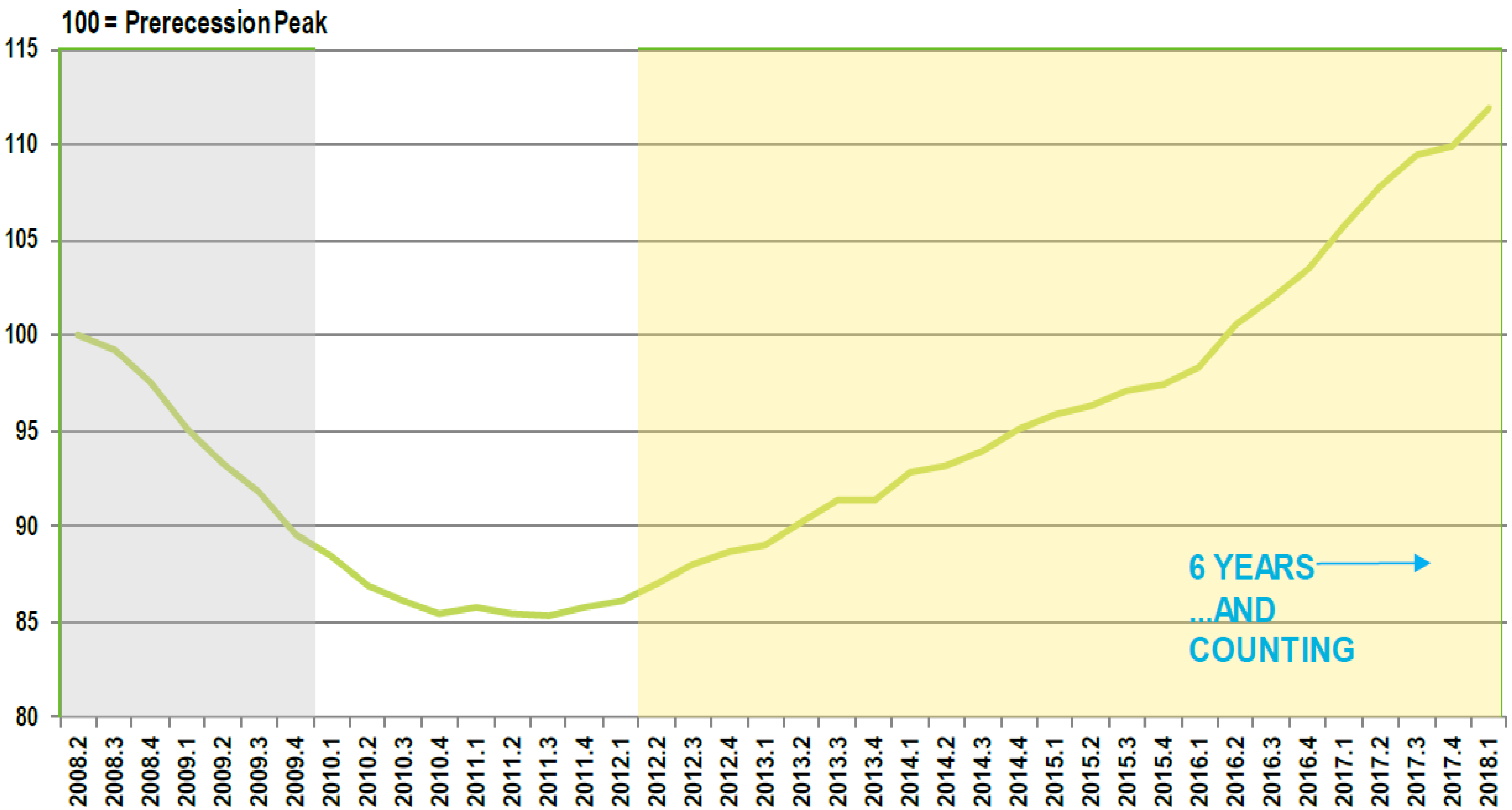
RENT GROWTH IN U.S. INDUSTRIAL REAL ESTATE



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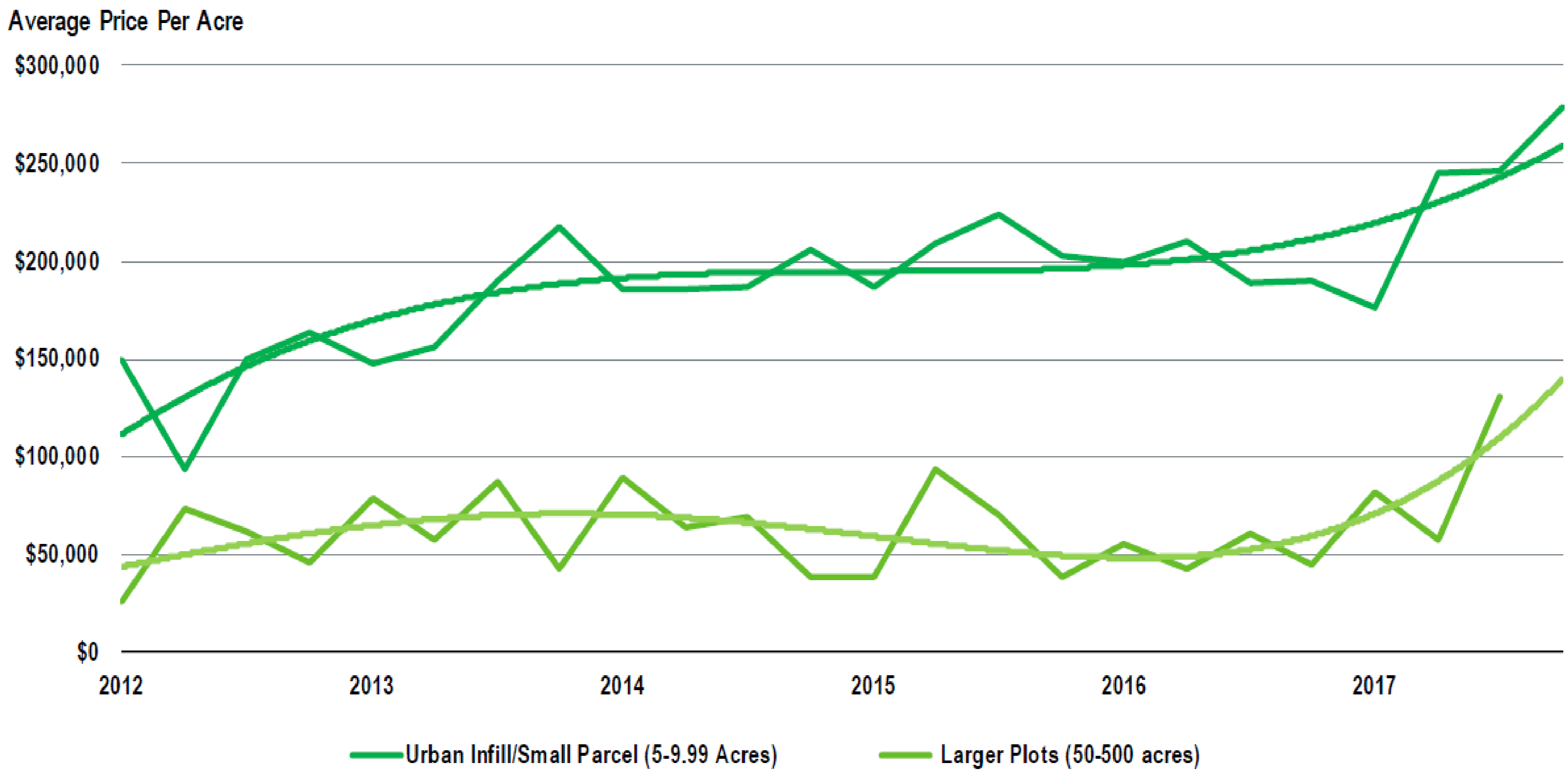
U.S. AVERAGE INDUSTRIAL LAND PRICE PER ACRE



Source: CBRE Research, Q4, 2017

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WHAT IF THE CYCLE HAS THREE MORE YEARS?

Based on the average “last three years” of every cycle since 1980…

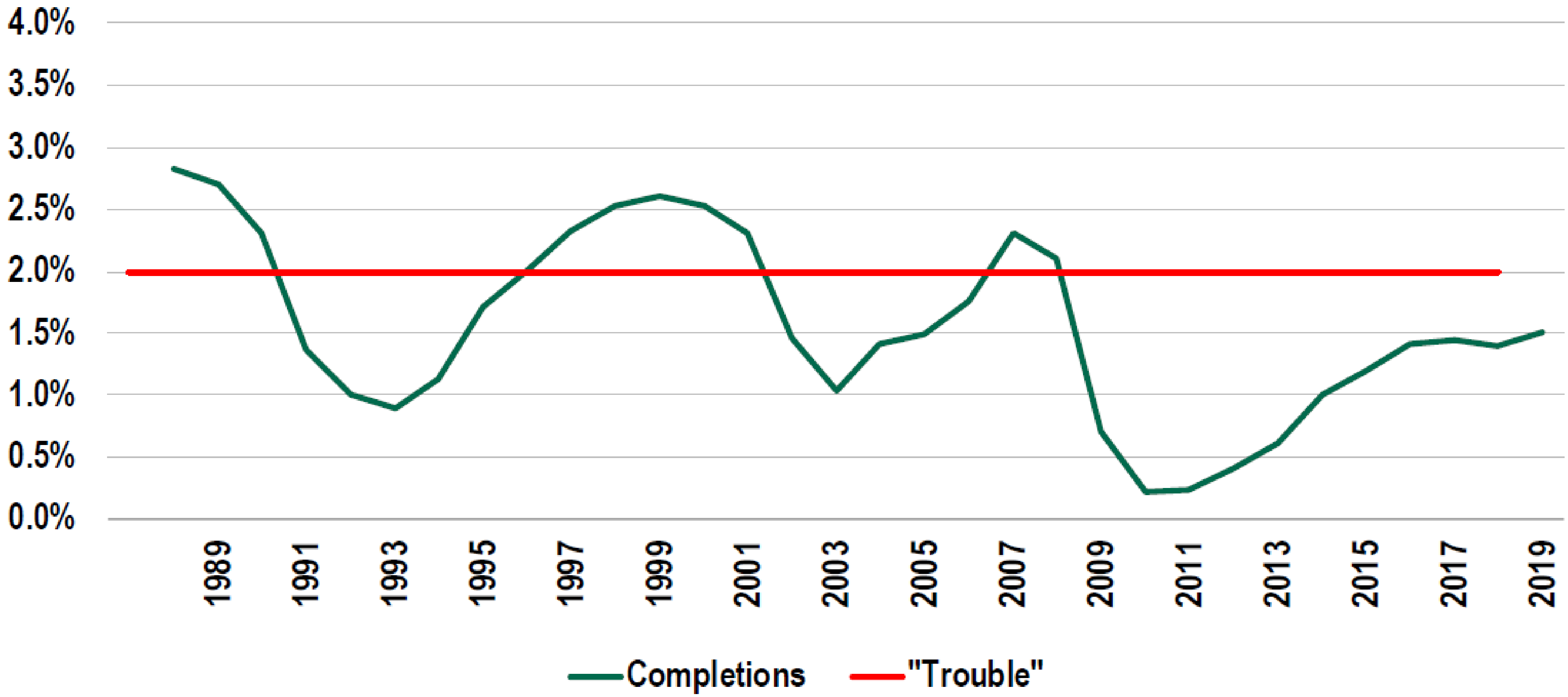
UP TO
750
MILLION SQUARE FEET OF NET ABSORPTION

10-12%
GROWTH IN NET ASKING RENTS

Source: CBRE Econometric Advisors, Q1, 2018; NAIOP

US HISTORICAL & FORECASTED SUPPLY

Deliveries as Percent of Stock



Source: CBRE Econometric Advisors, Q1 2018

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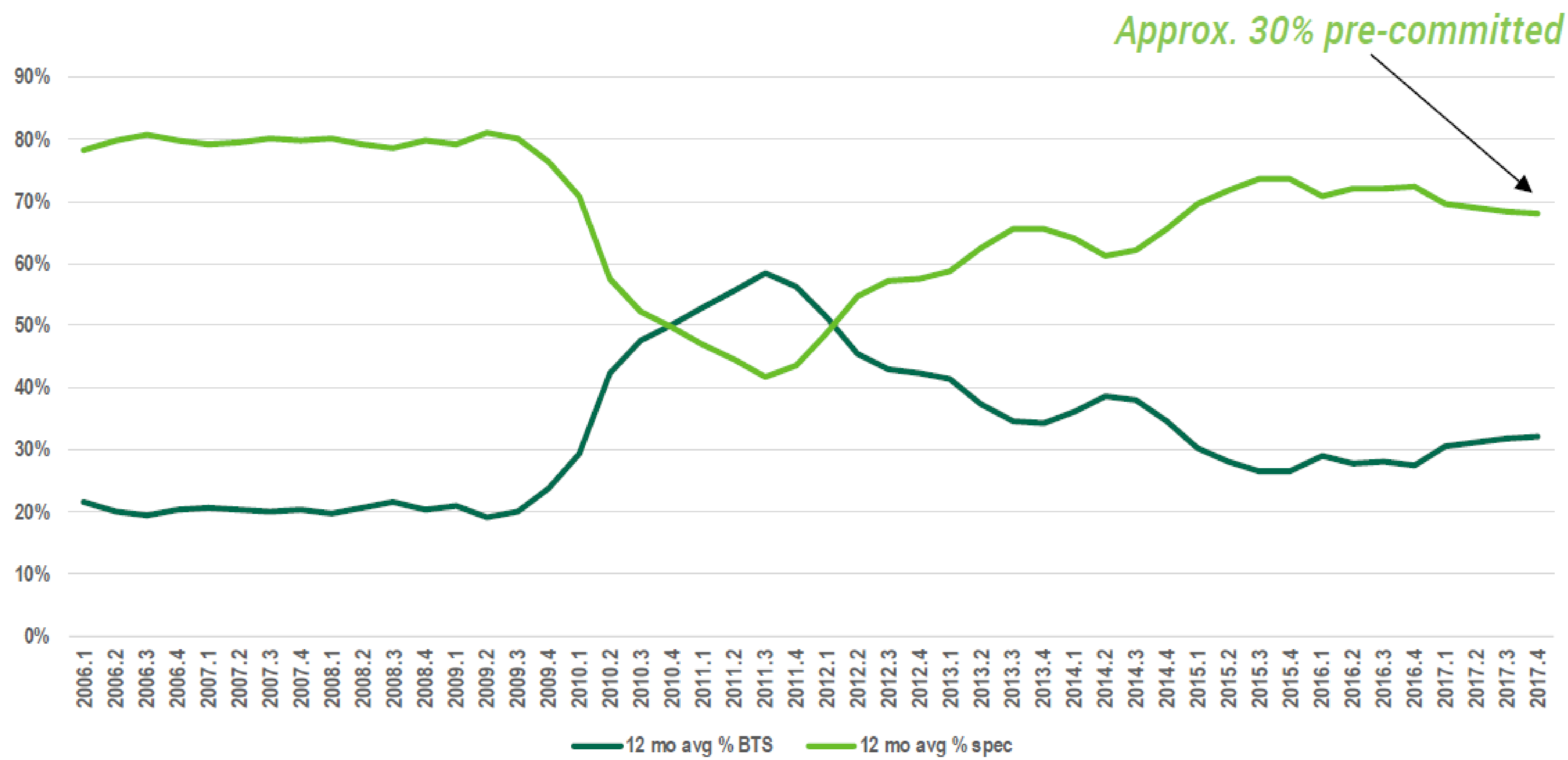
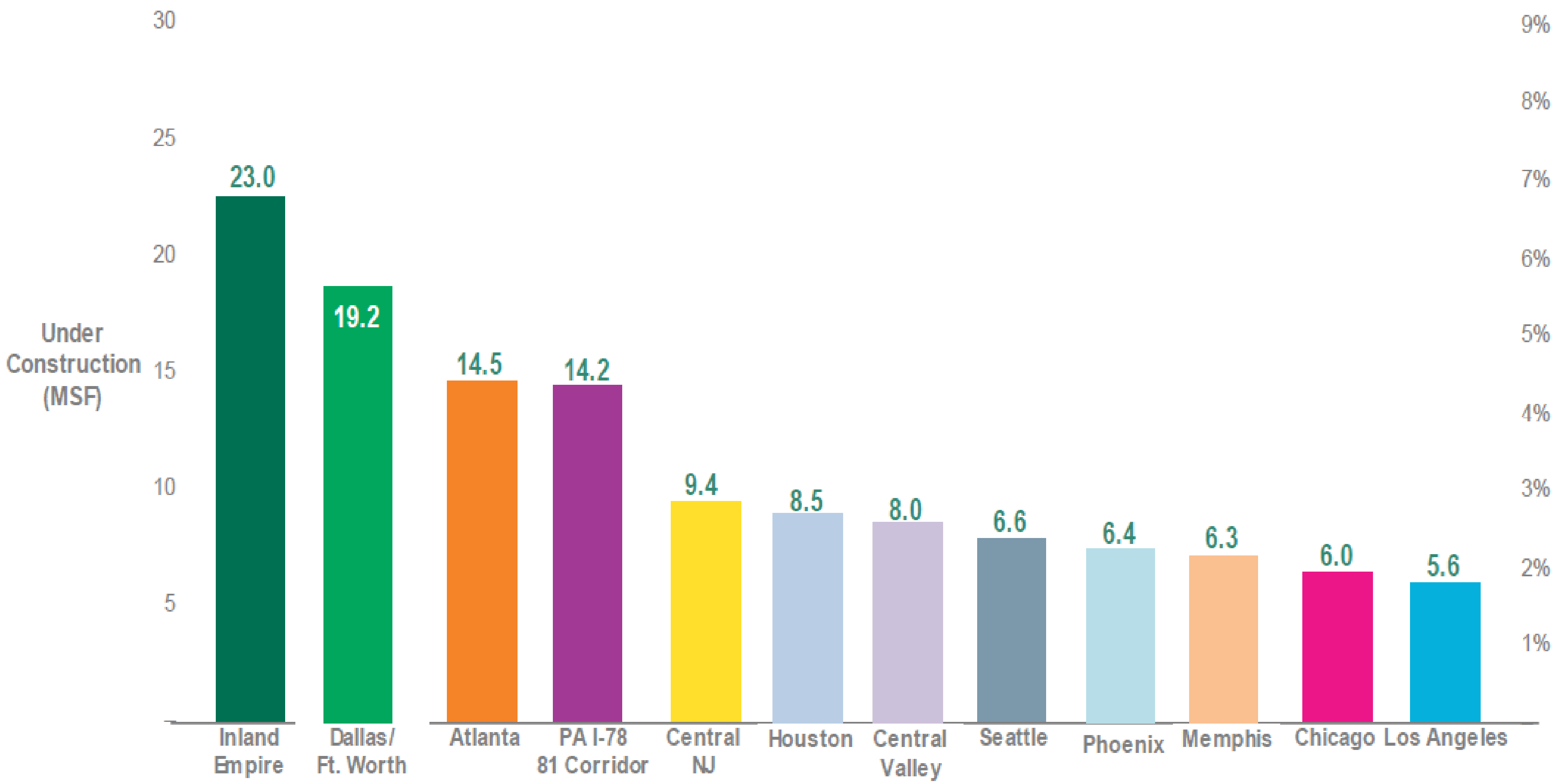
US HISTORICAL BTS VS SPEC CONSTRUCTION

Speculative Construction unusually Constrained



Source: CBRE Econometric Advisors, Q4, 2017

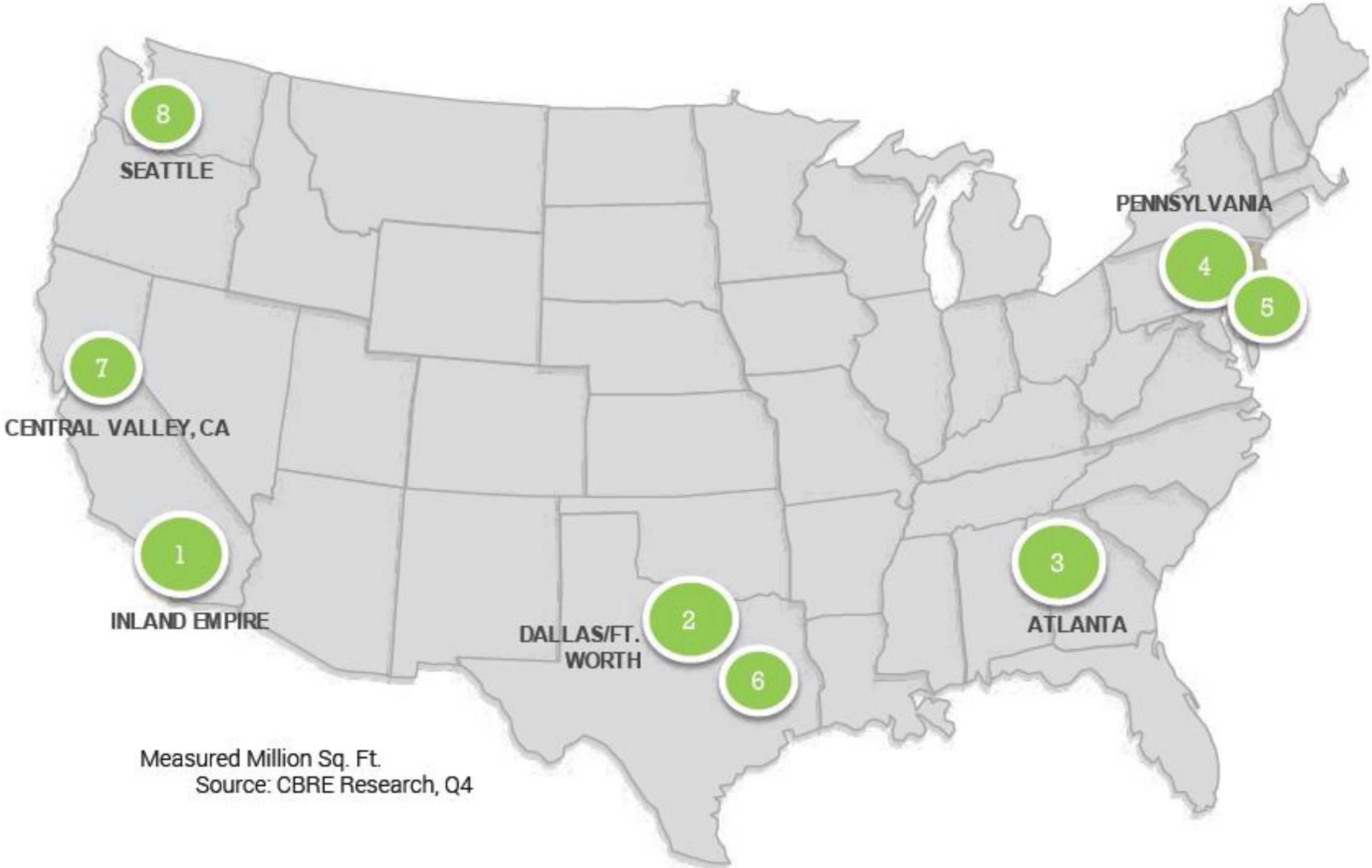
TOP LOGISTICS MARKETS



RANKED BY UNDER CONSTRUCTION (MSF)

WHERE IS THE CONSTRUCTION?

44% OF PIPELINE IN JUST EIGHT MARKETS



Measured Million Sq. Ft.
Source: CBRE Research, Q4

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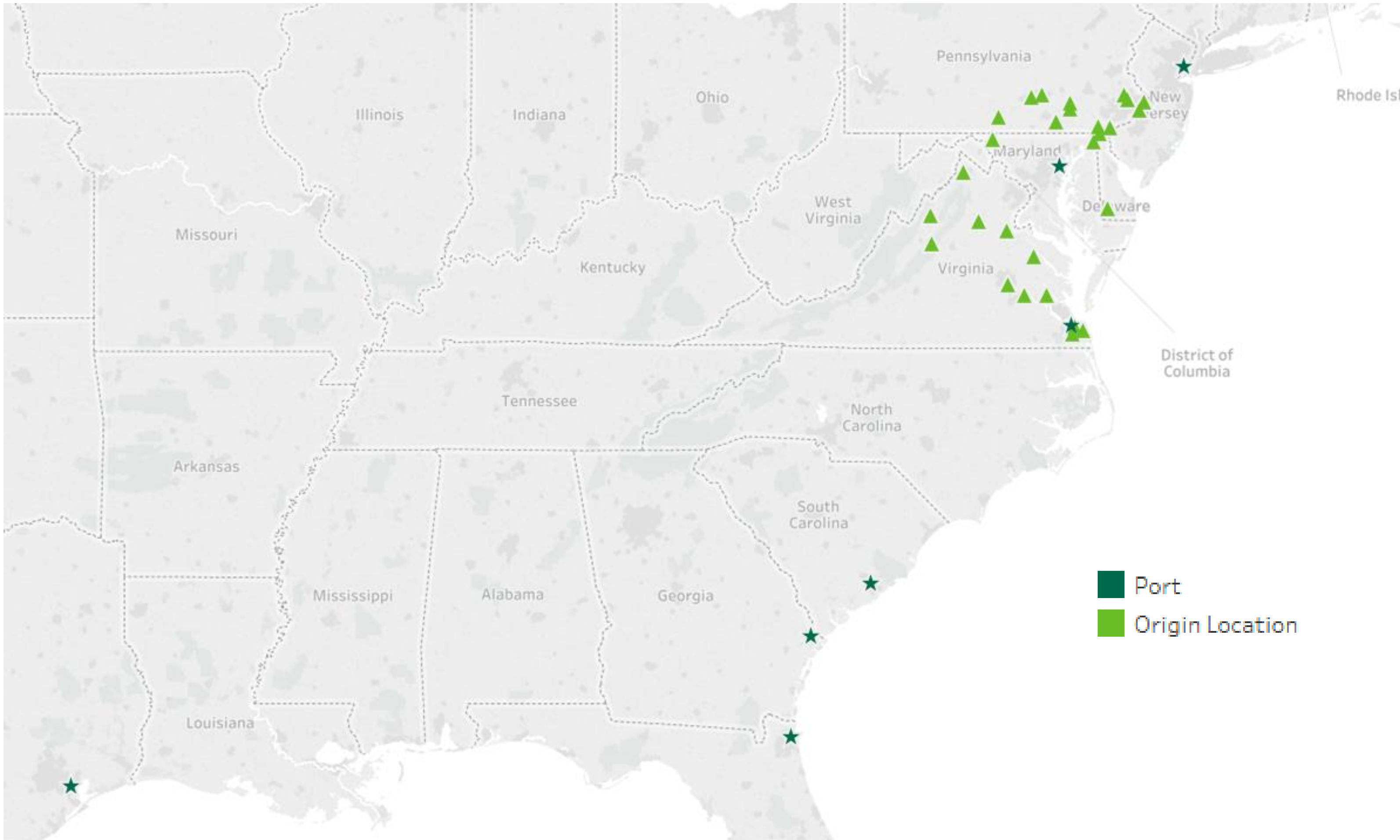
HOST STATE COMPARISON



Locations in Virginia, Pennsylvania & Maryland can provide two-day ground service with UPS to all Atlantic Coast states and most/all areas east of the Mississippi River.

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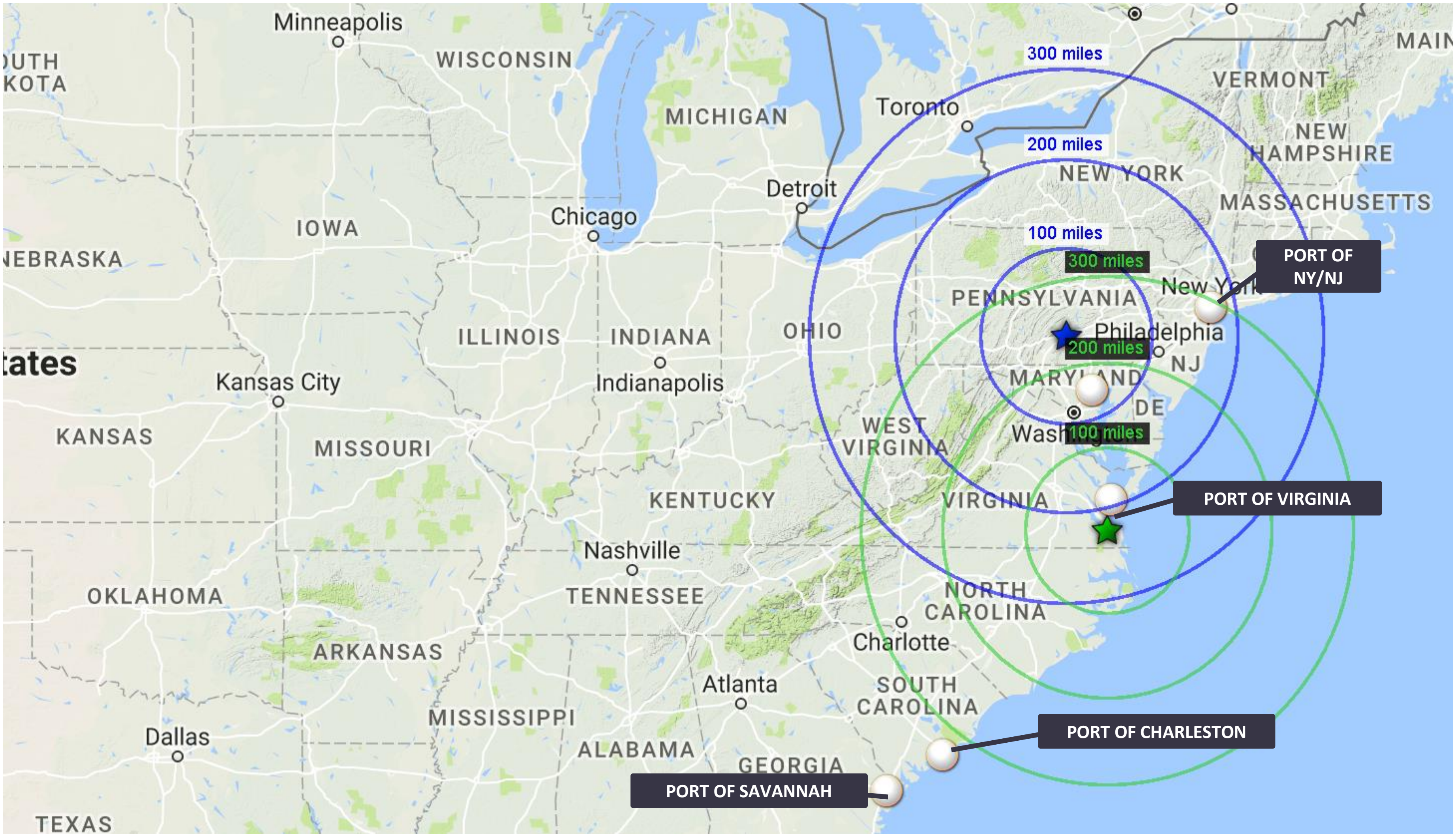
Pennsylvania & Norfolk Logistics Reach



Industrial Market, Buildings Over 100,000 Square Feet

	PENNSYLVANIA I-78/I-81	NORFOLK	VIRGINIA
MARKET SIZE (SQ. FOOTAGE)	296,419,007	50,098,304	212,584,649
2017 NET ABSORPTION	11,599,557	1,855,699	4,716,149
2017 NEW CONSTRUCTION	11,899,200	1,173,290	5,695,439
2018 UNDER CONSTRUCTION	14,248,182	675,000	1,899,299

Source: CBRE Research

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INVESTOR TRENDS

INDUSTRIAL PROPERTY SALES ARE PRICING TO PERFECTION

- Bigger is better, portfolios are generating pricing premiums
- Foreign Sovereign Wealth Funds prefer $1+ Billion deals
- Sweet spot for offerings is $50M - $100M

CAP RATES FOR CLASS A & B ARE AT RECORD LOW LEVELS

- Cap rates compressed in 2017 (2% - 5%)
- ROC spreads for spec development range from 75 – 125 bps

PRICING ABOVE REPLACEMENT COST IS NOT A BARRIER

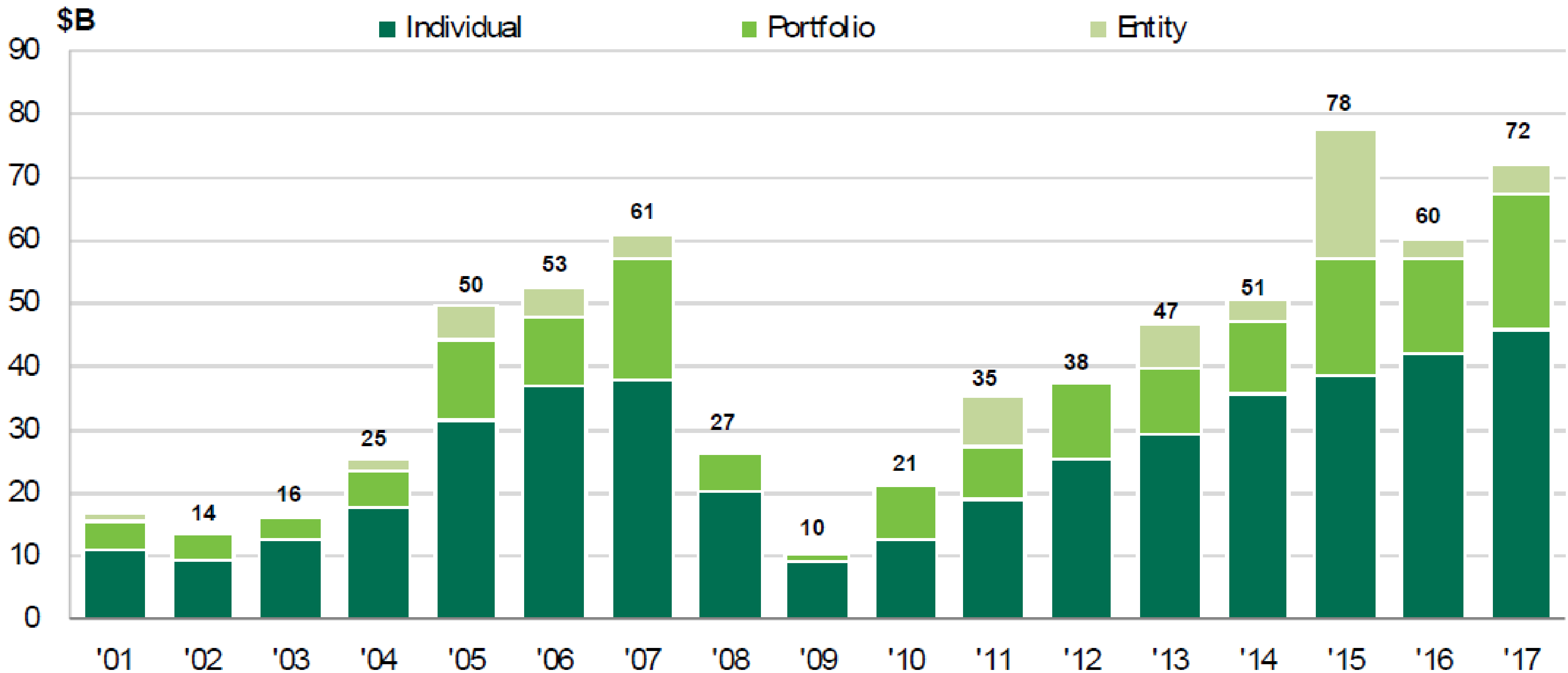
- New Construction is accelerating, but still lower than absorption
- Spec development is the best opportunity value add returns
- Smaller buildings (less than 250K SF) have the best risk / return profile

THE FORCES THAT ARE DRIVING PRICING INCLUDE:

- Continued strong operating fundamentals
- Potential for rental rate / NOI appreciation
- Glut of global equity and debt capital
- Foreign capital is actively targeting U.S. logistics »»11 of the last 22 portfolio sales have been to foreign investors

THE U.S. LOGISTICS MARKET

TOTAL U.S. INDUSTRIAL ACQUISITIONS



Source: Real Capital Analytics

	Excluding Entity Level Transactions	Including Entity Level Transactions
2007 (peak)	$57.2 B	$60.9 B
2015	$57.0 B	$77.7 B
2016	$57.2 B	$60.3 B
2017	$67.2 B	$72.2 B
Year-Over-Year % Change	16%	19%

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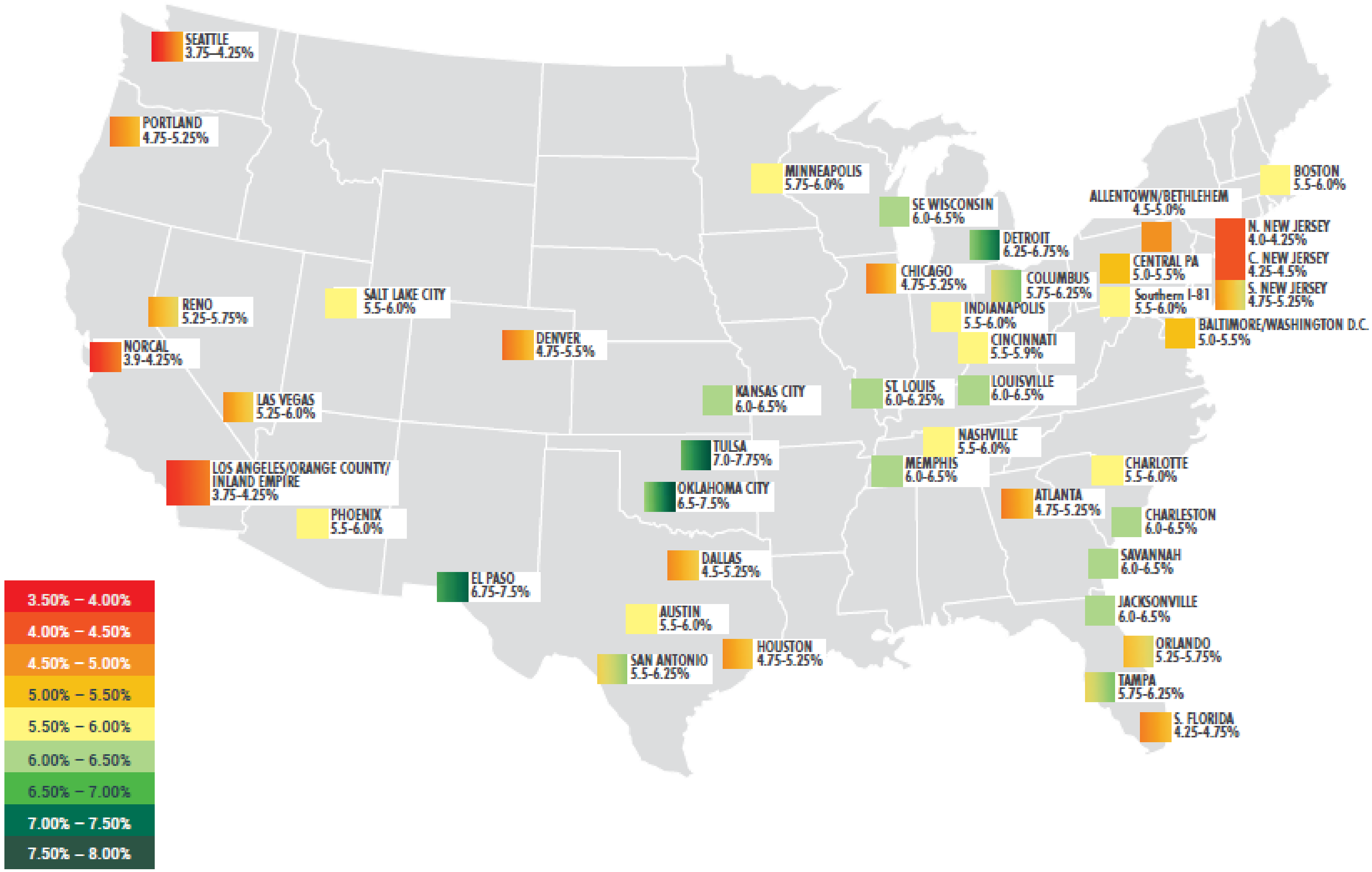
THE U.S. LOGISTICS MARKET:

INVESTOR DEMAND & PRICING: CLASS A CAP RATES



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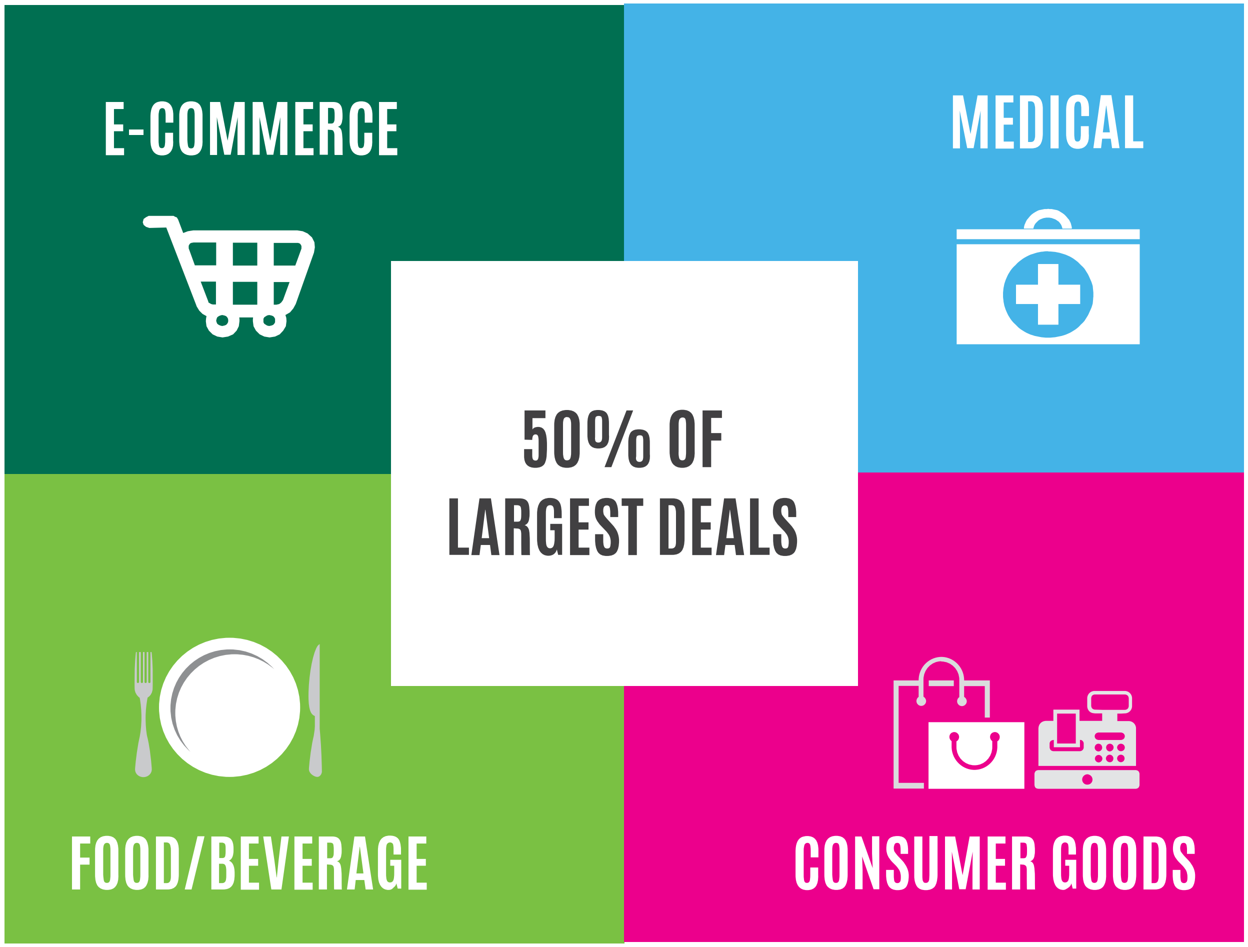
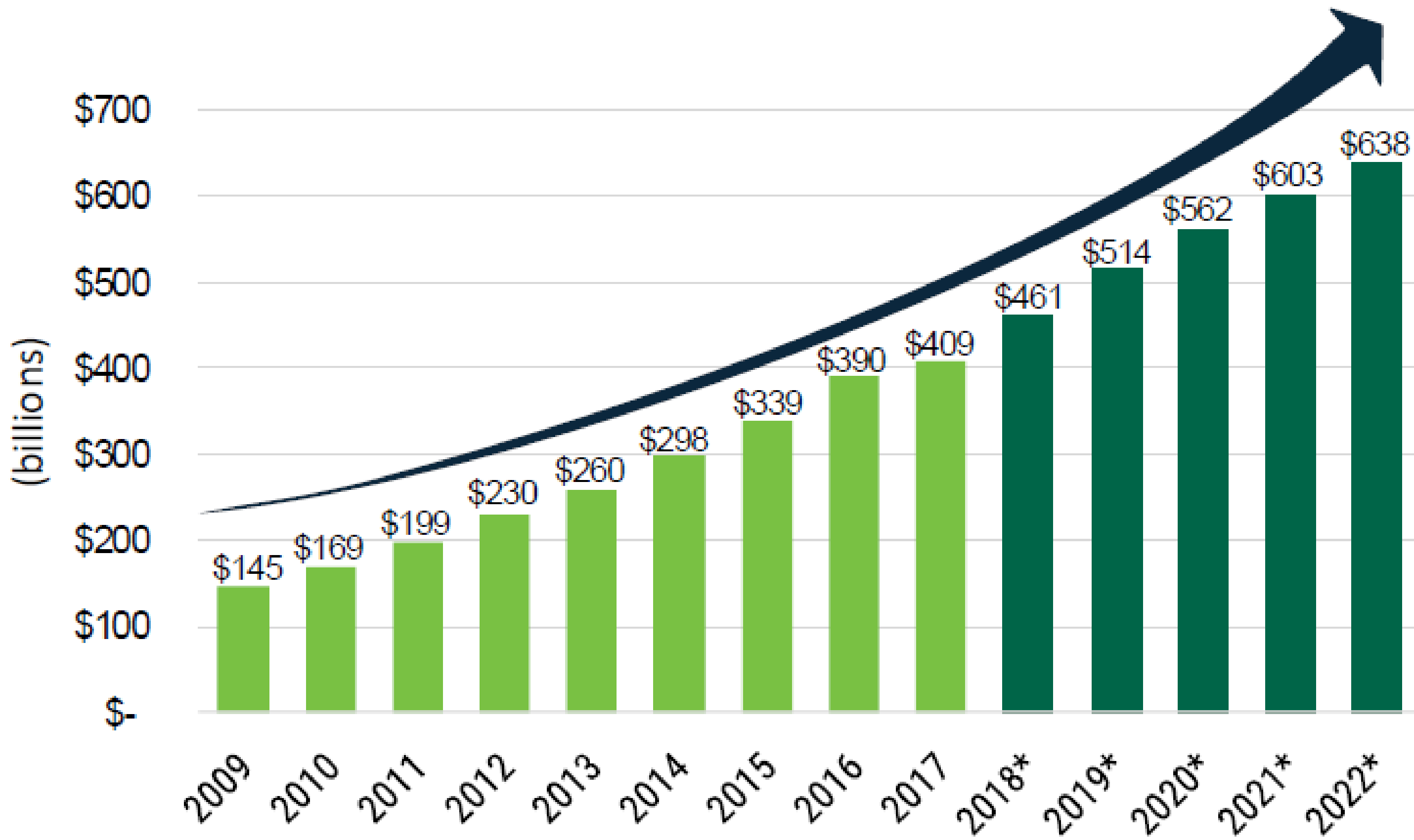
WHO IS DRIVING THE DEMAND IN US NATIONALLY?



THE U.S. LOGISTICS MARKETS

RETAIL E-COMMERCE SALES GROWTH



*Projected
Source: US Census Bureau

$1 Billion IN E-COMMERCE SALES = **1.25 MSF** DISTRIBUTION SPACE → ANNUAL REQUIREMENTS OF **50-60 MSF** OF ADDITIONAL DC SPACE

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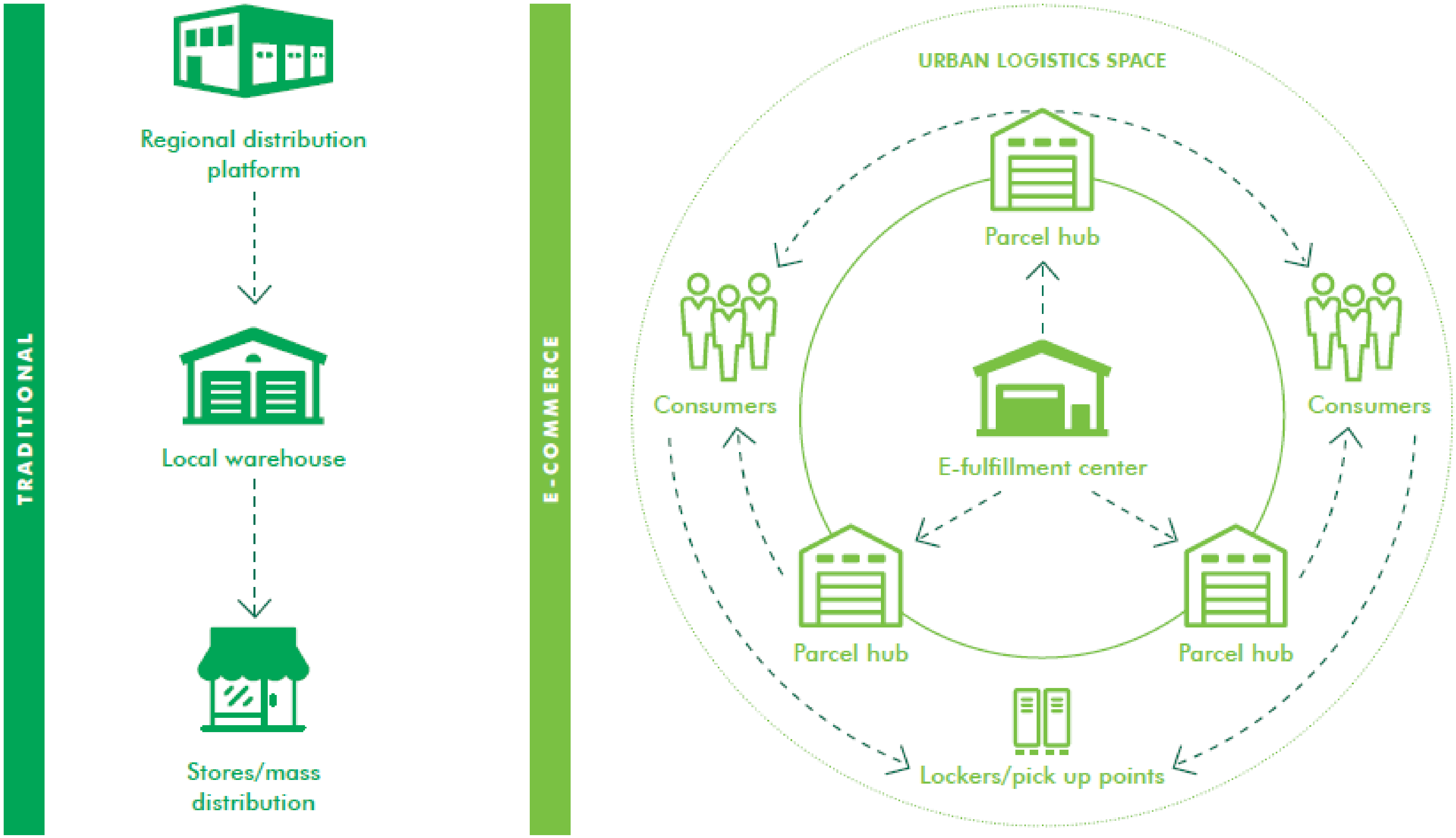
WHAT DOES THIS MEAN FOR INDUSTRIAL?

The **e-commerce** emergence into industrial is only in the beginning stages. Lots of growth moving forward!

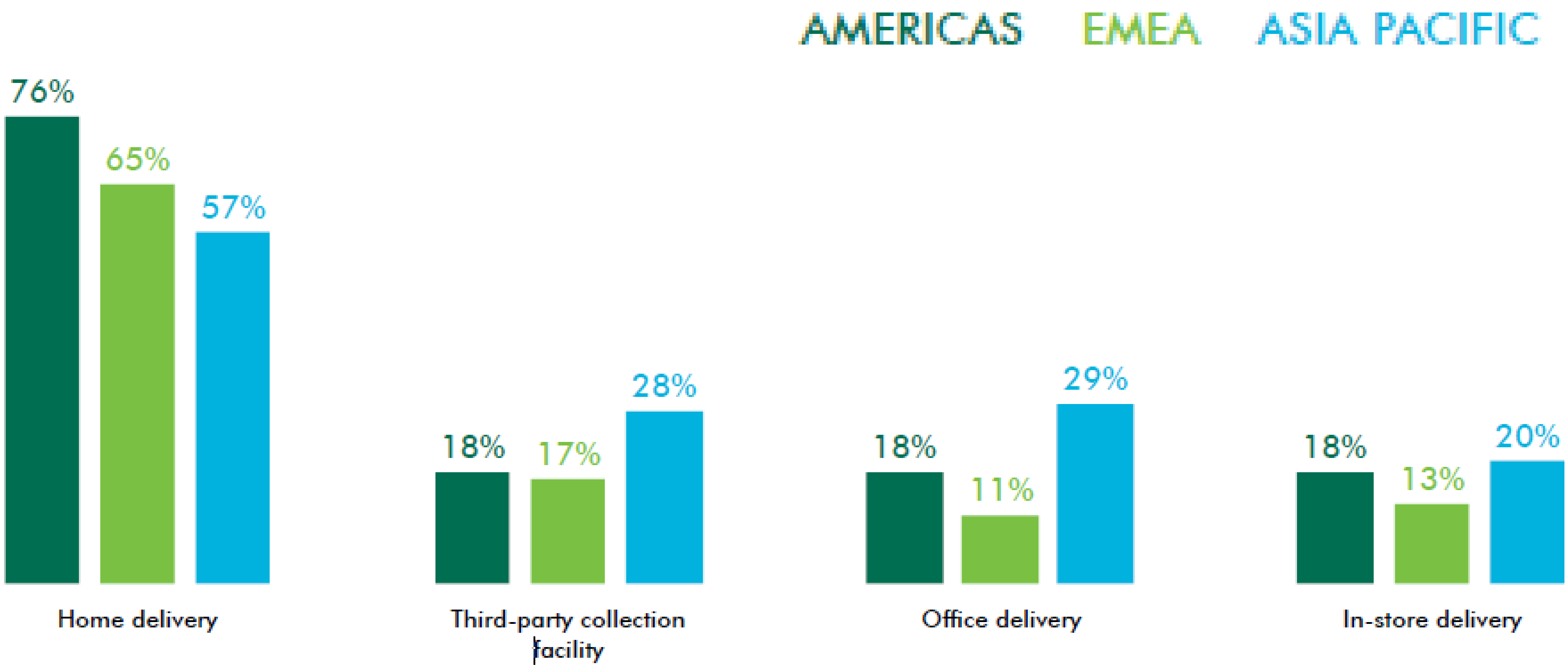
- **For Owners** –Creating additional pressure on a very tight industrial market.
- **Result** – Lease rates will continue to **appreciate 6% - 8% annually** over the next 24 months.
- **Cap Rates** – Continued compression.
- **E-commerce** – Related demand from users will move more aggressively to the infill sites.
- **Light industrial** (20-150,000 sq. ft.) will see the greatest appreciation and rent growth

TRADITIONAL VS E-COMMERCE LOGISTICS SCHEMA



CBRE Research, Q1 2017.

DELIVERY METHODS BY REGION



CBRE Research, Q4 2016.

Online shopping is clearly important to millennials, and they like to take advantage of home delivery. There are regional differences, however. Almost half of millennials surveyed in India and China, for example, opt for office delivery.

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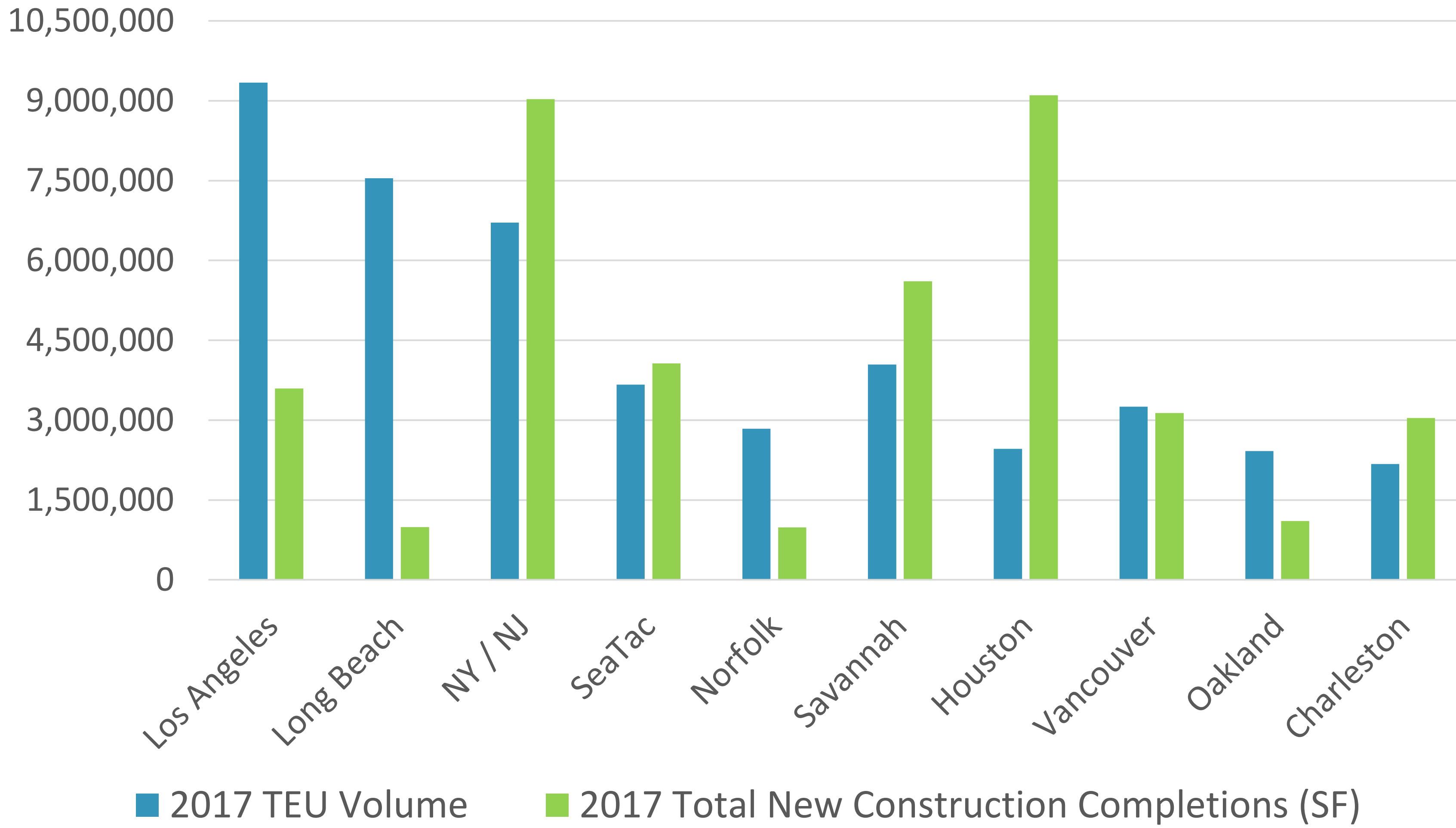
2017 TEU VOLUME & NEW INDUSTRIAL CONSTRUCTION



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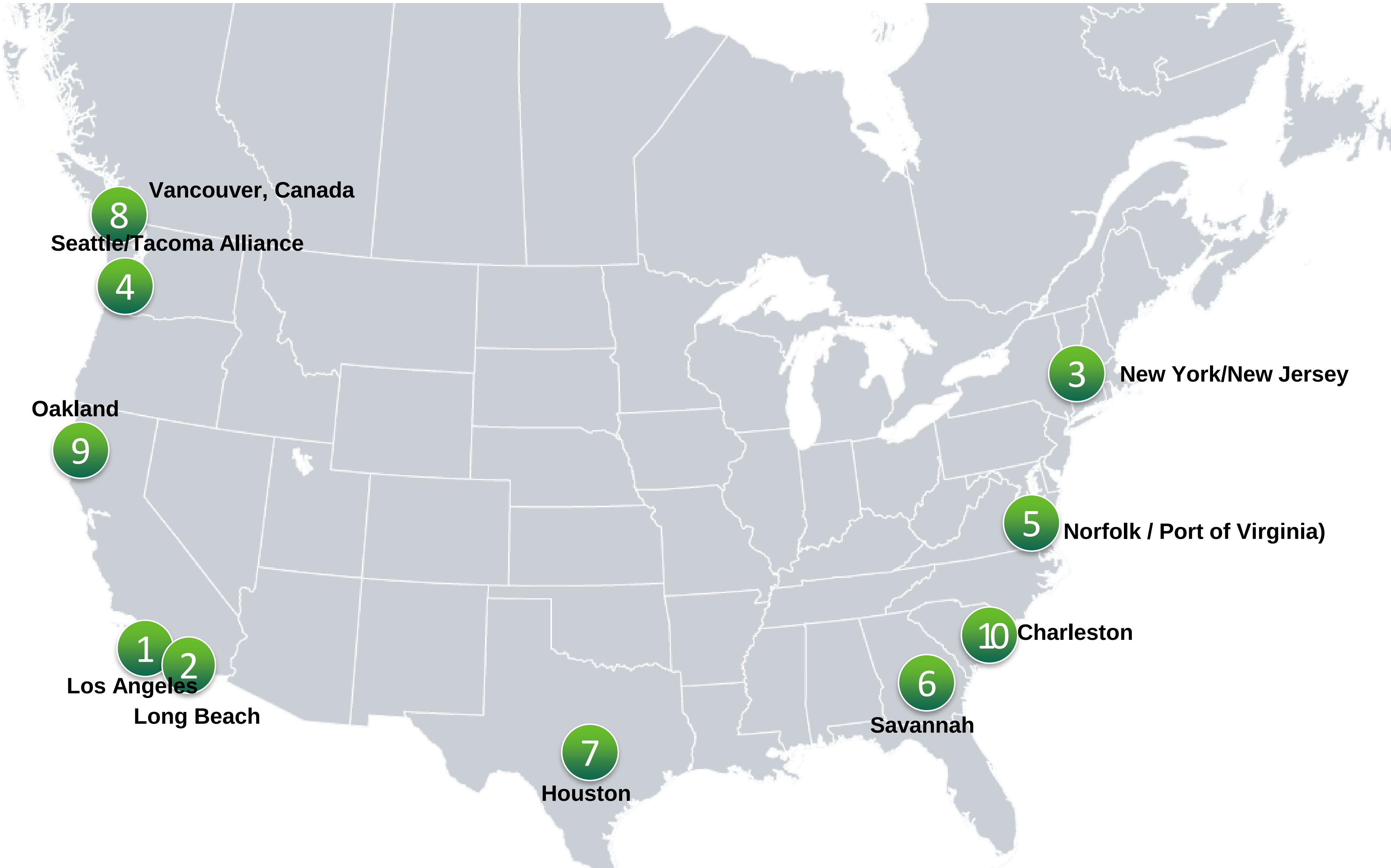
CBRE 2017 LOGISTICS REPORT OVERALL RANKINGS



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CBRE 2017 LOGISTICS REPORT

Overall Ranking

Port	2017 Overall Rank	2016 Overall Rank	Change
Los Angeles	1	3	↑2
Long Beach	2	1	↓1
New York/New Jersey	3	2	↓1
Seattle/Tacoma Alliance	4	6	↑2
Norfolk (Port of Virginia)	5	9	↑4
Savannah	6	4	↓2
Houston	7	5	↓2
Vancouver, Canada	8	7	↓1
Oakland	9	10	↑1
Charleston	10	8	↓2
Montreal, Canada	11	12	↑1
Baltimore	12	11	↓1
Miami	13	14	↑1
Jacksonville	14	15	↑1
Ft. Lauderdale (Port Everglades)	15	13	↓2

CBRE Seaport & Logistics Index Ranking Methodology

The CBRE Seaports & Logistics Index blends two major criteria – **port infrastructure capabilities** and **real estate fundamentals**. Under each criteria, scores were weighted by importance and summed to provide a port's score for that criterion. A market that ranked first in each criteria would receive a total score of 1.0.

CBRE 2017 LOGISTICS REPORT PORT INFRASTRUCTURE RANKING

Port	2017 Infrastructure Rank	2016 Infrastructure Rank	Change
Los Angeles	1	5	↑4
New York/New Jersey	2	1	↓1
Long Beach	3	3	— 0
Norfolk (Port of Virginia)	4	4	— 0
Savannah	5	2	↓3
Seattle/Tacoma Alliance	6	9	↑3
Houston	7	8	↑1
Vancouver, Canada	8	7	↓1
Charleston	9	6	↓3
Oakland	10	12	↑2
Montreal, Canada	11	14	↑3
Baltimore	12	10	↓2
Miami	13	11	↓2
Jacksonville	14	15	↑1
Ft. Lauderdale (Port Everglades)	15	13	↓2

CBRE Port Infrastructure Index Ranking Methodology

Larger ports tend to rise to the top, but **outsized growth—both short and long term—helped boost the Port of Virginia into the top five**.

Infrastructure index criteria include:

- Cargo throughput (TEU)
- Long-term TEU growth
- Year-over-year TEU growth
- Local population density
- Projected population growth
- Class I rail lines
- Number of container terminals
- Mean-low water channel depth
- Total number of cranes
- Total number of neo-Panamax cranes

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CBRE 2017 LOGISTICS REPORT REAL ESTATE RANKING

Port	2017 Overall Rank	2016 Overall Rank	Change
Los Angeles	1	1	0
Long Beach	1	1	0
New York/New Jersey	3	6	↑3
Seattle/Tacoma Alliance	4	5	↑1
Oakland	5	4	↓1
Houston	6	3	↓3
Vancouver, Canada	7	8	↑1
Miami	8	12	↑4
Montreal, Canada	9	8	↓1
Baltimore	10	7	↓3
Ft. Lauderdale (Port Everglades)	11	10	↓1
Jacksonville	12	14	↑2
Charleston	13	11	↓2
Norfolk (Port of Virginia)	14	13	↓1
Savannah	15	15	0

CBRE Real Estate Index Ranking Methodology

In the overall index, real estate carries a lower weight than port infrastructure. The index views markets from the perspective of both owners and occupiers, with the goal of identifying markets that have healthy real estate fundamentals overall.

Markets that skewed too far toward owners (with rents beyond peak) or occupiers (with stagnant rent and relatively high ability) did not fare as well in the index.

Real estate index criteria include:

- Total size of market (sq. ft.)
- Availability of existing space
- Demand activity
- Historical and forecast construction rates
- Rental growth
- Position in economic cycle

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Virginia's Global Gateway

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Thank you

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U.S. industrial leasing observations

1

Vacancy drops to 4.8%—U.S. industrial off to a good start

- Vacancy dropped by 20 basis points to an all-time-low rate of 4.8 percent.
- Strength in demand also served as indicator for coming current landlord-favorable market conditions, continuing with the trend seen in 2017

2

Q1 shows slowdown in U.S. net absorption, as compared to the previous quarter; demand remains stable

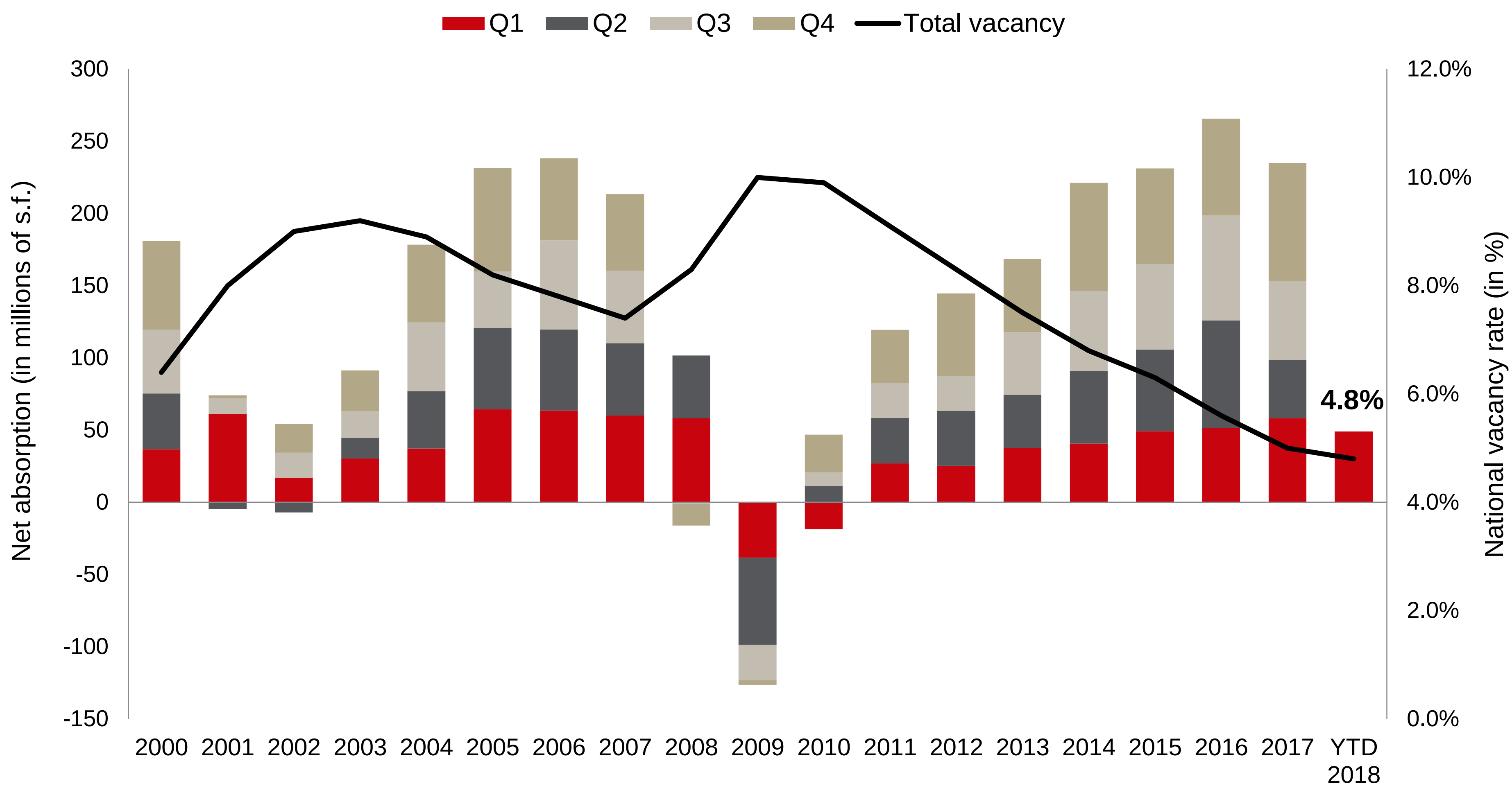
- After a stellar fourth quarter (81.7 million square feet of absorption), the U.S. industrial market's total net absorption slowed down to 48.9 million square feet), but remains consistent with the absorption levels from a year ago

3

Development pipeline is robust nearly 58.6 m.s.f of new product delivered

- Spurred by an increase in absorption of warehouse space, U.S. development pipeline remains healthy, delivering nearly 58.6 million square feet of new product. The overall under construction pipeline includes 230.6 million square feet with Dallas, Inland Empire, Eastern and Central Pennsylvania combined making up nearly 26.0 percent of the U.S. total

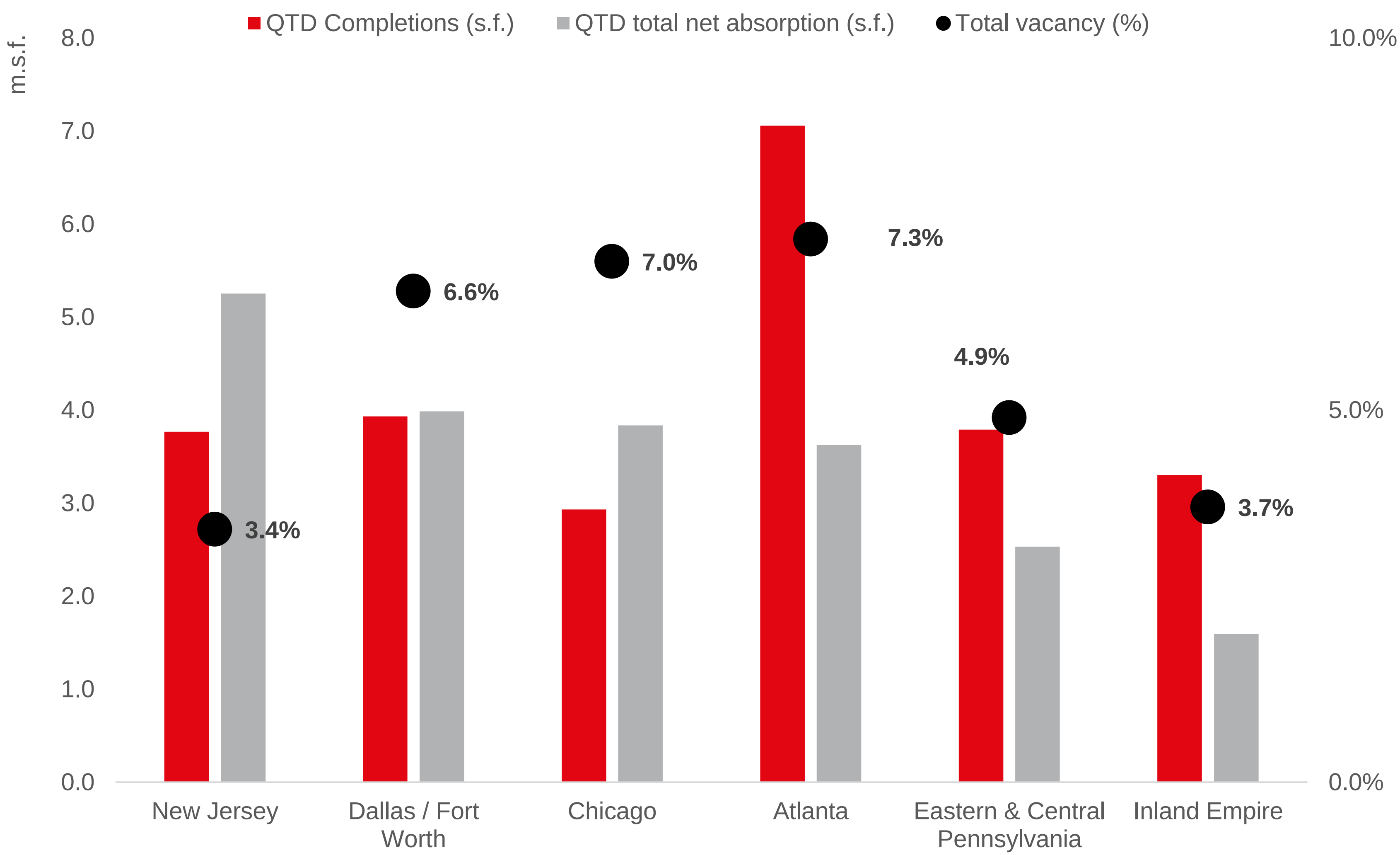
Vacancy drops to 4.8%—U.S. industrial off to a good start



Source: JLL Research

***U.S. Leasing stats are based on Q1 2018 preliminary estimates*

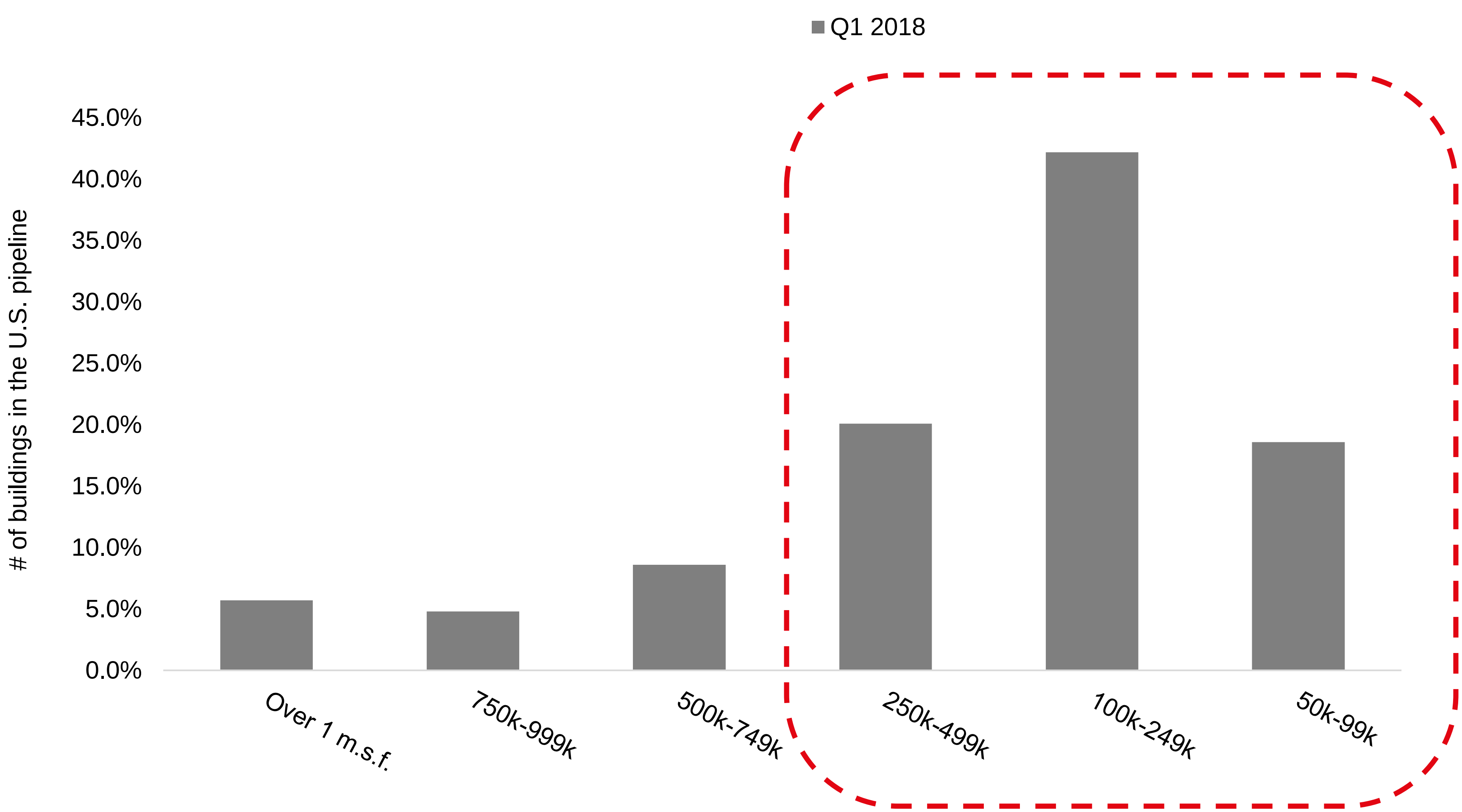
In markets like New Jersey and Chicago, net absorption outpaces new development



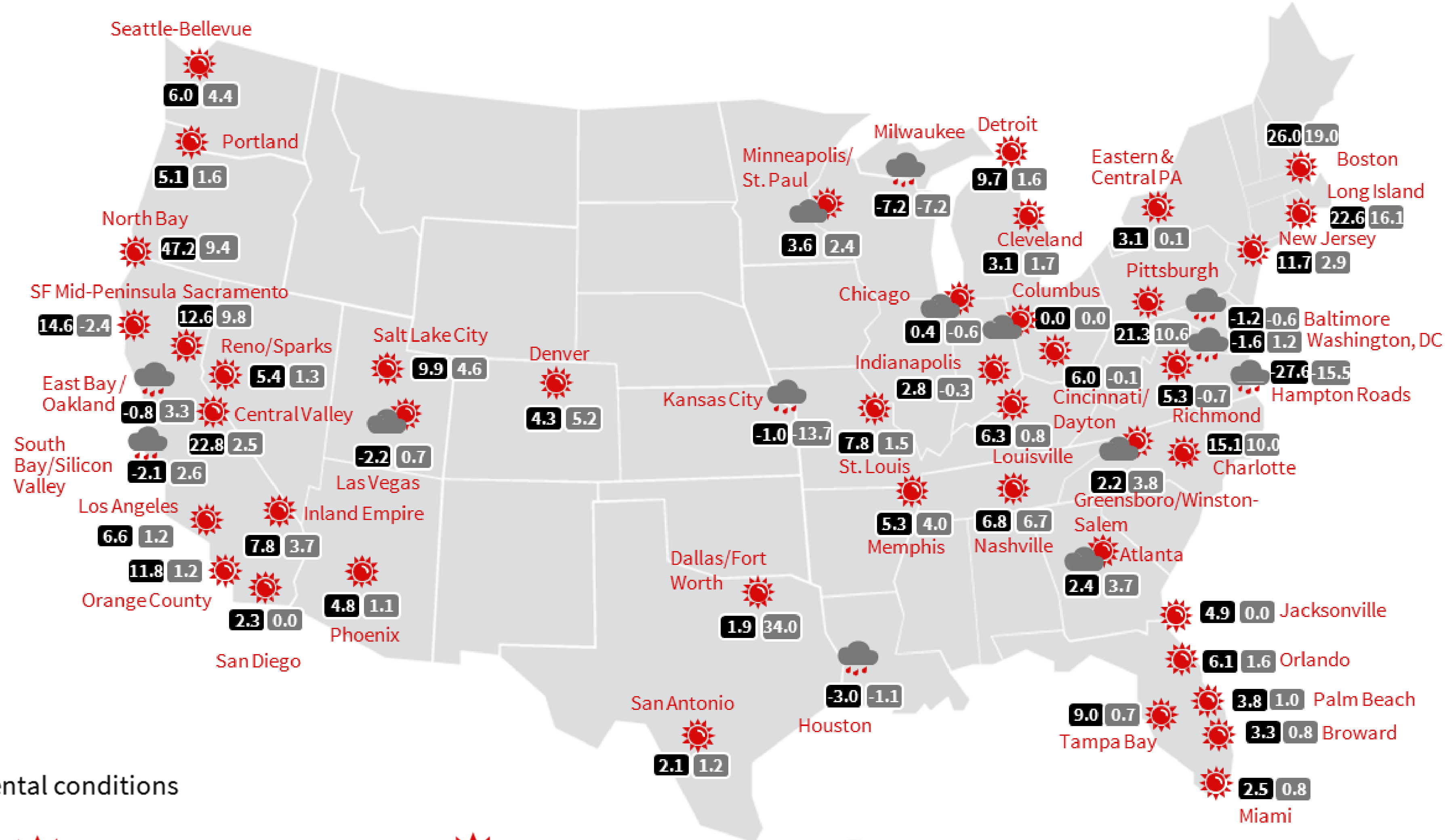
Source: JLL Research

81% of new development in mid-sized industrial product

Nearly 81% of the U.S. development pipeline is dominated by smaller to mid-sized industrial buildings ranging from 50,000-500,000 s.f. This is in response to an increased leasing demand of smaller to mid-sized spaces and the lack of available buildable land for mega-box warehouses (over 1 m.s.f.). Atlanta, followed by Eastern & Central PA, are the two leading markets with the most number of + 1 m.s.f buildings in the development pipeline.



Industrial rental rate Weather Map



Rental conditions

Rents growing
(greater than 1.5% growth year-over-year)

Rents stagnant
(between -0.5% and 1.5% year-over-year)

Rents falling
(greater than 0.5% decline year-over-year)

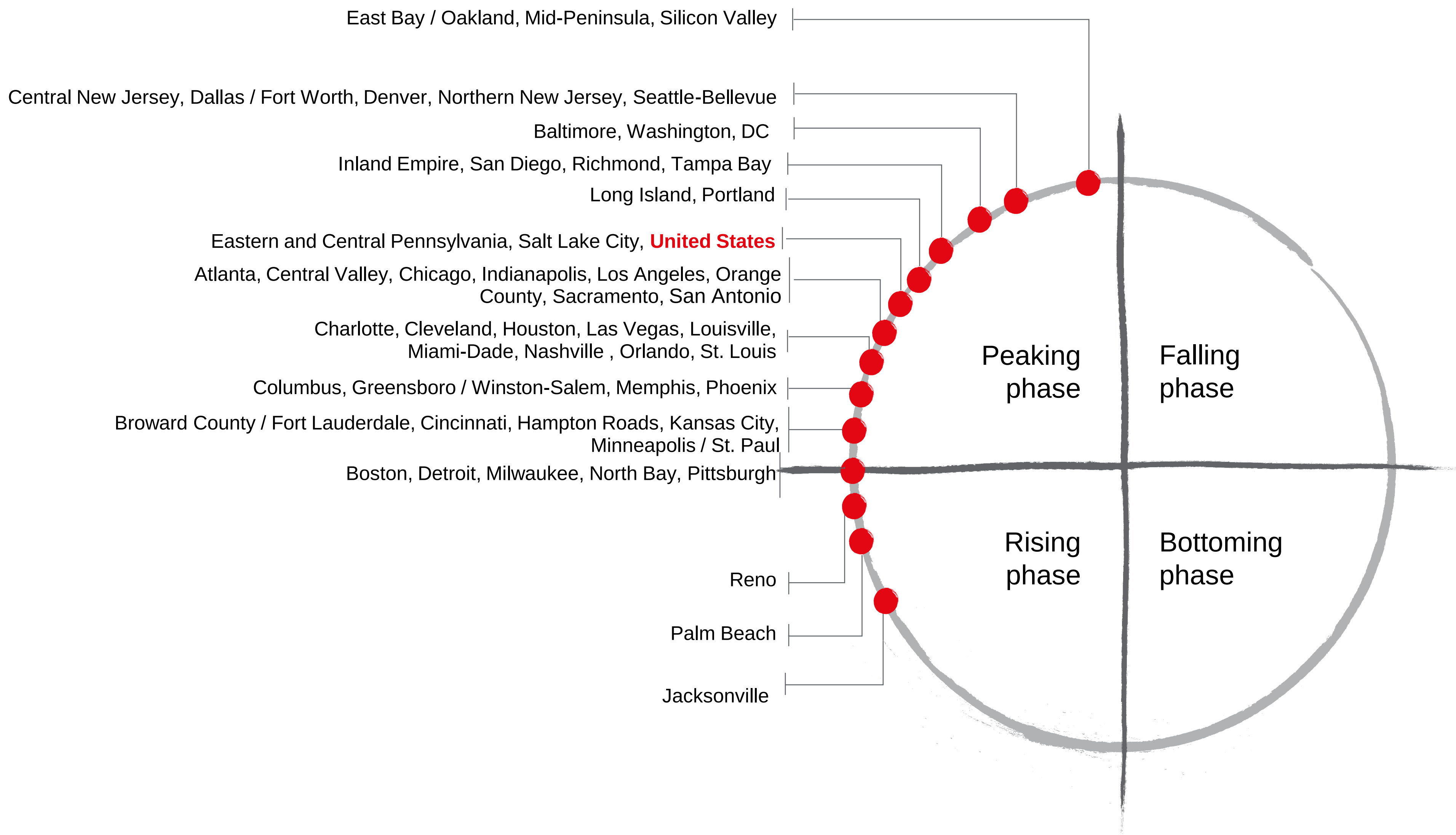
Average rental % change year-over-year*

Average rental % change quarter-over-quarter

U.S. Leasing

Please note: weather imagery indicates only the direction of movement of rental prices in a particular market and is not designed to indicate favorable or non-favorable conditions for a specific leasing perspective

Q1 2018 U.S. Industrial clock



Source: JLL Research

U.S. Leasing

U.S. industrial investment sales observations

1

Robust investment activity further advances volumes to start 2018

- YOY increase of 17.3 percent for first quarter, closing at just under $15.5 billion.
- Volumes in 2018 are expected to remain propelled, aided by continued surge in portfolio acquisitions.

2

Persistent cap rate compression throughout all markets as opportunities remain scarce

- Institutional grade industrial assets continued to attract investor interest throughout all market types as exposure to e-commerce and last mile assets pushes strategy.

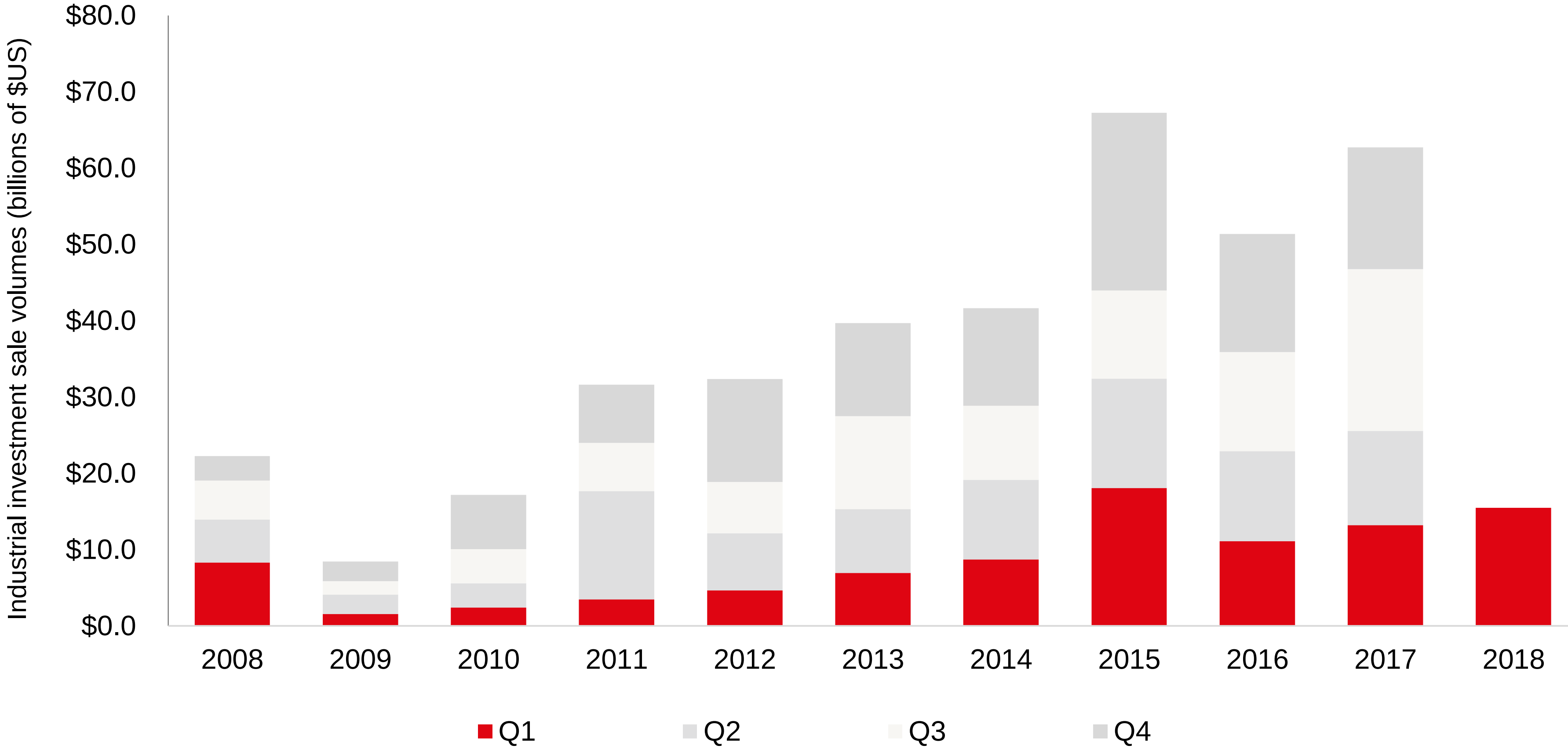
3

Primary market spreads over risk-frees narrowing, however still remain healthy in historical perspective

- Available industrial opportunities remain very scarce, as product that becomes available becomes increasingly competitive in terms of underwriting with relatively healthy spreads helping to support record values.

Long lasting growth in Industrial investment volumes advanced further to begin 2018

Total investment volume up over 17.3 percent in first quarter, as volumes expected to remain propelled, aided by continued surge in portfolio acquisitions



Source: JLL Research, Real Capital Analytics (Transactions larger than $5.0m)

Major Real Estate Trends

JLL

1

West Coast's sky-high rents correspond to high occupancy rates

- West Coast ports rents and port-market occupancy are sky-high with the majority of their rents reaching close to double digits.
- As rent and port-market occupancy both increase, occupancy conditions are shifting in favor to landlords.

2

Lack of land near the port decrease availability

- Oakland is seeing a decrease in available properties since land is becoming more scarce.
- Houston is seeing a large decrease of 6.3% in availability from 2015 to 2016.
- Over the last two years, East Coast ports of New York / New Jersey and Jacksonville, and West Coast ports of Oakland and Long Beach have seen the largest decline in vacancy rates, over 2.0 percent.

3

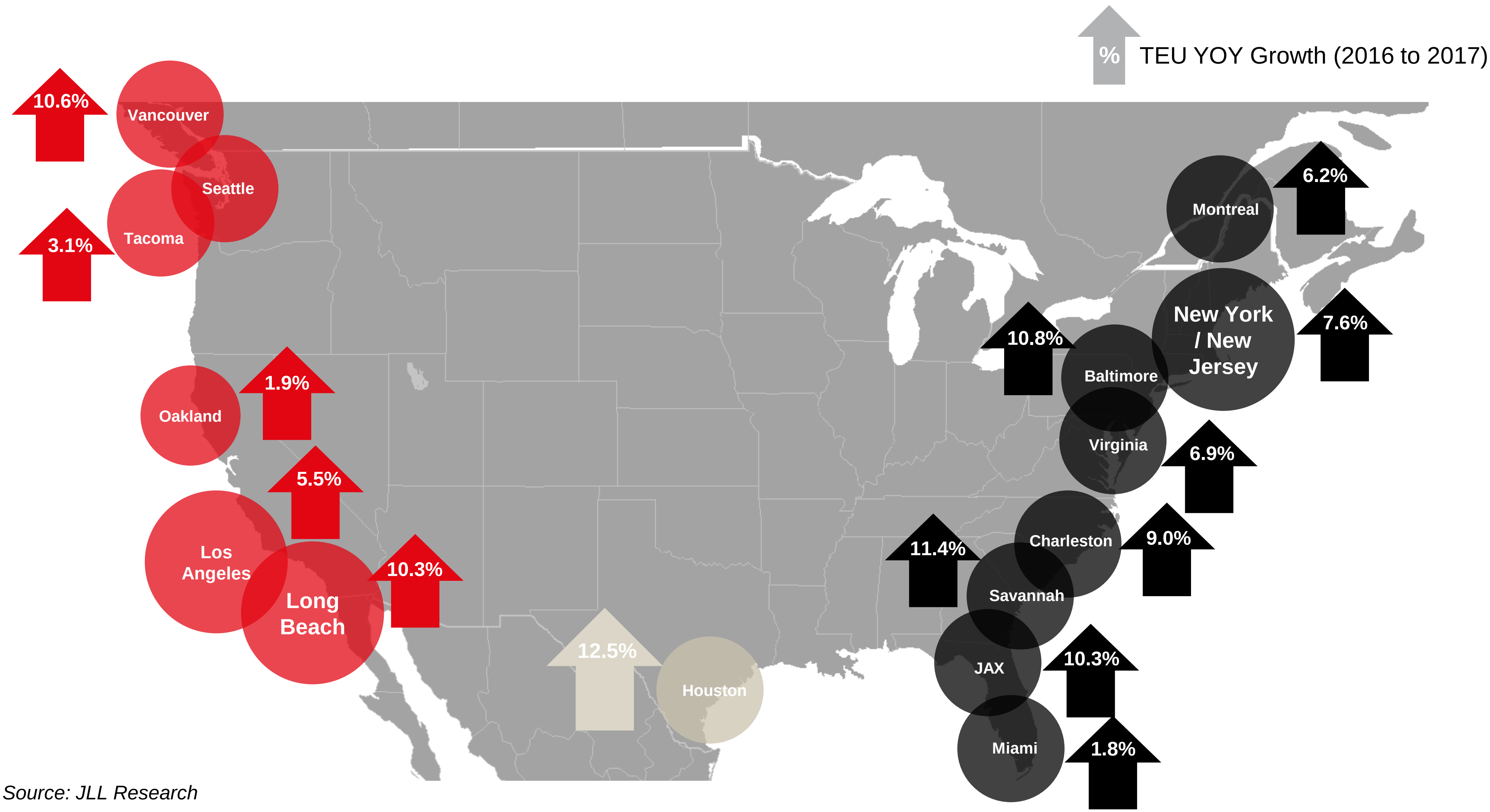
Real estate markets strong across the U.S., occupancy levels are over 90.0 percent in all markets.

- So far in 2017, port-centric submarkets across all cities have seen robust growth and increasing industrial real estate occupancy levels.
- In JLL PAGI markets, nearly 25.4 million square feet is currently under construction. Of this, nearly 65.0 percent is on the U.S. East and Gulf Coast Ports.

PAGI

A closer look at growth rate at PAGI ports

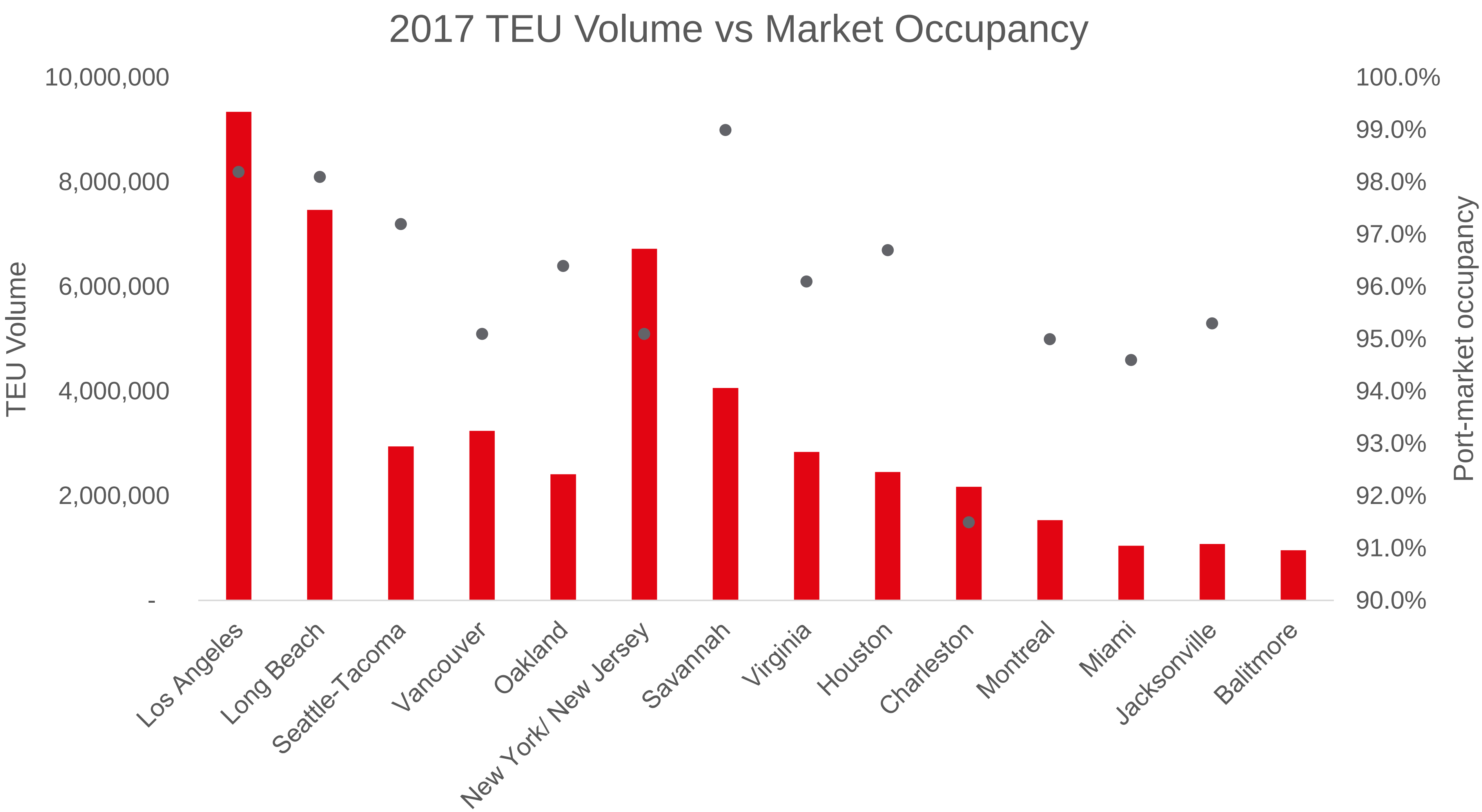
Houston and Savannah are top two ports for TEU growth YOY 2016-2017



Source: JLL Research

TEU volume correlates to occupancy

The TEU volume correlates to the port-market occupancy. As a port handles more TEUs, the port-market occupancy increases with more cargo coming through the ports.

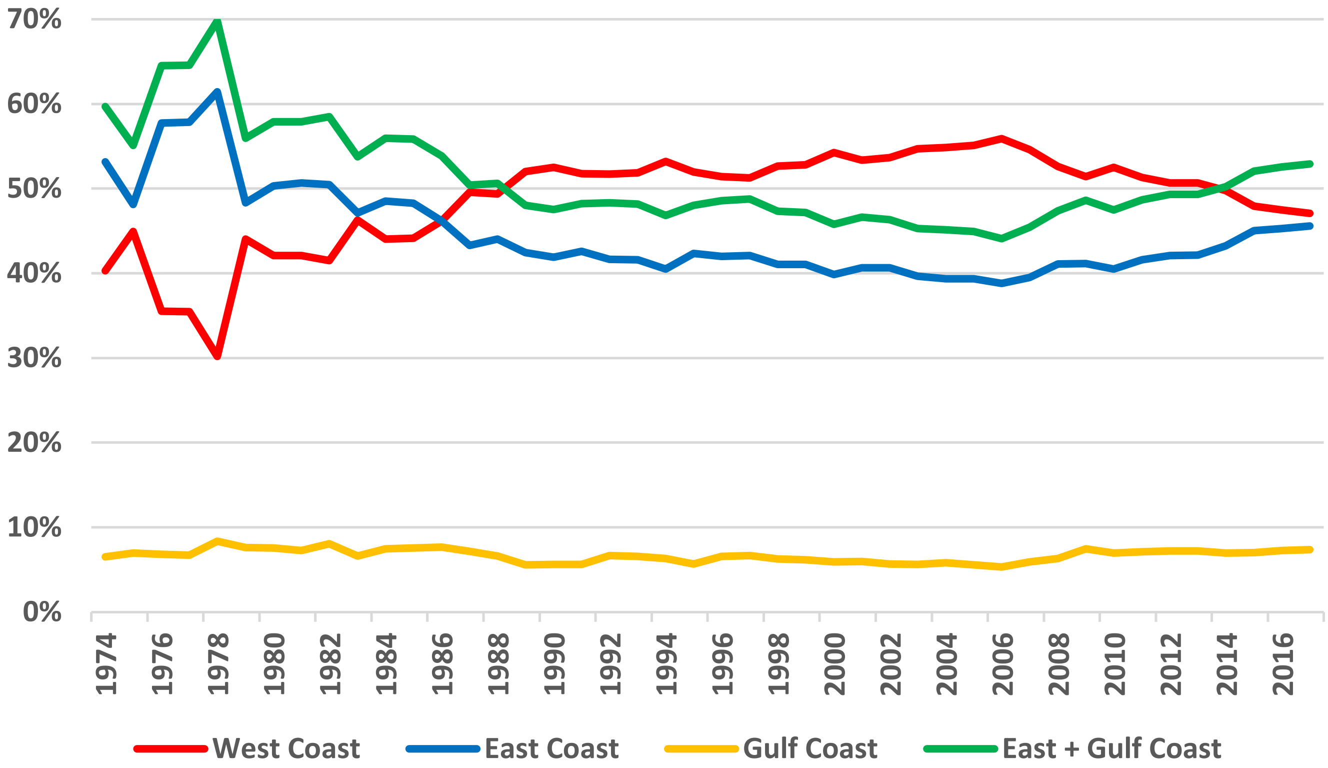


Note: Real estate stats are based on industrial properties in a 15-mile radius from seaports with a minimum building size of 50,000 square feet.

Source: JLL Research

East and Gulf Coast ports gaining share from the West Coast

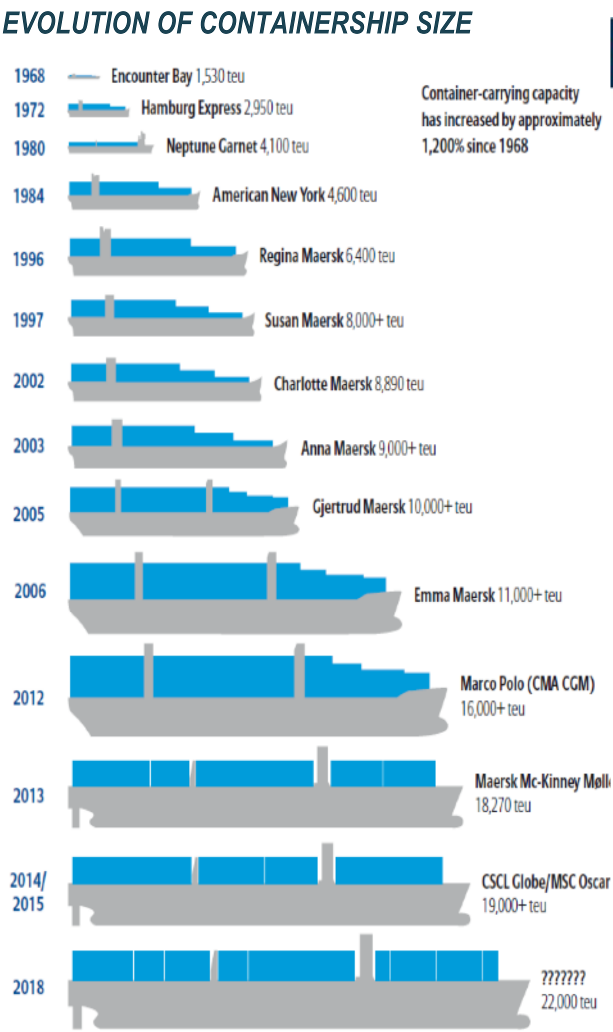
Container Shares By Coast



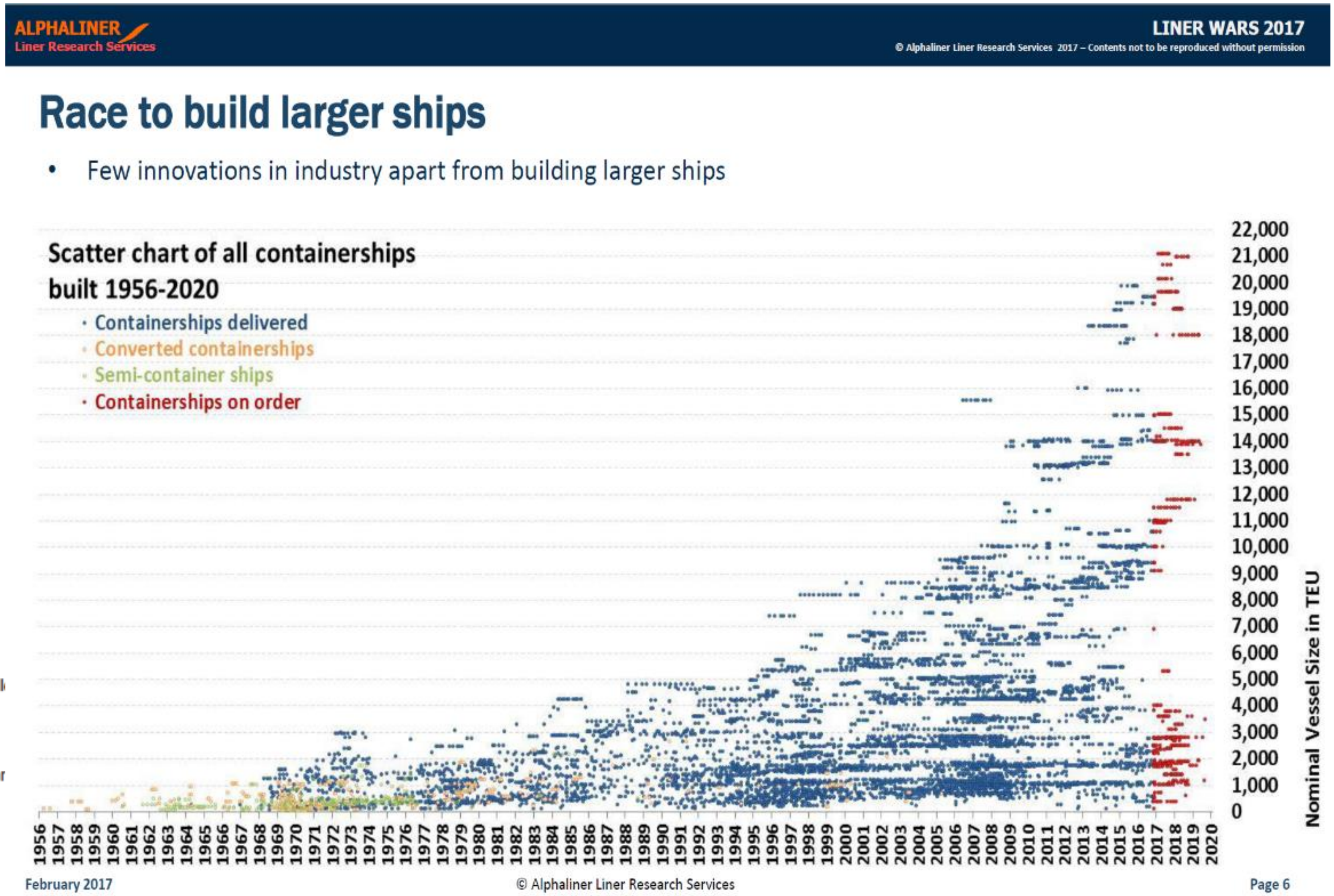
- Larger vessels to the East Coast improves All-Water Panama Canal competitiveness
- South Asia container trade via the All-Water Suez Route have increased
- Congestion and labor issues on the West Coast have slowed growth
- Residential real estate market trends negatively impacted Los Angeles and Long Beach
- Gulf Coast benefitting from rail investments

Source: American Association of Port Authorities, JLL

Ships continue to get larger



Source: Alphaliner, World Shipping Council

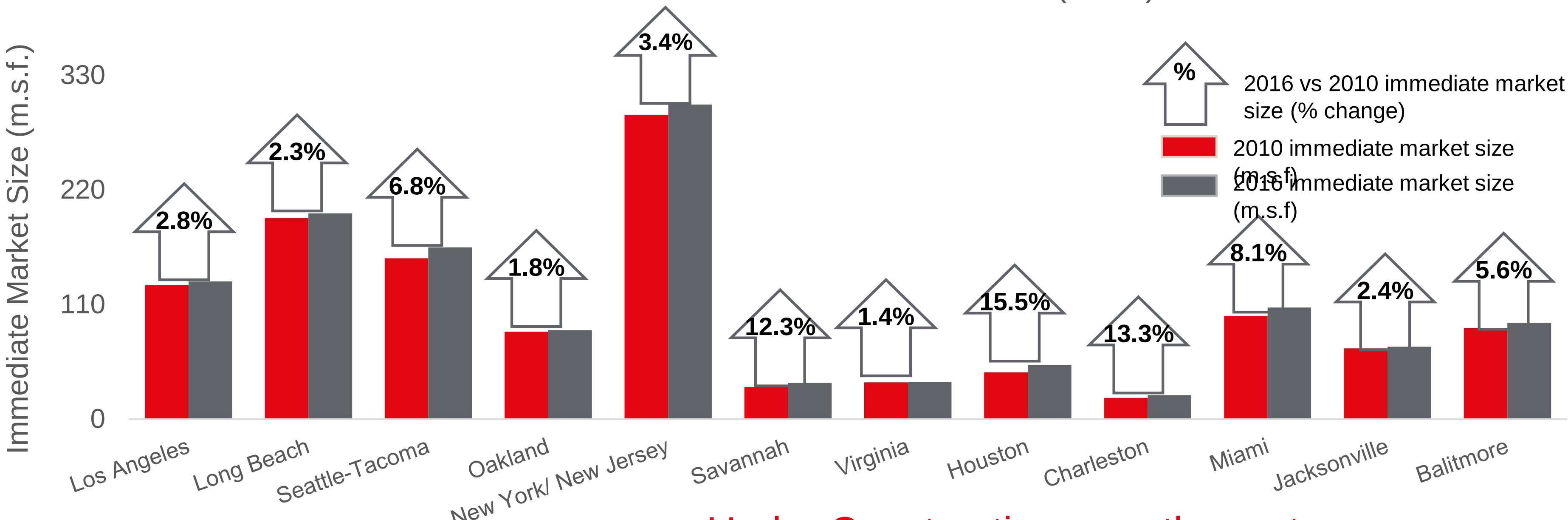


Industrial market near the ports are growing, albeit at a slower rate than the overall market

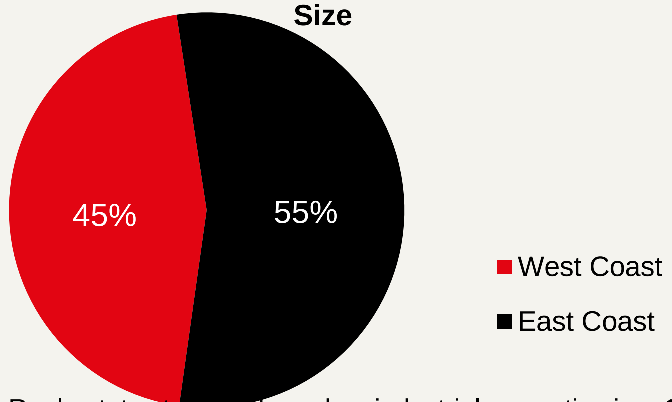
JLL

Comparing to 2015, the construction activity levels have doubled showing an increase in demand for warehouse and distribution space.

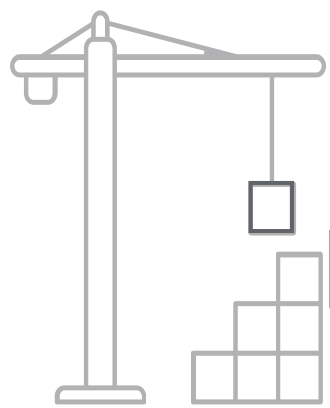
2016 vs 2010 US Ports Immediate Market size (m.s.f.)



East Coast has slight upper hand in Immediate Market Size



Under Construction near the ports



25.4 (m.s.f)

under construction

2x Amount of US construction in 2016 than in 2015

65% Of total US construction is at the East Coast

Note: Real estate stats are based on industrial properties in a 15-mile radius from seaports with a minimum building size of 50,000 square feet.

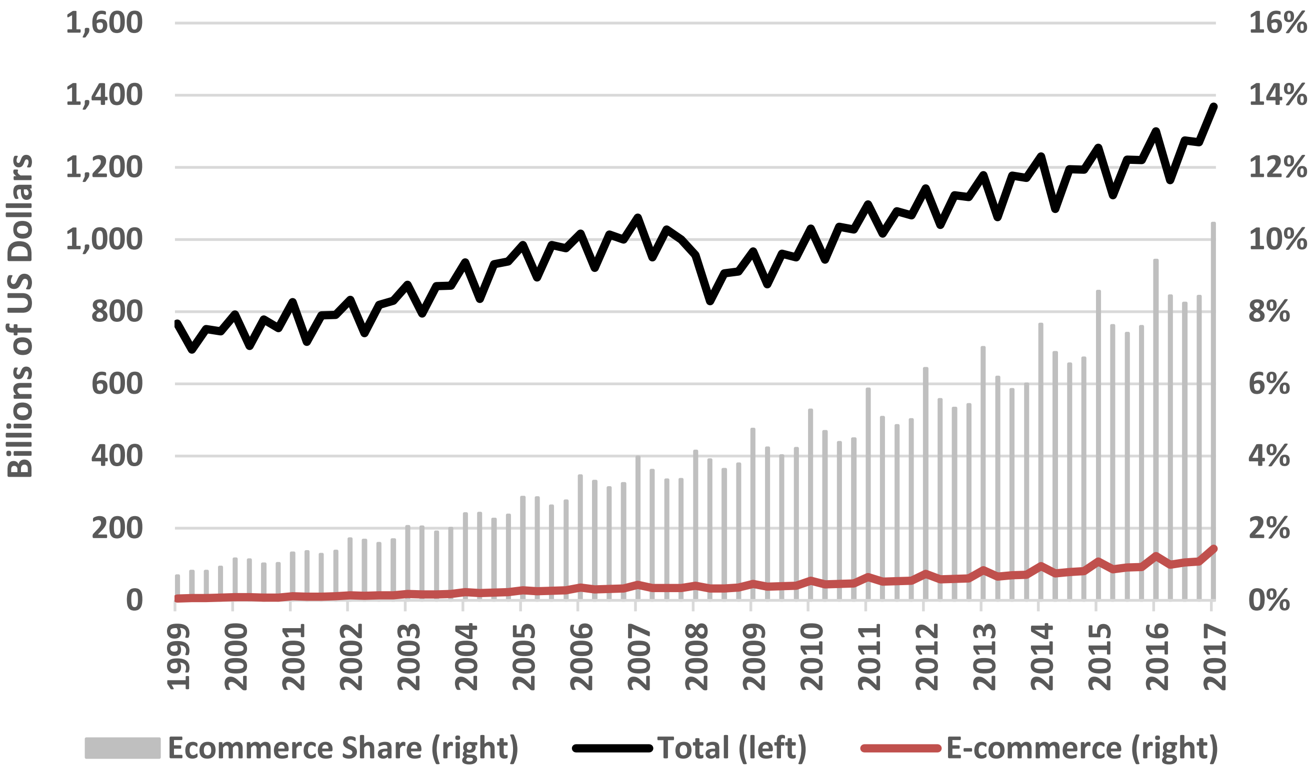
West Coast Ports include Long Beach, Los Angeles, Oakland, Seattle-Tacoma, and Vancouver

East Coast Ports include: Baltimore, Charleston, Houston, Jacksonville, Miami, New York/ New Jersey, Savannah, Virginia, and Montreal

PAGI

Ecommerce trends

RETAIL AND ECOMMERCE SALES



- Ecommerce share of retail sales has increased from less than 1% in Q4-1999 to 10.5% in Q4-2017
- Ecommerce is expected to continue to gain share as retailers adapt their business models and re-optimize their distribution networks
- The goal is to develop a successful omnichannel strategy

Source: Census Bureau, JLL

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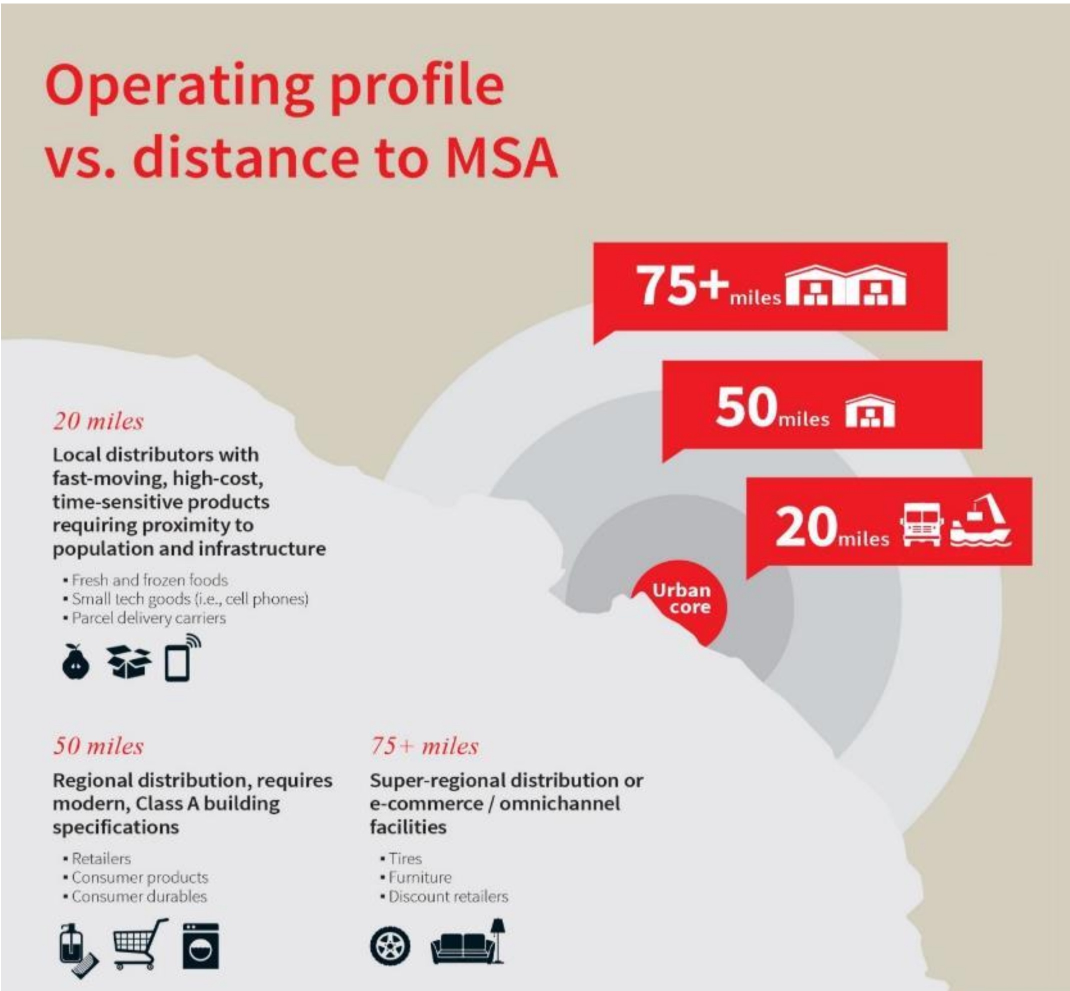
Omnichannel strategy



- Omnichannel is about maximizing share of each type of consumer
- Ecommerce requires more inventory in more places
- Successful retail outlets display more and hold less inventory
- Ecommerce fulfillment can be used to replenish retail outlets
- Successful omnichannel strategy requires more locations and types of structures
- Distribution networks development requires a lot more expertise compared to 10 years ago

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Questions?