



# Tishman Speyer Industrial Insights

*Follow the Containers: U.S. Consumption Markets*

*2Q 2023*



# Warehouse Demand Drivers

## The dramatic rise in global trade and United States container volumes fosters sustained distribution demand

Manufacturing employment fell to 12.2 million in 2020 from its peak of 19.6 million in 1979.<sup>1,2</sup> This decline in manufacturing employment was in part due to manufacturing being moved offshore. There was a noticeable shift towards outsourcing manufacturing jobs from the United States to countries with lower labor costs starting in the 1960s and 1970s.

The rise of offshoring also spurred a significant increase in trade and imports into the U.S. This led to parallel growth in the utilization of containers to transport goods. The U.S. handled about 8.4 million<sup>3</sup> TEU (twenty-foot equivalent units) per year in 1980 and by 2020 this grew over 550% to an estimated ~55 million<sup>4</sup> TEU per year. This growth should continue as global trade is expected to grow over 15% between 2021 and 2025.<sup>5</sup> The rise in container volume and outsourcing of manufacturing closely correlates with the growth of global trade and production and has also increased demand for space to store and distribute these imported goods. Increasing trade volumes

into the U.S. over the last 40 years have supported long term growth in industrial space with around 18.1 billion square feet of industrial inventory as of 2022.<sup>6</sup> This growth has been particularly outsized in markets near major ports.

Regions such as Southern California broadly and the Inland Empire in particular have experienced particularly rapid industrial growth and demand due to their proximity to the major ports of LA and Long Beach and transportation hubs. Strong demographics in combination with the growth of transportation hubs like the Port of New York and New Jersey near dense population and large consumer markets also make these areas attractive locations for warehouse and distribution operations. These regions are expected to continue to see strong demand for warehouse and industrial space as imports keep growing from increased consumer demand and falling domestic manufacturing as it has moved offshore (see more detail on markets on next page).

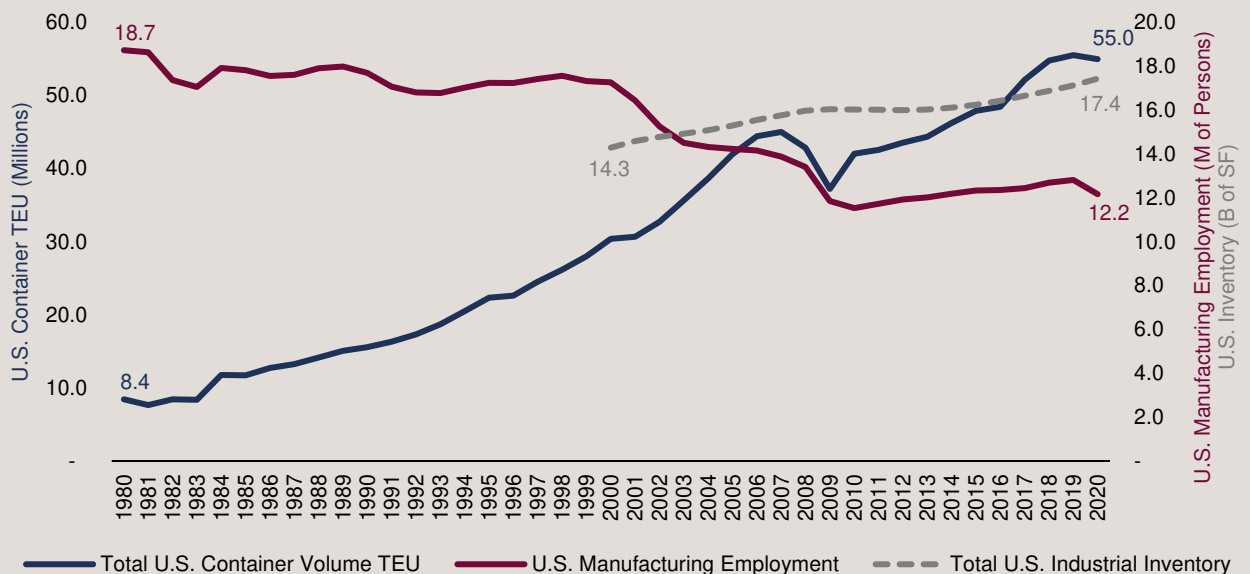
### Decline of U.S. Manufacturing Employment<sup>1</sup>



### Growth of U.S. Container Volume in TEU<sup>3,4</sup>



Figure 1: Growth of U.S. Port Volume Offset By Decline in Domestic Manufacturing<sup>1,3,4,7</sup>



# Global Consumption Markets

## Concentrating on select United States markets with high consumer demand

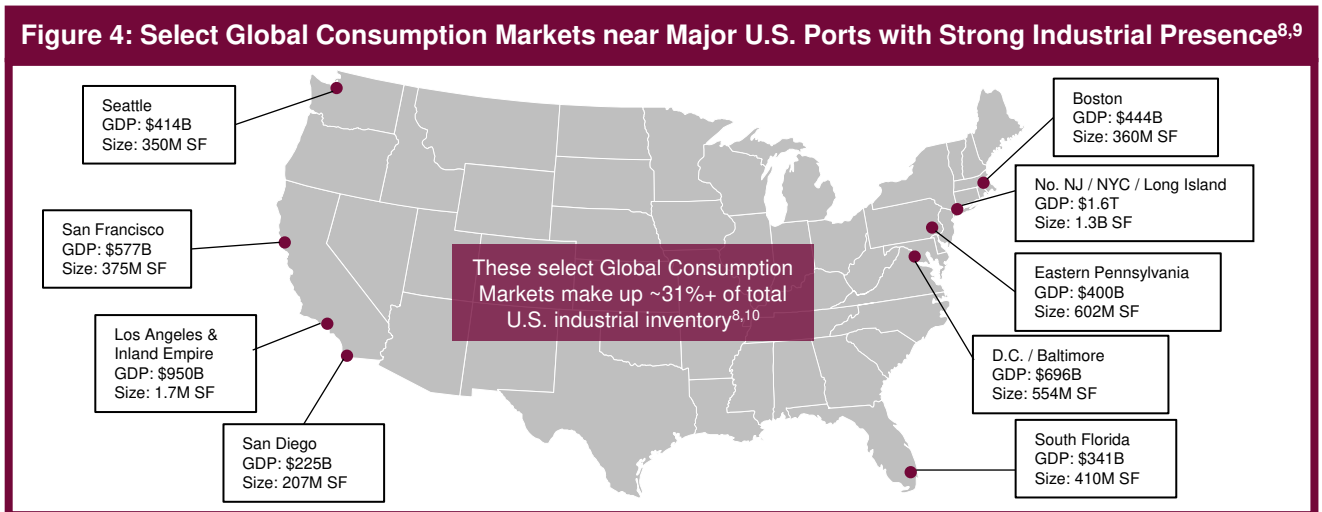
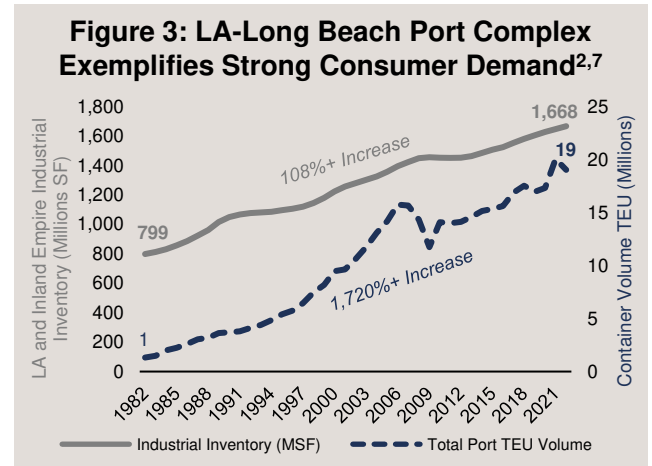
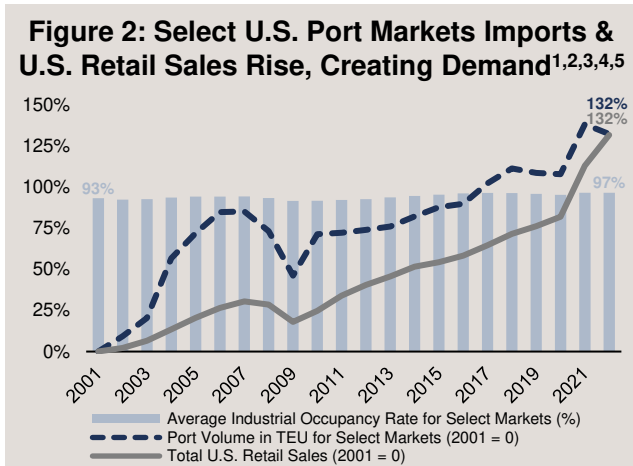
The accelerated transformation of U.S. trade and production over the last two decades is especially evident in select global consumption markets near major ports. Analyzing six of the largest U.S. ports with available data (Port of LA, Port of Long Beach, Port of New York/New Jersey, Port Everglades, Port of Oakland, Port of Seattle & Tacoma)<sup>1,2</sup> alongside U.S. retail sales and industrial demand in the corresponding MSAs<sup>3</sup> highlights this trend.

As U.S. retail sales have increased 132% since 2001 so has port container volume in these coastal markets increasing by over 132%. This highlights the surging demand for goods from U.S. consumers in these high consumption areas driving the heightened demand for industrial space near these favorable consumer markets, as they sustained average occupancy rates of 94% since 2001.

One of the busiest U.S. ports, Port of Los Angeles, serves

as a representative example of the strong consumer demand sustained in these markets. The Los Angeles-Long Beach port complex consistently handles some of the highest total trade volume in the U.S. and has also experienced strong demand for local industrial space to store and distribute imported goods to the high-density region. This is evident as LA industrial space has maintained low vacancy rates under ~5% since 2009 as of the first quarter of 2023 and inventory has grown over 108% from 1982 to 2022.<sup>6,7</sup>

These port-accessible markets have emerged as some of the strongest industrial markets in the nation as they serve several of the country's most populous MSAs. The demand for industrial space in these markets is expected to continue to rise as U.S. retail sales continue to rise and imports increase.



# Fundamentals

## Limited land and robust overlapping demand for goods and services strongest in Tishman Speyer Target markets

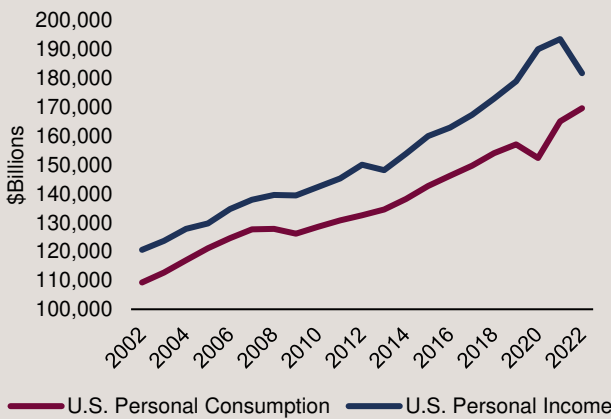
Given that U.S. real personal income is closely linked to real personal consumption, analyzing personal income levels within specific MSAs of 11 global consumption markets (Austin, Boston, Denver, Chicago, LA, NY / NJ, San Diego, San Francisco, Seattle, South Florida, and D.C. / Baltimore)<sup>1</sup> demonstrates that these markets represent a significant portion of consumer demand nationwide. The majority of these markets are infill and coastal markets. The identified 11 global consumption markets have on average been ~30% of total U.S. personal income annually since 2008.<sup>2,3</sup> They made up ~29% of U.S. total personal income in 2008 and by 2021 these markets remained consistent making up ~30%.<sup>2,3</sup>

These 11 markets are well positioned for sustained industrial growth and demand due to their strong consumer base as they average high population density of ~10,592 people per square mile as of 2020 as well as other resilient market fundamentals. Between 2009 and 2021 these

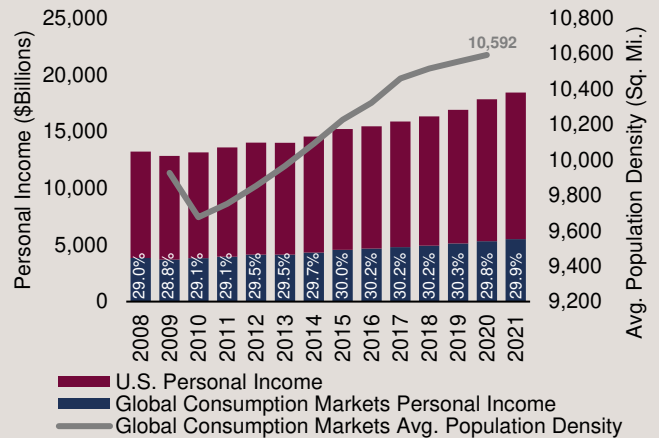
markets maintained higher median household incomes compared to the U.S. averaging \$63,500 in 2009 compared to \$50,200 and averaging \$92,500 in 2021 compared to \$69,700, respectively.<sup>3,4</sup> These markets have also witnessed meaningful population growth averaging 10.3% compared to the U.S. average of 6.5% from 2009 to 2021.<sup>3,5</sup>

The resilience of personal income levels, household income, and population growth in these markets make them priority markets of focus for the growth of the industrial industry. Their strong local economies and consumer bases with high population density are aligned with prominent and growing industrial markets and major U.S. ports as companies require additional space to store and distribute goods to meet growing demand. These 11 markets should continue to see increased consumer demand and to outperform other industrial markets that do not possess the same robust economic fundamentals.

**Figure 5: U.S. Personal Consumption & U.S. Personal Income Are Linked<sup>6,7</sup>**



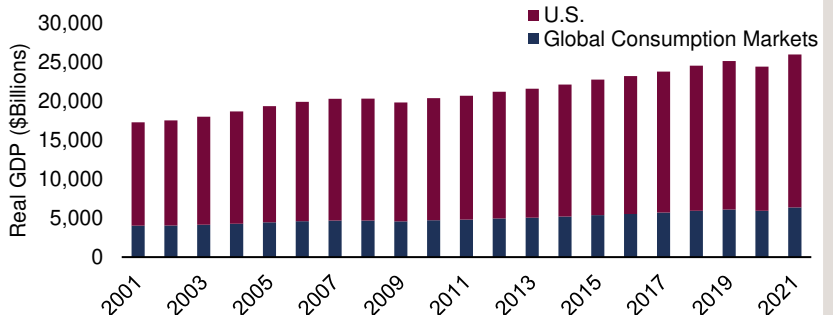
**Figure 6: Global Consumption Markets Make Up Significant Share of U.S. Personal Income<sup>2,3,8</sup>**



### Global Consumption Markets Remain Consistent Economic Centers

These 11 global consumption markets have accounted for ~30% to 33% of the total U.S. real GDP over the past two decades. This data underscores the significant economic impact of these markets on the U.S. economy and suggests that this impact is likely to continue as these markets experience further growth and demand.

**Figure 7: Markets are Substantial Portion of U.S. GDP<sup>9,10</sup>**



# Footnotes

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<sup>1</sup> U.S. Bureau of Labor Statistics, U.S. Manufacturing Employment, All Employees, 1980 to 2020.

<sup>2</sup> U.S. Bureau of Labor Statistics, “*Forty Years of Falling Manufacturing Employment*”, November 30, 2020.

<sup>3</sup> U.S. Bureau of Transportation, America's Container Ports: Freight Hubs That Connect Our Nation to Global Markets, November 30, 2011.

<sup>4</sup> United Nations Conference on Trade and Development, United States Container Port Throughput 2008 to 2020.

<sup>5</sup> Statista, Global Container Port Throughput 2012-2025, April 21, 2022.

<sup>6</sup> CoStar, U.S. Industrial Market Inventory 2022, May 2023.

<sup>7</sup> CoStar, U.S. Industrial Market Inventory 2000-2020, May 2023.

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<sup>1</sup> Select Market Ports with available detailed historical data include: Port of Los Angeles, Port of Long Beach, Port of New York / New Jersey, Port Everglades (Fort Lauderdale), Port of Oakland, and Port of Seattle & Tacoma.

<sup>2</sup> Annual Port data in TEU pulled March 2023 individually from following sources: Port of Los Angeles Container Statistics, Port of Long Beach Statistics, Port of New York / New Jersey Facts and Figures, Port Everglades Waterborne Commerce Data, Port of Oakland Facts & Figures, The Northwest Seaport Alliance Cargo Statistics for Port Seattle & Tacoma.

<sup>3</sup> CoStar, Select Markets Average Annual Occupancy 2001 - 2022, May 2023: Markets Include – Seattle, WA; San Francisco includes CoStar Markets: East Bay, CA and San Francisco, CA; Los Angeles includes CoStar Markets: Los Angeles, CA and Inland Empire, CA; No. NJ / NYC / Long Island includes CoStar Markets: New York, NY, Northern New Jersey, and Long Island, NY; South Florida includes CoStar Markets: Fort Lauderdale, FL and Miami, FL.

<sup>4</sup> U.S. Census Bureau, U.S. Total Annual Retail Sales 2001-2022, March 2023.

<sup>5</sup> Note the TEU data for Port of Seattle & Tacoma is only available back to 2004 and is included in the analysis starting in 2004. All other ports included in the analysis start in 2001.

<sup>6</sup> JLL, Los Angeles Industrial Insights Report Q1 2023, April 11, 2023.

<sup>7</sup> CoStar, Los Angeles, CA and Inland Empire, CA Industrial Inventory 1982 to 2022, May 2023.

<sup>8</sup> Industrial Market Size from CoStar as of May 2023: Markets include – Seattle, WA; San Francisco includes CoStar Markets: East Bay, CA, San Francisco, CA; Los Angeles includes CoStar Markets: Los Angeles, CA and Inland Empire, CA; San Diego, CA; Boston, MA; No. NJ / NYC / Long Island includes CoStar Markets: New York, NY, Northern New Jersey, and Long Island, NY; Eastern PA includes CoStar Market: Philadelphia, PA; Washington D.C. and Baltimore, MD; South Florida includes CoStar Markets: Fort Lauderdale, FL and Miami, FL.

<sup>9</sup> For GDP Markets Represented based on FRED Total Real GDP in 2021 for following Markets: Seattle: Seattle-Tacoma-Bellevue, WA (MSA); San Francisco: San Francisco-Oakland-Hayward, CA (MSA); Los Angeles: Los Angeles-Long Beach-Anaheim, CA (MSA); San Diego: San Diego-Carlsbad, CA (MSA); Boston: Boston-Cambridge-Newton, MA-NH (MSA); NY/NJ: New York-Newark-Jersey City, NY-NJ-PA (MSA); Eastern PA: Philadelphia-Camden-Wilmington, PA-NJ-DE-MD (MSA); D.C. & Baltimore: Washington-Arlington-Alexandria, DC-VA-MD-WV (MSA) and Baltimore-Columbia-Towson, MD (MSA); South Florida: Miami-Fort Lauderdale-West Palm Beach, FL (MSA).



# Footnotes

## **Page 3 (continued)**

<sup>10</sup> CoStar, U.S. Industrial Market Inventory May 2023, May 2023.

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<sup>1</sup> Global Consumptions Market MSAs include: Austin, Boston, Denver (including Colorado Springs), Chicago, Los Angeles (including Riverside), NY / NJ Region, San Diego, San Francisco (including San Jose), Seattle, South Florida, and Washington D.C. / Baltimore.

<sup>2</sup> FRED, Real Personal Income, Thousands of Chained Dollars, Annual, Not Seasonally Adjusted for select MSA markets and total U.S. 2008 to 2021.

<sup>3</sup> MSA markets for Real Personal Income, Median Household Income, and Population Growth data: Austin: Austin-Round Rock, TX (MSA), Baltimore: Baltimore-Columbia-Towson, MD (MSA), Boston: Boston-Cambridge-Newton, MA-NH (MSA), Denver: Denver-Aurora-Lakewood, CO (MSA) & Colorado Springs, CO (MSA), Chicago: Chicago-Naperville-Elgin, IL-IN-WI (MSA), LA Region: Los Angeles-Long Beach-Anaheim, CA (MSA) and Riverside-San Bernardino-Ontario, CA (MSA), South Florida: Miami-Fort Lauderdale-West Palm Beach, FL (MSA), NY/NJ/Long Island: New York-Newark-Jersey City, NY-NJ-PA (MSA), San Diego: San Diego-Carlsbad, CA (MSA), San Francisco region: San Francisco-Oakland-Hayward, CA (MSA) and San Jose-Sunnyvale-Santa Clara, CA (MSA), Seattle: Seattle-Tacoma-Bellevue, WA (MSA), and D.C.: Washington-Arlington-Alexandria, DC-VA-MD-WV (MSA).

<sup>4</sup> Median Household Income, Weighted Average 2009 to 2021 from Tishman Speyer Data Analytics Team pulled in March 2023 for select MSA markets and total U.S.

<sup>5</sup> Average population growth annually between 2009 and 2021 from Tishman Speyer Data Analytics Team pulled in March 2023 for select MSA markets and total U.S.

<sup>6</sup> FRED, U.S. Real Personal Consumption Expenditures, Billions of Chained 2012 Dollars, Annual, Seasonally Adjusted Annual Rate 2002 to 2022.

<sup>7</sup> FRED, U.S. Real Disposable Personal Income, Billions of Chained 2012 Dollars, Annual, Seasonally Adjusted Annual Rate 2002 to 2022.

<sup>8</sup> Population Density for Global Consumption Markets from U.S. Census American Community Survey data on Open Data Network 2009 to 2018 and U.S. Census Bureau Quick Facts for 2020. Cities included in analysis: Austin, Boston, Denver, Chicago, Los Angeles, Long Beach, New York City, San Diego, San Francisco, Seattle, Miami, Fort Lauderdale, Washington D.C., and Baltimore.

<sup>9</sup> GDP by Market MSA and total U.S. from 2001 to 2021 from Tishman Speyer Data Analytics Team pulled in March 2023.

<sup>10</sup> MSA Markets from Tishman Speyer Analytics Team for GDP include: Austin: Austin-Round Rock-Georgetown, TX (MSA), Baltimore: Baltimore-Columbia-Towson, MD (MSA), Boston: Boston-Cambridge-Newton, MA-NH (MSA), Denver & Colorado Springs Counties: El Paso, Adams, Arapahoe, Denver, Douglas, and Jefferson, Chicago: Chicago-Naperville-Elgin, IL-IN-WI (MSA), LA Region: Los Angeles-Long Beach-Anaheim, CA (MSA) and Riverside-San Bernardino-Ontario, CA (MSA), South Florida: Miami-Fort Lauderdale-Pompano Beach, FL (MSA), NY/NJ Area Counties: New York NY, Queens NY, Kings NY, Bronx NY, Hudson NJ, Bergen NJ, Bergen NJ, Westchester NY, Essex NJ, Union NJ, San Diego: San Diego-Chula Vista-Carlsbad, CA (MSA), San Francisco Region: San Francisco-Oakland-Berkeley, CA (MSA) and San Jose-Sunnyvale-Santa Clara, CA (MSA), Seattle: Seattle-Tacoma-Bellevue, WA (MSA), and D.C.: Washington-Arlington-Alexandria, DC-VA-MD-WV (MSA).



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