

Ports for the 21st Century US Economy

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October 22, 2020



Some Sustainable Trends



Surface Transportation – shifting from long haul over the road to intermodal

Omnichannel/E-commerce – re-thinking logistics from the first to beyond the last mile

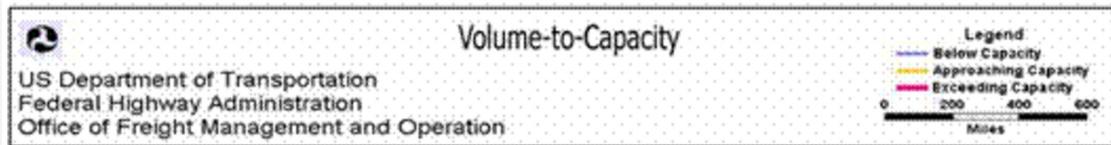
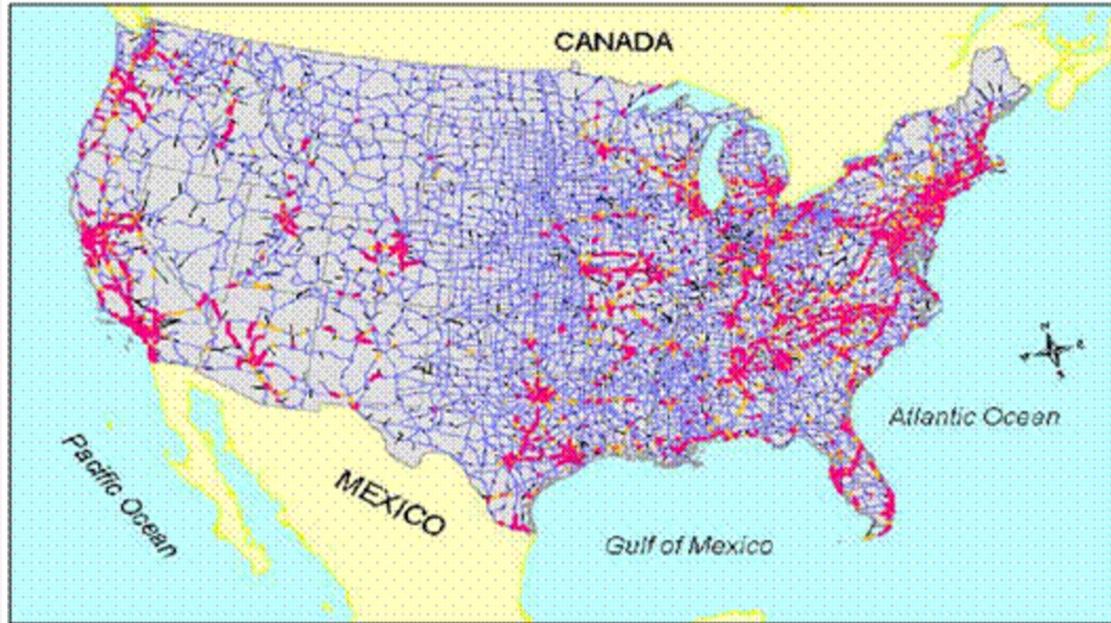
Technology – implications of 5G for automation and autonomous vehicles

Trade Policy – defining essential product supplies and global supply chain diversification

Energy – transition to renewables

Congestion is getting worse and... ecommerce is growing

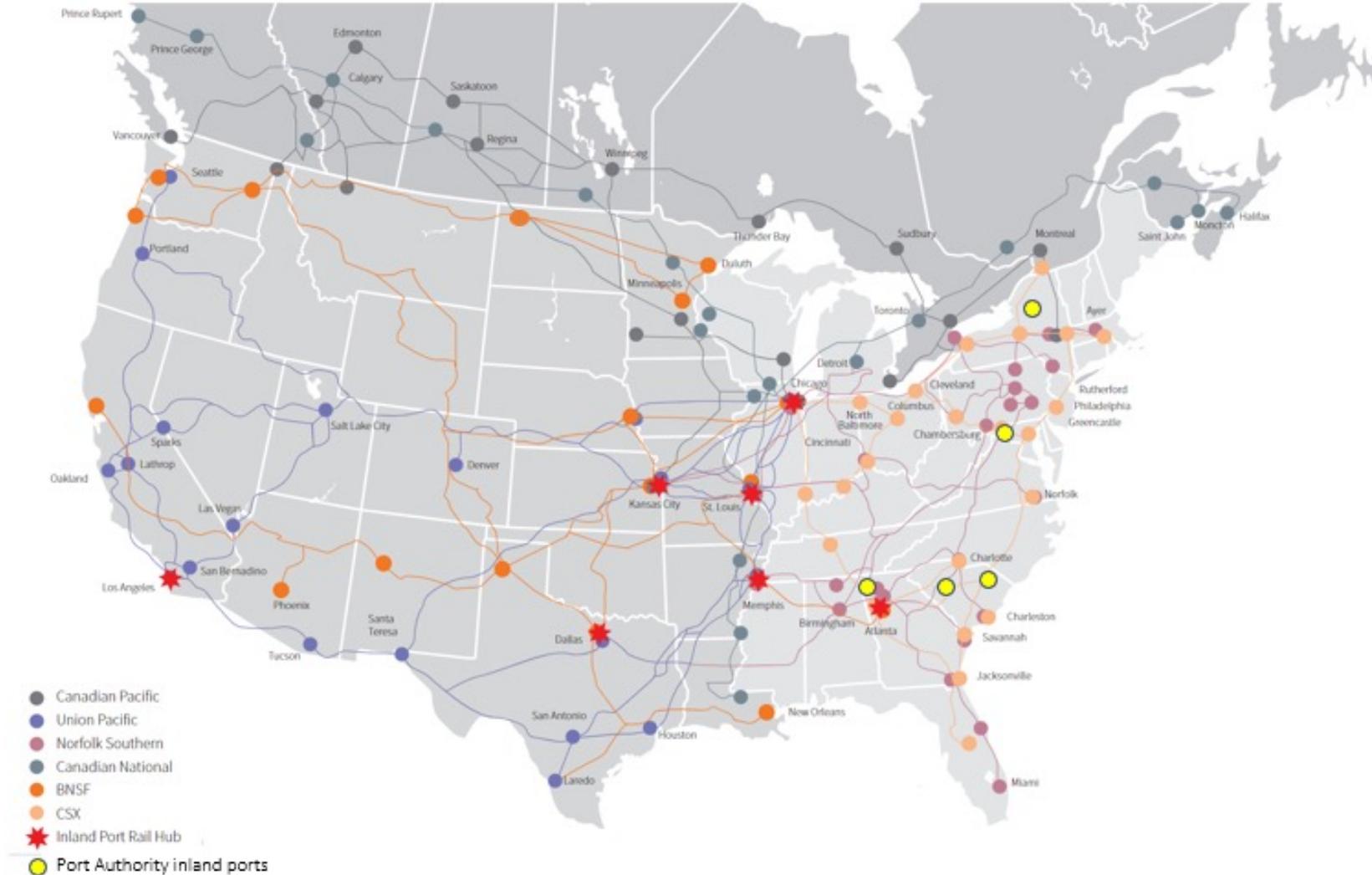
2020 CONGESTION FORECASTS, WITH TRUCKS



ECOMMERCE VS. TOTAL RETAIL SALES



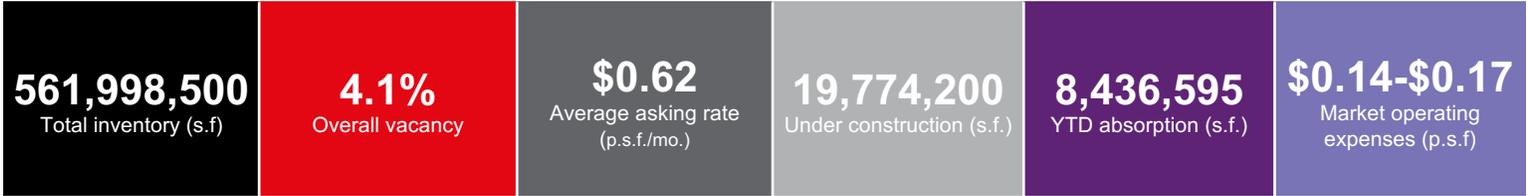
Inland ports



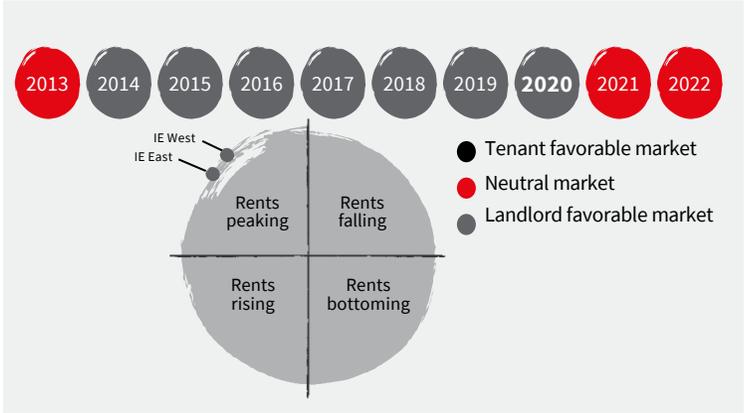
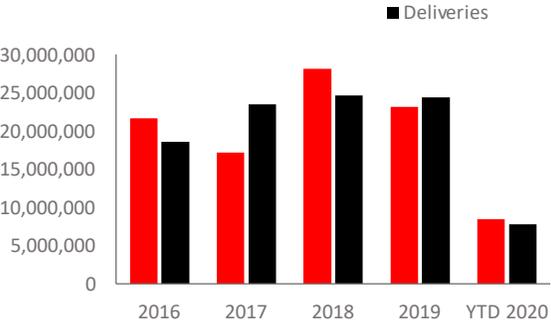
- Long haul freight has been shifting from trucks to trains: in 2003 average length of haul per trip was ~800 miles in 2018 it declined to ~500 miles.
- Trucker driver median age is 55 and its difficult to attract younger workers to trucking jobs
- Railroads have become more efficient and can compete with trucks over shorter distances
- Inland ports along the Dallas to Chicago corridors are best positioned to gain

Inland Empire | Industrial Market Overview

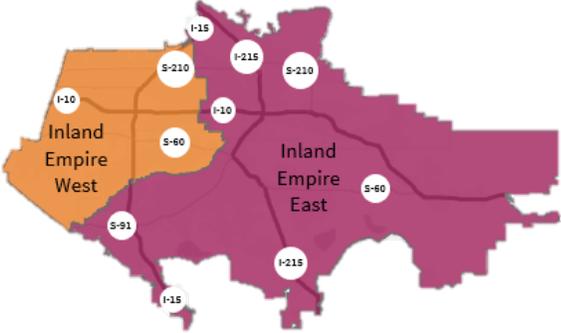
2nd quarter 2020



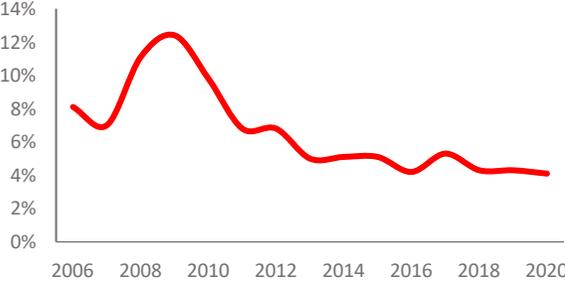
Supply and demand (s.f.)



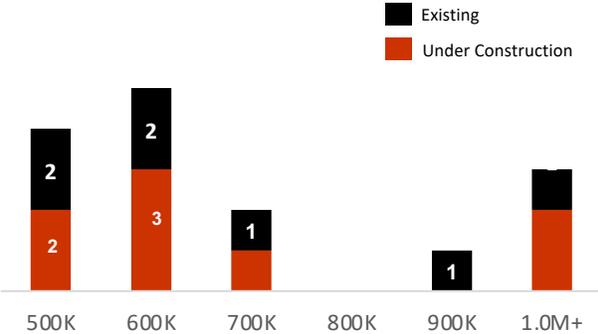
Inland Empire Industrial Submarket Map



Total vacancy



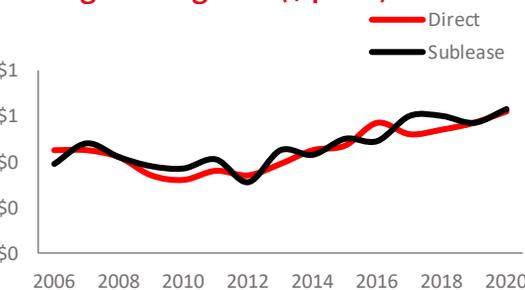
Available quality blocks of space: Warehouse & Distribution Inventory



Inland Empire demographics

Population	4,649,818
Workforce	1,319,595
Unemployment Rate	17.6%
Median Household Income	\$61,700
Per Capita Income	\$27,125

Average asking rent (\$ p.s.f.)



Industrial real estate demand on the rise in the U.S.

JLL projects growth of over 1 billion square feet by 2025

Investing in industrial real estate was never considered as attractive as office or retail in the past. However, this dynamic has changed, in large part, due to the growth of e-commerce. Investing in industrial real estate is red hot and the continued growth of consumer online shopping drives the need for additional warehouse space. Industrial real estate — including plants, warehouses and distribution facilities — has been the investment “asset class of choice” the past several years and demand is on the rise.

“Since 2011 industrial rent growth has been positive and vacancy rates have been at historic lows providing attractive, stable, long-term returns to investors. These solid fundamentals and the fact that e-commerce still has a long runway for growth makes industrial real estate the darling of the commercial real estate industry,” according to Craig Meyer, JLL’s President of Industrial Services and a 40-year industry veteran.

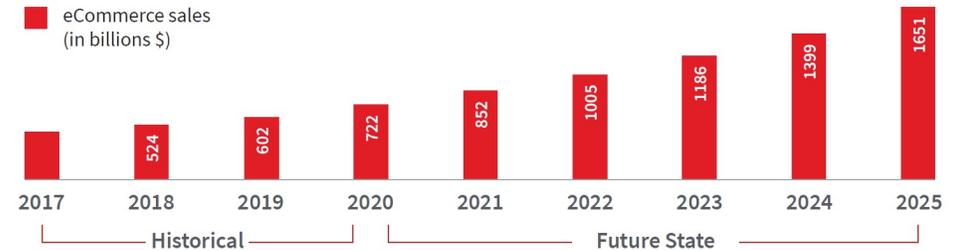
Industrial real estate is the *darling* of the commercial real estate industry

Growth of e-commerce sales in the U.S. has averaged 14.5% over the three-year period from 2017 to 2019 but represented just 16% of total retail sales at the end of 2019, per Digital Commerce 360. It is expected to grow as much as 30% or more, so there is a lot of room for expansion.

“We have historically attributed as much as 35% of industrial leasing to e-commerce. Currently, as much as 50% of our leasing activity can be attributed to e-commerce related operations,” says Meyer.

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“E-commerce has been one of the biggest game changers to supply chain management since the introduction of the world wide web and the internet,” according to Rich Thompson, JLL’s Global Supply Chain & Logistics Consulting Leader. “It has fundamentally changed the way consumers buy as well as their expectations for delivery,” Thompson adds.



The COVID-19 pandemic and shelter-in-place policies that ensued have accelerated both the growth and adoption rates of e-commerce. According to Digital Commerce 360, sales hit \$602 billion in the U.S. at the end of 2019. JLL expects it to grow as much as 20% in 2020 and projects that sales could hit \$1.5 trillion by 2025.

“E-fulfillment is among the most intensive uses of logistics real estate,” reports Chris Caton, Head of Global Strategy & Analytics for Prologis, the largest owner, operator and developer of logistics real estate in the world. “Prologis estimates these customers will require 1.2 million square feet of distribution space for each \$1 billion in sales, which means e-commerce requires three times the space as traditional through-put distribution.”

JLL has done their own research, due diligence, and consulted with other experts in this area and concludes this to be a reliable metric. Given our projections for e-commerce growth through 2025, an additional \$900 billion in sales would equate to a demand for over 1 billion square feet of industrial real estate by 2025.

JLL projects demand for an additional 1 billion + square feet of industrial real estate by 2025

These projections do not take into account what percentage of the 1 billion square feet would be “net new” space or repurposed existing space. The projections also do not take into consideration three other important positive influencers:

1. Growth and evolution of the larger business-to-business (B2B) segment.
2. Anticipated increases in inventories or safety stock levels.
3. Some level of resurgence in U.S. manufacturing.

JLL Position Paper – Industrial Real Estate Demand

Industrial real estate demand on the rise in the U.S. (cont'd)

JLL fully expects additional demand for industrial space associated with each of the above.

E-commerce fulfillment or business-to-consumer (B2C) operations are much different from the more traditional B2B distribution operations as they are focused on individual orders in a pick and pack environment versus pallets of product. As consumer expectations have changed from their experiences with e-commerce, so have those in the larger B2B segment.

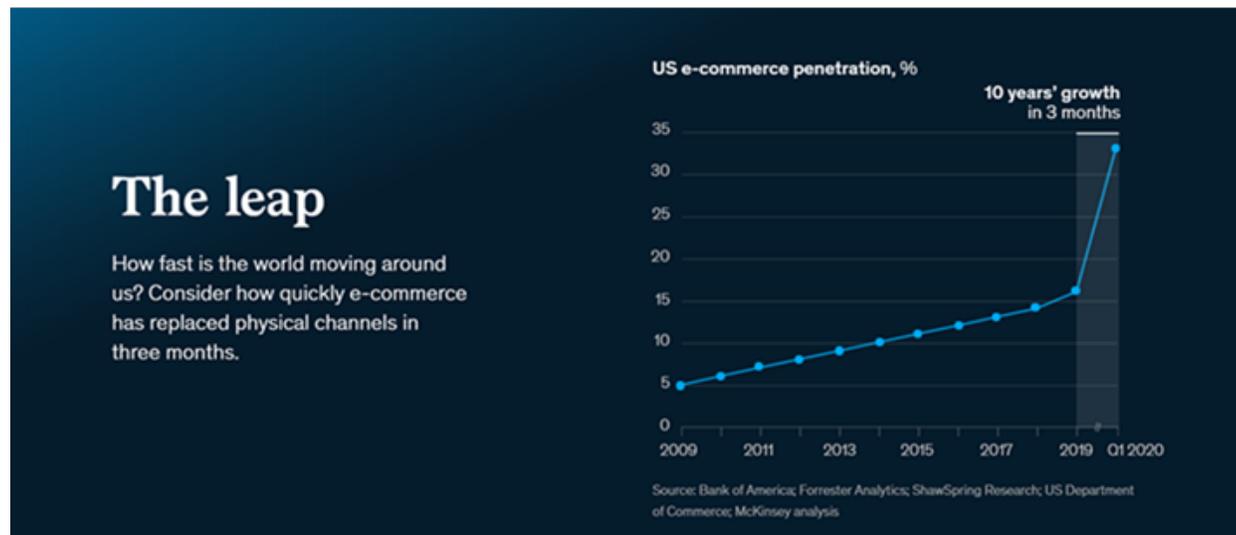
“Businesses are asking themselves, hey, if I can get my personal items delivered in one to two days for free, why does it take five to seven days to get office supplies to my place of business?” adds Thompson.

The layout and design of e-commerce facilities is often times very different. They typically employ as many as three times or more the number of employees in the same size building as a more traditional distribution center, are often automated with either material handling equipment or robotics, require more land for parking, carry more products or stock keeping units (SKUs), and often must deal with returns. “E-commerce operations and the facilities that house them are typically very customized to suit the specific needs of the fulfillment operator,” according to Thompson.

One of the fastest growing aspects of e-commerce has been online grocery. It has exploded during the pandemic as many households experimented for the first time with ordering online for pick-up or delivery. Surveys suggest that this trend is expected to continue post-pandemic. JLL projects the growth of cold storage facilities alone to grow as much as 100 million square feet by 2025 to keep up with overall demand.

Although the pandemic currently casts a fog over the economy and there is concern for individual health and safety, one thing appears clear... the continued growth of e-commerce and direct-to-consumer delivery channels will maintain strong momentum. This, in turn, will no doubt drive increased demand for industrial real estate for several years to come.

Think about it.



Growth of eCommerce sales in the U.S. has averaged 14.5% over the past three years and represented just 16% of total retail sales at the end of 2019. Sources now predicted that eC sales will grow to 35% or more this year. This is good news for industrial real estate.

Post-COVID 19: Inland Empire Transactional Activity

February 2020 – Current (±200,000 SF & Larger)



INLAND EMPIRE WEST

- Uline / 1.25M SF / Ontario
- Home Depot / 1.12M SF / Mira Loma
- TJ Maxx / 991K SF / Ontario
- **Kuhmo Tire / 800K SF / Rancho Cucamonga (*)**
- States Logistics (2 bldgs) / 636K SF / Ontario
- Amazon / 606K SF / Jurupa Valley
- **Nike / 589K SF / Ontario**
- NFI / 549K SF / Chino
- Solo Cup / 522K SF / Chino
- **Sam's Club / 448K SF / Jurupa Valley**
- Acuity Lighting / 434K SF / Ontario
- Fungyun / 414K SF / Fontana
- Custom Goods / 410K SF / Fontana
- Geodis / 402K SF / Ontario
- **Lennox Int'l / 377K SF / Eastvale**
- Comptree / 331K SF / Rancho Cucamonga
- Amazon / 323K SF / Chino
- **Petco / 329K SF / Jurupa Valley**
- El Super / 300K SF / Ontario
- California Dist. Centers / 237K SF / Ontario
- **Trek Bicycle / 207K SF / Ontario**
- **Nongshim / 200K SF / Rancho Cucamonga**
- **Boot Barn / 199K SF / Fontana**
- **Wieland Metal Services / 133K SF / Ontario**

INLAND EMPIRE EAST

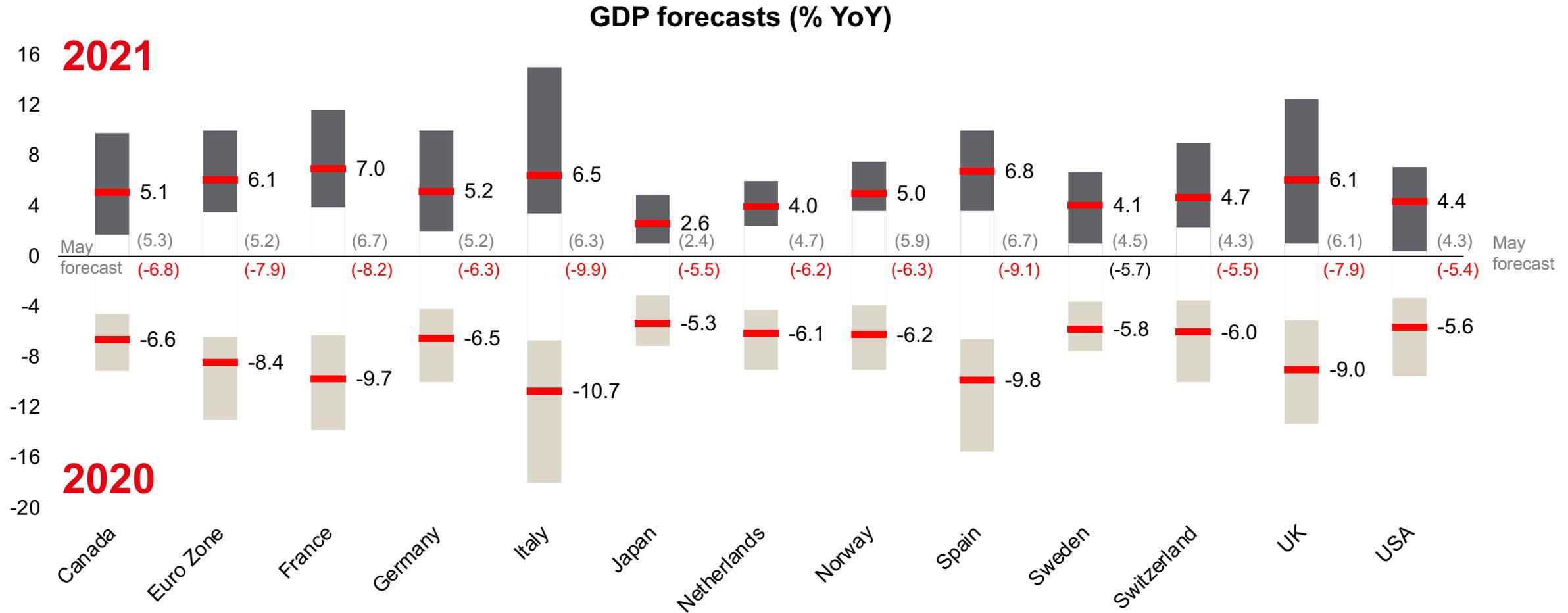
- All-Ways Pacific / 1.10M SF / Rialto
- **XPO Logistics / 912K SF / Perris**
- **Living Spaces / 800K SF / Rialto**
- Amazon / 800K SF / Perris
- **Lowe's / 756K SF / Moreno Valley**
- **American Building Supply / 715K SF / Rialto**
- Amazon / 615K SF / Rialto
- **Subaru / 543K SF / Rialto (*)**
- **Harbor Freight Tools / 522K SF / Moreno Valley**
- **Colgate / 505K SF / Rialto**
- XPO Logistics / 447K SF / Colton
- **Toolots, Inc / 436K SF / Perris**
- **LIXIL / 423K SF / Perris**
- **Royal Appliance / 400K SF / San Bernardino (*)**
- Amazon / 392K SF / San Bernardino
- Burlington Coat / 391K SF / San Bernardino
- **Skechers / 380K SF / Moreno Valley**
- Geodis / 355K SF / Riverside
- Shipmonk / 332K SF / San Bernardino
- Peloton / 210K SF / Perris
- **Porsche Cars / 202K SF / Rialto**
- **Hawthorne Hydroponics / 192K SF / San Bernardino**
- Goli Nutrition / Multiple Buildings / Norco

Red Font = JLL Involved Transaction *(*) = Deal Pending / Lease Out for Signature*

The global economic outlook shows the bottom and the bounce



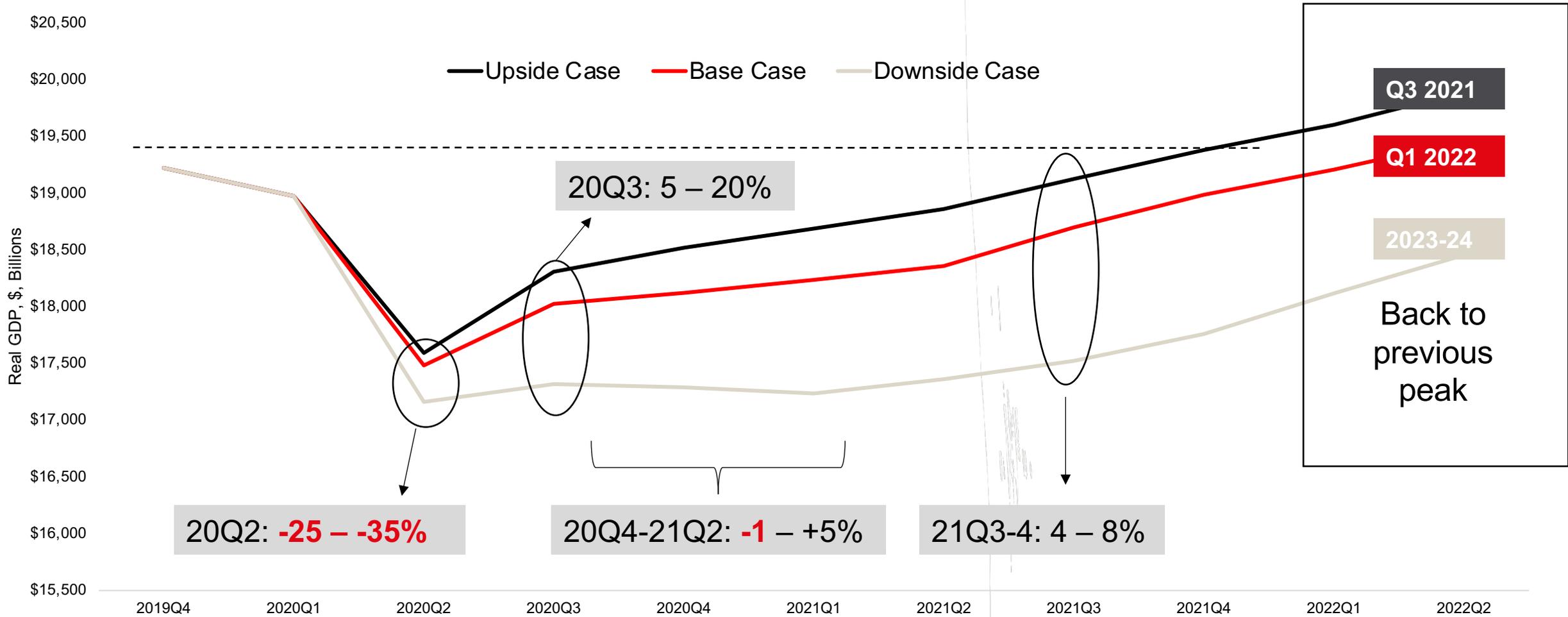
Forecasts for the 2020 downturn have worsened each month as the crisis has gone on



Source: Consensus Forecasts, June 2020. Figures in parentheses are Consensus Forecasts numbers from May 2020.

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U.S. base economic outlook still suggests a “broken V” or “swoosh” recovery – a bounce followed by slow grind



Key upside and downside risks to base case scenario for the U.S. economy in the second half of 2020



Medical breakthrough

Massive scientific effort underway and encouraging initial results on vaccines from Moderna, Astra Zeneca and others, but timing still uncertain.



Additional Stimulus

EU and U.S. discussing additional fiscal stimulus to boost economy and avoid a fiscal cliff.



Health conditions and policy

Most governors will likely resist new lockdowns, but state, corporate office, and school opening levels and schedules are at risk amidst growing cases.



Cautious consumers and corporates

Surging cases and fear or illness could cause consumers and corporates to hold back more than expected in spending and investment.



Fiscal Cliff

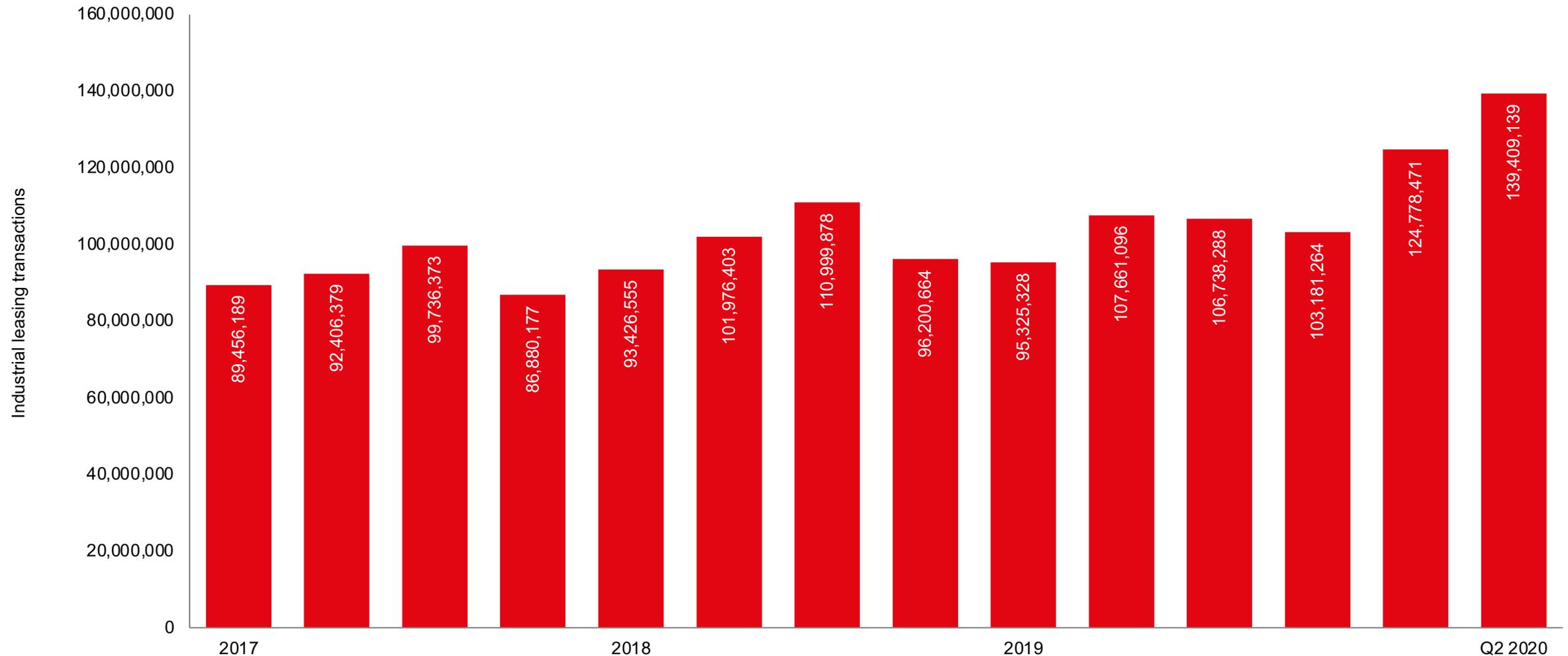
Expiration of government stimulus programs reduces incomes and eliminates support for employment. Fiscal cliff and fiscal budget challenges add risk.



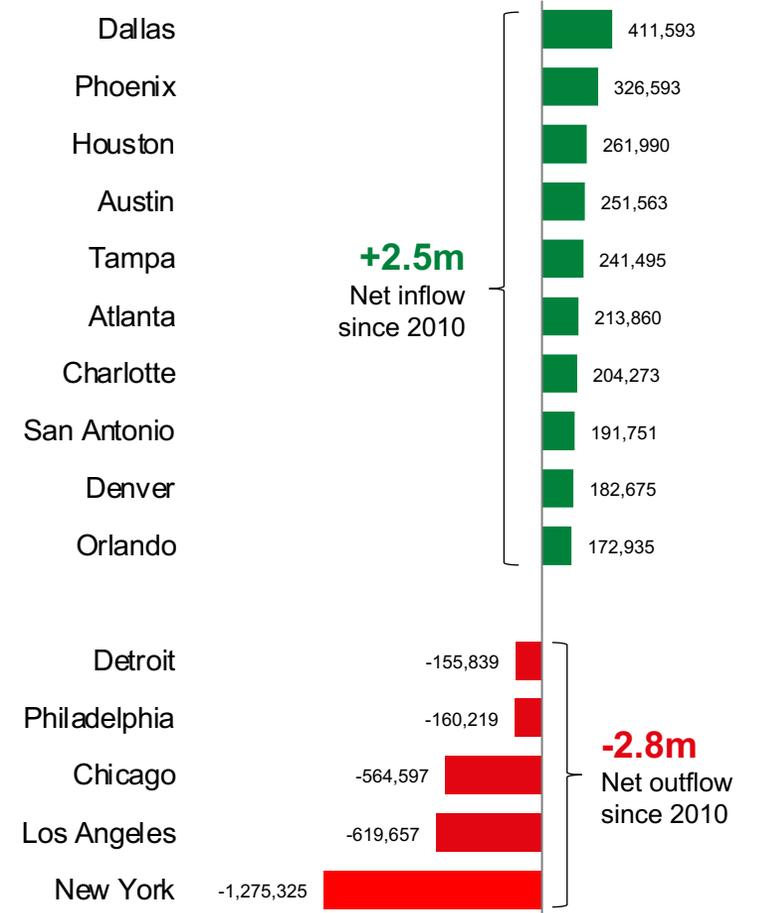
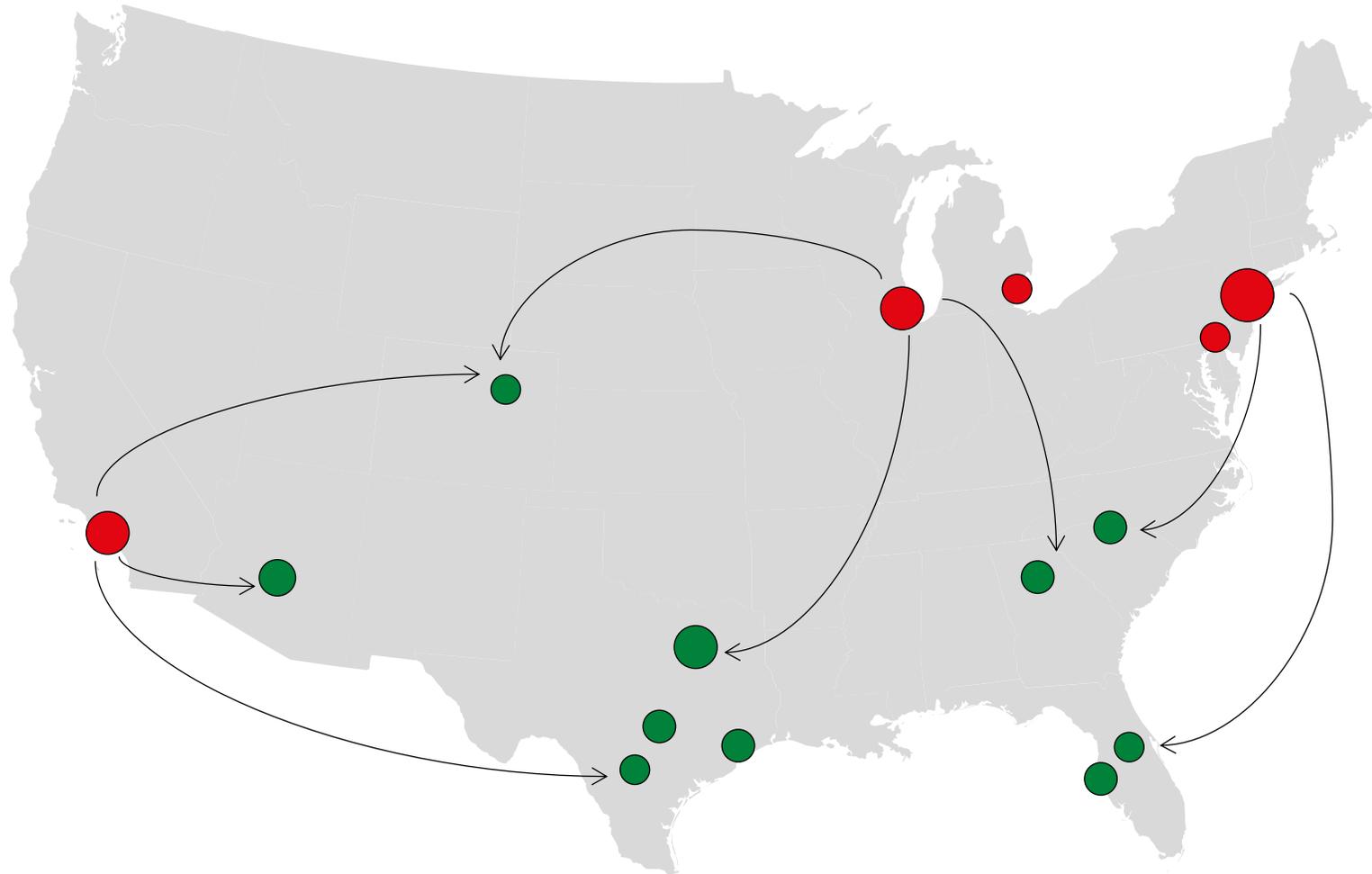
Election and policy uncertainty

Uncertainty of an election year and potential for mistakes on trade and immigration policy could imperil growth and decision making.

Industrial – leasing volumes continue to surge by 20% in Q1 and additional 13% in Q2 on ecommerce activity

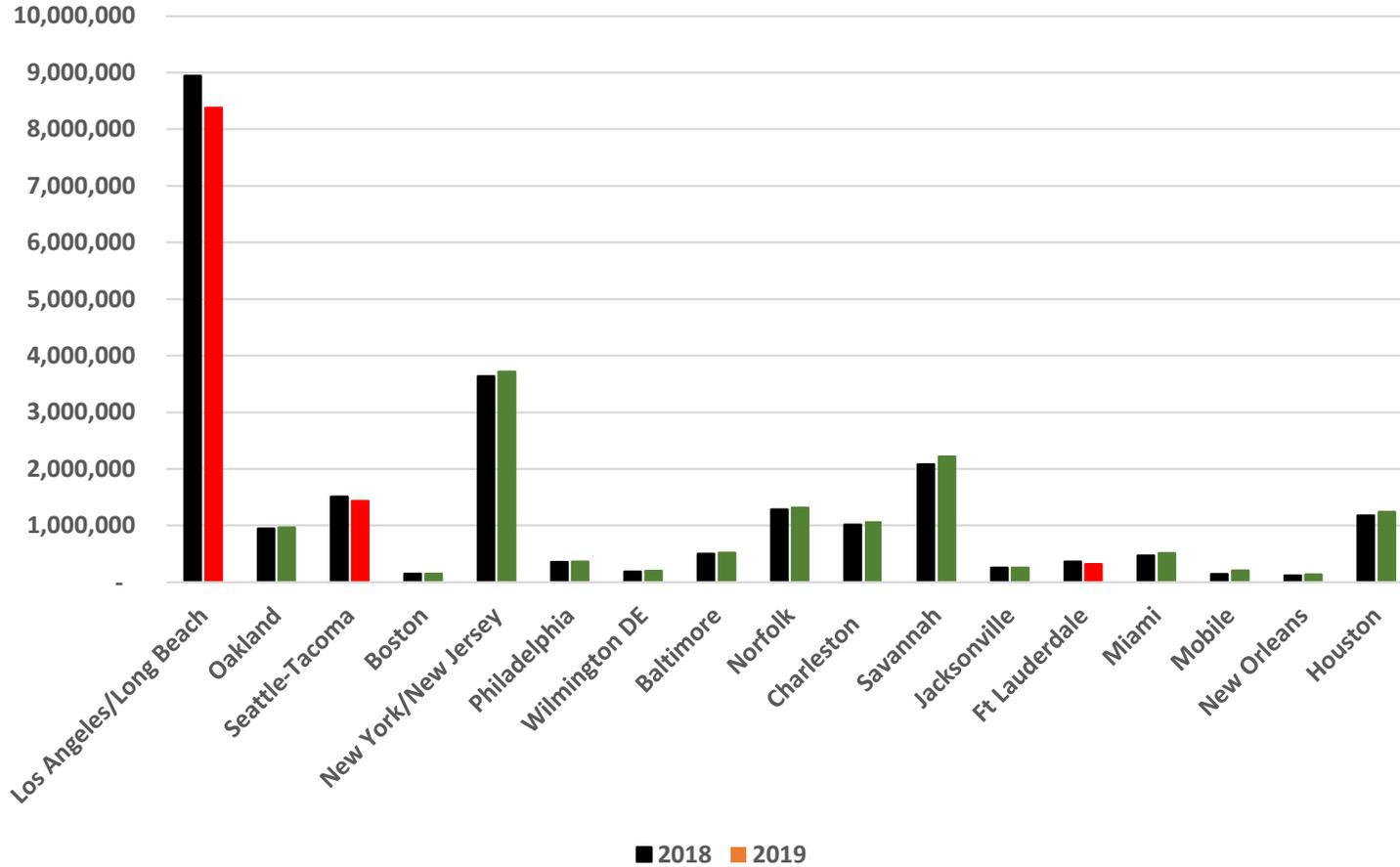


Domestic migration to growing, affordable, and high quality of life markets will continue to shape markets

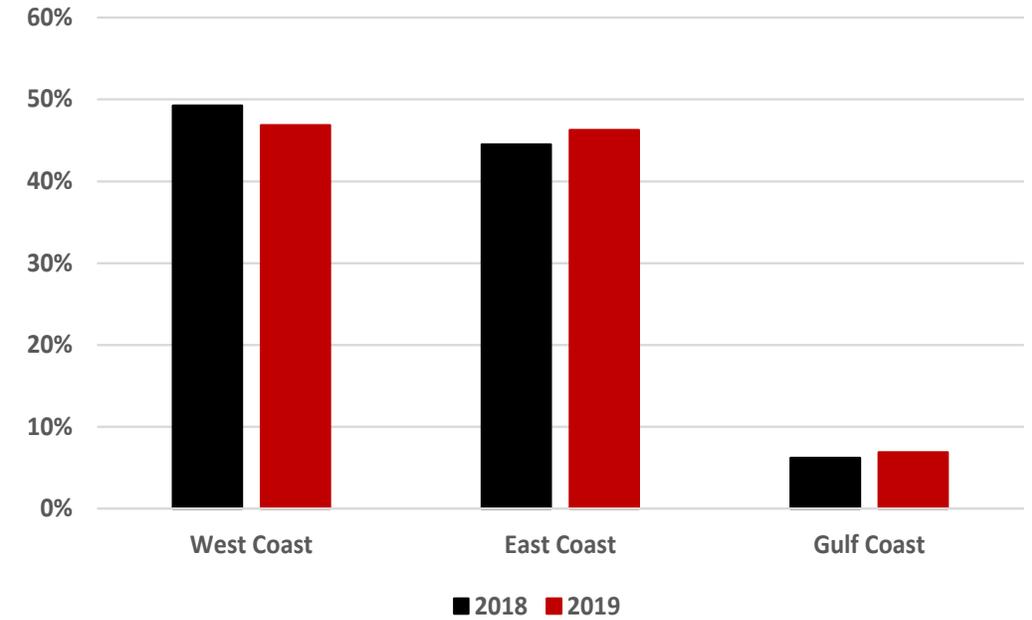


Recent imported container trends

2019 COMPARED TO 2018 FOR TOP 20 IMPORT VOLUME PORTS



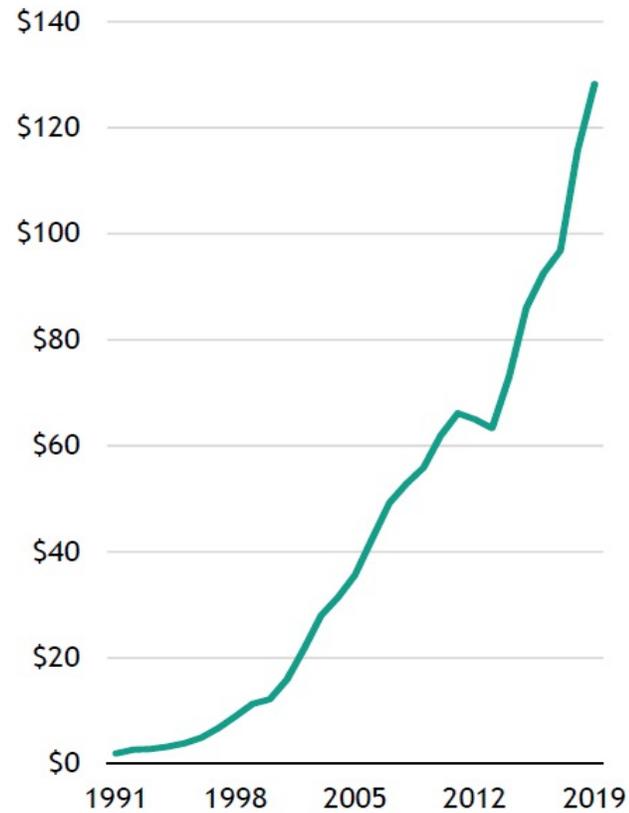
COASTAL SHARE OF IMPORT VOLUMES: 2018-19



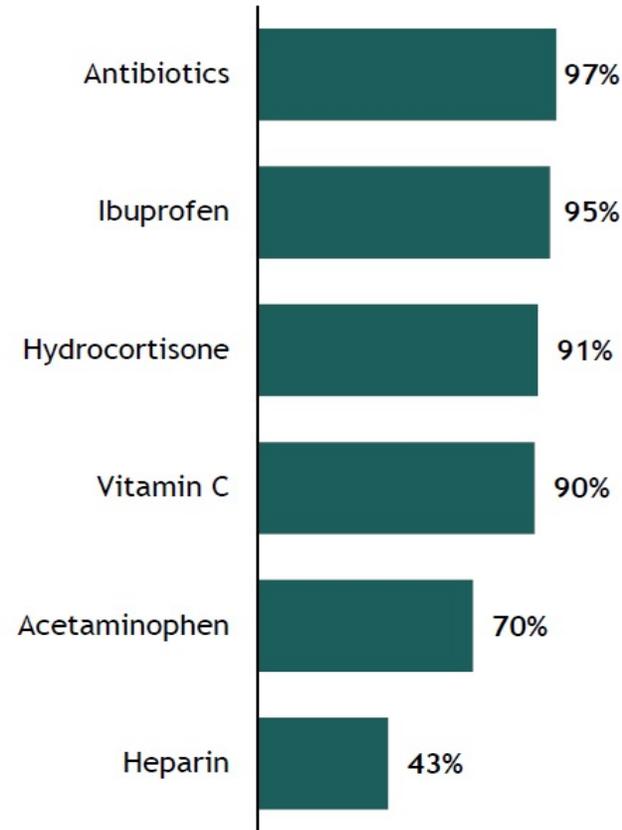
Industry and supply chain realignment is coming too, especially in key sectors like medical and pharmaceuticals



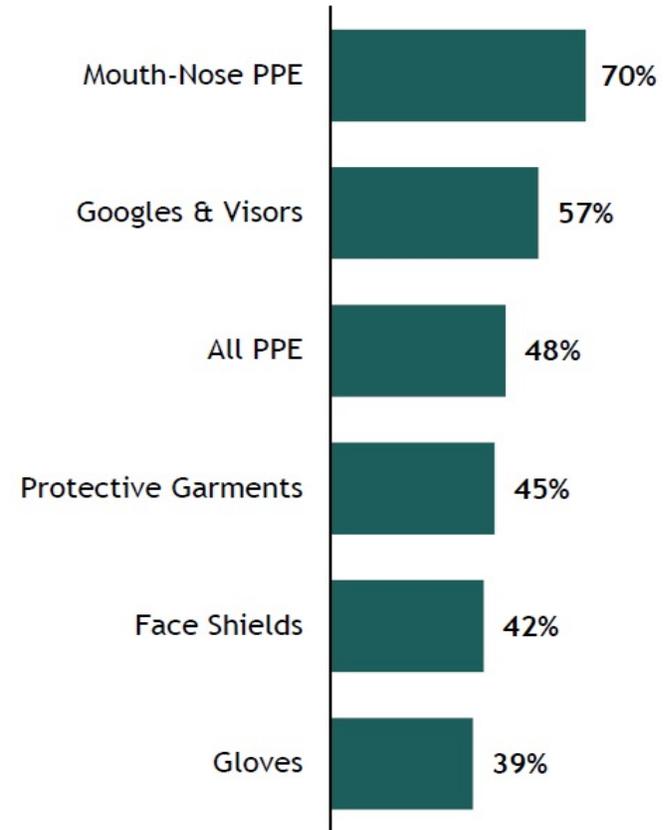
US Pharmaceutical Imports
(US\$ in billions)



China's Share of US Market
(Selected Pharmaceuticals Products)



China's Share of US Market
(Selected Personal Protective Equipment)



Source: UN COMTRADE, CFR, PIIE and Blackstone Investment Strategy. Imports data as of 2019. Market share data as of 2018.

Summary



Where are we on the cycle?

- US economy is in the bounce phase with some industries flying and others staggering
- Large scale re-stocking activity has begun to impact the transportation industry in the last few weeks
- Recovery trajectory depends on health care developments

What long term structural trends merit attention in the short term?

- Government policy/regulatory changes focusing on international trade are impacting transportation and supply chains
- Consumer behavior – will consumers start going to the office, attending mass events, traveling and eating out again?
- 5G will hasten dramatic increases in automation, favoring less densely populated areas for manufacturing and distribution centers

What should supply chain managers focus on?

- Rail-served supply chains because demographic, industry and regulatory trends are pushing long haul truck freight to intermodal
- How much inventory to hold and where to do that
- Best locations: Dallas, Memphis, St Louis, Chicago, Indianapolis, Columbus based on US economic and trade policies