LONG BEACH, California — Increased transloading of merchandise imports from marine containers to domestic containers and trailers at major US seaports — rising from 52 percent of total intermodal volume through Los Angeles-Long Beach to 58 percent in five years — is reshaping containerized supply chains. Data accumulated by industry analysts and industrial real estate experts reveal that this trend is underway, and they project that growth in transloading will continue unabated as a result of the convergence of the big-ship phenomenon and rapid growth in e-commerce fulfillment. The ability of importers to determine the final destination of the merchandise after the container reaches the US port, rather than two weeks earlier when it is loaded on the vessel in Asia, gives retailers more flexibility in routing. Beneficial cargo owners must further study their supply chains to determine the best routing for their needs.

Ports must invest in the marine terminal infrastructure and tall cranes needed to handle bigger and bigger ships. Industrial real estate developers must scramble to find suitable locations near major ports for transloading activities, and also for locations near urban cores to process last-mile deliveries for e-commerce fulfillment. Seaports will continue to be where the action is in supply chain logistics. “The greatest concentration of this demand is in Southern California,” Rob Leachman, professor at the Institute of Transportation Studies at the University of California, Berkeley, told the 17th Annual TPM Conference this week in Long Beach. “The next greatest concentration is at ports that serve the other two, three, or four corners,” he said.

There are four to five load-center gateways for the the North American container trades. The so-called five-corner strategy of logistics involves the Pacific Northwest, which includes the Northwest Seaport Alliance of Seattle and Tacoma and the British Columbia ports of Vancouver and Prince Rupert, Los Angeles-Long Beach, Houston, the South Atlantic ports of Savannah and Charleston, and the mid- and North Atlantic ports of Norfolk and New York-New Jersey.
In 2015, Los Angeles-Long Beach handled 50.7 percent of US containerized imports from Asia, other West Coast ports handled 12.2 percent, British Columbia had 4.4 percent, the Gulf ports 2.2 percent, South Atlantic ports 13.8 percent, and the Northeast 16.7 percent, Leachman said. Cargo routing for imports from Asia, by far the largest sourcing area for merchandise imports, is affected greatly by cargo value. The highest-value imports such as electronic goods are concentrated in Los Angeles-Long Beach. Importers are willing to pay higher intermodal transportation costs to the interior in order to get high-cost or seasonal merchandise to the eastern half of the country as quickly as possible. Medium and low-cost imports are spread over the five corners to get the product closer to the consuming market at the lowest possible cost.

For example, Leachman found that 63.9 percent of electronics imports and 57.8 percent of auto parts imports enter the country through Southern California, but Los Angeles-Long Beach handles 47.4 percent of the lower-cost consumer goods such as furniture imports. By contrast, East and Gulf Coast ports do best when lower all-in transportation costs via all-water services from Asia provide access to population centers in their regions. The Northeast, South Atlantic, and Gulf ports combined handle more than 50 percent of the lowest cost containerized merchandise where price, rather than time-to-market, is the determining factor in cargo routing.

In supply chain logistics terms, the tendency of retailers to “push” their containers through seaports to the final destinations is growing less rapidly — or in some cases not at all — than pushing the 40-foot marine containers to large import distribution warehouses, transloading the merchandise into 53-foot domestic containers and trailers, and “pulling” the merchandise to regional distribution centers. Leachman said this trend, coupled with growing e-commerce demand, is driving more freight to the push-pull model. “Push-pull is growing faster than overall imports, and push is growing slower than overall imports or even declining,” he said.

The trend toward more transloading was confirmed by Larry Gross, president of Gross Transportation and a partner at FTR. “Transloading is playing a larger role,” Gross said, but the “intermodal-unfriendly” west-to-east routing of intact containers will probably not be a growth sector in the coming years. For example, in Southern California, which is the transloading capital of the country, transloading’s share of intermodal freight increased from 52 percent in 2011 to 58 percent in 2016, whereas intact intermodal’s share dropped from 47 percent in 2011 to 42 percent.

The merchandise imports will be carried by ever-larger ships. According to Drewry Shipping Consultants, 78 percent of the new vessel deliveries in 2017 will be vessels with capacities of 10,000 twenty-foot-equivalent units or higher, and more than half will be ships of 14,000 TEUs capacity or greater. The message for the major gateway ports is that they better be able to handle these ships or they will lose market share. Los Angeles-Long Beach has been handling weekly calls of vessels of 10,000 TEUs or greater for the past several years, and this has sent the ports and their terminal operators into a frenzy of marine terminal upgrades and the purchase of taller ship-to-shore cranes to be able to handle these vessels fully loaded.
Noel Hacegaba, managing director of commercial operations in Long Beach, said infrastructure and equipment comprise only half of the equation. Those big ships generate such a large surge of container discharges and reloads, 10,000 or more container exchanges per vessel call, that improved cargo-handling processes, immediate dray-offs of containers from the terminals, a focus on improved chassis availability, and enhanced data-sharing among all port users is at least as important as infrastructure investment, Hacegaba said.

Terminal efficiency takes on even greater importance with the surge of e-commerce fulfillment and the need for speed that consumers have created in receiving their shipments. Walter Kemmsies, managing director, economist, and chief strategist at Jones Lang LaSalle airports and seaports division, said a “looming conflict” could be in the making as the bigger ships call at fewer ports, take longer to unload, and generate more congestion at the gateways, but consumers want their purchases shipped to them in a day or less. This trend calls for import distribution centers to carry larger inventories so the merchandise can be pushed to intermediary facilities for delivery to consumers.

Kemmsies noted that e-commerce accounts for only 10 percent of retail sales, but about half of the new construction of industrial properties is for e-commerce. The growing demands of e-commerce fulfillment are beginning to affect the logistics strategy that has been present since the 2008 to 2009 economic recession. During the lean times, reducing transportation and inventory-carrying costs were most important. Now, the greatest fear of logistics managers is a “stock out” notification that upsets consumers and can lead to the dismissal of those employees in charge of having the right merchandise on hand when and where it is needed, he said. Therefore, costly investments in carrying additional inventory and building intermediate warehouses on costly land in urban core areas are more important than cost-cutting.

The implications of these trends for developers and users of industrial real estate are changes in the mix of distribution facility sizes, as well as the siting of those facilities, at the major gateways and in secondary and tertiary markets. Leachman said demand for national distribution centers of 500,000 to 1 million square feet in locations that serve ports will be strong, but so too will be demand for 1-million-plus sq ft e-commerce fulfillment centers and import warehouses. Also emerging rapidly from the growth in e-commerce development is a need for intermediate facilities located between the large import and regional distribution facilities and the urban core. These facilities break down the shipments to the package level for shipment directly to the consumers’ homes or to retail stores that are increasingly becoming pickup locations for merchandise ordered online.

E-commerce fulfillment in urban areas can be handled at facilities of 100,000 to 200,000 square feet, which are often found at in-fill sites. They can be older warehouses or former manufacturing sites that can be repurposed for e-commerce. This trend has grown so rapidly that in some of the larger, denser urban areas, developers are finding it increasingly difficult to locate these facilities, said Matt Mullarkey, senior vice president of strategic planning at CenterPoint Properties. The cost of land and labor obviously
increase the closer developers get to the urban core, but the need for timely delivery of merchandise in the last mile makes location more important than those factors, he said. The confluence of the big-ship phenomenon, the increase in transloading, and the last-mile requirements of e-commerce have retailers and other importers reviewing their supply chain strategies and possibly modifying them, Leachman said. Shippers must consider cost, efficiency, and time to market in order to determine the best path to each location they serve, he said.

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