



**RAILROAD  
VISION  
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# INTERMODAL CHALLENGES

Shifting international supply chains could upend intermodal as we know it  
by Larry Gross

**FROM TRACKSIDE,** today's double-stack intermodal train presents an awesome picture of efficiency. Four hundred or more containers on the move, a 10,000-foot-long behemoth with perhaps a couple of the most modern diesels on the head end and another one or two buried deep in the train. How could a single truck and driver running down the highway possibly compete?

Sometimes it can't, but sometimes it can. It all depends.

A huge chunk of the intermodal business, almost 60%, is concerned with the movement of import and export cargo to and from our ports. For much of this business, the monster stack train is the ideal tool. A large mega-ship, carrying up to 10,000 containers, docks in Los Angeles. A good chunk of the cargo is destined for Chicago and points east, at least 2,100 miles distant. Lots of volume, moving from point A to point B, all at the same time. Further, having already spent weeks in

transit, it's not particularly service sensitive. A perfect match.

The business is huge. In 2019, some 26 million TEUs (Twenty-Foot Equivalent Units, the standard container measure) landed in U.S. and Western Canadian ports, equating to about 15 million individual containers. Intermodal has a healthy share of this business, handling as much as 75% of the containers landing in Southern California, but a much smaller percentage of those containers landing on





BNSF Railway double-stacked containers roll west into the setting sun at Daggett, Calif., in April 2014. Looming changes could see more intermodal originate in the East and Gulf Coast. TRAINS: Brian Schmidt

the East or Gulf Coasts.

As large as the import-export market is, however, it pales in comparison with domestic freight movements. In 2019, trucks handled about 356 million dry van and reefer loads. Around 198 million of those moves were short haul, 250 miles or less, and therefore not really in intermodal's potential market. Another 70 million moved in more than 250 miles but under 500 miles, so barely in the intermodal ballpark. That still leaves 88 million annual potential loads for intermodal to convert, not including the volume that intermodal is already handling. In other words, the long-haul domestic market is six or seven times larger than the import/export segment.

From an intermodal perspective, the

domestic market is a lot more challenging. One problem is that much of this volume isn't moving between the major cities, like New York and Chicago, but rather between smaller population centers like Dubuque and Pittsburgh. These goods tend to be more dispersed, both in terms of origin and destination, but also in terms of when they move. It is therefore much more difficult to put together a giant, efficient train. Under Precision Scheduled Railroading precepts, the railroad's goal is to run the largest possible train with the fewest possible intermediate work events. But by and large, the domestic truckload freight market doesn't fit that mold.

Result? Intermodal is certainly big business, moving over 18 million containers and trailers in 2019. But its share of the long-haul (500-mile or greater) U.S. dry van and reefer truckload market was only 10.7% in the first quarter of this year. In other words, nine out of every 10 long-haul truckloads moving in the U.S. never touched the rail. In one respect, this is a problem, but looked at another way, it's a giant opportunity.

There is no question that if the railroads are to get back on the growth track, then intermodal will have to play a key role. But the recent performance has not been favorable. As recently as the second quarter of 2018, intermodal share stood at 12.7%. Since then, it has continuously dropped for seven consecutive calendar quarters, the steepest and most sustained decline in history. In 2019, intermodal revenue moves were down more than 4% from 2018, according to the Intermodal Association of North America. Thus far this year, it's off another 10%, although the pandemic and recession must take most of the blame.

What brought this decline? There are a number of causes. One big problem has been a shift in import routings away from the intermodal-friendly west coast. The share of inbound containers arriving at the main U.S. West Coast ports (Los Angeles, Long Beach, Oakland, Seattle, and Tacoma) has dropped. A portion of this traffic has been captured by the Western Canadian competitors, Vancouver and Prince Rupert. But a larger portion has been lost to East Coast and Gulf Coast ports. Each port has its own natural area of dominance. But the large volume of freight destined for the U.S. interior is up for grabs. Western U.S. ports have suffered from high costs, delays, and labor difficulties, none of which has helped. The Panama Canal was enlarged, and larger ships can now make the journey from Asia to the East Coast. But a bigger issue has been

the ongoing change in where imports are being sourced. We're in the process of "de-coupling" from China, and more production has been moving west toward Southeast Asia and India. The shortest way to the U.S. from these points isn't sailing east toward the U.S. West Coast, it's sailing west through the Suez Canal to ports like New York and Savannah. From an intermodal perspective, this change is problematic because the average length of haul off the east coast is shorter and intermodal share is much less.

## WE'RE IN THE PROCESS OF "DE-COUPLING" FROM CHINA, MOVING PRODUCTION TO SOUTHEAST ASIA AND INDIA

The railroads obviously can't directly affect where the import freight arrives, although railroad pricing can factor into the equation. But beyond these issues, some of the recent volume losses have been self-inflicted. As railroads have pursued the mandates of PSR, intermodal networks have been simplified. Secondary terminals and lanes have been closed, steel-wheel interchanges severed, and TOFC services ended. Traffic that didn't meet strict profitability criteria was shed, and only the loads that are best suited for intermodal have remained. Profitability was enhanced, but not growth. The railroads in effect said, "our way or the highway," and sometimes the market chose the latter.

The challenges will not abate any time soon. Fuel prices are depressed, robbing fuel-efficient intermodal of one of its most effective economic levers. Additionally, one of the consequences of the pandemic has been an explosion of e-commerce and the associated movement of parcels. If you think you've been seeing more UPS trailers on intermodal trains lately, you're not mistaken. But this is demanding business. The freight needs to move fast, on time, and to a wide variety of destinations. One thing it can't do is spend hours on a railcar in an intermodal terminal waiting for 400 containers to be unloaded.

None of this is to say that the railroads' current intermodal strategy is wrong. PSR has produced sterling financial results and intermodal has played a role. But the railroads' current strategy is not a growth strategy. When the time comes for the railroads to pivot back to growing the business, then intermodal will certainly be a key weapon, provided the industry is willing to make changes to meet the needs of an evolving marketplace. **I**

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