

Good Morning!

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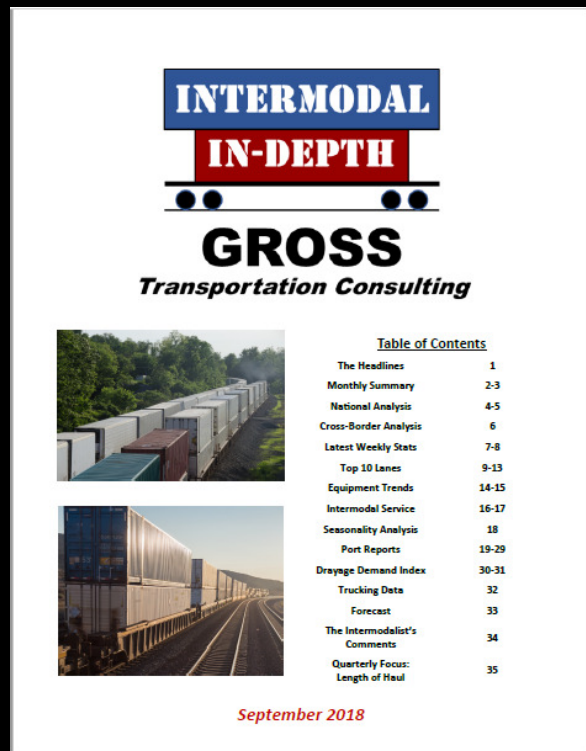
@Intermodalist

INTERMODAL OUTLOOK

Northwestern University
Transportation Center BAC
Meeting

November 8, 2018

GROSS TRANSPORTATION CONSULTING



- Solo practice covering surface freight transportation sector
- Primary focus on intermodal
- Monthly subscription product with weekly updates
- Market analysis and project work
- www.IntermodalinDepth.com

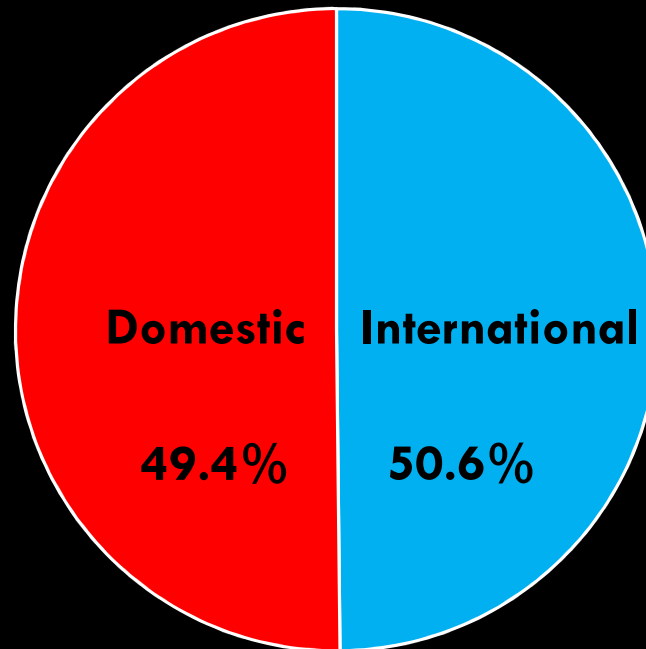
THE TWO WORLDS OF INTERMODAL

Includes:

- Domestic Containers (53', a few 48')
- Trailers
- Transload Cargo

Affected by:

- Competitive economics with truck
- Truck capacity
- Fuel Prices
- Transload trends



Includes:

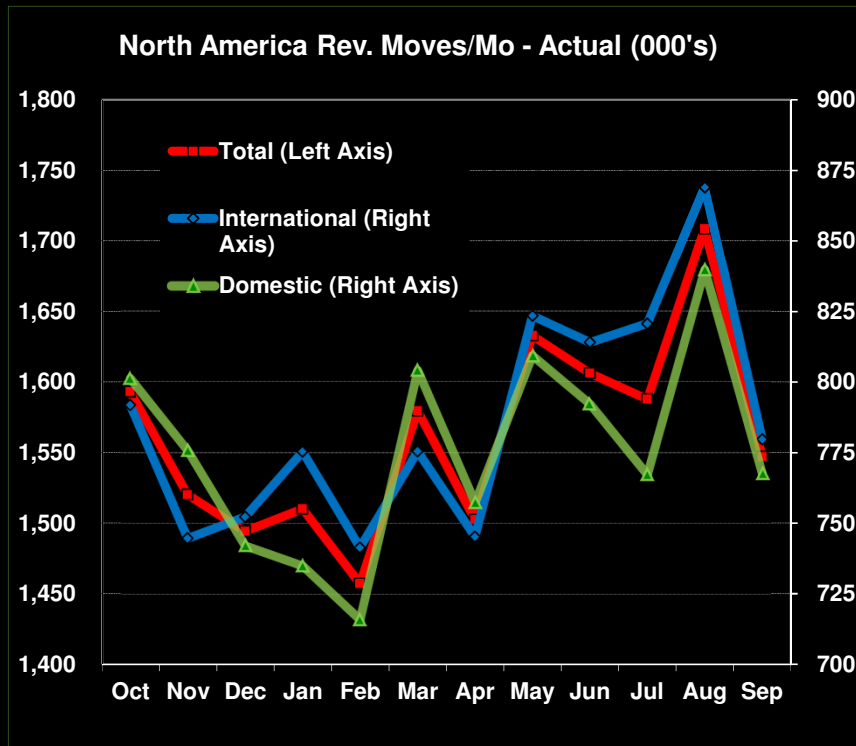
- ISO Containers (20', 40', 45')

Affected by:

- Trade stats
- Port routings/Import strategies
- Steamship line policies
- Truck competitiveness
- Transload trends

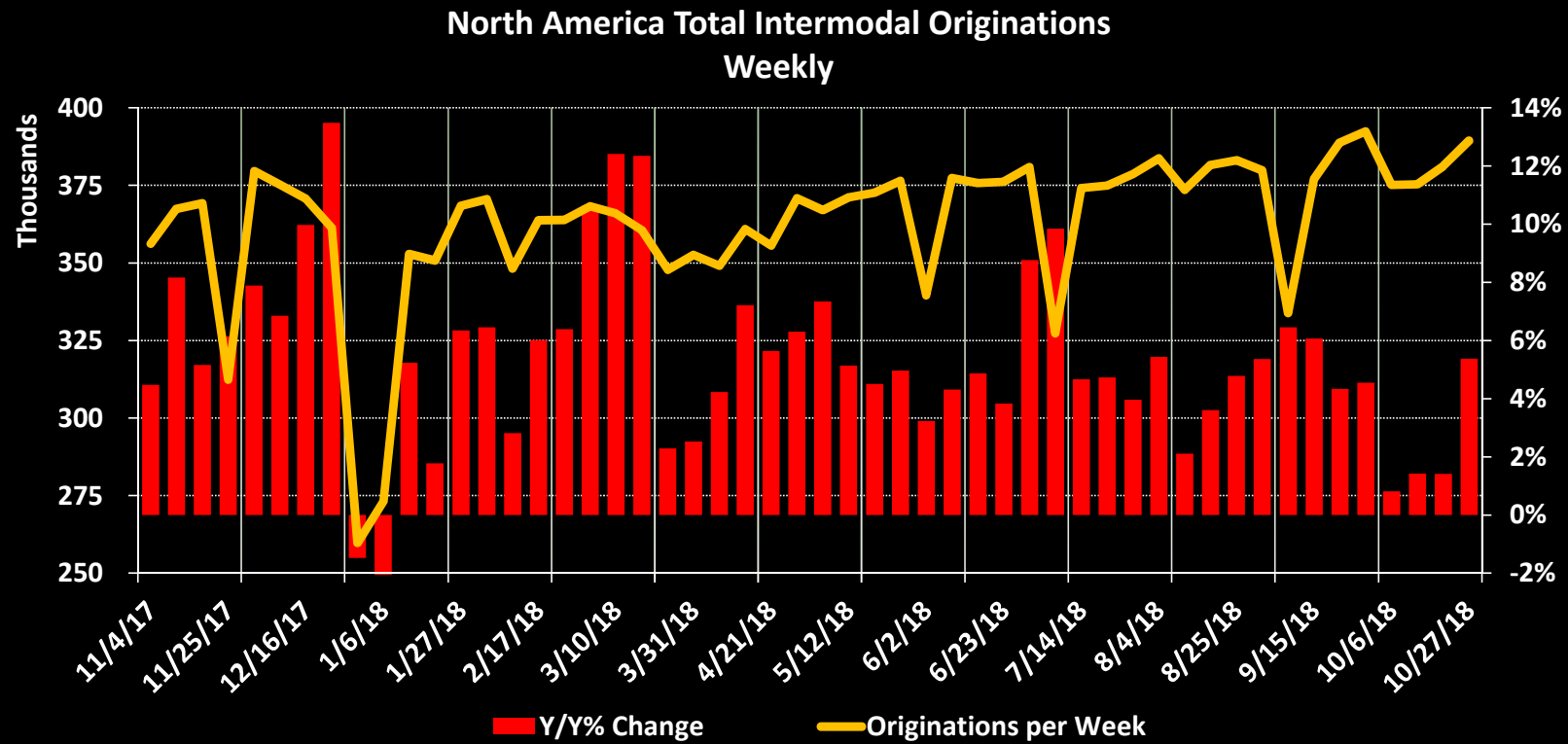
Each sector responds to very different market forces

INTERMODAL IS HAVING A GOOD YEAR



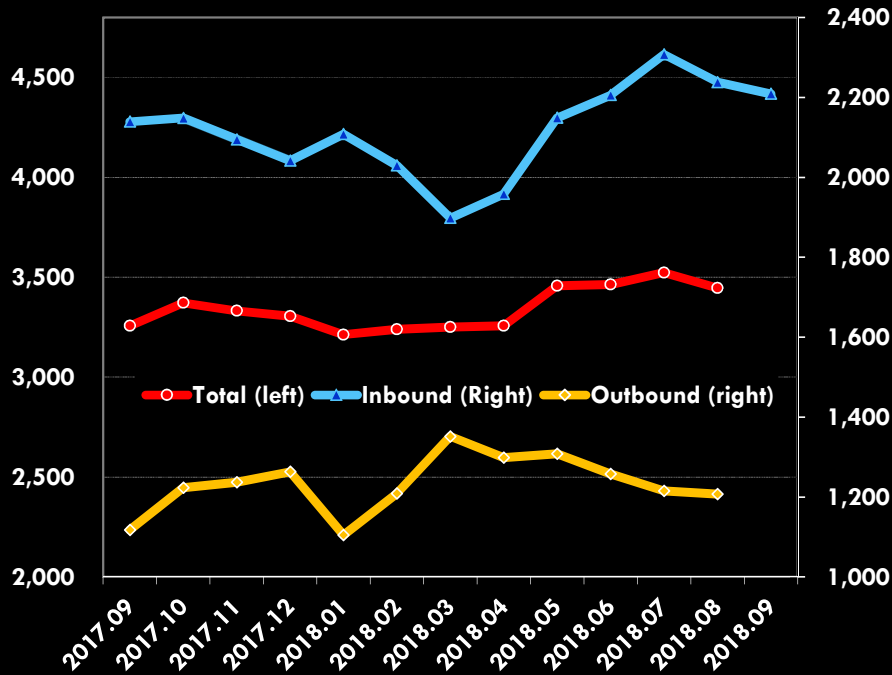
Y/Y % Change	2016	2017	YTD 2018
Grand Total	-2.1%	+4.7%	+6.0%
International	-3.3%	+6.2%	+5.4%
Domestic	-0.7%	+3.2%	+6.7%
Domestic Container	4.1%	+2.7%	+5.4%
Trailer	-22.1%	+6.3%	+14.8%

OCTOBER HAS GOTTEN OFF TO A SLOW START SEASONAL PEAK MIA?

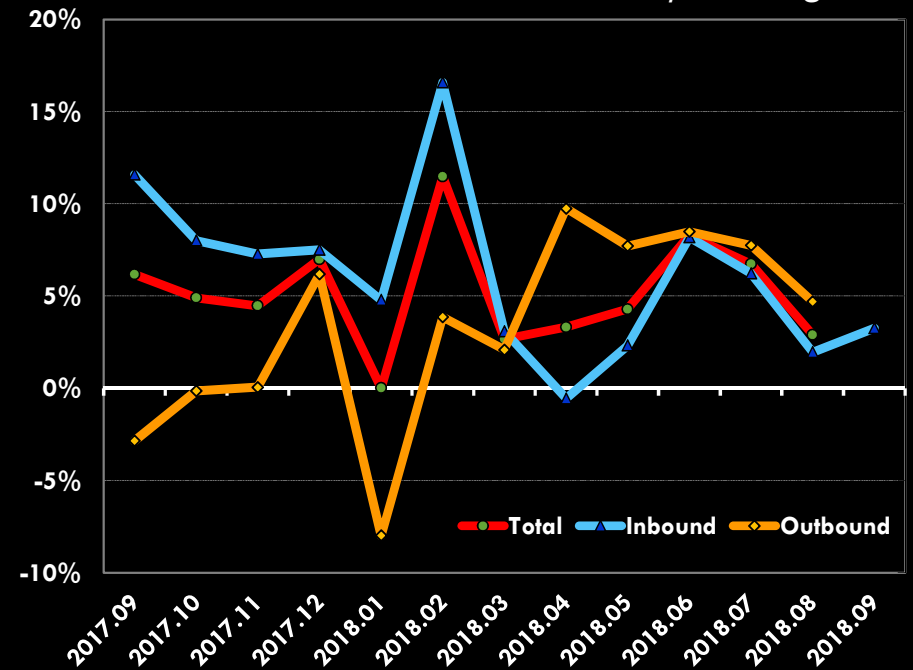


NORMAL AUGUST INBOUND PEAK CAME EARLY THIS YEAR

North America Loaded TEUs (000)

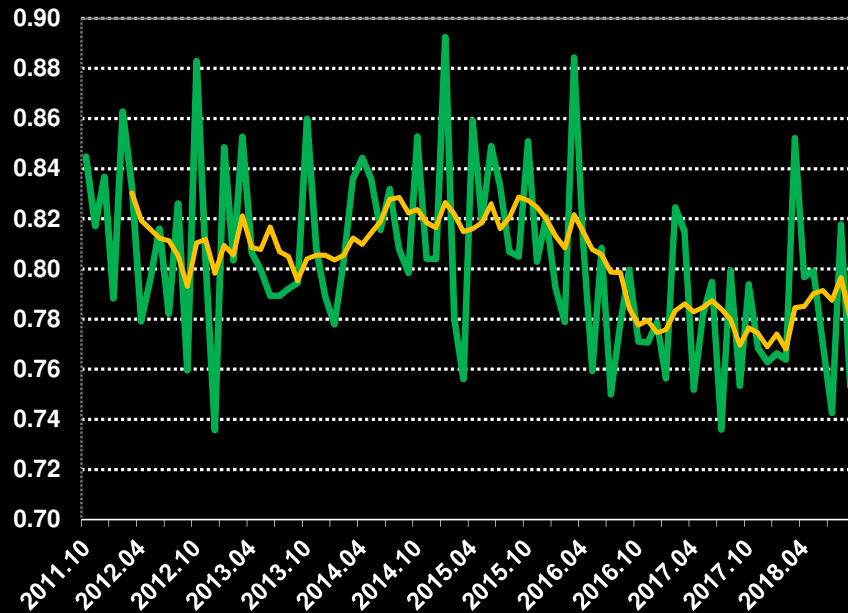


North America Loaded TEU's - Y/Y Change



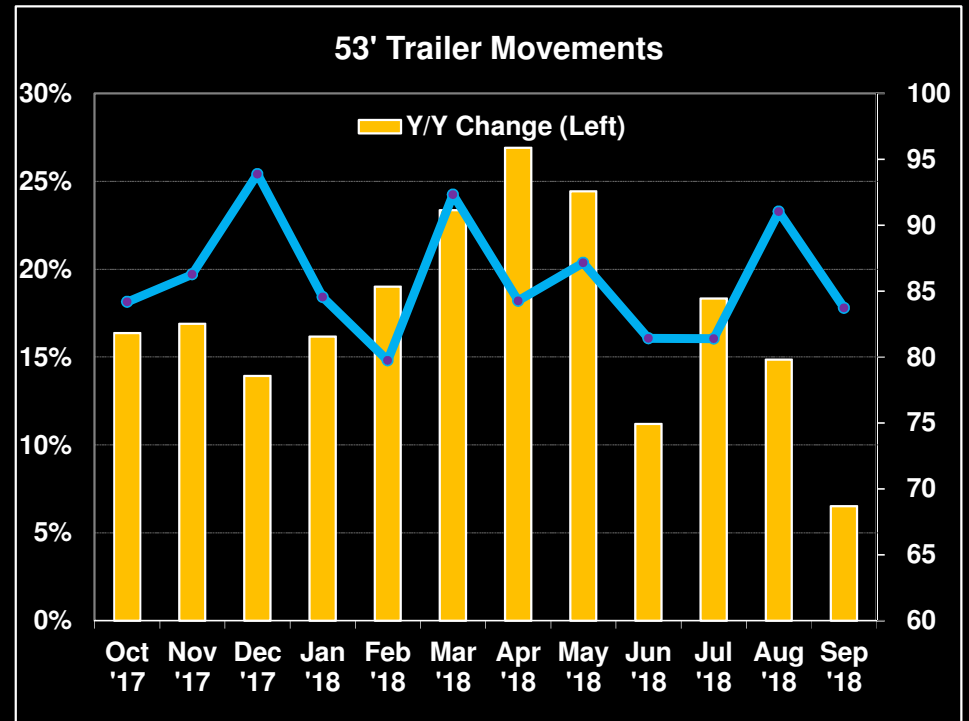
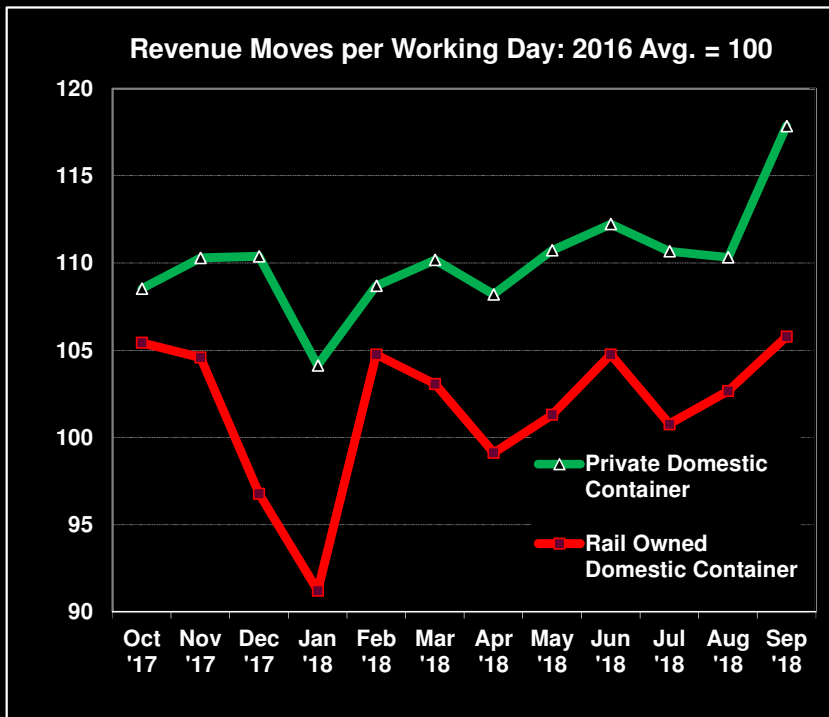
INTERMODAL IMPORT PARTICIPATION HAS DECLINED LATELY – WEST-TO-EAST SHIFT MAY BE RESPONSIBLE

IPI + SoCal Transload TEUs vs. Import TEUs



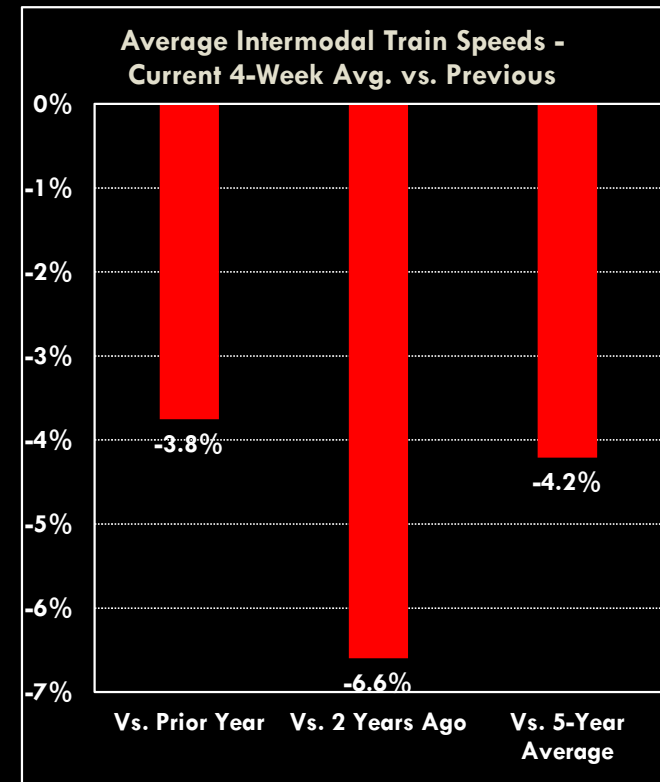
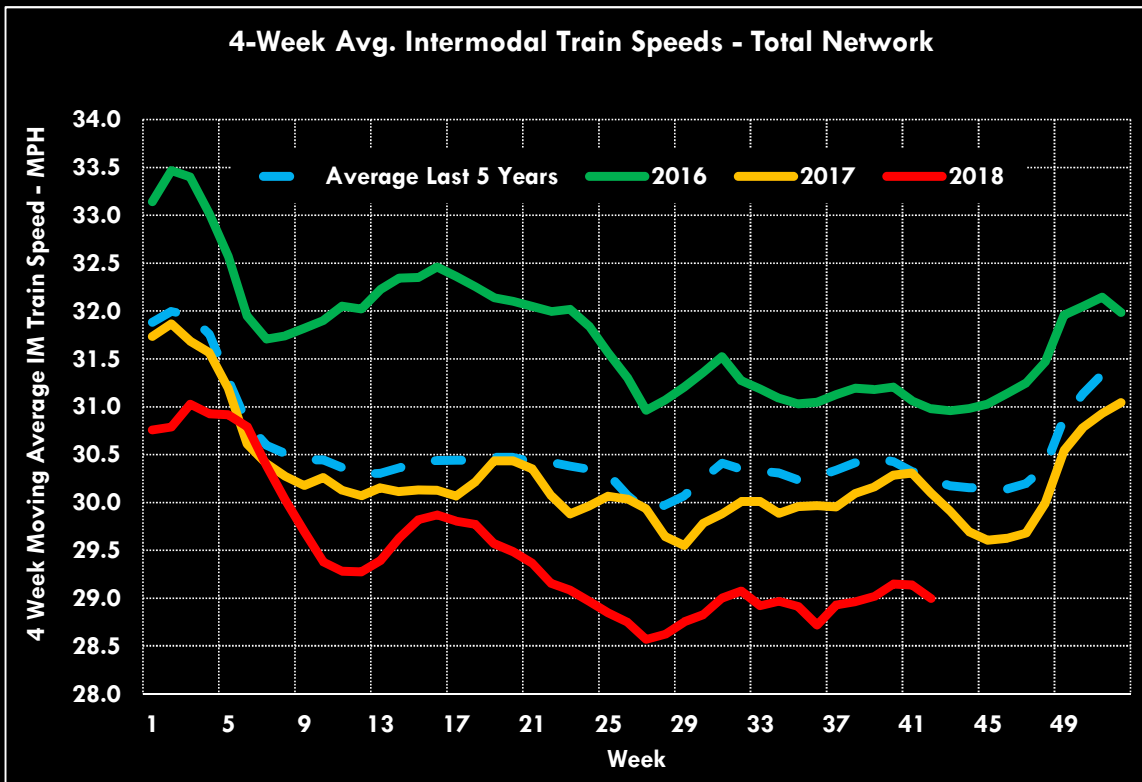
Inbound TEUs	YTD 2018
North America	+4.9%
US West Coast	+3.0%
L.A./Long Beach	+3.0%
Northern California	+3.1%
Pacific Northwest	2.2%
US East/Gulf Coasts	+7.1%
Northeast	+6.3%
Southeast	+7.6%
Gulf	+9.2%
Western Canada	+2.9%

DOMESTIC CONTAINER HAS BEEN CAPACITY LIMITED, TRAILERS HAVE HELPED FILL THE GAP



The rail-owned domestic container fleet has had productivity problems. 53' TOFC has helped fill the gap.

INTERMODAL SERVICE CONTINUES TO BE PROBLEMATIC

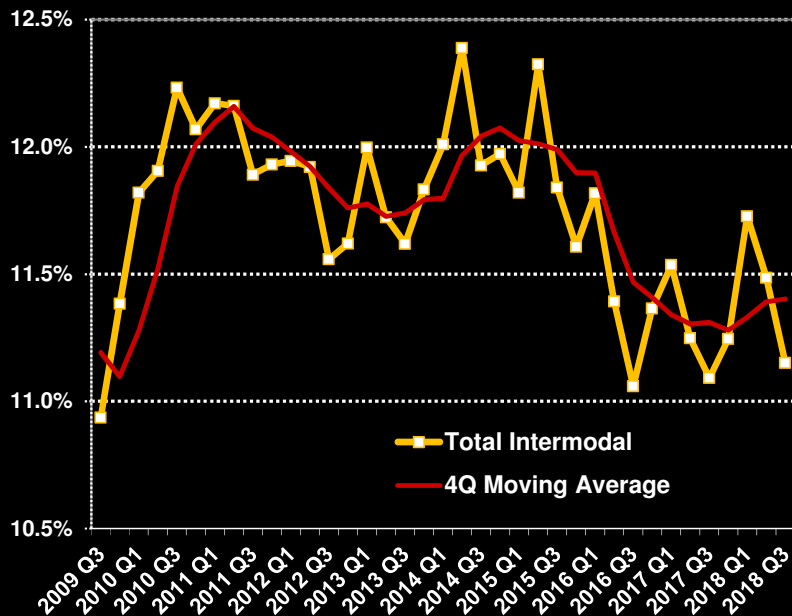


THE INTERMODAL NETWORK IS BEING RE-ALIGNED

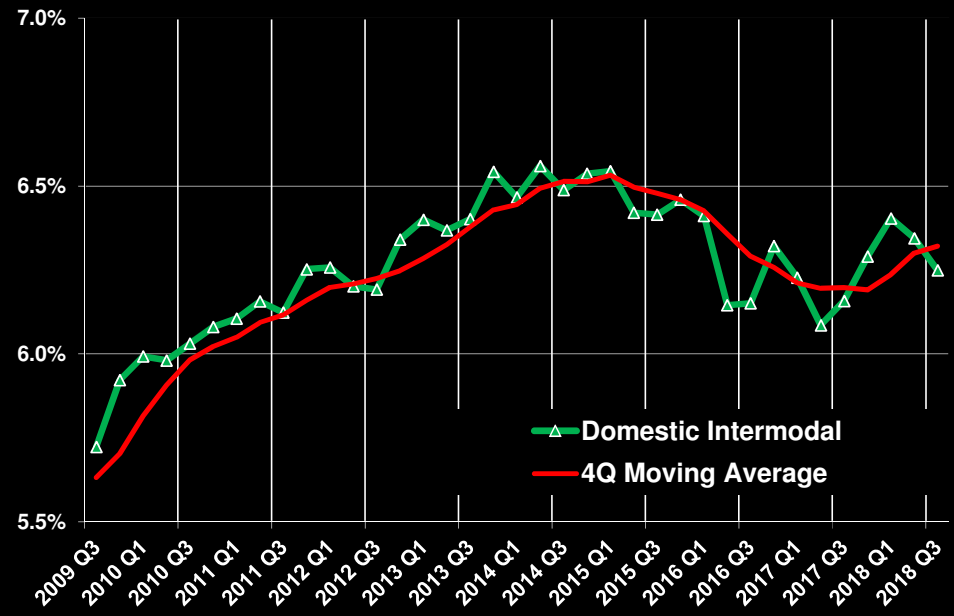
- Renewed emphasis on core lanes
- Focus on efficiency (PSR = Longer trains, reduced sorting)
- Retreat (with exceptions) from steel-wheel interchange at gateways
- Reduction in service linking secondary, low-volume points

DESPITE TIGHT TRUCK CAPACITY INTERMODAL MARKET SHARE HAS FALLEN FOR TWO QUARTERS

Long Haul* Dry Van/Reefer Freight U.S. Total Intermodal Market Share



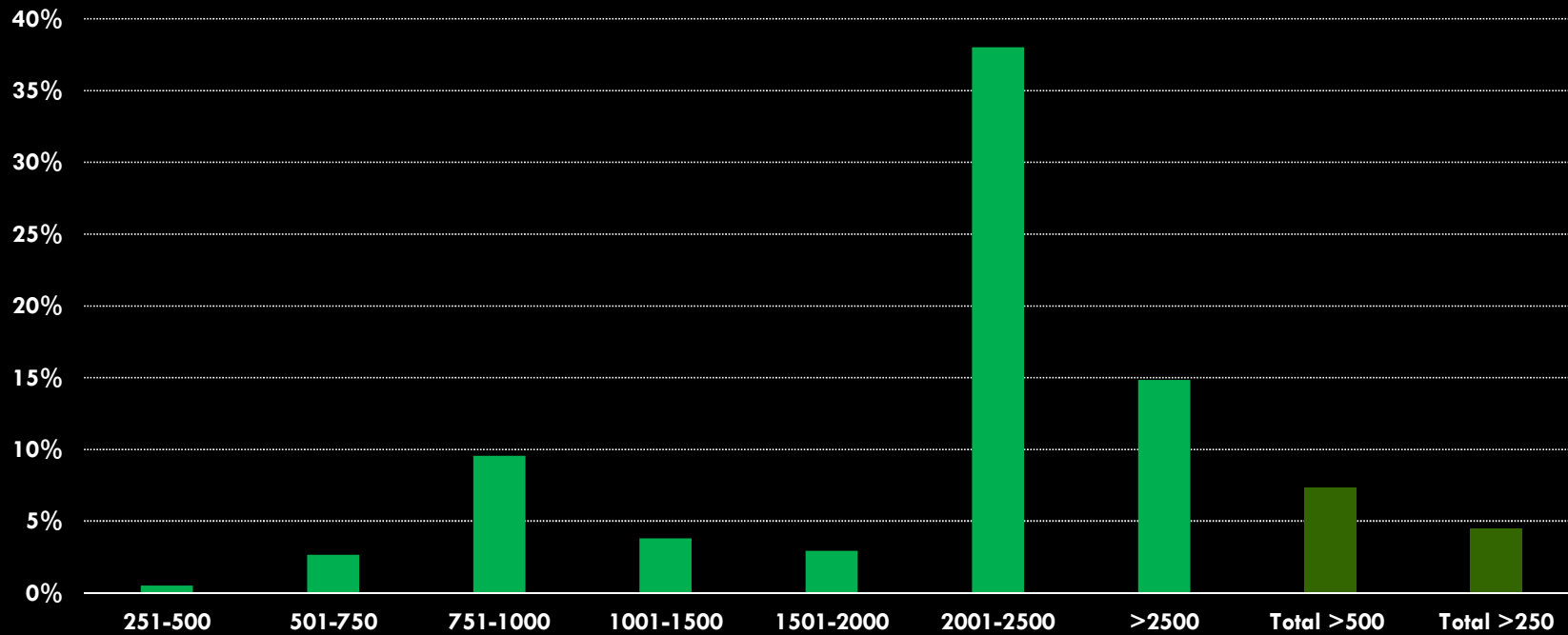
U.S. Long Haul* Dry Van/Reefer Freight Share Moving in Domestic Intermodal Equipment



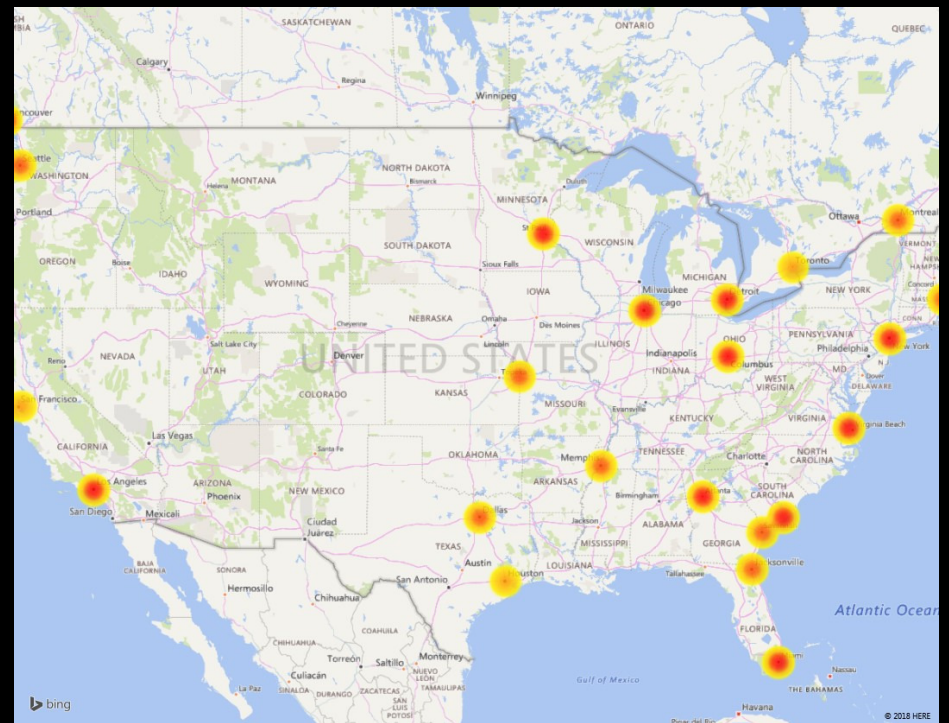
*Long Haul = 500 miles or more

INTERMODAL MARKET SHARE VARIES WIDELY BY MILEAGE RANGE

Domestic Intermodal U.S. Market Share



DRAYAGE DEMAND INDEX SHOWS CONDITIONS STILL TIGHT BUT BETTER THAN THEY WERE



NEAR-TERM OUTLOOK

- Fall Peak:
 - Moderating international gains
 - Constrained domestic container growth due to fleet capacity issues – concentrated on the rail-owned domestic container fleet
 - TOFC volume stays strong
- 2019
 - International gains continue at a moderate pace
 - Considerably more challenging competitive conditions vs. truck
 - Rates stabilize but gains slow significantly

LONGER-TERM OUTLOOK

- **Trade war with China?** *About 65% of all intermodal volume relates to import/export trades (excludes NAFTA!)*
- **Service Concerns.** *It's not about speed, it's about service reliability and consistency*
- **Autonomous Trucks?** *Fully autonomous operation is a red herring that's many years away. But semi-autonomous operations (platooning) is a more relevant technology to watch.*

Thanks!

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