Western Canadian Grain and the St. Lawrence Seaway: *Perspectives and Review*

Highway H2O Conference,
Toronto November 14, 2018

Topics

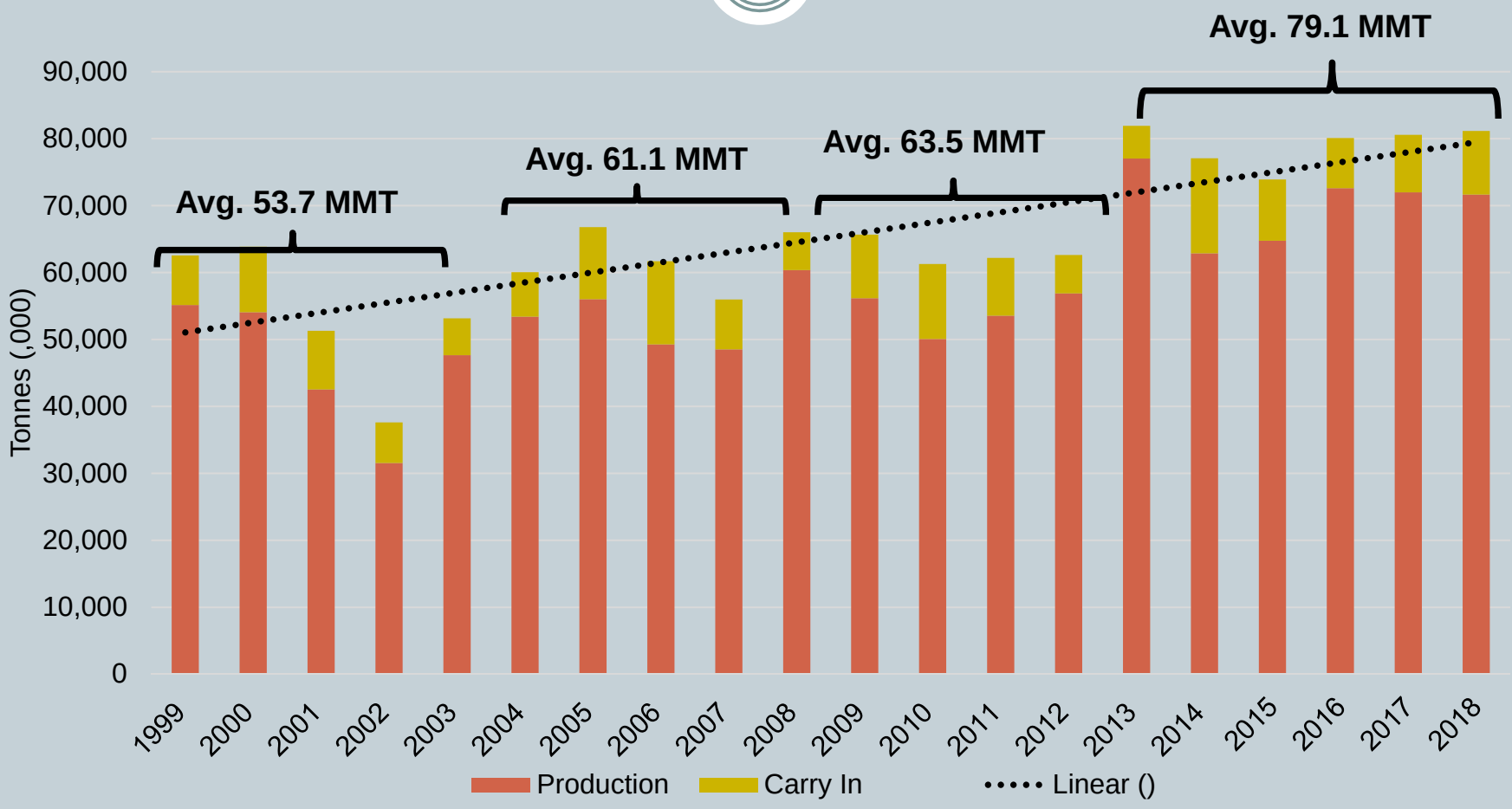
- Stocks & Production
- Disposition of Grain
- Shifting Markets and Logistics
- Competitive structures
- Summary

The Grain Monitoring Program

- The GMP was established in 2001 through Federal Legislation (Canada Transportation Act
  - Stems from recommendations made through Estey/ Kruger in 1998-99.
- Mandate is to gather data, analyse and monitor the movement of Western Canadian grain from farm to point of export or destination
- Reports weekly, monthly and annually; works extensively with all stakeholders in the industry and trade
- Point to areas of concern or problems while maintaining a neutral and non prescriptive position on issues

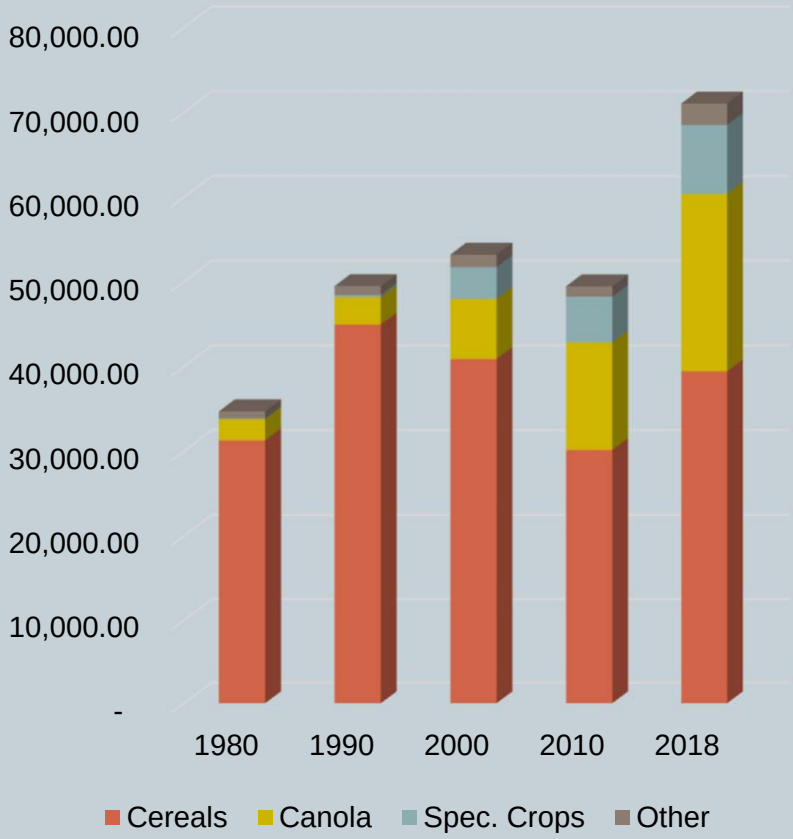
Total Grain Supply

(Western Canada Production and Carry-In Stock)

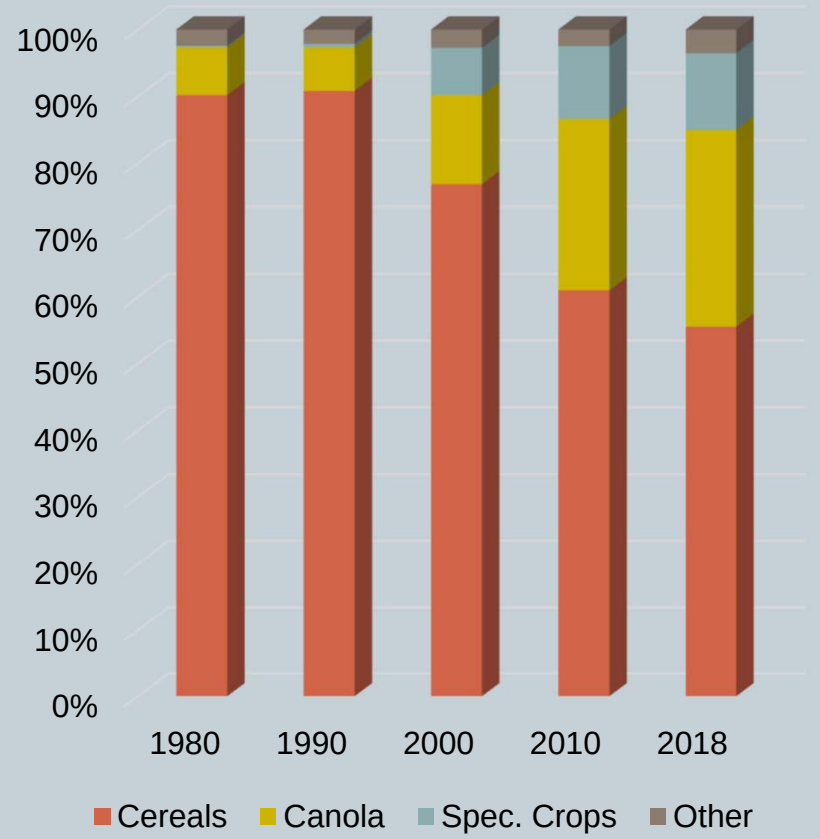


Crop Production

Growth in Production



Diversity of Crop Mix

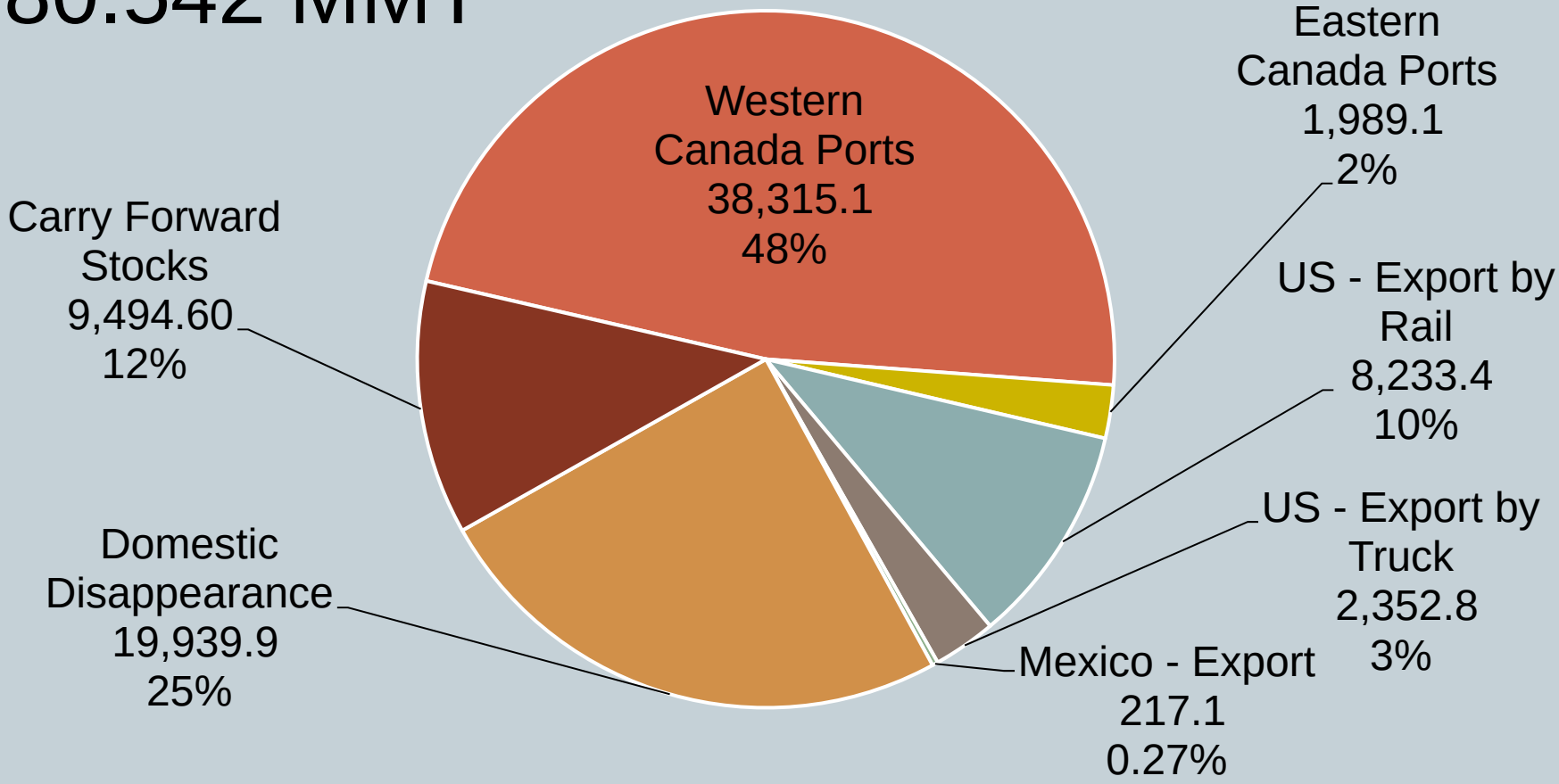


Increased Production

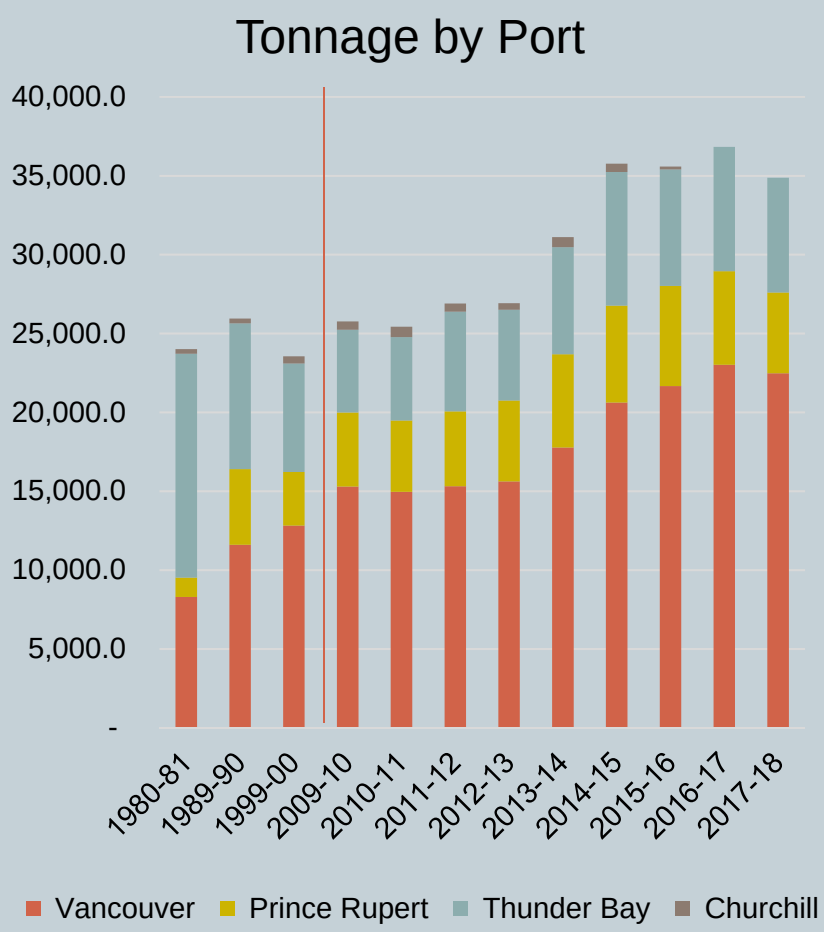
- Only slight increase in total acres
- Shifting Agronomic practices:
  - Near elimination of summer fallow
  - Increase in rotational crops
  - Increased investments in research has led to higher yielding/ hardier seed
  - Increased investment in machinery, fertilizers and other inputs
- Resulted in greater yields, higher production rates and increased diversification of commodity types

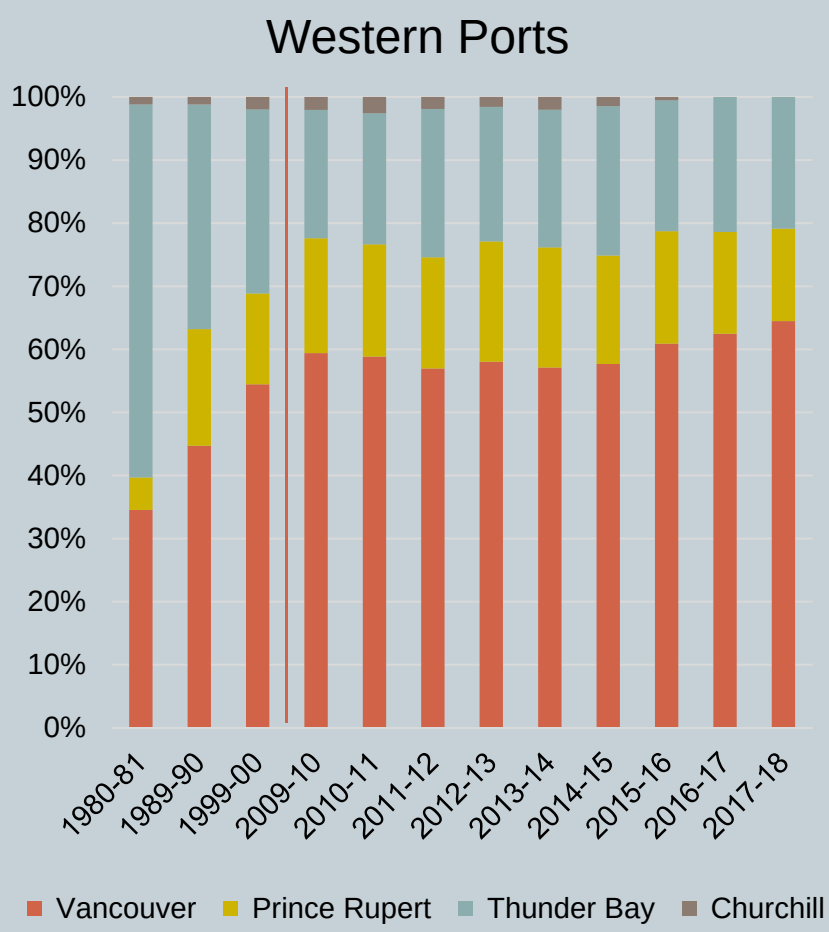
Disposition of Western Grain – 2017-18 CY

80.542 MMT

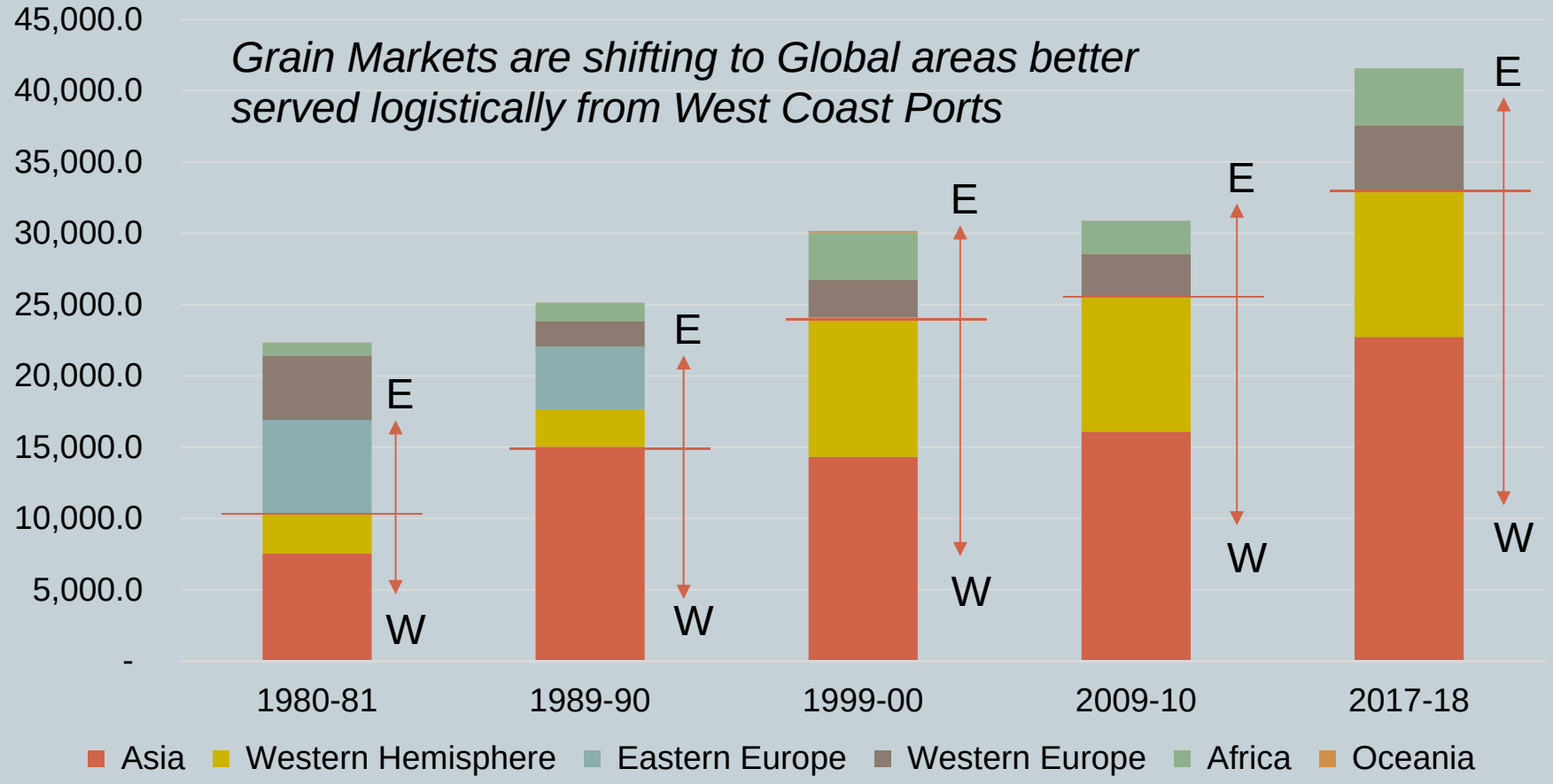


Western Port Volumes





Canada's Global Markets

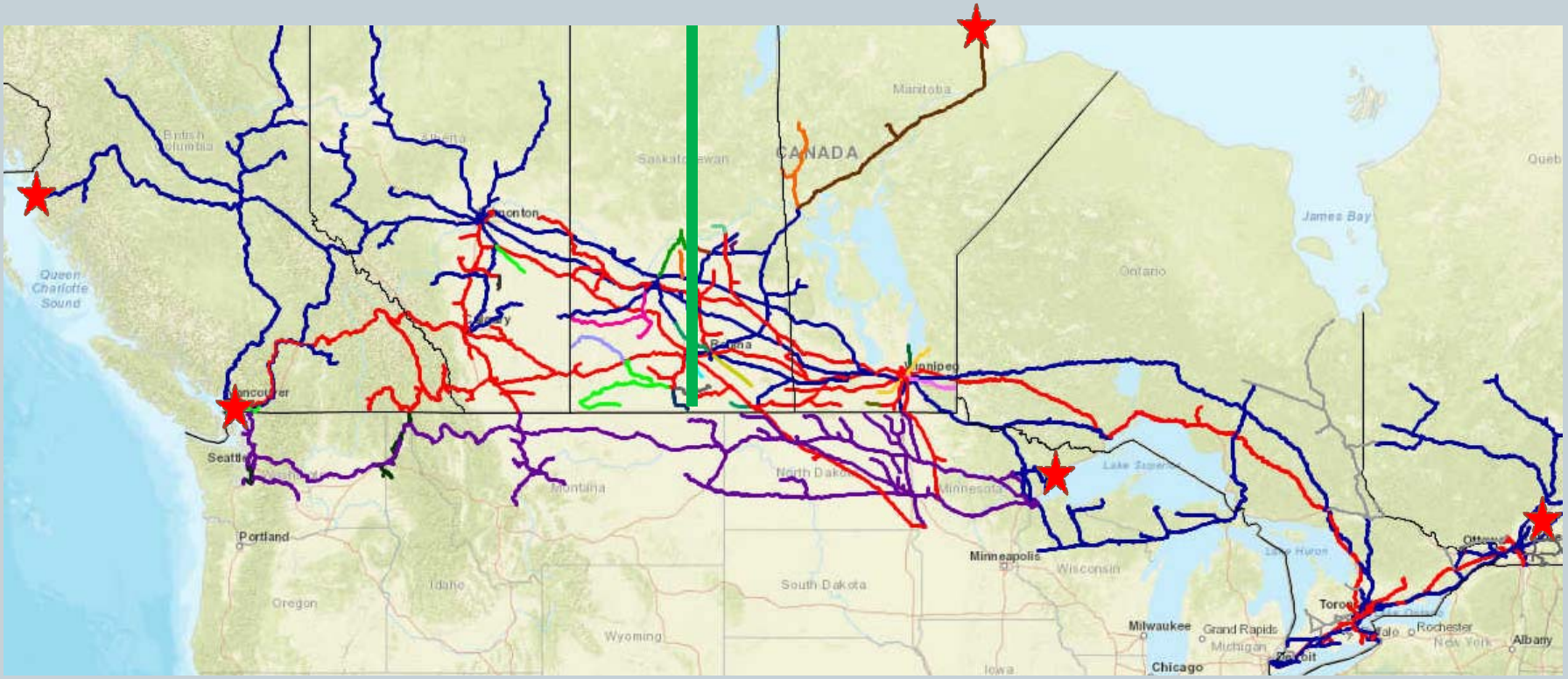


Source: Canadian Grain Commission

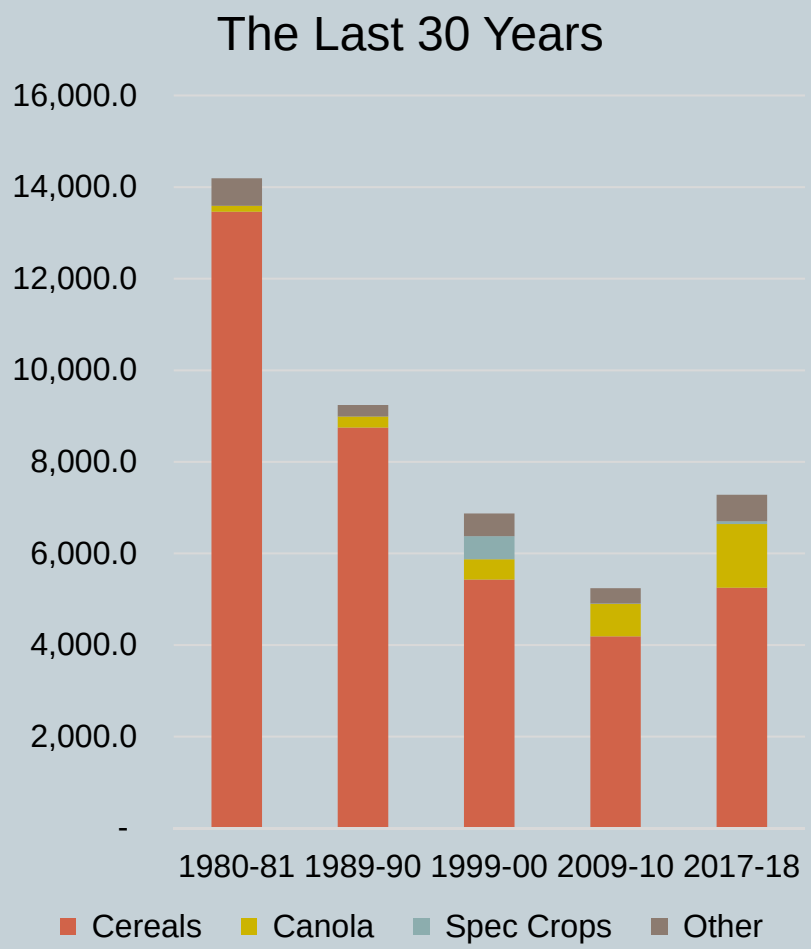
Shifting Logistical Patterns

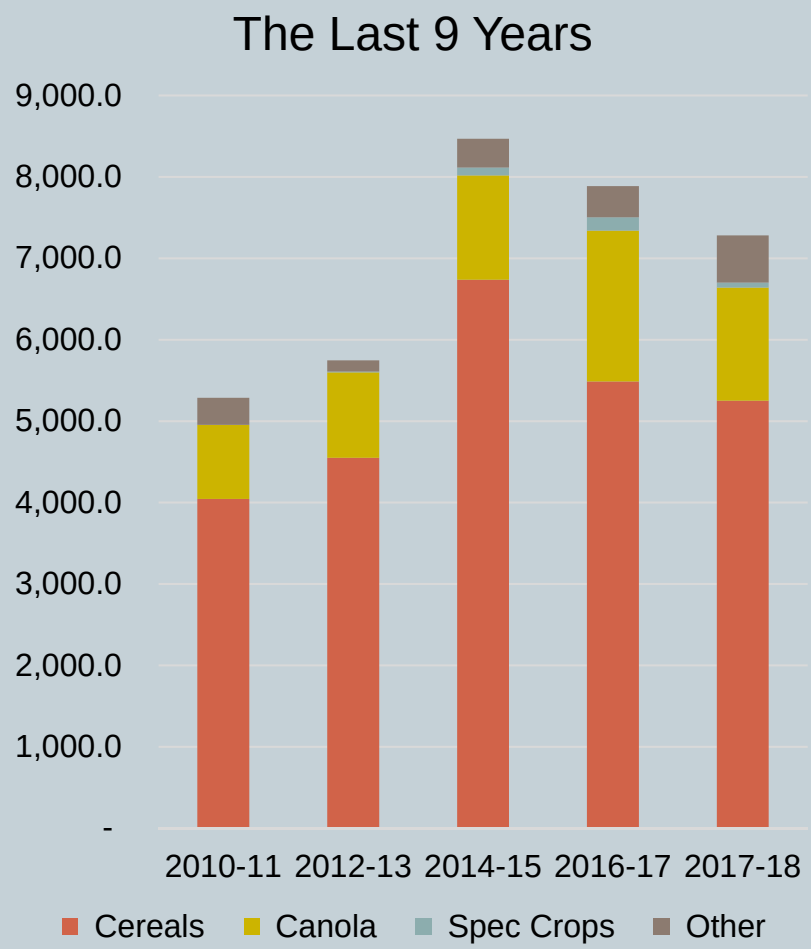
- 1980 – Dominant market was cereals to Europe and the FSU
- 1990 – Asian market demand begins to increase; increasing middle class creates a demand for superior protein based grains
- 2000 – FSU and European market demand collapses while Asian demand continues to rise
- 2010 – Growth in South American markets follows
- 2012 – Elimination of CWB single desk
- 2018 – Solid Asian markets are established

Shifting Draw Ranges



Thunder Bay Volumes



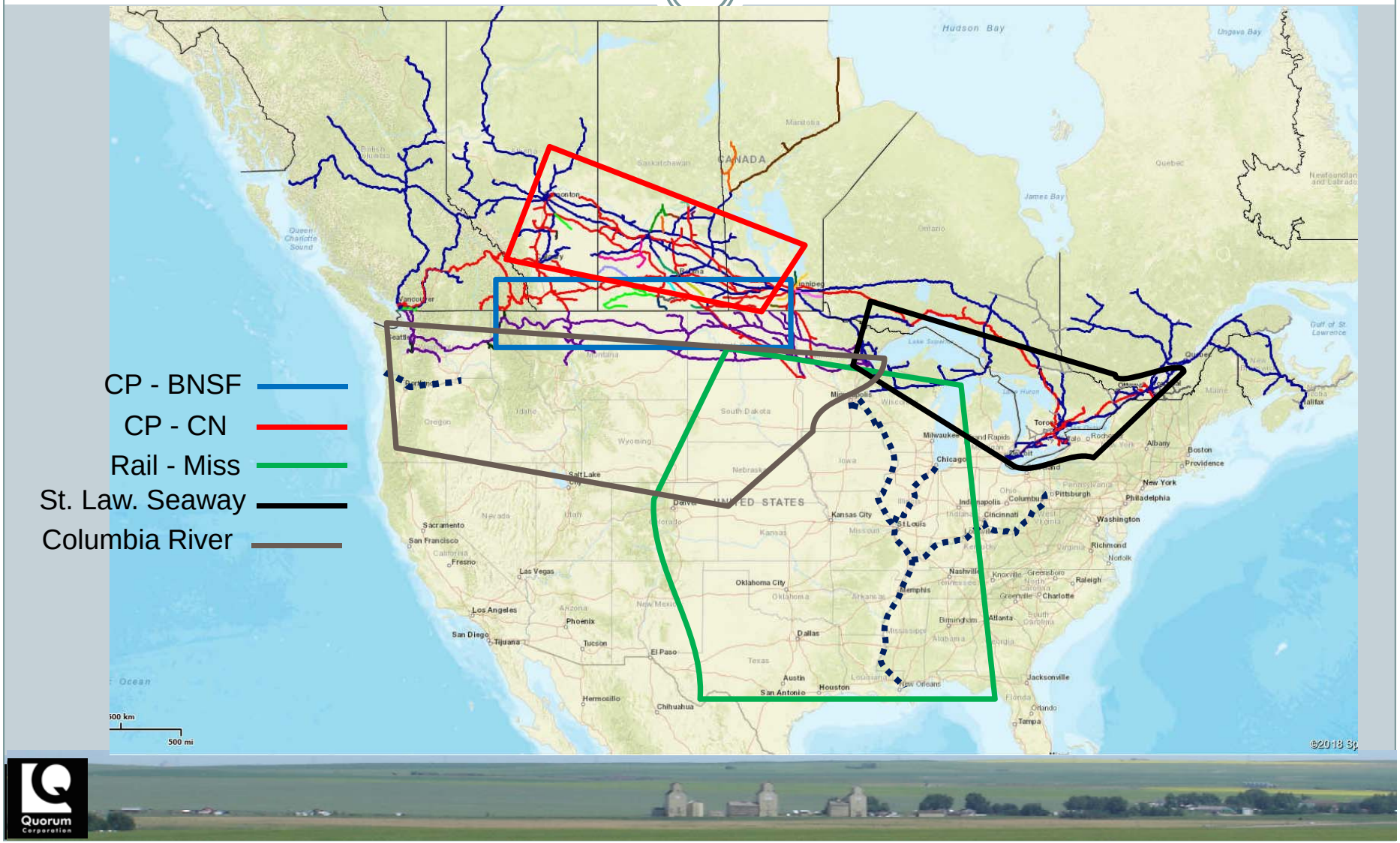


Seaway Grain Volumes

- Thunder Bay growth from increased production on Western Prairies
- US originated traffic declining (Duluth/ Toledo)
  - Competition from rail/ river
  - Shift of crops from Cereals to corn for ethanol
- Lower Lakes increasing
  - G3, Richardson and P&H new terminals in Hamilton

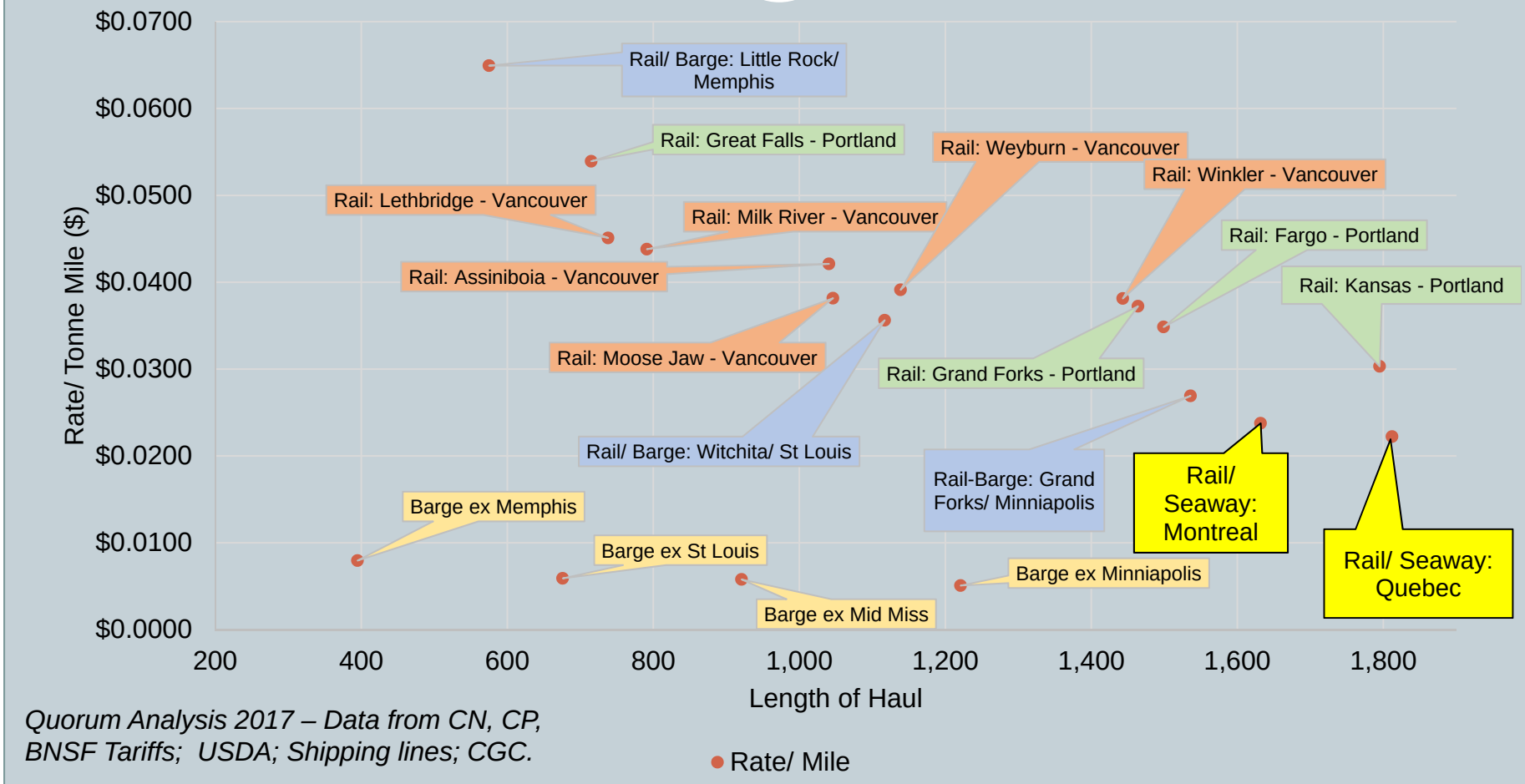
Source: St. Lawrence Seaway 2007 & 2017 Traffic Reports

Competitive Ranges



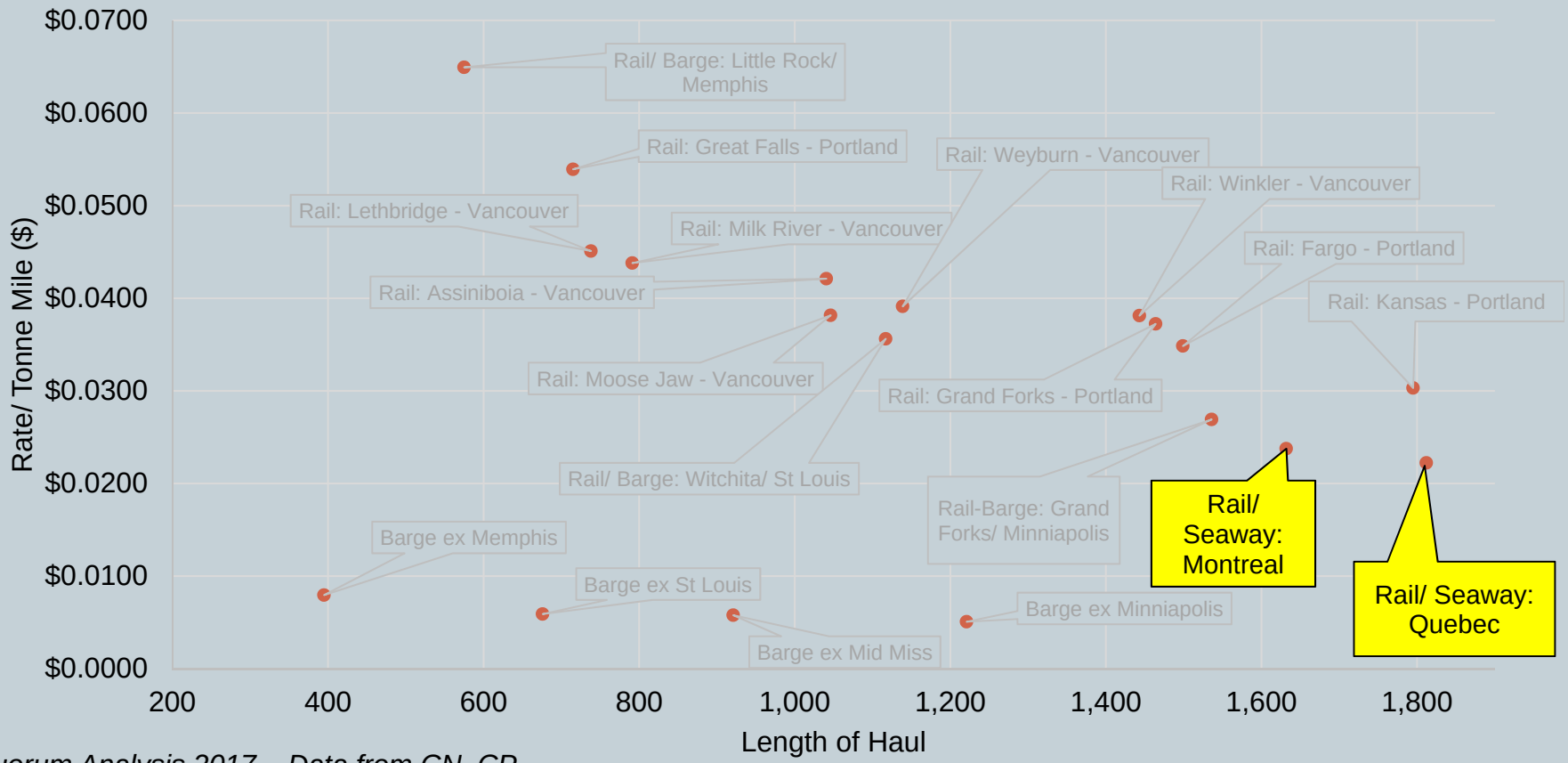
Quorum Corporation

Comparative Rates by Modal Combination



Quorum Analysis 2017 – Data from CN, CP, BNSF Tariffs; USDA; Shipping lines; CGC.

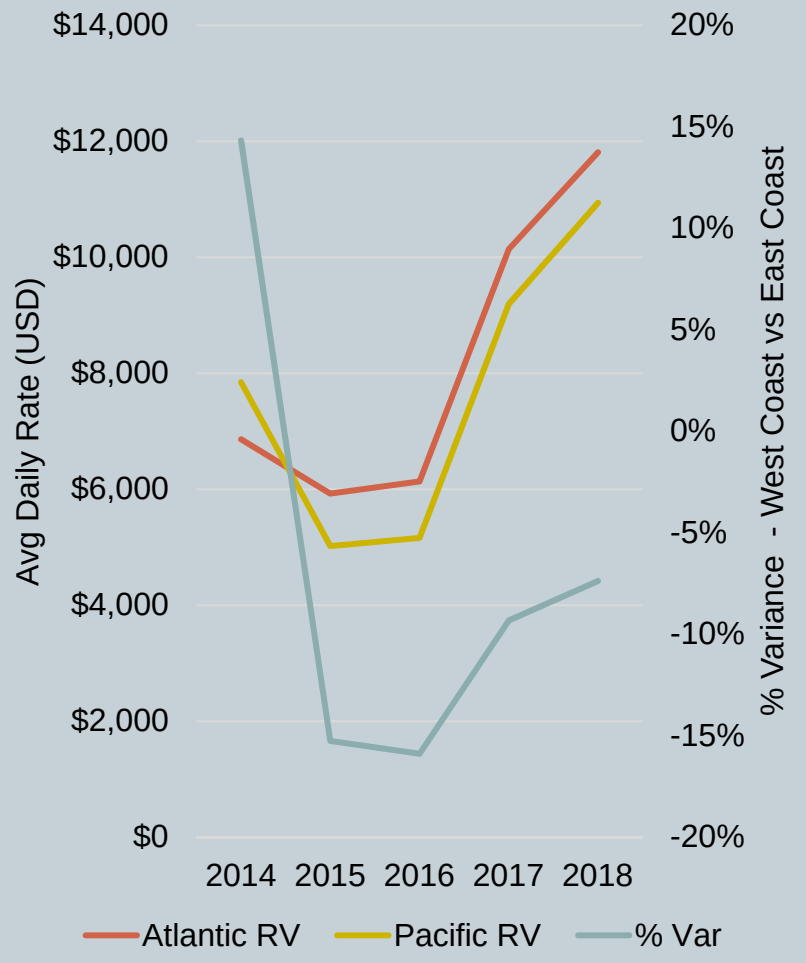
Comparative Rates by Modal Combination



Quorum Analysis 2017 – Data from CN, CP, BNSF Tariffs; USDA; Shipping lines; CGC.

Ocean Freight

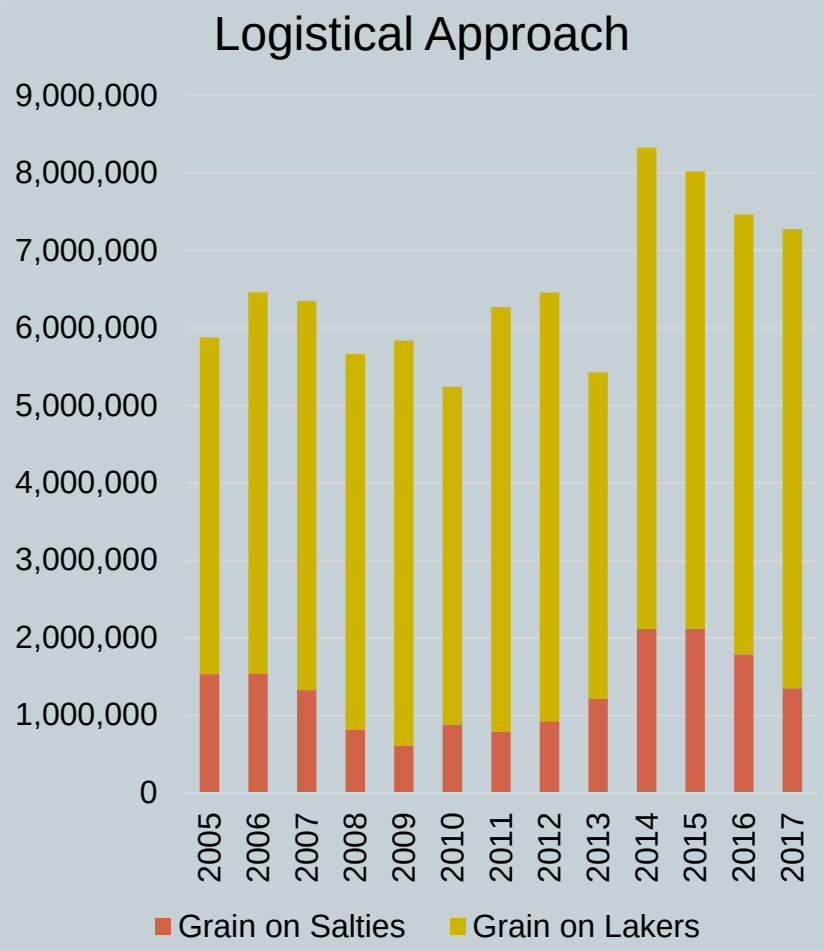
- Ocean freight off the East coast has been higher than the West coast for the past 4 years
- Differential has been narrowing, but is it enough ?



Source: Capital Links Market Reports – Dry Bulk average annual spot market rates for Panamax vessels

Canadian Grain from Thunder Bay

- Would an increase in the amount of grain direct to ocean vessel change the logistical economics ?
- Availability dependent on inbound freight
- Is the increase in new(er) lakers impacting overall costs and reliability



Quorum Corporation

Seaway Logistical Options for Grain

Farm to Elevator	Rail to Terminal	Laker to Terminal	Salty to Destination
	T - Bay	*25 – 30,000 Tonnes*	*45 – 60,000 Tonnes*

Salty to Destination
25 – 30,000 Tonnes + Pilotage

Rail to Terminal: Lower River	Salty to Destination
MRE to T-Bay; Commercial beyond	*45 – 60,000 Tonnes*

The Port of Thunder Bay … for Grain

- High storage and loading capability
  - 7 facilities with 1.157 MMT of storage
- Fastest turnaround for vessels
  - Average of 2.3 days in port; West Coast is 12.8 – 14.5 days
- Shortest car cycles for rail
  - Consistent car cycles in the 13 to 13.8 day range; West coast is 16 days and more (for same length of haul)
  - Consistent loaded transit times in 5.4 day range; West coast is 6 – 6.6 days
  - Lowest out of car time of the 3 ports at 4%; West Coast 12-18%

Summary

- Shifting markets and logistical patterns are impacting the volumes through the Seaway:
  - Canadian movements to the West Coast for Asia Pacific markets
  - US to Mississippi and ethanol production
- The investments in lower lakes terminals has induced increased exports
- The competitive environment is complex and layered
  - Mississippi system has little impact on Canadian and US northern tier rate structures
  - They do have an impact on economic decisions of shippers in the US Midwest
- There are questions as to alternative approaches

Thank You

Reports Available at our Website:

www.grainmonitor.ca