

Moving Forward, Looking Back: Logistics Best Practices



APICS VANCOUVER 2016 – SUPPLY CHAIN STRATEGY SUMMIT
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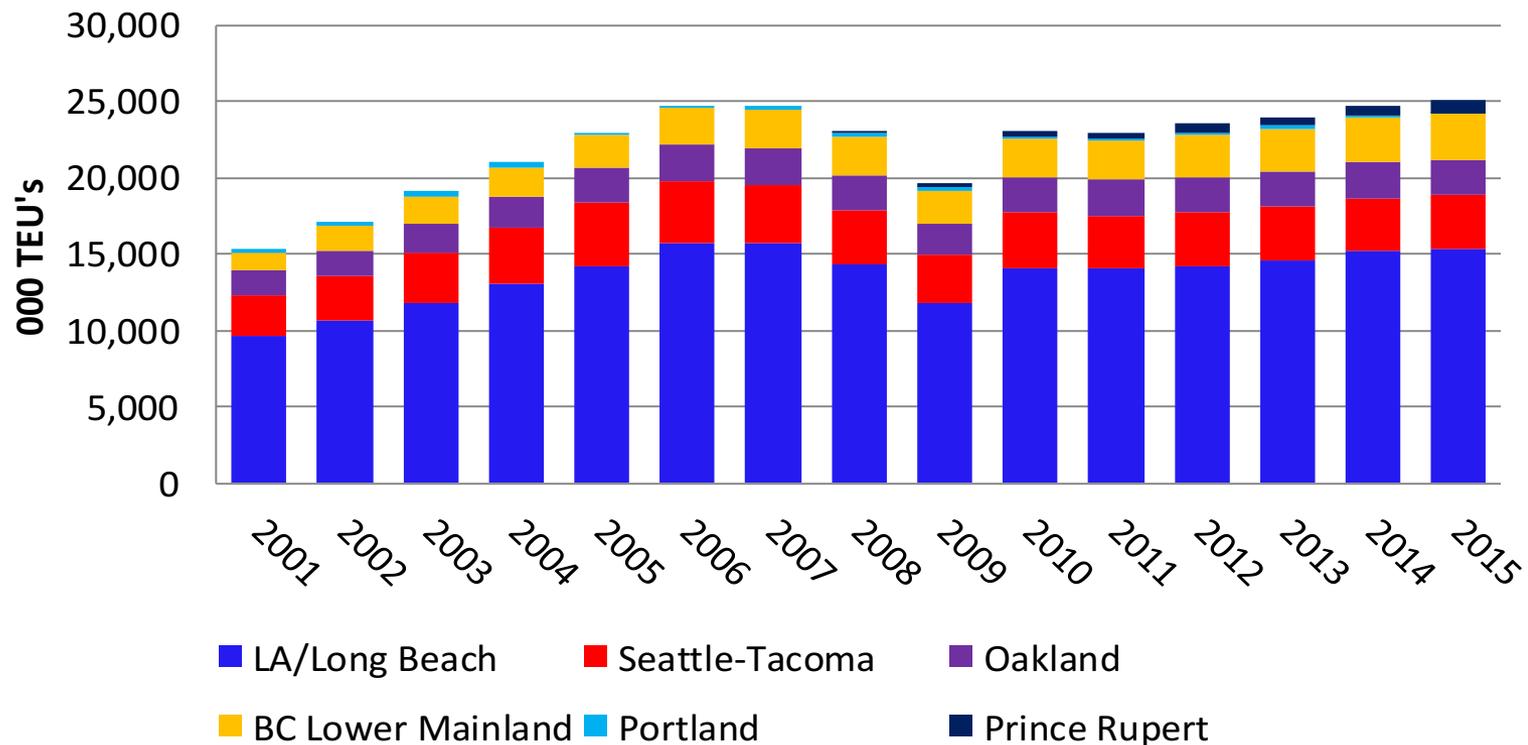
Session Overview



- **Market gyrations, changes in freight rates and service level can leave supply chain officials feeling anxious in their efforts to produce and distribute goods to domestic and international markets.**
- **The session will explore how changes in the container freight sector could impact future supply chain and logistics practices.**
- **The session will identify planning practices that leverage logistics options and service providers to drive immediate improvements.**

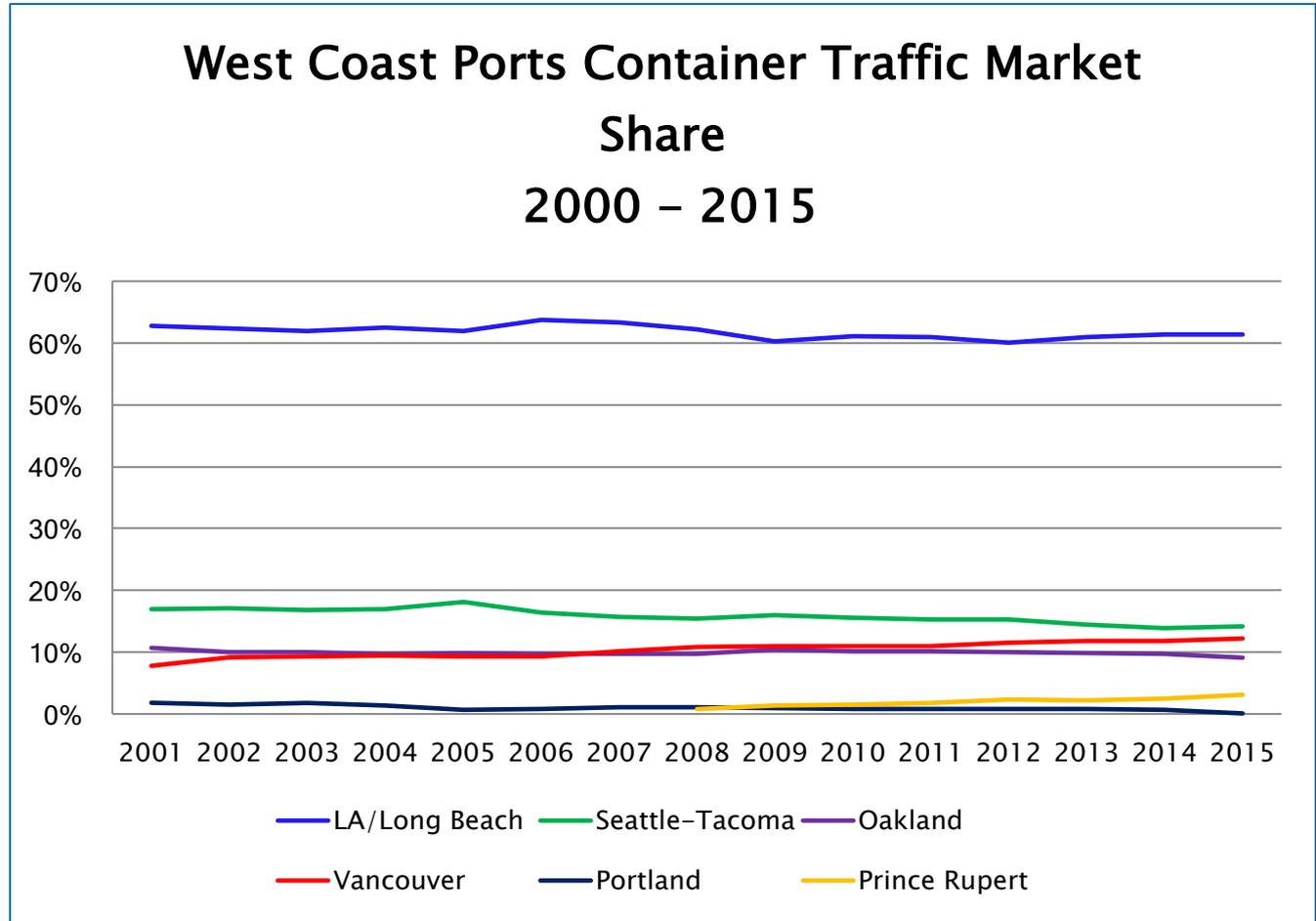
West Coast Ports Container Volumes 2001-2015

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West Coast Ports Container Market Shares 2001-2015

- Inbound business has been flat at major seaports heading into the peak shipping season, the stretch when retailers load up on goods for the upcoming holidays.
- If the trend holds, it will be the second straight year without a traditional peak.



Container Shipping Lines



Freight rates 20-50% lower than the average of the last three years:

- **Tepid international trade growth,**
- **Container carriers cutting back service,**
- **Weak container carrier balance sheets.**

Increasing ship size:

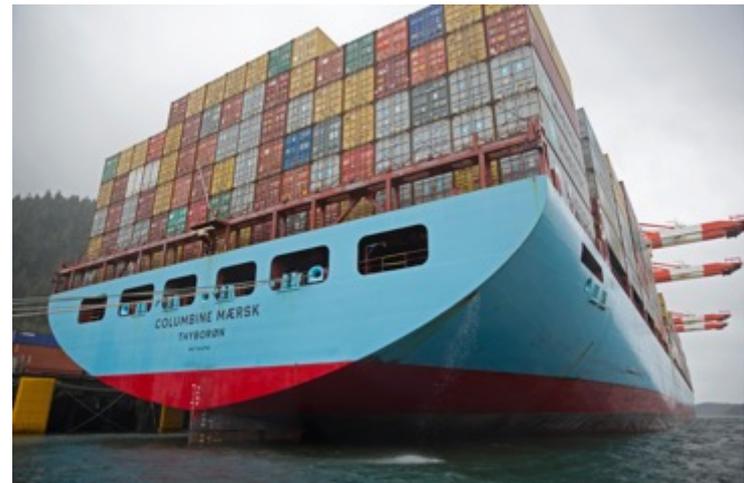
- **Selective use of missed, void or blank sailings or cancelled service by carriers in weak-demand months results in rolled cargo for the shipper.**

Possibility of massive container carrier consolidation: six to eight global container carriers by the mid-2020.

Implications & Actions: Container Sector



Plan-Buy-Make-Move-Store-Sell



Implications & Actions: Container Sector

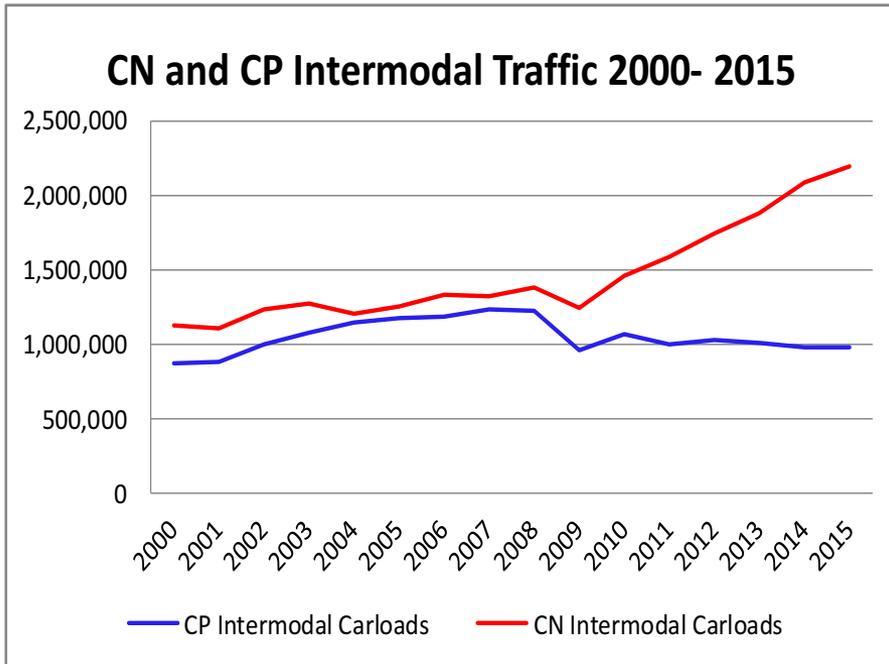
Implications

- **Fright rates will rebound from historically low freight rates. However, ocean freight rate volatility set to continue.**
- **Rolled cargo leading to longer inventory holding costs and service delivery.**
- **Fewer ports of call & changes to trade lanes. For example, Maersk drops feeder services to 10 Chinese ports.**

Actions

- **Plan & Buy:** The issue is not so much as by how much and when (perhaps 2018) as your firm's purchasing strategy: how much to commit to annual contracts versus spot rates. Consider longer contracts.
- **Plan & Buy:** Consider signing contracts with multiple carriers.
- **Plan:** Timing of contract negotiations not limited to traditional Spring season.

Intermodal Rail Market



- Class 1 railway intermodal marketing strategies and commercial behaviour are having a significant impact on the container flows, but macro economic factors are driving demand.
- CN's growth efforts have significantly outpaced CP's. Yet, CP has experienced a 5% increase in international intermodal compared to the previous year. This increase was primarily due to increased revenue ton-miles due to longer haul shipments through the Port of Vancouver.
- CP is now claiming faster intermodal service with Chicago to Toronto shipping 24 hours faster than last year.

Intermodal Rail Market

- Canadian National Railway indicated that shippers should continue to expect strong freight rates.
- CN doesn't foresee a dramatic upswing for the intermodal market on the near horizon. Some of the most optimistic forecasts now place an intermodal industry rebound sometime in the back half 2017, others as late as 2018.

Canadian Railways (TEUs)	
Year	Container-on-flat-car
2006	3,062,544
2007	3,163,367
2008	3,205,834
2009	2,952,584
2010	3,235,761
2011	3,315,391
2012	3,559,595
2013	3,686,321
2014	3,897,973
2015	4,071,322



Implications & Actions: Intermodal Rail

Plan-Buy-Make-Move-Store-Sell



Implications & Actions: Intermodal Rail

Implications

- Canadian Class 1 railway growth in intermodal traffic has largely been driven by Inland Port Intermodal traffic.
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- CP is now claiming faster intermodal service with Chicago to Toronto shipping 24 hours faster than last year.

Actions

- **Plan & Buy:** Rail volumes, rates and employment are down, making this the best time to negotiate with railroads in fifteen years.
- **Plan & Move:** Is it time to take advantage of container match-back traffic if you are an exporter?



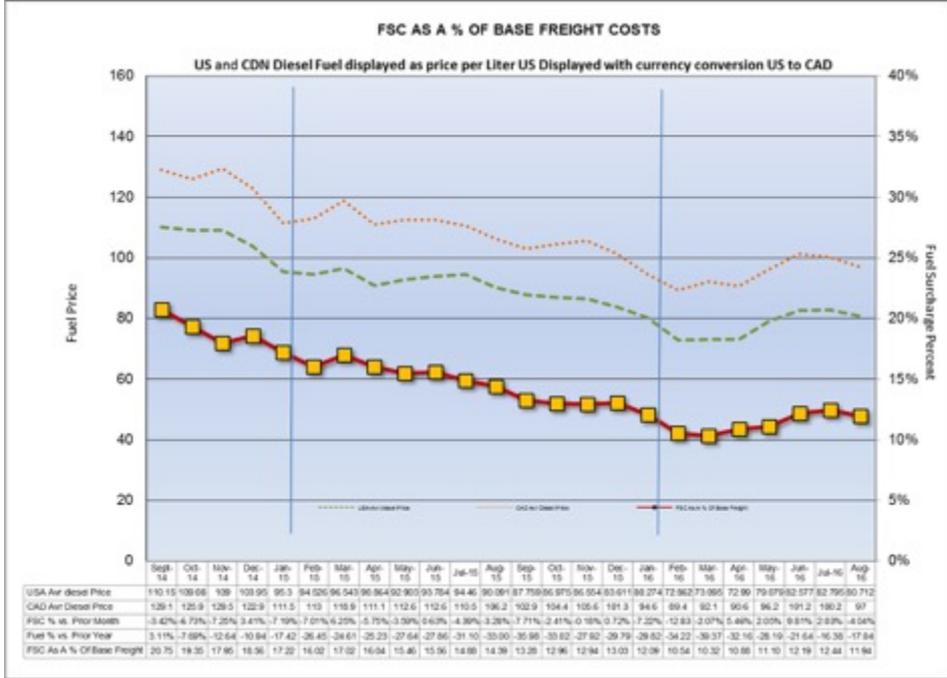
Trucking Market

- **Drayage:** In 2014 new legislation covered rate regulation for companies serving the Port of Vancouver. The BC Container Trucking Commissioner on October 19, 2016 announced a new interim policy that impacts potential capacity: currently 93 firms and 1,715 tags.
- **Long Distance:** Freight transport price outlook remains flat but service reliability increasing in importance.
- **Less than Truck Load:** Year over Year, Domestic LTL and Truckload remain in negative territory, while Cross Border Truckload and LTL are positive. Dimensional pricing coming to the LTL industry with potential impact on increases in freight rates.

Trucking Market



This chart shows the change in Base Freight Costs since January 2008 for Canadian shippers. The data presented is the same as the General Freight Index above, except that all costs associated with separately identified Fuel Surcharges and Other Accessorial charges has been removed from the analysis.



This chart shows the changing Fuel Surcharge rates paid by Canadian Shippers. The Fuel Surcharge data shown is expressed as a percentage of the overall Base Freight Cost paid by shippers in the study sample.

Data Source: Canadian General Freight Index by NULOGX.

Implications & Actions: Trucking



**Plan-Buy-Make-
Move-Store-Sell**



Implications & Actions: Trucking

Implications

- **Drayage Sector.** Regulated price but some possibility for industry expansion.
- **Long Distance.** Price outlook remains flat but service reliability is increasing.
- **Less than Truck Load (LTL)** dimensional weight pricing.

Actions

- **Plan:** The long distance freight rate and the price point when fuel surcharges kick-in.
- **Plan & Move:** Evaluate carriers with high transit time consistency, higher equipment availability, more flexibility and multi-modal capabilities.
- **Plan & Move:** Find a way to pack the maximum weight into the minimum volume possible to keep your costs down.



Implications & Actions: Trucking

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Implications & Actions: Trucking

Actions to Prepare for Dimensional LTL Pricing

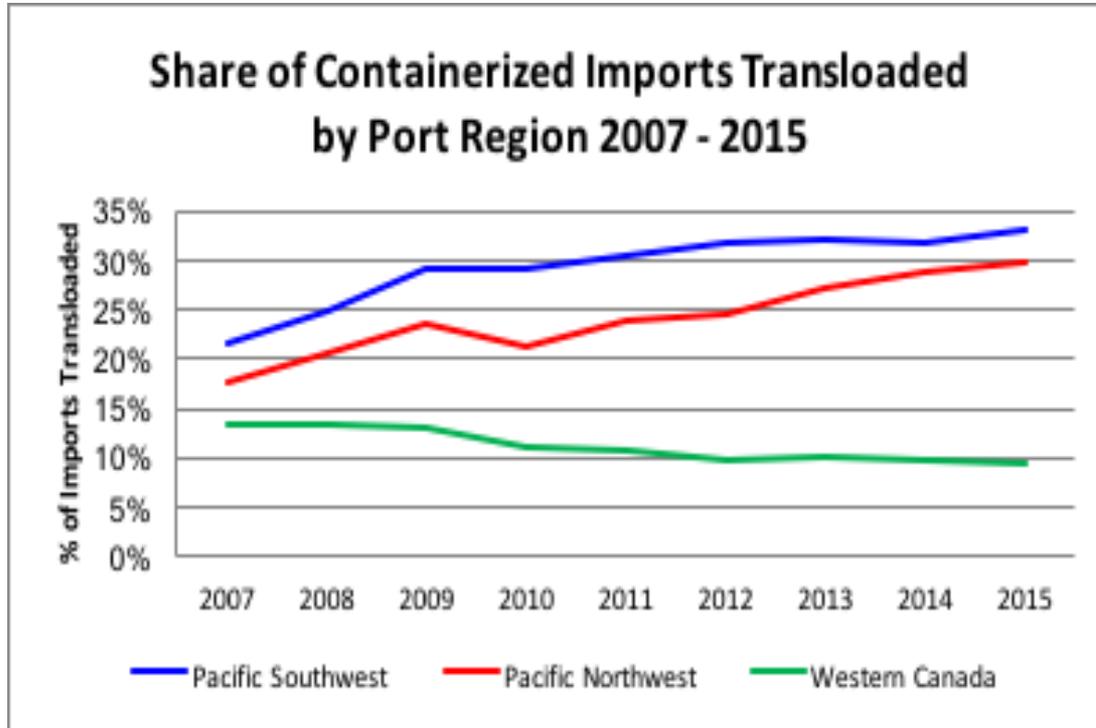


Plan & Move:

- Examine your freight.
- Do the math.
- Review manufacturing and packaging options.
- Examine order sizes and shipping frequencies.
- Examine your need to warehouse.
- Optimize your shipping process.
- Shop around for dimensional pricing tariffs.

Logistics Services

Container Transloading



United States Market:

- Pacific Southwest: Southern California dominates the container transload market, and traffic has grown substantially since 2009.
- Pacific Northwest: The share of containerized cargo transloaded has increased substantially at Seattle/Tacoma ports.

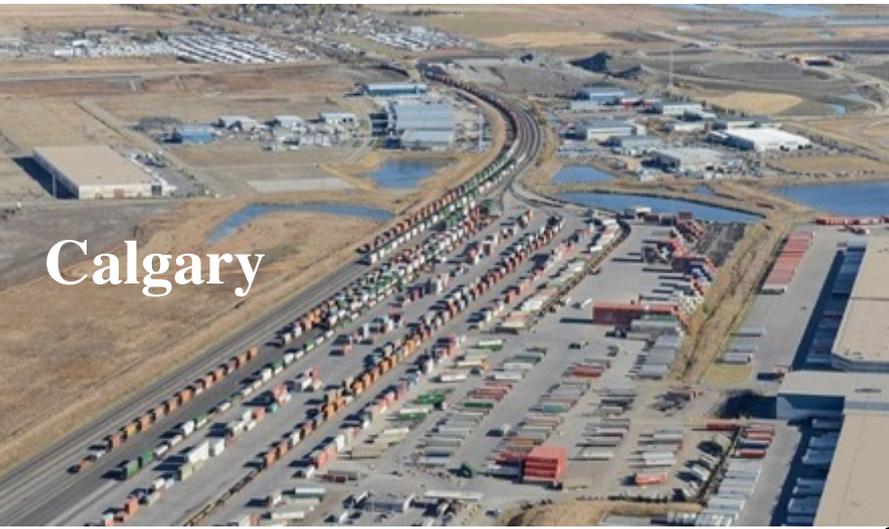
Western Canadian Market:

- The market share of imports transloaded at Canadian Ports (Vancouver, Prince Rupert) has declined since 2009.

Logistic Service Market

- **Import-oriented Terminal:** Typically located in high population areas; Calgary role growing.
- **Integrated Logistics Park:** Combines import, export and container storage; ideally requires large site, proximity to population centre, good rail service, and provides value added logistics and supply chain services for the cargo.
- **Export-oriented Terminal:** Rail service model critical; Commercial challenges (transportation costs).
- **E-commerce, tepid international trade growth and & in an increasingly global logistics sector, continues to dominate companies' strategic planning. The scale and volume of M&A activity in the industry has been at historic highs in recent years.**

Logistics Services Market



Logistics Facilities Demand

- Companies are pivoting away from maintaining stores brimming with merchandise, instead housing fewer goods in warehouses where they can quickly ship to stores or fulfill online orders.
- Vacancy rates for industrial land suitable for logistics facilities in North America is very low and land values are rising.

City	Net Rent (CAD\$)	Cap Rate	Building Value Per Sq. Ft.	Vacancy
Factor	\$ 1.30			
Average	\$ 7.90	5.7%	\$ 134	3.8%
Seattle	\$ 8.83	5.9%	\$ 265	3.7%
Vancouver	\$ 8.64	4.9%	\$ 176	1.5%
Los Angeles	\$ 10.14	5.5%	\$ 168	1.4%
Calgary	\$ 8.40	6.0%	\$ 140	6.6%
Oakland	\$ 10.14	4.8%	\$ 137	1.8%
Inland Empire	\$ 7.75	6.3%	\$ 125	4.8%
Portland	\$ 7.90	5.5%	\$ 114	4.7%
North New Jersey	\$ 8.46	6.0%	\$ 105	5.5%
Toronto	\$ 5.44	5.5%	\$ 99	3.3%
Chicago	\$ 6.08	5.2%	\$ 85	6.9%
Savannah	\$ 5.11	7.0%	\$ 59	1.9%

Source: Colliers June 2016, Site Economics Ltd.

Implications & Actions: Logistics Services

Plan-Buy-Make-Move-Store-Sell



Implications & Actions: Logistics Sector

Implications

- Freight forwarders play a vital role in expediting the movement of an estimated 70% of Canada's containerized cargo.
- What type of 3PL arrangement is right for you?

Actions

- **Plan:** What is your outside logistic partner's strategy for dealing with freight rate volatility?
- **Plan:** Active management of your commercial relationship with your outside service provider? Some NVOCCs saw Hanjin collapse months before bankruptcy filing.
- **Plan & Buy:** Commercial approaches: Transaction Pricing, Activity-based Costing, Cost-plus Pricing.

Implications & Actions: Logistics Sector

Transactional Pricing

Pros

- Fixed terms leave little room for misinterpretation. Pricing is easy to understand and easy to budget (especially when predictable volumes are involved).
- Pricing structure is easy to design and implement.

Cons

- 3PLs may feel the need to overestimate their unit prices to minimize their risk and guarantee they'll cover their fixed costs.



Implications & Actions: Logistics Sector

Activity-based Costing

Pros

- ABC more accurately reflects services rendered and expenses incurred.
- 3PLs don't have to build fat into their unit prices to protect themselves from losses related to their fixed costs.
- ABC contracts allow companies to track logistics costs more accurately because they usually have more highly detailed invoices.

Cons

- ABC pricing structures are complex to develop.
- Activity-based pricing is difficult to structure for new relationships.
- There are no inherent financial incentives for the 3PL to pursue continuous improvement without a well-defined gainsharing program included in the contract.

Implications & Actions: Logistics Sector

Cost-plus Pricing

Pros

- Cost-plus protects shippers from protective overestimating that may occur with transactional pricing. The 3PL is protected against losses due to unpredictable volumes/business levels.
- Providers are guaranteed a profit and shippers can keep that cost under control. Shippers get a highly accurate picture of costs.

Cons

- Since cost-plus is not a viable long-term pricing model, it could encourage a 3PL to generate costs because each cost carries a specified profit margin. Disagreements on what constitutes a cost can arise.
- Budgeting is more difficult for the shipper because the only constant is the mark up.

Implications & Actions: Logistics Sector

Benchmarking & Gainsharing

- **Benchmarking** identifies key performance indicators or areas where improvement is desirable, and rewards those improvements or exceptional performance. Each outsourcing contract is unique, and equitable pricing is only part of the contract.
- **Gainsharing** works best with new relationships where the learning curve is highest and opportunities to work smarter abound. This does not preclude using gainsharing as an incentive for a long-standing relationship. Opportunities to drive improvement will always exist, but there is a point of diminishing returns with gainsharing.

Implications & Actions: Logistics Sector

Actions

Plan:

- Slow down and take the steps to get outsourcing right before you start any work.
- Don't outsource what is core.
- Understand your baseline and benchmarks before you outsource.
- Ensure potential suppliers understand the business.
- Develop clearly defined and measurable desired outcomes.
- Identify risks before you transition the work.
- Establish a pricing model with incentives that encourage service providers to put skin in the game.
- Develop a governance structure based on insight versus oversight.



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