

PORT PLANNING IN THE UNITED STATES

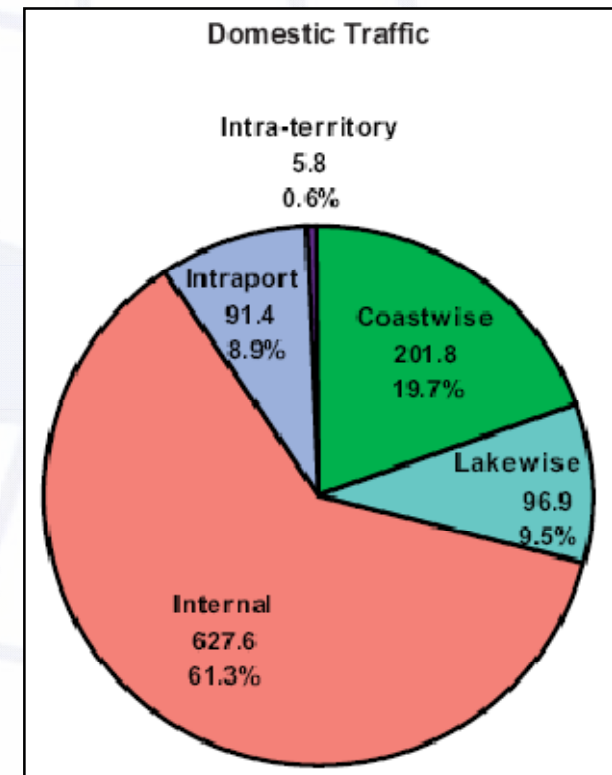
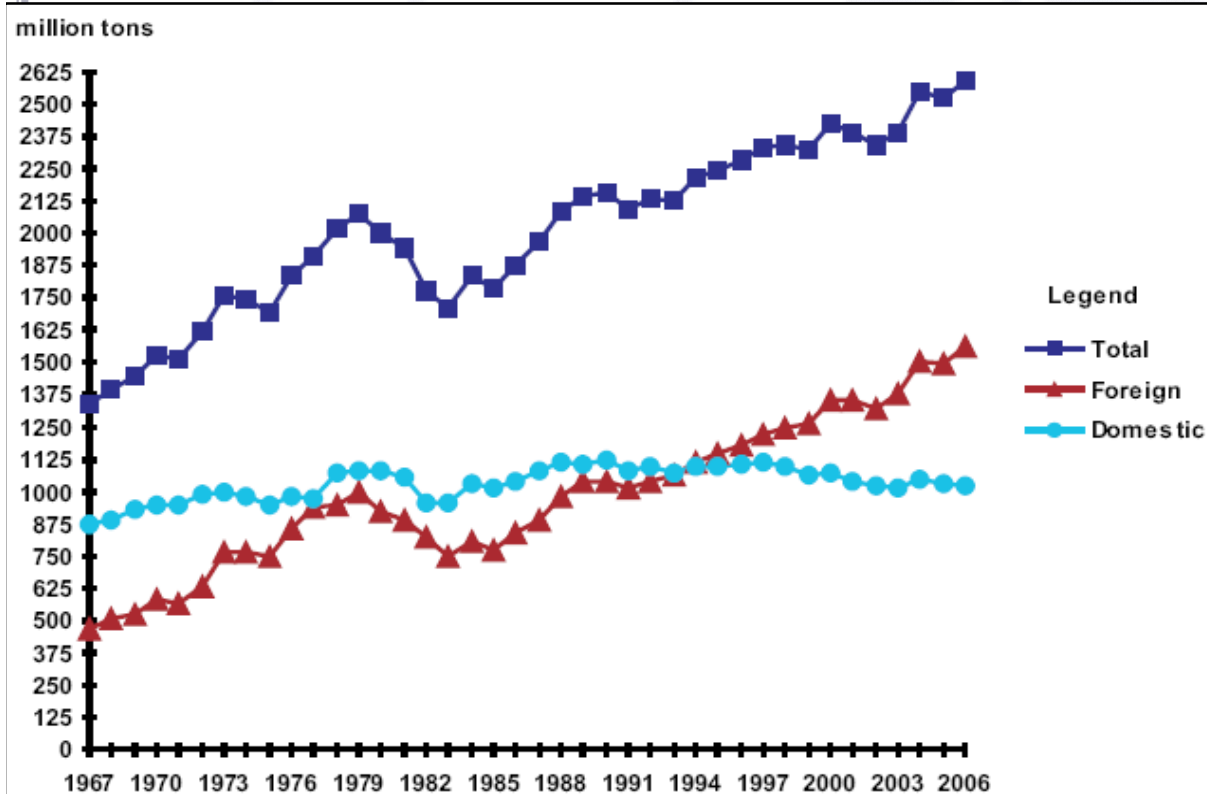
Bruce Lambert

Executive Director

Institute for Trade and Transportation Studies

U.S. WATERBORNE COMMERCE BY TYPE OF TRAFFIC

- 2.6 Billion Tons (2006)
- 60% Foreign Trade / 40% Domestic
- Of Domestic: 61% Inland Waterway



US PORT MANAGEMENT FRAMEWORKS

- No national ports – state, local or private
- Financing and Project Determination
 - All Decisions are on based on existing infrastructure (operations) or changing infrastructure (planning)
 - All decisions are related to financial and budgetary goals
 - All ports are land development agencies!
- National Agencies are compartmentalized
 - No terminal infrastructure program
 - Federal Channel program (Coast Guard, US Army Corps of Engineers, NOAA)
 - No national policy on connection to hinterland markets

DATA FOR PORT STUDIES

○ Public Datasets

- US Army Corps of Engineers (Transportation Data)
- US Commerce Data (Trade data)
- Some regional association information
- Port annual reports
- Freight Analysis Framework

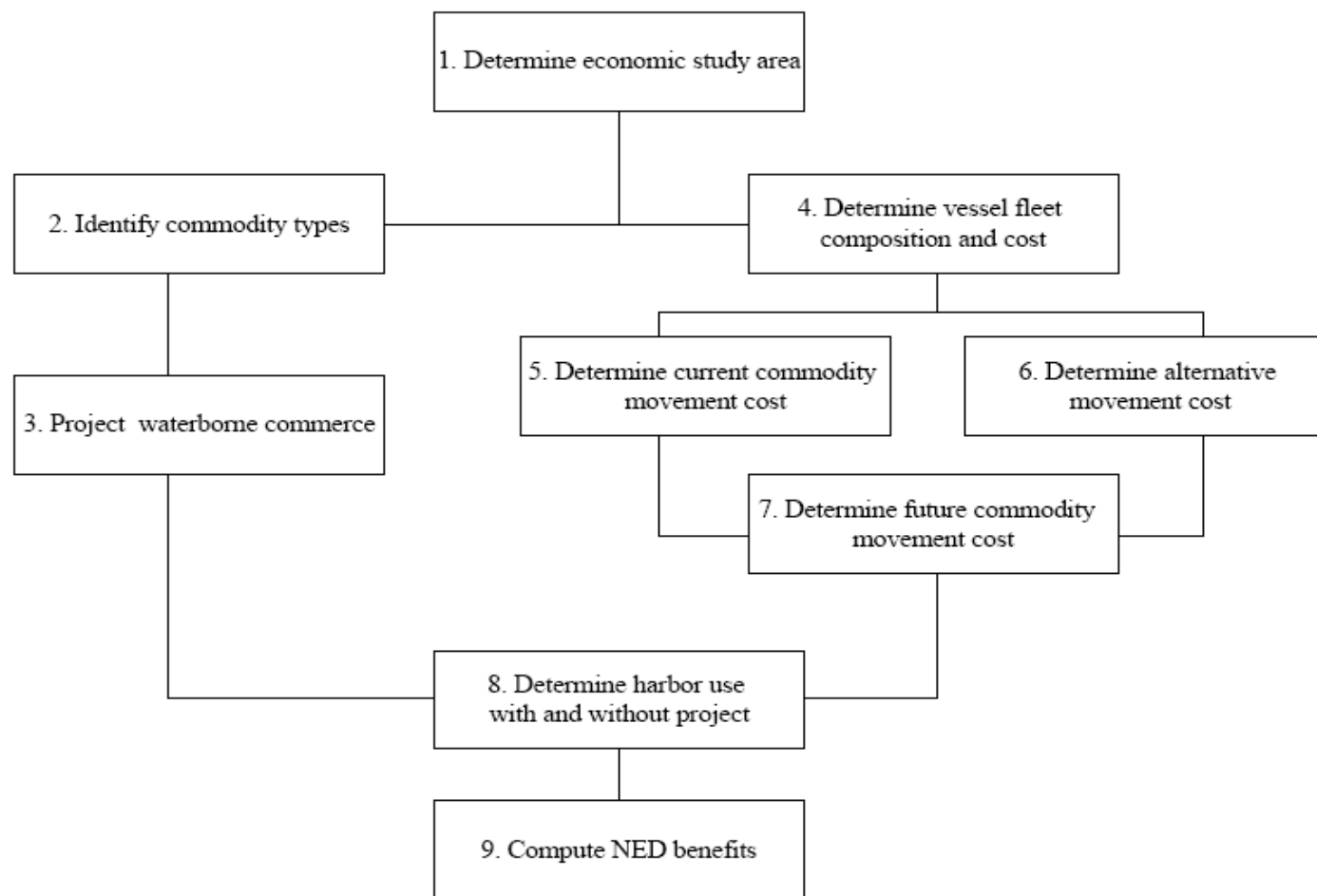
○ Private Datasets

- PIERS
- Third party vendors of Commerce datasets
- Railroad datasets
- IHSGlobal Insight

MODELS FOR PORT STUDIES

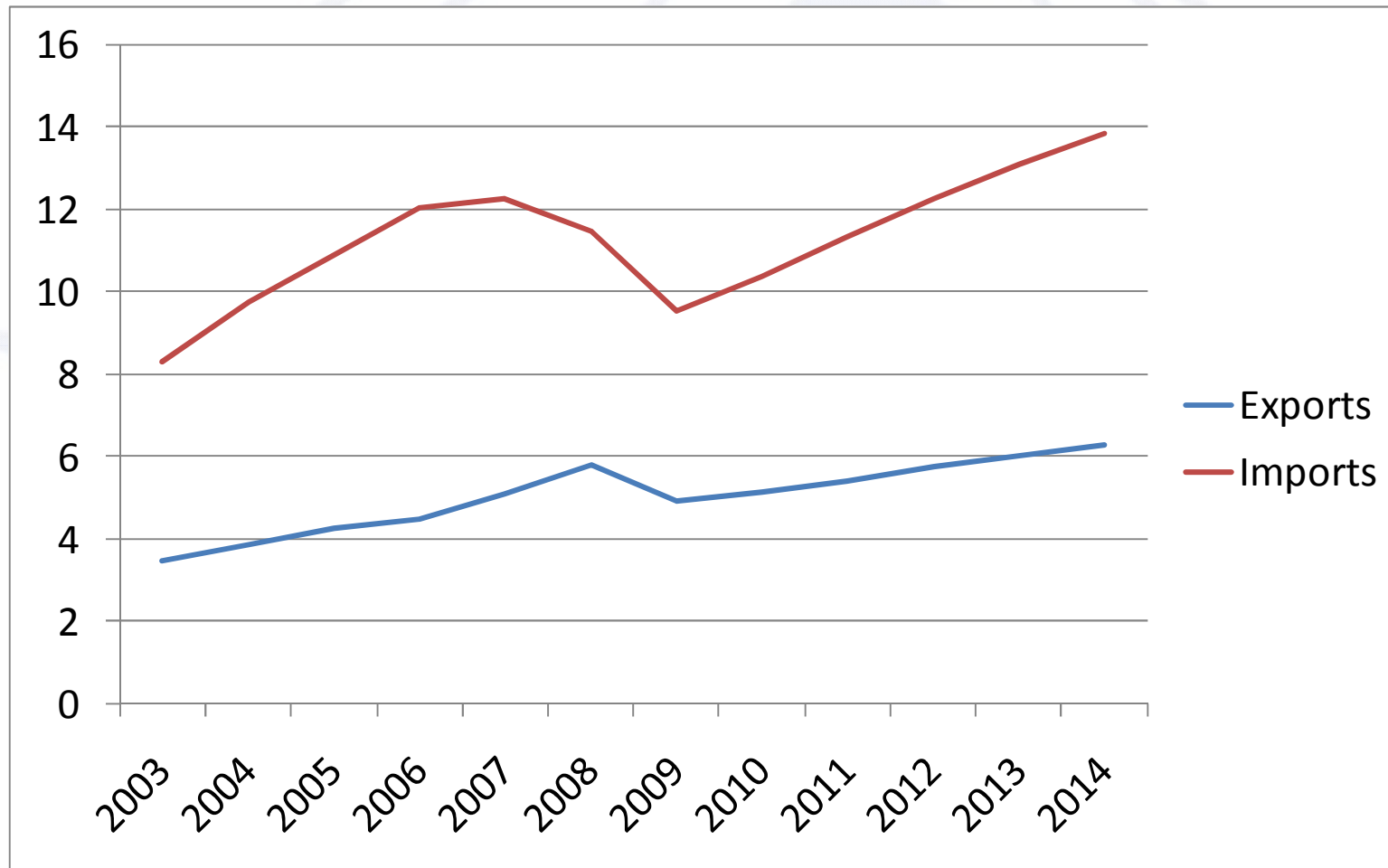
- Simulation Modeling
 - HarborSym (USACE) or other Planning modules
 - Traditional Simulation modes
- Economic Models
 - Marad Port Kit
 - FHWA for freight Studies
 - USACE for economic assessments

US ARMY CORPS – COASTAL PLANNING FRAMEWORK



Source: Principles and Guidelines - Figure 2.7.4 - Flow Chart of Deep Draft - Navigation Benefit Evaluation Procedures

FORECAST OF U.S. CONTAINERIZED TRADE WITH ASIA (MILLIONS OF TEUS)



Source: IHSGlobal Insight

EASTERN US CONTAINERIZED TRADE PATTERNS - IMPORTS

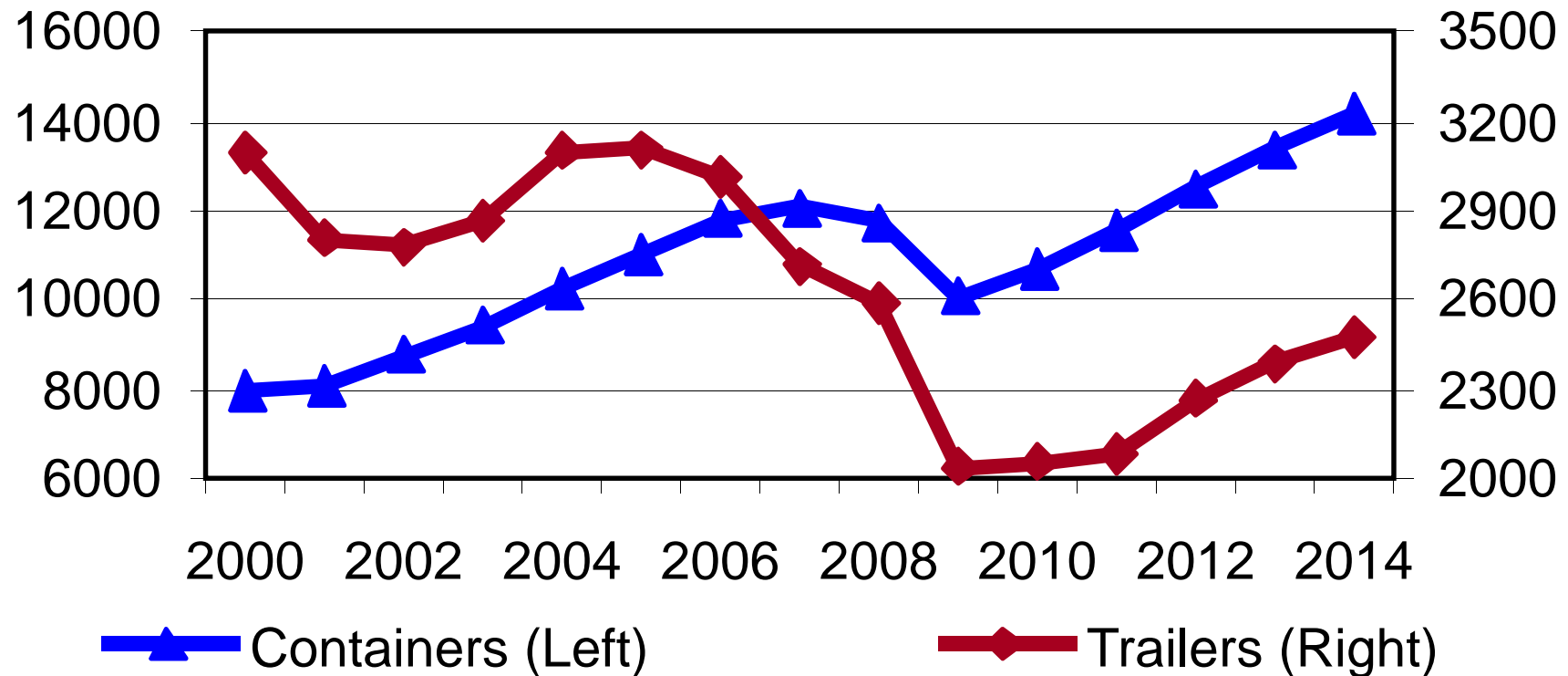
	Actual	Actual	Actual	Actual	Actual	Estimated	Forecast	Forecast	Actual	Forecast
	2008 Q1	2008 Q2	2008 Q3	2008 Q4	2009 Q1	2009 Q2	2009 Q3	2009 Q4	2008	2009
Northeast	296,999	305,019	350,446	299,006	253,946	266,402	303,922	284,526	1,251,470	1,108,796
vs. Last Year	5.4%	3.9%	-2.7%	-4.1%	-14.5%	-12.7%	-13.3%	-4.8%	0.3%	-11.4%
Southeast	413,684	398,933	452,367	404,686	334,444	350,303	393,218	376,477	1,669,671	1,454,443
vs. Last Year	3.8%	-0.2%	-3.0%	-7.5%	-19.2%	-12.2%	-13.1%	-7.0%	-1.9%	-12.9%
Gulf	46,833	40,537	46,114	56,118	39,267	41,107	45,610	43,201	189,602	163,184
vs. Last Year	9.6%	5.3%	-15.1%	9.1%	-16.2%	1.4%	-1.1%	-23.0%	1.4%	-10.8%
Total	757,516	744,488	848,928	759,810	627,657	657,812	742,750	704,204	3,110,742	2,732,423
vs. Last Year	4.8%	1.7%	-3.6%	-5.1%	-17.1%	-11.6%	-12.5%	-7.3%	-0.8%	-12.2%
Share of Transpacific	27.8%	25.8%	27.5%	28.4%	29.7%	29.5%	27.5%	28.7%	27.4%	28.7%
East Share of Transpacific	41.4%	39.8%	43.6%	42.5%	41.8%	45.6%	43.1%	41.8%	41.8%	43.0%
East Ex . Transpacific	1,073,509	1,126,779	1,096,550	1,026,725	872,646	785,994	980,442	979,973	4,323,564	3,619,055
vs. Last Year	-4.0%	-4.8%	-4.1%	-9.1%	-18.7%	-30.2%	-10.6%	-4.6%	-5.5%	-16.3%

TOTAL US CONTAINERIZED EXPORTS TO ASIA

	Actual	Actual	Actual	Actual	Actual	Estimated	Forecast	Forecast	Actual	Forecast
	2008 Q1	2008 Q2	2008 Q3	2008 Q4	2008 Q1	2008 Q2	2008 Q3	2008 Q4	2008	2009
Northeast	398,678	426,689	414,941	345,547	307,644	334,319	364,888	386,736	1,585,854	1,382,398
vs. Last Year	26.3%	20.7%	11.4%	-14.8%	-22.8%	-21.8%	-14.6%	6.8%	9.6%	-14.1%
Southeast	949,100	964,337	929,342	799,199	725,487	747,634	811,128	838,384	3,641,977	3,120,611
vs. Last Year	16.6%	10.5%	6.1%	-14.5%	-23.6%	-22.6%	-12.7%	4.7%	4.1%	-14.3%
Gulf	280,928	297,787	270,643	247,681	239,977	261,843	260,684	268,391	1,097,041	1,000,804
vs. Last Year	10.9%	4.5%	-4.5%	-15.4%	-14.6%	-16.4%	-7.4%	4.3%	-1.6%	-8.8%
Total U.S. East	1,628,706	1,688,813	1,614,926	1,392,427	1,273,107	1,333,786	1,418,417	1,480,480	6,324,872	5,483,811
vs. Last Year	17.8%	11.7%	5.4%	-14.7%	-21.8%	-21.0%	-12.3%	4.8%	4.4%	-13.3%
Pacific Northwest	277,180	270,478	246,379	203,456	208,668	236,471	220,433	227,282	997,494	891,884
vs. Last Year	13.3%	10.6%	-2.0%	-28.7%	-24.7%	-12.8%	-10.6%	11.7%	-2.8%	-10.8%
Northern California	170,964	177,497	167,601	142,483	159,386	172,027	163,618	168,282	658,545	643,221
vs. Last Year	11.2%	13.6%	3.3%	-14.9%	-6.8%	-3.1%	-8.4%	11.1%	3.0%	-2.3%
Pacific Southwest	782,248	809,878	828,815	620,816	604,751	678,188	678,846	700,783	3,041,757	2,861,376
vs. Last Year	30.3%	15.9%	28.5%	-17.5%	-22.7%	-18.6%	-18.0%	12.8%	12.8%	-12.6%
Total U.S. West	1,230,392	1,257,853	1,242,795	966,755	972,806	1,083,884	1,063,684	1,088,377	4,697,796	4,198,481
vs. Last Year	23.2%	14.4%	17.4%	-19.8%	-20.9%	-13.8%	-16.2%	12.4%	7.7%	-10.7%
Total U.S.	2,859,098	2,946,666	2,857,721	2,359,182	2,245,913	2,417,480	2,470,011	2,648,888	11,022,668	9,880,272
vs. Last Year	20.0%	12.9%	10.3%	-16.9%	-21.4%	-18.0%	-13.8%	8.0%	5.8%	-12.2%
Eastern Canada	227,589	256,234	250,860	213,244	187,552	230,174	210,624	220,080	947,927	848,340
vs. Last Year	2.5%	1.1%	3.6%	-2.8%	-17.6%	-10.2%	-18.1%	3.2%	1.2%	-10.6%
Western Canada	241,352	260,481	232,027	207,774	207,553	218,840	191,487	207,919	941,634	826,800
vs. Last Year	17.1%	6.1%	-3.7%	-19.8%	-14.0%	-18.0%	-17.6%	0.1%	-1.0%	-12.3%
Total Canada	468,941	516,715	482,887	421,019	395,105	448,014	402,011	428,008	1,889,561	1,674,138
vs. Last Year	9.5%	3.6%	-0.1%	-12.0%	-15.7%	-13.1%	-18.7%	1.7%	0.1%	-11.4%
Total U.S. and Canada	3,328,039	3,463,381	3,340,608	2,780,201	2,641,018	2,868,483	2,872,022	2,974,877	12,912,229	11,364,411
vs. Last Year	18.4%	11.4%	8.7%	-16.2%	-20.6%	-17.2%	-14.0%	7.0%	4.9%	-12.1%
Balance										
U.S. East	(202,319)	(182,455)	(330,552)	(394,109)	(227,196)	(110,008)	(308,776)	(223,887)	(1,109,435)	(867,887)
U.S. West	(1,002,677)	(1,137,448)	(1,278,617)	(1,201,276)	(746,941)	(804,644)	(1,138,083)	(886,083)	(4,620,018)	(3,676,811)
Canada	(21,383)	(29,841)	(121,805)	(154,943)	(31,786)	13,316	(121,278)	(68,601)	(327,973)	(188,347)
U.S. and Canada	(1,226,380)	(1,349,743)	(1,730,974)	(1,750,328)	(1,005,923)	(801,238)	(1,687,114)	(1,187,361)	(6,057,425)	(4,641,826)

INTERMODAL RAIL TRAFFIC OUTLOOK FOR NORTH AMERICA IS FOR WEAK GROWTH

(Loadings – 1000s of Containers and Trailers)



Full Rebound in Container Volumes Only After 2011

DREWRY – TRANSPACIFIC INTERMODAL WHITE PAPER

Imports

West Coast 8000 TEU Ship vs

East & Gulf 6400 TEU Ship East & Gulf 8000 TEU Ship

Destination	20'	40'	20'	40'
Atlanta	\$595	\$580	\$665	\$720
Chicago	\$185	\$270	\$255	\$410
Cincinnati	\$185	\$120	\$255	\$260
Cleveland	\$85	\$70	\$155	\$210
Columbus	\$460	\$370	\$530	\$510
Dallas	-\$65	-\$255	\$1	-\$115
Detroit	\$85	\$220	\$155	\$360
Indianapolis	\$630	\$670	\$955	\$810
Kansas City	\$335	\$70	\$405	\$210
Louisville	\$885	\$670	\$955	\$810
Minneapolis	-\$15	-\$55	\$55	\$85
Memphis	\$260	\$70	\$330	\$210
Saint Louis	\$1,070	\$875	\$1,140	\$995

Note: Positive numbers favour East Coast and Gulf routing
Source: Drewry Supply Chain Advisors

Exports

West Coast 8000 TEU Ship vs

East & Gulf 6400 TEU Ship East & Gulf 8000 TEU Ship

Destination	20'	40'	20'	40'
Atlanta	\$410	\$320	\$415	\$460
Chicago	-\$40	-\$230	\$30	-\$90
Cincinnati	\$410	\$220	\$480	\$360
Cleveland	\$385	\$195	\$455	\$335
Columbus	\$285	\$195	\$355	\$225
Dallas	-\$115	-\$205	\$45	-\$65
Detroit	\$260	\$95	\$330	\$235
Indianapolis	\$585	\$470	\$655	\$610
Kansas City	-\$140	-\$330	-\$70	-\$190
Louisville	N/A	N/A	N/A	N/A
Minneapolis	-\$15	-\$180	\$55	-\$140
Memphis	\$335	-\$55	\$405	\$85
Saint Louis	-\$15	-\$230	\$55	-\$90

Note: Positive numbers favour East Coast and Gulf routing
Source: Drewry Supply Chain Advisors

THE SUM OF KNOWLEDGE

The Known

- The Canal is expanding
- Trade has shifted from West Coast
- Total Trade will recover in the next few years
- Globalization continues at a slower pace

The Unknown

- Will S. Cal ports push trade away?
- Will Eastern U.S. ports receive dredging?
- How much more cargo is divertible? (25%?)
- How (when) will vessels be deployed?
- Who wins in battle between tolls and railroad costs?
- External Shocks?

EXTERNAL SHOCKS

- Security risks and asymmetric disruptions
- Opening of Cuba
- Expansion of Transshipment hubs in region
- China – “Insourcing”
- Near Sourcing to Latin America
- Free Trade negotiations
- Price of fuel – Energy
- Drayage and local hauling rules
- Labor discussions
- Environmental concerns

CAN WE HELP PEOPLE MAKE BETTER DECISIONS?



Sometimes this is what it feels like...

CLOSING THOUGHTS

- Rich datasets for port operational planning and market analysis
- Limited Federal forecasts of regional or national activities
- Level of required information generally requires project specific “reanalysis”