Post-Panamax Revolution?

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Quick Facts

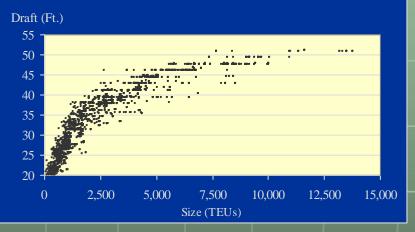
- Global container trade has grown about 2-3 times faster than global economy.
- U.S. container trade grows a little slower.
- Containership fleet capacity has grown about 4-5 times faster than the global economy.
- The post-panamax fleet has grown about 7-8 times faster than the global economy.

Fleet

Post Panamax LOTTO /?

World Containership Fleet by Size, Year-End 2009								
Size (TEU)	No.	Miil. TEUs	Age	Draft	Speed			
All Sizes	4,8??	12.9	10.8	34.0	20.4			
>= 5,000	7??	5.2	5.2	46.1	25.1			
< 5,000	4,066	7.7	11.8	31.8	19.5			
Source: Clark	son Rese	arch.						

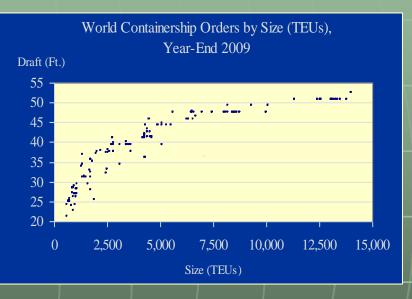
Global Containership Fleet, Size (TEUs) V. Draft, Year-End 2009



- Post-Panamax Fleet (5,000+ TEU) accounts for 40 percent of fleet capacity.
- PPF fleet draws an average of 46 feet of water.
- PPF is on average 29 percent faster than rest of the fleet.

Orders

World Containership Orders by Size, Year-end 2009							
Size (TEU)	No.	Mil. TEUs	Age	Draft	Speed		
All Sizes	803	4.7	-	41.2	22.5		
> 5,000	358	3.5	-	48.6	25.1		
< 5,000	445	1.2	-	35.3	20.8		
Source: Clarkson Research.							



- Containership orders account for about 36 percent of the year-end 2009 fleet capacity.
- Post-Panamax Fleet (5,000+ TEU) accounts for 74 percent of the capacity on order.
- PPF fleet on order draws an average of 49 feet of water.
- Assuming zero scrapping, the PPF will grow to about 49 percent of the fleet capacity over the next 3 years.

Post- Panamax Calls, A Big Trend!

Containership Calls at U.S. Ports by Size, 2003-2009									
Size (TEUs)	2004	2005	2006	2007	2008	2009	% Ch. 2004-09		
< 2,000	3,906	3,994	4,146	3,904	3,493	3,290	-15.8		
2,000 - 2,999	4,541	4,410	3,986	4,099	3,347	2,677	-41.0		
3,000 - 3,999	3,888	3,624	3,333	2,866	2,460	2,500	-35.7		
4,000 - 4,999	4,210	4,226	4,782	5,033	5,121	5,305	26.0		
>= 5,000	1,734	2,288	3,344	3,961	4,314	4,434	155.7		
Total Calls	18,279	18,542	19,591	19,863	18,735	18,206	-0.4		
U.S. TEUs/Call	3,235	3,314	3,502	3,597	3,744	3,848	18.9		

Source: Maritime Administration, Vessel Calls at U.S. Ports.

- Post-Panamax calls up 156 % over the last five years.
- In 2009, Post-Panamax calls accounted for 24 percent of containership calls at U.S. ports, up from 9 percent five years earlier.

Post-Panamax Capacity Calling, A Bigger Trend!

Containership Capacity Calling at U.S. Ports by Size, 2003-2009 (Thousand TEUs)								
Size (TEUs)	2004	2005	2006	2007	2008	2009	% Ch. 2004-09	
< 2,000	5,598	5,683	5,966	5,613	4,916	4,498	-19.7	
2,000 - 2,999	11,383	11,080	9,994	10,334	8,509	6,836	-39.9	
3,000 - 3,999	13,506	12,548	11,537	10,023	8,631	8,656	-35.9	
4,000 - 4,999	18,471	18,630	21,041	22,257	22,705	23,635	28.0	
>= 5,000	10,170	13,510	20,071	23,224	25,378	26,432	159.9	
Total	59,128	61,450	68,609	71,451	70,139	70,057	18.5	
U.S. TEUs/Call	3,235	3,314	3,502	3,597	3,744	3,848	18.9	

Source: Maritime Administration, Vessel Calls at U.S. Ports.

In 2009, Post-Panamax vessels accounted for 38 percent of containership capacity calling at U.S. ports, up from 17 percent 5 years earlier.

Bigger Ships/Fewer Ports

Containership Capacity Calling, Percent, 2009 (TEUs in Thousands)									
Size (TEUs)									
	<5,000 >=5,000 Total								
Ports	TEUs	%	TEUs	%	TEUs	%			
Top 5	22,070	51	21,290	81	43,360	62			
Тор 10	35,327	81	25,060	95	60,387	86			
Тор 20	42,383	97	26,421	100	68,804	98			
Total	43,625	100	26,432	100	70,057	100			
Source: Clark	son Research.								

As 5,000+ TEU fleet grows, 86 percent for Top 10 ports will move toward 95 percent.

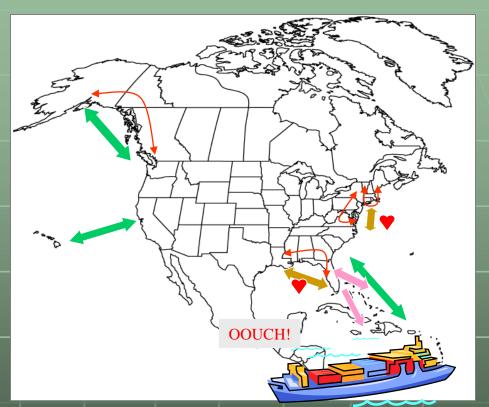
Major U.S. Container Ports, Post-Panamax Specs.

Top 10 U.S. Container Ports, Post-Panamax Cranes and Channel Depths							
	Trade (000 MTs)			Post-Panamax	Channel Depth		
Port	2004	2009	% Ch.	Cranes	> 45 feet		
LA/LB	53.6	57.5	7.4	77	у		
New York	23.6	27.8	17.9	41	n		
Houston	14.6	16.3	11.5	4	n		
Savannah	11.6	15.7	35.9	23	n		
Seattle	14.5	15.4	5.8	40	У		
San Francisco	9.6	11.6	21.4	14	У		
Virginia Ports	10.1	10.5	4.4	14	У		
Charleston	10.8	7.7	-29.0	6	n		
Miami	8.5	7.6	-11.0	7	n		
New Orleans	5.0	5.2	3.9	4	n		
Total, Top 10	161.8	175.3	8.3				
Total	187.6	200.7	7.0				
Sources: Trade – U	J.S. Bureau	of Census; I	Facilities – L	loyds Maritime Int	elligence Unit.		

- Top ten ports have above average trade growth; in 2009 they accounted for 87 percent of total trade.
- Bad news! Only one East Coast Port has post-panamax channel depths.
- Good news! New York and Savannah are dredging.

Feeders, U-boats and Love Boats?

U.S. Feeders, 2008							
		Mil. MT					
Trade	2003	2008	% Ch.				
Domestic Offshore	16.4	17.0	3.7				
Foreign Offshore	3.7	5.0	35.0				
Freeport	2.9	3.6	24.1				
Kingston	0.8	1.4	75.0				
Domestic Coastal	2.7	2.2	-18.5				
Trade	174.0	235.1	35.0				



- Feeders? Additional time and transshipment costs (container lifts) are a hindrance.
- Foreign offshore feeders account for only about 2 percent of U.S. foreign trade.

Conclusions

- Post-panamax trend will funnel more trade to fewer ports.
- No trend toward feeders -- additional time and transshipment costs are a hindrance.
- So far, investment in post-panamax cranes and dredging appears on schedule to meet infrastructure demands of canal expansion.
- Dredge baby Dredge!
- ? Wins the Post-Panamax LOTTO.