

# Transportation Issues

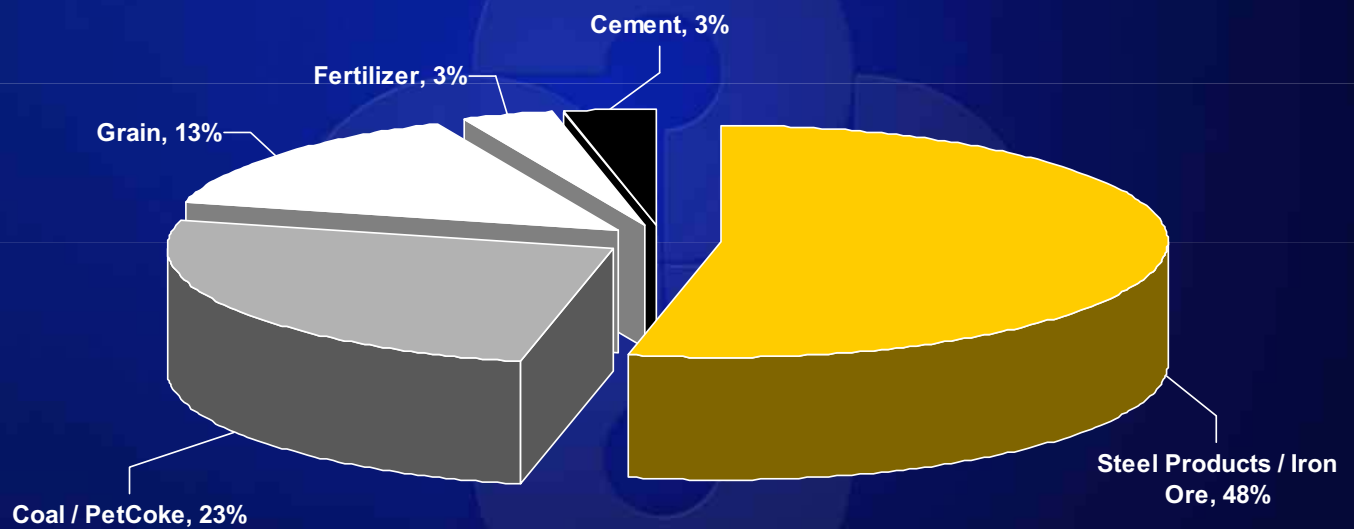
Inland and Ocean Freight

# Agenda

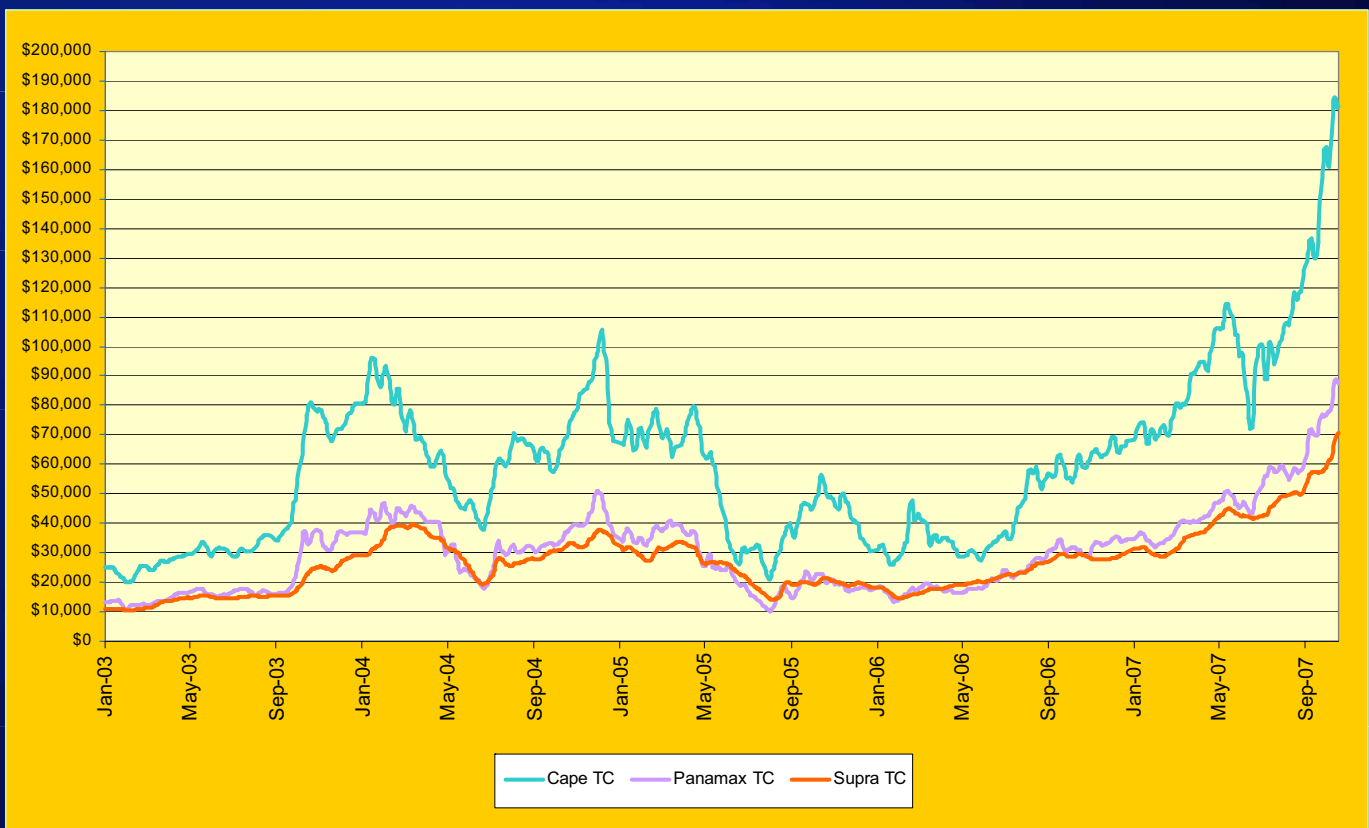


- **Ocean Vessel Rates and Challenges**
- **Barge and Rail Rates and Logistics**
- **NH3**
- **The Future**

# International Dry Cargo Demand



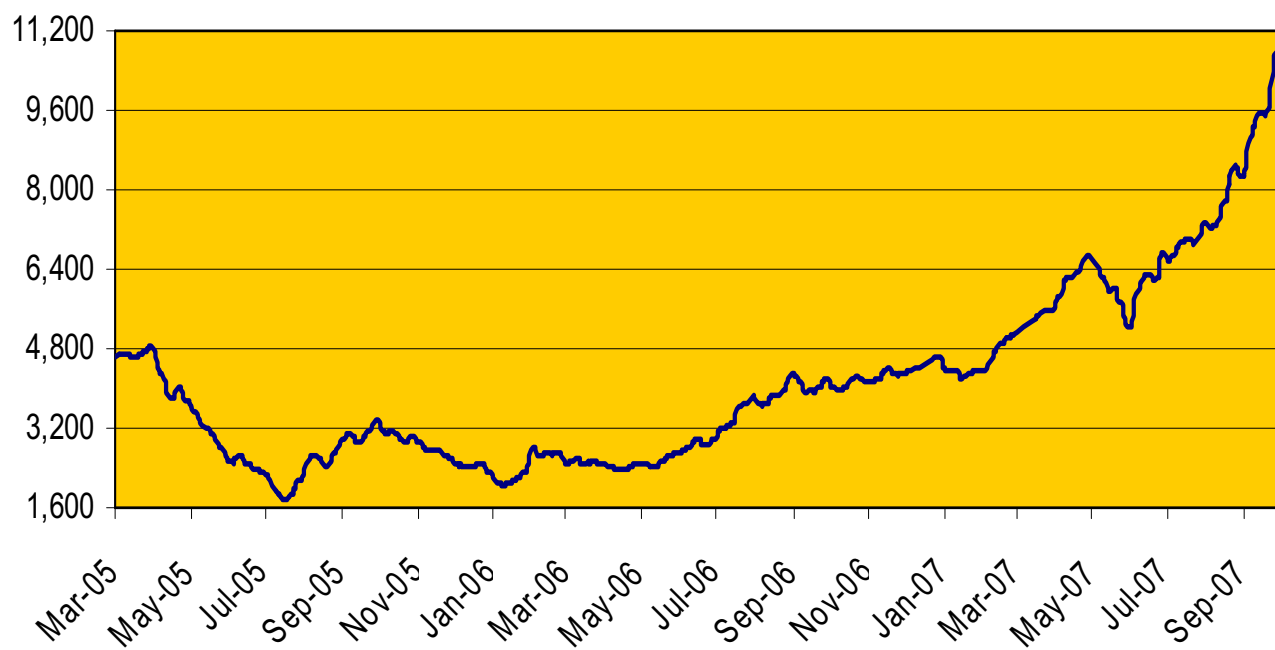
# Daily Hire Rates



# Dry Bulk Freight Market



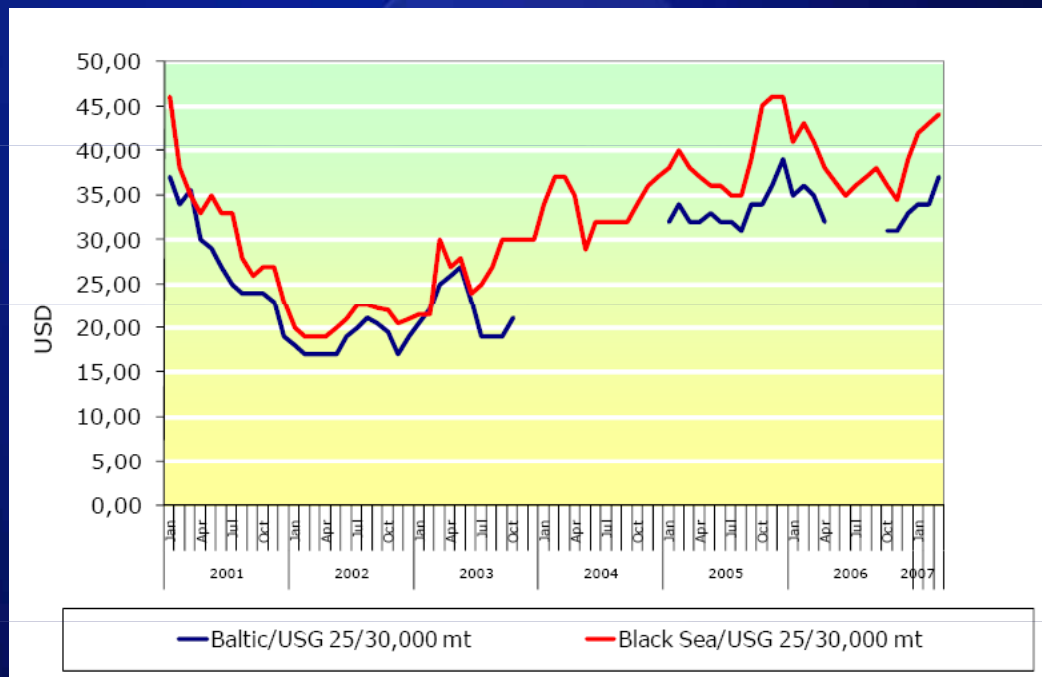
**Baltic Exchange Dry Index**



# Liquid Vessel Freight



## UAN Freight Rates:



**Competition: Palm oil, chemicals, fuel, etc.**

# Baltic Dry Index Trend



- **Tightest market of the century:**

- **Demand factors:**

- China and India's sustained demand for natural resources
- World port congestions
- Nuclear power plant shutdowns in Japan, forcing a subsequent switch to fossil fuels
- Rising steel output in Asia

- **Supply factors:**

- This year's fleet size grew a meager 6% to 383 million tons

# Vessel Variables



- **Size (Panamax vs. Handy vs. Balsa's)**
- **Load port / Discharge port rates**
- **Geared vs. Non-geared**
- **1 port vs. multiple ports**
- **Draft restrictions**
- **Age < 20 years**
- **Rate vs. Flexibility is the key driver**

# American Waterways



- **4,000 Tug/Towboats**
- **21,056 Barges (Covered, Open, Tank)**
- **11,904 Covered Jumbo Barges**
- **Barges move 800 million tons each year of raw and finished goods**
- **25,000 mile waterway system**
- **Adds USD5 billion a year to the US economy**

# Dry Cargo Barge Traffic



## Historical Inland Waterway Traffic

(in million short tons)

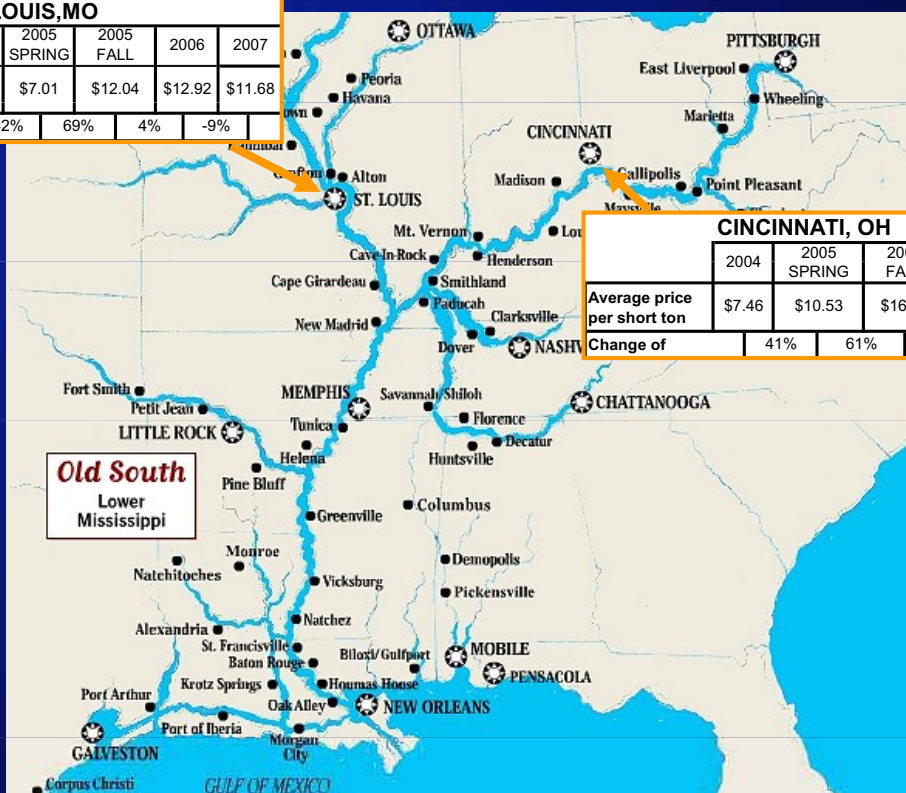
<i>Commodity</i>	<i>1995</i>	<i>1996</i>	<i>1997</i>	<i>1998</i>	<i>1999</i>	<i>2000</i>	<i>2001</i>	<i>2002</i>	<i>2003</i>	<i>2004</i>	<i>2005</i>	<i>2006</i>
Coal & Pet Coke	186.0	191.9	194.3	196.2	184.5	187.7	197.2	190.0	185.7	189.2	194.6	195.8
Agriculture Products	90.6	88.1	83.9	82.5	91.3	78.0	78.9	80.7	76.1	78.2	78.6	79.1
Construction Materials	78.1	81.8	85.7	89.5	93.3	86.6	83.2	83.2	83.8	85.0	87.7	90.9
Steel Products	21.4	20.6	22.7	24.7	24.1	28.7	19.4	23.3	25.1	26.9	27.6	29.0
Other (Chemicals)	<u>13.3</u>	<u>14.9</u>	<u>15.5</u>	<u>14.3</u>	<u>15.8</u>	<u>24.0</u>	<u>31.0</u>	<u>27.0</u>	<u>30.0</u>	<u>27.0</u>	<u>27.0</u>	<u>26.8</u>
Total	389.4	397.3	402.1	407.2	409.0	405.0	409.7	404.2	400.7	406.3	415.5	421.6

# Northbound Dry Barge Rates



ST. LOUIS, MO					
	2004	2005 SPRING	2005 FALL	2006	2007
Average price per short ton	\$4.98	\$7.01	\$12.04	\$12.92	\$11.68
Change of		42%	69%	4%	-9%

CINCINNATI, OH					
	2004	2005 SPRING	2005 FALL	2006	2007
Average price per short ton	\$7.46	\$10.53	\$16.98	\$18.70	\$17.55
Change of		41%	61%	10%	-6%



All barge rates are in US dollars per short ton for NOLA northbound freight.

# Northbound Dry vs. Liquid



## Northbound: NOLA - Cincinnati, OH

	DRY	change		LIQUID	change
2004	\$7.46			\$17.30	
		84%			8%
2005	\$13.76			\$18.70	
		36%			19%
2006	\$18.70			\$22.30	
		-6%			18%
2007	\$17.55			\$26.30	

# NH3



- 1. Limited barge tows to supply river terminals;**
- 2. Significant increase in rail rates to offset risk of shipping NH3;**
  - \$300 million liability cap proposed by railroads
- 3. Barrier to entry for river or deepwater port terminals;**
- 4. TIH Tank car standards to improve head and shell puncture resistance;**
  - Increases cost of rail car builds and leases
- 5. Will put more pressure on pipeline logistics in season.**

# The Future



- **173 million metric tons of new bulk fleet capacity by 2009**

- Delivery in 2007: 10 million mt
- Delivery in 2008: 29 million mt
- Delivery in 2009: 134 million mt

- **Healthy Shippers**

- New Equipment (vessels, barges, rail cars, etc.)
- More efficient (rail and barge infrastructure)

- **Southbound Grain and DDG vs. Northbound Commodities**

- **Deepwater Port Additions**

- Will change product flow
- May change product mix

- **\$2 billion in improvement projects for the Upper River system currently in legislation and supported by TFI**



**THANK YOU!**