

**MARITIME INSTITUTE OF MALAYSIA**

*Advancing the Frontier of Maritime Knowledge*

# SHIPS DON'T LIE : PATTERNS AND PROGNOSIS OF WORLD SHIPBUILDING

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## ***Presentation outline***

- **Patterns and state of play of world shipbuilding.**
- **Vital statistics.**
- **Crystal gazing : Prognosis in the near-term.**

# *State of play of world shipbuilding*



## *Maritime transportation facts*

- **7.11 billion tons of cargo moved globally in 2005 (up 3.8% from 2004), carrying an estimated 80% of world trade.**
- **World maritime activity (measured in ton-miles) grew to 29,045 bil. ton-miles in Jan 2005 (27,635 ton-miles in Jan 2004).**
- **World container trade reached 336.9 mil. TEU in 2004 (+12.6 % from 2003).**

*Source : UNCTAD*

## *The importance of shipbuilding*

- **A \$100 bil. industry (Bloomberg, Dec '06).**
- **Crucial to overall health of shipping, economy & trade.**
- **Dictates supply of tonnage, hence freight / charter rates and eventually prices of goods shipped.**
- **Important to a nation's BOP, employment, steel sector & many ancillary services.**

## *Shipbuilding trends*

- **Domination of Big 3 (Korea, Japan, China).**
- **European yards focusing on ‘Lexus’ end of vessels.**
- **Emergence of yards in developing nations.**
- **Orders for bigger, more sophisticated ships in certain types of vessels.**
- **Higher production costs i.e steel plates, marine equipment, labor.**

## *Shipbuilding features*

- **Surplus tonnage looms ahead due to newbuilding frenzy, high scrapping & conversion level, prolonged use of ships.**
- **Demand for newbuildings between 2000 to 2010 estimated around US\$4.5 billion.**
- **Freight / charter rates have gone down but newbuilding prices still at record highs.**
- **World merchant fleet grew to 960 mil. DWT in Jan '06, up 7.2% from Jan '05.**

## **Big 3 dominate**

- **Korea, China, Japan contributed 80% of global newbuilding in 2004.**
- **Some yards have full orderbooks several years ahead.**
- **Despite this, many are stuck with cheap contracts clinched years ago.**
- **Yards gearing up capacity & raising berthing prices to secure better prices.**



# Korea

- **40% share of world orders in 2004.**
- **Features world's 3 biggest yards.**
- **Focus on high value-added vessels i.e. LNG, chemical & oil tankers.**
- **Designation of shipbuilding as a strategic industry.**
- **Availability of competitive financing.**
- **Constant improvement in efficiency.**

## China

- **14% share of world orders in 2004.**
- **Leverages on abundant, cheap labor.**
- **Policy support via strategic planning.**
- **Increasingly focused on workmanship & efficiency.**
- **Invention of new techniques in repair & conversion works.**
- **Handles huge bulk carrier orders but strives to move up the value chain.**

# Japan

- **24% share of world orders in 2004.**
- **Development of manpower via apprenticeship program abroad.**
- **Focus on high quality & technology.**
- **Designation of shipbuilding as a strategic industry.**
- **Constant improvement of yard productivity.**

## **Focus of Euro yards on high-end vessels**

- **Focused on high-end vessels i.e. BAE (UK) yards on naval ships, Aker Yards (Norway) on cruise, ice-class, offshore ships.**
- **More yards and smaller companies compared to Asia.**
- **Upsurge in demand for Euro berths due to full Asian yards.**

## **Emergence of yards in developing nations**

- **China has emerged as a serious player in certain sectors i.e. bulk, gas, container.**
- **Emerging yards among Asian nations, Cuba focusing on small / mid-sized vessels.**
- **Increasing partnership with foreign yards i.e. Aker Yards (Norway) in Vietnam.**
- **Leveraging on advantage of cheap labor.**

## **Orders for bigger, more sophisticated ships**

- **Pursuit of economies of scale have driven owners to order bigger ships.**
- **CMA-CGM ordered 8 container ships of 11,400 TEU from Hyundai, Sep '06.**
- **Biggest container ship : 11,000 TEU, biggest ULCC : 550,000 DWT.**
- **More advanced ship features / electronics.**

## **Higher production costs**

- **Prices of critical commodities i.e. steel and aluminium plates at all time high, higher marine equipment costs.**
- **Foreign exchange factor i.e. weaker US\$ eating into margin of yards, strong Euro putting off orders from Euro yards.**
- **Rising labor cost in more mature yards i.e. in Europe, Korea and Japan.**

# *Vital statistics*





# Figures that matter

*Statistics as of 1 July 2006 compiled by  
Institute of Shipping Economics and Logistics (ISL), Bremen*

- **Top 10 shipping nations controlled 72% of world merchant shipping tonnage (in DWT terms) of ships 1,000 GRT and above.**
- **Majority of tonnage foreign flagged.**
- **They controlled 25.6% of registered tonnage of ships 300 GRT and above.**

# Figures that matter

*Statistics as of 1 July 2006 from  
Institute of Shipping Economics and Logistics (ISL), Bremen*

- **45% of world merchant fleet (in DWT terms) controlled by European and Asians shipowners.**
- **Ranking of top 10 nations largely unchanged in the last five years.**
- **Strong growth of German and Chinese fleet attributable to their own flags.**

# Top 10 largest fleets (July 06)

Country	Mil. DWT
Greece	166
Japan	138
Germany	81
China	67
Norway	46
US	45
HK (China)	44
Korea	31
Singapore	24
UK	22

*Source : UNCTAD*

# World's biggest shipyards

Yard	Country	Remark
Hyundai Heavy Industries	Korea	World's largest
Daewoo Shipbuilding & Marine Eng.	Korea	World's 2 <sup>nd</sup> largest
Samsung Heavy Industries	Korea	World's 3 <sup>rd</sup> largest
Mitsubishi Heavy Industries	Japan	Japan's largest
Waigaoqiao Shipyard	China	World's #1 by 2015?
Keppel Shipyard	Singapore	17 yards worldwide
Cochin Shipyard	India	India's largest
Norfolk Naval Shipyard	USA	USA's largest
Aker Shipyard	Norway	Europe's #1, World's #4

*Source : Lloyd's List Maritime Asia, Marinelink.com & various others*

# World tonnage by ship type \*

Ship type	Jan 2003	Jan 2004	Jan 2005	Jul 2006
Tankers	304.4	316.7	336.1	396.9
Bulk carriers	300.1	307.7	320.6	353.2
Container ships	82.8	90.5	98.0	120.5
General cargo	97.2	94.8	92.0	94.1
Passenger ships	5.5	5.6	5.6	5.7

\* in mil. DWT

Source: UNCTAD, Lloyd's Register / Fairplay

# Tonnage\* by ship types (Jul 06)

Country	Tankers	Bulk	Container	Gen. Cargo	Passenger	Total
Greece	18.6	23.0	5.2	5.0	8.0	17.2
Japan	11.7	20.7	8.1	8.8	7.9	14.2
Germany	4.7	3.4	35.5	7.3	2.3	8.3
China	3.4	10.4	5.7	10.1	3.7	6.9
Norway	6.9	2.4	0.4	10.1	6.7	4.8
USA	7.8	1.8	2.3	3.9	13.6	4.6
HK (SAR)	4.8	6.0	1.3	2.0	0.5	4.5
Korea	2.8	4.4	1.9	2.0	1.0	3.2
Singapore	3.7	1.4	2.7	1.2	0.1	2.5
UK	2.7	1.4	3.3	2.4	3.5	2.3

\* in mil. DWT

Source : Lloyd's Register / Fairplay

# World broken-up tonnage

Broken-up tonnage	1990	2000	2002	2004
Tonnage sold (mil. DWT) for demolition	16.9	22.2	30.5	11.0
Broken-up tonnage as a % of world fleet	2.4%	2.7%	3.6%	1.2%

*Source : Fearnleys, Lloyd's Register / Fairplay*

# Average age of broken-up tonnage

Year	Tankers	Dry bulk	Container	Gen. cargo
2000	26.9	25.9	25.7	27.3
2001	28.0	26.7	26.9	27.4
2002	28.3	26.6	26.0	28.2
2003	29.3	26.5	25.5	29.3
2004	29.5	27.3	30.5	32.9

*Source : UNCTAD, ISL*



# Estimated prices of VLCC

Year	Price (US\$)
1991	\$115 mil.
1994	\$80 mil.
1999	\$70 mil.
2000	\$75 mil.
2001	\$70 mil.
2002	\$60 mil.
2003	\$75 mil.
2004	\$90 mil.
2005	\$120 mil.
2006	\$130 mil.

*Source : Shipping Intelligence Network, Clarksons, IISS*

# *Prognosis*



## *Near to mid-term crystal gazing*

- **Orders set to fall from 2006 peaks.**
- **Yards will maintain high prices and keep supply tight to hedge against fluctuations.**
- **Yards to hold back berths to mitigate late deliveries of key items i.e. main engines.**
- **Buyers will be cautious to commit at high prices due to perception of downside.**
- **More conversion work to be commissioned.**

## *Near to mid-term crystal gazing*

- **Four key sectors : bulk, tanker, gas and container carriers to remain fairly bullish.**
- **The gas and container sectors are poised to be the most lucrative sector for yards.**
- **Financing will be crucial to yard prosperity.**
- **Marketing of berths for 2008 will be critical.**
- **More demolition as freight rates falter.**
- **Excess shipbuilding capacity ahead?**

## *Wise words from Wall Street ...*

- **Trends are temporary but cycles are permanent.**
- **The great pricing paradox : Most deals are done when prices & risk levels are highest.**
- **When the market is too good to be true, it will end up being neither.**
- **Exuberance = Calm before the storm?**
- **Make hay while the sun shines, but tune in to the weather forecast!**

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