



Clarkson Research Services

Long Term Trends in Shipbuilding *BIMCO*

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1



Topics Covered

Introduction	p1
Background to Shipbuilding Investment	p1
The Current Orderbook	p3
The Product Mix	p3
Regional Shipowner Activity	p5
Regional Shipyard Activity	p7
Shipbuilding Price Development	p10
Market Outlook	p10
Sources Used	p12



Introduction

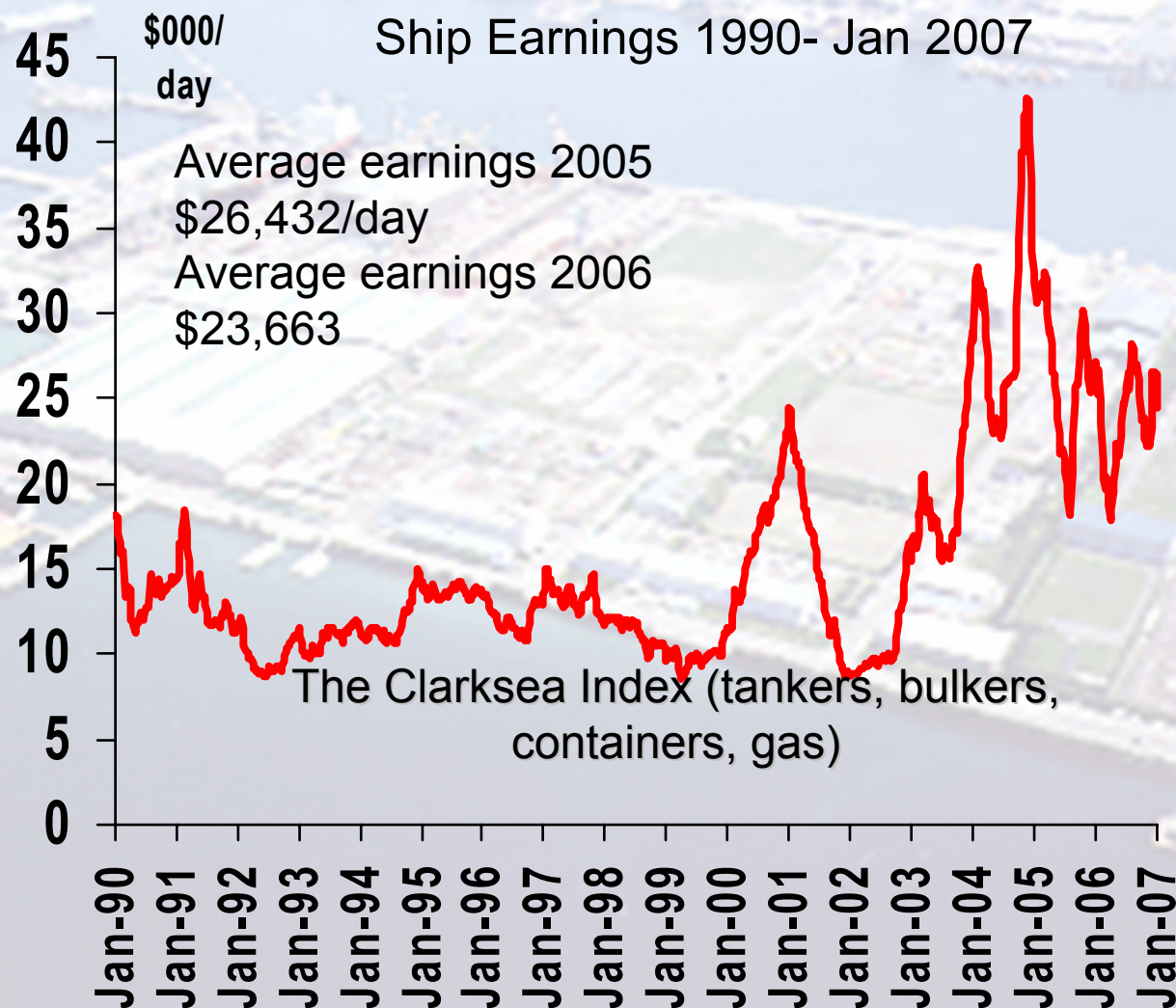
- In the last two decades of Shipbuilding's long history, over supply, closures & poor profitability have dominated.
- Fast forward to today and the shipbuilding industry is enjoying its biggest and longest boom on record.
- The orderbook has a current contract value of \$298 billion!
- This is the investment that is at the heart of the shipbuilding business – shipyards, marine equipment, financiers, class societies and brokers all after their slice.



Q: Where has newbuild investment come from?

A: Ship Earnings

- The Clarksea Index averaged \$12,000/day in the 1990s.
- In November 2004, it surged to a new peak of \$42,700/day.
- 2006 ended up just below 2005.
- 12th Jan 06:
\$24,380

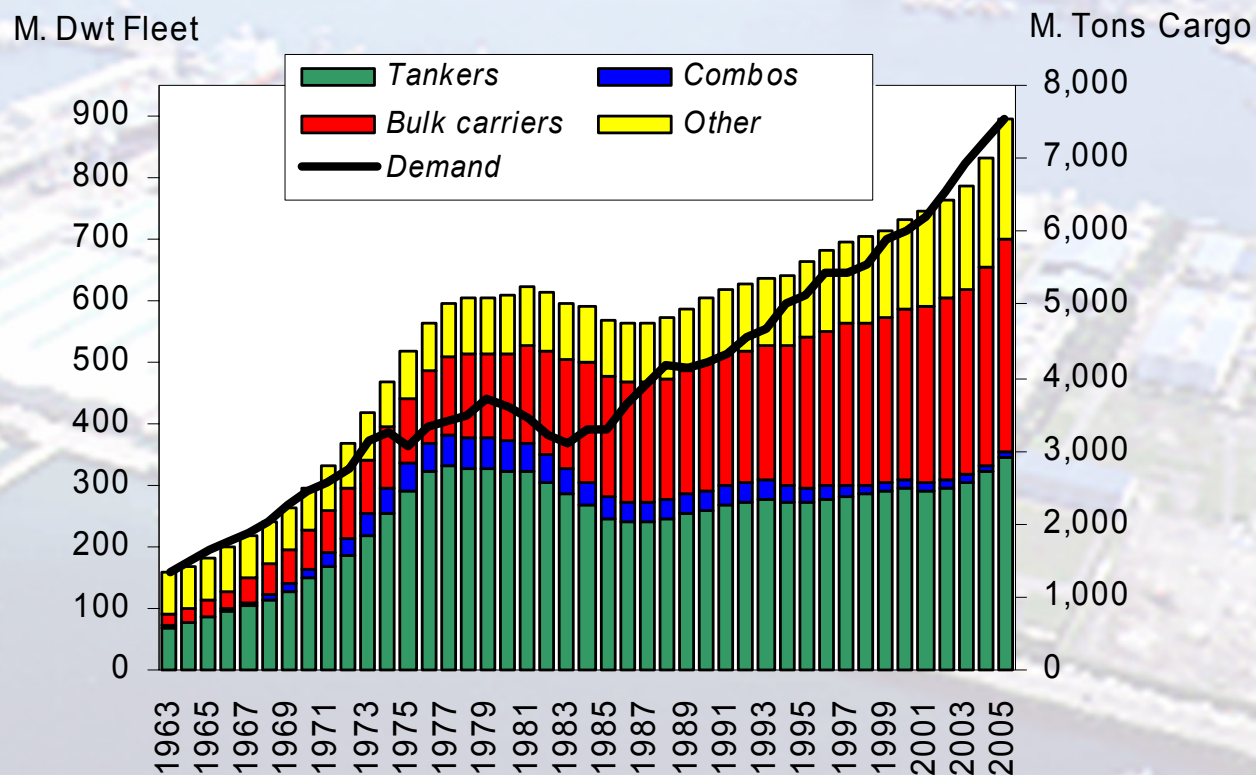




Why have freight rates been so high?

- Underlying balance is tighter
- Markets are more responsive to various factors which have “primed” the market
- Surging world economy, China, tanker phase out
- “Wild Cards”
- Net Result – higher earnings, more bullish sentiment, more newbuild investment

Tight Market Balance



Source: Clarkson Research Services

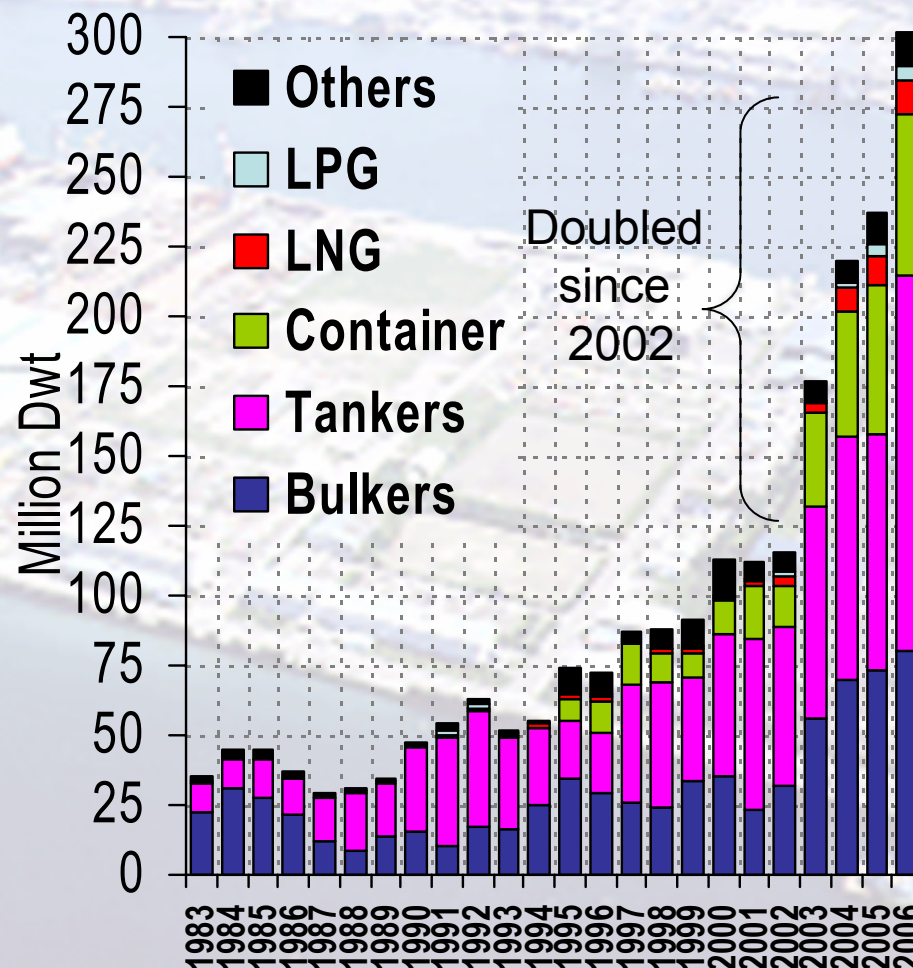
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World Orderbook tops 300 m dwt

Orderbook 1983-2006

- Since 2002 the orderbook has jumped from 115.5m dwt to 300.0m dwt
- Orderbook is now 31.2% of the fleet, historically very high
- Biggest increase in 2005 in LNG, LPG & containers



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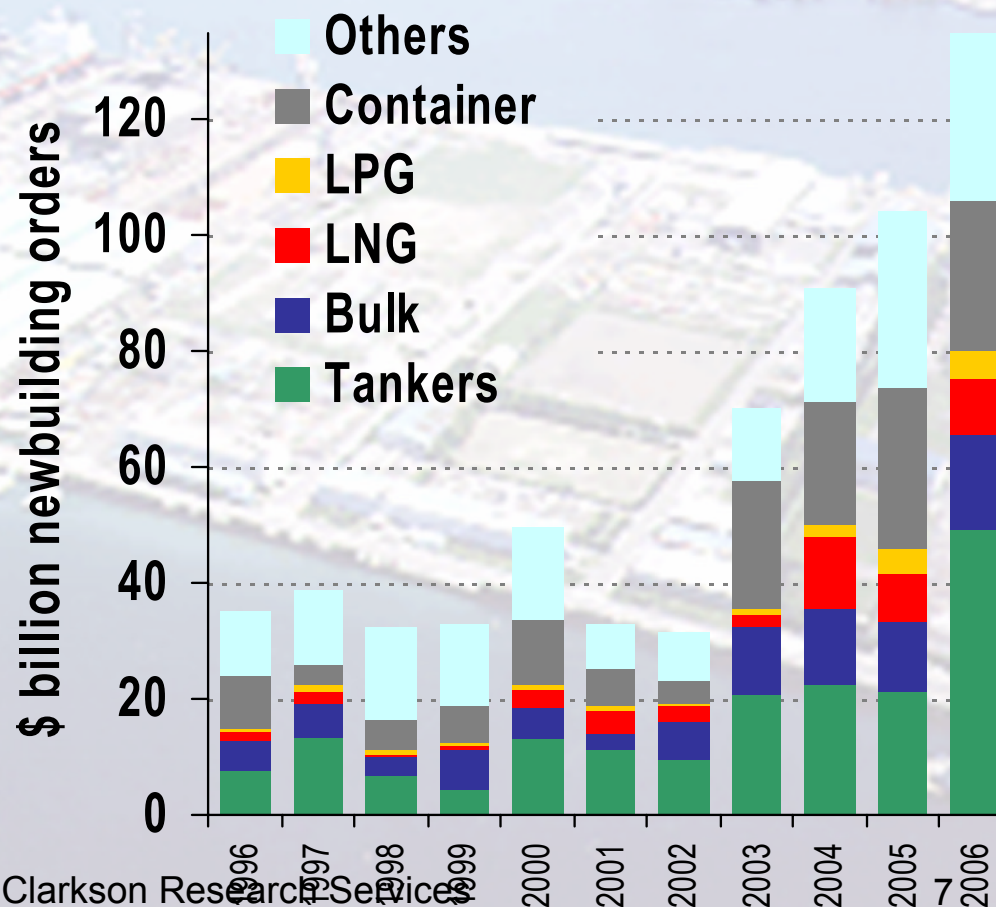


Newbuild Contracts

Concluded

New Ship Contracts 1997-06

- Until 2003 investment was running at just over \$30 billion a year
- In 2004 \$91 billion of new ships ordered
- In 2005 \$104.1 billion of new contracts and another \$135 billion in of 2006
- About half of this investment goes to Marine Equipment Suppliers



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Shiptypes on Order by Country / Region

Shipbuilding Country / Region	Investment in \$ billion															
	Tankers					Bulkers				Specialised Vessels						Total
	VLCC > 200,000 dwt	Suezmax 120-200,000 dwt	Aframax 80-120,000 dwt	Panamax 60-80,000 dwt	Handy 10-60,000 dwt	Capesize > 100,000 dwt	Panamax 60-80,000 dwt	Handymax 40-60,000 dwt	Handysize 10-40,000 dwt	LNG Carriers	LPG Carriers	Container >3,000 teu	Container <3,000 teu	Other Dry >5,000 dwt	Offshore & Others	
Japan	5.07	0.83	3.97	0.37	4.75	6.74	5.70	4.33	2.67	4.26	2.05	5.58	0.76	0.18	4.93	52.19
South Korea	7.84	4.19	5.47	2.33	16.17	0.43	0.44	0.26	0.24	21.66	6.67	29.70	3.30	0.06	10.12	108.87
Taiwan	0.00	0.00	0.00	0.00	0.00	0.16	0.00	0.00	0.00	0.00	0.00	2.33	0.72	0.00	0.00	3.20
P.R. China	5.95	2.54	3.42	2.76	5.55	4.35	2.23	2.28	2.64	0.86	0.40	7.55	7.72	0.40	10.12	58.78
Other Asia	0.00	0.00	0.18	0.00	0.18	0.00	0.00	1.69	0.64	0.00	0.00	1.16	0.70	0.26	5.71	10.53
TOTAL ASIA	18.86	7.56	13.04	5.46	26.65	11.67	8.37	8.57	6.20	26.78	9.12	46.31	13.21	0.90	30.89	233.58
Germany	0.00	0.00	0.00	0.00	0.17	0.00	0.00	0.00	0.03	0.00	0.50	0.74	4.07	0.10	6.39	12.00
Denmark	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.23	0.00	0.00	0.00	1.23
France	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.55	0.00	0.00	0.00	0.00	4.05	4.60
Italy	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.15	0.00	0.00	0.00	8.94	9.13
Netherlands	0.00	0.00	0.00	0.00	0.30	0.00	0.00	0.00	0.03	0.00	0.01	0.00	0.67	0.00	2.07	3.09
Spain	0.00	0.00	0.00	0.00	0.21	0.00	0.00	0.00	0.04	0.18	0.00	0.00	0.15	0.01	1.55	2.13
Finland	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.56	4.56
Norway	0.00	0.00	0.00	0.00	0.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.37	7.94
Turkey	0.00	0.00	0.00	0.00	1.52	0.00	0.00	0.00	0.06	0.00	0.05	0.00	0.49	0.09	0.91	3.12
Poland	0.00	0.00	0.00	0.00	0.12	0.00	0.00	0.09	0.00	0.06	0.00	0.47	0.89	0.00	1.66	3.29
Ukraine	0.00	0.00	0.00	0.00	0.35	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.00	0.05	0.08	0.55
Croatia	0.00	0.05	0.12	0.58	0.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.05	2.58
Other Europe	0.00	0.00	0.00	0.12	1.01	0.00	0.00	0.09	0.02	0.00	0.15	1.09	0.05	0.26	1.49	4.28
TOTAL EUROPE	0.00	0.05	0.12	0.70	5.07	0.00	0.00	0.18	0.19	0.79	0.93	3.52	6.32	0.50	40.11	58.49
Brazil	0.00	0.00	0.52	0.35	0.28	0.00	0.00	0.00	0.00	0.00	0.15	0.00	0.05	0.00	0.81	2.15
USA	0.00	0.00	0.00	0.00	1.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.08	2.15
Others	0.00	0.00	0.00	0.32	0.04	0.00	0.18	0.27	0.02	0.00	0.00	0.00	0.13	0.00	1.00	1.95
TOTAL OTHERS	0.00	0.00	0.52	0.67	1.39	0.00	0.18	0.27	0.02	0.00	0.15	0.00	0.18	0.00	2.89	6.25
GLOBAL TOTAL	18.86	7.61	13.67	6.82	33.11	11.67	8.55	9.02	6.40	27.57	10.20	49.83	19.70	1.41	73.89	298.31

- After three years of containerships being the biggest investor, in 2006 it is tankers.
- The four “pistons” of the market have all been strong
- Small ships and “others” came later in the boom.

Data from Nov 06.



League Table of Owner Countries by Investment

Region	No. of Vessels					Value \$ billion				Investment Trends	
	2002	2003	2004	2005	2006	2002	2003	2004	2005	2006	This Year ...
European Union	485	926	877	992	1,225	12.36	31.45	34.99	37.59	51.23	UP BY.... 48.7%
East Asia	419	763	682	648	508	10.86	23.34	28.12	30.37	27.64	STEADY.... -0.7%
South East Asia	41	58	65	41	55	0.65	2.07	2.59	1.57	3.64	UP BY.... 153.5%
FSU and E. Europe	35	110	158	111	135	0.43	2.41	4.75	3.16	5.77	UP BY.... 99.3%
North America	108	91	76	102	116	2.72	3.97	8.11	10.45	13.06	UP BY.... 36.4%
Middle East	62	72	138	104	114	1.06	2.13	4.69	5.60	6.81	UP BY.... 32.8%
Others	139	197	282	444	524	3.81	4.75	8.30	15.25	26.97	UP BY.... 93.0%
Global Total	1,289	2,217	2,278	2,442	2,677	31.89	70.11	91.56	103.98	135.13	UP BY.... 41.8%

- The orderbook of 6,000 plus vessels is shared between 770 owners from 61 countries.
- The largest investor region is still Europe, with \$51 billion in 2006.

Major Investors	No. of Vessels					Value \$ billion				Investment Trends	
	2002	2003	2004	2005	2006	2002	2003	2004	2005	2006	This Year ...
Greece	113	204	158	160	331	3.48	7.50	6.20	5.98	17.70	UP BY.... 222.8%
Norway	48	62	95	146	214	2.07	2.09	3.49	7.48	13.79	UP BY.... 101.1%
Germany	121	347	293	434	404	2.80	11.59	10.12	13.67	13.40	UP BY.... 6.9%
Japan	253	458	384	305	187	6.83	14.78	17.52	15.74	11.55	DOWN BY... -20.0%
United States	95	66	54	84	77	2.27	2.95	6.67	8.88	11.16	UP BY.... 37.1%
China P.R.	33	84	94	95	97	0.92	2.73	3.50	5.30	5.26	UP BY.... 8.4%
Denmark	42	94	122	84	154	0.95	3.32	6.26	4.59	5.10	UP BY.... 21.3%
Italy	42	86	50	89	75	1.31	3.32	3.08	4.89	4.97	UP BY.... 11.0%
South Korea	23	27	34	67	83	0.26	0.61	1.21	3.29	4.42	UP BY.... 46.5%
France	32	35	38	38	77	1.05	1.86	1.48	2.84	4.02	UP BY.... 54.2%
Turkey	14	42	59	73	91	0.16	0.80	1.33	1.75	3.14	UP BY.... 95.2%
Malaysia	17	22	35	21	34	0.23	1.58	2.11	1.35	2.81	UP BY.... 126.7%
Israel	8	14	33	11	31	0.24	0.76	1.64	0.54	2.67	UP BY.... 439.4%
Taiwan	33	61	40	18	29	0.83	2.29	1.49	1.21	2.61	UP BY.... 135.6%
Russia	10	53	69	29	34	0.18	1.40	2.50	1.18	2.28	UP BY.... 109.9%
Singapore	53	83	74	129	68	0.83	1.30	1.52	3.04	2.08	DOWN BY... -25.3%
Saudi Arabia	8	23	34	13	26	0.08	0.38	0.98	0.10	2.03	UP BY.... 2215.6%
Canada	13	25	22	18	39	0.45	1.02	1.45	1.56	1.90	UP BY.... 32.9%
Qatar	2	8	2	4	10	0.06	0.19	0.02	0.37	1.87	UP BY.... 449.1%
Brazil	3	12	3	3	17	0.01	0.21	0.06	0.06	1.85	UP BY.... 3270.9%
Hong Kong	24	50	56	34	44	1.19	1.63	2.88	1.80	1.73	STEADY.... 5.0%
U.A.E.	17	24	34	28	45	0.21	0.77	0.85	0.96	1.66	UP BY.... 88.9%
Netherlands	39	42	82	77	97	0.37	0.97	1.46	1.30	1.63	UP BY.... 36.7%
Belgium	11	16	19	19	20	0.31	0.54	0.88	1.53	1.47	STEADY.... 5.0%
India	9	26	13	14	39	0.23	0.62	0.29	0.60	1.32	UP BY.... 138.3%
Sweden	10	26	31	11	13	0.20	0.60	1.56	0.64	1.23	UP BY.... 109.1%
United Kingdom	34	47	58	45	24	0.88	1.42	2.69	0.76	0.88	UP BY.... 26.4%
Cyprus	1	9	20	11	17	0.02	0.17	0.58	0.39	0.81	UP BY.... 126.4%
Vietnam	6	17	16	2	16	0.06	0.16	0.22	0.05	0.56	UP BY.... 1179.5%
Iran	22	8	20	40	12	0.48	0.21	0.60	3.10	0.45	DOWN BY... -84.1%
Croatia	3	3	12	4	10	0.02	0.08	0.38	0.10	0.36	UP BY.... 304.0%
Egypt	2	3	8	0	4	0.06	0.04	0.08	0.00	0.31	
Austria	1	4	4	2	5	0.04	0.10	0.14	0.08	0.30	UP BY.... 316.1%
Chile	4	8	2	2	2	0.01	0.14	0.01	0.05	0.24	UP BY.... 462.4%
Switzerland	1	9	8	11	9	0.02	0.29	0.22	0.25	0.23	STEADY.... -2.3%
Indonesia	10	9	6	11	3	0.23	0.08	0.12	0.07	0.18	UP BY.... 175.1%
Spain	20	18	11	6	12	0.42	0.18	0.26	0.04	0.17	UP BY.... 441.5%
Portugal	10	1	0	3	4	0.10	0.01	0.00	0.02	0.16	UP BY.... 1083.0%
Finland	4	1	9	7	6	0.37	0.01	0.82	1.09	0.14	DOWN BY... -86.3%
Ecuador	0	0	0	0	2	0.00	0.00	0.00	0.00	0.13	
Algeria	11	1	5	1	1	0.28	0.05	0.23	0.14	0.12	DOWN BY... -6.5%
Thailand	1	6	1	5	2	0.01	0.17	0.01	0.07	0.09	UP BY.... 38.8%
Other	86	83	170	288	212	1.37	1.20	4.65	7.11	6.35	STEADY.... -2.6%
GLOBAL TOTAL	1,289	2,217	2,278	2,442	2,677	31.89	70.11	91.56	103.98	135.13	UP BY.... 41.8%



Country Analysis

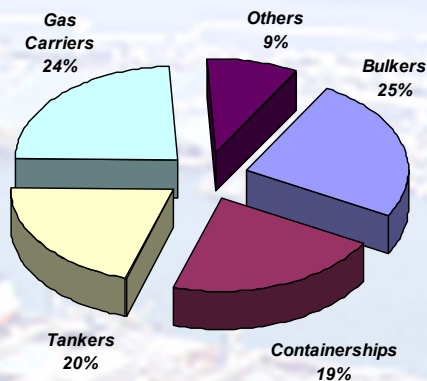
- 57 companies have orderbooks over \$1 billion!
- Greek Investment has been very strong in 2006 - \$17.7 billion.



Regional Activity

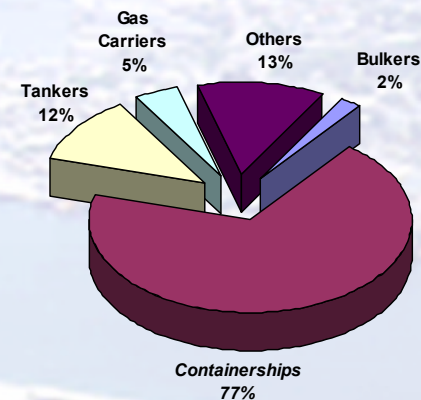
- The 4 major investors in cargo shipping (we have ignored the US because of Cruise investment) have different investment portfolios.
- Japanese investment portfolio mixed while Germans dominated by containerships (77%), Greek by tankers (60%) and Norwegian by others (64% - including offshore and PCC).

Japanese Owned Orderbook Investment by Vessel Type (\$38.9bn)



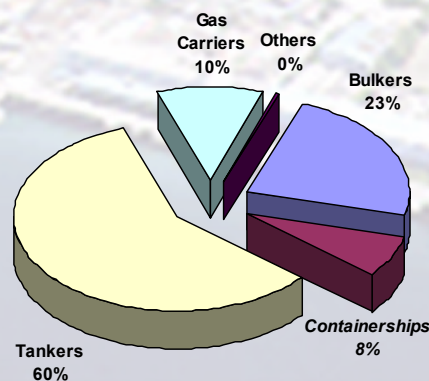
Source: Clarkson Research Services

German Owned Orderbook Investment by Vessel Type (\$32.5bn)



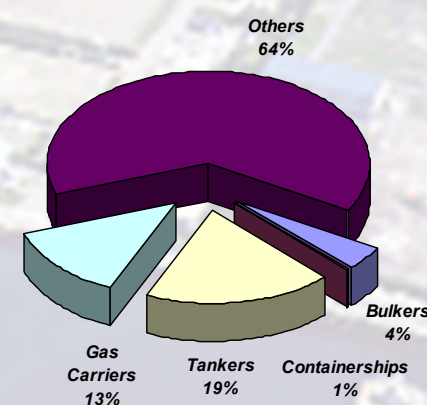
Source: Clarkson Research Services

Greek Owned Orderbook Investment by Vessel Type (\$27.3bn)



Source: Clarkson Research Services

Norwegian Owned Orderbook Investment by Vessel Type (\$25.8bn)



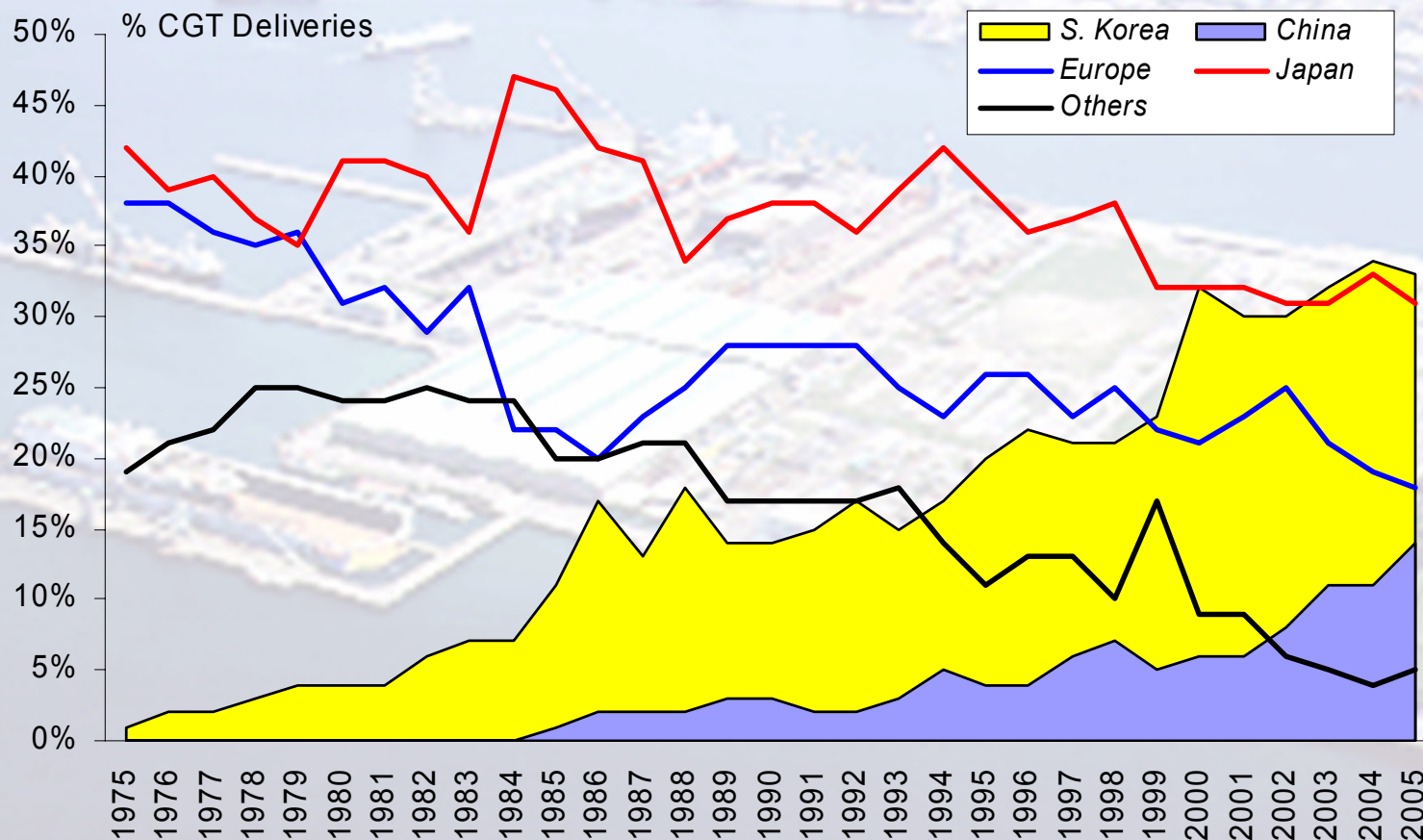
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World Shipbuilding: Shares of Deliveries

Global Shipbuilding "Capacity" Shares



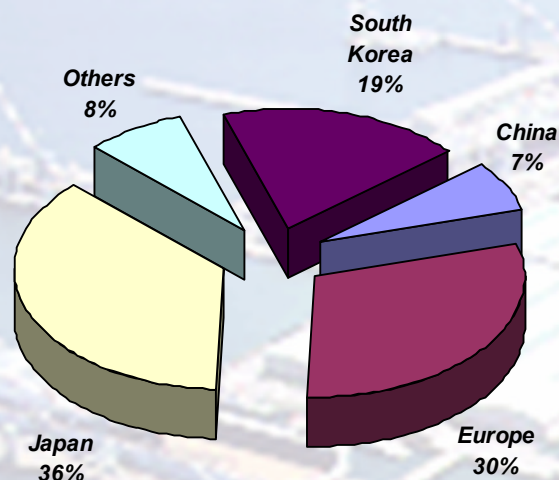
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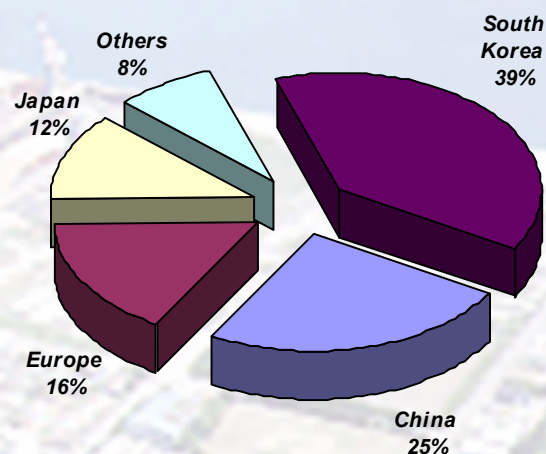
Regional Shipyard Activity

Global Investment by Builder
Region 1996 (\$35.8bn)



Source: Clarkson Research Services

Global Investment by Builder
Region 2006 (\$135.1bn)



Source: Clarkson Research Services

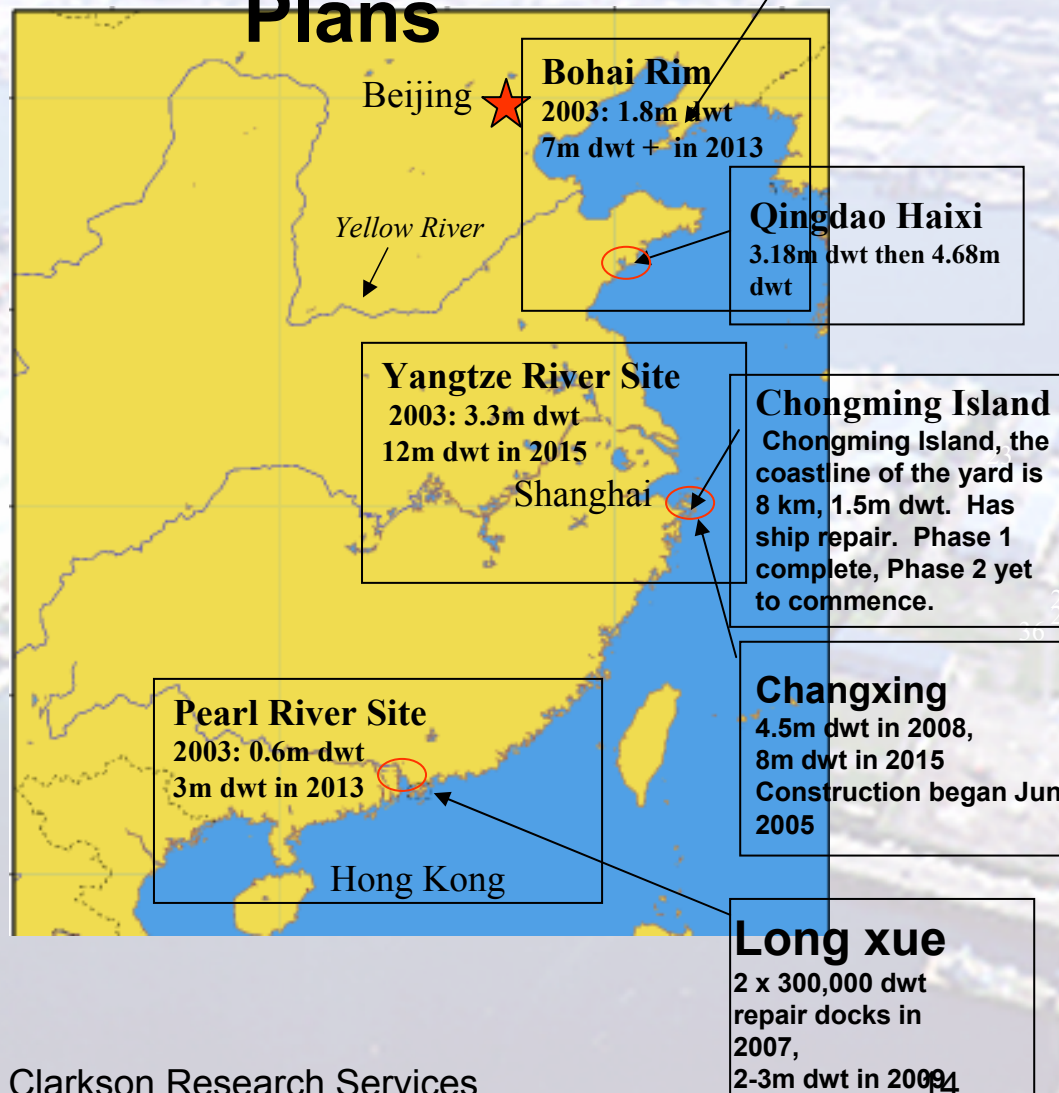
- In 1996 investment was predominantly in Japan (36%) and Europe (30%)
- By 2006 the leaders are Korea (39%) and China (25%).

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Shipbuilding Expansion Plans

- The Draft Development Policy for China's Shipbuilding Industry targets being the worlds largest builder by 2020.
- Orderbook has recently overtaken Japan but its neck and neck and the Japanese figures are probably understated!!
- We have identified 35 greenfield expansion plans and 12 expansion plans to existing yards
- Only 11 are currently marketing.
- Expansion in Korea.
- Expansion in other emerging nations



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Newbuilding Prices Still Firm

Bulk Vessel Prices...		Price \$ million, end:								Price Trend Against a		
		1998	1999	2000	2001	2002	2003	2004	2005	Dec*	Year Ago Is...	
VLCC	300,000 dwt	72.50	69.00	76.50	70.00	63.50	77.00	110.00	120.00	129.00	FIRMER...	7.5%
Suezmax	150,000 dwt	44.00	42.50	52.50	46.50	43.75	51.50	71.00	71.00	80.50	STRONG...	13.4%
Aframax	110,000 dwt	34.50	33.00	41.50	36.00	34.75	41.50	59.00	58.50	65.50	STRONG...	12.0%
Panamax	70,000 dwt		31.00	36.00	32.00	31.25	37.50	48.00	50.00	58.50	STRONG...	17.0%
Handy	47,000 dwt	26.00	26.00	29.50	26.25	27.00	31.50	40.00	43.00	47.00	STRONG...	9.3%
Capesize	170,000 dwt	33.00	35.00	40.50	36.00	36.25	48.00	64.00	59.00	68.00	STRONG...	15.3%
Panamax	75,000 dwt	20.00	22.00	22.50	20.50	21.50	27.00	36.00	36.00	40.00	STRONG...	11.1%
Handymax	51,000 dwt	18.00	20.00	20.50	18.50	19.00	24.00	30.00	30.50	36.50	STRONG...	19.7%
Handysize	30,000 dwt	14.25	15.50	15.00	14.50	15.00	18.00	23.50	25.50	28.00	STRONG...	9.8%
Price Index		111	107	114	108	106	119	150	162	168.2	FIRMER...	4.0%
% change			-4%	7%	-5%	-0.026	12%	26%	8%	4%		

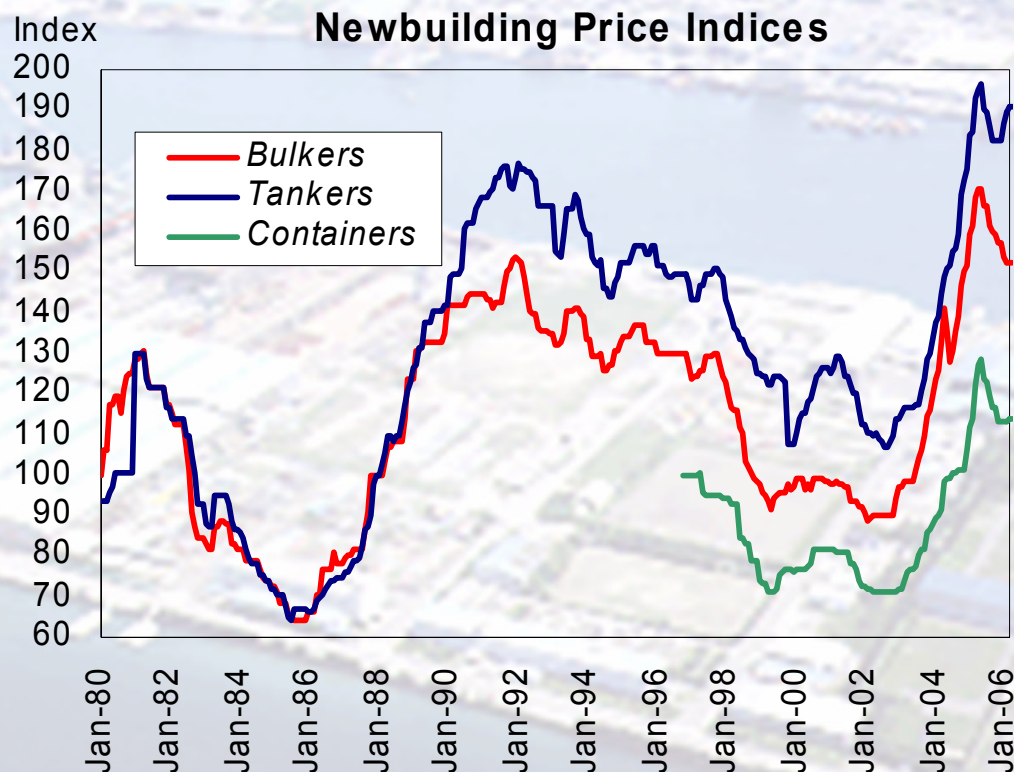
Other Vessel Prices...		Price \$ million, end:								Price Trend Against a		
		1998	1999	2000	2001	2002	2003	2004	2005	Dec*	Year Ago Is...	
LNG	147,000 m ³	190.0	165.0	172.5	165.0	150.0	155.0	185.0	205.0	220.0	FIRMER...	7.3%
LPG	78,000 m ³	58.00	56.00	60.00	60.00	58.00	63.00	82.50	90.00	92.00	STEADY...	2.2%
Container	725 teu		14.00	14.00	13.00	13.00	17.50	19.50	20.50	20.50	STEADY...	
Container	1,000 teu		17.50	18.00	15.50	15.50	18.50	22.50	23.00	22.00	SOFTER...	-4.3%
Container	1,700 teu		23.00	25.00	21.50	21.00	25.50	35.00	36.00	38.00	FIRMER...	5.6%
Container	2,000 teu		28.00	31.50	28.00	27.00	30.50	37.00	40.00	41.50	FIRMER...	3.8%
Container	2,750 teu		33.00	37.50	31.00	29.50	37.00	46.50	48.50	51.00	FIRMER...	5.2%
Container	3,500 teu		38.00	41.50	36.00	33.00	42.50	53.00	52.50	57.00	STRONG...	8.6%
Container	4,600 teu						56.50	71.00	67.50	71.00	FIRMER...	5.2%
Container	6,200 teu						71.00	91.00	89.00	101.00	STRONG...	13.5%
Ro-Ro	1,2-1,300 Lm			20.00	19.00	18.50	22.00	33.00	32.87	38.42	STRONG...	16.9%
Ro-Ro	2,3-2,700 Lm			33.00	31.00	31.00	33.00	46.00	48.26	55.21	STRONG...	14.4%

Sources: Clarksons. Ro-Ro prices for 1997 are averages not end year. All historical data refers to standard vessel sizes published at the time. The dwt sizes quoted refer to the latest spec. in that vessel sector, and new vessel prices are based on the firm market price for the vessel type. Prices are for hull vessels; VLCCs from 1992, Suezmax & Aframax from 1990. Panamax and Handy Tankers are coated. Price data assumes a "European spec", with 10/10/10/70% payments, basis "first class competitive yards". Price data latest available at time of press. NB Price Index is value at the end of the previous month.



Newbuilding Still Firm

- Aframax tanker peaked at \$53m in 1990, but new price fell to \$33m in Dec 1999 and today it costs \$65.5m
- Some ships cost twice what they did four years ago

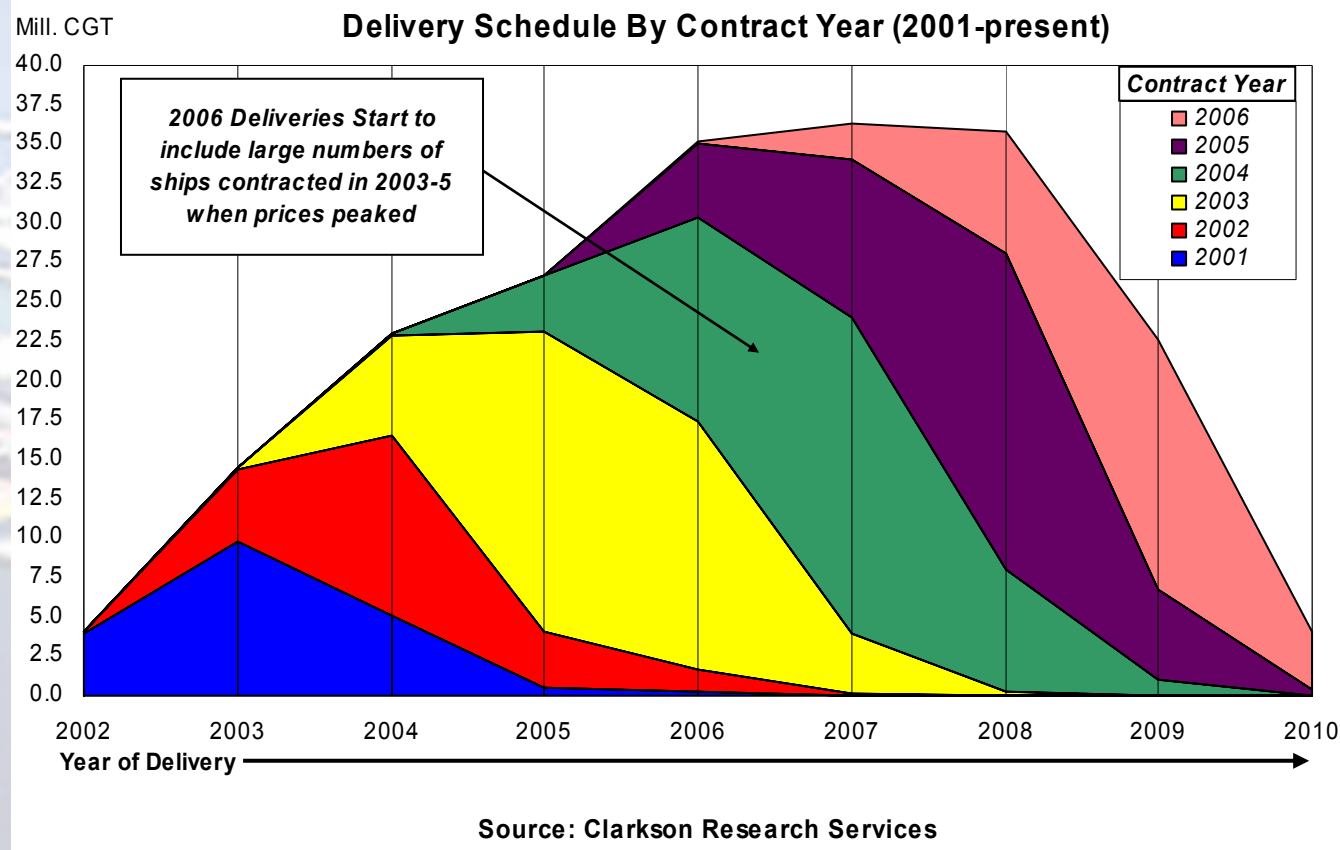


Source: Clarksons Shipping Intelligence Weekly



Yards starting to deliver vessels signed at firm prices

- The chart shows deliveries in m.CGT by the year in which the ships were contracted
- For the future years deliveries are based on the orderbook
- Note that the high priced contracts placed in 2004/5 start to be delivered later in 2006
- So 2007 should be profitable for shipyards





Outlook

- Shipbuilding capacity is growing
- Outlook for freight rates is increasingly uncertain – the delivery of lots of new ships will cause supply pressure
- Demand has been growing very strongly as the world economy has surged – is this sustainable?
- Full production for 3.5 years. Starting to deliver ships taken at high prices and if rising costs can be managed, profits are on the cards.



Note About Data

- Sources include various Clarkson Research Publications: World Shipyard Monitor, Shipping Intelligence Weekly, China Intelligence Monthly, KG Shipping and Finance, LNG Trade & Transport.