



COMMISSION OF THE EUROPEAN COMMUNITIES

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**SEVENTH REPORT FROM THE COMMISSION  
TO THE COUNCIL  
ON THE SITUATION IN WORLD SHIPBUILDING**

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## 1. INTRODUCTION

This seventh report from the Commission to the Council on the situation in world shipbuilding, covering market developments in 2002, follows the Commission's obligation to report on the situation in the world shipbuilding market, laid down in Article 12 of Council Regulation (EC) No. 1540/98<sup>1</sup> and is in line with the previous six reports<sup>2</sup>.

The Council decided on 27 June 2002 that the Commission should make a final effort to solve the problems stemming from certain business practices by Korean yards and achieve an amicable agreement with South Korea. As stated in the Commission's sixth report, no agreement with Korea could be reached.

In the absence of a negotiated solution, the Commission has initiated WTO action on 21 October 2002 and is now proceeding along this path. In addition and in line with the Council decision of 27 June 2002 a Temporary Defensive Mechanism to shipbuilding<sup>3</sup> has entered into force on 2 July 2002. It authorises direct aid to shipyards of up to 6% for certain ship types<sup>4</sup> and is applicable to contracts signed as of 24 October 2002.

On OECD level, negotiations for a new shipbuilding agreement started in December 2002. At this point in time it is, however, too early to predict the outcome of these negotiations which will continue until 2005 at the latest.

In response to an earlier Council request, expressed in the Council conclusions of May 2001, the EU shipbuilding industry has, together with the Commission, launched the LeaderSHIP 2015 initiative which is designed to develop new working structures and technology priorities and so sustain the Community's shipbuilding industry, in particular by establishing a level playing field world-wide and regionally. It brings together all major industry players, trade unions and key EU policy makers from the Commission and the Parliament. LeaderSHIP 2015 will look into all pertinent shipbuilding issues, from world trade to skill challenges to joint naval development and procurement. The initiative has already developed ideas for possible lines of action to safeguard the future competitiveness of European shipbuilding as a pro-active response to the situation in world shipbuilding. The results of this work will be presented to the Council in the course of this year.

In addition to summarising the market developments in 2002 this report provides an update of the previously undertaken cost investigations and adds some new cost investigations made since the presentation of the sixth report.

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<sup>1</sup> OJ L 202, 18.07.1998, p.1

<sup>2</sup> COM(1999) 474 final; COM(2000) 263 final; COM(2000) 730 final; COM(2001) 219 final; COM(2002) 205 final; COM(2002) 622 final

<sup>3</sup> Council Regulation EC No. 1177/2002

<sup>4</sup> These ship types are container ships, product/chemical tankers and LNG carriers. The latter type is subject to confirmation by the Commission that, on the basis of investigations covering the period of 2002, the Community industry has suffered material injury and serious prejudice in this market segment caused by unfair Korean practices.

As with previous reports, certain underlying key elements, e.g. concerning scope and methodology of the market monitoring undertaken by the Commission, are not repeated here. Those elements are covered in the previous reports and are listed in the introduction to the fifth shipbuilding report.

## **2. MARKET ANALYSIS**

### *2.1.1. Ordering activity and market shares*

The various issues creating problems in the global shipbuilding market and in certain segments thereof (past over-ordering, the US economic slowdown, the uncertainties in the world economy and the effects of 11 September) have persisted throughout the year 2002. Order intake in 2002 was lower than in 2000 and 2001 and reached a total of 20.470.000 cgt (compared to 29.430.000 cgt in 2000 and 23.340.000 cgt in 2001, source: Lloyd's Register/OECD). Order intake therefore decreased by 12.3% for the period 2001 to 2002, following a decrease of 20.7% for the period 2000 to 2001.

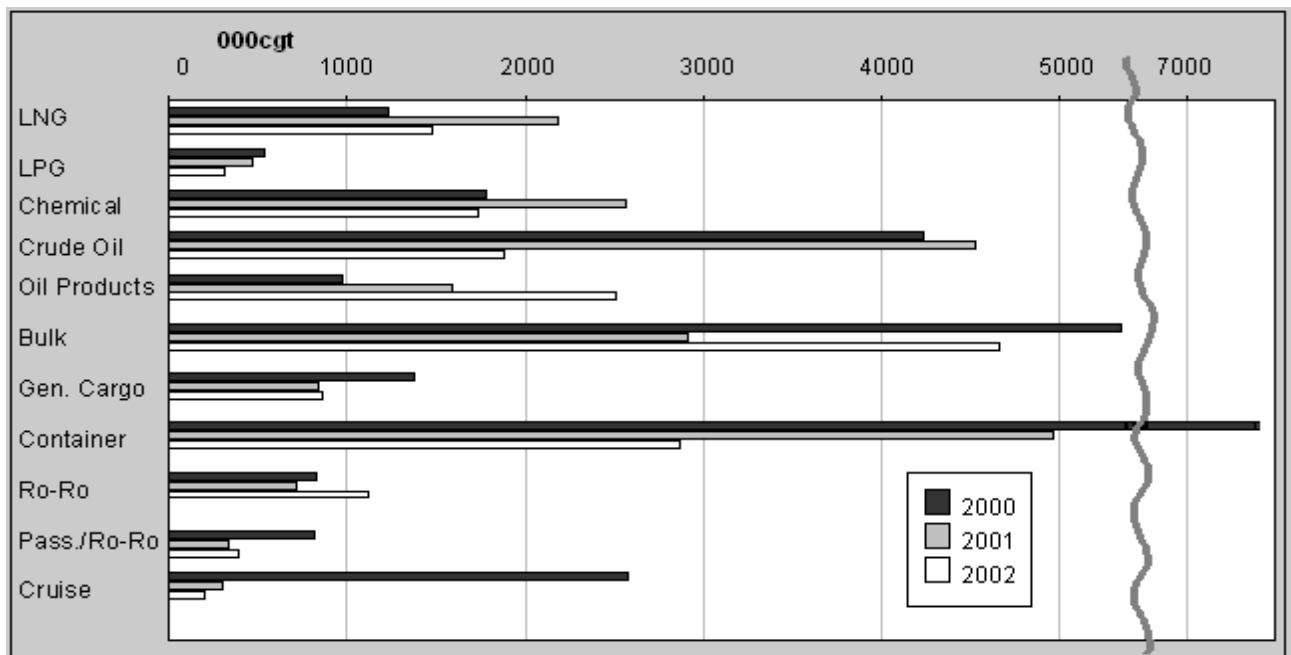
Most affected by deteriorating market conditions are container ships and cruise ships (as visible in the next graph). Only one cruise ship order has been placed since 11 September 2001 and the cruise industry has clearly indicated that the period of market consolidation is expected to continue for the next two or three years, i.e. new orders for cruise ships will be limited and selective. For container ships some orders in the Post-Panamax segment have been recorded, but ordering activity is well below previous levels. The main container shipping operators stated losses or a significant drop in profits in 2002 and are trying to increase their fleet of larger vessels in order to lower unit costs in the mid-term future. With a great number of Post-Panamax container ships entering the market in the coming 24 months, further freight rate deterioration has to be expected in this market segment and investment has to be seen in the light of market consolidation, rather than market expansion. Given that interest rates are currently very low, some owners may be inclined to take the decision to invest in new ships now, earlier than they would normally do.

Demand for other ship types, such as LNG carriers, chemical carriers and crude oil carriers also declined, although to a lesser degree.

Only product tankers and bulk carriers have seen increased ordering, due to the replacement of old tonnage following new EU maritime safety regulations ("Erika" and "Prestige") and Japanese and Chinese domestic demand, respectively. In the case of bulk carriers demand has also been positively influenced by new design rules coming into force after 1 July 2003. These rules will require a strengthening of certain parts of the steel structure for ships contracted after that date, leading to an estimated increase of 5% in steel weight and thus higher building costs. However, these shiptypes are of low production value and competition for contracts in these segments is fierce, leading to continued price depression.

The following graph shows the development of ordering activities in the years 2000-2002 for the major ship types (source: Lloyd's Register/OECD/graph adapted by Commission services).

## Development of new orders by major ship types, 2000 – 2002



These developments affect the world's main shipbuilding regions differently. While Japanese yards continue to benefit from strong domestic demand for bulk carriers since these orders are almost entirely placed in Japan (in keeping with traditional ordering patterns, but also based on the fact that Japanese yards have optimised the series production of this ship type), South Korea is battling with China for tanker contracts, mainly for European owners. As this competition is almost entirely based on price, substantial profits from these orders are not to be expected as evidenced in the detailed cost investigations. EU shipyards are no longer active in these low-value market segments. This results in a decreasing output volume for EU yards, clearly visible from the market share development given below, which is expected to continue and a number of job losses and yard closures in all major European shipbuilding nations have occurred. The main hopeful segments for EU shipbuilders are the ferry sector<sup>5</sup> (mainly covering the category of Passenger/Ro-Ro vessels) and small tankers<sup>6</sup>, where replacement needs are building up. However, these developments have yet to materialise and may come too late for many yards running out of work already in 2003 and 2004. In addition, it can be assumed that Korean shipbuilders will try to get a foothold in these market segments through very low offer prices.

<sup>5</sup> Resulting from recently adopted EU legislation, regarding specific stability requirements for Ro-Ro ships and safety rules and standards for passenger ships.

<sup>6</sup> Following new EU maritime safety legislation adopted or proposed after the "Erika" and "Prestige" accidents.

The market shares developed as follows (based on cgt):

	2000	2001	2002
South Korea	36 %	30 %	28 %
EU	19 %	13 %	7 %
Japan	26 %	33 %	37 %
China	7 %	11 %	13 %

All developments described above have to be seen in the light of a significant production over-capacity in the shipbuilding sector, estimated to be at least 20% above the levels required for the necessary replacement of old tonnage and the accommodation of eventual additional demand stemming from increased sea-borne trade<sup>7</sup>. This over-capacity continues to grow with new yard investments being undertaken in particular in China and now also Vietnam. At the same time Korean yards continue to expand existing production capacities, mainly through increased sub-contracting of shipbuilding work contents, including steelworks. This should have a continued negative effect on prices.

### 2.1.2. Price developments

Ship prices at the end of 2002 were generally lower than at the end of 2001. According to Clarkson Research Studies, a leading source for price information, the following trends were observed.

[The shiptypes appear as listed by Clarkson.]

[For container ships the container carrying capacity in TEU (Twenty-Foot-Equivalent-Unit) is indicated, with ships above 5000 TEU falling into the category of the so-called Post-Panamax container ships.]

[LNG carrier stands for Liquefied Natural Gas carrier, LPG carrier for Liquefied Petroleum Gas carrier.]

[VLCC stands for Very Large Crude oil Carrier.]

[Ro-Ro indicates a roll-on/roll-off cargo ship.]

[The terms Aframax, Suezmax, Panamax, Capesize, Handymax and Handysize indicate certain standard dimensions and specifications for tankers and bulk carriers, respectively].

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<sup>7</sup> KSA, the Korean Shipbuilders' Association, expects the excess capacity in 2005 to be 16.1%, while AWES, the Association of European Shipbuilders and Shiprepairers, expects it to be 29.3% (Source: OECD).

### Price developments 2001 – 2002 by major ship types

<b>Shiptype</b>	<b>Price end 2001 (Mio. USD)</b>	<b>Price end 2002 (Mio. USD)</b>	<b>Change</b>
VLCC tanker	70.00	63.50	-9,29%
Suezmax tanker	46.50	43.75	-5,91%
Aframax tanker	36.00	34.75	-3,47%
Panamax tanker	32.00	31.25	-2,34%
Handysize tanker	26.25	27.00	+2,86%
Capesize bulk carrier	36.00	36.25	+0,69%
Panamax bulk carrier	20.50	21.50	+4,88%
Handymax bulk carrier	18.50	19.00	+2,70%
Handysize bulk carrier	14.50	15.00	+3,45%
LNG carrier	165.00	150.00	-9,09%
LPG carrier	60.00	58.00	-3,33%
725 TEU container ship	13.00	13.00	0,00%
1000 TEU container ship	15.50	15.50	0,00%
1700 TEU container ship	21.50	21.00	-2,33%
2000 TEU container ship	28.00	27.00	-3,57%
2750 TEU container ship	31.00	29.50	-4,84%
4600 TEU container ship	52.00	45.00	-13,46%
6200 TEU container ship	72.00	60.00	-16,67%
Ro/Ro ship (small)	27.50	27.50	0,00%
Ro/Ro ship (large)	39.50	39.50	0,00%

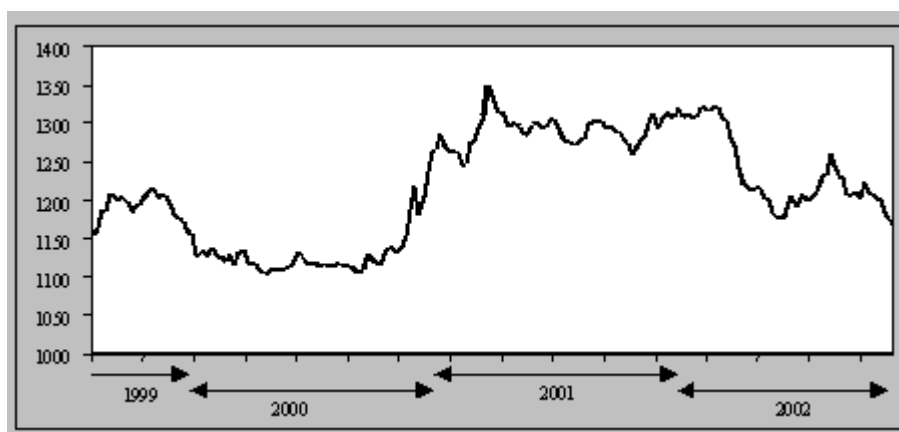
From this table certain conclusions can be derived:

- Prices have been stable in those segments where EU yards are strong and Korean yards are not particularly active, namely small container ships and Ro/Ro vessels.
- Prices have marginally increased (plus 2.9%) in the segment of small tankers due to strong demand for replacement of older vessels, following new EU maritime safety legislation (or the anticipation thereof). However, in the light of significantly increased production costs in Korea and China (the countries where most of these orders are currently placed) and the strong demand in this segment, this price increase is very modest.

- Prices have increased for all types of bulk carriers following strong domestic demand in Japan and China and stricter design rules for this ship type coming into force on 1 July 2003. As most orders are in Japan, the price discipline imposed by the Japanese Government appears to be working and Chinese yards stick to the price level pursued by the Japanese price leaders.
- Prices have again significantly deteriorated in those segments where Korean yards see their main business (gas tankers and large container ships) and where they compete directly with each other. This confirms the Commission's earlier conclusion that fierce competition in South Korea has a detrimental effect on the world market and that prices seem to be set by the major Korean yards without always respecting actual production costs.

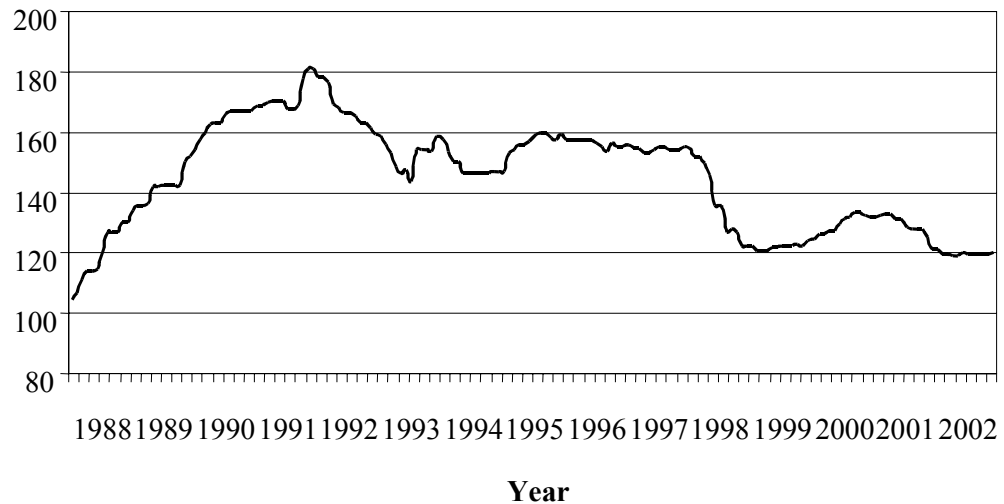
It is noteworthy that the declining value of the US Dollar vis-à-vis the Euro, Won and Yen should have led to a price increase (in USD) across the board. As this did not happen, it has to be concluded that overall ship prices have dropped further. The following graph shows the movements of the Won against the US Dollar for the period II/1999-2002. The notable strengthening of the Won in 2002 and in particular in the last quarter of 2002 should have forced Korean producers to ask higher US Dollar prices, but this was not the case.

**Exchange rate development Won per US Dollar**



The ship price index maintained by the Commission reflects the price developments (see graph). It shows that the modest price recovery in 2000 and 2001, when ordering was strong, was not sustained and price levels are the lowest for more than a decade.





**Price index for ship newbuildings (1987 = 100)**

### **3. Cost investigations**

#### *3.1.1. Update of previous cost investigations*

In line with previous reports, this report contains an update of all previous cost investigations undertaken by the Commission within its market monitoring exercise. The methodology of these cost investigations has been described in the first two shipbuilding reports and is not repeated here. The approach is continuously refined

As shipbuilding projects take significant time to be completed, and actual costs may change until delivery of the vessel, the cost investigations have to be based on forward assumptions. These assumptions are continuously reviewed and results are updated whenever new or better information is received. This is reflected in the table below. The reference to the shipbuilding report in which the particular order is covered should be used to see the details of the order investigated. As the Commission's market monitoring progresses, ship orders previously investigated and now completed can serve to verify the cost modelling. So far, updated figures are in line with the original findings.

The abbreviations used refer to the following Korean shipyards:

DHI: Daewoo Heavy Industries

DSME: Daewoo Shipbuilding and Marine Engineering

HHI: Hyundai Heavy Industries

HMD: Hyundai Mipo Dockyard

HHIC: Hanjin Heavy Industries and Construction

SHI: Samsung Heavy Industries

**Comparison of reported order prices and calculated construction prices for selected new shipbuilding contracts (update December 2002)**

SHIPYARD	SHIPTYPE	OWNER	CONTRACT PRICE (MIO. USD)	NORMAL PRICE (MIO. USD)	LOSS/GAIN AS % OF NORMAL PRICE	REF. TO SHIP-BUILDING REPORT NO.
Daedong	Product tanker	Seaarland	21,5	25,7	-16 %	1
Daedong	Panamax bulk carrier	Sanama	18,5	26,0	-29 %	1
Daedong	Chemical tanker	Cogema	24,5	30,2	-19 %	2
Daedong	2500 TEU	EF Shipping	30,0	31,2	-4 %	4
STX (ex-Daedong)	Product tanker	Target Marine	25,5	28,7	-11 %	6
STX (ex-Daedong)	Product tanker	Byzantine Marine	29,5	36,0	-18 %	6
STX (ex-Daedong)	LPG carrier	Qatar Shipping	30,0	40,1	-25 %	6
DHI	VLCC	Anangel	68,5	74,2	-8 %	1
DHI	Ferry	Moby	74,3	88,4	-16 %	2
DHI	Panamax bulk carrier	Chandris	22,5	22,8	-1 %	2
DHI	LNG carrier	Bergesen	151,1	164,2	-8 %	3
DHI	ULCC	Hellespont	85,0	93,7	-9 %	4
DSME (ex-DHI)	LNG carrier	Exmar	162,0	169,2	-4 %	5
Halla	Panamax bulk carrier	Diana	18,9	31,1	-39 %	1
Halla	3500 TEU	Detjen	38,0	53,0	-28 %	1
Halla	Capesize bulk carrier	Cargocean	32,0	46,2	-31 %	2
Samho (ex-Halla)	Aframax oil tanker	Chartworld Shipping	33,5	41,5	-19 %	4
Samho (ex-Halla)	VLCC	Oldendorff	69,5	90,9	-14 %	5
Samho (ex-Halla)	Suezmax oil tanker	Thenmaris	43,0	55,4	-19 %	5

Samho (ex-Halla)	Capesize bulk carrier	Marmaras	36,0	53,6	-33 %	6
HHI	6800 TEU	P&O Nedlloyd	73,5	81,6	-10 %	1
HHI	5600 TEU	K Line	54,3	59,1	-8 %	2
HHI	LNG carrier	Bonny Gas	165,0	176,8	-7 %	2
HHI	5500 TEU	Yang Ming	56,0	63,7	-13 %	2
HHI	Ferry	Stena	70,0	88,2	-21 %	4
HHI	Suezmax oil tanker	Jebsen	43,0	51,2	-16 %	4
HHI	7200 TEU	Hapag-Lloyd	72,0	79,5	-9 %	3
HHI	Suezmax oil tanker	Athenian Sea Carriers	43,0	49,9	-14 %	3
HHI	LNG carrier	Golar	162,6	178,4	-9 %	5
HHI	Capesize bulk carrier	Golden Union	36,0	45,2	-20 %	6
HHI	2500 TEU	P&O Nedlloyd	27,5	32,7	-16 %	6
HMD	Cable layer	Ozone	37,3	46,8	-20 %	1
HMD	Chemical tanker	Bottiglieri	24,5	26,3	-7 %	4
HMD	Product tanker	Schoeller	26,0	27,1	-4 %	6
HHIC	6250 TEU	Niederelbe	62,0	66,2	-6 %	3
HHIC	5608 TEU	Conti	58,0	61,0	-5 %	3
HHIC	1200 TEU	Rickmers	19,5	21,3	-8 %	3
Il Heung	Chemical tanker	Naviera Quimica	10,5	13,0	-19 %	2
SHI	5500 TEU	Nordcapital	55,0	68,0	-19 %	2
SHI	3400 TEU	CP Offen	36,0	52,4	-31 %	1
SHI	Ferry	Minoan	69,5	87,9	-21 %	1
SHI	7400 TEU	OOCL	79,7	91,5	-13 %	4
SHI	LNG carrier	British Gas	162,5	176,5	-8 %	5
SHI	5762 TEU	CP Offen	55,0	66,7	-18 %	5
Shina	Product tanker	Fratelli D'Amato	21,7	24,1	-10 %	3

### 3.1.2. New cost investigations

Since the sixth shipbuilding report five new cost investigations have been undertaken.

These concern the following orders placed in South Korean yards:

- 5 100 TEU container ship (series of 6), 40 776 cgt, to be built by Daewoo Shipbuilding and Marine Engineering
- 4 900 TEU container ship (series of 4), 34 775 cgt, to be built by Hanjin Heavy Industries and Construction
- Product/chemical tanker (series of 4), 24 480 cgt, to be built by STX Shipbuilding Co. (ex-Daedong)
- Capesize bulk carrier, 26 250 cgt, to be built by Hyundai Heavy Industries
- Product tanker (series of 4), 23 200 cgt, to be built by Hyundai Mipo Dockyard

The results of these cost investigations are summarised below.

#### **Comparison of reported order prices and calculated construction prices for selected new ships (new investigations)**

SHIPYARD	SHIPTYPE	OWNER	CONTRACT PRICE (MIO. USD)	NORMAL PRICE (MIO. USD)	LOSS/GAIN AS % OF NORMAL PRICE
DSME	5100 TEU	Hamburg Süd	58.0	64.5	-10%
HHIC	4900 TEU	MSC	45.0	48.3	-7%
STX	Product / chemical tanker	Safmarine Corp.	27.0	37.0	-27%
HHI	Capesize bulk carrier	Transmed Shipping	36.0	46.4	-22%
HMD	Product tanker	Athenian Sea Carriers	27.8	36.1	-23%

These results confirm the findings from previous reports. Korean yards continue to sell ships at prices that appear to be below normal price (full costs of production plus a profit margin of 5%). Typically prices seem to be set at a level that covers direct operating costs but which does not include provisions for inflation and all financial costs. As prices for ships from Korean yards have stayed at historical lows in the reporting period, while costs of production have increased, the gap between contract price and normal price is widening further. For the latest investigations this gap is 20% on average (not weighted), while it was 8% for those in the fifth report issued a year ago.

Korean yards, with their enormous production capacities, are particularly affected by any market downturn as they need to fill their large building docks and assure enough cash flow to roll over their short terms debts. As a result indications are that Korean yards are trying to get hold of almost any order that appears in the market, no matter whether those orders will be profitable in the light of Korean costs or not. It is noteworthy that Korean yards' orderbooks are increasingly dominated by tankers, despite the announcement made in March 2001 by the executive vice president and chief marketing officer of Hyundai Heavy's shipbuilding division who said that HHI "planned to focus on boosting profit margins by being more selective in receiving orders"<sup>8</sup>. Other yard managers equally said that Korean yards will move away from the tanker and bulk carrier market segments as cost increases due to higher wages, inflation and exchange rate movements no longer allow to achieve a profit on lower value vessels. This development has not materialised and consequently, a number of Korean shipyards have reported losses for 2002. Other yards have reported pro-forma profits.

Of particular interest is the investigated order for a 5100 TEU container ship for Hamburg Süd. This order received bids from one European and two Korean yards. DSME finally won the order with an offer price of 55.0 Mio. USD, leading to a complaint by SHI to the Korean Government about price under-cutting by DSME. The Korean Government then ordered DSME to raise the price to SHI's level of 58.0 Mio. USD. As a justification of this exceptional move by the Korean Government (which repeatedly had claimed vis-à-vis the Commission to have no influence on business practices of Korean yards) the Director of the shipbuilding division at the Ministry of Commerce, Industry and Energy stated that "Daewoo's price offer, which looks too low in view of the market prices, might hurt fair competition and damage (the) credibility of Korean exporters"<sup>9</sup>. It is unclear whether DSME actually increased the price, as Hamburg Süd insists that the contract was signed at the price of 55.0 Mio USD and they saw no reason to accept such a substantial change.

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<sup>8</sup> Interview with Reuters, 7 March 2001

<sup>9</sup> Lloyd's List of 11 November 2002

#### 4. CONCLUSIONS

The serious difficulties in world shipbuilding continue, with decreasing order intake in the major shipbuilding regions and prices locked at a very low level. The main reasons are production over-capacities, past over-supply, slowing economies around the world and the effects of 11 September. The latter issue had a significant impact on the short and mid term prospects of the cruise industry and thus the demand for new cruise ships. Fierce intra-Korean competition has to be seen at the core of depressed prices for most ship types. Only Japanese and Chinese yards currently still manage to increase sales through stable domestic demand and good price competitiveness, respectively.

World-wide ordering for new ships in 2002 was down by ca. 12% compared to 2001. In the EU, where production increasingly focussed on cruise ships, the situation is much worse, with ordering being down by more than 50% compared to the year 2001 and more than 70% compared to the year 2000.

Most affected by weaker ordering activity are container ships and cruise ships, but crude oil tankers, chemical tankers and LNG carriers have also seen lower demand. Demand has increased in the segment of product tankers, due to replacement needs stemming from new EU maritime safety legislation, and in the segment of bulk carriers. However, this additional demand had a very limited impact on prices.

As a result shipyards are running out of work and a number of bankruptcies and layoffs, mainly in Europe, have already occurred.

Prices for new ships have declined further and are now at the lowest level for more than a decade. Prices increases were not achieved in 2002 and are equally unlikely in 2003.

Yards in South Korea have further lowered offer prices, despite increases in all major cost factors and, based on the Commission's analysis, a number of Korean yards may soon find it difficult to meet their short-term financial obligations.

The Commission's detailed cost investigations for orders placed in South Korean yards confirm the findings from previous reports, namely that ships are offered at prices which do not seem to cover the full costs of production. Typically, provisions for inflation and debt servicing are not included in Korean offer prices. The investigations show that the gap between offer prices and calculated normal price is again widening.