1 WORLD TONNAGE SUPPLY 2006/2007

The yearly tonnage supply balance is determined by the level of demolitions and fleet additions (newbuildings). During 2006 fleet additions, in terms of tonnage, exceeded demolitions by approx. 67.4 mill dwt.

Additions to the world merchant fleet in 2006, namely newbuildings entering the fleet in the period January 1st, 2006 - January 1st, 2007, reached a volume of 73.4 mill dwt equal to 1,914 merchant ships. In 2005, deliveries stood at a volume of 70.1 mill dwt (1,627 merchant ships). The total newbuilding tonnage volume entering the world merchant fleet in 2006 increased by 4.6 per cent. 38.8 per cent of the total newbuilding tonnage was attributable to tankers. The world tanker fleet increased by 23.6 mill dwt (the same level as one year before), followed by bulk tonnage (21.9 mill dwt) and container tonnage (14.8 mill dwt).

Figure 1 shows that demolitions during the last three years had the lowest level since many years. During 2006 only 493 merchant vessels with 8.7 mill dwt were broken-up. Current scrapping activities were low for all market segments. Tankers dominated by tonnage and general cargo ships by number. In 2006, only 152 tankers with 3.9 mill dwt were demolished followed by bulk carriers with 2.8 mill dwt and other ship types - in the majority general cargo ships - with 2 mill dwt.

At the beginning of 2007, the total world merchant fleet, comprising ships of 300 gt and over, stood at 42,872 ships with a tonnage of 1,009.5 mill dwt and 11.7 mill TEU. Thus, the world merchant fleet tonnage surpassed for the first time ever the one-billion mark. Compared with last year’s figures, the tonnage increased by 6.9 per cent and the TEU-capacity by 13.1 per cent. This reflects the highest growth rates since many years.

1.1 Ship type profile of the world merchant fleet

As of January 1st, 2007, the world tanker tonnage (oil, products, oil/chemical, pure chemical and liquid gas) had with 411 mill dwt a share of 40.7 per cent of the world merchant fleet. Expressed in dwt, this is an increase of 78.1 mill dwt compared to January figures in 2003.

At the beginning of 2007, the bulk carrier fleet (incl. OBO carriers) had, in terms of tonnage, a share of 36 per cent of the world merchant fleet equal to 363.6 mill dwt, compared with 36.4 per cent or 296.7 mill dwt in 2003. In the period 2003-2007, the pure bulk tonnage (excl. OBO carriers) grew on average by 5.9 per cent yearly whereas the OBO carrier fleet decreased in the same period by 17 per cent per year.

In the period 2003-2007, tonnage (dwt) of fully cellular container ships grew by 11.2 per cent yearly and the TEU-capacity by 12.6 per cent annually. As of January 1st, 2007, the capacity of the container fleet amounted to 128.2 mill dwt or 9.5 mill TEU. In terms of dwt the container fleet contributed 12.7 per cent to the world merchant fleet (2003: 10.3 per cent, 1990: 4.1 per cent).

During the last five years, 1,178 container ships with 4.1 mill TEU were added to the trading fleet, whereby 104
container ships had a capacity of 8,000 TEU and above.

In the period January 1st, 2003-2007, the average growth rate for general cargo tonnage was 0.9 per cent. Considering various segments of the general cargo fleet, the average growth rates differ significantly. Multi-deck, and reefer ships showed negative growth rates (-3.3 per cent and –1.8 per cent, respectively), whereas the special general cargo ships fleet grew yearly on average by 1.3 per cent.

As of January 1st, 2007, passenger ships had a tonnage share of 0.6 per cent of the total world merchant fleet. Passenger ships include ships (berthed and unberthed) for passenger transport and passenger carrying vessels like general cargo passenger ships, ro-ro passenger ships (ferries).

In the period 2003-2007, passenger tonnage figures (dwt) increased on average by 0.9 per cent yearly. The level of new ships entering the fleet is increasingly determined by cruise vessels.

### 1.2 Age and size profile of the world merchant fleet

As of January 1st, 2007, 57.5 per cent of all merchant ships representing 33.1 per cent of the total tonnage (dwt) were older than 15 years, i.e. they were built before 1992. Looking at the number of ships especially general cargo ships and cargo passenger ships were attributable to this age category.

At the beginning of 2007, the world merchant fleet had an average age of 19.1 years, the same average age than five years ago. Due to the fact that demolition was concentrated on very old ships and the high amount of newbuildings entering the fleet the average age of the total world merchant fleet stagnated (compare table 1) or was as in case of the oil tanker fleet lower as in previous periods.

As of January 1st, 2007, the average age of the oil tanker fleet was 17.1 years compared to 18.7 years at the beginning of 2003.

*Figure 4* reflects that the average ship size of the world merchant fleet is increasing. Within the five years’ period the average size of the world merchant fleet increased from approx. 20,700 to 23,500 dwt. At the beginning of 2007, about 30,000 ships equal to 78.4 per cent (2003: 75.4 per cent) of all merchant ships (300 gt and over) belonged to the size segment up to 19,999 dwt.

### 2 MARKET FUNDAMENTALS IN 2006/2007

#### 2.1 World seaborne trade

From a total of 7.0 billion tonnes of seaborne trade in 2006 about 33.4 per cent refer to crude oil and mineral oil products, 27.4 per cent to major dry bulks (iron ore, coal and grain), 1.5 per cent to minor bulks and the reminder of 37.7 per cent to general cargo, break bulk, ro/ro and increasingly to container shipments, the latter with a clear tendency to extent their market share. According to Fearnleys containerised cargo had a share of 13 per cent on total seaborne trade in 2006.

#### 2.2 Rates and prices
The market fundamentals in 2006 for various market segments can be summarised as follows:

- **Tanker market**
The tanker market in 2006 was volatile. For most trade routes one has to go back some years to find lower tanker rates. End year rates indicate that most of the tanker sectors realised lower earnings in 2006 than one year ago. Tanker rates for VLCC decreased substantially. The same is true for product and Suezmax Tankers. Only the “Aframax” tankers improved their earnings.

- **Bulk carrier market**
From January to December 2006 the Baltic Dry Index increased by 111.3 per cent to now 4,397 points. Freight rates for all market segments grew during 2006. Strong demand in iron ore and coal trade combined with an increase of port congestion in Australian ports was the driving force in the market. Especially China’s need for crude materials caused very high voyage rates for Capesize bulk carriers.

- **Container charter rates**
Container charter rates monitored by ISL reached a peak during the first half of 2005 and than fell back to the level of early 2004. The weighted Charter Rate Index from Harper Peterson & Co (“Harpex Index” - compare p. 60) decreased more than 38 per cent during the year 2005 and decreased further throughout 2006. From 1,277 in January to 1,042 in December 2006. The “Hamburg Index for Containership Time Charter Rates” (Compare “ISL Market Review”) showed the same tendencies.

- **Demolition and newbuilding prices**
According to industry sources, namely Fearnleys and Platou, the second hand values for (double-hull) tankers increased by only about 4 per cent during 2006, whereas in general the values for bulk carriers during the past years increased by 20 to 45 per cent. At the change of the year, the values for bulk carriers, especially for larger and modern tonnage, were at an all-time high. The same was true for newbuilding prices.

Prices for newbuildings, (especially in the bulk sector) followed the good market conditions. The price level was also affected by higher prices for building materials and have doubled during the past five years. (Compare “ISL Market Review”, p. 69).

### 3 Future Tonnage Supply

New orders placed during 2006 stood at 3,150 units with 169.2 mill dwt and had in terms of dwt a 72.5 per cent higher level compared with results in 2005. As of January 1st, 2007, the order book for merchant ships of 300 gr and over stood at 6,045 ships with 321.7 mill dwt. According to the delivery schedule for ships on order at the beginning of 2007 181.5 mill dwt equal tot 56.4 per cent of the total tonnage on order will already be delivered within the next two years.

The high amount of future tonnage supply will have far reaching impacts. The share of the ordered tonnage in relation to the current tonnage supply is shown in figure 9. As of January 1st, 2007, these dwt-shares stood at 40.4 per
percent of the tanker fleet, 24.7 percent of the bulk carrier fleet, 42.1 percent of the container fleet and 31.9 percent of the total world merchant fleet.

4. WORLD SHIPBUILDING – FUTURE TONNAGE SUPPLY

Order activities of the world’s shipping industry in 2005/2006 were tremendous. As already indicated, the order books of the main fleet segments tanker, bulk carriers and container ships were again breaking all records. The ordered tonnage, which is scheduled to be delivered up to 2009/2010, will dramatically increase the tonnage capacity of the world merchant fleet.

As of January 1st, 2007, 6,045 ships totalling 321.7 mill dwt and 125.5 mill cgt, respectively were on order. Compared to figures at the beginning of 2006, this is in terms of dwt and cgt an increase of 36.4 percent and 18.1 percent, respectively.

The new orders during 2006 surpassed the ship deliveries by far. While 1,914 vessels with 73.3 mill dwt left the order book after completion, 3,150 ships were added as new contracts. In terms of cgt, the new orders amounted to 62 mill cgt compared to 30.5 mill cgt completions.

4.1 Total order book by ship type

Tanker tonnage dominates the world order book. As of January 1st, 2007, tankers had a cgt-share of 45.8 percent of the total world order book, followed by container ships with 22.6 percent and bulk carriers with 16.5 percent. The share of general cargo ships and passenger ships stood at 9.8 percent and 5.3 percent, respectively. Nearly all ship segments realised compared to last year’s cgt-figures increases.

As of January 1st, 2007, 2,466 tankers equivalent to 57.4 mill cgt were on order. This is an increase of 37.2 percent compared to figures of January 2006 (cgt). During the past four quarters, 1,379 tankers totalling 29.6 mill cgt were placed in the order book. Looking at the estimated delivery date, 16 mill cgt is due for delivery before 2008, 17.9 mill cgt will be available in 2008, and further 23.6 mill cgt 2009 or later.

During 2006 627 bulk carriers with 11.2 mill cgt were contracted, compared to 355 units with 6.7 mill cgt in 2005. As of January 1st, 2007, the bulk carrier order book stood at 1,108 carriers with a capacity of 20.7 mill cgt equal to 88.3 mill dwt. 30.6 percent of all bulk carriers on order belonged to size classes above 80,000 dwt (Capesize). 12.3 mill cgt of the total bulk carrier tonnage on order will be delivered until end of 2008, and further 8.4 mill cgt will be available after 2008.

Container order activity during 2006 lost momentum. New orders for fully cellular container ships in 2006 decreased, in terms of cgt, by 4.1 percent compared to figures for 2005. As in previous years, the focus of the order activity has been on large units. At least 143 container ships on order have capacities of 8,000 TEU and above, of which are 14 ships with a capacity of over 10,000 TEU. The units above 10,000 TEU had a cgt-share of 1 percent on the total container orders. As of January 1st, 2007, the order book included 1,197 container ships equal to 28.3 mill cgt and 4.4 mill TEU. Until end of 2008...
approx. 2.9 mill TEU will be delivered. Based on orders at the beginning of January 1st, 2007, the increases of the cellular container fleet will be around 15.5 per cent during 2007, 13.2 per cent during 2008 and 11.8 per cent after 2008.

The general cargo fleet showed a strong increase in the fleet segment of special ships. The order book at the beginning of 2007 comprised 188 special ships, thereof 158 pure vehicles carriers (pcc) with 2.6 mill cgt. Altogether, the order book for general cargo vessels increased by 14 per cent compared to cgt figures as of January 1st, 2006. At the beginning of 2007 the order book comprised 1079 general cargo ships with 12.3 mill cgt.

4.2 Leading shipbuilding countries

5,025 merchant ships with approx. 107.9 mill dwt equal to 86 per cent of the existing world merchant fleet as of January 1st, 2007 were built on Asian yards. Only 931 ships of the trading world merchant fleet with 16.6 mill dwt were built on European yards. Today, tanker and container shipbuilding is largely attributable to Korean yards, whereas Japanese yards are leading in the bulk carrier segment. As of January 1st, 2007, 55.9 per cent of the current world order book (in terms of cgt) was attributable to these two shipbuilding countries. Worth mentioning is that Chinese yards increased their cgt-share on the world order book continuously to 20.5 per cent at January 1st, 2007.

Looking at the order book as of January 1st, 2007, South Korea is in the lead with 44.9 mill cgt equal to 35.9 per cent of the total world order book, followed by Japan with 28.9 mill cgt (23.0 per cent) and China 25.7 mill cgt (20.5 per cent). Within one year South Korea, Japan and China expanded their cgt tonnage by 5.6 mill cgt, 1.7 mill cgt and 9.9 mill cgt. Hyundai alone, as the world largest shipyard, received orders for 201 vessels totalling 6.1 mill cgt in 2005 and for 285 vessels and 9.6 mill cgt during 2006.

Interesting are the average building times for ships. In shipbuilding the construction time depends on the ship type, productivity of the yard and the number of ships in series. According to an ISL analysis, the average building time of merchant vessels is about 14 month. This analysis refers to merchant vessels entering the fleet during the last 3 years and for those ships, for which the start of construction is known. Looking at the countries of build, the leading shipbuilding nation, Korea, has the shortest building times (on average 9 months). This is due to new large-scale yards, which are using serial construction. Chinese shipbuilders take on average 15 months, as besides the new modern shipyards, many older yards are still active. With 12 month, container vessels show the stubbiest construction time. In contrast, the construction of cruise vessels and ferries requires on average 16 months.

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