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Chapter 2

STRUCTURE AND OWNERSHIP OF THE WORLD FLEET

The first chapter provides an overview of the demand for global maritime transport services, together with background information on the world economic situation and a review and forecast of developments in world seaborne trade.

A. STRUCTURE OF THE WORLD FLEET

1. Principal types of vessel

Comparative time-series data on the world fleet for 2001, 2002 and 2003 are provided in figure 4 and table 6. The world merchant fleet stood at 844.2 million deadweight tons (dwt) on 1 January 2003. This represents a 2.3 per cent increase over 2002, at which time the world fleet had already expanded at a rate of 2.1 per cent over the tonnage in 2001. The latest increase equals that of 1997, when the fleet also expanded by 2.3 per cent. Newbuilding deliveries represented 49.0 million dwt, while 30.5 million dwt were broken up and lost. The result was a net gain of 18.5 million dwt in 2002.

The tonnage of oil tankers in 2002 increased by a healthy 6.6 per cent and that of bulk carriers by 1.9 per cent. These two types of ships represented 71.6 per cent of total tonnage, a slight increase from 70.3 per cent in 2001. The fleet of general cargo ships decreased again in 2002 and at the same rate as that of the previous year, namely by 2.7 per cent; this category now represents 11.5 per cent of the total world fleet. In terms of deadweight tonnage, the fleet of container ships increased by 5.7 million dwt or 7.4 per cent, and now represents 9.8 per cent of the total world fleet. This relatively high rate of increase reflects the growing portion of manufactured goods being traded, generally in containers. Deadweight tonnage of liquid gas carriers (mainly LNG and LPG carriers) and ferries/passenger ships has been increasing steadily.

2. World container ship fleet

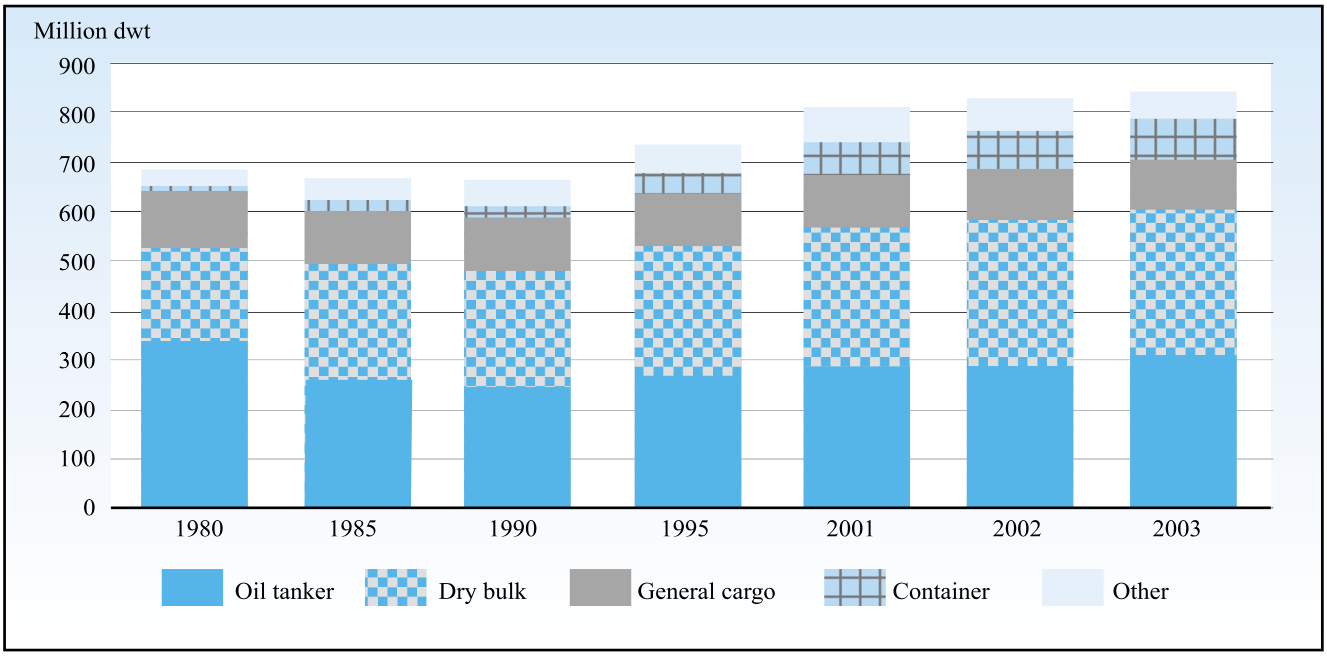
The world fleet of fully cellular container ships continued to expand substantially in 2002 in terms of both number of ships and their TEU capacity; by the beginning of 2003, there were 2,890 ships with a total capacity of 5,896,154 TEUs, an increase of 4.9 per cent in the number of ships and 10.1 per cent in TEU capacity over the previous year (see table 7). Ship sizes also continued to increase, with average carrying capacity per ship growing from 1,824 TEUs in 2001 to 2,040 TEUs in 2003, reflecting the building of larger vessels to achieve economies of scale. As of the end of 2002, the well-defined trend towards large container vessels was continuing unabated. Vessels over 3,000 TEU capacity made up 67 per cent of total deliveries of cellular tonnage for the year and 79.8 per cent of the orderbook.

3. Age distribution of the world merchant fleet

Table 8 provides data on the average age distribution of the world merchant fleet by types of vessels and by groups of countries and territories. The average age of the total world fleet in 2002 dropped by more than a year to 12.6 years, reflecting increased scrapping of old tonnage and deliveries of newbuildings. By type of vessel, the average age of tankers decreased by almost two years to 11.6 years in 2002. The share of tanker tonnage 15 years and older decreased to 33.5 per cent in 2002 from 42.7 per cent in 2001, reflecting acceleration in scrapping activities, which in 2002 reached 18.1 million dwt (compared to 15.7 million dwt

Figure 4

World fleet by principal types of vessel, selected years



Source: Compiled by the UNCTAD secretariat on the basis of data supplied by Lloyd's Register – Fairplay.

in 2001). The average age of the dry bulk carrier fleet diminished by exactly one year to 12.7 years in 2002. Container ships continued to be the youngest fleet in 2002, with an average age of 9.1 years, down from 11.0 years. This trend is reflected in the share of tonnage between 0 and 4 years of age – 31.1 per cent, the highest among all categories of vessels.

By country grouping, the fleet age of developed market-economy countries in 2002 was the lowest at 11.7 years (13.3 years in 2001). These countries have continued the trend of lowering the average age of their fleet that has been apparent over the last few years. Also in this group, the average age of container ships came down to 8.7 years in 2002, as compared with 10.3 years in 2001. The major open-registry countries had the second lowest average age of all ships (12.1 years in 2002 versus 13.3 years in 2001), even though the tendency to register newbuildings under open-registry flags abated. The average age of all ships registered in developing countries (excluding major open-registry countries) decreased by almost a year in 2002 to 13.5 years as compared with 14.3 years in 2001. For this group, the average age of general cargo vessels increased to 19.1 years, while that of container ships fell by more than 2 years, to 8.7 years. The average age of tonnage registered in the socialist countries of Asia fell slightly to 16.7 years in 2002. The countries of Central and Eastern Europe continued to have the oldest fleet (20.1 in 2002 versus 18.9 years in 2001), with vessels built more than 15 years ago representing more than three-quarters of the total fleet and bulk carriers constituting the oldest class of ships at 20.6 years.

4. Delivery of newbuildings

Newbuilding activities attained the highest level ever recorded in terms of deadweight tons, with deliveries totalling 49.0 million dwt in 2002 (see table 9), an impressive increase of 8.4 per cent from the already record deliveries in 2001. The total number of vessels delivered increased to 1,539 units from 1,470 units in 2001 (4.7 per cent), and deliveries reflected the steady trend towards larger vessels. This high level of delivery was sustained primarily thanks to tanker deliveries of 23.4 million dwt, an impressive 62.5 per cent increase from the 2001 level, with the number of newbuildings increasing to 182 units in 2002 from 112 units in 2001. The average size was 128,600 deadweight tons. Conversely, deliveries of bulk carriers were down by 6.9 million dwt, about 32.9 per cent, from the 2001 level. Another feature was the slightly smaller size of bulk carriers delivered in 2002. In the previous year, the average deadweight tonnage had been 67,700, whereas in 2002 it was 62,400. Newbuildings for other types of vessels, including general cargo ships and container ships, increased both in number and in deadweight tonnage to 1,131 units and 11.5 million dwt in 2002. The

Table 6

World fleet size by principal types of vessel, 2001–2003[a]

(beginning-of-year figures, in thousands of dwt)

Principal types	2001	2002	2003	Percentage change 2002/2003
Oil tankers	285 441	285 519	304 396	*6.6*
	35.3	*34.6*	*36.1*	
Bulk carriers	281 654	294 588	300 131	*1.9*
	34.8	*35.7*	*35.5*	
Ore/bulk/oil	11 391	14 456	12 612	*-12.8*
	1.4	*1.8*	*1.5*	
Ore/bulk	270 263	280 132	287 519	*2.6*
	33.4	*33.9*	*34.1*	
General cargo ships	102 653	99 872	97 185	*-2.7*
	12.7	*12.1*	*11.5*	
Containerships	69 216	77 095	82 793	*7.4*
	8.6	*9.3*	*9.8*	
Other types of ships	69 412	68 578	59 730	*-12.9*
	8.6	*8.3*	*7.1*	
Liquefied gas carriers	18 525	19 074	19 469	*2.1*
	2.3	*2.3*	*2.3*	
Chemical tankers	8 044	7 974	8 027	0.7
	1.0	*1.0*	*0.9*	
Miscellaneous tankers	768	785	906	*15.4*
	0.1	*0.1*	*0.1*	
Ferries and passengers ships	5 038	5 319	5 495	*3.3*
	0.6	*0.6*	*0.6*	
Other	37 037	35 426	25 833	*-27.1*
	4.6	*4.3*	*3.1*	
World total	808 376	825 652	844 235	*2.25*
	100.00	*100.00*	*100.00*	

Source: Compiled by the UNCTAD secretariat on the basis of data supplied by Lloyd's Register – Fairplay.

[a] Percentage shares are shown in italics.

trend towards larger vessels continued unabated. Orders for container ships of 8,000 TEU have been made by some carriers in 2003, and LNG carriers of 200,000 cubic metres have been under consideration for a Middle East project, as these vessels offer up to 15 per cent savings in transport costs.

5. Demolition of ships

Trends in the tonnage, types and average age of broken-up vessels are shown in tables 10, 11 and 12. In 2002, total tonnage sold for demolition increased by 9.7 per cent from the tonnage of the previous year to 30.5 million dwt, equivalent to 3.6 per cent of world total deadweight tons, as compared to 3.4 per cent in 2001. Break-up of tankers made up the largest share of total demolition. Sales of tankers for break-up increased significantly by 15.3 per cent to 18.1 million dwt as a result of depressed tanker freight rates during most of the year. ULCC/VLCC demolition sales went up from 29 units in 2001 to 35 units in 2002. Sales of Suezmaxes halved from 29 units in 2001 to 14 units in 2002, while those of Aframaxes were almost steady at 19 units in 2001 and 20 units in 2002. In the smaller category of

Table 7

Distribution of the world fleet and TEU capacity of fully cellular container ships, by country groups, in 2001, 2002 and 2003[a]

(beginning-of-year figures)

Flags of registration by groups of countries	Number of ships			TEU capacity and percentage shares[a]		
	2001	2002	2003	2001	2002	2003
World total	2 595	2 755	2 890	4 734 079	5 356 650	5 896 154
	100.0	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*
Developed market-economy countries	724	759	798	1 665 709	1785 609	2 019 918
	27.9	*27.5*	*27.6*	*35.2*	*33.3*	*34.3*
Major open-registry countries	1 003	1 117	1 166	1 919 117	2 317 543	2 591 977
	38.7	*40.5*	*40.3*	*40.5*	*43.3*	*44.0*
Total developed market-economy and major open-registry countries	1 727	1 876	1 964	3 584 826	4 103 152	4 611 895
	66.6	*68.1*	*68.0*	*75.7*	*76.6*	*78.2*
Countries of Central and Eastern Europe (including former USSR)	32	30	29	25 457	24 590	23 486
	1.2	*1.1*	*1.0*	*0.5*	*0.5*	*0.4*
Socialist countries of Asia	106	98	104	105 344	105 344	114 112
	4.1	*3.6*	*3.6*	*2.2*	*2.0*	*1.9*
Developing countries	644	674	720	883 883	994 024	1 035 578
	24.8	*24.5*	*24.9*	*18.7*	*18.6*	*17.6*
of which:						
Africa	11	10	9	10 841	10 674	8 237
	0.4	*0.4*	*0.3*	*0.2*	*0.2*	*0.1*
America	214	231	249	253 822	273 893	301 618
	8.2	*8.4*	*8.6*	*5.4*	*5.1*	*5.1*
Asia	416	432	462	617 768	708 883	725 723
	16.0	*15.7*	*16.0*	*13.0*	*13.2*	*12.3*
Europe	3	1	0	1 452	574	0
	0.1	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Oceania	0	0	0	0	0	0
	0.0	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Other, unallocated	86	77	73	134 569	129 540	111 083
	3.3	*2.8*	*2.5*	*2.8*	*2.4*	*1.9*

Source: Compiled by the UNCTAD secretariat on the basis of data supplied by Lloyd's Register – Fairplay.

[a] Percentage shares are shown in italics.

Table 8

Age distribution of the world merchant fleet, by types of vessel, as of 1 January 2003

(percentage of total dwt)

Country grouping	Types of vessel	0–4 years	5–9 years	10–14 years	15–19 years	20 years and over	Average age (years) 2002[a]	Average age (years) 2001[a]
World total	All ships	22.0	20.9	15.56	13.2	28.1	12.6	13.9
	Tankers	26.9	18.5	21.11	9.5	24.0	11.6	13.2
	Bulk carriers	19.7	23.9	12.81	17.8	25.8	12.7	13.7
	General cargo	9.4	13.6	9.80	16.7	50.6	17.0	16.2
	Containerships	31.1	33.9	13.14	10.0	11.9	9.1	11.0
	All others	14.9	13.1	13.43	9.4	49.2	16.0	14.9
Developed market-economy countries	All ships	25.8	21.5	16.10	13.9	22.7	11.7	13.3
	Tankers	32.0	19.7	18.64	10.5	19.2	10.5	13.3
	Bulk carriers	19.0	21.1	12.85	21.6	25.6	13.1	14.6
	General cargo	18.1	19.5	13.49	16.7	32.2	13.7	14.0
	Containerships	31.5	33.5	15.01	11.4	8.5	8.7	10.3
	All others	15.9	16.5	16.92	10.5	40.2	14.7	13.8
Major open-registry countries	All ships	23.6	22.1	16.59	12.3	25.5	12.1	13.3
	Tankers	26.2	18.0	24.26	8.3	23.3	11.6	13.1
	Bulk carriers	22.4	25.7	12.46	16.0	23.4	12.0	13.3
	General cargo	9.9	18.0	11.04	20.2	40.8	15.8	14.6
	Containerships	33.1	31.2	12.96	9.4	13.4	9.1	11.4
	All others	18.7	12.9	9.75	4.2	54.5	16.0	13.8
Subtotal	All ships	24.4	21.8	16.42	12.9	24.5	11.9	13.3
	Tankers	28.4	18.6	22.07	9.2	21.7	11.2	13.2
	Bulk carriers	21.6	24.5	12.55	17.4	24.0	12.2	13.6
	General cargo	13.0	18.6	11.95	18.9	37.6	15.0	14.4
	Containerships	32.4	32.2	13.85	10.3	11.3	9.0	10.9
	All others	17.2	14.8	13.52	7.5	46.9	15.3	13.8
Countries of Central and Eastern Europe	All ships	1.6	3.4	11.20	18.8	65.0	20.1	18.9
	Tankers	6.0	2.0	3.58	16.4	72.0	20.4	20.1
	Bulk carriers	0.0	0.0	15.43	17.8	66.8	20.6	19.7
	General cargo	0.8	4.2	10.46	19.4	65.2	20.2	19.1
	Containerships	0.0	28.4	9.81	27.2	34.6	15.9	15.5
	All others	0.8	3.9	15.83	19.9	59.5	19.6	18.3
Socialist countries of Asia	All ships	7.3	10.5	8.53	16.0	51.2	16.7	17.9
	Tankers	12.6	10.1	12.77	20.7	43.8	16.3	16.5
	Bulk carriers	6.9	16.5	9.07	17.1	50.5	17.2	17.7
	General cargo	4.3	3.4	5.10	12.9	74.4	20.6	20.0
	Containerships	10.1	25.8	17.58	25.0	21.5	13.4	12.6
	All others	12.6	10.1	12.77	20.7	43.8	16.3	18.7
Developing countries (excluding open-registry countries)	All ships	18.5	21.1	14.37	13.2	32.8	13.5	14.3
	Tankers	23.4	19.3	18.94	9.5	28.8	12.5	12.7
	Bulk carriers	17.4	24.5	14.29	19.2	24.6	12.8	13.1
	General cargo	5.8	9.2	6.88	12.8	65.3	19.1	18.5
	Containerships	29.7	41.6	9.92	6.5	12.4	8.7	11.2
	All others	10.5	9.9	12.73	9.5	57.4	17.5	17.4

Source: Compiled by the UNCTAD secretariat on the basis of data supplied by Lloyd's Register – Fairplay.

[a] To calculate the average age, it has been assumed that the ages of vessels are distributed evenly between the lower and upper limits of each age group. For the 20-years-and-over age group, the mid-point has been assumed to be 23.5 years.

Table 9

Deliveries of newbuildings, selected years

Year	Oil tankers[a]		Combined carriers[a]		Dry bulk carriers[a]		Others[b]		Total	
	No. of vessels	Million dwt	No. of vessels	Million dwt	No. of vessels	Million dwt	No. of vessels	Million dwt	No. of vessels	Million dwt
1980	99	7.0	4	0.4	135	4.7	548	6.0	786	18.0
1985	72	3.9	10	0.7	339	14.7	529	5.0	950	25.0
1990	81	8.7	0	0.0	119	9.6	523	4.0	723	23.0
1996	98	11.6	3	0.3	268	17.5	713	9.0	1 082	38.0
1997	69	7.5	3	0.3	299	18.8	696	10.2	1 067	36.8
1998	120	12.6	0	0.0	217	11.6	704	11.1	1 041	35.3
1999	161	19.1	4	0.4	195	13.0	585	8.4	940	40.5
2000	154	20.8	0	0.0	188	13.1	1 202	10.5	1 544	44.4
2001	112	14.4	0	0.0	310	21.0	1 048	9.8	1 470	45.2
2002[c]	182	23.4	0	0.0	226	14.1	1 131	11.5	1 539	49.0

Source: Compiled by the UNCTAD secretariat on the basis of data from Fearnleys, *Review 2002.*

[a] Vessels over 10,000 dwt.

[b] Sea-going, cargo-carrying vessels of over 1,000 gross registered tons (grt).

[c] Provisional.

Table 10

Broken-up tonnage, 1990 and 1998–2002

Broken-up tonnage	1990	1998	1999	2000	2001	2002
Tonnage sold for breaking (million dwt)	16.9	25.2	30.7	22.2	27.8	30.5
Broken-up tonnage as a percentage of the total world fleet	2.4	3.2	3.9	2.7	3.4	3.6

Sources: Compiled by the UNCTAD secretariat on the basis of data supplied by Fearnleys, *Review*, various issues, and Lloyd's Register – Fairplay.

Table 11

Tonnage reported sold for breaking, by types of vessel, 1998–2002
(millions of dwt and percentage shares)

Years	Million dwt							Percentage share				
	Tankers	Combined carriers	Bulk carriers	Others	Total	World fleet	Total	Tankers	Combined carriers	Bulk carriers	Others	Total
1998	7.4	1.4	12.8	3.53	25.2	788.7	3.2	29.4	5.7	50.9	14.0	100.0
1999	16.7	1.1	9.7	3.25	30.7	799.0	3.8	54.2	3.7	31.5	10.6	100.0
2000	13.5	1.0	4.6	3.10	22.2	808.4	2.7	60.9	4.3	20.8	14.0	100.0
2001	15.7	0.8	8.1	3.24	27.8	825.7	3.4	56.5	2.7	29.1	11.7	100.0
2002	18.1	1.6	5.9	4.92	30.5	844.2	3.6	59.3	5.2	19.3	16.1	100.0

Source: Compiled by the UNCTAD secretariat on the basis of data supplied by Fearnleys, *Review*, various issues.

Table 12

Average age of broken-up ships, by type, from 1998 to 2002[a]
(years)

Year	Tankers	Dry bulk carriers	Containerships	General cargo ships
1998	28.2	25.2	25.5	26.7
1999	26.2	25.0	24.8	26.7
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

Source: Compiled by the UNCTAD secretariat on the basis of data in Institute of Shipping Economics and Logistics (2003), *Shipping Statistics and Market Review*, Jan./Feb., table I-1.3.2.

[a] Ships of 300 grt and over.

crude oil tankers, demolition almost doubled: 35 ships were sold for scrap in 2001, while 66 units were sold in 2002. The average age of tankers sold for demolition was up slightly from 28 years in 2001 to 28.3 years in 2002. The number of dry bulk carriers sold for scrap decreased by 27.2 per cent to 5.9 million dwt in 2002, but the number of combined carriers doubled to 1.6 million dwt in 2002. There was a decrease in scrapping of all sizes of bulk carriers. Demolition sales of vessels over 120,000 dwt went down from 9 units in 2001 to 5 units in 2002. For vessels in the range of 60,000 to 120,000 dwt, sales contracted from 37 units in 2001 to 26 units in 2002. For Handymax tonnage there was a slight decrease in demolition sales from 16 units in 2001 to 11 units in 2002. The average age of all dry bulk carriers broken up was 26.6 years in 2002, slightly lower than the previous year. Other ship types had a similar trading life in 2002, with container ships being sold to breakers at an average age of 26.0 years and general cargo ships at an average age of 28.2 years.

B. OWNERSHIP OF THE WORLD FLEET

1. Distribution of world tonnage by country groups

The total world fleet continued to expand in 2002, increasing by 2.3 per cent to 844.2 million dwt (see figure 5 and table 13). The rate of growth of the tonnage of developed market-economy countries was double that of the total world fleet, reaching 4.6 per cent (an increase of 9.6 million dwt to 217.1 million dwt). This could reflect the steps taken in some European Union countries to apply tonnage taxes instead of standard tax rules to vessels registered in the country. By December 2002, eight EU countries had been given approval to adopt this system. The tonnage of major open-registry countries in 2002 contracted by about 1 per cent or 3.9 million dwt to 398.5 million dwt. Approximately two-thirds of these beneficially owned fleets are owned by developed market-economy countries and the rest by developing countries. The share of the world fleet registered in developing countries has continued to increase, rising by 12.3 million dwt (7.7 per cent) in 2002 to 171.3 million dwt. This increase resulted from investments made by shipowners in Asian developing countries, whose fleets expanded by 9.9 million dwt (8.5 per cent) to 126.9 million dwt, accounting for 74.1 per cent of the developing countries' total fleet. The fleet of developing countries of America increased by 1.0 million dwt to 35.6 million dwt, while that of African developing countries decreased by 0.4 million dwt to 5.3 million dwt. A marginal increase of 0.2 million dwt was seen in the fleet of developing countries in Europe, while the small fleet of developing countries in Oceania more than trebled to 2.0 million dwt. The fleets of the socialist countries in Asia and the countries of Central and Eastern Europe in total world tonnage also expanded in 2002, with the former increasing by 1.8 million dwt and the latter by 0.5 million dwt.

2. Distribution of world tonnages by types of vessel by country groups

Table 14 provides more detailed data on fleet distribution by types of vessel and country groups for 1970, 1980, 1990, 2000, 2001 and 2002. The share of oil tankers in the total world fleet increased by 1.5 per cent in 2002 compared to 2001. This reversed the trend of the previous year and reflected the high level of tanker deliveries during 2002. There was a 0.1 per cent decrease in the share of bulkers in the total world fleet, which reached 35.6 per cent – the same level as in 1990. The share of general cargo vessels in the world fleet continued to decrease, falling to 11.5 per cent, while that of container vessels continued its upward trend to 9.8 per cent. The share of other types of vessels decreased to 7.1 per cent. In the oil tanker sector, the share of developed market-economy countries increased to 31.7 per cent in 2002 from 30 per cent in 2000. Conversely, the open-registry countries' share decreased to 48.6 per cent, as compared to 50.1 per cent the previous year. These fluctuations for the two country groups contrast with the traditional tendency for owners in developed market-economy countries to register tanker tonnage under open registry. The share of developing countries also increased in 2002 to 17.3 per cent, reversing the downward trend of the previous years. The share of Asian developing countries increased by 1.2 per cent in 2002 to 13.9 per cent of the world tanker fleet, while that of the developing countries of America remained steady at 2.9 per cent.

In the dry bulk carrier sector, the tonnage share of developed market-economy countries in the total world fleet was steady in 2002 at 16.9 per cent, one-third of its share in 1980 (52.7 per cent). Major open-registry countries reduced their share to 54.6 per cent in 2002, as compared to 55.5 per cent in 2002 (31.7 per cent in 1980). The developing countries' share remained the same at 20.8 per cent. The shares of countries in Central and Eastern Europe and socialist countries in Asia were an unchanged 1.1 per cent and a slightly expanded 4.0 per cent of the world fleet respectively.

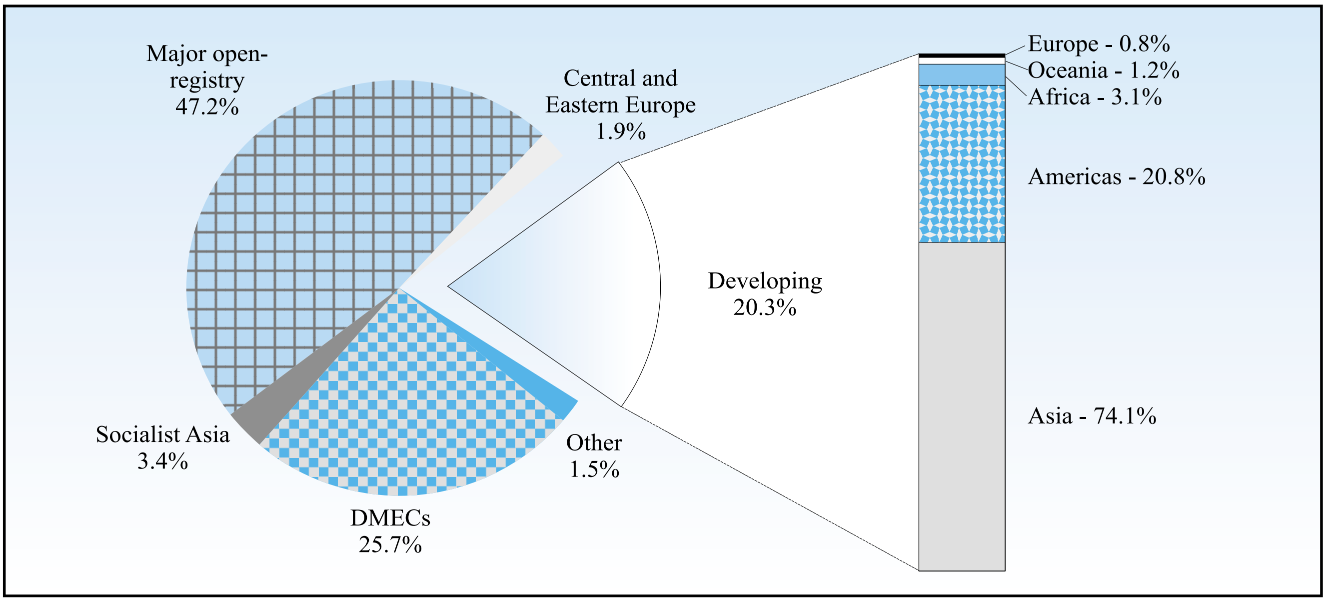
In the sector of general cargo ships, the fleet developments of the three major country groups diverged from those in the dry bulk carrier sector. Developed market-economy countries increased their share marginally to 20.4 per cent of the world fleet, while open-registry countries recorded a drop to 34.1 per cent. Developing countries increased their share by 3.1 per cent to 29.1 per cent, with increases spread among all regions. General cargo ships continued to be the largest of the five principal types of vessel for developing countries.

Developed market-economy countries increased their share of container ship deadweight tonnage in 2002 by 1.1 per cent to 33.9 per cent. The major open-registry countries' share also expanded by 1.3 per cent, reaching 44.4 per cent, approximately two-thirds of which represented container ships beneficially owned by owners in developed market-economy countries. Thus developed market-economy countries own about 60 per

Figure 5

World tonnage by country groups, as of 1 January 2003

(percentage distribution of dwt)



Source: Compiled by the UNCTAD secretariat on the basis of data supplied by Lloyd's Register – Fairplay.

cent of the fleet. The share of developing countries decreased slightly to 18.0 per cent, with the share of Asian developing countries decreasing to 12.8 per cent, while developing countries in America maintained their share at 4.9 per cent.

3. Fleet structure of main country groups

Table 15 provides data on the structure of the merchant fleet of the main country groups as of 1 January 2003. Developed market-economy countries' tonnage in tankers expanded in 2002 by 8.9 million dwt and increased its share of the group's total fleet to 44.4 per cent. The share of dry bulk carriers decreased to 23.3 per cent, in spite of an absolute increase of 0.8 million dwt. General cargo ships' and container ships' share of their fleet registered opposite movements, down to 9.1 per cent for the former and up to 12.9 per cent for the latter, as compared to 9.7 per cent and 12.2 per cent in 2001. Major open-registry countries decreased their total fleets by 3.9 million dwt. The greater proportion of their fleets was in the oil tanker and dry bulk carrier sectors, the two of which accounted for 78.2 per cent of their fleet at the beginning of 2003. The proportion of oil tankers increased in 2002 by 4.6 million dwt to 37.1 per cent of the group's total fleet, while the share of dry bulk carriers increased marginally in 2002 by 0.3 million dwt to 41.1 per cent as compared to 40.6 per cent the previous year. The share of general cargo ships decreased in 2002 by 2.6 million dwt, accounting for 8.3 per cent of the group's total fleet, down from 8.9 per cent in 2001. These countries' container ship fleet expanded in 2002 by 3.6 million dwt to 9.2 per cent of their total fleet (up from 8.3 per cent in 2001).

In developing countries, tonnage distribution was characterized by a comparatively high proportion of oil tankers and dry bulk carriers, which represented 30.8 per cent and 36.4 per cent respectively in 2002. In absolute terms, these countries' 2002 tonnage in oil tankers and dry bulk carriers was 52.7 million dwt and 62.3 million dwt as compared to 96.4 million dwt and 50.6 million dwt for developed market-economy countries. The share of general cargo ships in this group increased in 2002 to 28.3 million dwt compared to 26.0 million dwt in 2001, while container ships increased in tonnage by 0.5 million dwt but decreased in percentage terms to 8.7 per cent in 2002 from 9 per cent in the previous year. In the countries of Central and Eastern Europe, general cargo ships were relatively dominant, accounting for 41.1 per cent in

Table 13

Distribution of world tonnage (dwt) by groups of countries of registration, 1980, 1990, 2001, 2002 and 2003[a]
(beginning-of-year figures)

Flag of registration by group of countries	Tonnage and percentage shares[b] in millions of dwt				
	1980[c]	1990[d]	2001	2002	2003
World total	682.8	658.4	808.4	825.7	844.2
	100.0	*100.0*	*100.0*	*100.0*	*100.0*
Developed market-economy countries	350.1	219.0	203.4	207.5	217.1
	51.3	*33.3*	*25.2*	*25.1*	*25.7*
Major open-registry countries	212.6	224.6	392.2	402.4	398.5
	31.1	*34.1*	*48.5*	*48.7*	*47.2*
Countries of Central and Eastern Europe (including former USSR)	37.8	44.3	16.3	15.4	15.9
	5.5	*6.7*	*2.0*	*1.9*	*1.9*
Socialist countries of Asia	10.9	22.1	26.1	26.5	28.3
	1.6	*3.4*	*3.2*	*3.2*	*3.4*
Developing countries	68.4	139.7	157.0	159.0	171.3
	10.0	*21.2*	*19.4*	*19.3*	*20.3*
***of which*:**					
Africa	7.2	7.3	6.0	5.7	5.3
Americas	21.8	25.5	34.1	34.6	35.6
Asia	39.1	89.5	115.7	117.0	126.9
Europe	0.2	13.8	1.0	1.1	1.3
Oceania	0.1	3.6	0.2	0.6	2.0
Other, unallocated	3.0	8.7	13.4	14.8	13.1
	0.4	*1.3*	*1.7*	*1.8*	*1.5*

Source: Compiled by the UNCTAD secretariat on the basis of data supplied by Lloyd's Register – Fairplay.

[a] Excludes the United States Reserve Fleet and the United States and Canadian Great Lakes fleets, which in 2002 amounted respectively to 4.3, 1.8 and 1.7 million dwt.

[b] Percentage shares are shown in italics.

[c] Mid-year figure.

[d] End-of-year figure.

Table 14

Percentage shares of world tonnage, by types of vessel and country groups, in 1970, 1980, 1990, 2000, 2001 and 2002 [a] [b]

	Year	Total dwt		Oil tankers	Bulk carriers[c]	General cargo	Container ships	Other ships
		Million dwt	Percentage of world total	Percentage share by vessel type[d]				
World total	1970	326.1	100.0	39.4	20.2	30.2	0.9	9.3
	1980	682.8	100.0	49.7	27.2	17.0	1.6	4.5
	1990	658.4	100.0	37.4	35.6	15.6	3.9	7.5
	2000	808.4	100.0	35.3	34.8	12.7	8.6	8.6
	2001	825.7	100.0	34.6	35.7	12.1	9.3	8.3
	2002	844.2	100.0	36.1	35.6	11.5	9.8	7.1
Developed market-economy countries	1970	211.9	65.0	63.9	69.2	65.6	99.0	61.3
	1980	350.1	51.3	52.5	52.7	43.4	74.3	50.4
	1990	219.0	33.3	37.3	29.5	23.1	46.5	45.2
	2000	203.4	25.2	30.0	16.9	19.6	34.4	37.6
	2001	207.5	25.1	30.6	16.9	20.1	32.8	36.3
	2002	217.1	25.7	31.7	16.9	20.4	33.9	37.3
Open-registry countries	1970	70.3	21.6	26.4	24.1	7.6	1.0	3.6
	1980	212.5	31.1	36.2	31.7	20.8	13.5	17.0
	1990	224.6	34.1	41.6	33.2	26.2	21.1	24.2
	2000	392.2	48.5	50.8	55.0	36.5	40.6	38.2
	2001	402.4	48.7	50.1	55.5	35.7	43.1	39.0
	2002	398.5	47.2	48.6	54.6	34.1	44.4	28.3
Central and Eastern Europe	1970	20.5	6.2	4.6	2.1	12.0	-	28.8
	1980	37.8	5.5	2.8	4.2	12.3	2.9	19.2
	1990	44.3	6.7	3.2	6.1	15.5	3.2	10.9
	2000	16.3	2.0	1.0	1.4	6.3	0.6	3.7
	2001	15.4	1.9	1.0	1.1	6.2	0.5	4.3
	2002	15928	1.9	1.0	1.1	6.7	0.5	4.5
Socialist countries of Asia	1970	1.2	0.4	0.1	-	1.1	-	0.3
	1980	10.9	1.6	0.6	1.6	4.7	0.1	1.3
	1990	22.1	3.4	1.1	3.6	8.5	4.2	2.2
	2000	26.1	3.2	1.4	4.0	7.6	2.6	1.8
	2001	26.5	3.2	1.4	3.9	7.9	2.3	2.0
	2002	28.3	3.4	1.5	4.0	8.4	2.6	2.1

Table 14 (continued)

	Year	Total dwt		Oil tankers	Bulk carriers[c]	General cargo	Container ships	Other ships
		Million dwt	Percentage of world total	Percentage share by vessel type[d]				
Developing countries	1970	20.5	6.3	4.7	4.3	12.6	-	5.9
	1980	68.4	10.0	7.7	9.2	17.6	7.6	12.0
	1990	139.7	21.2	16.3	25.6	26.2	16.0	17.4
	2000	157.0	19.4	16.1	20.7	27.1	18.7	17.3
	2001	159.0	19.3	16.0	20.8	26.0	18.6	17.0
	2002	171.3	20.3	17.3	20.8	29.1	18.0	22.0
of which:	1970	1.1	0.3	0.2	-	1.3	-	0.7
Africa	1980	7.1	1.0	1.1	0.1	2.3	..	2.1
	1990	7.3	1.1	1.0	0.5	2.3	0.2	2.9
	2000	6.0	0.7	0.5	0.4	1.7	0.2	1.8
	2001	5.7	0.7	0.5	0.5	1.6	0.2	1.8
	2002	5.3	0.6	0.4	0.5	1.5	0.1	2.1
America	1970	8.7	2.7	2.8	1.4	4.3	-	2.5
	1980	21.8	3.2	2.3	3.3	5.6	0.1	3.7
	1990	25.5	3.9	3.0	3.8	6.2	1.4	4.7
	2000	34.1	4.2	2.7	3.5	9.6	5.1	4.5
	2001	34.6	4.2	2.9	3.6	9.0	4.9	4.5
	2002	35.6	4.2	2.9	3.25	9.5	4.9	6.0
Asia	1970	10.7	3.3	1.7	2.9	6.9	-	2.6
	1980	39.1	5.7	4.3	5.7	9.8	2.7	5.7
	1990	89.5	13.6	10.7	17.6	13.7	13.5	9.1
	2000	115.7	14.3	12.9	16.5	15.5	13.3	10.9
	2001	117.0	14.2	12.7	16.4	14.9	13.5	10.5
	2002	126.9	15.0	13.9	16.5	17.1	12.8	13.4
Europe	1970	-	-	-	-	-	-	-
	1980	0.2	-	-	-	0.1	-	-
	1990	13.8	2.1	1.4	2.8	3.2	0.6	0.4
	2000	1.0	0.1	0.0	0.3	0.2	0.0	0.0
	2001	1.1	0.1	0.0	0.3	0.1	0.0	0.0
	2002	1.3	0.2	0.0	0.3	0.2	0.0	0.2
Oceania	1970	-	-	-	-	-	-	-
	1980	0.2	-	-	-	0.1	-	-
	1990	3.6	0.5	0.2	0.9	0.8	0.3	0.3
	2000	0.2	0.0	0.0	0.0	0.1	0.0	0.1
	2001	0.6	0.1	0.0	0.0	0.4	0.0	0.2
	2002	2.0	0.2	0.1	0.3	0.7	0.0	0.3

Table 14 (continued)

	Year	Total dwt		Oil tankers	Bulk carriers[c]	General cargo	Container ships	Other ships
		Million dwt	Percentage of world total	Percentage share by vessel type[d]				
Unallocated	1970	1.7	0.5	0.3	0.3	1.1	-	0.1
	1980	3.0	0.4	0.2	0.6	0.9	1.6	0.1
	1990	8.7	1.3	0.5	2.0	0.5	9.0	0.1
	2000	13.4	1.7	0.7	1.9	2.9	3.1	1.3
	2001	14.8	1.8	0.8	1.8	4.0	2.6	1.5
	2002	13.1	1.6	0.0	2.6	1.3	0.7	5.8

Source: Compiled by the UNCTAD secretariat on the basis of data supplied by Lloyd's Register – Fairplay. See Annex III(b) for details.

[a] Excludes the United States Reserve Fleet and the United States and Canadian Great Lakes fleets.

[b] Data up to 1990 were as at 1 July and from 1991 onwards as of 31 December.

[c] Ore and bulk carriers, including combined ore/oil and ore/bulk/oil carriers.

[d] Percentages for 1970 were calculated on the basis of grt.

Table 15

Structure of the merchant fleets of the main country groups as of 1 January 2003[a]

(millions of dwt and percentage shares)

	World fleet		Developed market-economy countries		Open-registry countries		Developing countries		Central and Eastern Europe		Socialist countries of Asia	
	Million dwt	%	Million dwt	%	Million dwt	%	Million dwt	%	Million dwt	%	Million dwt	%
Total fleet	844.2	100.0	217.1	100.00	398.5	100.0	171.3	100.0	15.9	100.0	28.3	100.0
Oil tankers	304.4	36.1	96.4	44.39	147.8	37.1	52.7	30.8	3.0	18.6	4.6	16.1
Bulk carriers	300.1	35.6	50.6	23.30	163.8	41.1	62.3	36.4	3.4	21.2	12.1	42.9
General cargo ships	97.2	11.5	19.8	9.13	33.1	8.3	28.3	16.5	6.5	41.1	8.2	29.0
Containerships	82.8	9.8	28.0	12.91	36.8	9.2	14.9	8.7	0.4	2.4	2.2	7.6
Other ships	59.7	7.1	22.3	10.26	16.9	4.2	13.1	7.7	2.7	16.7	1.2	4.4

Source: Compiled by the UNCTAD secretariat on the basis of data supplied by Lloyd's Register – Fairplay.

[a] Ships of 100 grt and over, excluding the United States Reserve Fleet and the United States and Canadian Great Lakes fleets.

2002, as compared to 40.1 per cent in 2001. On the other hand, container ships have remained unchanged at 0.4 million dwt, or around 2 per cent of the total, since the early 1990s. The socialist countries of Asia continued to have a predominant share of both dry bulk carriers and general cargo ships. The absolute tonnage of these types of vessel increased in 2002, to 12.1 million dwt and 8.2 million dwt respectively. However their share of the total decreased marginally to 42.9 per cent (43 per cent in 2001) for dry bulk carriers and 29.0 per cent (29.8 per cent in 2001) for general cargo ships. The absolute tonnage of container ships increased in 2002 to 2.2 million dwt, or 7.6 per cent (compared to 6.8 per cent in 2001).

C. REGISTRY OF VESSELS

1. The 35 most important maritime countries and territories

Rankings in terms of deadweight for the 35 most important maritime countries and territories are provided in table 16. In 2002, these 35 countries and territories controlled 94.9 per cent of the world merchant fleet (the same percentage as in the previous year). The United Arab Emirates, which had been 31st in 2001, was replaced in 2002 by a new entrant, Chile, in 35th place with 2.2 million dwt and 0.29 per cent of the total world fleet. There were several movements in the ranks for the other countries: the Islamic Republic of Iran and Switzerland moved up by four places, the Netherlands by three places, Canada and Morocco by two places, and China, Singapore, Saudi Arabia, Cyprus and Croatia by 1 place; other countries moved down by one place (United States, United Kingdom, India, the Philippines, Indonesia), two places (Sweden) and five places (Brazil).

Among these most important maritime countries and territories, registration under a foreign flag continued in 2002, but its growth weakened. The total tonnage registered under foreign flags in 2002 increased to 465.8 million dwt, representing 64.0 per cent of the 35 countries' total fleet, as compared with 462.5 million dwt or 64.1 per cent in 2001. For developing countries and territories, the trend in favour of registering their tonnage under foreign flags is a recent one. In 2002, the 13 developing countries and territories listed in the table (including Hong Kong (China) but excluding Taiwan Province of China) had 47 per cent of their total tonnage registered under foreign flags. In spite of the continuous trend towards flagging out among developing countries, there are significant differences among the countries concerned. The foreign registries of Saudi Arabia and Hong Kong (China) amounted to 91.6 per cent and 65.0 per cent respectively, while the Islamic Republic of Iran, Kuwait and the Philippines made significantly less use of the benefits of foreign flag facilities, which accounted for only 3.2, 7.0 and 15.5 per cent respectively of their fleets. For developed market-economy countries, the share of foreign-registered tonnage stood at 70.2 per cent in 2002.

2. Open registries

The share of the world merchant fleet in major open registries contracted by 4.7 per cent in 2002 after expanding by 1.7 per cent the previous year. This could reflect the changes in fiscal rules of developed market-economy countries and certain irregularities in open registries. The tonnage distribution of the six major open-registry countries by principal types of vessel is shown in table 17, together with the corresponding totals for another six minor open-registry countries. The total tonnage registered in 2002 in the six major registries decreased by 4.6 per cent to 356.1 million dwt from 373.5 million dwt the previous year, when the tonnage had expanded by 1 per cent. Panama continued to lead the list in 2002 in spite of fleet contraction of 3.4 million dwt or 2 per cent. The allegations of illegal trade of certificates for seafarers led to the arrest of three officials. Liberia's fleet contracted by 6.6 per cent. In May 2002, the United Nations Security Council called Liberia to take urgent steps to ensure that revenues from its Ship Registry are used for legitimate social, humanitarian and development purposes. An international accounting firm was appointed in September to oversee the Registry but withdrew in December. In February 2003, United Nations monitors were sent to the country to verify implementation of the Security Council resolution. Soon after, the country announced the start of a pilot project with IMO for seafarer security identity cards. The combined tonnage of Panama and Liberia amounts to 66.5 per cent of the total tonnage of the six major open-registry countries. In 2002, Malta decreased its fleet by 13.1 per cent to 36.6 million dwt, while Bermuda's tonnage decreased substantially by 22.2 per cent to 6.3 million dwt. The decreases in fleets of the other two major open registries, the Bahamas and Cyprus, were about 2 per cent.

Table 16

The 35 most important maritime countries and territories as of 1 January 2003[a]

Country of domicile[b]	Number of vessels			Deadweight tonnage				
	National flag[c]	Foreign flag	Total	National flag[c]	Foreign flag	Total	Foreign flag as % of total	Total as % of world total
Greece	758	2 345	3 103	44 849 923	105 010 880	149 860 803	70.07	19.52
Japan	747	2 163	2 910	13 472 332	90 924 107	104 396 439	87.10	13.60
Norway	872	819	1 691	27 138 155	30 959 452	58 097 607	53.29	7.57
China	1 617	704	2 321	22 680 169	21 623 434	44 303 603	48.81	5.77
United States	583	870	1 453	11 001 954	31 536 497	42 538 451	74.14	5.54
Germany	377	1 925	2 302	7 231 590	33 517 881	40 749 471	82.25	5.31
Hong Kong (China)	235	334	569	13 206 714	24 527 094	37 733 808	65.00	4.92
Republic of Korea	491	364	855	9 135 854	16 633 763	25 769 617	64.55	3.36
Taiwan Province of China	133	395	528	6 313 645	16 014 886	22 328 531	71.72	2.91
Singapore	457	257	714	12 627 368	6 764 542	19 391 910	34.88	2.53
United Kingdom	396	383	779	7 867 951	10 225 805	18 093 756	56.52	2.36
Denmark	349	333	682	8 540 665	7 971 422	16 512 087	48.28	2.15
Russian Federation	2 176	380	2 556	8 429 692	7 816 315	16 246 007	48.11	2.12
Italy	519	119	638	8 315 551	3 886 635	12 202 186	31.85	1.59
Saudi Arabia	52	69	121	923 734	10 086 880	11 010 614	91.61	1.43
India	344	41	385	9 376 986	1 133 341	10 510 327	10.78	1.37
Turkey	436	137	573	7 252 197	1 684 970	8 937 167	18.85	1.16
Netherlands	576	208	784	4 045 450	3 156 450	7 201 900	43.83	0.94
Iran, Islamic Republic of	149	4	153	6 864 112	229 978	7 094 090	3.24	0.92
Switzerland	12	225	237	691 366	6 309 602	7 000 968	90.12	0.91
Sweden	162	162	324	1 429 038	5 468 352	6 897 390	79.28	0.90
Malaysia	254	52	306	5 790 177	798 897	6 589 074	12.12	0.86
Brazil	142	22	164	4 454 047	2 038 788	6 492 835	31.40	0.85
Belgium	25	128	153	168 703	6 008 133	6 176 836	97.27	0.80
France	168	101	269	2 963 993	3 038 662	6 002 655	50.62	0.78
Canada	217	110	327	2 632 406	3 354 729	5 987 135	56.03	0.78
Philippines	305	31	336	4 095 428	751 145	4 846 573	15.50	0.63
Indonesia	519	91	610	3 225 973	1 088 783	4 314 756	25.23	0.56
Spain	67	263	330	145 830	4 147 174	4 293 004	96.60	0.56
Kuwait	32	0	32	3 341 564	0	3 341 564	0.00	0.44
Monaco	0	103	103	0	3 133 767	3 133 767	100.00	0.41

Table 16 (continued)

Country of domicile[b]	Number of vessels			Deadweight tonnage				
	National flag [c]	Foreign flag	Total	National flag [c]	Foreign flag	Total	Foreign flag as % of total	Total as % of world total
Australia	47	40	87	1 428 901	1 409 743	2 838 644	49.66	0.37
Cyprus	30	38	68	823 590	1 969 719	2 793 309	70.52	0.36
Croatia	64	39	103	1 029 912	1 216 635	2 246 547	54.16	0.29
Chile	56	34	90	862 266	1 364 987	2 227 253	61.29	0.29
Total (35 countries)	13 367	13 289	26 656	262 357 236	465 803 448	728 160 684	63.97	94.90
World total	15 649	14 579	30 228	281 241 565	486 350 815	767 592 380	63.36	100.00

Source: Compiled by the UNCTAD secretariat on the basis of data supplied by Lloyd's Register – Fairplay.

[a] Vessels of 1,000 grt and above, excluding the United States Reserve Fleet and the United States and Canadian Great Lakes fleets.

[b] The country of domicile indicates where the controlling interest (i.e. parent company) of the fleet is located. In several cases, determining this has required certain judgements to be made. Thus, for instance, Greece is shown as the country of domicile for vessels owned by a Greek owner with representative offices in New York, London and Piraeus, although the owner may be domiciled in the United States.

[c] Includes vessels flying the national flag but registered in territorial dependencies or associated self-governing territories. For the United Kingdom, British flag vessels are included under the national flag, except for Bermuda (listed in table 17 as an open-registry country).

Table 17

Tonnage distribution of open-registry fleets[a] as of 1 January 2003

Flag	Oil tankers		Bulk carriers		General cargo		Container ships		Others		Total		Total as of 1.1.2002
	Number	Thousand dwt	Number	Thousand dwt	Number	Thousand dwt	Number	Thousand dwt	Number	Thousand dwt	Number	Thousand dwt	Thousand dwt
Panama	631	51 667	1 287	81 208	1 189	11 313	491	16 493	470	7 827	4 068	168 508	171 874
Liberia	346	34 276	262	15 762	205	3 678	294	9 514	180	5 183	1 287	68 413	73 179
Bahamas	185	24 778	136	8 336	414	6 051	69	2 130	253	2 828	1 057	44 122	45 327
Malta	247	15 613	390	17 183	337	3 061	31	539	24	253	1 029	36 649	42 129
Cyprus	119	6 080	385	19 427	366	3 486	108	2 739	53	365	1 031	32 097	32 941
Bermuda	10	1 864	26	3 598	16	205	14	401	25	225	91	6 293	8 083
Subtotal	1 538	134 277	2 486	145 514	2 527	27 794	1 007	31 817	1 005	16 680	8 563	356 081	373 533
St. Vincent and the Grenadines	30	244	101	3 801	286	2 062	22	156	93	291	532	6 554	
Antigua and Barbuda	6	22	13	149	573	2 378	186	3 436	11	54	789	6 039	
Cayman Is.	33	1 572	21	1 038	40	424	0	0	29	288	123	3 321	
Luxembourg	13	1 014	2	20	8	69	8	115	33	772	64	1 990	
Vanuatu	1	90	20	823	15	243	1	29	70	196	107	1 381	
Gibraltar	17	709	2	30	58	266	12	205	9	52	98	1 261	
Total	1 638	137 928	2 645	151 374	3 507	33 236	1 236	35 757	1 250	18 333	10 276	376 628	
Total six major open registers as of 1 January 2002	1 267	132 382	2 684	151 764	2 946	31 892	1 014	30 574	1 646	26 921	9 557	373 533	
Total six major open registers as of 1 January 2001												395 164	
Total six major open registers as of 1 January 2000												388 688	

Source: Compiled by the UNCTAD secretariat on the basis of data supplied by Lloyd's Register – Fairplay.

[a] Ships of 1,000 grt and above. This table is not fully comparable with tables 13 and 15, which list ships of 100 grt and above as the base.

Four of the minor open registries are located in developing countries of America (three) and Oceania (one), while the two others are located in developed market-economy countries of Europe. A number of other developing countries (i.e. Belize, Honduras, Sri Lanka, etc.) also have open registries, albeit with less coverage. Establishing open registries can be difficult, as shown by reports concerning the Cambodian registry. A manager from the Republic of Korea was appointed in November 2002 to take over the registry. The former manager's contract had been cancelled in August following the French navy's seizure of a Cambodian-flagged vessel on allegations of cocaine smuggling; that manager was then hired to establish a new Mongolian registry. Two months later, it was reported that he was negotiating a similar deal with Solomon Islands.[3]

Analysis by type of vessel for the six major registries indicated that tankers increased to 37.7 per cent of the total deadweight in 2002 as compared with 35.3 per cent in 2001, while dry bulk carriers maintained their share at 40.8 per cent. For the six major open registries, the combined tonnage of these two types of vessels accounts for 78.5 per cent of the total deadweight and 76.8 per cent when the minor registries are included. General cargo ships (3,507 ships) accounted for 34.1 per cent of the total number of ships, followed by dry bulk carriers (2,645 ships or 25.7 per cent of the total). These figures reflect the importance of open registries for the maritime industry.

3. Nationality of vessels

Table 18 indicates the participation of nationals in the registry of a number of open and international registers for the three most recent years. The data compare the total tonnage registered in the listed countries of registry with the tonnage owned by nationals of, and registered in, the countries of registry. The 20 countries or territories of registry have been divided into three groups: six major open registers, six minor open registers and eight international registers. In open registers, the share of tonnage owned by nationals of open-registry countries is minimal, well below 10 per cent. For international registers, however, two factors are noted. First, nationals of the country or territory of the registry have a significant share of the tonnage registered – as is the case with Denmark, Norway, Hong Kong (China) and Singapore. Second, nationals of a country having a privileged relationship with the territory of registry have a significant share of the tonnage registered – as is the case with United Kingdom with the Isle of Man, the United States with the Marshall Islands, France with the French Antarctic Territory (the Kerguelen Islands) and the Netherlands with the Netherlands Antilles.

In these international registers, the share of tonnage owned by nationals of international registers and of nationals of countries having a privileged relationship with the territory of registry is high, well above 30 per cent and in some cases above 80 per cent. Countries and territories with the highest share, namely Denmark, Norway and Hong Kong (China), were ranked 12th, 3rd and 7th respectively of the 35 most important maritime countries in 2003.

The true nationalities of the vessels registered in the 12 open registries are analysed in table 19. In 2002, 35 countries or territories accounted for 89 per cent of the total tonnage of the 12 open-registry fleets. This percentage was slightly lower than in 2001. Ownership is particularly concentrated in 10 countries or territories, which control 75.7 per cent of the deadweight of vessels registered in these open-registry countries, while the top five countries or territories control 59.0 per cent. Greece was ranked first in 2002 for the ninth consecutive year with the largest share (22.3 per cent) of the open-registry fleets. Greece also had the largest foreign-flag ownership, representing 105 million dwt or 19.5 per cent of the total world foreign-flag tonnage, followed by Japan with 90.9 million dwt or 13.6 per cent of the total tonnage. The two countries' combined foreign-flag tonnage accounted for 33.1 per cent of the total world tonnage under foreign flags.

Table 19 also provides an overview of the way the 35 countries were registering their vessels at the beginning of 2003 under open registries. Overall, the share of the six major open registers stands at 94.7 per cent, with the share of the minor open register being considerably less – only 5.3 per cent.

Table 18

Tonnage owned by nationals of, and registered in, the country or territory of registry in the total fleet of the most important open and international registers, as of 1 January [a]
(thousands of dwt)

Country or territory of registry	Total tonnage registered country of registry			Participation of nationals of country of registry and of nationals of countries having privileged relationship with country of registry: in tonnage of registered fleet			in percentage of registered fleet (%)		
	2001	2002	2003	2001	2002	2003	2001	2002	2003
Six major open registers									
Panama	162 321	171 874	168 508	0	0	0	0.0	0.0	0.0
Liberia	75 158	73 180	68 413	0	0	0	0.0	0.0	0.0
Bahamas	44 871	45 327	44 122	226	0	0	0.5	0.0	0.0
Malta	44 497	42 130	36 649	48	36	0	0.1	0.1	0.0
Cyprus	33 312	32 940	32 097	792	756	824	2.4	2.3	2.6
Bermuda	9 122	8 082	6 293	0	0	0	0.0	0.0	0.0
Six minor open registers									
St. Vincent and the Grenadines	8 415	8 602	6 554	0	0	0	0.0	0.0	0.0
Antigua and Barbuda	5 131	5 856	6 039	0	0	0	0.0	0.0	0.0
Cayman Islands	2 501	2 539	3 321	0	0	0	0.0	0.0	0.0
Luxembourg	1 405	2 101	1 990	0	0	0	0.0	0.0	0.0
Vanuatu	1 444	1 534	1 381	0	0	0	0.0	0.0	0.0
Gibraltar	511	999	1 261	0	0	0	0.0	0.0	0.0
Total open registers	388 688	395 164	376 628						
Eight international registers									
Singapore	32 996	32 082	31 246	12 842	11 826	12 627	38.9	36.9	40.4
Norwegian International Ship Registry (NIS)	28 062	28 709	27 373	23 842	24 532	23 654	85.0	85.5	86.4
Hong Kong (China)	15 330	20 333	24 892	12 675	16 530	13 207	82.7	81.3	53.1
Marshall Islands	15 517	18 058	21 860	9 322	8 023	8 667	60.1	44.4	39.6
Isle of Man	8 734	9 552	8 830	5 160	5 070	4 827	59.1	53.1	54.7
Danish International Ship Registry (DIS)	7 617	8 167	8 830	7 559	7 986	8 493	99.2	97.8	96.2
French Antartic Territory	5 000	5 055	4 748	2 805	2 379	2 073	56.1	47.1	43.7
Netherlands Antilles	1 481	1 335	1 442	486	469	592	32.8	35.1	41.1

Source: Compiled by the UNCTAD secretariat on the basis of data supplied by Lloyd's Register – Fairplay.

[a] Ships of 1,000 grt and above. This table is not fully comparable with tables 13 and 15, which list ships of 100 grt and above as the base.

Table 19

True nationality of major open-registry fleets as of 1 January 2003

Country or territory of domicile	Panama			Liberia			Bahamas			Malta			Cyprus		
	No. of vessels	000 dwt	%	No. of vessels	000 dwt	%	No. of vessels	000 dwt	%	No. of vessels	000 dwt	%	No. of vessels	000 dwt	%
Greece	514	20 000	11	145	9 555	12	164	8 752	18	594	28 909	68	562	23 302	65
Japan	1 785	78 250	42	109	5 221	7	37	654	1	2	78	0	21	304	1
Norway	88	2 942	2	104	7 482	10	273	10 675	22	42	857	2	27	264	1
China	243	8 197	4	59	2 885	4	5	213	0	15	235	1	12	217	1
United States	142	3 125	2	111	4 821	6	173	10 120	20	8	466	1	3	10	0
Germany	23	833	0	433	13 062	17	18	1 076	2	45	789	2	224	4 432	12
Hong Kong (China)	180	14 510	8	47	4031	5	7	366	1	5	449	1	3	177	0
Republic of Korea	295	15 205	8	6	530	1	1	17	0	2	18	0	3	98	0
Taiwan Province of China	294	11 263	6	30	1 144	1	0	0	0	0	0	0	0	0	0
Singapore	72	1 988	1	12	809	1	13	1 051	2	0	0	0	1	30	0
United Kingdom	39	969	1	15	672	1	108	1 352	3	3	52	0	5	20	0
Denmark	19	424	0	6	214	0	50	567	1	3	13	0	0	0	0
Russian Federation	16	81	0	69	4 943	6	5	18	0	92	997	2	76	1313	4
Italy	5	301	0	9	577	1	12	501	1	32	1 013	2	0	0	0
Saudi Arabia	8	641	0	20	5 817	8	13	2 974	6	1	1	0	0	0	0
India	8	111	0	7	518	1	1	12	0	2	53	0	6	100	0
Turkey	3	21	0	3	141	0	3	16	0	85	728	2	0	0	0
Netherlands	24	323	0	9	115	0	45	1 833	4	8	40	0	24	189	1
Iran, Islamic Rep. of	0	0	0	0	0	0	0	0	0	0	0	0	3	225	1
Switzerland	107	3 606	2	14	348	0	1	82	0	53	1 096	3	4	54	0
Sweden	3	16	0	10	959	1	14	692	1	0	0	0	6	24	0
Malaysia	15	111	0	0	0	0	15	92	0	0	0	0	0	0	0
Brazil	11	1 057	1	10	979	1	0	0	0	0	0	0	0	0	0
Belgium	6	553	0	7	798	1	11	125	0	3	86	0	2	9	0
France	8	587	0	3	69	0	29	676	1	0	0	0	2	26	0
Canada	3	33	0	7	238	0	12	413	1	9	34	0	7	314	1
Philippines	17	509	0	0	0	0	0	0	0	0	0	0	2	24	0
Indonesia	45	404	0	1	79	0	2	82	0	0	0	0	0	0	0
Spain	49	313	0	1	95	0	4	536	1	0	0	0	6	130	0
Kuwait	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Monaco	18	841	0	14	632	1	30	660	1	11	215	1	0	0	0
Australia	6	186	0	3	392	1	7	191	0	2	64	0	0	0	0
Cyprus	5	592	0	2	191	0	2	280	1	3	16	0	30	824	2
Croatia	2	2	0	10	604	1	1	44	0	9	441	1	2	12	0
Chile	15	515	0	11	492	1	1	51	0	0	0	0	0	0	0
Subtotal	4 068	168 508	90	1287	68 413	89	1 057	44 122	89	1 029	36 649	86	1 031	32 097	89
Others	2 520	17 892	10	393	8 603	11	378	5 478	11	403	5 960	14	304	3 932	11
Total	6 588	186 400	100	1680	77 016	100	1 435	49 600	100	1 432	42 609	100	1 335	36 029	100

Source: Compiled by the UNCTAD secretariat on the basis of data supplied by Lloyd's Register – Fairplay.

Table 19 (continued)

Bermuda			Six minor open registries			Subtotal			Total foreign flag fleet		Country or territory of domicile
No. of vessels	000 dwt	%	No. of vessels	000 dwt	%	No. of vessels	000 dwt	%	No. of vessels	000 dwt	
1	15	0	170	4 235	17	2 150	94 768	22	2 345	105 011	**Greece**
0	0	0	27	734	3	1 981	85 242	20	2 163	90 924	**Japan**
2	2	0	57	614	2	593	22 836	5	819	30 959	**Norway**
0	0	0	115	1 589	6	449	13 335	3	704	21 623	**China**
13	154	2	145	1 246	5	595	19 941	5	870	31 536	**United States**
1	22	0	840	6 698	26	1 584	26 912	6	1 925	33 518	**Germany**
4	593	9	20	402	2	266	20 529	5	334	24 527	**Hong Kong (China)**
0	0	0	4	11	0	311	15 879	4	364	16 634	**Republic of Korea**
0	0	0	4	16	0	328	12 423	3	395	16 015	**Taiwan Province of China**
0	0	0	5	59	0	103	3 937	1	257	6 765	**Singapore**
39	3 184	47	40	228	1	249	6 476	2	383	10 226	**United Kingdom**
4	49	1	16	53	0	98	1 319	0	333	7 971	**Denmark**
0	0	0	20	80	0	278	7 431	2	380	7 816	**Russian Federation**
0	0	0	28	562	2	86	2 954	1	119	3 887	**Italy**
0	0	0	4	34	0	46	9 467	2	69	10 087	**Saudi Arabia**
0	0	0	9	83	0	33	877	0	41	1 133	**India**
0	0	0	15	154	1	109	1 060	0	137	1 685	**Turkey**
0	0	0	43	149	1	153	2 648	1	208	3 156	**Netherlands**
0	0	0	0	0	0	3	225	0	4	230	**Iran, Islamic Republic of**
1	3	0	22	426	2	202	5 615	1	225	6 310	**Switzerland**
9	1 730	25	18	171	1	60	3 591	1	162	5 468	**Sweden**
0	0	0	0	0	0	30	203	0	52	799	**Malaysia**
0	0	0	0	0	0	21	2 037	0	22	2 039	**Brazil**
0	0	0	42	1 730	7	71	3 303	1	128	6 008	**Belgium**
0	0	0	27	715	3	69	2 073	0	101	3 039	**France**
14	405	6	6	304	1	58	1 742	0	110	3 355	**Canada**
0	0	0	1	11	0	20	544	0	31	751	**Philippines**
1	2	0	2	31	0	51	598	0	91	1 089	**Indonesia**
0	0	0	2	10	0	62	1 084	0	263	4 147	**Spain**
0	0	0	0	0	0	0	0	0	0	0	**Kuwait**
0	0	0	9	58	0	82	2 406	1	103	3 134	**Monaco**
2	134	2	3	11	0	23	978	0	40	1 410	**Australia**
0	0	0	4	19	0	46	1 922	0	38	1 970	**Cyprus**
0	0	0	15	114	0	39	1 217	0	39	1 217	**Croatia**
0	0	0	0	0	0	27	1 058	0	34	1 365	**Chile**
91	6 293	92	1 713	20 547	80	10 276	376 628	89	13 289	465 804	**Subtotal**
26	519	8	839	5 043	20	4 863	47 428	11	1 290	20 546	**Others**
117	6 812	100	2 552	25 590	100	15 139	424 056	100	14 579	486 350	**Total**

D. SHIPBUILDING AND THE SECOND-HAND MARKET

1. Newbuilding orders

In 2002, newbuilding contracts totalling 52.7 million dwt were placed for the six major ship types – an increase of 2.1 per cent in comparison with 2001 (see table 20). In the tanker sector, pessimism prevailed, with 447 units totalling 24.0 million dwt ordered in 2002, as compared with 550 units totalling 34.3 million dwt in 2001. However, the mood changed by the end of the year as a result of the *Prestige* accident (see box 2). The 2002 newbuilding orders for dry bulk carriers rebounded to 275 units of 20.8 million dwt, more than double the orders of the previous year (165 units of 9.5 million dwt).

Newbuilding orders for container ships went down, but by less in terms of tonnage – 135 units totalling 6.2 million dwt in 2002 as compared to 180 units and 6.6 million dwt in 2001. These newbuilding tonnages continued to reflect the recent trend for post-Panamax container ships. The newbuilding orders for general cargo ships also went up in 2002 to 136 units of 1.6 million dwt from 142 units totalling 1.2 million dwt in 2001. Orders for passenger ferries were remarkably good and almost doubled in tonnage, to a total of 739,000 dwt from 370,000 dwt in the previous year. The number of vessels increased less than proportionally, from 80 in 2001 to 131 in 2002.

2. Tonnage on order

World tonnage on order, by groups of countries of registry and by principal types of vessel, is shown in table 21. World tonnage on order at the beginning of 2003 stood at 118.8 million dwt, representing a healthy increase of 10 per cent over the previous year. Tonnage on order by developed market-economy countries amounted to 40 million dwt, accounting for 33.7 per cent of the total world tonnage on order, as compared with 34 million dwt or 31.5 per cent at the beginning of 2002. Major open-registry countries had 60.7 million dwt or 51.1 per cent of world tonnage on order, as compared with 57.4 million dwt or 53.2 per cent at the beginning of last year. The share of the countries of Central and Eastern Europe decreased slightly in 2002 to 0.4 million dwt or 0.3 per cent of the world total on order, while the share of the socialist countries in Asia also decreased in 2002, ending the year with 3.7 million dwt or 3.1 per cent of the world total on order.

Developing countries' tonnage on order recorded a 60.6 per cent increase from the previous year, reaching 13.9 million dwt or 11.7 per cent of the total world tonnage on order at the beginning of 2003. Tonnage on order by Asian developing countries rose at the same rate to 12.3 million dwt at the beginning of 2003, which accounted for 88.5 per cent of the developing countries' total tonnage on order. African newbuilding orders almost trebled to 201,000 dwt at the beginning of 2003, while the Americas' developing countries' orders increased albeit at a lower rate to 1.4 million dwt.

In 2002, oil tanker orders rose by 17 per cent to 60.7 million dwt, accounting for 51.1 per cent of the world total on order. Developing countries had 7.7 million dwt on order, representing 12.7 per cent of the total tankers on order, with Asian developing countries represented 7.1 million dwt or 92.2 per cent of the developing countries' total. The number of dry bulk carriers on order at the beginning of 2003 also increased from 2002 by 37.4 per cent to 30.5 million dwt, accounting for 25.7 per cent of the world total on order. For this type of vessel, developed market-economy countries and major open-registry countries accounted for 23.5 per cent and 65.6 per cent, representing a combined share of almost 90 per cent. The volume of container ships on order decreased in 2002 by 7.7 per cent to 15.3 million dwt at year's end, representing 12.9 per cent of the world total on order. For container ships on order, developed market-economy countries accounted for 29.7 per cent and major open-registry countries accounted for over 52.5 per cent. At the beginning of 2003 developing countries' container ship orders had almost doubled, reaching 1.9 million dwt, or 1.6 per cent of the total container ships on order. Asian developing countries had 1.5 million dwt or 78.9 per cent of the developing countries' total on order.

Box 2

The impact of the Prestige

On 13 November 2002 the Aframax tanker Prestige carrying 77,000 tons of heavy fuel sent a distress call after severe weather off the north-west Spanish coast caused her to list and start leaking cargo. The 26-year old single-hull vessel had been on her way from Latvia to Singapore when she started to drift towards the coast. Salvors tried to bring her to a sheltered coastal location to unload the cargo but authorities opposed this. Instead the vessel was towed to the open seas where, battered by the waves, she broke in two and sank on 19 November in depths of about 3,500 metres.

The accident polluted about 200 km of coast in north-west Spain and weeks later also sections of the southern coast of France, causing major economic and environmental damage. By mid-January it was estimated that about 53,000 tons remained in the wreck, and even although the cracks had been sealed, about 80 tons per day were escaping from it. The $178 million estimated by the International Oil Pollution Compensation Fund that would be available to compensate related claims was dwarfed by the $9.9 billion estimated by the Spanish Government as being required to clean up the coastline.

The accident, however, had also other impacts. Questions were raised concerning the state port control carried out by European countries in accordance with the Paris MOU. The fact that the Prestige had not been inspected over the last twelve months in spite of visiting several ports for bunkering highlighted the practice of conducting such inspections only when vessels actually dock, as well as the low rate of inspection in some countries. Consequently, France started to enroll retired masters and qualified personnel to step up such inspections.

The question of the need to have authorized places of refuge to counter the worst features of marine accidents was raised again by the Prestige. In early 2001, coastal authorities denied entry to the tanker Castor, which had developed extensive cracks after sailing in heavy weather in the Mediterranean Sea with 29,500 tons of unleaded gasoline. The cargo was finally transferred to another vessel at sea.

Moreover, two European countries, France and Spain, announced in early December a unilateral measure based on the UN Convention on the Law of the Sea (UNCLOS) whereby single hull tankers carrying heavy oils must sail outside their 200-mile exclusive economic zones. By early January, Spain alone had expulsed seven vessels, while charters started to include extended sailing routes to comply with the measure. Malta, one of the registries most affected by the expulsions, complained of this sudden and muscular measure.

The most significant impact for shipping markets arose from the European Union proposal to deal with single hull tankers.[a] They would be banned for carrying heavy fuel oil, their phasing out would be accelerated, and their Condition Assessment Scheme examination would include structural soundness. More specifically, class 1 tankers, also called pre-Marpol tankers, were permitted to operate until 2005 (maximum 23 years old), while class 2 tankers, that is those complying with Marpol regulations, would be allowed to operate until 2010 (maximum 28 years old). For smaller tankers of category 3 the proposed deadline was 2015 (also maximum 28 years old). A bill was presented in the US Senate to phase out single hull tankers by 2005. These proposals brought forward the deadlines agreed in IMO in the wake of the sinking of the Erika almost three years ago. According to the revised regulation 13G of the Marpol Convention, which entered into force in September 2002, class 1 single hull tankers would have to be scrapped by 2007 and all others by 2015. According to this the Prestige was due for scrapping in 2005. As there were about 5,500 single hull tankers in operation as against 2,500 double-hulls, these proposals strengthened the current low prices of newbuildings and fostered orders for new tanker tonnage, as well as assuring the revival of depressed freight markets.

[a] *Differential treatment of these vessels was prescribed by the Marpol Convention adopted in 1973 and enforced since 1982. Large tankers over 20,000 dwt were classified in class 1 and class 2 while smaller ones were all in class 3.*

Source: Lloyd's List (London), several issues.

Table 20

Newbuilding contracts placed for the main types of ship[a] during 1992–2002

(number of ships, thousands of dwt)

Year	Tankers		Bulk carriers		Combined carriers		General cargo ships		Container vessels		Passenger ferries		Total [b]	
	Number	Thousand dwt	Number	Thousand dwt	Number	Thousand dwt	Number	Thousand dwt	Number	Thousand dwt	Number	Thousand dwt	Number	Thousand dwt
1992	206	10 050	126	7 261	0	0	225	1 402	127	3 227	114	91	798	22 031
1993	267	17 327	299	18 303	1	83	261	2 102	182	5 057	122	163	1 132	43 035
1994	256	13 833	339	19 896	2	220	227	1 493	242	6 497	118	159	1 184	42 098
1995	243	9 143	381	22 418	4	440	345	2 449	345	8 562	144	224	1 462	43 236
1996	274	13 875	271	14 250	-	-	257	2 107	292	6 978	144	155	1 238	37 365
1997	428	32 516	282	17 983	2	220	299	2 701	166	3 618	96	149	1 273	57 187
1998	280	21 922	166	11 835	0	0	333	2 488	178	5 975	117	231	1 074	42 451
1999	206	16 822	346	23 934	-	-	162	1 323	170	7 183	116	348	1 000	49 610
2000	446	41 865	344	20 081	-	-	255	2 534	373	15 025	136	308	1 554	80 121
2001	550	34 260	165	9 496	-	-	142	1 222	180	6 564	101	80	1 138	51 622
2002														
Jan	12	625	8	385	-	-	4	27	2	84	21	13	39	47
Feb	25	1 268	15	1 459	-	-	3	18	4	20	3	5	39	50
Mar	27	1 293	20	1 844	-	-	14	232	1	42	17	4	19	79
Apr	47	3 708	19	1 220	.	.	15	138	12	512	4	13	116	97
May	62	3 011	15	1 457	-	-	3	26	6	293	7	7	46	93
Jun	36	1 442	31	2 869	-	-	10	82	7	405	5	-	4	89
Jul	33	1 347	31	2 261	-	-	12	130	17	1 129	5	17	154	98
Aug	34	1 833	17	1 194	-	-	20	169	4	36	66	25	70	81
Sep	44	2 119	26	2 025	-	-	12	212	13	393	18	14	50	113
Oct	35	1 893	50	3 128	-	-	18	205	20	888	10	17	102	113
Nov	37	2 232	12	770	-	-	3	28	22	899	8	13	88	82
Dec	55	3 808	31	2 187	-	-	22	326	27	1 522	7	3	12	142
Total	447	23 979	275	20 799	-	-	136	1 593	135	6 223	111	131	739	1 084

Source: Compiled by the UNCTAD secretariat on the basis of data from Institute of Shipping Economics and Logistics (2003), *Shipping Statistics and Market Review*, Jan./Feb., table II-1.1.1.1.

[a] Ships of 300 grt and over.

[b] Total does not include data on newbuilding contracts for other types of ship.

Table 21

World tonnage on order as of 1 January 2003
(thousands of dwt)

Country groups of registry	Total	Oil tankers	Bulk carriers	General cargo	Container ships	Other ships
World total	118 755	60 716	30 522	4 408	15 266	7 843
Developed market-economy countries	40 043	22 445	7 163	1 800	4535	4 100
Major open-registry countries	60 721	28 936	20 032	1 547	8 009	2 197
Countries of Central and Eastern Europe	398	97	41	223	-	37
Socialist countries of Asia	3 684	1 555	698	254	817	360
Developing countries, total	13 909	7 683	2 588	583	1 905	1 150
***of which*:**						
Africa	201	5	8	16	-	172
Americas	1 411	551	120	203	500	87
Asia	12 296	7 127	2 460	364	1 455	890
Europe[a]	0	-	-	-	-	-
Oceania	0	-	-	-	-	-

Source: Compiled by the UNCTAD secretariat on the basis of data supplied by Lloyd's Register – Fairplay.

[a] Not reported.

3. Prices of newbuildings and second-hand tonnage

Table 22 indicates newbuilding prices for the main types of vessel. In 2002, prices for all the main types and sizes of newbuildings, with the exception of Panamax bulk carriers and LNG carriers, decreased significantly from those of the previous year. Price reductions were more pronounced for container ships and handy-size bulk carriers and reflected the depressed demand for cargo. Major shipbuilding countries continued to discuss measures to align shipbuilding capacity with forecasted demand. Reductions in oil tanker newbuilding prices for all sizes were less than 10 per cent in 2002 in relation to their 2001 level. Newbuilding prices for Cape-sized dry bulk carriers also decreased by about 10 per cent in 2002, while the Panamax prices were steady and those for handy-sized decreased by 16.7 per cent. Prices of 2,500 TEU cellular container ships declined substantially by 17.6 per cent, while the decline for general cargo vessels was 11.0 per cent. Modest increases of 1.2 and 3.4 per cent were observed for LNG and LPG gas carriers. However larger LNG vessels of up to 200,000 cubic metres were under consideration to reap economies of scale of up to 15 per cent when shipping gas from Qatar. In general, the downward trend of shipbuilding prices continued for all types and sizes of vessel as demand remained weak.

As table 23 indicates, average second-hand prices for tankers and bulk carriers moved in opposite directions. Dry bulk carriers recorded gains, with the largest ones being for smaller vessels. The number of transactions was also up to 324 from the 2001 level of 182, with Panamax and Cape-size being most popular and the small handy-size vessels accounting for 113 transactions. In the tanker sector, single-digit price reductions were seen during the year, except for VLCC and ULCC. In spite of lower prices, fewer transactions were reported for 2002, when 143 units changed hands (199 units the year before), with 92 units being over 50,000 dwt.

Table 22

Representative newbuilding prices in selected years[a]
(millions of dollars)

Type and size of vessels	1980	1985	1990	1995	2000	2001	2002	% change 2001/2002
30–50,000 dwt bulk carrier	17	11	24	25	20	18	15	-16.7
32–45,000 dwt tanker	19	18	29	34	29	27	26	-3.7
70–74,000 dwt bulk carrier	24	14	32	29	23	20	20	0.0
80–105,000 dwt tanker	28	22	42	43	41	37	35	-5.4
120,000 dwt bulk carrier	32	27	45	40	40	34	31	-8.8
250–280,000 dwt tanker	75	47	90	85	76	72	67	-6.9
125–138,000 m3 LNG	200	200	225	245	165	162	164	1.2
75,000 m3 LPG	77	44	78	68	60	58	60	3.4
15,000 dwt general cargo	14	12	24	21	19	18	16	-11.1
2,500 TEU full containership	-	26	52	50	35	34	28	-17.6

Source: Compiled by the UNCTAD secretariat on the basis of data from *Lloyd's Shipping Economist*, various issues.

[a] From 1995 on, prices correspond to the large vessel size.

Table 23

Second-hand prices for five-year-old vessels, 1997–2002
(as of year's end, in millions of dollars)

Vessel	1997	1998	1999	2000	2001	2002	% change 2001/2002
40,000 dwt tankers[a]	28	20	20	27	26	24	-7.7
80–95,000 dwt tankers[a]	38	25	26	39	33	30	-9.1
130–150,000 dwt tankers[a]	47	37	36	50	43	42	-2.3
250–280,000 dwt tankers[a]	70	50	50	71	60	53	-11.7
45,000 dwt dry bulk carrier	18	13	16	15	12	15	25.0
70,000 dwt dry bulk carrier	21	15	17	16	14	17	21.4
150,000 dwt dry bulk carrier	30	24	28	25	22	26	18.2

Source: Compiled by the UNCTAD secretariat on the basis of data supplied by Fearnleys, *Review 2002*.

[a] From 1996 on, prices correspond to the larger vessels.