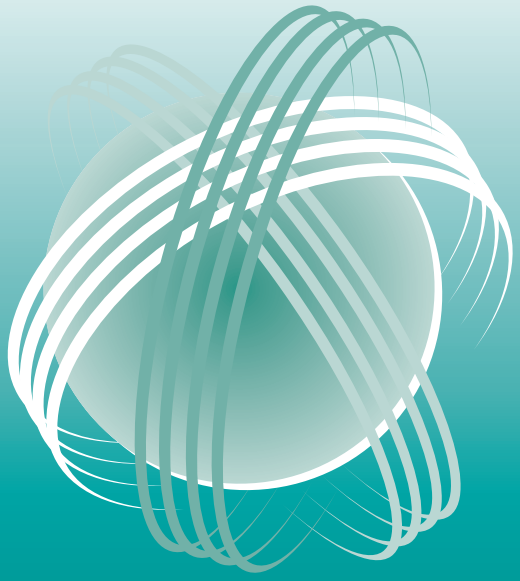
REVIEW OF MARITIME TRANSPORT

2005

UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT



UNITED NATIONS

UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT
Geneva

REVIEW OF MARITIME TRANSPORT, 2005

Report by the UNCTAD secretariat

UNITED NATIONS

New York and Geneva, 2005

NOTE

The *Review of Maritime Transport* is a recurrent publication prepared by the UNCTAD secretariat since 1968 with the aim of fostering the transparency of maritime markets and analysing relevant developments. Any factual or editorial corrections that may prove necessary, based on comments made by Governments, will be reflected in a corrigendum to be issued subsequently.

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UNCTAD/RMT/2005

UNITED NATIONS PUBLICATION

Sales No. E.05.II.D.14

ISBN 92-1-112674-6

ISSN 0566-7682

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ABBREVIATIONS AND EXPLANATORY NOTES

Abbreviations

ASEAN	Association of South East Asian Nations
BAF	bunkering adjustment factor
bcm	billion cubic metres
CAN	Community of Andean Nations
c.i.f.	cost, insurance and freight
COMESA	Common Market for Eastern and Southern Africa
DMECs	developed market-economy countries
dwt	deadweight tons
ECE	Economic Commission for Europe
ECLAC	Economic Commission for Latin America and the Caribbean
ESCAP	Economic and Social Commission for Asia and the Pacific
ESCWA	Economic and Social Commission for Western Asia
EU	European Union
FDI	foreign direct investment
FEU	40-foot equivalent unit
f.o.b.	free on board
GCC	Gulf Cooperation Council
GDP	gross domestic product
grt	gross registered tons
IICL	Institute of International Container Lessors
IMF	International Monetary Fund
IMO	International Maritime Organization
LDC	least developed country
ldt	light displacement ton
LNG	liquefied natural gas
LPG	liquefied petroleum gas
mbpd	million barrels per day
MCCA	Central American Common Market
MERCOSUR	Southern Common Market
NAFTA	North American Free Trade Agreement
OECD	Organisation for Economic Co-operation and Development
OPEC	Organization of the Petroleum Exporting Countries
TEU	20-foot equivalent unit
THC	Terminal Handling Charges
ULCC	ultra-large crude carrier
UNCTAD	United Nations Conference on Trade and Development
UNDESA	United Nations Department of Economic and Social Affairs
VLCC	very large crude carrier
WS	Worldscale
WTO	World Trade Organization

Explanatory notes

- All references to dollars ($) are to United States dollars, unless otherwise stated.
- "Tons" refers to metric tons, unless otherwise stated.
- Because of rounding, details and percentages presented in tables do not necessarily add up to the totals.
- Two dots (..) indicate that data are not available or are not separately reported.
- A hyphen (-) signifies that the amount is nil or less than half the unit used.
- In some tables, the data shown for earlier years have been revised and updated and therefore differ from those shown in previous issues of the Review. This relates in particular to the distribution of world tonnage according to country groups, specifically the classification of major open-registry countries. Up to the 1994 edition of the Review, the majority of tables included four countries and one territory in this group, namely the Bahamas, Bermuda, Cyprus, Liberia and Panama, while some tables also included Malta and Vanuatu. In 1995, Malta and Vanuatu were included in all tables referring to major open-registry countries. This reclassification primarily affected the share of developing countries in Europe in total world tonnage. As in the previous edition of the Review of Maritime Transport, coverage of open-registry countries covers nine countries and three territories. Separate data for six of them, namely the Bahamas, Bermuda, Cyprus, Liberia, Malta and Panama, are provided, while data for the other four countries and two territories, namely Antigua and Barbuda, the Cayman Islands, Gibraltar, Luxembourg, Saint Vincent and the Grenadines, and Vanuatu, are shown together in one group.
- In the tables and the text, the term *countries* refers to countries, territories or areas.

INTRODUCTION

The *Review of Maritime Transport* is an annual publication prepared by the secretariat of the United Nations Conference on Trade and Development. Its purpose is to identify the main developments in world maritime transport and to provide relevant statistical data. It focuses on developments concerning maritime activities in developing countries as compared with other groups of countries. It also highlights the correlation between the development of global trade and maritime transport activities in general. Regional developments in Latin America are the subject of this year's special chapter.

SUMMARY OF MAIN DEVELOPMENTS

Development of the world economy and seaborne trade

- In 2004, world output grew by 4.1 per cent over that of 2003 (when it had grown 2.7 per cent) – the highest increase in a decade. The developed market-economy countries experienced growth of 3.2 per cent, while developing countries recorded an average increase of 6.5 per cent. For 2005, growth forecasts for world output are cautiously conservative, around 3.1 per cent.

- The volume of world merchandise exports grew by 13 per cent, compared with 6 per cent in 2003. This growth reflects the strong performance of China and some developing countries.

- The total OECD industrial production index increased by 2.9 per cent, reflecting the performance of the United States, Japan and, to a lesser extent, European OECD countries.

- World seaborne trade (goods loaded) recorded another consecutive annual increase, reaching a record high of 6.76 billion tons. The annual growth rate was 4.3 per cent, well below the 5.8 per cent increase for 2003. Global maritime trade growth is likely to continue to grow during 2005.

- Total maritime activities measured in ton-miles increased to 27,635 billion ton-miles, compared with 25,844 billion ton-miles in 2003.

Development of the world fleet

- The world merchant fleet expanded to 895.8 million deadweight tons (dwt) at the beginning of 2005, a 4.5 per cent increase. Newbuilding deliveries increased marginally to 49.4 million dwt, and tonnage broken up and lost was more than halved to 10.6 million dwt, leaving a net gain of 38.8 million dwt.

- The fleets of oil tankers and dry bulk carriers, which together make up 73.3 per cent of the total world fleet, increased by 6.1 per cent and 4.2 per cent respectively. There was a 8.4 per cent increase from 90.5 to 98.1 million dwt in the container ship fleet and a 7.6 per cent increase from 20.9 to 22.5 million dwt in the liquefied gas carriers fleet.

- The average age of the world fleet dropped marginally to 12.3 years, with almost 27.3 per cent of the fleet 20 or more years old. General cargo vessels had the highest average age (17.5 years) and container vessels the lowest (9.4 years).

- Registration of ships by developed market-economy countries and major open-registry countries accounted for 27 and 45.1 per cent of the world fleet respectively. Open registries increased their tonnage marginally; two thirds of this beneficially owned fleet is owned by market-economy and developing countries. Developing countries' share reached 22.6 per cent or 202.3 million dwt, of which 155.9 million dwt is registered in Asia.

World fleet productivity and supply and demand

- The main operational productivity indicators for the world fleet – tons carried per dwt and thousands of ton-miles per dwt – reached 7.5 and 30.8 respectively. The first figure was a decrease of 1.3 per cent from 2003 and the second an increase of 2 per cent.

- World total surplus tonnage continued to decrease and in 2004 stood at 6.2 million dwt, or 0.7 per cent of the world merchant fleet. The surplus capacity in the tanker sector was almost halved to 3.4 million dwt, while overcapacity in the dry bulk sector fell to 2.1 million dwt.

Freight markets

- The year 2004 was a bright one for the tanker market. The overall volume of seaborne crude oil trade increased by 4.2 per cent. The average freight indices for all types of tankers were above those recorded in 2003, which was also a good year for tanker owners. Average freight indices for VLCC/ULCC, Suezmax and Aframax tonnage increased by 35.8, 27.4 and 12.2 per cent respectively.

- In 2004, seaborne shipments of the main bulks, particularly iron ore and coal, increased by 7.6 per cent. The improved balance between supply and demand resulted in higher rates for both time and trip charters, with annual average index increases of 51.3 per cent and 107.7 per cent.

- Again, by the end of 2004, freight rates on the main containerized routes – trans-Pacific, transatlantic and Asia–Europe – were mostly above the levels that prevailed at the end of 2003. The Asia–Europe route fared particularly well with rates increasing by 10.6 per cent (westward) and 2 per cent (eastward). Rates on the trans-Pacific and trans-Atlantic routes increased by modest single-digit figures.

Total freight costs in world trade by groups

- World total freight payments as a proportion of total import value decreased to 5.4 per cent in 2003 from 5.5 per cent in 2002. The freight factor was 3.9 per cent for developed market-economy countries compared with 4.1 per cent in 2002, while for developing countries it stood at 9.1 per cent. There was a minor increase in the freight factor for developing countries in Africa to 11.9 and a larger one for those in Oceania to 12.3 per cent. For developing countries in the Americas, the freight factor decreased to 9.8 per cent, while a minor increase was recorded for those in Asia (to 8.6 per cent) and a larger one for developing countries in Europe (to 9.1 per cent).

Port development

- World container port traffic continued to expand at a rate of 9.6 per cent over that of 2003, reaching 303.1 million TEUs. Ports of developing countries and territories handled 122.4 million TEUs, or 40.4 per cent of the total. In 2003, there were 57 developing countries and territories with terminals that handled more than 100,000 TEUs. In 2004, the top 20 world container ports handled 166.6 million TEUs.

Trade and transport efficiency

- Negotiations on trade facilitation were covered in the 1 August 2004 Decision of the World Trade Organization's General Council, the so-called July package. WTO Members have since then started negotiations that focus on improving GATT 1994 Articles V, VIII and X, which deal respectively with transit issues, fees and formalities, and the transparency of trade procedures.

- The world container fleet expanded 7.7 per cent during 2004 to reach 19.3 million TEUs. Sea carriers' share in this total reached 54.3 per cent owing to extensive procurement during the year.

Review of regional developments

- During the period 2002–2004, the economies of Latin America and the Caribbean rebounded from the depths of the crisis generated in the previous year by the collapse of Argentina's economy, which had resulted in the regional GDP's contracting by 0.5 per cent in 2002. In the following two years, the GDP expanded by 1.9 and 5.5 per cent respectively. The commercial balance was positive for the period as a result of import contraction at the start of the period and a boost in exports, particularly to Asian countries, by the end of it.

- The merchant fleet owned by developing countries of Latin America and the Caribbean, excluding major open registries, has represented around 4 per cent of the world fleet since the year 2000. In 2004, the total tonnage owned by these countries reached 36.7 million dwt, about three quarters of which was owned by the three minor open registries of Antigua and Barbuda, Cayman Islands and Saint Vincent and the Grenadines. The shares of tankers and container ships have increased in the last few years and are now 23.6 and 14.5 per cent respectively. The fleet's age was 16.7 years in 2004 – higher than that of the world fleet and of the developing-country fleet as a whole.

- Port investment was uneven in these countries, with large undertakings realized in countries around the Caribbean, often in connection with trans-shipment traffic, while calls for support were made in several South American countries. The new toll structure proposed by the Panama Canal Authority in 2002 was subject to intense scrutiny, and the decision was made to implement it in phases over the period 2005–2007.

- The section on inland transport development focuses on the intervention of regional financial development bodies for infrastructure investments along priority axes in South America. Private-sector entities were active in developing rail networks to provide logistics services to shippers in Mercosur countries.

Box 1

Vessel and registry groupings used in the *Review of Maritime Transport*

As in the previous year's *Review*, five vessel groupings have been used throughout most shipping tables in this year's edition. The cut-off point for all tables, based on data from Lloyd's Register – Fairplay, is 100 gross registered tons (grt), except those tables dealing with ownership, where the cut-off level is 1,000 grt. The groups aggregate 20 principal types of vessel category, as noted below.

Review group	Constituent ship types
Oil tankers	Oil tankers
Bulk carriers	Ore and bulk carriers, ore/bulk/oil carriers
General cargo	Refrigerated cargo, specialized cargo, ro-ro cargo, general cargo (single- and multi-deck), general cargo/passenger
Container ships	Fully cellular
Other ships	Oil/chemical tankers, chemical tankers, other tankers, liquefied gas carriers, passenger ro-ro, passenger, tank barges, general cargo barges, fishing, offshore supply, and all other types
Total all ships	Includes all the above-mentioned vessel types

The following guidelines are offered by Lloyd's Register – Fairplay for the tables in this year's *Review* relating to fleet development.

Major open-registry countries

Ships in this group fly the flag of the Bahamas, Bermuda, Cyprus, Liberia, Malta or Panama.

Approximate vessel size groups referred to in the *Review of Maritime Transport*, according to generally used shipping terminology

Crude oil tankers	
ULCC	*300,000+ dwt*
VLCC	*150,000–299,999 dwt*
Suezmax	*100,000–149,999 dwt*
Aframax	*50,000– 99,999 dwt*
Dry bulk carriers	
Cape-size	*80,000 dwt plus*
Panamax	*50,000–79,999 dwt*
Handymax	*35,000–49,999 dwt*
Handy-size	*20,000–34,999 dwt*

Source: Lloyd's Register – Fairplay.

Chapter 1

DEVELOPMENT OF INTERNATIONAL SEABORNE TRADE

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. WORLD ECONOMIC BACKGROUND

1. World output

Preliminary data available for 2004 indicate that growth in world output was 3.8 per cent. This result, which is 1.3 per cent above the 2.5 per cent recorded for 2003 (see table 1), reflected the fact that virtually all regions of the world experienced simultaneous positive economic growth, albeit at differing paces.

Economic recovery in developed countries led to 3 per cent growth, well over the 1.7 per cent of the previous year. The economic performance of the United States was good, particularly during the first half of the year, with sustained domestic demand and modest increases in real interest rates that kept these at relatively low levels and resulted in output growth of 4.4 per cent for the year. The Japanese economy continued its expansion, almost doubling its growth rate to 2.6 per cent. The European Union recorded the weakest growth rate among developed economies at 2.1 per cent, but this rate was remarkable compared with the dismal 0.9 per cent of the previous year, and was achieved in an environment of low interest rates. The best performer among large EU economies was the United Kingdom, which recorded 3.1 per cent output growth, followed by France at 2.1 per cent. Germany's performance was good; while the economy grew by a modest 1 per cent, this result reflects a recovery from the economic contraction of the previous year. Less impressive was the economic recovery of Italy, which recovered from very modest positive growth to achieve 1 per cent growth for 2004.

Economic output for developing economies grew 6.4 per cent, well above the world average. The highest growth rate, 7.5 per cent, was recorded by countries in South-East Europe and the Commonwealth of Independent States. Developing countries in South America had output growth of 6 per cent, the highest since 1986. Brazil fared particularly well, with 5.2 per cent economic growth after a poor showing of 0.5 per cent growth in 2003. Mexico's growth of 4.4 per cent was slightly above the world average. Developing countries in Africa and the Middle East reached output growth of about 4 per cent, just below the world average for the year, while sub-Saharan African countries recorded an impressive 5.1 per cent economic growth during 2004. The star performer was again China, whose output growth reached 9.5 per cent, fuelled by strong domestic demand and investment and continuing high levels of exports. India, pursuing economic liberalization policies, recorded output growth of 7.3 per cent.

Prospects

Forecasts of world economic output growth for 2005, while cautiously optimistic, have been contingent on the permanence of current oil prices, the sustainability of economic growth in the Far East and concern about ballooning public deficits in major developed economies. Forecasts are around 3 per cent.

2. Merchandise trades

Recent developments in international trade

During 2004 the volume of world exports expanded by 13 per cent (see table 2), more than double the

Table 1

World output growth, 2001–2004[a]

(percentage)

Region / Country[b]	2001	2002	2003	2004 [c]
World	1.3	1.8	2.5	3.8
Developed countries	1.0	1.3	1.7	3.0
of which:				
Japan	1.0	1.3	1.7	3.0
United States	0.3	2.4	3.0	4.4
European Union	1.7	1.1	0.9	2.1
of which:				
Germany	0.9	0.2	-0.1	1.0
France	2.1	1.2	0.5	2.1
Italy	1.8	0.4	0.3	1.0
United Kingdom	2.1	1.7	2.2	3.1
South-East Europe and CIS	5.6	4.9	6.9	7.5
Developing countries	2.4	3.5	4.7	6.4
Developing countries excluding China	1.5	2.7	3.9	5.7

Source: UNCTAD secretariat preliminary estimates.

[a] Calculations are based on GDP in constant 1995 dollars.

[b] Region and country groups correspond to those defined in the UNCTAD *Handbook of Statistics, 2004.*

[c] Preliminary.

expansion of the previous year. The increase in exports was particularly strong during the first half of the year and slowed down afterwards, partly owing to the impact of high oil and commodity prices and doubts about the persistence of strong demand in market-economy countries. The annual expansion of exports confirmed the sustained pace of trade growth.

Among developed economies, export volumes expanded particularly in Japan, which recorded 13 per cent export growth. North America trebled its export rate of the previous year to 9 per cent, while EU countries fared even better, reaching 12 per cent. Export performance among these economies was better for countries further east, probably because of the boost provided by the enlargement of the Union to 25 members in May 2004. Export increases were, however, higher in developing economies of Asia and Latin America, which recorded rates of 22 and 10 per cent respectively. China led with 33 per cent export growth, and India also recorded export growth above the world average, with 18 per cent. Higher prices for oil and metals kept exports of CIS economies at the world average. African exports expanded at a rate of 7 per cent, about half that of the previous year.

Preliminary figures for growth in import volumes indicate double-digit growth for developing economies of West Asia, which recorded 35 per cent growth. The growth rate for China's imports resembled that of developing economies of Africa at 26 per cent. Developing economies of East and South-East Asia, South-East Europe and the Commonwealth of Independent States recorded similar growth in import volumes – 18, 17 and 17 per cent respectively. Developing economies in Latin America had import expansion similar to the world average, 13 per cent.

The growth of import volumes among developed countries was below the world average. The increase in imports was higher in North America and Europe – 11 per cent, with that of the United States particularly strong. For EU countries, import growth was a modest 6 per cent; it was higher in countries located in the eastern and central parts of the continent.

Table 2

Export and import volumes of goods, by region and economic grouping, 2002-2004

(annual average percentage changes and percentage change over previous year)

	Exports			Imports		
	2002	2003	2004	2002	2003	2004
World	5	6	13	4	7	13
Developed economies	2	3	11	3	5	11
of which:						
Japan	8	9	13	1	6	6
United States	-4	3	9	4	5	11
Europe	4	3	12	2	5	11
Developing economies	9	12	16	7	10	19
of which:						
Africa	2	11	7	4	7	26
Latin America	2	3	10	-4	0	13
West Asia	8	1	3	7	-5	35
East and South Asia	12	17	22	11	15	18
of which:						
China	25	35	33	23	36	26
India	17	10	18	13	9	17
CIS and South-East Europe	5	9	13	10	21	17

Source: UNCTAD secretariat calculations based on COMTRADE, United Nations Statistical Division (UNSD), US Bureau of Labour Statistics external trade prices indices, Japan Customs united value indices, UNCTAD Commodity Prices Bulletin and other national sources.

Trends in imports and exports

For 2005, prospects for export growth are moderate and expansion is forecast to reach 6.5 per cent. This forecast, however, assumes continuing strong performance by major trading countries in the Far East, the sustainability of US imports and the rebound of demand in EU countries.

3. OECD countries' industrial output

The industrial production index (2000 = 100) for OECD countries, another fundamental indicator for the global maritime transport sector, averaged 102.9 in 2004 – a 3.9 per cent increase from the average of 99 for the previous year, when the index increased 1.1 per cent (see figure 1).

The results for 2004 reflected increasing industrial activity in the major economies. In the United States, the index increased steadily during the year, from 98.7 in the first quarter to 101.4 during the last quarter. The average index was 100.1, a 4.2 per cent increase for the year. The index for Japan peaked during the second quarter at 101.5 and then eased to 100.1 during the last quarter. Nevertheless, the average index for the year was 100.5 – a remarkable 5.3 per cent increase. The index for the 15 countries of the European Union followed a similar evolution: it started at 100.4 and, after reaching 101.3 during the second quarter, stayed at this level during the following quarter before declining to 100.8 during the last quarter. The average index for the year was 101, an increase of 1.7 per cent. The highest increases of the industrial production index during the year were recorded in the Czech Republic, which registered a 8.5 per cent increase to 138.8; Austria, with a 7.9 per cent increase to 115.5; the Republic of Korea, with a 7.1 per cent increase to 122.9; and Poland, with a 6.7 increase to 124.8. Industrial production contracted in Norway, Greece and Denmark by 3.9, 1.5 and 1.4 respectively.

The OECD outlook for the year 2005 foresees a steady level of production.

B. WORLD SEABORNE TRADE

1. Overall seaborne trade

World seaborne trade increased strongly in 2004, reaching 6.76 billion tons of loaded goods. The annual growth rate, calculated with the provisional data available for year 2004, reached 4.3 per cent, as is shown in table 3 and figure 2.

The breakdown of world seaborne loaded goods by continent was as follows: Africa's share of world exports was 8.6 per cent, while that of America reached 21.4 per cent. Asia was by far the continent with the largest share of the world tonnage of seaborne loaded goods – 38.4 per cent. Europe's share was the second largest at 22.7 per cent, while Oceania's was 8.9 per cent. The breakdown for selected trading blocs was as follows: the European Union (EU) 15.3 per cent; the Gulf Cooperation Council (GCC) – 15.4 per cent; the North American Free Trade Association (NAFTA) – 10 per cent; the Association of South-East Asian Nations (ASEAN) – 6.8 per cent; the Southern Common Market (MERCOSUR) – 6.2 per cent; and the Common Market for Eastern and Southern Africa (COMESA) – 1.5 per cent.

Forecasts for 2005 indicate that annual growth rates will probably match those of 2004, while the distributions of world tonnage by continent and for selected trading blocs are expected to fluctuate marginally.

2. Seaborne trade in tankers

General developments

In 2004 total world shipments of tanker cargoes reached 2.32 billion tons, after increasing by 4.2 per cent during the year. About 76.4 per cent of this tanker trade was in crude oil, with the remainder in petroleum products. The share of tanker shipments in overall world seaborne trade decreased slightly to 34.3 per cent.

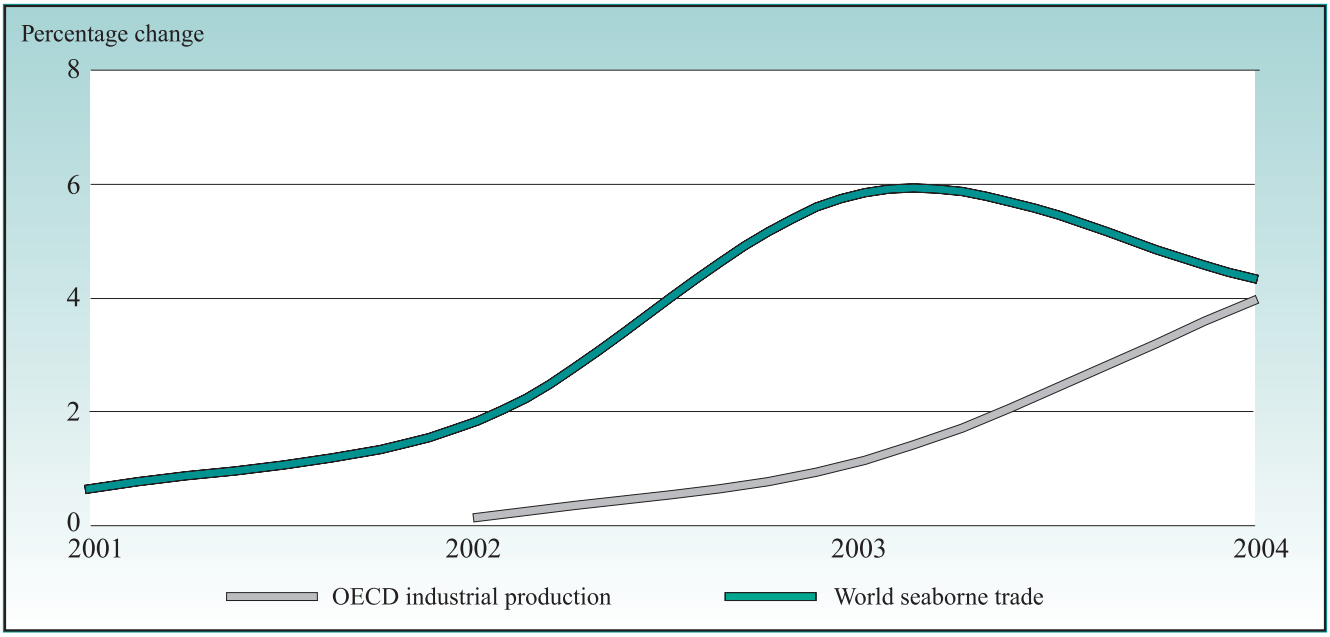
Crude oil production

In 2003 crude oil production[1] averaged 76.8 million barrels per day (mbpd) — an increase of 3.8 per cent over the previous year's figures and the first increase in annual output since 2000. Oil production in OECD countries, notably the United States, Mexico, Norway

[1] The totals reported by BP 2004 Annual Report include crude oil, shale oil, oil sands and natural gas liquids (NGL) — the liquid content of natural gas when this is recovered separately.

Figure 1

Annual change in OECD industrial production and world seaborne trade, 2001–2004



Source: OECD, *Main Economic Indicators*, April 2005.

Table 3

Development of international seaborne trade, selected years[a]

(goods loaded)

Year	Tanker cargo		Dry cargo				Total (all goods)	
			Total		*of which* main bulk commodities[b]			
	million tons	% change	million tons	% change	million tons	% change	million tons	% change
1970	1 442		1 124		448		2 566	
1980	1 871		1 833		796		3 704	
1990	1 755		2 253		968		4 008	
2000	2 163		3 821		1 288		5 983	
2001	2 177	0.7	3 844	0.6	1 331	3.3	6 020	0.6
2002	2 146	-1.4	3 981	3.6	1 352	1.6	6 127	1.8
2003	2 223	3.6	4 257	6.9	1 475	9.1	6 480	5.8
2004[c]	2 316	4.2	4 442	4.4	1 587	7.6	6 758	4.3

Source: Estimated by the UNCTAD secretariat on the basis of annex II and data supplied by specialized sources.

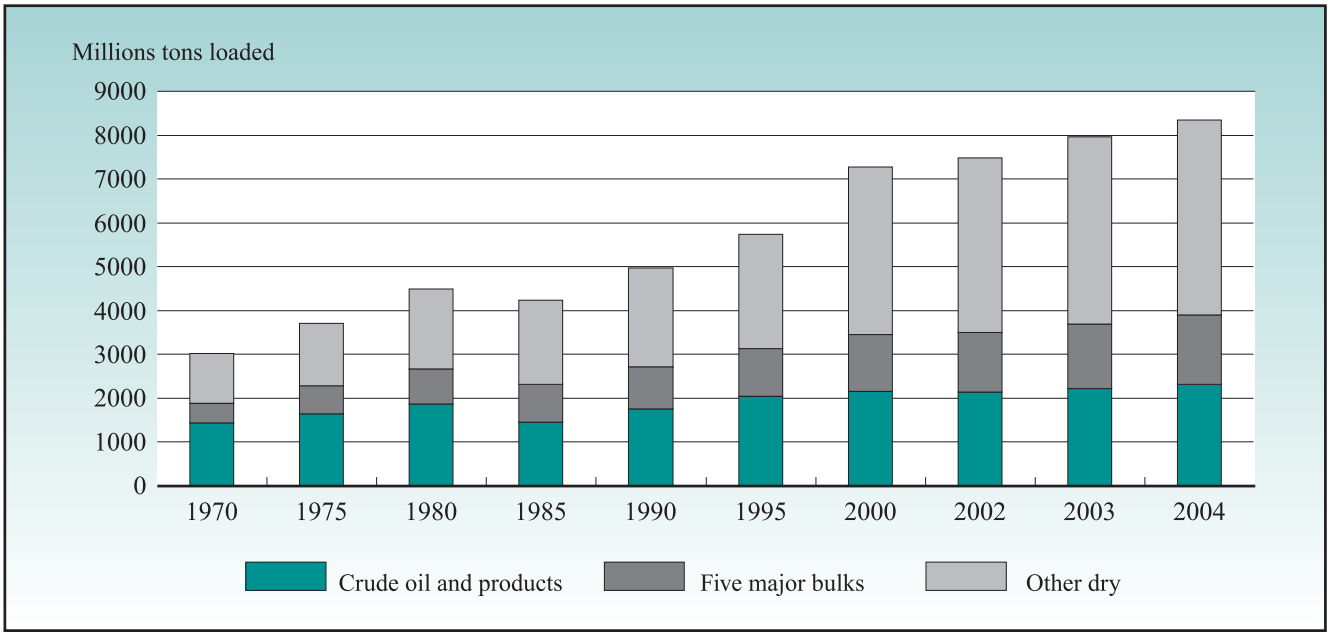
[a] Includes international cargoes loaded at ports of the Great Lakes and St. Lawrence system for unloading at ports of the same system.

[b] Iron ore, grain, coal, bauxite/alumina and phosphate.

[c] Estimates.

Figure 2

International seaborne trade for selected years



Source: *Review of Maritime Transport*, various issues.

and oil-producing countries within the European Union, decreased marginally by 0.7 per cent to 21.2 mbpd, so that this group's market share fell to 27 per cent.

OPEC countries increased their production by 6.6 per cent to 30.4 mbpd, making up for the previous year's steep drop in output. Accordingly, their market share rose from 38.2 per cent of world production in 2002 to 39.6 per cent in 2003. The remaining oil-producing countries, including the Russian Federation, China, Brazil and a number of small producers, raised their average production by 4.1 per cent to 25.2 mbpd. The market share of these countries therefore increased marginally to 32.8 per cent.

Among OECD major producers, US production decreased by 1.6 per cent to 7.5 mbpd (the corresponding market share was 9.2 per cent), while that of Mexico increased by 5.8 per cent to 3.8 mbpd (5.8 per cent). Norway's production was 3.3 mbpd (4.3 per cent) larger than that of the EU countries, which decreased to 3 mbpd (3.9 per cent). Most of the decrease in output for these countries was attributable to falling production in the United Kingdom, which nevertheless maintained its lion's share, 2.2 mbpd (2.9 per cent).

The oil output of two large OPEC producers, Iran and the United Arab Emirates, achieved double-digit expansion of 12.6 and 17.3 per cent to reach 3.9 mbpd and 2.5 mbpd respectively. The market shares were 5 and 3.3 per cent respectively. Venezuela, another large producer, decreased production by 7 per cent to just below 3 mbpd, recording a market share of 3.9 per cent. The output of the largest producer, Saudi Arabia, averaged 9.8 mbpd, an expansion of 13.8 per cent from the previous year's level, and the country's market share reached 12.8 per cent. Other OPEC countries mostly increased production: Kuwait's production reached 2.2 mbpd after expanding 20 per cent; the output of Nigeria, Algeria and Libya reached 2.2, 1.9 and 1.5 mbpd respectively. Two other OPEC members recorded decreased outputs: Indonesia's reached 1.2 mbpd (a 8.6 per cent reduction), and Iraq's reached 1.3 mbpd, dropping by more than a third.

Among the other oil-producing countries, the Russian Federation saw its output increase by 11 per cent to 8.5 mbpd, equivalent to a market share of 11 per cent of world production. Brazil's production increased by 3.3 per cent to 1.6 mbpd, and China's expanded more slowly – 1.5 per cent to reach 3.4 mbpd. The countries' market shares were 2 and 4.4 per cent.

During 2004 the crude oil production level fluctuated in line with the quota decisions made by OPEC members in response to price levels, major events and quota compliance by members. In February OPEC decided to cut production by 1 mbpd from April to reach 23.5 mbpd, but this decision was reversed when in July production was set at 25.5 mbpd and, one month later, at 26 mbpd. Production increases were agreed on so that production by members reached 27 mbpd in November. In early 2005 it was decided to cut overproduction by 1 mbpd to compensate for weak quota compliance.

Prices moved up for most of the year, even in the face of production increases, and apparently in response to uncertainty over continuing supplies. By May, US crude oil inventories were about 5 per cent below the medium term average, and UK production from the North Sea was slowing down faster than expected. In the same month, terrorists attacked a petrochemical facility in Yambu (Saudi Arabia) without interrupting exports. Three months later, sabotage of Iraqi pipelines cut exports to about 0.9 mbpd for about a week. At the same time there was uncertainty about the fate of a major Russian oil producer (owing to unpaid taxes) and concerns about Caribbean supplies being affected by weak Venezuelan exports and a strong hurricane season.

Against this backdrop, spot prices flared up during the summer and stood at over $40 per barrel for some weeks. The OPEC basket price of seven crude oil prices averaged for the year reached $36 per barrel, about 28 per cent above the price for the previous year. It was also one of the highest prices since the introduction of the basket price in 1987, and well above the price band of $22–$28 per barrel. In early 2005, OPEC decided to temporarily suspend its price band mechanism whereby automatic production levels were triggered by prices falling outside the band. Soon after spot prices surpassed $50 per barrel.

The increasing role of offshore production was reinforced by high prices. Subsea oil contractors reported increased activity in West Africa, the Gulf of Mexico and Brazil. In the latter, Petrobras and its foreign partners announced a series of oil discoveries off Espirito Santo state.

Refinery developments

World refineries' throughput reached 71.1 mbpd in 2003, an increase of 2.4 per cent from the previous year. Refineries in the United States increased throughput just by the world average, while those

of Mexico fared better at 3.5 per cent and those in Canada worse at only 1.2 per cent. Europe and Russia recorded increases below the world average at 2.2 per cent. Countries in these two regions accounted for 54.4 per cent of world throughput. The highest increase in output was recorded for Chinese refineries, whose output reached 4.9 mbpd after growing 10.8 per cent. This amount is equivalent to 6.9 per cent of world output. Output from refineries in Latin America was steady and reached 4.9 mbpd. Output from refineries in the Middle East, Africa and Australia contracted during 2003, with Australia seeing the sharpest reduction — 4.7 per cent. These regions accounted for 12.9 per cent of world output.

By the end of the year there were reports of expansion of refining capacity in Europe and in Saudi Arabia in anticipation of increased demand.

Natural gas production

In 2003 production of natural gas reached 2,618.5 billion cubic metres[2] (bcm), an increase of 3.4 per cent from 2002, and almost equivalent to the 2000 figure. This production is equivalent to 2,356.6 million tons of oil or 49 mbpd. Major producers are the Russian Federation with 578.6 bcm and the United States with 549.5 bcm; these countries together account for 43.1 per cent of total production. Lesser producers are Canada with 180.5 bcm, the United Kingdom with 102.7 bcm, Algeria with 82.8 bcm, Iran with 70 bcm and Indonesia with 72.6 bcm. Other producers are scattered in the Middle East, Latin America and Asia, often obtaining natural gas as a result of oil production. About a fifth of natural gas production is exported, mainly by pipelines, which carry around three quarters of all exports.

Prospects for increasing natural gas production are good because of growing demand in the United States, Europe, Japan and China. In June, the latter awarded a $240 million contract to build its first liquefied natural gas (LNG) import terminal near Shenzhen to supply Guangdong Province through a 370-kilometre pipeline with gas shipped from Western Australia. Diversifying suppliers is deemed important in some countries: for example, Singapore conducted studies to assess the feasibility of importing LNG by sea to complement that imported by pipeline.

Gas supplies are progressively to come from diverse regions. An agreement to invest $1.4 billion was reached in May 2004 by the local company and Marathon Oil to build the first plant to export gas from Equatorial Guinea. In August, Bolivia and Peru agreed to establish a special economic zone to make possible exports of landlocked gas reserves. Improvements in production and transport technologies make it possible to supply gas from several distant regions. The output of LNG liquefaction trains has increased from 2.5 million tons per year in the early 1990s to the current 5 million tons per year, with a new generation being planned to accommodate 7.8 million tons per year. Many LNG tankers are now in the range of 150,000 cubic metres instead of the traditional 125,000 cubic metres. More importantly, new propulsion that results in additional cargo-carrying capacity has been introduced. November saw the launch of the 74,000-cubic-metre *Gaz de France energY*, the first LNG carrier with diesel-gas-electric propulsion that also has the capability to use gas emanating from the cargo for propulsion. GDF, the owner, plans to order two 150,000-cubic-metre capacity tankers in the future. Moreover, designs for a new type of vessel, the compressed natural gas (CNG) carrier, were under inspection by authorities in the United States, Canada and Norway. This carrier would provide a cost-effective solution for supplying gas from remote locations too small to warrant full-scale LNG projects.

Crude oil shipments

In 2004, crude oil seaborne shipments increased by 4.8 per cent to 1.77 billion tons (see table 4). Major loading areas continued to be developing countries in Western Asia with 899.1 million tons, in West Africa with 184.8 million tons, in North Africa with 128.1 million tons and around the Caribbean with 216.1 million tons. Main discharging areas were located in developed market-economy countries in North America with 500.5 million tons, in Europe with 434.1 million tons and in Japan with 215 million tons. Developing countries in South and East Asia took 299.7 million tons during 2004. The major events of the year were the substantial increases in Russian exports, to 124.3 million tons, and Chinese imports, to 99.5 million tons.

Crude oil exports shipments from Russia increased significantly during 2004. The main export outlet in the Black Sea, Novorossiysk, recorded increased activity after the positive results of the previous year, when shipments of crude oil and oil products had reached

[2] Measured at 15° Celsius and 1013 millibars.

Table 4

World seaborne trade [a] in 1970, 1980, 1990 and 2000–2004, by types of cargo and country groups [b]

Country group	Year	Goods loaded				Goods unloaded			
		Oil		Dry cargo	Total all goods	Oil		Dry cargo	Total all goods
		Crude	Products[c]			Crude	Products[c]		
		Trade in millions of tons							
World total	1970	1 109	232	1 162	2 504	1 101	298	1 131	2 529
	1980	1 527	344	1 833	3 704	1 530	326	1 823	3 679
	1990	1 287	468	2 253	4 008	1 315	466	2 365	4 126
	2000	1 665	498	3 821	5 983	1 728	542	4 003	6 273
	2001	1 678	499	3 844	6 020	1 712	534	3 954	6 201
	2002	1 637	509	3 981	6 127	1 696	540	4 099	6 335
	2003	1 690	533	4 257	6 480	1 743	536	4 324	6 603
	2004	1 770	546	4 442	6 758	1 773	545	4 469	6 787
		Percentage share of trade by country groups							
World total	1970	42.6	12.7	44.7	100.0	43.5	11.9	44.6	100.0
	1980	41.2	9.3	49.5	100.0	41.6	8.9	49.5	100.0
	1990	32.1	11.7	56.2	100.0	31.9	10.8	57.3	100.0
	2000	27.8	8.3	63.9	100.0	27.5	8.6	63.8	100.0
	2001	27.9	8.3	63.8	100.0	27.6	8.6	63.8	100.0
	2002	26.7	8.3	65.0	100.0	26.8	8.5	64.7	100.0
	2003	26.1	8.2	65.7	100.0	26.4	8.1	65.5	100.0
	2004	26.2	8.1	65.7	100.0	26.1	8.0	65.8	100.0
DMECs	1970	2.0	27.1	60.0	31.1	80.4	79.6	79.1	79.9
	1980	6.3	25.5	64.7	37.0	72.0	79.5	67.8	70.5
	1990	13.4	32.6	63.4	43.8	72.5	81.4	61.7	67.3
	2000	5.2	22.2	60.6	42.0	68.3	52.0	60.4	61.8
	2001	5.3	22.5	58.8	40.9	68.7	51.6	59.5	61.4
	2002	5.4	23.1	57.4	40.7	67.8	50.9	58.0	60.0
	2003	5.3	22.3	54.6	39.1	67.9	50.9	57.2	59.5
	2004	5.1	22.7	54.4	38.9	67.6	50.9	56.4	58.9
Central and Eastern Europe [d]	1970	3.4	8.0	6.9	5.6	1.2	1.0	3.8	2.3
	1980	3.6	14.6	5.2	5.4	2.3	0.4	6.0	4.0
	1990	4.6	11.8	3.8	5.0	2.6	0.3	5.8	4.1
	2000	5.5	8.9	4.1	4.9	0.5	0.4	1.9	1.4
	2001	5.4	8.0	4.2	4.9	0.5	0.0	1.6	1.2
	2002	5.6	8.2	4.4	5.0	0.6	0.6	1.6	1.3
	2003	6.9	8.2	4.2	5.2	0.6	0.6	1.5	1.2
	2004	7.0	8.1	4.0	5.1	0.6	0.6	1.5	1.2

Table 4 (continued)

Country group		Goods loaded				Goods unloaded			
		Oil		Dry cargo	Total all goods	Oil		Dry cargo	Total all goods
		Crude	Products[c]			Crude	Products[c]		
		Percentage share of trade by country groups							
Socialist countries of Asia [e]	1970	-	-	1.2	0.5	0.5	0.1	2.0	1.2
	1980	1.4	1.7	1.0	1.2	1.4	1.6	4.0	2.7
	1990	2.7	0.9	2.0	2.0	0.3	0.3	3.4	2.1
	2000	1.0	1.1	6.5	4.6	4.1	4.1	7.2	6.1
	2001	1.0	1.1	6.9	4.8	3.5	5.0	8.0	6.5
	2002	1.1	2.1	7.3	5.2	4.1	4.7	9.1	7.4
	2003	1.1	2.3	8.6	6.1	5.0	5.5	10.3	8.5
	2004	1.2	2.6	9.4	6.7	5.6	6.1	11.4	9.4
Developing countries	1970	94.6	64.9	31.9	62.8	17.9	19.4	15.1	16.6
	1980	88.7	58.2	29.0	56.3	24.3	18.5	22.3	22.8
	1990	79.6	54.7	30.8	49.2	24.6	18.0	29.1	26.5
	2000	88.3	67.8	28.7	48.6	27.2	43.6	30.5	30.7
	2001	88.3	68.4	30.0	49.4	27.3	43.4	30.9	31.0
	2002	87.9	66.5	30.9	49.1	27.6	43.8	31.4	31.4
	2003	86.7	67.2	32.7	49.6	26.6	43.0	30.9	30.8
	2004	86.7	66.6	32.2	49.3	26.3	42.5	30.7	30.5
of which:	1970	25.5	2.4	9.1	15.2	1.7	4.7	3.6	2.9
Africa	1980	19.0	1.5	5.6	10.8	4.0	2.9	4.7	4.2
	1990	24.1	7.6	4.3	11.2	5.6	2.3	4.3	4.5
	2000	17.9	6.9	1.6	6.6	3.2	3.2	3.3	3.3
	2001	17.7	7.0	1.7	6.6	2.9	3.2	3.5	3.3
	2002	17.8	6.8	1.6	6.4	2.9	3.2	3.4	3.2
	2003	17.8	6.8	1.5	6.2	2.9	3.2	3.2	3.1
	2004	17.7	6.8	1.5	6.2	2.9	3.2	3.2	3.1
Americas	1970	12.2	35.4	13.8	16.0	10.5	5.6	4.4	7.2
	1980	12.4	28.4	13.2	14.3	13.3	4.9	5.4	8.7
	1990	13.3	11.9	13.2	13.1	5.7	3.8	4.0	4.5
	2000	15.2	18.8	10.5	12.5	5.5	9.9	5.3	5.7
	2001	15.3	18.6	10.8	12.7	5.6	9.5	5.1	5.6
	2002	16.0	18.4	11.1	13.0	5.6	9.8	5.0	5.6
	2003	14.7	19.6	12.8	13.9	5.6	8.9	5.3	5.7
	2004	14.5	19.3	12.4	13.5	5.5	8.9	5.2	5.6

Table 4 (continued)

Country group	Year	Goods loaded				Goods unloaded			
		Oil		Dry cargo	Total all goods	Oil		Dry cargo	Total all goods
		Crude	Products[c]			Crude	Products[c]		
		Percentage share of trade by country groups							
Asia	1970	56.9	27.0	8.1	31.3	5.5	8.5	6.7	6.4
	1980	57.3	28.1	9.7	31.0	6.9	9.8	12.0	9.7
	1990	42.2	34.9	12.6	24.7	12.6	10.9	19.9	16.6
	2000	54.9	41.6	16.2	29.1	18.1	29.0	21.5	21.2
	2001	55.0	42.3	17.1	29.7	18.4	29.2	21.9	21.6
	2002	53.8	40.8	17.7	29.3	18.6	29.3	22.6	22.1
	2003	53.9	40.4	17.9	29.1	17.7	29.3	22.0	21.5
	2004	54.3	40.0	17.9	29.2	17.4	28.8	22.0	21.3
Europe	1970	-	-	-	-	-	0.1	0.1	-
	1980	-	-	-	-	-	0.2	-	-
	1990	-	0.2	0.3	0.2	0.7	0.5	0.8	0.7
	2000	0.0	0.4	0.4	0.3	0.4	0.4	0.3	0.3
	2001	0.0	0.4	0.4	0.3	0.4	0.4	0.3	0.3
	2002	0.0	0.4	0.4	0.3	0.4	0.4	0.3	0.3
	2003	0.0	0.4	0.4	0.3	0.4	0.4	0.3	0.3
	2004	0.0	0.4	0.4	0.3	0.4	0.4	0.2	0.3
Oceania	1970	-	0.1	0.8	0.4	-	0.5	0.3	0.2
	1980	-	0.2	0.5	0.2	0.1	0.7	0.2	0.2
	1990	-	0.1	0.4	0.2	-	0.5	0.1	0.2
	2000	0.2	0.0	0.1	0.1	0.0	1.1	0.1	0.2
	2001	0.2	0.0	0.1	0.1	0.0	1.1	0.1	0.2
	2002	0.2	0.0	0.1	0.1	0.0	1.1	0.1	0.2
	2003	0.2	0.0	0.0	0.1	0.0	1.1	0.1	0.2
	2004	0.2	0.0	0.0	0.1	0.0	1.1	0.1	0.2

Source: Compiled by the UNCTAD secretariat on the basis of data supplied by reporting countries and other specialized sources.

[a] Includes international cargoes loaded at ports of the Great Lakes and St. Lawrence system for unloading at ports of the same system.

[b] See annex I for the composition of these groups, and note d thereto regarding the recording of trade of landlocked countries. Since 1986, Yugoslavia, previously included among the "developed market-economy countries", has been included in the group of "developing countries in Europe".

[c] Includes liquefied natural gas (LNG), liquefied petroleum gas (LPG), naphtha, gasoline, jet fuel, kerosene, light oil, heavy fuel oil and others.

[d] Includes the former Soviet Union in data for 1970 and 1980.

[e] Estimates.

51.9 million tons – an increase of 7.8 per cent. Also during 2004, an agreement was reached with Ukraine to reactivate a pipeline for exporting Russian crude oil through Odessa. The boost to crude oil exports through northern outlets in the Baltic and Barents Seas faced some difficulties. Delays in unloading railcars were reported in St. Petersburg and Vitosk by the end of the year, and further investments in pipelines and icebreakers were deemed necessary. The long-term development of ice-free Murmansk as a major oil port in the Barents Sea was hindered when Transfnet, a major pipeline owner, explained that investment required to reach Murmansk would be almost double the $5 billion required to reach Indiga, another port located 700 kilometres further east on the Pechora Sea and close to the new oilfields. Nevertheless, the increased shipping activity in the Baltic now almost matches export volumes from the Black Sea, with Aframax tankers transshipping their cargoes to VLCCs and ULCCs in the high seas north of the Jutland peninsula. This has led some EU countries to express environmental concerns regarding the increased risk of accidental pollution. Early in 2005, a proposal to regulate ship-to-ship crude oil transfers on the high seas by amending Annex I of the Marpol Convention was proposed to the Marine Environment Protection Committee of the International Maritime Organization. Also in early 2005, the commissioning of the 1,770-kilometre pipeline from Baku (Azerbaijan) to Ceyhan (Turkey) on the Mediterranean Sea will reduce the transit of tankers through the Dardanelles Straits and thus diminish the environmental risks.

Elsewhere, the largest Chinese facility to unload VLCC vessels in Dalian was commissioned in mid-2004. This facility will serve six refineries having a total capacity of 46 million tons. Most of them are owned by PetroChina, which is set to double its imports.

Petroleum product shipments

The global trade in petroleum products increased significantly in 2004 to 546 million tons. The pattern and volume of shipments were similar to those of past years, but the shipments of Russian petroleum products from Baltic ports in small tankers are having an impact in other countries. For instance, trans-shipment of Russian oil products into 80,000-dwt tankers led to the expansion of storage and transfer facilities and widening of channels by Copenhagen Malmö Port, the company managing these two ports located across the Oresund Strait.

LNG shipments

LNG shipments grew by 12.5 per cent during 2003 to reach 168.8 bcm of natural gas. This is about 6.4 per cent of the world production. The largest importing area is the Far East, where major importers continued to be Japan with 79.8 bcm and the Republic of Korea with 26.2 bcm. Supplies came from Indonesia (with 35.6 bcm), Malaysia (with 23.4 bcm), Qatar (with 19.2 bcm) and Australia (with 10.5 bcm). The share of Persian Gulf supplies is poised to grow as Saudi Arabia and Qatar develop new export capacity for consumers in the Far East and North America.

Across the Mediterranean, a large share of Algeria's total exports of 28 bcm went to France (9.2 bcm) and Spain (7.5 bcm). Nigeria supplied the European market with 9.2 bcm and the United States with 1.4 bcm. The largest share of Trinidad's exports of 11.9 bcm went to the US market, which also took almost 0.7 bcm from the Middle East (Qatar and Oman).

The spread of LNG shipping facilities reached the Baltic Sea. In October, Gasprom and PetroCanada agreed to build a $1.3 billion liquefaction plant in Ust-Luga to export up to 5 million tons of gas per year to North America. An innovative discharging solution was proposed for a terminal in Massachusetts Bay: special vessels would deliver re-gasified gas from Trinidad to the offshore Neptune terminal.

3. Dry cargo shipments

General developments

In 2004, overall dry cargo shipments increased by 4.4 per cent, reaching 4.44 billion tons (see table 3). The five dry-bulk trades – iron ore, coal, grains, bauxita/alumina and rock phosphate – recorded 7.6 per cent, reaching 1.59 billion tons. The remaining dry cargo trades, minor bulks and liner cargoes, increased at a slower rate of 2.65 per cent to 2.86 billion tons. The share of dry cargo shipments in world seaborne trade was 65.7 per cent of total goods loaded during the year.

World crude steel production

World crude steel production in 2004 increased by a record 8.8 per cent to reach 1,054.6 million tons, compared with 969.3 million tons in 2003. This was the first year ever that steel production surpassed the 1 billion ton mark. Undoubtedly the major event of the year was

the continuing remarkable expansion of Chinese steel production, up by 23.2 per cent to 272.5 million tons. This was the third year in which production expanded by more than 20 per cent, and China today accounts for more than a quarter of world crude steel production. Production of crude steel in Asia increased by 13.2 per cent to 499.4 million tons, reflecting the modest pace of Japan's production increase – only 2 per cent to reach 112.7 million tons. Other important Asian producers recorded similar output increases: India's production increased by 2.7 per cent and that of the Republic of Korea by 2.6 per cent to reach 32.6 and 47.5 million tons respectively. One small producer, Thailand, recorded an impressive 26 per cent production increase to 4.5 million tons.

In other regions and countries, production increases were mostly positive. In North America production increased by 5.4 per cent to 133 million tons, with US production increasing by 5.2 per cent to 98.5 million tons and Mexico's production increasing by 10 per cent to 16.7 million tons. Production increased by 4.8 per cent in 15 EU countries to reach a collective 168.3 million tons. Italy was the best performer, with production increasing by 5.6 per cent to 28.3 million tons. CIS countries raised their production by 4 per cent to reach 111.8 million tons in 2004. Among these, production increased by 9.9 per cent in Kazakhstan to 5.4 million tons, by 4.9 per cent in Ukraine to 38.7 million tons, and by only 2.5 per cent in the largest producer, Russia, to 64.3 million tons. Among other European countries, Turkey recorded an impressive 11.9 per cent output increase to 20.5 million tons. In the Middle East, crude steel production increased by 5.7 per cent to 14.2 million tons, with the largest producer, the Islamic Republic of Iran, recording a 10.3 per cent increase to 8.7 million tons. In South America, production increased 6.9 per cent to reach 46 million tons, with the largest producer, Brazil, increasing production by 5.7 per cent to 32.9 million tons.

Elsewhere, crude steel production increased modestly (Africa had a 2.2 per cent increase to 16.7 million tons) or decreased marginally (by 1.4 per cent in Australia and New Zealand to 8.3 million tons).

World pig iron production, another useful indicator for predicting dry bulk trades, increased by a healthy 10.8 per cent to 753.9 million tons in 2004.

World steel consumption

Forecast apparent steel consumption for 2004 was 918 million tons, 6.1 per cent above the 2003 level. The main increase was expected in China, by 13.3 per cent to 263 million tons – a deceleration in the rate of increase, which for the previous two years exceeded 20 per cent. Expected reduction of government spending on construction projects and decreasing inventories in the face of price increases could explain this trend. A double-digit increase of 10.7 per cent in apparent steel consumption was also expected in South America as some economies recovered from a slump, notably Argentina. NAFTA countries were poised to achieve a 6.1 per cent increase in apparent steel consumption as the US economy recovered. A slightly lower increase of 5.8 per cent was expected in Africa, mainly from northern countries. Other regions were expecting to record modest increases in consumption: 2.1 per cent was expected in the EU-15 countries and 2.6 per cent in CIS countries.

During 2004, consumers faced steep price increases and delivery delays. For instance, spot prices for hot-rolled coil exported from the European Union rose from $300 per ton during most of 2003 to the range of $605–$580 by mid-October 2004. During this year Nippon Steel, the world's third largest steelmaker, announced that deliveries of steel plate for shipbuilding would take 150 days rather than the previous 60 days, and by early 2005 Japanese shipyards reported average 20-day delays for steel plates. This situation reflected problems in the supply of raw materials as mines and ports reached saturation capacity. In Australia a senior government officer called for an inquiry into coking coal congestion in East Coast terminals. Problems were compounded in early January 2005 when terminals were closed owing to the proximity of tropical cyclone Kerry. For manufactured products, steelmakers restructured production, often in conjunction with others: Corus, the largest British steelmaker, reached an agreement with a consortium of steel traders and producers in Italy, Switzerland, Mexico and the Republic of Korea to increase output in its Teesside plant. Overall the industry remains highly fragmented; the 10 largest producers accounted for slightly more than a quarter of world output in 2003. Consolidation-seeking mergers and acquisitions have generally spanned many countries; only two of the 10 largest producers, Baosteel in China and Nucor in the United States, have main facilities in only one country.

Iron ore shipments

The boom in steel production was reflected in the 12.6 per cent increase in iron ore shipments during 2004, to a total of 590 million tons. Australia and Brazil, which account for almost 70 per cent of world exports, recorded growth of 8.5 and 10 per cent, to 205 and 203 million

tons respectively. India recorded an impressive export increase of 27.3 per cent to 70 million tons. Exports from South Africa were steady at 26 million tons. Lesser exporters such as Canada, Sweden, Mauritania and Peru recorded single-digit export increases. The largest importer by far was China with 208.1 million tons – an increase of almost 50 million tons from the previous year. Japan and 15 EU countries imported 133.4 and 120.5 million tons respectively – around the same volumes as the previous year. These countries accounted for more than three quarters of world shipments. Imports by the Republic of Korea increased by 4.9 per cent to 45.2 million tons. Imports into the Americas, the Middle East and Africa reached 15.5, 13.6 and 5.9 million tons respectively.

Increased shipments of iron ore pushed up commodity prices and congested export terminals. During the first nine months of 2004, spot prices for iron ore exported from CVRD (Brazil) to Europe increased $6 per ton to reach $38 per ton, with prices increasing 18.6 per cent during the year. By the end of the year, an average of 30 vessels were waiting off Brazilian ports, which were working around the clock. Early in 2005 Nippon Steel agreed to a significant 71.5 per cent price increase for CVRD supplies, with other steel makers being reluctant to see that as a reference for other contracts, and at the time China was introducing iron ore import licenses for statistical and monitoring purposes.

Coal shipments

Coal shipments increased by 5 per cent in 2004 and reached an all-time record of 650 million tons. As in previous years, thermal coal made up 70 per cent of world coal trade, and in 2004 shipments grew at a rate of 4.8 per cent to reach 462 million tons. Shipments of coking coal increased at a higher rate of about 9.3 per cent.

Australia, by far the largest exporter of both thermal and coking coal in almost equal amounts, again accounted for slightly more than one third of world shipments. Total exports for the year are estimated at 223 million tons after increasing by 3.7 per cent. Other exporters of thermal coal, such as China and South Africa, were steady at about 80 and 70 million tons respectively. Exports of thermal coal expanded impressively in Indonesia, Colombia and Russia, which recorded increases of 16, 18.2 and 12.7 per cent respectively. Exports from these countries reached 106.5, 51.9 and 33.7 million tons respectively.

Leading importers are EU countries, with about 30 per cent of world imports, and Japan, which accounts for about a quarter of world imports. The share of thermal coal in their coal imports varies from three quarters of the total for EU countries to about 60 per cent for Japan. Other importers are the Republic of Korea and Taiwan Province of China, with 10 per cent each. Elsewhere, the novelty was the remarkable increase of thermal coal imports into Chile – from 1.8 million tons in 2003 to 3.8 million tons in 2004.

Prospects for trade in steam coal are good. The high spot prices of the beginning of 2004 continued to increase during the year, reaching $78 per ton by December. Contract prices from Southwest Australia to Japan rose to $45 per ton, more than 70 per cent higher than those of the previous year. Increased shipments boosted mine production and put pressure on transport services connecting to export terminals: there were rail bottlenecks in South Africa during the first semester of 2004, and investments in barges were made to supply Indonesian terminals.

Grain shipments

World grain shipments are believed to have reached 250 million tons in 2004, an increase of 4.2 per cent from the previous year's 240 million tons. Shipments were almost equally split between wheat and coarse grains such as maize, barley, soybeans, sorghum, oats and rye. In 2003 the main loading areas were North America and the east coast of South America, which accounted for 47.6 and 21.7 per cent of world exports respectively. Exports from these regions reached 114.1 and 52.2 million tons respectively. In this year the largest exporter, the United States, decreased shipments by almost 2 per cent. Traditional importers such as Japan and EU countries kept imports steady, but a number of other countries, including exporting countries, recorded substantial import increases. Russia's imports doubled to 1.9 million tons, while countries in Eastern Europe increased imports by 28.9 per cent to 5.8 million tons. In Asia, China more than doubled imports to 5.1 million tons, and those from the Republic of Korea increased by more than 10 per cent to 13.7 million tons. Imports also increased in the Middle East, with a 25 per cent increase reported by Iraq and a 10 per cent increase by Israel.

Bumper crops in several countries during 2004 exercised downward pressure on the high grain prices recorded during the first quarter as a result of the European drought of 2003. Allegations of contaminated seeds

found in Brazilian soybean exports to China led to the refusal of some shipments and also helped dampen prices for this commodity during the first semester. The matter was settled after Brazil enforced stringent standards of a maximum of one seed per kilo for soybean exports. By the end of the year, the Australian Wheat Board dispelled allegations of lead contamination of wheat and barley exported from Pirie due to a nearby smelting plant. Grain prices continued to slide in the wake of good harvests in several countries. During the last quarter of the year, the price of US corn f.o.b. Gulf of Mexico went below the $100-per-ton level. In early 2005 the European Union reinstated its first wheat export subsidy in 18 months, equivalent to 4 per ton. In South America the soybean harvest reached 100 million tons for the first time.

Other bulk shipments

During 2004 shipments of bauxite and alumina, the primary inputs for the aluminium industry, are estimated to have increased by 6.3 per cent to reach 67 million tons. Final figures for 2003 indicate that bauxite shipments from West Africa, almost half of the world total, reached 15.8 million tons, while bauxite and alumina exports from Jamaica increased by 10.5 per cent to reach 9.5 million tons, with all bauxite shipments going to the United States market. EU countries and some Eastern European countries are the largest importers of bauxite and alumina shipments. In 2003 they imported 26.9 million tons, which represented 40.1 per cent of world exports. Exports of bauxite and alumina from Australia, the world's largest, were steady at 18.1 million tons during 2003, about half of them destined for Asian countries.

During 2004, consolidated primary aluminium production increased by 6.2 per cent to 29.2 million tons. The expansion in production was impressive in Africa, which recorded an increase of 19.8 per cent to 1.7 million tons, and in China. The latter increased production by 18.8 per cent to 6.6 million tons; this rate of increase, however, was low in comparison to the ones achieved in the past three years, when production expanded at rates well above 20 per cent. Other countries in East and South Asia expanded production by 10.5 per cent to 2.7 million tons. Western Europe expanded production by 5.6 per cent to 4.3 million tons, while Eastern Europe and Latin America reported similar rates of increase — 3.5 per cent to 4.1 and 2.4 million tons respectively. Australian smelters recorded a modest 2.2 per cent increase in production, and those in North America reduced output by 7 per cent to 5.1 million tons.

Shipments of rock phosphate increased by 3.4 per cent to 30 million tons in 2004. Final figures for 2003 indicate that the major exporter accounting for about one third of world exports continued to be Morocco, which shipped about 12 million tons. Exports from other countries in Africa (i.e. Togo) were about 4 million tons, while those from the Middle East (i.e. Jordan) reached about 6.5 million tons. Countries in the Far East (i.e. China) were major importers, reaching more than 11 million tons in 2003.

During 2004, low prices and other factors delayed attempts to increase export volumes and start new export-led mines. Early in the year, the Farim project in Guinea Bissau, which had been in the pipeline for four years, was postponed following the merger of the lessee. A technical assistance project was started with the aim of privatizing the railway company carrying rock phosphate from Jordan Phosphate Mines to Aqaba after the failure of an earlier attempt. In Peru a tender for the Bayovar mine attracted opposition by nearby inhabitants and led to a new bidding process in early 2005.

Shipments of minor dry bulks, a heterogeneous mix of merchandise, were believed to have reached 916 million tons in 2004, almost 9 per cent above the recent estimates released for the previous year. Shipments of steel and forest products are estimated to be slightly above 373 million tons, with trade of the former increasing more rapidly than that of the latter. The volume and direction of steel trade might be contingent on the application of the WTO rulings. In November, this body ruled in favour of the European Union and six other countries, including Japan and the Republic of Korea, and authorized them to impose retaliatory tariffs on US products if this country did not repeal the Byrd amendment whereby dumping and anti-subsidy duties are levied on foreign companies exporting to the US market. Agriculture-related trades, including sugar, rice, tapioca and meals (oilseeds and soy) and fertilizers (phosphates, potash, sulphur and urea), accounted for more than 250 million tons. Again, the volume and direction of sugar trade might be contingent on the final resolution of the dispute under consideration in the WTO. In September, a panel of this body ruled in favour of sugar producers such as Brazil, Thailand and Australia. These countries had complained that EU sugar import quotas favoured some countries in Africa, the Pacific and the Caribbean and that EU sugar producers were receiving aid to export harvest surplus. One month later, the European Union stated its intention to appeal

the decision. Shipments of a number of minerals (cokes, non-ferrous ores, metals, salt, cement, etc.) are estimated at about 250 million tons. Overall forecasts for these minor bulk cargoes indicate a similar volume of shipments for 2005, with agricultural trades fluctuating in the short term and industrial goods being affected by long-term investment decisions.

4. Liner shipments of containerized cargoes

The balance of 1.94 billion tons of dry cargoes is increasingly being carried in containers along the liner trade routes. In some regions, specialized unitized services such as ro-ro, reefer and cars coexist with traditional stand-alone general cargo services, with some of the latter backing up the main container trades. Although most container routes are mature, during 2004 there was scope for growth, and traffic expanded at double-digit rates on several routes, with the total estimated at more than 100 million TEUs. Shipments of containerized cargoes differ from the other dry bulk cargoes in the increased use of trans-shipment to reach destinations, which complements the direct calls of larger vessels. Containers flow along east–west (trans-Pacific, Europe–Far East and transatlantic), north–south and regional routes.

On the largest east–west route, the trans-Pacific, total flow is estimated to have reached 16.1 million TEUs in 2004. Container flows on the dominant leg, Asia to North America, reached 10.8 million TEUs, while in the opposite westbound direction the flow was less than half, 4.3 million TEUs. As a result, the past imbalance of container flows continued and the repositioning of empty containers remained a major concern for carriers. The Asia–Europe route carried an estimated 14 million TEUs during 2004. Again there was a gap between westward flows originating in Asia, which reached 8.4 million TEUs, and flows eastward, which were estimated at 5.6 million TEUs. However, flow imbalance was less pronounced than that existing across the Pacific. On the transatlantic route, the smallest of the east–west ones, container flow reached an estimated 4.8 million TEUs. With flows on the dominant leg from Europe to North America reaching 3 million TEUs and those in the opposite direction reaching 1.8 million TEUs, the flow imbalance was less acute. Overall traffic flows on these three east–west routes almost reached 35 million TEUs, with empty container repositioning being an important feature for all of them.

North–south routes are articulated around the major production and consumption centres of Europe, the Far East and North America and link these centres with developing countries. In 2004, north–south routes are believed to have carried up to 15 million TEUs, and flows expanded and contracted in line with economic conditions prevailing at both ends. Container flows along the routes linking Europe to Africa and Oceania are believed to have reached 0.8 and 0.5 million TEUs respectively. Flows were almost evenly distributed between southward and northward directions. Container flows between Europe and Central and South America were about four times larger, 2.9 million TEUs, and also more imbalanced, as flows heading southward reached almost 0.8 million TEUs. Container flows between North America and Central and South America were larger still, about 3.8 million TEUs, and similarly imbalance, with southward flows estimated at 1.4 million TEUs. Container flows between Asia and Oceania are believed to have reached 1.5 million TEUs but were well balanced. Data for regional routes are difficult to come by. For the largest regional route — intra-Asia — container flows are believed to have reached 17 million TEUs in 2004.

During 2004, negotiations were conducted between Australia and live animal importers in the Middle East to improve the quality of transport. In December, Australia and the United Arab Emirates signed a Memorandum of Understanding (MOU) to enhance standards covering livestock exports. The MOU provides for operational quarantine holding facilities so that animals can be offloaded prior to a final decision regarding import clearance, as well as for minimum onboard standards for sheep carriers (veterinary staff and stockmen on board to provide food and water on demand, space for sheep to lie down, change of air in enclosed holds, special places for sick animals, etc.). In March 2005, a second MOU was signed with Kuwait, which imported 1.1 million head in 2004.

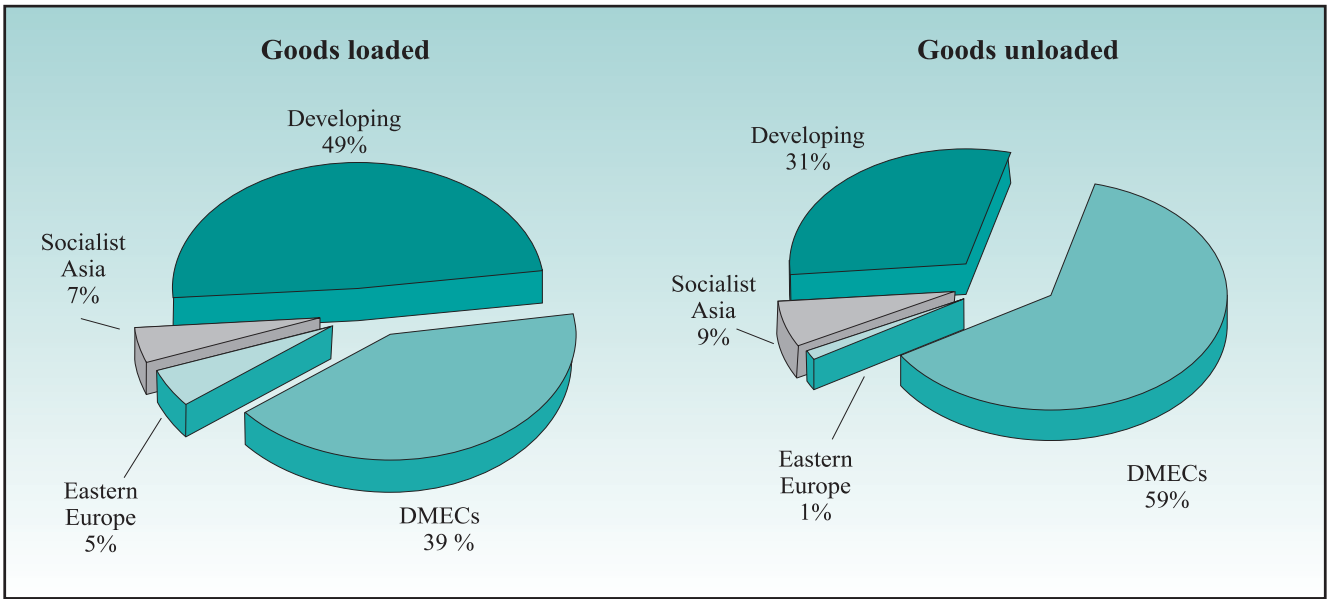
5. World shipments by country groups

Breakdowns of the 6.76 billion tons of world seaborne trade by major cargo segments and country groups appear in table 4 and figure 3. The shares of developed market-economy countries in goods loaded and unloaded in 2004 were 38.9 per cent and 59 per cent respectively of the world total. For these countries, crude oil and petroleum products accounted for 5.1 and 22.7 per cent of total world exports, while imports accounted for 67.9 per cent for crude oil and 50.9 per cent for petroleum products. Further breakdowns in terms of regional groupings can be found in annex II. Among market

Figure 3

World seaborne trade by country groups

(percentage share of tonnage, 2005)



Source: Compiled by the UNCTAD secretariat on the basis of data supplied by reporting countries and other specialized sources.

Table 5

World seaborne trade in ton-miles, selected years

(billions of ton-miles)

Year	Oil			Iron ore	Coal	Grain [a]	Five main dry bulks	Other dry cargoes	World total
	Crude	Products	Crude plus products						
1970	5 597	890	6 487	1 093	481	475	2 049	2 118	10 654
1975	8 882	845	9 727	1 471	621	734	2 826	2 810	15 363
1980	8 385	1 020	9 405	1 613	952	1 087	3 652	3 720	16 777
1985	4 007	1 150	5 157	1 675	1 479	1 004	4 480	3 428	13 065
1990	6 261	1 560	7 821	1 978	1 849	1 073	5 259	4 041	17 121
2000	8 180	2 085	10 265	2 545	2 509	1 244	6 638	6 790	23 693
2001	8 074	2 105	10 179	2 575	2 552	1 322	6 782	6 930	23 891
2002	7 848	2 050	9 898	2 731	2 549	1 241	6 879	7 395	24 172
2003	8 390	2 190	10 580	3 025	2 810	1 273	7 454	7 810	25 844
2004	8 910	2 325	11 235	3 415	2 965	1 325	8 065	8 335	27 635

Source: Fearnleys, *Review 2004.*

[a] Includes wheat, maize, barley, oats, rye, sorghum and soya beans.

economy countries, Europe remains the most important exporter of crude oil and petroleum products, with a total of 104.8 million tons (4.5 per cent of the world total). North America is the largest importer of crude oil and petroleum products, with 634.1 million tons (27.5 per cent), followed closely by Europe, with 537.6 million tons (23.3 per cent), and Japan, with 247.5 million tons (10.7 per cent).

In the dry bulk segment, developed market-economy countries' share of global shipments decreased to 54.4 per cent for exports and 56.4 per cent for imports. Again, annex II gives insight into the regional distribution of these shipments. Europe remains the largest dry cargo market for exports and imports with 1,059.9 million tons (23.9 per cent of world exports) and 1,476.5 million tons (33 per cent of world imports) respectively. Two countries in North America (the United States and Canada) and two in Oceania (Australia and New Zealand) were also large exporters of dry shipments, with shares of 10 per cent and 13.1 per cent respectively. This underlines their important shares in shipping the three major dry bulk commodities, iron ore, coal and grain.

During 2004 developing countries' share of total seaborne exports was 49.3 per cent, while their share of seaborne imports was 30.4 per cent. Over the last few years these percentages seem to have remained fairly stable. The trade structure of developing countries contrasts sharply with that of developed market-economy countries. The developing countries' combined share in crude oil and petroleum products exports represented 86.7 per cent and 66.6 per cent respectively. For imports, the shares were 25.7 per cent for crude oil and 42.5 per cent for petroleum products. In the dry cargo sector, the share of developing countries' exports reached 32.2 per cent of world exports, while their share of world imports decreased marginally to 30.7 per cent.

Regional variations among groups of developing countries were related to their GDP. Developing countries of Asia claimed the largest shares of exports and imports, 29.2 per cent and 21.3 per cent of world exports and imports respectively. The shares of developing countries in America were 13.5 per cent of world exports and 5.6 of world imports. The shares of African countries were about half those of America: 6.2 per cent of world exports and 3.1 of world imports. The shares for developing countries of Europe (0.3 per cent of world exports and imports) and Oceania (0.1 per cent of world exports and 0.2 per cent of imports) were considerably smaller.

In specific trades there were also considerable variations. The shares of Asian developing countries in world exports of crude oil were 54.3 per cent and in petroleum products 40 per cent. This reflects the importance of Middle East oil producers and refining activity in the Far East. The share of African developing countries in exports of crude oil (17.7 per cent) was higher than that of developing countries in America (14.5 per cent). For exports of petroleum products, however, the opposite was true; the figures were 6.8 per cent for developing countries in Africa and 19.3 per cent for those in America. For exports of dry cargoes, Asian developing countries claimed the largest share (17.9 per cent), followed by American developing countries (12.4 per cent) and African developing countries (1.5 per cent).

For imports of crude oil, the share of developing countries in Asia was 17.4 percent of the world total. The shares of developing countries in America and Africa were 5.5 per cent and 2.9 per cent respectively. For imports of petroleum products, the corresponding shares for developing countries in Asia, America and Africa were 28.8 per cent, 8.9 per cent and 3.2 per cent. Imports of crude oil into developing countries in Europe reached 0.4 per cent of world imports, on a par with the percentage for imports of petroleum products. Developing countries in Oceania showed negligible imports of crude oil, in line with the scant refining capacity in the region, while their share of world petroleum product imports was 1.1 per cent.

In 2004 the shares of socialist countries in Asia were 6.7 per cent for world exports and 9.4 per cent for world imports. These percentages reflect the important role of trade in the economic development of China and its rapid economic growth. The trade of countries of Central and Eastern Europe (including the former Soviet Union) owed its largest share for exports, 5.1 per cent, to shipments of crude oil and petroleum products from the Black and Baltic Seas. Seaborne imports for these countries reached 1.2 per cent of the world total, and these imports were complemented by imports carried overland from other European countries.

6. Demand for shipping services

Table 5 provides data on total demand for shipping services in terms of ton-miles. World seaborne trade for 2004 reached 27,635 billion ton-miles after increasing 6.9 per cent. As cargo transported increased by 4.3 per cent, the average transport distance also increased during the year.

Increased demand for haulage of crude oil and oil products resulted in ton-mileage for these commodities increasing by 6.2 per cent, somewhat less than the 6.9 per cent increase of the previous year. This indicates that crude oil supplies are moving longer distances – for instance, from sources in the Barents, Baltic and Black Seas to destinations in Europe and, more important, North America. For all dry cargoes the ton-mileage also increased by 7.4 per cent, while tonnage transported increased by 4.4 per cent.

For the five main dry bulks, ton-miles increased by 8.2 per cent, compared to a 7.6 per cent increase in cargo volume, which indicates increased haulage to reach Chinese destinations. For the remaining dry cargoes, minor bulks and liner cargo, supply lines were also extended, as their ton-miles increased by 6.7 per cent to 8,335 billion ton-miles while cargo increased by 2.6 per cent. This reflects longer distances between cargo origins and destinations and the lasting effect of relocated industries in the Far East.

Chapter 2

STRUCTURE AND OWNERSHIP OF THE WORLD FLEET

This chapter reviews the supply-side dynamics of the world maritime industry. The information and data comprehensively cover the structure and ownership of the world fleet. The chapter also reviews deliveries and demolition of vessels, tonnage on order, newbuilding prices and markets for second-hand tonnage.

A. STRUCTURE OF THE WORLD FLEET

1. Principal types of vessel

Comparative time-series data on the world fleet for 2003, 2004 and 2005 are provided in figure 4 and table 6. The world merchant fleet stood at 895.8 million deadweight tons (dwt) on 1 January 2005. This represents a 4.5 per cent increase over the start of 2004, at which time the world fleet had already expanded by 1.5 per cent over the tonnage in 2003. The latest increase is higher than the increases in the previous two years. Newbuilding deliveries represented 49.4 million dwt, while 10.6 million dwt were broken up and lost. The result was a net gain of 38.8 million dwt in 2004.

The tonnage of oil tankers in 2004 increased by a healthy 6.1 per cent and that of bulk carriers by 4.2 per cent. These two types of ships represented 73.3 per cent of total tonnage, a slight increase from 72.9 per cent in 2003. The fleet of general cargo ships decreased again in 2004 and at a faster rate than in the previous year, namely by 2.9 per cent; this category now represents 10.3 per cent of the total world fleet. In terms of deadweight tonnage, the fleet of container ships increased by 7.6 million dwt, or 8.4 per cent, and now represents 10.9 per cent of the total world fleet. This relatively high rate of increase reflects the growing proportion of manufactured goods being traded, generally in containers. The deadweight tonnage of liquid gas carriers (mainly LNG and LPG carriers) and ferries/passenger ships has been increasing steadily.

2. The world container ship fleet

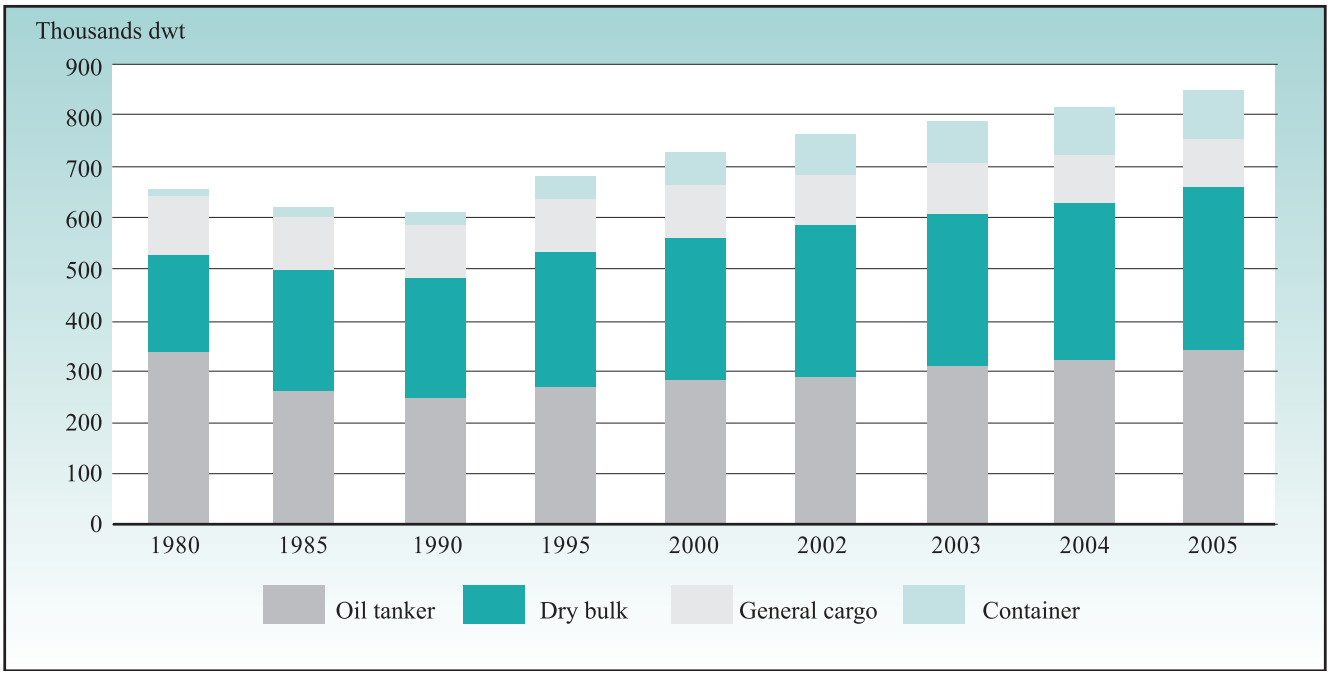
The world fleet of fully cellular container ships continued to expand substantially in 2004 in terms of both number of ships and their TEU capacity; by the beginning of 2005 there were 3,206 ships with a total capacity of 7,165,352 TEUs, an increase of 5 per cent in the number of ships and 11.3 per cent in TEU capacity over the previous year (see table 7). Ship sizes also continued to increase, with average carrying capacity per ship growing from 2,108 TEUs in 2004 to 2,235 TEUs in 2005, reflecting the building of larger vessels to achieve economies of scale. As of the end of 2004, the well-defined trend towards large container vessels was continuing unabated. Vessels of over-4,000-TEU capacity account for 74 per cent of the order book; 165 vessels on order were larger than 7,500 TEU capacity – more than three times the current number of vessels above this size.

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 2004 dropped marginally to 12.3 years. By type of vessel, the average age of tankers decreased by about half a year to 10.3 years in 2004. The share of tanker tonnage 15 years and older decreased to 27.4 per cent in 2004 from 29.9 per cent in 2003, after a modest level of scrapping activities, which in 2004 reached 7.8 million dwt (compared with 18.4 million dwt in 2003). The average age of the dry

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.

bulk carrier fleet increased marginally to 13 years in 2004. Container ships continued to be the youngest fleet in 2004, with an average age of 9.4 years, slightly above the 9.2 years average age of the previous year. This trend is reflected in the share of tonnage between 0 and 4 years of age – 31.9 per cent, the highest among all categories of vessels.

By country grouping, the fleet age of developed market-economy countries in 2004 was the lowest, at 10.5 years (10.9 years in 2003). These countries have continued the last few years' trend of lowering the average age of their fleet. Also in this group, the average age of tankers decreased by half a year to 8.5 years in 2004, as compared with 9 years in 2003. This reflects the European Union's preference for new tonnage, which is motivated by environmental concerns. The major open-registry countries had the second lowest average age of all ships (11.8 years in 2004 versus 11.9 years in 2003), 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) stood at 13.1 years for 2004, the same as the previous year. For this group, the average age of general cargo vessels decreased to 18.6 years, while that of container ships marginally increased to 9.3 years. The average age of tonnage registered in the socialist countries of Asia decreased by almost a year to 16.8 years in 2004. The countries of Central and Eastern Europe continued to have the oldest fleet (20.5 years in 2004 versus 20.7 years in 2003), with vessels built more than 15 years ago representing more than four fifths of the total fleet and bulk carriers constituting the oldest class of ships at 22.9 years.

4. Delivery of newbuildings

Newbuilding activities attained the highest level ever recorded in terms of deadweight tons, with deliveries totalling 49.4 million dwt in 2004 (see table 9), a marginal increase over the already record deliveries in 2003 (49.2 million dwt). The total number of vessels delivered increased 7 per cent, to 1,827 units from 1,707 units in 2003. This high level of delivery was sustained primarily thanks to tanker deliveries of 27.6 million dwt, down 1.8 million dwt from record deliveries in 2003. The number of tankers delivered reached 301 units in 2004 from 281 units in 2003. The average size was 91,700 dwt. Conversely, deliveries of bulk carriers were up by 2.7 million dwt, about 24.1 per cent, from the 2003 level. Another feature was the larger share of Panamax bulk carriers delivered in 2004. Newbuildings for other types of vessels, including general cargo ships and container ships, decreased less in number than in deadweight tonnage – to 1,262 units and 7.9 million dwt in 2004.

Table 6

World fleet size by principal types of vessel, 2003–2005 [a]

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

Principal types	2003	2004	2005	Percentage change 2004/2005
Oil tankers	304 396	316 759	336 156	6.1
	36.1	*37.0*	*37.5*	
Bulk carriers	300 131	307 661	320 584	4.2
	35.6	*35.9*	*35.8*	
Ore/bulk/oil	12 612	12 110	9 695	-19.9
	1.5	*1.4*	*1.1*	
Ore/bulk	287 519	295 551	310 889	5.2
	34.1	*34.5*	*34.7*	
General cargo ships	97 185	94 768	92 048	-2.9
	11.5	*11.1*	*10.3*	
Container ships	82 793	90 462	98 064	8.4
	9.8	*10.6*	*10.9*	
Other types of ships	59 730	47 324	48 991	3.5
	7.1	*5.5*	*5.5*	
Liquefied gas carriers	19 469	20 947	22 546	7.6
	2.3	*2.4*	*2.5*	
Chemical tankers	8 027	8 004	8 290	3.6
	1.0	*0.9*	*0.9*	
Miscellaneous tankers	906	947	1 001	5.7
	0.1	*0.1*	*0.1*	
Ferries and passenger ships	5 495	5 561	5 589	0.5
	0.7	*0.6*	*0.6*	
Other	25 833	11 865	11 565	-2.5
	3.1	*1.4*	*1.3*	
World total	844 235	856 974	895 843	4.5
	100.0	*100.0*	*100.0*	

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 7

Distribution of the world fleet and TEU capacity of fully cellular containerships, by country groups, in 2003, 2004 and 2005 [a]

(beginning-of-year figures)

Flags of registration by groups of countries	Number of ships			TEU capacity and percentage shares		
	2003	2004	2005	2003	2004	2005
World total	2 890	3 054	3 206	5 896 154	6 437 218	7 165 352
	100.0	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*
Developed market-economy countries	798	824	897	2 019 918	2 147 550	2 520 415
	27.6	*27.0*	*28.0*	*34.3*	*33.4*	*35.2*
Major open-registry countries	1 166	1 224	1 255	2 591 977	2 922 805	3 112 131
	40.3	*40.1*	*39.1*	*44.0*	*45.4*	*43.4*
Total developed market-economy and major open-registry countries	1 964	2 048	2 152	4 611 895	5 070 355	5 632 546
	68.0	*67.1*	*67.1*	*78.2*	*78.8*	*78.6*
Countries in Central and Eastern Europe (including former USSR)	29	35	34	23 486	26 813	26 014
	1.0	*1.1*	*1.1*	*0.4*	*0.4*	*0.4*
Socialist countries of Asia	104	136	117	114 112	153 727	182 607
	3.6	*4.5*	*3.6*	*1.9*	*2.4*	*2.5*
Developing countries	720	779	848	1 035 578	1 115 019	1 251 358
	24.9	*25.5*	*26.5*	*17.6*	*17.3*	*17.5*
of which:						
Africa	9	9	11	8 237	9 131	10 469
	0.3	*0.3*	*0.3*	*0.1*	*0.1*	*0.1*
America	249	282	314	301 618	361 472	399 964
	8.6	*9.2*	*9.8*	*5.1*	*5.6*	*5.6*
Asia	462	488	523	725 723	744 416	840 925
	16.0	*16.0*	*16.3*	*12.3*	*11.6*	*11.7*
Europe	0	0	0	0	0	0
	0.0	*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	73	56	55	111 083	71 304	72 827
	2.5	*1.8*	*1.7*	*1.9*	*1.1*	*1.0*

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 2005

(percentage of total dwt)

Country grouping	Types of vessel	0-4 years	5-9 years	10-14 years	15-19 years	20 year and over	Average age (years) 2004 [a]	Average age (years) 2003 [a]
World total	All ships	23.0	21.9	16.5	11.3	27.3	12.3	12.5
	Tankers	29.0	22.8	20.9	11.7	15.7	10.3	10.9
	Bulk carriers	20.2	22.0	14.6	12.4	30.8	13.0	12.9
	General cargo	7.3	15.0	10.7	10.9	56.1	17.5	17.4
	Container ships	31.9	29.3	16.3	8.8	13.7	9.4	9.2
	All others	16.0	15.7	11.9	8.1	48.4	15.6	15.8
Developed market-economy countries	All ships	28.4	25.7	17.0	10.8	18.1	10.5	10.9
	Tankers	35.7	27.2	18.6	10.2	8.3	8.5	9.0
	Bulk carriers	22.3	21.5	17.4	13.5	25.3	12.3	12.8
	General cargo	14.8	23.1	14.9	11.9	35.3	14.0	13.9
	Container ships	31.2	33.8	14.8	8.4	11.7	9.0	8.8
	All others	17.6	20.0	13.5	9.5	39.3	14.2	14.5
Major open-registry countries	All ships	24.3	22.9	17.0	10.6	25.2	11.8	11.9
	Tankers	28.3	22.9	23.3	11.2	14.3	10.2	10.9
	Bulk carriers	22.0	23.7	13.6	10.8	29.9	12.6	12.3
	General cargo	7.8	20.0	11.4	11.9	48.9	16.4	16.0
	Container ships	35.8	25.0	16.4	10.0	12.9	9.2	9.0
	All others	17.1	16.6	11.0	4.3	50.8	15.5	15.8
Subtotal	All ships	25.9	24.0	17.0	10.7	22.6	11.3	11.6
	Tankers	31.5	24.7	21.3	10.7	11.7	9.5	10.1
	Bulk carriers	22.1	23.2	14.6	11.5	28.7	12.5	12.4
	General cargo	10.7	21.2	12.8	11.9	43.4	15.5	15.2
	Container ships	33.8	28.9	15.7	9.3	12.4	9.1	8.9
	All others	17.4	18.4	12.3	7.0	44.9	14.9	15.1
Countries of Central and Eastern Europe	All ships	3.4	3.3	5.2	16.5	71.6	20.5	20.7
	Tankers	14.0	5.4	2.2	15.7	62.7	18.3	20.7
	Bulk carriers	0.0	0.0	0.2	8.2	91.6	22.9	22.3
	General cargo	0.9	2.7	7.5	18.0	70.8	20.8	20.6
	Container ships	0.0	16.8	12.4	19.1	51.7	18.1	17.2
	All others	1.6	4.0	8.5	23.9	62.0	20.0	20.0
Socialist countries of Asia	All ships	15.8	5.9	14.0	10.6	53.7	16.8	17.6
	Tankers	27.9	6.4	19.7	12.0	33.9	13.4	15.4
	Bulk carriers	9.3	6.1	11.9	10.7	62.0	18.4	18.2
	General cargo	2.9	4.8	5.9	8.0	78.4	20.9	20.8
	Container ships	32.1	5.7	22.7	11.8	27.6	12.3	12.9
	All others	27.9	6.4	19.7	12.0	33.9	13.4	15.4
Developing countries (excluding open-registry countries)	All ships	19.6	20.8	16.7	12.9	30.0	13.1	13.1
	Tankers	23.9	22.0	20.1	14.0	20.0	11.5	11.4
	Bulk carriers	18.0	20.9	16.6	15.5	29.0	13.3	13.1
	General cargo	6.4	11.4	9.3	8.9	64.0	18.6	18.8
	Container ships	27.7	36.2	16.8	5.9	13.4	9.3	8.8
	All others	14.4	10.9	10.2	8.4	56.1	16.9	17.0

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	95	25.0
1990	81	8.7	0	0.0	119	9.6	523	4.0	723	23.0
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	182	23.4	0	0.0	226	14.1	1 131	11.5	1 539	49.0
2003	281	29.4	2	0.2	161	11.2	1 263	8.4	1 707	49.2
2004 [c]	301	27.6	0	0.0	264	13.9	1 262	7.9	1 827	49.4

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

[a] Vessels over 10,000 dwt.

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

[c] Provisional.

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 2004, total tonnage sold for demolition decreased by more than half from the tonnage of the previous year to 10.6 million dwt, equivalent to 1.2 per cent of worldwide total deadweight tons, as compared with 3 per cent in 2003. Break-up of tankers accounted for the largest share of total demolition. Sales of tankers for break-up reached only 7.8 million dwt, slightly above the 1998 level and reflecting the high freight rates, which deter demolition. There were only four ULCC/VLCC demolition sales in 2004, while 28 units were sold in 2003. Sales of Suezmaxes stood at 11 units in 2004, while those of Aframaxes decreased substantially from 35 units in 2003 to 25 units in 2004. In the smaller category of crude oil tankers, demolition also decreased: 80 ships were sold for scrap in 2003, while 54 units were sold in 2004. The average age of tankers sold for demolition was up slightly to 29.5 years in 2004. The tonnage of dry bulk carriers sold for scrap decreased to less than one fifth, or 0.6 million dwt, in 2004, while that of combined carriers stood at 0.5 million dwt – the same as the previous year. There was a drastic reduction in the scrapping of all sizes of bulk carriers. No vessels over 60,000 dwt and only 21 units of less than 60,000 dwt were sold for demolition in 2004. The average age of all dry bulk carriers broken up was 27.3 years in 2004, almost a year more than the previous year. Other ship types also had an extended trading life in 2004, with container ships being sold to breakers at an average age of 30.5 years and general cargo ships at an average age of 32.9 years. Volatility prevailed in demolition prices. The year started at $300 per light displacement ton (ldt) – a historically high level – to climb still higher to $400 per ldt. By mid-year, prices collapsed to the initial level, but they then proceeded to increase steadily to reach about $440 by the end of the year.

There were also changes in the market shares of countries specialized in demolition. The star performer for the year was Bangladesh with a market share of 57 per cent, well above the modest 18 per cent achieved the year before. India came second with a 20 per cent market share, almost half the level of the previous year. China's share was 19 per cent, while Pakistan and Turkey recorded most of the remaining share.

Table 10

Broken-up tonnage, 1990 and 1999–2004

Broken-up tonnage	1990	1999	2000	2001	2002	2003	2004
Tonnage sold for breaking (million dwt)	16.9	30.7	22.2	27.8	30.5	25.6	11.0
Broken-up tonnage as a percentage of the total world fleet	2.4	3.9	2.7	3.4	3.6	3.0	1.2

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, 2000–2004

(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
2000	13.5	1.0	4.6	3.1	22.2	808.4	2.7	60.9	4.3	20.8	14.0	100.0
2001	15.7	0.8	8.1	3.2	27.8	825.7	3.4	56.5	2.7	29.1	11.7	100.0
2002	18.1	1.6	5.9	4.9	30.5	844.2	3.6	59.3	5.2	19.3	16.1	100.0
2003	18.4	0.5	3.3	3.4	25.6	857.0	3.0	71.9	2.0	12.9	13.3	100.0
2004	7.8	0.5	0.5	1.8	10.6	895.8	1.2	73.6	4.7	4.7	17.0	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 2000 to 2004 [a]

(years)

Year	Tankers	Dry bulk carriers	Container ships	General cargo ships
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	2 8.2
2003	29.3	26.5	25.5	29.3
2004	29.5	27.3	30.5	32.9

Source: Compiled by the UNCTAD secretariat on the basis of data in Institute of Shipping Economics and Logistics (2004), *Shipping Statistics and Market Review,* Jan./Feb., table I-1.3.2.

[a] Ships of 300 grt and over.

Environmental concerns gained ground in October 2004 when the Marine Environment Protection Committee of the International Maritime Organization (IMO) agreed that some parts of the Guidelines for Ship Recycling might be given mandatory effect. The Guidelines, which were adopted in 2003, were only recommendations to countries and intergovernmental bodies and included the "green passport", an inventory of all potentially hazardous materials in a ship.

B. OWNERSHIP OF THE WORLD FLEET

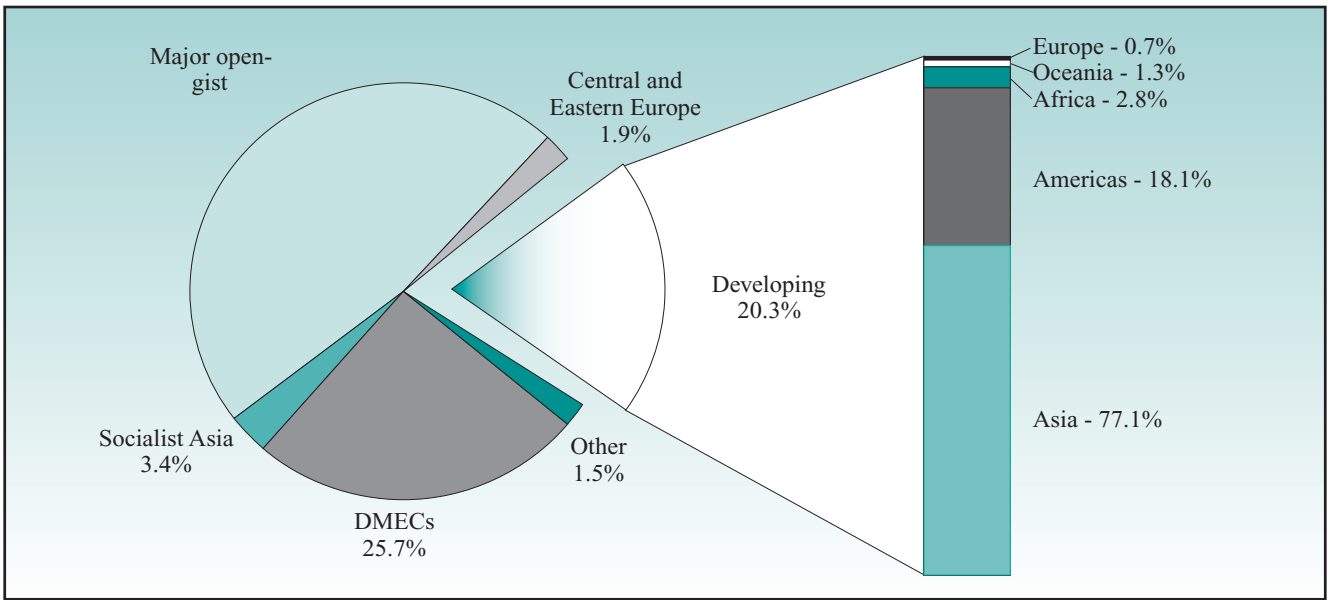
1. Distribution of world tonnage by country groups

The total world fleet continued to expand in 2004, increasing by 41.5 per cent to 895.8 million dwt (see figure 5 and table 13). The tonnage of developed market-economy countries grew slightly faster than that of the total world fleet, at a rate of 4.9 per cent (from 11.3 million dwt to 241.7 million dwt). This could reflect the steps taken in some EU countries to apply tonnage taxes instead of standard tax rules to vessels registered in the country, as well as the guidelines for state aid approved by the European Union in October 2003. The tonnage of major open-registry countries increased marginally in 2004, by 4.5 million dwt to 404 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 20.9 million dwt (11.5 per cent) in 2004 to 202.3 million dwt. This increase resulted from investments made by shipowners in Asian developing countries, whose fleets expanded by 19.9 million dwt (14.6 per cent) to 155.9 million dwt, accounting for 77 per cent of the developing countries' total fleet. The fleets of developing countries of Africa decreased marginally to 5.6 million dwt, while modest gains were recorded by the fleets of developing countries in America, Europe and Oceania, to 36.7, 1.5 and 2.6 million dwt respectively. The fleets of the socialist countries in Asia and the countries of Central and Eastern Europe evolved in the opposite direction during 2004, the former expanding by 3.5 million dwt and the latter contracting by 1.2 million dwt.

Figure 5

World tonnage by country groups, as of 1 January 2005

(percentage distribution of dwt)



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

Table 13

Distribution of world tonnage (dwt) by groups of countries of registration, 1980, 1990, 2003, 2004 and 2005[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]	2003	2004	2005
World total	682.8 *100.0*	658.4 *100.0*	844.2 *100.0*	857.0 *100.0*	895.8 *100.0*
Developed market-economy countries	350.1 *51.3*	219.0 *33.3*	217.1 *25.7*	230.4 *26.9*	241.7 *27.0*
Major open-registry countries	212.6 *31.1*	224.6 *34.1*	398.5 *47.2*	399.5 *46.6*	404.0 *45.1*
Countries of Central and Eastern Europe (including former USSR)	37.8 *5.5*	44.3 *6.7*	15.9 *1.9*	15.7 *1.8*	14.5 *1.6*
Socialist countries of Asia	10.9 *1.6*	22.1 *3.4*	28.3 *3.4*	29.9 *3.5*	33.4 *3.7*
Developing countries	68.4 *10.0*	139.7 *21.2*	171.3 *20.3*	181.4 *21.2*	202.3 *22.6*
of which:					
Africa	7.2	7.3	5.3	5.7	5.6
Americas	21.8	25.5	35.6	36.0	36.7
Asia	39.1	89.5	126.9	136.0	155.9
Europe	0.2	13.8	1.3	1.2	1.5
Oceania	0.1	3.6	2.0	2.4	2.6
Other, unallocated	3.0 *0.4*	8.7 *1.3*	13.1 *1.6*	0.0 *0.0*	0.0 *0.0*

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

[a] Excludes the US Reserve Fleet and the US and Canadian Great Lakes fleets, which in 2004 amounted respectively to 4.1, 1.8 and 1.5 million dwt.

[b] Percentage shares are shown in italics.

[c] Mid-year figure.

[d] End-of-year figure.

2. Distribution of world tonnage by types of vessel and by country groups

Table 14 provides more detailed data on fleet distribution by types of vessel and country groups for 1970, 1980, 1990, 2000, 2003 and 2004. The share of oil tankers in the total world fleet increased by 0.5 per cent in 2004 compared with 2003. This reinforced the trend of the previous year and reflected the high level of tanker deliveries during 2004. There was a 0.1 per cent decrease in bulkers' share of the total world fleet, which reached 35.8 per cent. The share of general cargo vessels in the world fleet continued to decrease, falling to 10.3 per cent, while that of container vessels continued its upward trend to 10.9 per cent. The share of other types of vessels stood at 5.5 per cent. In the oil tanker sector, the share of developed market-economy countries in 2005 was 32.2 per cent, the same as the previous year. Conversely, the open-registry countries' share decreased to 43.2 per cent from the previous year's 45.7 per cent. This reduction in market share reflected a weakening of the trend for owners to register tanker tonnage under major open registries. The share of developing countries also increased in 2004, to 21.8 per cent, maintaining the upward trend of the previous year. The share of Asian developing countries increased by 2.7 per cent in 2004 to 18.5 per cent of the world tanker fleet, while that of the developing countries of America decreased to 2.6 per cent.

In the dry bulk carrier sector, the tonnage share of developed market-economy countries in the total world fleet decreased marginally by 0.1 per cent in 2004 to 18.9 per cent, considerably less than its share in 1980 (52.7 per cent). Major open-registry countries reduced their share to 52.9 per cent in 2004, as compared with 54.1 per cent in 2003 (31.7 per cent in 1980). The developing countries' share increased by 1.1 per cent to 22.9 per cent. The shares of countries in Central and Eastern Europe and socialist countries in Asia changed in opposite directions, with the share of the former reduced to 0.9 per cent and that of the latter expanded to 4.3 per cent of the world fleet.

In the sector of general cargo ships, the fleet developments for developed market-economy countries and open-registry countries mirrored those in the dry bulk carrier sector. Developed market-economy countries decreased their share to 22.2 per cent of the world fleet, while open-registry countries recorded a drop to 32.4 per cent. Developing countries actually increased their share by 0.9 per cent to 29.6 per cent, with increases recorded in America and Asian countries. 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 2004 by 1 per cent to 34.6 per cent. The major open-registry countries' share decreased by 1.2 per cent, reaching 43.9 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 cent of the fleet. The share of developing countries increased slightly to 18.0 per cent, with the share of Asian developing countries increasing to 12.4 per cent, while developing countries in America increased their share to 5.5 per cent and those in Africa maintained their share at 0.1 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 2005. Developed market-economy countries' tonnage in tankers increased in 2004 by 6.2 million dwt to 108.4 million dwt and increased its share of the group's total fleet to 44.9 per cent. The share of dry bulk carriers decreased to 25.1 per cent despite an increase of 2.2 million dwt. General cargo ships' and container ships' share of their fleet registered opposite movements, down to 8.5 per cent for the former and up to 14 per cent for the latter, as compared with 9.3 per cent and 13.2 per cent in 2003. Major open-registry countries increased their total fleets by 4.5 million dwt. The greatest proportion of their fleets was in the oil tanker and dry bulk carrier sectors, which together accounted for 77.9 per cent of their fleet at the beginning of 2005. The proportion of oil tankers continued to decrease in 2004 by 0.5 million dwt and reached 145.1 million dwt, or 35.9 per cent of the group's total fleet, while the share of dry bulk carriers increased in by 3.1 million dwt to 42 per cent as compared with 41.7 per cent the previous year. The share of general cargo ships decreased in 2004 by 2.1 million dwt, accounting for 7.4 per cent of the group's total fleet, down from 8 per cent in 2003. These countries' container ship fleet expanded in 2004 by 2.2 million dwt to 10.7 per cent of their total fleet (up from 10.2 per cent in 2003).

In developing countries, tonnage distribution was characterized by a comparatively high proportion of oil tankers and dry bulk carriers, which represented

Table 14

Percentage shares of world tonnage, by types of vessel and country groups, in 1970, 1980, 1990, 2000, 2003 and 2004 [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	358.4	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
	2003	857.0	100.0	37.0	35.9	11.1	10.6	5.5
	2004	895.8	100.0	37.5	35.8	10.3	10.9	5.5
Developed market-economy countries	1970	211.9	65.0	63.9	69.2	65.6	99.0	61.3
	1980	350.1	50.3	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
	2003	230.4	26.9	32.2	19.0	22.7	33.6	38.0
	2004	241.7	27.0	32.2	18.9	22.2	34.6	37.4
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
	2003	399.5	46.6	45.7	54.1	33.6	45.1	33.1
	2004	404.0	45.1	43.2	52.9	32.4	43.9	33.4
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	12.6	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
	2003	15.7	1.8	1.0	1.0	6.5	0.5	6.0
	2004	14.5	1.6	0.9	0.9	6.2	0.4	4.7
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
	2003	29.9	3.5	1.7	4.1	8.8	2.9	2.0
	2004	33.5	3.7	2.0	4.3	9.6	3.1	2.4

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
	2003	181.4	21.2	19.4	21.8	28.3	17.9	20.9
	2004	202.3	22.6	21.8	22.9	29.6	18.0	22.1
of which:								
Africa	1970	1.1	0.3	0.2	-	1.3	-	0.7
	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
	2003	5.7	0.7	0.6	0.4	1.4	0.1	2.2
	2004	5.6	0.6	0.5	0.4	1.3	0.1	2.3
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
	2003	36.0	4.2	3.0	3.2	9.6	5.4	5.8
	2004	36.7	4.1	2.6	3.2	10.5	5.5	5.6
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
	2003	136.0	15.9	15.8	17.4	16.6	12.3	11.9
	2004	155.9	17.4	18.5	18.6	17.0	12.4	12.9
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
	2003	1.2	0.1	0.0	0.3	0.2	0.0	0.1
	2004	1.5	0.2	0.1	0.3	0.2	0.0	0.1
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
	2003	2.4	0.3	0.0	0.4	0.6	0.0	0.9
	2004	2.6	0.3	0.0	0.4	0.6	0.0	1.2

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
	2003	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	2004	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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 US Reserve Fleet and the US and Canadian Great Lakes fleets.

[b] Data through 1990 are as of 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 2005 [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	895.8	100.0	241.7	100.0	404.0	100.0	202.3	100.0	14.5	100.0	33.4	100.0
Oil tankers	336.2	37.5	108.4	44.9	145.1	35.9	73.1	36.2	2.9	20.3	6.6	19.6
Bulk carriers	320.6	35.8	60.6	25.1	169.7	42.0	73.4	36.3	3.0	21.0	13.9	41.6
General cargo ships	92.0	10.3	20.4	8.5	29.8	7.4	27.2	13.5	5.7	39.8	8.8	26.3
Container ships	98.1	10.9	34.0	14.0	43.0	10.7	17.6	8.7	0.4	2.9	3.0	9.0
Other ships	49.0	5.5	18.3	7.6	16.4	4.1	10.8	5.3	2.3	16.1	1.2	3.5

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.

36.2 per cent and 36.3 per cent respectively in 2004. In absolute terms, these countries' 2004 tonnage in oil tankers and dry bulk carriers was 73.1 million dwt and 73.4 million dwt as compared with 108.4 million dwt and 60.6 million dwt for developed market-economy countries. The share of general cargo ships in this group increased in 2004 to 27.2 million dwt compared with 26.9 million dwt in 2003, while container ships increased in tonnage by 1.4 million dwt and in percentage terms to 8.7 per cent in 2004 from 8.9 per cent the previous year. In the countries of Central and Eastern Europe, general cargo ships were relatively dominant, accounting for 39.8 per cent in 2004, as compared with 39.5 per cent in 2003. On the other hand, container ships have remained unchanged at 0.4 million dwt, or around 3 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 2004 to 13.9 million dwt and 8.8 million dwt respectively. However, their shares of the total decreased marginally to 41.6 per cent (from 42 per cent in 2003) for dry bulk carriers and 26.3 per cent (from 27.9 per cent in 2003) for general cargo ships. The absolute tonnage of container ships increased in 2004 to 3 million dwt, or 9 per cent (compared with 8.9 per cent in 2003).

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 appear in table 16. In 2004, these 35 countries and territories controlled 95 per cent of the world merchant fleet (2.5 per cent more than in the previous year). Greece and Japan were still at the top of the list. Monaco, which had been thirty-second in 2003, was replaced in 2004 by a new entrant, the United Arab Emirates, which occupied thirty-fourth place. There were several other countries moved in the rankings: France, Switzerland and Indonesia moved up by four places, the United Kingdom, Thailand and Ukraine by two places, and Germany, Belgium, China, the United States and Denmark by one place. Other countries moved down by one place (Russian Federation, the Islamic Republic of Iran, Malaysia, Turkey, Canada, the Netherlands, Saudi Arabia, Kuwait, Spain and Cyprus), two places (Singapore and Australia) or three places (Norway, Sweden and the Philippines).

Among these most important maritime countries and territories, registration under a foreign flag continued in 2004. The total tonnage registered under foreign flags in 2004 increased to 523.3 million dwt, representing 65.6 per cent of the 35 countries' total fleet, as compared with 489.3 million dwt or 64.6 per cent in 2003. For developing countries and territories, the trend towards registering their tonnage under foreign flags is a recent one. In 2004, 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 92.1 per cent and 57.9 per cent respectively, while the Islamic Republic of Iran and the Philippines made significantly less use of foreign flag facilities, which accounted for only 4.9 and 21.1 per cent respectively of their fleets. For developed market-economy countries, the share of foreign-registered tonnage increased to 72.2 per cent in 2004. In some countries, however, the opposite trend could be at work. Belgium raised total tonnage to 6.9 million dwt at 1 January 2005 (6.4 million dwt the previous year), even as its foreign flag fleet dropped from 81.3 to 45.5 per cent.

2. Open registries

The share of the world merchant fleet in major open registries increased by only 1.9 per cent in 2004 after a modest increase of 0.5 per cent the previous year. This may reflect the increased competitiveness of these registries given the attractive fiscal regimes for shipowners in some developed market-economy countries. 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 six minor open-registry countries. The total tonnage registered in 2004 in the six major registries increased by less than 2 per cent to 364.8 million dwt from 357.8 million dwt the previous year, when the tonnage increased by less than 1 per cent. Panama continued to head the list in 2004 with an expansion of 9.2 million dwt. This registry started a modernization process to counter shortcomings that had surfaced during the previous few years. A tender was issued in May 2004 to review seafarers' certificates and the accuracy of identification of the 250,000 new members, in line with new ISPS Code specifications. All new vessels registered were less than 10 years old, and a workable

Table 16

The 35 most important maritime countries and territories as of 1 January 2005 [a]

Country of domicile [b]	Number of vessels			Deadweight tonnage				
	National flag [c]	Foreign flag	Total	National flag	Foreign flag	Total	Foreign flag as a % of total	Total as a % of world total
Greece	739	2 245	2 984	50 997	104 147	155 144	67.13	18.48
Japan	717	2 228	2 945	12 611	105 050	117 662	89.28	14.01
Germany	349	2 266	2 615	9 033	48 877	57 911	84.40	6.90
China	1 695	917	2 612	27 110	29 703	56 812	52.28	6.77
United States	624	1 009	1 633	10 301	36 038	46 338	77.77	5.52
Norway	768	821	1 589	14 344	29 645	43 989	67.39	5.24
Hong Kong (China)	274	331	605	17 246	23 747	40 993	57.93	4.88
Republic of Korea	567	372	939	10 371	16 887	27 258	61.95	3.25
United Kingdom	426	459	885	10 865	14 978	25 843	57.96	3.08
Taiwan Province of China	112	419	531	5 297	18 034	23 331	77.30	2.78
Singapore	443	297	740	12 424	9 909	22 333	44.37	2.66
Denmark	300	346	646	8 376	8 491	16 867	50.34	2.01
Russian Federation	1 721	362	2 083	6 845	8 405	15 250	55.11	1.82
Italy	530	136	666	9 360	4 086	13 446	30.39	1.60
India	353	33	386	11 729	981	12 709	7.72	1.51
Switzerland	17	307	324	792	10 681	11 474	93.10	1.37
Saudi Arabia	53	70	123	872	10 190	11 062	92.12	1.32
Malaysia	259	68	327	6 054	3 781	9 835	38.44	1.17
Iran, Islamic Republic of	159	13	172	9 011	467	9 478	4.93	1.13
Turkey	423	225	648	6 196	2 572	8 768	29.33	1.04
Belgium	56	122	178	4 429	3 695	8 124	45.48	0.97
Netherlands	519	186	705	4 358	2 540	6 897	36.82	0.82
France	161	114	275	2 318	4 376	6 694	65.37	0.80
Canada	216	109	325	2 535	3 445	5 979	57.61	0.71
Indonesia	554	118	672	3 660	2 094	5 754	36.39	0.69
Brazil	137	14	151	2 955	2 470	5 425	45.54	0.65
Sweden	159	163	322	1 530	3 889	5 419	71.77	0.65
Philippines	287	39	326	3 952	1 057	5 008	21.10	0.60
Spain	88	231	319	248	4 115	4 363	94.32	0.52
Kuwait	36	9	45	3 487	304	3 791	8.02	0.45
Cyprus	22	54	76	459	2 643	3 102	85.19	0.37
Thailand	261	36	297	2 583	399	2 982	13.38	0.36

Table 16 (continued)

Country of domicile [b]	Number of vessels			Deadweight tonnage				
	National flag [c]	Foreign flag	Total	National flag	Foreign flag	Total	Foreign flag as a % of total	Total as a % of world total
Ukraine	259	134	393	1 002	1 677	2 679	62.61	0.32
United Arab Emirates	0	134	134	0	2 658	2 658	100.00	0.32
Australia	44	41	85	1 350	1 294	2 644	48.95	0.31
Total (35 countries)	13 328	14 428	27 756	274 697	523 326	798 022	65.58	95.04
World total	15 251	15 846	31 097	293 139	546 494	839 633	65.09	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 US Reserve Fleet and the US 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 making certain judgements. 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 territory).

Table 17

Tonnage distribution of open-registry fleets [a] as of 1 January 2005

Flag	Oil tankers		Bulk carriers		General cargo		Container ships		Others		Total		Total as of 1.1.2004
	Number	Thousand dwt	Number	Thousand dwt	Number	Thousand dwt	Number	Thousand dwt	Number	Thousand dwt	Number	Thousand dwt	Thousand dwt
Panama	631	48 295	1 365	88 350	1 198	11 590	581	21 356	491	8 274	4 266	177 866	168 508
Liberia	391	40 201	244	15 855	164	2 629	369	13 031	160	4 656	1 328	76 372	68 413
Bahamas	181	21 182	153	9 214	357	5 612	58	1 898	250	3 929	999	41 835	44 122
Malta	187	11 152	368	16 101	298	2 731	30	646	30	342	913	30 971	36 649
Cyprus	121	6 899	356	18 792	241	2 412	117	3 296	32	187	867	31 585	32 097
Bermuda	4	946	25	3 579	19	230	22	690	25	761	95	6 206	6 293
Subtotal	1 515	128 675	2 511	151 891	2 277	25 204	1 177	40 917	988	18 149	8 468	364 836	356 081
St. Vincent and the Grenadines	23	270	93	4 110	264	2 092	21	149	74	236	475	6 857	6 554
Antigua and Barbuda	6	23	29	764	592	2 754	256	4 753	15	89	898	8 383	6 039
Cayman Is.	49	1 755	28	1 459	41	607			16	219	134	4 040	3 321
Luxembourg	16	474			7	60	6	105	15	155	44	794	1 990
Vanuatu			25	1 251	15	240	1	29	107	360	148	1 879	1 381
Gibraltar	20	435	2	30	90	482	18	260	9	74	139	1 281	1 261
Total	1 629	131 632	2 688	159 506	3 286	31 439	1 479	46 213	1 224	19 280	10 306	388 069	376 628
Total six major open registers as of 1 January 2004	1 604	131 630	2 663	155 126	3 422	32 296	1 384	42 343	1 220	18 528	10 293	379 923	
Total six major open registers as of 1 January 2003	1 538	134 277	4 286	145 514	2 527	27 794	1 007	31 817	1 005	16 680	8 563	356 081	
Total six major open registers as of 1 January 2002												373 533	

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.

process for imposing fines for detentions and deficiencies on ships was under way. Liberia's fleet expanded by 3 per cent. The Government froze the assets of former officials in connection with an investigation into the misuse of monies of the registry to buy weapons despite a United Nations embargo. The combined tonnage of Panama and Liberia amounts to 69.7 per cent of the total tonnage of the six major open-registry countries. In 2004, Bermuda, the smallest of the six major registries, increased its fleet by 14 per cent to 6.2 million dwt, lower than those tonnages registered under Saint Vincent and the Grenadines and Antigua and Barbuda. The remaining three major open registries – the Bahamas, Malta and Cyprus – recorded a reduction in tonnages of 1.7, 12.4 and 0.4 per cent respectively.

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 (Belize, Cambodia, Honduras, Sri Lanka, etc.) also have open registries, albeit with less coverage. Maintaining a good flag reputation is not always easy, as was shown when a vessel flying the flag of Saint Vincent and the Grenadines was banned from European ports after a 10-day detention resulting in 14 deficiencies. Elsewhere, Mauritius and Macao were said to be upgrading their maritime frameworks to boost their registries.

Analysis by type of vessel for the six major registries indicated that tankers reduced their share of the total deadweight in 2004 to 35.2 per cent as compared with 35.8 per cent in 2003, while dry bulk carriers increased their share to 41.6 per cent. For the six major open registries, the combined tonnage of these two types of vessels accounts for 76.8 per cent of the total deadweight and 75 per cent when the minor registries are included. General cargo ships (3,286 ships) accounted for 31.9 per cent of the total number of ships, followed by dry bulk carriers (2,688 ships or 26.1 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 noteworthy. 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 that have a privileged relationship with the territory of registry have a significant share of the tonnage registered, as is the case with the 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 those 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. Some countries and territories with the highest share – namely Norway, Hong Kong (China) and Denmark – were ranked sixth, seventh and twelfth respectively of the 35 most important maritime countries in 2004.

The true nationalities of the vessels registered in the 12 open registries are analysed in table 19. In 2004, 35 countries or territories accounted for 90 per cent of the total tonnage of the 12 open-registry fleets. This percentage was 1 per cent above that of 2003. Ownership is particularly concentrated in 10 countries or territories, which control 76.2 per cent of the deadweight of vessels registered in these open-registry countries, while the top five countries or territories control 60.5 per cent. Japan was ranked first in 2004 with the largest share (22 per cent) of the open-registry fleets. Japan also had the largest foreign-flag ownership, representing 105.1 million dwt or 19.2 per cent of the total world foreign-flag tonnage, followed by Greece with 104.1 million dwt or 19 per cent of the total tonnage. The two countries' combined foreign-flag tonnage accounted for 38.2 per cent of the total world tonnage under foreign flags.

Table 19 also provides an overview of how the 35 countries were registering their vessels at the beginning of 2004 under open registries. Overall, the share of the six major open registers stands at 94.1 per cent, with the share of the minor open register considerably less, only 5.9 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 in 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 (%)		
	2003	2004	2005	2003	2004	2005	2003	2004	2005
Six major open registers									
Panama	168 508	168 710	177 866	0	0	0	0.0	0.0	0.0
Liberia	68 413	74 083	76 372	0	0	0	0.0	0.0	0.0
Bahamas	44 122	42 552	41 835	0	0	0	0.0	0.0	0.0
Malta	36 649	35 348	30 971	0	0	0	0.0	0.0	0.0
Cyprus	32 097	31 706	31 583	824	1 062	459	2.6	3.3	1.5
Bermuda	6 293	5 446	6 206	0	0	0	0.0	0.0	0.0
Six minor open registries									
Saint Vincent and the Grenadines	6 554	6 562	6 857	0	0	0	0.0	0.0	0.0
Antigua and Barbuda	6 039	7 306	8 383	0	0	0	0.0	0.0	0.0
Cayman Islands	3 321	4 086	4 040	0	0	0	0.0	0.0	0.0
Luxembourg	1 990	1 273	794	0	0	0	0.0	0.0	0.0
Vanuatu	1 381	1 785	1 879	0	0	0	0.0	0.0	0.0
Gibraltar	1 261	1 068	1 281	0	0	0	0.0	0.0	0.0
Total open registers	376 628	379 923	388 067	0	0	0	0.0	0.0	0.0
Eight international registers									
Singapore	31 246	36 486	40 934	12 627	11 704	12 424	40.4	32.1	30.4
Norwegian International Ship Registry (NIS)	27 373	24 007	21 265	23 654	19 873	12 396	86.4	82.8	58.3
Hong Kong (China)	24 892	34 468	43 957	13 207	15 376	17 246	53.1	44.6	39.2
Marshall Islands	21 860	31 625	38 088	8 667	11 018	10 828	39.6	34.8	28.4
Isle of Man	8 830	9 355	12 073	4 827	5 255	4 700	54.7	56.2	38.9
Danish International Ship Registry (DIS)	8 830	8 976	8 859	8 493	8 547	8 330	93.2	95.2	94.0
French Antarctic Territory	4 748	5 043	5 427	2 073	1 811	1 769	43.7	35.9	32.6
Netherlands Antilles	1 442	1 940	2 132	592	626	616	41.1	32.3	28.9

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 2005

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	%
Japan	1807	88493	45.3	98	5023	6.01	49	1872	3.90	1	27	0.07	18	341	1.00
Greece	558	22544	11.5	165	11129	13.31	192	9113	18.97	518	23880	66.15	392	18590	54.39
Germany	23	1539	0.8	502	18698	22.37	14	804	1.67	49	1078	2.98	233	6189	18.11
United States	144	2109	1.1	99	4357	5.21	171	10260	21.36	4	52	0.14	30	1402	4.10
China	319	11085	5.7	52	2931	3.51	7	222	0.46	15	236	0.65	8	187	0.55
Norway	66	1605	0.8	57	4833	5.78	244	7585	15.79	43	603	1.67	15	380	1.11
Hong Kong (China)	139	9440	4.8	27	1791	2.14	13	965	2.01	1	33	0.09	2	37	0.11
Taiwan Province of China	289	9554	4.9	54	4505	5.39			0.00	1	22	0.06			0.00
Republic of Korea	292	15670	8.0	4	16	0.02	1	20	0.04	4	82	0.23	1	62	0.18
United Kingdom	35	831	0.4	64	2479	2.97	73	1151	2.40	8	230	0.64	26	1010	2.95
Switzerland	194	6786	3.5	10	303	0.36	7	1039	2.16	35	712	1.97	4	77	0.23
Saudi Arabia	5	45	0.0	22	6468	7.74	16	2792	5.81			0.00			0.00
Singapore	63	1869	1.0	31	3720	4.45	11	301	0.63			0.00	2	62	0.18
Denmark	21	505	0.3	6	351	0.42	35	306	0.64			0.00			0.00
Russian Federation	7	30	0.0	60	5013	6.00	3	13	0.03	63	1129	3.13	59	1157	3.39
France	11	374	0.2	3	152	0.18	30	906	1.89	5	53	0.15	1	4	0.01
Spain	42	331	0.2			0.00	6	683	1.42			0.00	4	170	0.50
Italy	9	92	0.0	14	947	1.13	11	357	0.74	17	449	1.24			0.00
Sweden	5	21	0.0	12	493	0.59	14	681	1.42	3	21	0.06	6	24	0.07
Malaysia	16	131	0.1			0.00	12	75	0.16			0.00			0.00
Belgium	14	220	0.1			0.00	14	178	0.37	12	111	0.31	1	9	0.03
Canada	1	15	0.0	4	225	0.27	9	308	0.64	9	37	0.10	8	416	1.22
United Arab Emirates	47	990	0.5			0.00	11	470	0.98	4	108	0.30	13	624	1.83
Cyprus	7	704	0.4	1	96	0.12	13	729	1.52	2	47	0.13	22	459	1.34
Turkey	18	103	0.1	4	217	0.26	7	81	0.17	87	1343	3.72			0.00
Netherlands	30	374	0.2	19	549	0.66	29	728	1.52	3	24	0.07	14	128	0.37
Brazil	6	1100	0.6	6	1085	1.30			0.00			0.00			0.00
Indonesia	48	542	0.3	1	79	0.09	2	82	0.17			0.00			0.00
Ukraine	12	182	0.1	7	265	0.32			0.00	25	402	1.11	3	34	0.10
Australia	3	82	0.0	2	355	0.42	4	95	0.20			0.00			0.00
Philppines	14	175	0.1			0.00			0.00			0.00			0.00
India	9	261	0.1	4	294	0.35			0.00			0.00	2	72	0.21
Iran, Islamic Republic of	2	12	0.0			0.00			0.00	4	293	0.81	2	148	0.43
Thailand	10	54	0.0			0.00	1	17	0.04			0.00			0.00
Kuwait			0.0			0.00			0.00			0.00			0.00
Total (35 countries)	4266	177866	91.1	1328	76372	91.36	999	41835	87.09	913	30971	85.79	866	31583	92.40
Others	1207	17420	8.9	118	7220	8.64	153	6202	12.91	238	5130	14.21	112	2598	7.60
Total	5473	195286	100.0	1446	83592	100	1152	48037	100	1151	36101	100	978	34181	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		
No. of vessels	000 dwt	%	No. of vessels	000 dwt	%	No. of vessels	000 dwt	%	No. of vessels	000 dwt	Country or territory of domicile
		0.00	25	744	2.77	1998	96499	22.40	2228	105050	Japan
1	15	0.22	135	4200	15.64	1961	89472	20.77	2245	104147	Greece
1	22	0.33	988	9609	35.77	1810	37939	8.81	2266	48877	Germany
21	301	4.44	187	1879	6.99	656	20359	4.73	1009	36038	United States
		0.00	118	1786	6.65	519	16446	3.82	917	29703	China
5	58	0.86	38	211	0.79	468	15276	3.55	821	29645	Norway
5	676	9.98	10	122	0.45	197	13065	3.03	331	23747	Hong Kong (China)
		0.00	5	29	0.11	349	14111	3.28	419	18034	Taiwan Province of China
		0.00	3	9	0.03	305	15859	3.68	372	16887	Republic of Korea
26	3064	45.22	33	478	1.78	265	9242	2.15	459	14978	United Kingdom
3	550	8.11	29	593	2.21	282	10060	2.33	307	10681	Switzerland
		0.00	3	17	0.06	46	9322	2.16	70	10190	Saudi Arabia
		0.00	2	33	0.12	109	5986	1.39	297	9909	Singapore
		0.00	30	549	2.05	92	1710	0.40	346	8491	Denmark
		0.00	25	260	0.97	217	7602	1.76	362	8405	Russian Federation
1	7	0.10	22	306	1.14	73	1802	0.42	114	4376	France
		0.00	2	10	0.04	54	1194	0.28	231	4115	Spain
		0.00	33	757	2.82	84	2603	0.60	136	4086	Italy
9	715	10.56	17	173	0.64	66	2128	0.49	163	3889	Sweden
		0.00	0	0	0.00	28	206	0.05	68	3781	Malaysia
		0.00	28	559	2.08	69	1078	0.25	122	3695	Belgium
20	662	9.77	5	266	0.99	56	1929	0.45	109	3445	Canada
		0.00	23	160	0.59	98	2352	0.55	134	2658	United Arab Emirates
		0.00	1	7	0.03	46	2042	0.47	54	2643	Cyprus
		0.00	20	65	0.24	136	1808	0.42	225	2572	Turkey
		0.00	26	108	0.40	121	1911	0.44	186	2540	Netherlands
		0.00	0	0	0.00	12	2185	0.51	14	2470	Brazil
1	2	0.03	0	0	0.00	52	705	0.16	118	2094	Indonesia
		0.00	9	88	0.33	56	970	0.23	134	1677	Ukraine
2	134	1.97	6	72	0.27	17	738	0.17	41	1294	Australia
		0.00	2	39	0.14	16	214	0.05	39	1057	Philppines
		0.00	8	87	0.32	23	713	0.17	33	981	India
		0.00	3	7	0.02	11	459	0.11	13	467	Iran, Islamic Republic of
		0.00	2	10	0.04	13	81	0.02	36	399	Thailand
		0.00	0	0	0.00	0	0	0.00	9	304	Kuwait
95	6206	91.60	1838	23234	86.49	10305	388067	90.07	14428	523326	(35 countries)
16	569	8.40	409	3628	13.51	2253	42767	9.93	1418	23168	Others
111	6775	100.00	2247	26862	100.00	12558	430834	100.00	15846	546494	Total

D. SHIPBUILDING AND THE SECOND-HAND MARKET

1. Newbuilding orders

In 2004, 1,397 newbuilding contracts were placed for the six major ship types, an impressive increase of 20.5 per cent in comparison with 2003 (see table 20). In the tanker sector, optimism continued to prevail, with 547 orders, as compared with 456 in 2003. The peak was reached in August with 68 orders, followed by March and May with 64 and 54 orders each. In 2004, newbuilding orders for dry bulk carriers increased to 246, about 27.5 per cent up over orders of the previous year (193 contracts).

Newbuilding orders for container ships were also up by almost 20 per cent; there were 387 contracts in 2004 as compared with 325 in 2003. These newbuilding contracts continued to reflect the recent trend towards post-Panamax container ships. The newbuilding orders for general cargo ships increased by an astonishing 40 per cent in 2004 to 127 contracts, compared with 91 units in 2003. Orders for passenger ferries decreased slightly to 90 contracts (94 in the previous year).

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 2005 stood at 124.6 million dwt, representing a decrease of 22.3 per cent over the previous year. Tonnage on order by developed market-economy countries amounted to 35.4 million dwt, accounting for 28.4 per cent of the total world tonnage on order, as compared with 47 million dwt or 29.3 per cent at the beginning of 2004. Major open-registry countries had 69.7 million dwt or 56 per cent of world tonnage on order, as compared with 87.2 million dwt or 54.3 per cent at the beginning of the previous year. The share of the countries of Central and Eastern Europe in 2004 stood at 0.4 million dwt or 0.3 per cent of the world total on order, while the tonnage on order of the socialist countries in Asia decreased by 29 per cent in 2004, ending the year with 4.3 million dwt or 3.5 per cent of the world total on order.

Developing countries' tonnage on order dropped by 24.5 per cent over the previous year, reaching 14.9 million dwt or 11.9 per cent of the total world tonnage on order at the beginning of 2005. Tonnage on order by Asian developing countries dropped by a quarter to 13.6 million dwt at the beginning of 2005, accounting for 93.2 per cent of the developing countries' total tonnage on order. African newbuilding orders reached 105,000 dwt at the beginning of 2005, while those of developing countries in America reached 0.7 million dwt.

In 2004, oil tanker orders decreased by 26.4 per cent to 45 million dwt, accounting for 36.1 per cent of the world total on order. Developing countries had 6.7 million dwt on order, representing 14.8 per cent of the total tankers on order, with Asian developing countries representing 6.5 million dwt or 97.3 per cent of the developing countries' total. The number of dry bulk carriers on order at the beginning of 2005 decreased from 2004 by 28.7 per cent to 33.2 million dwt, accounting for 26.6 per cent of the world total on order. For this type of vessel, developed market-economy countries and major open-registry countries accounted for 13.2 per cent and 72.1 per cent, representing a combined share of 85.3 per cent. The volume of container ships on order in 2004 stood at 29.6 million dwt at year's end, representing 23.4 per cent of the world total on order. For container ships on order, developed market-economy countries accounted for 28.9 per cent and major open-registry countries accounted for over 58.4 per cent. At the beginning of 2005, developing countries' container ship orders increased by 16.1 per cent to 2.7 million dwt, or 9.1 per cent of the total container ships on order. Asian developing countries had 2.5 million dwt or 91.3 per cent of the developing countries' total on order.

3. Prices of newbuildings and second-hand tonnage

Table 22 indicates newbuilding prices for the main types of vessel. In 2004, prices for all the main types and sizes of newbuildings increased significantly over those of the previous year. Price increases were more pronounced for tankers and bulk carriers and reflected the high demand for these modes of transport. Newbuilding prices for Panamax dry bulk carriers and VLCC tankers fared particularly well, with a 40 per cent increase in 2004, while prices for Suezmax tankers and Handymax bulk carriers increased by 36.6 and 36.4 per cent respectively. Prices of 2,500-TEU cellular container ships increased by 10.5 per cent, while prices for general cargo vessels were up by 25 per cent. Price increases of 30.5 and 22.6 per cent were observed for LPG and LNG gas carriers. In general, the upward trend of shipbuilding prices during the year reflected increased ship ordering in the wake of optimistic forecasts for international trade.

Table 20

Newbuilding contracts placed for the main types of ship [a] during 1994–2004

(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
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	447	23 979	275	20 799	-	-	136	1 593	135	6 223	111	131	1 104	52 725
2003	456	-	193	-	0	-	91	-	325	-	94	-	1 159	-
2004														
Jan	38	-	9	-	0	-	3	-	53	-	5	-	108	-
Feb	45	-	16	-	0	-	18	-	48	-	5	-	132	-
Mar	64	-	28	-	0	-	10	-	23	-	12	-	137	-
Apr	26	-	11	-	0	-	12	-	26	-	11	-	86	-
May	54	-	14	-	0	-	7	-	50	-	3	-	128	-
June	43	-	22	-	0	-	3	-	40	-	10	-	118	-
July	53	-	20	-	0	-	5	-	14	-	4	-	96	-
Aug	68	-	27	-	0	-	10	-	30	-	2	-	137	-
Sept	39	-	16	-	0	-	5	-	28	-	2	-	90	-
Oct	47	-	11	-	0	-	8	-	12	-	6	-	84	-
Nov	41	-	16	-	0	-	21	-	31	-	18	-	127	-
Dec	29	-	56	-	0	-	25	-	32	-	12	-	154	-
Total	547	-	246	-	0	-	127	-	387	-	90	-	1 397	-

Sources: Compiled by the UNCTAD secretariat. Figures up to 2002 based on data from Institute of Shipping Economics and Logistics, *Shipping Statistics and Market Review,* Jan./Feb. 2004, table II-1.1.1.1. Figures for 2004 based on data published in Institute of Shipping Economics and Logistics, *Shipping Statistics and Market Review*, January/February 2005, p. 68, from monthly data provided by Baird Publications (Australia).

[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 2005

(thousands of dwt)

Country groups of registry	Total	Oil tankers	Bulk carriers	General cargo	Container ships	Other ships
World total	124 642	44 957	33 197	1 978	29 629	14 881
Developed market-economy countries	35 396	14 781	4 398	654	8 554	7 008
Major open-registry countries	69 746	22 012	23 928	685	17 304	5 817
Countries of Central and Eastern Europe	330	21	0	159	0	149
Socialist countries of Asia	4 314	1 480	1 223	44	1 066	501
Developing countries, total	14 857	6 662	3 648	436	2 705	1 406
of which:						
Africa	105	1	0	0	0	104
Americas	686	10	28	259	235	154
Asia	13 852	6 485	3 620	177	2 470	1 100
Europe	214	167	0	0	0	47
Oceania	0	0	0	0	0	0

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

Table 22

Representative newbuilding prices in selected years [a]

(millions of dollars)

Type and size of vessels	1985	1990	1995	2000	2002	2003	2004	% change 2003/2004
30-50,000 dwt bulk carrier	11	24	25	20	15	22	30	36.4
32-45,000 dwt tanker	18	29	34	29	26	30	38	26.7
70-74,000 dwt bulk carrier	14	32	29	23	20	25	35	40.0
80-105,000 dwt tanker	22	42	43	41	35	41	56	36.6
170,000 dwt bulk carrier	27	45	40	40	31	47	61	29.8
250-280,000 dwt tanker	47	90	85	76	67	75	105	40.0
125-138,000 m^3 LNG	200	225	245	165	164	155	190	22.6
75,000 m^3 LPG	44	78	68	60	60	59	77	30.5
15,000 dwt general cargo	12	24	21	19	16	16	20	25.0
2,500 TEU full containership	26	52	50	35	28	38	42	10.5

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.

As table 23 indicates, average second-hand prices for tankers and bulk carriers recorded substantial increases. Dry bulk carriers recorded gains of around 40 per cent, with the largest one being for Panamax vessels. The number of transactions was also up – to 447 from the 2003 level of 358, with Panamax and Cape-size being most popular and the small handy-size vessels accounting for 175 transactions. In the tanker sector, double-digit price increases were seen during the year, with Suezmax tonnage recording 54.2 per cent increases. A record number of transactions were reported for 2004, when 386 units changed hands (compared to 345 units the year before), with 244 units being over 50,000 dwt, including seven ULCCs.

Table 23

Second-hand prices for five-year-old vessels, 1999–2004

(as of year's end, in millions of dollars)

Vessel	1999	2000	2001	2002	2003	2004	% change 2003/2004
40,000 dwt tankers	20	27	26	24	28	40	42.9
80-95,000 dwt tankers[a]	26	39	33	30	38	57	50.0
130-150,000 dwt tankers[a]	36	50	43	42	48	74	54.2
250-280,000 dwt tankers[a]	50	71	60	53	75	107	42.7
45,000 dwt dry bulk carrier	16	15	12	15	21	30	42.9
70,000 dwt dry bulk carrier	17	16	14	17	28	41	46.4
150,000 dwt dry bulk carrier	28	25	22	26	41	57	39.0

Source: Compiled by the UNCTAD secretariat on the basis of data supplied by Fearnleys, *Review 2004.*

[a] Prices correspond to the larger vessels in the range.

Chapter 3

PRODUCTIVITY OF THE WORLD FLEET AND SUPPLY AND DEMAND IN WORLD SHIPPING

This chapter provides information on the operational productivity of the world fleet and an analysis of the balance between supply and demand for tonnage. Key indicators are the comparison of cargo generation and fleet ownership, tons of cargo carried and ton-miles performed per deadweight ton, and the analysis of tonnage oversupply in the main shipping market sectors.

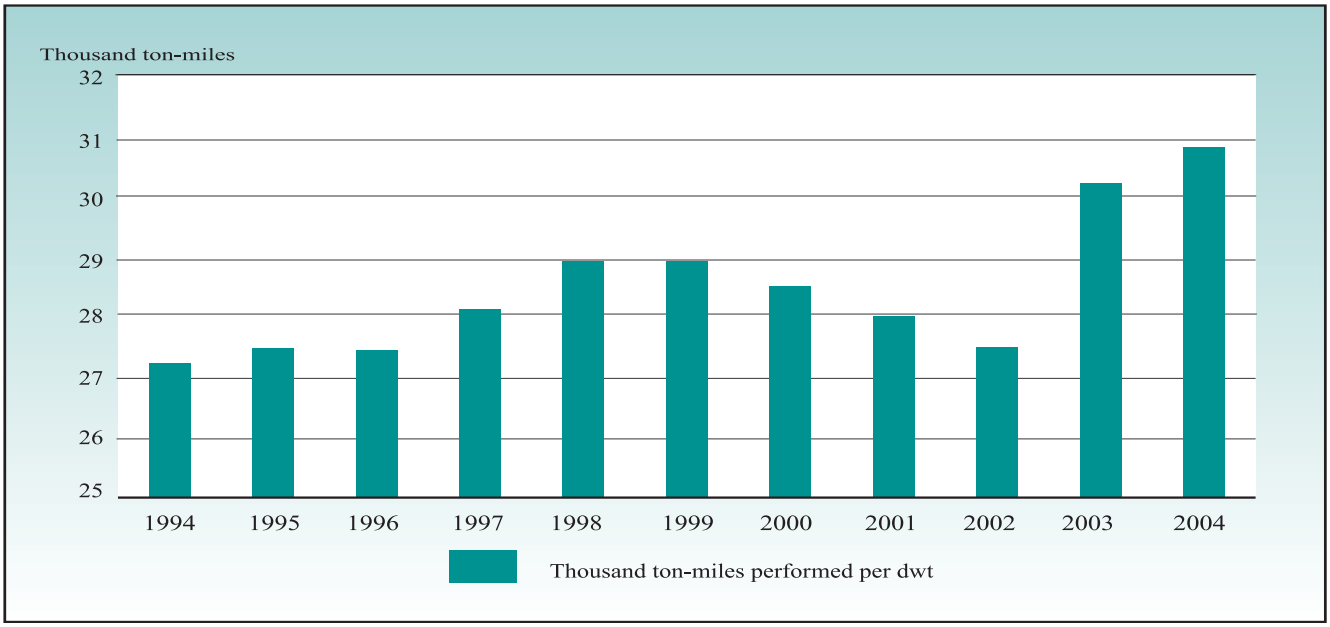
A. OPERATIONAL PRODUCTIVITY

The main indicators of operational productivity for the world fleet in tons and ton-miles per deadweight ton (dwt) are shown in figure 6 and table 24. Tons of cargo carried per deadweight ton (dwt) in 2004 decreased slightly to 7.5, while thousands of ton-miles performed per deadweight ton increased to 30.8. The marginal decrease in productivity measured in tons of cargo carried per deadweight ton (dwt) reflects the faster rate of fleet expansion relative to the cargo carried. The increase in productivity, measured in ton-miles per dwt, resulted from the increased carriage distance of seaborne trade, notably that of crude oil and the decision to maintain the previously-established extended sea routes around western Europe due to environmental concerns.

Table 25 provides supplementary data on operational productivity in terms of cargo carried per dwt by type of vessel. Productivity in terms of tons carried per dwt for oil tankers decreased marginally to 6.7, while that for dry bulk and combined carriers increased to 5.1 and 8.8 tons per dwt respectively. The cargo volumes carried per dwt of the residual fleet decreased marginally to 11.9 tons per dwt.

Figure 6

Ton-miles performed per deadweight ton of total world fleet, 1994–2004



Source: UNCTAD calculations.

Table 24

Cargo carried and ton-miles performed per deadweight ton (dwt) of the total world fleet, selected years

Year	World fleet (million dwt)	Total cargo (million tons)	Total ton-miles performed (thousands of millions of ton-miles	Tons carried per dwt	Thousands of ton-miles performed per dwt
1990	658.4	4 008.0	17 121	6.1	26.0
1995	734.9	4 651.0	20 188	6.3	27.5
2000	808.4	5 871.0	23 016	7.3	28.5
2003	857.0	6 479.5	25 844	7.6	30.2
2004	895.8	6 758.3	27 635	7.5	30.8

Sources: World fleet: Lloyd's Register – Fairplay (mid-year data for 1990, year-end data for all other years shown); total cargo carried: UNCTAD secretariat; ton-miles: Fearnleys, *Review,* various issues. Data compiled by the UNCTAD secretariat.

Table 25

Estimated productivity of tankers, bulk carriers, combined carriers [a] and the residual fleet, [b] selected years

(tons carried per dwt)

Year	Tons of oil carried by tankers of over 50,000 dwt (millions)	Tons carried per dwt of tankers	Tons of dry cargo carried by bulk carriers of over 18,000 dwt (millions)	Tons carried per dwt of bulk carriers	Tons of oil and dry bulk cargo carried by combined carriers of over 18,000 dwt (millions)	Tons carried per dwt of combined carriers	Tons carried by the residual fleet (millions)	Tons carried per dwt of the residual fleet
1970	1 182	8.6	403	8.4	97	6.8	800	6.3
1980	1 564	4.8	396	2.9	282	5.8	1 406	8.3
1990	1 427	6.0	667	3.3	203	6.3	1 680	9.1
2000	2 073	7.3	1 255	4.6	122	7.9	2 533	10.5
2003	2 145	6.8	1 456	4.9	97	8.0	2 782	12.0
2004	2 247	6.7	1 571	5.1	85	8.8	2 855	11.9

Sources: Compiled by the UNCTAD secretariat on the basis of data from Fearnleys *Review*, various issues; *World Bulk Trades* and *World Bulk Fleet*, various issues; and other specialized sources.

[a] Tankers, bulk carriers and combined carriers indicated in table 6.

[b] The residual fleet refers to general cargo, container and other vessels included in table 6.

Indicative data on ton-miles performed by oil tankers, dry bulk carriers, combined carriers and the residual fleet are provided in table 26. The thousands of ton-miles per dwt of oil tankers increased in 2004 by less than 1 per cent to 32.4, while the ton-miles per dwt of dry bulk carriers and combined carriers increased by 2.8 and 11.6 per cent to 25.7 and 43.1 respectively. The residual fleet increased its productivity by 3.9 per cent to 34.9 ton-miles per dwt.

B. SUPPLY AND DEMAND IN WORLD SHIPPING

1. Surplus tonnage

A summary of the balance of tonnage supply and demand for selected years appears in table 27. The total surplus tonnage in 2004 was about half that of the previous year – 6.2 million dwt. This was largely attributable to the high level of vessel scrapping over the last few years and to increased employment of ships.

2. The supply and demand mechanism by type of vessel

Tonnage supply in the oil tanker sector increased in 2004 by 12.3 million dwt to 298.3 million dwt as newbuildings delivered outweighed tonnage scrapped, laid up or lost (see table 28 and figure 7). This, combined with increased shipments and extended haulage, brought down overcapacity to 3.4 million dwt or 1.1 per cent of the total world tanker fleet. In 2004, the total dry bulk fleet supply increased by 27.6 million dwt to 325.1 million dwt. Overtonnage for this type of vessel reached 2.1 million dwt, equivalent to 0.6 per cent of the dry bulk fleet. For the conventional general cargo fleet, overcapacity stood at the same level as in the previous year, with supply exceeding demand by only 0.7 million dwt or 1.6 per cent of the world fleet of this sector. The surplus tonnage of general cargo vessels has been under 1 million dwt for the last four years.

Table 26

Estimated productivity of tankers, bulk carriers, combined carriers [a] and the residual fleet, [b] selected years

(thousands of ton-miles performed per dwt)

Year	Ton-miles of oil carried by tankers (thousands of millions)	Ton-miles per dwt of tankers	Ton-miles of dry cargo carried by dry bulk carriers (thousands of millions)	Ton-miles per dwt of bulk carriers	Ton-miles of oil and dry bulk cargo by combined carriers (thousands of millions)	Ton-miles per dwt of combined carriers	Ton-miles of the residual fleet (thousands of millions)	Ton-miles per dwt of the residual fleet
1970	6 039	43.8	1 891	39.4	745	52.5	1 979	15.7
1980	9 007	27.6	2 009	14.5	1 569	32.4	4 192	24.8
1990	7 376	30.8	3 804	18.8	1 164	36.0	4 777	26.0
2000	9 840	34.5	6 470	23.9	593	38.5	6 837	28.3
2003	10 210	32.2	7 357	24.9	467	38.6	7 823	33.6
2004	10 898	32.4	7 984	25.7	418	43.1	8 349	34.9

Source: Compiled by the UNCTAD secretariat on the basis of data from Fearnleys *Review*, various issues; *World Bulk Trades* and *World Bulk Fleet*, various issues; and other specialized sources.

[a] Tankers, bulk carriers and combined carriers indicated in table 6.

[b] The residual fleet refers to general cargo, container and other vessels included in table 6.

Table 27

Tonnage oversupply in the world merchant fleet, selected years

(end-of-year figures)

	1990	1999	2000	2002	2003	2004
			Million dwt			
World merchant fleet	658.4	799.0	808.4	844.2	857.0	895.8
Surplus tonnage[a]	63.7	23.7	18.4	21.7	10.3	6.2
Active fleet[b]	594.7	775.3	790.0	822.5.	846.7	889.6
			Percentages			
Surplus tonnage as percentage of world merchant fleet	9.7	3.0	2.3	2.6	1.2	0.7

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

[a] Average annual estimates. Surplus tonnage is defined as tonnage that is not fully utilized because of slow steaming or lay-up status, or because it is lying idle for other reasons

[b] World fleet minus surplus tonnage.

Table 28

Analysis of tonnage surplus by main type of vessel, selected years [a]

(average annual figures in millions of dwt)

	1997	1998	1999	2000	2002	2003	2004[b]
World tanker fleet	290.6	291.0	281.8	279.4	267.7	286.0	298.3
Total tanker fleet surplus [c]	17.0	17.3	14.0	13.5	19.1	6.0	3.4
Share of surplus fleet in world tanker fleet (%)	5.8	5.9	5.0	4.8	7.1	2.1	1.1
World dry bulk fleet	260.9	257.1	245.7	247.7	258.8	297.5	325.1
Dry bulk fleet surplus [c]	10.3	5.8	7.9	3.8	2.2	3.6	2.1
Share of surplus fleet in world dry bulk fleet (%)	3.9	2.3	3.2	1.5	0.9	1.2	0.6
World conventional general cargo fleet	62.0	60.5	59.9	59.3	57.3	43.4	43.6
Conventional general cargo fleet surplus	1.7	1.6	1.8	1.1	0.4	0.7	0.7
Share of surplus fleet in world conventional general cargo fleet (%)	2.7	2.6	3.0	1.8	0.7	1.6	1.6
World unitized fleet [d]	65.7	73.0	76.1	83.6	98.6	120.9	131.0
World unitized fleet surplus	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Share of surplus fleet in world unitized fleet (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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

[a] Aggregates for all sectors shown in this table are averages for the years indicated and therefore differ from the world figures in table 27. This table excludes tankers and dry bulk carriers of less than 10,000 dwt and conventional general cargo/unitized vessels of less than 5,000 dwt.

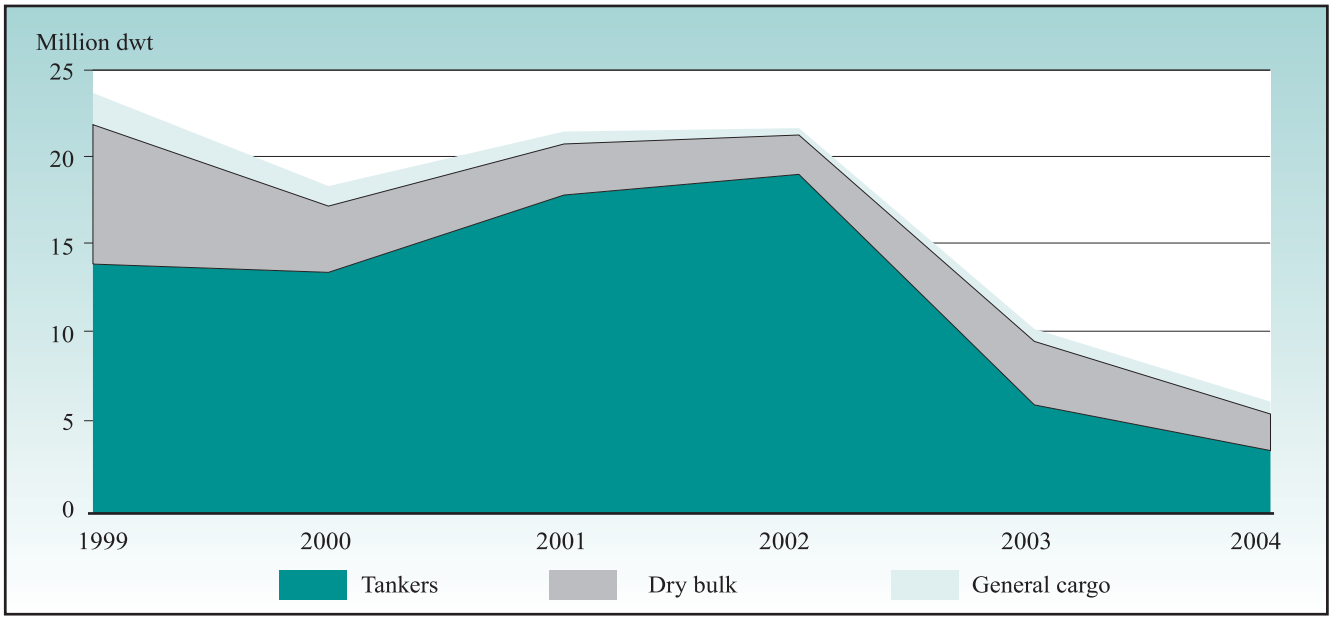
[b] Including 50 per cent of combined ore/bulk/oil carriers.

[c] Unitized fleet includes here fully cellular container ships, partly cellular container ships, ro-ro ships and barge carriers.

[d] Data for 2004 correspond to figures up to October 2004 as compiled in December 2004.

Figure 7

Trends in surplus capacity by main vessel types, selected years



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

C. COMPARISON OF CARGO TURNOVER AND FLEET OWNERSHIP

The correlation between cargo volume generated by different country groups and their fleet ownership is summarized in table 29. Developed market-economy countries generated 48.9 per cent of world seaborne trade in 2004, compared with 53.7 per cent in 1980. Over the same period, the tonnage share of the fleet of developed market-economy countries fell, from about 51 per cent in 1980 to about 27 per cent in 2004. However, in addition to tonnage under national flags, there is also the tonnage of vessels owned by nationals of particular countries but registered under foreign flags, and the two together bring the share of developed market-economy countries to 65 per cent. The share of developing countries in world cargo turnover has remained at about 40 per cent. Their tonnage owned and registered under national flags increased from 10 per cent of the world fleet in 1980 to 22.6 per cent at the beginning of 2005. Tonnage beneficially owned by developing countries has expanded to nearly one third of the total beneficially registered tonnage, bringing the total tonnage owned by developing countries to about 36 per cent of the world fleet. The share of world cargo turnover generated by the countries of Central and Eastern Europe remained at about 3 per cent in 2004, unchanged from the levels of previous years but significantly less than the 4.7 per cent level of 1980. These countries' fleet position also declined from 5.5 per cent to less than 2 per cent in 2004. The socialist countries in Asia increased their share in world trade to 8.1 per cent in 2004, while they improved their share in world tonnage from 1.6 per cent in 1980 to 3.7 per cent in 2004. In addition, these countries have a small share of their fleet registered in the open registries.

Information on the fleet ownership of the major trading nations appears in table 30. The major trading nations are also major owners of tonnage, which reflects the fact that in trade-supporting policies maritime transport can be exploited as a complement to trade. Maritime capabilities, specifically ownership of substantial tonnage, are generally considered essential for a country's trade support and promotion. The table also highlights the similarities and differences among the shipping services of the leading trading nations. Major trading countries such as Japan, China (including Hong Kong), the Republic of Korea, Denmark and Sweden are outstanding among the nations with maritime services for cross trades. Other major trading

Table 29

Comparison between total cargo turnover and fleet ownership, by country groups, in 1970, 1980, 1990, 2000 and 2003–2004

Country grouping	Year	Total of goods loaded and unloaded (million tons)	Percentage of world total	Merchant fleet (million dwt)	Percentage of world total
Developed market-economy countries	1970	2 812.1	54.8	282.2	86.5
	1980	3 965.0	53.7	350.1	51.3
	1990	4 529.0	55.7	219.0	33.3
	2000	6 390.7	52.1	203.2	25.1
	2003	6 463.0	49.4	230.4	26.9
	2004	6 627.8	48.9	241.7	27.0
Major open-registry countries	1970	[a]	[a]	70.3	21.6
	1980	[a]	[a]	212.6	31.1
	1990	[a]	[a]	224.6	34.1
	2000	[a]	[a]	384.7	47.6
	2003	[a]	[a]	399.5	46.6
	2004	[a]	[a]	404.0	45.1
Developing countries	1970	2 074.9	40.4	20.5	6.3
	1980	2 926.0	39.6	68.4	10.0
	1990	3 065.0	37.7	139.7	21.2
	2000	4 834.0	39.4	157.0	19.4
	2003	5 243.2	40.1	181.4	21.2
	2004	5 398.2	39.9	202.3	22.6
Countries of Central and Eastern Europe (including former USSR)	1970	264.4	4.8	21.7	6.7
	1980	346.0	4.7	37.8	5.5
	1990	235.9	2.9	44.3	6.7
	2000	377.1	3.1	16.3	2.0
	2003	417.6	3.2	15.7	1.8
	2004	427.9	3.2	14.5	1.6

Table 29 (continued)

Country grouping	Year	Total of goods loaded and unloaded (million tons)	Percentage of world total	Merchant fleet (million dwt)	Percentage of world total
Socialist countries of Asia	1970	43.6	0.9	1.2	0.4
	1980	146.0	2.0	10.9	1.6
	1990	167.7	2.1	22.1	3.4
	2000	654.1	5.3	26.1	3.2
	2003	958.7	7.3	29.9	3.5
	2004	1 091.4	8.1	33.5	3.7
World total[b]	1970	5 134.4	100.0	326.1	100.0
	1980	7 383.0	100.0	682.8	100.0
	1990	8 133.3	98.3	658.4	100.0
	2000	12 256.5	100.0	808.4	100.0
	2003	13 082.5	100.0	856.9	100.0
	2004	13 545.4	100.0	895.8	100.0

Source: As per annexes II and III(b).

[a] All goods loaded and unloaded are included in the volume of developing countries.

[b] Including unallocated tonnage indicated in annex III(b).

nations are major importers or users of shipping services while maintaining a relevant ownership position and, to a lesser extent, a national flag position. The United States and France fall into this group. In 2004 the United States generated 12.6 per cent of world trade while owning 5.5 per cent of world tonnage, with only about one fourth of such tonnage flying the national flag. Similarly, France generated about 5 per cent of world trade as compared with a tonnage ownership position of 0.8 per cent, with the national flag having a share of one half of this percentage.

Table 30

Maritime engagement of 25 major trading nations

(as of the end of 2004)

Country/territory	Percentage share of world trade generated, in terms of value	Percentage share of world fleet in terms of dwt
United States	12.6	5.5
Germany	8.8	6.9
China	6.2	6.8
Japan	5.5	14.0
France	4.9	0.8
United Kingdom	4.3	3.1
Italy	3.7	1.6
Netherlands	3.7	0.8
Canada	3.2	0.7
Belgium	3.2	1.0
Hong Kong (China)	2.9	4.9
Republic of Korea	2.6	3.3
Spain	2.3	0.5
Mexico	2.1	0.0
Taiwan Province of China	1.9	2.8
Singapore	1.8	2.7
Russian Federation	1.5	1.8
Switzerland	1.2	1.4
Malaysia	1.2	1.2
Sweden	1.2	0.7
Austria	1.2	0.0
Thailand	1.0	0.4
Australia	1.0	0.3
Brazil	0.9	0.7
Ireland	0.9	0.0
Total	80.1	61.6

Source: Compiled by the UNCTAD secretariat on the basis of data supplied by the World Trade Organization.

Chapter 4

TRADE AND FREIGHT MARKETS

This chapter describes conditions and trends in trade and freight markets, covering the major liner and bulk cargo sectors; it gives liner freight rates as a percentage of commodity prices; and it estimates freight payments and freight costs as a percentage of import value in world trade.

A. CRUDE OIL AND PETROLEUM PRODUCTS SEABORNE FREIGHT MARKET

1. Seaborne trade in crude oil and petroleum products

During 2004, tanker freight rates fluctuated in response to OPEC decisions to boost production levels, increased demand from major consumer countries and China, and buyers' decisions in an uncertain supply environment. (The uncertainty resulted from the tax problems of a major Russian oil producer, sudden fluctuations of Iraqi exports and concerns about the outcome of a referendum in Venezuela.)

In 2005, the demand for shipments of crude oil and oil products is likely to be affected by OPEC decisions related to production levels, by Russian export volumes, and by the strength of demand in Western Europe, North America, Japan and China.

2. Tanker freight rates

Overall, the year 2004 was a bright one for tanker owners. As table 31 indicates, two of the five freight indices for vessels engaged in transporting crude oil and petroleum products rose during the year. The index for VLCCs and ULCCs went from 133 to 216, and that for clean tankers from 287 to 367. The full extent of how good freight rates were during the year only becomes apparent, however, when one notes that all five indices had risen substantially in 2003 and that the three indices that fell during 2004 did so modestly. The indices for Suezmax, Aframax and handy-sized tankers dropped from 250 to 240, from 289 to 268 and from 386 to 378, respectively.

Average freight indices for 2004 in the five categories of tankers were above the corresponding averages for the last quarter of 2003. For VLCC/ULCC, the average of 144 recorded for the year is above the 106 recorded for the last quarter of the previous year. Indices increased by similar amounts for Suezmax-sized tonnage (the average was 195 for 2004 as against 153 for the last quarter of 2003) and Handy-sized tonnage (287 against 247). Less impressive was the increase for Aframax tonnage (229 against 204). The increase for clean tankers was the most remarkable – an average of 283 for 2004 against 218 recorded for the last quarter of 2003.

Very large and ultra-large crude carriers (VLCCs and ULCCs)

During the first quarter of 2004, all rates slid from the highs reached during the last quarter of the previous year. The corresponding rates from the Persian Gulf to Japan, the Republic of Korea, Europe and the Caribbean/US East Coast were WS89, WS87, WS78 and WS79 respectively. In March, however, there was a brief interlude of optimism, and there were some good fixtures. For instance, the *Mitsumine* was chartered by NGT to carry 252,500 tons of crude oil from the Persian Gulf to Japan at WS100. Similarly, Hyundai chartered the *Al Shegaya* to carry 265,000 tons of crude oil to Deasan at WS98. KPC chartered the *Falkonera* at WS105 to carry 260,000 tons from Kuwait to the

Table 31

Tanker freight indices, 2003–2005

(monthly figures)

	Lloyd's Shipping Economist					*Baltic Tanker*		*Lloyd's Ship Manager*				
	>200	**120-200**	**70-120**	**25-70**	**clean**	**Dirty Index**	**Clean Index**	**>150**	**70-150**	**30-70**	**< 35**	**clean**
2003												
October	59	119	160	197	194	963	838	58	120	153	202	180
November	117	151	201	239	219	1 316	843	70	158	164	258	213
December	142	190	251	304	240	1 576	992	125	279	333	290	243
Average 2003	106	153	204	247	218	1 285	891	84	186	217	250	212
2004												
January	133	250	289	386	287	2 121	1 081	125	268	345	285	266
February	132	178	215	355	326	1 982	1 330	146	179	306	285	357
March	132	153	182	238	323	1 380	1 460					
April	96	141	188	204	260	1 345	1 033					
May	95	137	164	201	235	1 129	908					
June	119	149	193	233	256	1 476	1 134					
July	127	156	187	243	240	1 442	1 110					
August	107	155	169	219	217	1 484	1 012					
September	103	154	163	229	226	1 243	1 033					
October	195	285	355	320	263	2 081	1 063					
November	276	342	374	433	390	2 974	1 780					
December	216	240	268	378	367	2 689	1 753					
Average 2004	144	195	229	287	283	1 779	1 225					
2005												
January	80	170	210	307	322	1 812	1 588					
February	135	165	181	233	267	1 401	1 303					
March	96	162	195	255	289	1 587	1 304					

Source: Executive summary in *Lloyd's Shipping Economist*, several issues; Baltic Tanker indices reported for the first working day of the month; indices reported by *Lloyd's Ship Manager* (which were discontinued in March 2004).

US ports on the Gulf of Mexico. Rates from the Persian Gulf were better to other destinations: Chevtex chartered the *Navarin* to carry 255,000 tons of crude oil to South Africa at WS138. This interlude was not sustainable, and rates continued to slide in April.

Rates recovered modestly during the following months. The corresponding rates from the Persian Gulf to Japan, the Republic of Korea, Europe and the Caribbean/US East Coast reached WS135, WS135, WS110 and WS107 respectively. Two fixtures for July to carry parcels of 265,000 tons of crude oil from the Persian Gulf fetched WS135 (for the *Universal Brave* chartered by NGT for destination in Japan) and WS117 (for the *New Vitality* chartered by Hyundai for destination in Daesan). By September, however, rates dropped to about WS109 for destinations in the east and about WS94 for destinations in the west.

Rates improved spectacularly during the last quarter. By October, rates from the Persian Gulf to the east reached WS200, and the average for November was WS310. Similar increases were found for western destinations. November average rates were WS204 for destinations in the Caribbean and on the East Coast of North America and WS230 for European destinations. In December, however, rates eased as the following fixtures from the Persian Gulf to the east indicate. During the first week of the month, Jomo chartered the *Asian Progress II* to take 260,000 tons of crude oil to Japan at WS299, and Kanggi secured the *El Greco* at WS307 to take 235,000 ton parcels to China. Two weeks later, Idemitsu chartered the *Tohzan* for WS110 to take 240,000 tons of crude oil to Japan, while Zhuhai Zhenrong engaged the *Astro Challenge* at WS235 to take 261,000 tons of crude oil to China. The average rates reached in December from the Persian Gulf to Japan, the Republic of Korea, Europe and the Caribbean/US East Coast were WS256, WS273, WS224 and WS177 respectively. Rates on these routes dropped by a third in January 2005 and then doubled from those levels in February.

Suezmax tanker tonnage

Rate fluctuations for Suezmax tonnage reflected the particular conditions prevailing on the routes served by these vessels. Rates from West Africa peaked in January 2004 at WS268 to destinations in Europe and WS264 to destinations in the Caribbean/US East Coast, and then eased in April to WS137 and WS124 respectively. For instance, Stentex chartered the *North Star* at WS260 in January to take 130,000 tons of crude oil to the East Coast of North America, while a similar parcel fetched WS160 in March, when CSSSA chartered the *Genmar Phoenix*. Also in March, the same rate was agreed by CEPSA to charter the *Iran Sarvestan* to take 135,000 tons from Ceyhan (Turkey) to Spain. On these routes, the rates bottomed in May at WS137 and WS125 respectively, with a slight improvement the following month. For instance, two parcels of 130,000 tons from West Africa fetched about the same rate. Sun Oil chartered the *Calm Sea* at WS140 for destination on the US East Coast, while Navion agreed to WS137 for the *Monte Toledo* for destination in Europe. Thereafter rates rose, particularly starting in September, when they reached WS175 and WS165, to then peak in November at WS348 for the two destinations. In December, rates eased, as is shown by the fixtures arranged by Sun early in the month, when it chartered the *Sea Star* for WS320 to take 130,000 tons to the Caribbean and then, later the same month, secured the *Max Jacob* to take a similar parcel to the East Coast of North America at WS220. In the end, the average rates for December were WS240 for the route to Europe and WS216 for destinations in the Caribbean and on the East Coast of North America.

For trades across the Mediterranean and from this area to northwest Europe, rates began the year at WS314 and WS323 respectively. In the following months, rates were volatile, dipping in February, April and August to about WS 150. Rates then increased to peak in November at WS363 and WS359, and thereafter dropped slightly in December to WS223 and WS215 respectively.

In January 2005, rates dropped on all routes. From West Africa to destinations in northern Europe the January rate was WS184. To the Caribbean and the east coast of North America, the rate was WS151. In February the rates dropped further to WS158 for both routes. The rates prevailing in January for Suezmax tonnage trading across the Mediterranean and from there to the Caribbean were WS191 and WS183, and in February the rate for both routes was WS184.

Aframax tanker tonnage

This tonnage is deployed for trading across the Mediterranean, across northwest Europe and on the Caribbean–North America route. Rates for Aframax tonnage also peaked in January 2004 at WS291 for fixtures across the Mediterranean, WS255 for those in northwest Europe and WS 337 for origins in the Caribbean. In the following months, the trend along all these routes was downward. For routes across the

Mediterranean, however, there was a rebound in March. For instance, Sibneft chartered the *Iran Abadeh* for a 80,000-ton parcel with destination in the Mediterranean at WS220. Rates in the Caribbean were far lower; Hess agreed to WS165 for a 70,000-ton parcel from Coveñas (Colombia) to St. Croix.

April was a bad month, with rates in the Mediterranean and northwest Europe not even reaching WS140 and only WS141 being achieved from the Caribbean. By June, something of a recovery was underway. Exxon Mobil chartered the *Antarctica* for taking 80,000 tons across the Mediterranean at WS175, but the *Meribel* under charter with Petrogal to take a similar parcel from Mediterranean to Portugal fetched only WS165. Across the Atlantic, Premcor chartered the *Genmar Minotaur* at WS200 for taking 70,000 tons from Coveñas to the US east coast.

A full recovery was achieved during the last quarter of the year. The average October rate across the Mediterranean was WS380, which eased to WS259 by the end of the year. In northwest Europe, the corresponding rates were WS326 and WS241. In the Caribbean, rates rose to WS400 in October, peaked in November at WS407 and then dropped to WS349 by the end of the year. The following rates illustrate the market situation during the last half of December. Erg chartered the *Stena Conductor* to take a 80,000-ton parcel from the Libyan Arab Jamahiriya to Italy at WS325 just before Christmas. After that date, Alpine secured the *Minerva Roxanne* to take 99,000 tons from Primorsk to the UK/Continent range at W410 and Stasco chartered one Teekay vessel for taking 70,000 across the Caribbean at WS357.

The start of 2005 saw a rate correction in all these routes. For trades across the Mediterranean and across northwest Europe, rates were WS210 and WS200 in January and dropped to WS162 and WS145 in February. For trades from the Caribbean to the east coast of North America, the corresponding rates were WS241 and WS191.

Handy-size tanker tonnage

Average dirty spot rates for Handy-size tonnage trading from the Caribbean to North America's east and Gulf coast peaked in January 2004 at WS380 and were above the WS300 mark in the following month. In March, rates eased. In this month, Colonial and Hess reported two fixtures for carrying 50,000-ton parcels at WS215 and WS240 respectively. Rates collapsed to WS141 by April but recovered in mid-year to WS222. For instance, Conoco chartered the *Amazon Explorer* at WS257 for taking 50,000 tons from the Caribbean to the US east coast. Rates were steady in the following months and increased substantially starting in October (when they reached WS328) to peak in November at WS421.

Vessels of similar capacities trading in the Mediterranean and from there to the Caribbean and the east coast of North America recorded similar rate fluctuations. Again, the rates peaked in January 2004 at WS387 and WS331 but then eased, staying around the WS200 mark during late March but in April collapsing below this level. Rates were similar elsewhere; in March, Stusco chartered the *Maya* to carry 50,000 tons from Ecuador to the Gulf of Mexico at WS265. Two fixtures in mid-year indicated rates holding steady at the WS200 level. In June, Chevron Texaco chartered the *Chimborazo* to take 50,000 tons from Ecuador to the US east coast at WS237, while in the following month Vitol secured the *Jill Jacob* at WS240 to take a similar parcel from the Mediterranean to the US east coast. In October, rates improved substantially to peak in November at WS435 for fixtures across the Mediterranean and WS442 for fixtures from the Mediterranean to the Caribbean and North America's east coast.

There was some rate deterioration in December, as the following fixtures indicate. Citgo chartered the *Angistri* to take 50,000 tons from the Caribbean to the US east coast at WS420; BP Amoco secured the *Sibonina* at WS340 to take 55,000 tons from northwest Europe to the Gulf of Mexico; and China Oil took the *Victory III* at WS415 to take 60,000 tons from Indonesia to China. In this month, the average rate on the route from the Caribbean to North America's east coast was WS391, while those for trade across the Mediterranean and from there to the Caribbean were WS300 and WS344 respectively.

In January 2005, rates continued to erode in all these routes. Rates from the Caribbean were WS264 and dropped to WS210 in the following month. The corresponding rates across the Mediterranean and from there to Caribbean destinations were WS222 and WS291 in January. In February, rates stood firm on the former route but dropped to WS215 on the latter.

All clean carriers

Rates for large clean carriers in the ranges of 70,000–80,000 dwt and those of 50,000–60,000 dwt trading from the Persian Gulf to Japan started the year rising and

peaked in February at WS232 and WS256 respectively. During the first week of March, there were still some good fixtures, such as the one reported for the one-year-old *Energy Century,* chartered by Addax to carry a 62,000-ton parcel of oil products from the Persian Gulf to Japan at WS267. May was weak, with rates at WS183 and WS181 respectively. A minor recovery ensued. For instance, in June PDI chartered the *Maersk Princess* at WS205 to carry 75,000 tons from the Persian Gulf to Japan. Rates recovered from September on and in November reached February levels, peaking at WS391 and WS395 the following month. By the end of the year, rates were firm, as is shown by PDI's fixture of the *Agathonissos* at WS370 to take a 75,000-ton parcel to Japan. The December averages were WS343 andWS385 for tankers of 70,000 to 80,000 dwt and 50,000 to 60,000 dwt respectively. Between August and December, time-charter-equivalent earnings for a 55,000-dwt tanker more than doubled from $27,100 to $55,000 per day.

Freight rates for tankers in the range of 35,000–50,000 dwt trading from the Caribbean to the Gulf of Mexico and east coast of North America also started the year with a rising trend and peaked in February at WS341. In March, there were good fixtures such as those recorded for Galahad: one for 38,000 tons at WS350 for the *Citgo* and the other for 40,000 tons at WS330 for the *Hess*. But then rates eased. The average rate was WS245 in June, when Hess concluded a fixture for the *Elka Glory* at WS265 for taking 40,000 tons from the Caribbean to the US east coast. There was little improvement until November, when rates soared to WS348, to stay firm during December. Just before Christmas, three different charterers secured tankers to take 38,000-ton parcels from the Caribbean to the east coast of North America at WS340.

Smaller tankers in the range of 25,000–35,000 dwt trading out of Singapore to East Asian destinations also started the year with an upward trend, and rates peaked in February at WS346 for shipments from Singapore to East Asian destinations. The February rate for tankers trading across the Caribbean was WS418. Afterwards, rates in these two regions decreased until August, when they reached WS255 from Singapore and WS272 from the Caribbean. Two fixtures in June illustrate this weakening. The *Sheng Chi* was chartered by Shell at WS250 for carrying 30,000 tons from Singapore to Japan, and Global chartered the *Shannon* at WS300 for taking 28,500 tons from the Caribbean to the US east coast. Again, the recovery was during the last quarter, with rates peaking in November at WS407 from Singapore for destinations in east Asia and in December at WS444 for trade across the Caribbean and for destinations in North America.

In early 2005, rates for all vessel sizes and routes deteriorated. In February, rates for tankers in the ranges 70,000–80,000 dwt and 50,000–60,000 dwt en route from the Persian Gulf to Japan were at WS190 and WS218 respectively. Tankers in the range 35,000–50,000 dwt trading from the Caribbean fetched WS254, while smaller ones in the range 25,000–35,000 dwt fetched WS290 in the Caribbean and WS328 in Singapore.

The tanker-period charter market

Chartering activity was above the 1 million dwt level for most of the year, with the exceptions of April, October and December, when only 0.4, 0.6 and 0.4 million dwt were chartered. The peak months were February, July and November, when 2.4, 2.3 and 3.3 million dwt were reported chartered. In February, 48 per cent of charters were for more than two years and 62.8 per cent were for VLCC/ULCC tonnage. In July, 60.5 per cent of charters were for durations of less than 12 months and 51.1 per cent were for Aframax vessels. In November, 64.4 per cent of charters were for more than two years and 70.9 per cent were for VLCC/ULCC tonnage. In that month, the charter rate for a five-year-old VLCC was $90,000 per day. Total chartering activity reached 18.2 million dwt in 2004, with the year being particularly active for VLCC/ULCC and Aframax tonnage; each type of vessel had a share of about 30 per cent of chartering activity. Aframax vessels were particularly sought after in September, representing 71.1 per cent of the tonnage chartered, with rates at $31,000 per day. There was a strong preference for long-term charters; 40 per cent of charters were for over two years.

In February 2005, chartering activity reached 1.6 million dwt, about half of it involving VLCC tonnage secured for more than two years.

B. THE DRY BULK SHIPPING MARKET

1. The dry bulk trade

Large Cape-size vessels are engaged on the iron ore routes from Australia to the Far East and from Brazil to the Far East and Europe. During the year, the sustained high demand for iron ore in China and the congestion afflicting loading and unloading ports pushed up demand

for these vessels on the Pacific. Panamax vessels were deployed on several routes, including the transatlantic coal and iron ore routes from the east coast of North America and those from South Africa. Panamax tonnage was also deployed on iron ore and coal routes within Asia, such those originating in India, China and Indonesia, and within Europe originating in Sweden. Some Panamax tonnage was deployed from the Gulf of Mexico and the east coast of South America for carrying grain.

Smaller vessels, such as Handy-size ones, were used to carry grain to several destinations, notably those having ports with restricted drafts. These vessels were also used on bauxite, alumina and rock phosphate routes.

2. Dry bulk freight rates

The freight rates for all sectors and sizes of dry bulk carriers finished the year 2004 at levels below those prevailing at the beginning of it. The Baltic Dry Index recorded a 17.2 per cent drop to 4598, with the lowest months in midyear. However, the Baltic Dry Index average for the year was 4495, well above the previous year's average of 2751. Overall, the year was a good one for owners of this type of tonnage.

As is shown in table 32, the dry cargo tramp time-charter increased during the year to 592 — a rise of 10.4 per cent over the year. The dry cargo tramp trip-charter went over the 700 mark by the end of the year and recorded an increase of 26.8 per cent from the level at the start of the year. The average time-charter index for 2004 was more than 170 points higher than that of the previous year, while the average trip-charter index of 534 more than doubled from the previous year.

Owners of dry cargo vessels benefited from increased demand, including that resulting from congestion in several dry bulk ports, and were able to absorb the increase in bunker prices. The average posted price for

Table 32

Dry cargo freight indices, 2002–2004

(monthly figures)

Period	Dry cargo tramp time charter[a] (1972 = 100)			Dry cargo tramp trip charter[b] (1985 = 100)		
	2002	2003	2004	2002	2003	2004
January	214	263	536	89	185	553
February	212	259	585	73	156	613
March	220	272	579	102	151	451
April	225	292	519	104	203	558
May	225	310	439	93	230	533
June	224	292	385	95	304	401
July	226	307	416	99	273	478
August	227	307	458	113	276	562
September	238	317	471	125	294	514
October	244	409	499	114	337	503
November	248	448	538	140	309	544
December	258	489	592	154	360	701
Annual average	230	331	501	108	257	534

Note: All indices have been rounded to the nearest whole number.

[a] Compiled by Maritime Research and published by Institute of Shipping Economics and Logistics (ISL), *Shipping Statistics and Market Review*.

[b] Compiled by *Lloyd's Shipping Economist* and published in ISL, *Shipping Statistics and Market Review*.

IFO 180 was around $170 per ton during the year. It surpassed $200 by October before going back to around $180 at year's end. Labour and insurance also affect the current and future expenditures of ship owners and ship operators (see box 2).

Dry bulk time charters: trips

Some representative fixtures concluded for vessels of different sizes on typical routes illustrate the evolution of rates during 2004. At the beginning of the year, Cape-size tonnage was chartered for round trips over the transatlantic and Singapore-Japan to Australia routes at rates of $92,500 and $85,500 per day. Rates fell soon after and by June bottomed at $38,725 and $42,900; after that month, they rose, reaching $91,320 and $87,500 per day in November to match the rates at the beginning of the year. Afterwards rates eased, reaching $84,585 per day by the end of the year. Rates dropped in to $63,875 per day in January 2005 but rose again to $72,750 per day the following month.

Panamax tonnage chartered at the beginning of the year for round trips from northern Europe to the east coast of South America fetched $40,750 per day, and rates even improved until March but collapsed afterwards to $20,775 per day in June. August's timid recovery to $32,975 gained force in October, peaked in November and ended the year slightly lower, at $41,170 per day. Evolution was slightly different for Panamax tonnage engaged for round trips from the Far East to the east coast of Australia: rates started the year at $42,500 per day and slid backwards in the following months to $18,900 per day in June. In July, there was a brief rebound to $30,100 per day, followed by a weak August when rates decreased to $29,600 per day. The September recovery gained momentum in October, and in November rates reached $46,500, a high for the year, but then eased to $43,900 per day in December. Rates at the start of 2005 were considerably lower, $31,300 per day in January and $34,700 per day in February.

Box 2

Seafarers and insurance issues

There were developments of interest to ship owners and sea carriers concerning seafarers and insurance matters. The Hong Kong Shipowners' Association called for uniform global regulation of the number of seafarers on board, as it was concerned that duties on them had increased. The International Ship Managers' Association pointed to seafarer shortages, particularly for specialized trades. A separate development was the launch of the BIMCO/ISF survey for assessing worldwide supply and demand with regard to seafarers and thus updating the 2000 survey. Concerning average wages, a study presented by the International Shipping Federation concluded that wages for many ratings had decreased by 3 per cent owing to replacement of old ratings by young ones and the influx of personnel from low-cost countries, but that salaries for officers had actually risen by 7 per cent.

Other matters concerning seafarers included the reaction to the European Union's proposal to impose criminal sanctions on those involved in reckless or seriously negligent pollution discharges. This caused grave concern for some maritime nations such as Greece, Cyprus and Malta. In ILO, the process for updating and harmonizing more than 60 ILO regulations into a single convention dealing with the living and working conditions of seafarers continued during the year, with some of the controversial points being flag responsibility for social security matters and a complaint mechanism for seafarers. In February 2005, the C185 Seafarers' Identity Documents Convention (Revised), 2003, adopted at the Ninety-First ILO Conference, entered into force. Seven biometric products were tested and two were selected that complied with the interoperability requirements for future provision and reading of biometric identity cards.

Concerning insurance, there was heated debate at the time of renewing policies, as shipowners were, for the fourth consecutive year, asked to agree to double-digit premium increases. Some of the arguments aired concerned rebates available to owners with good track records, less reliance on financial markets to shoulder the considerable risk increases posed by having ever larger and more costly assets afloat, low use of information technology by marine insurers, and the financial effects of recent hurricanes. Interestingly, early in 2005, TT Club reported record profits after a three-year recovery programme enforced by the board to reverse past trends and was looking to regain its "A" financial rating.

Handymax tonnage chartered for round trips from the Far East to Australia secured $25,750 per day in January, and by March such trips fetched $30,965. Then rates dropped until June, when they reached $15,500, but the trend was reversed in the following months and by December rates were $31,360, higher than at the start of the year. Handy-size tonnage chartered for trips from northern Europe to Africa's west coast followed a similar pattern. During the first quarter, rates were steady at about $20,000 per day. They bottomed in June at $15,900 and recovered soon after to reach $21,750 per day in December, a slight improvement over the beginning of the year. In January 2005, rates for Handymax and Handy-size tonnage on the above-mentioned routes dipped to $24,500 and $19,000 per day respectively.

Dry bulk time charters: periods

Estimates of rates for chartering vessels for a 12-month period and prompt delivery indicate that the solid rate levels of the beginning of the year softened during the first semester but recovered late in the year. Five-year-old Cape-size vessels in the range of 150,000–160,000 dwt were fetching $60,000 per day in January 2004 and $72,000 per day in December. Freight rates for a five-year-old Panamax started at $40,500 in January and decreased slightly by December to $40,000. The pattern was reversed for 15-year-old vessels, whose rates rose from $30,500 to $32,000 per day during the same period, indicating a tight tonnage supply.

The rate improvement for 10-year-old Handymax tonnage was modest, from $23,000 per day in January to $25,500 per day in December. Rates gains by five-year-old vessels of this size were better from $27,500 per day in January to $32,000 per day in December. Handy-size tonnage of about 15 years recorded similar rate increases: $16,750 per day in January and $21,250 per day in November.

All rates eased in January 2005. Five-year-old Cape-size vessels fetched $66,000 per day, while Panamax tonnage of the same age reached $38,500 per day. 15-year-old Panamax vessels were rewarded at $30,000 per day. Modest losses were recorded for 10-year-old Handymax and 15-year-old Handy-size vessels at $23,500 and $19,750 per day respectively.

Dry bulk trip charters

Over the year, rates for Cape-size tonnage were strong. Iron ore freight rates from Brazil to China started the year at $39.75 per ton and remained above $30 per ton except in May and June, moving up in December to a remarkable $42.45 per ton. A similar evolution occurred in coal rates from Richards Bay (South Africa) to western Europe: rates started at $27.30 per ton in January, stood at around $20 per ton until April, and from October went over $20 per ton, reaching $24.55 by December. The performance of rates for Panamax tonnage engaged in grain trading between the Gulf of Mexico and western Europe was also remarkable. In June rates went below $30 per ton, but they reached peaks of $41.55 per ton in March and $40.85 in November, with a minor drop to $40.35 in December. The rate evolution for Handy-size tonnage transporting scrap from the US west coast to the Republic of Korea was also positive. Rates started at $61.35 per ton in January, went below $60 per ton from June to October, then recovered to reach $69 per ton in December. The best month was February with an average rate of $89.25.

In early 2005, rates declined on all these routes. Cape-size tonnage carrying iron ore from South America to China fetched $36.85 per day, while that transporting coal from South Africa to Europe fetched $19.45 per day. Panamax rates for taking grain across the Atlantic were $37.15 per ton, and scrap was taken across the Pacific to the Republic of Korea for $63.65 per ton.

C. THE LINER SHIPPING MARKET

1. Developments in liner markets

General developments

The impact of containerization on liner trade is larger than that implied by the size and growth of fully cellular container ship fleets, analysed in table 7 of chapter 2. Total seaborne container carrying capacity rose during 2004 by 0.8 million TEUs to reach 9.4 million TEUs, an increase of 8.5 per cent. Fully cellular container ships increased their share of this total by almost 2 per cent to 76.6 per cent at the beginning of 2005, totalling 7.2 million TEUs. The share of general cargo ships reached 16.5 per cent. Single-deck vessels accounted for 0.9 million TEUs (9.9 per cent), while multi-deck ships added 0.6 million TEUs (about 6.6 per cent). During the year, single-deck tonnage and multi-deck tonnage stood at the same levels as the previous year. Ro-ro cargo and passenger ships accounted for 0.33 million TEUs, as in the previous year, with a share in total container carrying capacity of 3.7 per cent. Bulk carriers maintained their container-carrying capacity

at 0.20 million TEUs, with their share in the total decreasing to 2.2 per cent. The balance of about 1 per cent was TEU carrying capacity available in reefer, tanker, specialized and passenger vessels.

Moreover, the growth of the fully cellular container ship fleet mentioned in chapter 2 continued at an accelerated pace. As is indicated in table 33, additions to the fleet during 2004 totalled 778,000 TEUs, and there were no reports of broken-up tonnage, which is understandable in light of the freight rates achieved by small and generally old tonnage. The growth of the cellular fleet continued at a sustained level, with 1,652,000 TEUs on order at the end of the year.

During 2004, the ordering of large vessels continued. In March, MOL ordered four 8,100-TEU-capacity container ships in addition to five smaller ones of 6,350-TEU capacity. In September there were indications that container ships with capacity of more than 10,000 TEUs were under construction in Europe. In January 2005, Cosco confirmed its order of four 10,000-TEU ships from Hyundai, a major shipbuilder from the Republic of Korea.

The push for bigger vessels kept alive the question of their deployment, which, owing to the volumes required to fill such vessels, would be restricted to the main east–west routes. One view advocates for these very large vessels to call exclusively at few and very large trans-shipment hubs and load centres at both ends of the route. Another, on the basis of diminishing economies of scale for vessels with capacity of more than 2,500–3,000 TEUs, advocates direct services with smaller vessels calling at multiple ports at both ends of the route. Large carriers operating along mainline routes usually favour the former view but have found that congestion in some load centres requires the addition of other ports to their service strings. Still, the implementation of security initiatives in a number of major ports works in favour of calls in a reduced number of ports, namely trans-shipment hubs. In any case, the influx of larger container ships along the main routes heralds the deployment of larger vessels on feeder routes too.

Concentration in liner shipping

The concentration process of recent years is resulting in the deployment of increased carrying capacity by the biggest liner operators. As table 34(a) indicates, over a one-year period ending on 30 September 2004, the top 10 liner operators increased their carrying capacity by 7.2 per cent to 4.1 million TEUs – 46.3 per cent of the world's total container carrying capacity. Similarly, the share of the top 20 liner operators increased by 10 per cent to 5.9 million TEUs – 67.1 per cent of the world's total container carrying capacity. A reflection of the momentum being gained by industry consolidation is the entry of only one operator, Hamburg Sud, in the list of the top 20 operators and the permanence of the top five carriers in the same order. The remaining 14 operators shifted places in the table. The biggest gain came for China Shipping (up by seven places), followed by CSAV Group (up by three places), NOL/APL and OOCL (up by two places each) and NYK and Zim (up by one place each). Eight operators slipped down: CP Ships and K Line (three places each), Cosco, MOL and Yang Ming (two places each) and Hanjin and Hyundai (one place each).

Concentration gained impetus in mid-2005 when the top operator announced a takeover of the fourth one. The resulting capacity of these two carriers will be more than double of the immediate follower, MSC.

Table 33

Growth of the world cellular container fleet

(in thousands of TEUs at the beginning of the year)

Year	Broken up TEUs	Additional TEUs	Fleet TEUs	Orders TEUs
2003	65	625	5 845	481
2004	30	622	6 437	1 995
2005	--	778	7 165	1 652

Source: UNCTAD secretariat on the basis of *Containerisation International* (February 2003 and 2004).

Many of the top container ship operators are also the largest owners of cellular container ship tonnage and complement their fleets by chartering tonnage from other owners, notably German financial companies. As table 34 (b) indicates, for the dates end 2002, end 2003 and end September 2004, the top 20 owner-operators plus the top 20 owners of container ships increased their share of the world cellular container ship fleet from 70.9 to 72 to 73.7 per cent respectively. Over the past two-plus years, the fleet of the owners-only has grown at least 13.6 per cent, and their share of cellular container ship tonnage increased from 23.8 at the end of 2002 to 26.3 per cent in September 2004.

Preliminary 2004 financial results for some of the above carriers were positive. P&O Nedlloyds reported a fivefold increase in operating profit to $410 million in the wake of revenue increases of 22 per cent to $6.7 billion. China Shipping reported an 80 per cent increase in net profit. For the first nine months of the year, K Line and MOL reported that net income had more than doubled.

A number of carriers provide services on several routes forming part of conferences, alliances and/or agreements, which imply some degree of agreement on operational and marketing issues, notably pricing and number of sailings. Traditionally, regulators of many countries have provided anti-trust exemptions to carriers participating in these agreements with the understanding that the benefits are greater than the drawbacks. In October 2004, the European Commission issued a white paper that started the process to repeal Regulation 4056/86, which provides block exemptions to sea carriers from some rules of competition law. Under this regulation, carriers are allowed to fix freight rates through the conference system. The European Liner Affairs Association, which represents the carriers, proposed to the Commission to set up an information exchange to enable discussion and information sharing between carriers on agreed categories. A survey of shippers found support for ending the conference system, and the results suggested that the current regulation for shipping consortia (Regulation 823/2000) was sufficient to ensure cooperation between carriers aiming to align supply and demand.

2. Freight level of containerized services

Chartering of container ships

Global liner shipping market developments are best reflected in the movements of the container ship charter market. This market is largely dominated by German owners, and particularly by members of the Hamburg Shipbrokers' Association (VHSS), which control some 75 per cent of all container ship charter tonnage available in the free market. Since 1998, the association[3] has published the *Hamburg Index,* which provides market analysis of container ship time charter rates for a period of more than three months. 1997 was chosen as the reference year because it was the last year when a remunerative rate level could be achieved. Since July 2002, rates have been published for two types of gearless vessels with capacity of up to 500 TEUs, two types of gearless/geared vessels with capacity of over 2,000 TEUs and six types of geared vessels with capacity of up to 1,999 TEUs. Movements of time charter rates are reflected in table 35.

The average time charter rates for all types of container ships rose in 2004. The highest increase was for geared container ships with capacity in the range 1,000–1,299 TEUs, whose average time charter rate for 2004 was $19.14 per 14-ton slot per day, an increase of 64.7 per cent over the average rate for the previous year. Average rates for vessels with capacity in the range of 1,600–1,999 TEUs increased 60.2 per cent over the previous year's rates. A similar percentage increase (60 per cent) was achieved for smaller geared vessels with capacity of 700–999 TEU. Average rate increases for geared/gearless vessels in the capacity ranges of 2,000–2,299 and 2,300–3,400 TEUs were almost the same at 41.6 per cent. Average rate improvement decreased with vessel size: the rate for gearless vessels with capacity in the range of 300–500 TEUs was 24.4 per cent, and that corresponding to smaller vessels with capacity of up to 299 TEUs was marginally better at 27.8 per cent.

There was a steady positive evolution of the monthly average time charter rates for vessels of all types and sizes. Time charter rates for geared/gearless container ships in the range of 2,000–2,299 TEUs started the year at $11.11 per 14-ton slot per day, rose to $15.35 in February and March, and remained below $14 during the following months. Only in December 2004 did it climb up to $14.25 per 14-ton slot per day. Some of the charters reported during the year were impressive. Shipping Corporation of India chartered the eight-year-old 2,078-TEU *Lindavia* for six months at a rate of $40,000 per day. Similarly, larger geared/gearless container ships in the range of 2,300–3,400 TEUs obtained $10.62 per 14-ton

[3] See www.vhss.de/englisch/hax.html.

Table 34 (a)

Leading 20 container service operators as of 30 September 2004 on the basis of number of ships and total shipboard capacity (TEUs)

Ranking	Operator	Country/ Territory	No. of ships in 2004	TEU capacity in 2004[a]	TEU capacity in 2003
1	A.P. Moller Group	Denmark	346	900 509	844 626
2	MSC	Switzerland	237	618 025	516 876
3	Evergreen Group	Taiwan Province of China	151	437 618	442 310
4	P&O Nedlloyd	UK/Netherlands	158	426 996	419 527
5	CMA-CGM Group	France	178	373 191	299 174
6	NOL/APL	Singapore	91	295 321	273 573
7	Hanjin/DSR-Senator	Republic of Korea/ Germany	75	284 710	290 677
8	NYK	Japan	96	265 192	233 934
9	COSCO	China	125	253 007	274 128
10	China Shipping	China	106	236 079	143 655
Total 1-10			**1 563**	**4 090 648**	**3 738 480**
11	OOCL	Hong Kong China	63	216 527	185 502
12	MOL	Japan	68	213 195	222 533
13	Zim	Israel	85	196 420	174 480
14	CP Ships Group	Canada	83	196 317	201 706
15	K Line	Japan	66	195 750	186 017
16	CSAV Group	Chile	74	190 143	123 378
17	Hapag Lloyd	Germany	48	186 610	154 850
18	Yang Ming	Taiwan Province of China	59	168 006	153 783
19	Hyundai	Republic of Korea	36	139 243	136 548
20	Hamburg Sud	Germany	68	131 713	n. a.
Total 1-20			**2 213**	**5 924 572**	**5 277 277**
World fleet estimated at 1 July 2004 and 2003				**8 835 000**	**8 354 000**

Source: UNCTAD secretariat, compiled from *Containerisation International Yearbook 2005,* page 8; and ISL, *Shipping Statistics and Market Research*, (January-February 2005), page 36.

Note: All subsidiaries are consolidated.

[a] As of September 2004.

Table 34(b)

Leading owners and owner-operators of container ships at end 2002, end 2003 and end September 2004 on the basis of number of ships and total shipboard capacity (TEUs)

Owner-operators	End year 2002		End year 2003		End September 2004	
	No. of ships	TEUs	No. of ships	TEUs	No. of ships	TEUs
A. P. Moller Group	140	505 524	142	406	145	554 506
Evergreen Group	125	366 252	115	351 734	115	351 734
MSC	69	182 695	83	23 4 475	114	320 830
COSCO	131	244 739	132	244 805	129	241 493
P&O Nedlloyd	50	182 314	46	171 727	52	187 007
NOL/APL	46	153 479	48	160 058	48	160 058
NYK	52	148 432	50	150 706	49	149 093
OOCL	23	85 009	30	116 537	34	148 789
K Line	44	144 681	40	136 656	38	133 090
MOL	36	126 787	37	126 109	37	126 109
Hapag Lloyd	27	116 561	26	118 552	26	118 552
Yang Ming	31	100 977	32	101 315	35	117 815
CP Ships Group	33	87 287	38	105 627	38	105 627
CMA-CGM Group	21	67 435	27	81 917	31	104 997
Hanjin/DSR-Senator	24	90 515	26	90 803	26	90 803
China Shipping	15	7 556	24	49 734	32	82 274
Hyundai	0	0	0	0	19	71 803
PIL Group	50	52 656	55	61 352	58	64 354
Zim	17	52 265	19	58 277	20	61 282
UASC	22	60 996	22	60 996	22	60 996
TOTAL	956	2 776 160	992	2 963 786	1 068	3 251 212
Owner only	**No. of ships**	**TEUs**	**No. of ships**	**TEUs**	**No. of ships**	**TEUs**
NSB N'Elbe	71	226 482	75	255 865	72	250 813
E. R. Schiff	35	137 515	40	155 123	45	181 948
Costamare	39	120 123	42	132 158	43	136 958
C-P Offen	44	119 052	44	119 052	44	119 052
SAMAMA	22	77 202	28	101 466	29	102 774
Ofer Bros	22	60 470	27	84 763	30	99 163
Norddeutsche	20	60 383	24	81 089	26	96 589
Danaos	17	59 106	23	82 479	24	88 072
F Laeisz	25	86 833	24	82 466	24	82 466
Kaisho Shipping	4	25 400	12	70 016	14	82 416
Rickmers	41	66 329	43	69 684	47	80 152
Hans Lloyd	21	61 477	23	70 883	23	71 099
Leonhardt & B	38	83 486	37	66 578	38	68 128
Peter Dohle	26	43 700	31	58 295	34	63 155
Gebab	2	12 928	4	24 400	20	56 625
Schulte Grp	27	51 186	26	50 048	27	51 788
Hermann Buss	25	40 069	34	46 150	36	47 467
Shoei Kisen	15	23 336	17	30 515	20	47 015
Hansa T'hand	5	15 895	10	37 862	12	43 208
K Oldendorff	20	30 343	23	39 409	23	39 409
Total	519	1 401 315	587	1 658 301	631	1 808 297
World total		5 893 000		6 424 000		6 864 000

Source: UNCTAD secretariat, compiled from *Clarkson Research Studies* (September 2004) and from the Institute of Shipping Economics and Logistics (ISL), *Shipping Statistics and Market Review*, (January/February 2005), page 36.

Table 35

Container ship time charter rates

(US$ per 14-ton slot per day)

Ship type	Yearly averages				Monthly averages for 2004												Monthly averages for 2005						
	1997	2002	2003	2004	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7
Gearless																							
200-299	21.8	16.9	19.6	25.0	22.2	21.1	22.2	22.5	22.0	23.0	23.3	24.8	25.7	27.2	32.5	33.6	30.7	33.6	32.3	36.0	33.4	33.8	30.9
300-500	16.8	15.1	17.5	21.7	18.5	17.9	19.4	20.7	20.7	21.9	20.8	23.0	21.7	22.1	25.5	28.6	28.1	29.6	29.0	30.5	31.9	28.7	26.2
Geared/Gearless																							
2,000-2,299	9.7	4.9	9.8	13.8	11.1	15.4	15.4	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	14.3	14.3	16.0	15.7	17.4	17.4	17.2	17.2
2,300-3,400[a]		6.0	9.3	13.1	10.6	12.0	12.0	14.5	14.5	14.5	12.9	12.9	13.4	13.4	13.4	13.9	13.9	13.9	13.6	13.5	13.5	13.5	12.8
Geared																							
200-299	22.0	17.0	18.9	27.0	21.5	22.9	23.3	25.2	25.2	23.9	26.1	29.2	29.2	31.7	32.2	33.6	35.6	33.4	34.6	35.4	35.9	37.3	39.1
300-500	17.2	13.4	15.6	22.2	19.5	18.3	18.8	21.9	20.3	19.8	22.1	23.8	24.3	24.5	27.7	25.8	26.2	28.8	30.0	31.8	30.9	33.2	31.3
600-799[b]		9.3	12.3	19.6	14.3	14.8	16.2	19.0	17.7	19.5	20.6	22.7	22.0	21.4	22.8	24.4	22.8	25.4	27.3	25.3	25.8	25.4	25.4
600-799[c]		9.1	12.1	18.4	14.1	15.0	15.8	16.8	19.5	19.2	20.4	18.2	19.8	19.8	21.1	21.0	23.1	23.7	22.9	22.6	22.6	22.4	23.5
1,000-1,299	12.5	6.9	11.6	19.1	13.7	15.5	16.6	17.6	19.0	20.2	19.4	19.6	20.8	21.2	22.2	24.0	24.8	24.9	25.3	26.3	25.9	25.9	25.8
1,600-1,999	10.5	5.7	10.0	16.1	12.5	13.2	14.3	13.9	17.9	16.2	14.0	15.8	19.4	19.4	18.3	18.3	18.9	17.7	17.7	18.0	15.8	16.4	12.4

[a] This category was created in 2002. Data for the first half of the year correspond to cellular vessels in the range 2,300–3,900 TEU sailing at 22 knots minimum.

[b] Sailing at 16–18 knots.

[c] Sailing at over 18 knots.

Table 36

Freight rates (market averages) on the three major liner trade routes, 2003–2005

(US dollars per TEU)

	Trans-Pacific		Europe–Asia		Transatlantic	
	Asia–US	US–Asia	Europe–Asia	Asia–Europe	US–Europe	Europe–US
2003						
First quarter	1 529	826	704	1 432	899	1 269
Change (%)	0	1.1	-1.1	9.8	6.6	4.4
Second quarter	1 717	861	762	1 570	924	1 400
Change (%)	12.3	4.2	8.2	9.6	2.8	10.3
Third quarter	1 968	834	777	1 629	817	1 426
Change (%)	14.6	-3.1	2	3.8	-11.6	1.9
Fourth quarter	1 892	810	754	1 662	834	1 469
Change (%)	-3.9	-2.9	-3	2	2	3
2004						
First quarter	1 850	802	733	1 686	778	1 437
Change (%)	-2.2	-1	-2.8	1.4	-6.7	-2.2
Second quarter	1 863	819	731	1 738	788	1 425
Change (%)	0.7	2.1	-0.3	3.1	1.3	-0.8
Third quarter	1 946	838	735	1 826	810	1 436
Change (%)	4.6	2.3	0.5	5.1	2.8	0.8
Fourth quarter	1 923	806	769	1 838	829	1 471
Change (%)	-1.1	-3.8	4.6	0.6	2.3	2.4
2005						
First quarter	186.7	800	801	1 795	854	1 514
Change (%)	-2.9	-0.7	4.2	-2.3	3	2.9

Notes: Information from six of the trades' major liner companies. All rates are all-in, including the inland intermodal portion, if relevant. All rates are average rates of all commodities carried by major carriers. Rates to and from the United States refer to the average for all three coasts. Rates to and from Europe refer to the average for northern and Mediterranean Europe. Rates to and from Asia refer to the whole of South-East Asia, East Asia and Japan/Republic of Korea.

slot per day in January and 13.93 in December, which represents an increase of 36.6 per cent for the year.

Rates for geared vessels with capacity in the range of 1,000–1,299 TEUs fared exceptionally well – they were up by 74.8 per cent to $23.95 per 14-ton slot per day by December 2004. Rates for vessels with capacity of 600–799 TEUs rose 70.5 per cent to $24.35 per 14-ton slot per day by December. All other monthly rates also recorded double-digit percentage increases, with the lower ones of 31.8 per cent corresponding to small geared vessels with capacity in the range of 300–500 TEUs.

Freight rates in main routes

By the end of 2004, freight rates on the main containerized routes – trans-Pacific, transatlantic and Asia-Europe – were mostly above the levels that prevailed at the end of 2003 (see table 36). On the Asia–Europe route, in particular, rates rose to 10.6 per cent (westward) and 2 per cent (eastward). The westward rate for the fourth quarter of 2004 ($1,838 per TEU) was far above that for the third quarter of 2000 ($1,673 per TEU) and highlighted the extent of increases along this route. The eastbound rate across the Pacific increased by 1.6 per

cent, while the westward rate decreased marginally by 0.5 per cent. The eastbound rate at the end of 2004 was $1,923 per TEU, above the rates of the previous two years but still well below the peak rate of $2,000 per TEU reached in 2000. For the transatlantic route and between the fourth quarters of 2003 and 2004, the rate evolution was much less impressive. On the dominant westbound route to the United States, freight rates rose by 0.1 per cent to $1,471 per TEU, while in the opposite direction they fell by less than 1 per cent to $778 per TEU.

On the trans-Pacific route, where cargo flows are largest, freight rates increases were achieved only during the second and third quarters of 2004. The dominant eastbound leg recorded modest gains during these months before a small drop during the last quarter. Rate evolution was less impressive for the westbound leg, which saw a larger rate reduction during the fourth quarter. During the first half of the year, the Transpacific Stabilization Agreement (TSA), which accounts for 90 per cent of the trade, sought rate increases of about $450 per FEU in the negotiations of annual service contracts, but shippers seem to have agreed to only about half of that amount. The lack of empty boxes in the Far East continued to afflict trade during the year, and in September "origin equipment detention charges" in the range of $44 to $65 per dry freight box were invoiced to US shippers. In a separate development, the China Shipper Association is considering taking carriers to court in relation to the terminal handling charges being levied at ports since early 2003.

On the dominant westward leg of the Asia–Europe route, freight rates recorded single-digit growth during the year. Rates increased particularly during the third quarter of 2004 (more than 5 per cent), with a noticeable slowdown during the last quarter. This seemed to reflect the outcome of rate increases of about $300 per TEU sought by the Far Eastern Freight Conference (FEFC) and anecdotal evidence suggesting that up to four fifths of that amount was agreed to by shippers. On the eastbound leg to Asia, the first two quarters saw rate deterioration of 2.8 and 0.3 per cent respectively, with a recovery during the second half of the year, particularly the last quarter, which brought a 4.6 per cent increase in rates to $769 per TEU.

Freight rate movements on the transatlantic route were mostly positive, apart from the significant reductions of 6.7 and 2.2 per cent of the first quarter of 2004 in both directions. For the dominant leg originating in Europe, the best result was that of the last quarter, a modest 2.4 per cent increase in freight rates to $1,471 per TEU. Along the eastbound leg, there also were modest gains particularly during the second half of the year.

Concerning other charges applied in liner shipping, the issue of security charges cropped up in several places, often mixed up with security charges levied by ports and terminals. FEFC confirmed that "add-on" payments of $6.20 per box would be billed from September 2004 to cover security-related expenses related to running vessels and the administrative cost of processing terminal charges for empties and trans-shipment movements.

3. Supply and demand in respect of main liner services

During 2004, the demand for containerized services showed a healthy recovery. All the estimates of cargo flows on the three major containerized routes based on the figures for the first nine months of 2004 indicated in table 37 showed increases. In fact, these aggregates may mask some intra-regional trade and trans-shipment activity. Nevertheless, the aggregates point to an expansion of traffic from the Far East, notably mainland China, as well as reduced activity across the Atlantic.

For trans-Pacific trade, 2004 witnessed a continuation of the boom of previous years, particularly for eastward trade. The reason for this impressive 15.7 per cent increase in trade in the face of the declining US dollar is the flow of industrial and consumer goods from factories relocated to mainland China and other Asian countries. Cargo flow is now evenly distributed along the year, with the peak season having less impact on deployment of shipping capacity. Vessels with capacity of over 5,000 TEUs, including some over 8,000 TEUs, were deployed by sea carriers in several of their services, but the additional supply capacity was dampened by congestion in several ports and the persistence of container imbalances. All-water services from Asia to the US east coast were maintained partly to avoid congested ports on the west coast, and demurrage time was cut substantially to force empty containers back to Asia. Waste paper, comprising waste and scrap paper board, kraft linerboard, unsorted paper and corrugated paper, was one of the main commodities shipped from North America to the Far East/Asia, making up about a fifth of all shipments. Destination shifted from Japan and the Republic of Korea to China, where the paper was reprocessed for packaging exports.

On the Europe–Asia trade route, trade flows increased at double-digit rates. In the future, overcapacity may

Table 37

Estimated cargo flows along major trades routes

(millions of TEU)

	Trans–Pacific		Asia–Europe		Transatlantic	
	Asia–US	US–Asia	Europe–Asia	Asia–Europe	US–Europe	Europe–US
2003	10.19	4.05	7.26	4.92	1.72	2.9
2004	11.78	4.3	8.4	5.6	1.8	3
% change	15.6	6.2	15.7	13.8	4.6	3.4

Source: Compiled by UNCTAD secretariat from *Containerisation International* several issues.

Table 38

Percentage capacity share for Europe–Far East trade

(percentages)

Operator	Mid-2004	Mid-2003
Grand Alliance	23.6	24.0
New World Alliance	11.9	13.9
Maersk Sea Land	14.5	16.8
K Line and Yang Ming	7.5	9.7
CMA CGM / Norasia and others	5.6	5.7
Total	**63.1**	**70.1**

Source: UNCTAD secretariat from *Lloyd's Shipping Economist*, September 2004, page 10.

develop on the route, as 8,000-TEU vessels are due for delivery in the near future. During 2004, however, repositioning of empties was a major concern for all carriers, as about one of two boxes moving westward to northern Europe was send back empty, with the proportion being higher for the Mediterranean – two empties shipped back for each three moved westwards. Empty box repositioning and congestion in several ports kept supply and demand aligned throughout the year despite substantial deployment of additional tonnage. The Far Eastern Freight Conference (FEFC) reduced its share of deployed capacity to 63.1 per cent by mid-2004, which means that the share of non-conference carriers such as Hanjin, Evergreen, Cosco and others expanded. The share of these non-conference carriers was larger in some regions; for the Mediterranean it was estimated at 50 per cent.

By comparison, the transatlantic route had lacklustre figures in 2004. Flows heading east increased by only 4.6 per cent, while westward flows increased by 3.4 per cent. The devaluation of the US dollar against the euro for most of the year explained this performance. Demand was even during the year, and capacity surplus was unnoticed owing to congestion in several ports. Unlike on the other two routes, repositioning of empty containers was not a problem. Some carriers belonging to TACA decided to sue the European Commission over the cost of bank guarantees provided during the time of appeal against a fine imposed on them by the Commission.

In the secondary north–south and regional trades, the situation was similar. The rate of growth for containers flowing between North-East and South-East Asia was

14.1 per cent and that corresponding to the Asia–Oceania route was 15.3 per cent. On these routes, regional carriers were hampered by the high levels reached by chartered tonnage. Box repositioning surcharges were again applied on the route to Australia. Container flows between Europe and South and Central America increased by a remarkable 12.5 per cent. Trade flows between North and South America and the Caribbean increased by 8.8 per cent. The laggards were trade between Europe and Oceania and West Africa, which expanded by 4.2 and 3.2 per cent respectively.

4. Liner freight index

Table 39 shows movements of liner freight rates on cargoes loaded or discharged by liners at ports in the Antwerp/Hamburg range for the period 2001–2003. The average overall index for the year 2003 rose by 6 points from the 2002 level to 101 points (1995 = 100), reflecting the improved rates in both the homebound and outbound trades. The deterioration of the average homebound index was barely noticeable – only 1 point up to 94 for the year. The monthly figures indicate that rates peaked from July to September, reflecting increased volumes from the Far East and, to a much lesser extent, across the Atlantic. In outbound trade, the average level in 2004 dropped 4 points to reach 102 points. Most of the months were above the 100-mark, which highlights the relative stability of demand in this direction.

5. Liner freight rates as percentage prices for selected commodities

Table 40 provides data on freight rates of liner services as a percentage of market prices for selected commodities and trade routes for certain years between 1970 and 2004. For rubber sheet, the average f.o.b price increases more than offset the increases in freight rates and BAF surcharges and resulted in a decreased freight ratio of 7.5 per cent for 2004. The f.o.b. price for jute increased by about 10 per cent and almost recouped the drop of the previous year, while freight rates moved up by almost 16 per cent, and this explains the modest decrease in the freight ratio to 27.6 per cent for 2004. While there was a price reduction for cocoa beans shipped from Ghana of about 12 per cent, freight rates were steady, so that the

Table 39

Liner freight indices, 2002-2004

(monthly figures: 1995 = 100)

Month	Overall index			Homebound index			Outbound index		
	2002	2003	2004	2002	2003	2004	2002	2003	2004
January	93	96	93	81	91	88	104	101	98
February	93	96	93	81	91	88	103	100	98
March	95	101	96	80	94	92	109	107	101
April	95	107	100	82	100	96	108	114	104
May	94	99	99	82	92	96	106	105	103
June	94	101	99	81	90	95	106	111	103
July	94	103	100	85	97	97	103	107	103
August	94	104	100	85	99	97	102	109	102
September	93	104	100	85	99	98	100	108	102
October	99	102	100	88	96	96	109	107	104
November	99	100	96	90	96	90	108	105	101
December	97	96	94	88	92	89	105	100	100
Annual average	95	101	98	84	95	94	105	106	102

Source: UNCTAD secretariat on the basis of the Liner Index of Germany's Ministry of Transport. Monthly weighted assessments of freight rates on cargoes loaded or discharged by liners of all flags at ports of the Antwerp/Hamburg range.

Table 40

Ratio of liner freight rates to prices of selected commodities

Commodity	Route	Freight rate as percentage of price[a]					
		1970	1980	1990	2002	2003	2004
Rubber	Singapore/Malaysia–Europe	10.5	8.9	15.5	13.5	8.3	7.5
Jute	Bangladesh–Europe	12.1	19.8	21.2	21.7	29	27.6
Cocoa beans	Ghana–Europe	2.4	2.7	6.7	2.8	3.3	3.7
Coconut oil	Sri Lanka–Europe	8.9	12.6	n.a.	10	11.5	10.1
Tea	Sri Lanka–Europe	9.5	9.9	10	6.8	7.8	8.6
Coffee	Brazil–Europe	5.2	6	10	7.6	6.8	6.5
Coffee	Columbia (Atlantic)–Europe	4.2	3.3	6.8	3.9	3.9	2.3
Coffee	Columbia (Pacific)–Europe	4.5	4.4	7.4	4.6	4.8	2.6

Sources: UNCTAD secretariat on the basis of data supplied by the Royal Netherlands Shipowners' Association (data for 1970–1989) and conferences engaged in the respective trades (data for 1990–2003).

[a] C.i.f. prices are quoted for coffee (Brazil–Europe and Colombia–Europe) and coconut oil. For cocoa beans (Ghana–Europe), average daily prices in London are quoted. For tea, Kenya auction prices are quoted. Prices of the remaining commodities are quoted f.o.b. The freight rates include, where applicable, bunker surcharges and currency adjustment factors, and (for coconut oil only) a tank cleaning surcharge. Conversion of rates to other currencies is based on parities given in UNCTAD's Commodity Price Bulletin. Annual freight rates were calculated using a weighted average of various freight quotes during the year, weighted by their period of duration. Commodity prices for 1990–2004 are from UNCTAD's Commodity Price Bulletin.

freight ratio increased from 3.3 in 2003 to 3.7 in 2004. The c.i.f. price of coconut oil recorded an impressive increase of about 41 per cent in 2004, which, coupled with the 24 per cent increase in freight rates during the year, resulted in a freight ratio of 10.1 per cent, very close to that of 2002. The ratio of liner freight rates to the f.o.b. price of tea increased from 7.8 to 8.6 per cent, because freight rates increased almost 13 per cent in 2004 while prices increased only 2 per cent. The price for coffee from Brazil to Europe rose by a remarkable 34 per cent in 2004, while freight rates rose 27 per cent; this resulted in a decrease of the freight factor from 6.8 per cent in 2003 to 6.5 per cent in 2004. The price of Colombian coffee exported to Europe from Atlantic and Pacific ports rose about 25 per cent during 2004, while freight rates actually decreased by a quarter and a third on these two routes respectively. These changes resulted in freight ratios below 3 per cent — the lowest for the commodities under review.

D. ESTIMATES OF TOTAL FREIGHT COSTS IN WORLD TRADE

1. Trends in global import value and freight costs

International trade involves various services such as sourcing, production, marketing, transaction and transport and the related flow of information. For the transport sector, table 41 provides estimates of total freight payments for imports and their share as a percentage of total import value by country groups (see also figure 8). In 2003, the world total value of imports (c.i.f) increased by 15.7 per cent, while total freight paid for transport services increased by 12.2 per cent, reflecting the upward trend in freight rates that prevailed during that year. The share of global freight payments in import value decreased to 5.4 per cent from 5.5 per cent in 2002. In 2000, the share of freight costs in import

Table 41

Estimates of total freight costs for imports in world trade [a] by country groups

(billions of dollars)

	Country group	Estimate of total freight costs imports	Value of imports (c.i.f)	Freight costs as a percentage of import value
1990	World total	173. 1	3 314.3	5.2
	Developed market-economy countries	117. 0	2 661.6	4.4
	Developing countries-total	56.1	652. 6	8.6
	of which in:			
	Africa	9.0	81.9	11.1
	America	9. 6	117.8	8.2
	Asia	35.1	427. 9	8.2
	Europe	1 .9	21.3	9.0
	Oceania	0.5	3.8	12.3
2000	World total	342.6	6 147.1	5.6
	Developed market-economy countries	191.1	4 439.6	4.3
	Developing countries-total	151.5	1 707.5	8.8
	of which in:			
	Africa	14.3	110.6	12.9
	America	35.2	404.8	8.7
	Asia	99.2	1 162.6	8.5
	Europe	2.2	24.4	9.0
	Oceania	0.6	5.1	11.8
2002	World total	337.9	6 097.3	5.5
	Developed market-economy countries	181.6	4 386.2	4.1
	Developing countries-total	156.3	1 711.1	9.1
	of which in:			
	Africa	14.0	118.3	11.8
	America	38.5	365.3	10.5
	Asia	101.0	1 191.9	8.5
	Europe	2 .2	30.0	8.7
	Oceania	0.6	5 .5	10.9
2003	World total	379.2	7 052.9	5.4
	Developed market-economy countries	195.1	5 029.3	3.9
	Developing countries-total	184.1	2 023.6	9.1
	of which in:			
	Africa	17.9	150.2	11.9
	America	39.2	398.2	9.8
	Asia	122.7	1 430.3	8.6
	Europe	3.5	38.4	9.1
	Oceania	0.8	6.5	12.3

Source: UNCTAD secretariat estimates based on data supplied by the IMF.

[a] The estimate for the world total is not complete, since data for countries that are not members of the IMF, countries of Central and Eastern Europe and republics of the former Soviet Union, and socialist countries of Asia are not included owing to lack of information or for other reasons.

value stood at 5.6 per cent, or nearly 8 per cent higher than the average ratio in 1990. The regional comparison indicates that freight costs for imports by developed market-economy countries continue to be lower than those of developing countries, with the difference between the two groups fluctuating slightly. For 2003, the total value of imports by developed market-economy countries increased by 14.7 per cent while total freight costs increased by 7.4 per cent; thus freight costs as a percentage of import value decreased to 3.9 per cent (4.1 per cent in 2002) as compared to 9.1 per cent (same percentage in 2002) for developing countries. This difference is mainly attributable to global trade structures, regional infrastructure facilities, logistics systems, and the more influential distribution strategies of shippers of developed market-economy countries.

2. Regional trends

The total freight costs of developing countries increased by 17.7 per cent in 2003. Within this group, African developing countries recorded a marginal increase in freight costs from 11.8 per cent in 2002 to 11.9 per cent in 2003 – a reflection of higher freight rates and sustained improvements in terminal handling that offset insufficient infrastructure facilities and inadequate management practices, specifically for transit transport, and the low productivity of inland transport.

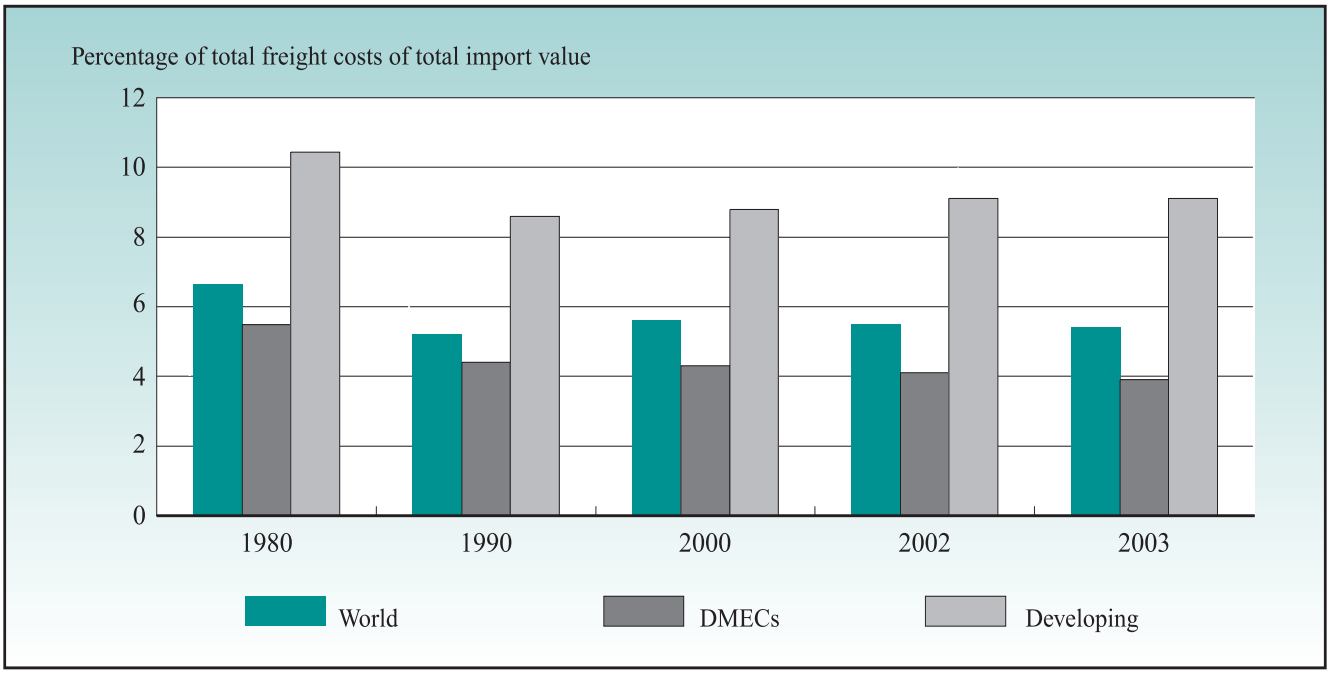
Developing countries in Asia accounted for 70.6 per cent of import value and 66.6 per cent of the freight payments of all developing countries in 2003, as compared to 69.6 and 64.5 per cent respectively for 2002. The freight factor of this region has fluctuated about 8 per cent since 1990 and was 8.6 per cent in 2003.

Developing countries in America saw their freight cost ratio decrease to 9.8 per cent in 2003 compared to 10.5 per cent in 2002. Developing countries in Europe had a modest increase in freight rates to 9.1 per cent, up from 8.7 per cent in 2002.

Small island developing countries in Oceania saw freight rates increase to 12.3 per cent, higher than the previous year's 10.9 per cent. Long distances from major trading partners, low cargo volumes, and high trans-shipment and feeder costs contribute to high freight costs for island developing countries.

Figure 8

Estimates of total freight costs for imports in world trade, by country groups



Source: Table 41.

Chapter 5

PORT DEVELOPMENT

This chapter covers container port throughput for developing countries, improving port performance, institutional changes in ports.

A. CONTAINER PORT TRAFFIC

Table 42 gives the latest available figures on reported world container port traffic in developing countries and territories for the period 2001 to 2003. The world growth rate for container port throughput (the number of movements, measured in TEUs) increased by a remarkable 9.6 per cent in 2003. Although this was lower than the 13.4 per cent growth of the previous year, it reflects the strength of liner traffic during 2003. In 2003, throughput passed the 300-million-TEU mark for the first time in history to reach 303.1 million TEUs, an annual increase of 26.5 million TEUs from the 2002 level of 276.6 million TEUs.

The growth rate for developing countries and territories was 11.9 per cent, with throughput of 122.4 million TEUs, which corresponds to 40.4 per cent of world total throughput. The rate of growth was lower than the remarkable 15.5 per cent reached in 2002, when developing countries' throughput was 109.4 million TEUs. There were 13 countries with double-digit growth in 2003 and 2002 out of a total of 57 having annual throughputs over 100,000 TEUs. These countries were the Republic of Korea, Malaysia, the United Arab Emirates, Thailand, Brazil, India, Saudi Arabia, the Islamic Republic of Iran, the Bahamas, Guatemala, Mauritius, the United Republic of Tanzania and Djibouti. The growth rate in developing countries varies from year to year, owing sometimes to big fluctuations in trade (as is the case with transshipment) and sometimes to improved reporting of data or to lack of data for some years.

Preliminary figures for 2004 are available for the world's leading 20 ports handling containers, and the results appear in table 43. Container throughput in these ports reached 166.62 million TEUs after recording double-digit growth in the previous two years. The list included 13 ports of developing countries and territories and socialist countries of Asia, with the remaining seven ports located in market-economy countries. Of the latter ports, three were in Europe, three in the United States and one in Japan. Fourteen ports were located in Asia, seven of them in China and one in western Asia; three were located in Europe and three in North America.

Hong Kong (China) maintained its leadership with an 19.1 per cent increase, followed by Singapore, which recorded slightly lower growth of 16.9 per cent. Mainland Chinese ports fared particularly well: Shanghai and Shenzhen recorded increases of 28.1 and 27.6 per cent respectively. Busan, Kaoshiung, Rotterdam, Los Angeles and Hamburg kept their position in the list after posting double-digit traffic increases. Dubai managed to displace Antwerp from ninth place after recording an impressive 24.8 per cent increase in cargo traffic. Similarly, Long Beach displaced Port Klang to twelfth place after its trade expanded by 24 per cent. Quingdao, New York and Tanjung Pelepas kept their positions in the ranking. Tokyo, however, was displaced to twentieth place by the remarkable performance of Ningbo, Tianjin and Laem Chabang, which recorded traffic increases of 44.4, 26.6 and 13.8 per cent respectively. Two European ports, Bremenhaven and Gioia Tauro, dropped out of the ranking to be replaced by the Chinese ports of Ningbo and Tianjin.

These top 20 ports accounted for 47.6 per cent of world container port traffic for 2003 (44 per cent in 2002).

Table 42

Container port traffic of 57 developing countries and territories in 2003, 2002 and 2001

(TEUs)

Country or territory	2003	2002	2001	Percentage change 2003-2002	Percentage change 2002-2001
Hong Kong (China)	20 449 000	19 144 000	17 900 000	6.8	6.9
Singapore	18 441 000	16 986 010	15 520 000	8.6	9.4
Republic of Korea	12 993 429	11 719 502	9 827 221	10.9	19.3
Malaysia	10 072 072	8 751 567	6 224 913	15.1	40.6
United Arab Emirates	6 955 750	5 872 244	5 081 964	18.5	15.6
Indonesia	4 560 397	4 539 884	3 901 761	0.5	16.4
Thailand	4 409 996	3 799 093	3 387 071	16.1	12.2
Brazil	4 333 425	3 570 255	2 323 801	21.4	53.6
India	3 916 064	3 208 384	2 764 757	22.1	16.0
Philippines	3 468 803	3 324 796	3 090 952	4.3	7.6
Saudi Arabia	2 440 327	1 958 566	1 676 991	24.6	16.8
Oman	2 246 826	1 415 498	1 331 686	58.7	6.3
Viet Nam	2 195 939	1 771 992	n.a.	23.9	n.a.
Sri Lanka	1 959 354	1 764 717	1 726 605	11.0	2.2
Mexico	1 690 913	1 564 541	1 358 136	8.1	15.2
Panama	1 605 074	1 344 785	2 376 045	19.4	-43.4
Egypt	1 457 976	1 336 044	1 708 990	9.1	-21.8
Malta	1 347 539	1 288 775	1 205 764	4.6	6.9
Chile	1 249 526	1 167 876	1 080 545	7.0	8.1
Islamic Republic of Iran	1 147 656	805 864	618 195	42.4	30.4
Jamaica	1 137 798	1 065 000	983 400	6.8	8.3
Bahamas	1 057 879	860 000	570 000	23.0	50.9
Colombia	995 203	960 723	577 041	3.6	66.5
Guatemala	725 976	360 161	322 136	101.6	11.8
Argentina	718 609	554 796	663 811	29.5	-16.4
Costa Rica	669 259	602 568	n.a.	11.1	n.a.
Peru	627 011	631 757	n.a.	-0.8	n.a.
Bangladesh	625 155	584 222	n.a.	7.0	n.a.
Côte d'Ivoire	612 546	579 055	543 846	5.8	6.5
Venezuela	592 010	780 657	924 119	-24.2	-15.5
Ecuador	515 550	500 471	414 355	3.0	20.8
Dominican Republic	480 650	541 932	487 827	-11.3	11.1
Honduras	470 567	413 843	n.a.	13.7	n.a.
Trinidad and Tobago	440 368	385 233	352 758	14.3	9.2

Table 42 (continued)

Country or territory	2003	2002	2001	Percentage change 2003-2002	Percentage change 2002-2001
Mauritius	381 474	198 177	161 574	92.5	22.7
Algeria	354 724	338 152	311 111	4.9	8.7
Uruguay	333 871	292 962	301 641	14.0	-2.9
Pakistan	332 559	227 000	878 892	46.5	-74.2
Kenya	330 748	278 059	n.a.	18.9	n.a.
Lebanon	305 933	298 876	299 400	2.4	-0.2
Jordan	281 215	277 307	241 037	1.4	15.0
Syrian Arab Republic	266 300	257 586	222 698	3.4	15.7
Cyprus	255 021	233 400	235 100	9.3	-0.7
Cuba	216 587	214 760	258 264	0.9	-16.8
United Republic of Tanzania	204 000	178 154	135 632	14.5	31.4
Djibouti	201 447	178 405	147 908	12.9	20.6
Reunion	170 092	162 636	159 006	4.6	2.3
Togo	166 441	84 783	n.a.	96.3	n.a.
Bahrain	165 700	155 037	n.a.	6.9	n.a.
Qatar	164 137	118 183	n.a.	38.9	n.a.
Sudan	156 607	129 093	120 701	21.3	7.0
Cameroon	156 000	146 737	139 587	6.3	5.1
Yemen	155 717	388 436	377 367	-59.9	2.9
Guam	148 158	140 990	140 158	5.1	0.6
Martinique	142 110	149 901	140 034	-5.2	7.0
Slovenia	126 237	114 863	93 187	9.9	23.3
Guadeloupe	110 073	118 013	n.a.	-6.7	n.a.
Total	121 734 798	108 836 321	93 307 987	11.9	16.6
Other reported[a]	657 445	588 096	1 426 812	11.8	-58.8
Total reported[b]	122 392 243	109 424 417	94 734 799	11.9	15.5
World total	303 108 850	276 552 859	243 814 545	9.6	13.4

Source: Derived from information contained in *Containerisation International Yearbook 2004* and from information obtained by the UNCTAD secretariat directly from terminal operators and port authorities.

[a] Comprises developing countries and territories where less than 95,000 TEUs per year were reported or where a substantial lack of data was noted.

[b] Certain ports did not respond to the background survey. While they were not among the largest ports, total omissions can be estimated at 5 to 10 per cent.

Table 43

Top 20 container terminals and their throughput, 2004-2002

(millions of TEUs and percentage change)

Port	Millions of TEUs			Percentage change	
	2004	2003	2002	2004/2003	2003/2002
Hong Kong (China)	21.93	20.82	19.14	5.33	8.78
Singapore	20.60	18.41	16.94	11.90	8.68
Shanghai	14.57	11.37	8.81	28.14	29.06
Shenzhen	13.65	10.70	7.61	27.57	40.60
Busan	11.43	10.37	9.45	10.22	9.74
Kaoshiung	9.71	8.81	8.49	10.22	3.77
Rotterdam	8.30	7.10	6.52	16.90	8.90
Los Angeles	7.32	6.61	6.11	10.74	8.18
Hamburg	7.03	6.14	5.37	14.50	14.34
Dubai	6.43	5.15	4.19	24.85	22.91
Antwerp	6.06	5.44	4.78	11.40	13.81
Long Beach	5.78	4.66	4.52	24.03	3.10
Port Klang	5.24	4.80	4.50	9.17	6.67
Quingdao	5.14	4.24	3.41	21.23	24.34
New York	4.40	4.04	3.75	8.91	7.73
Tanjung Pelepas	4.02	3.50	2.67	14.86	31.09
Ningbo	4.00	2.77	0.00	44.40	n.a.
Tianjin	3.81	3.01	0.00	26.58	n.a.
Laem Chabang	3.62	3.18	2.66	13.84	19.55
Tokyo	3.58	3.28	2.71	9.15	21.03
Total top 20	166.62	144.40	121.63	15.39	18.72

Source: Containerisation International, March 2005, p. 77.

B. IMPROVING PORT PERFORMANCE

For 2004, many ports reported record traffic increases. Rotterdam posted a 7 per cent increase in cargo traffic to 352 million tons, and Singapore a 5.7 per cent increase in shipping tonnage to 1.04 billion grt. Ports around Ho Chi Minh City posted an 11 per cent increase in cargo traffic to 25 million tons, around a third of the total traffic for all ports in Viet Nam, which reached 73 million tons. Belgian seaports had total throughput of 214 million tons of cargo, with the largest port, Antwerp, posting a 6 per cent increase to 151 million tons. Spanish ports recorded an 8 per cent increase in cargo traffic to reach 410 million tons for the year.

By mid-2004, record traffic volumes meant congestion in many regions. In August, dry bulk ports were reported congested in China, where China Shipping reported up to 20 vessels waiting for berths in spite of record performances at Qingdao, a major bulk port, for discharging Cape-size vessels at a rate of more than 6,000 tons per hour. Similarly congested conditions prevailed in container ports. In Australia, Port Botany and Melbourne indicated that seven out of 10 ships were behind schedule. In South Africa, a 16-hour average delay was becoming normal. In India, the Nhava Sheva Terminal in Jawarharlal Nehru port closed its export gates owing to severe congestion caused by 17,500 boxes stacked in its container yard, whose capacity was 11,500 boxes. In Kenya, up to 8,000 containers accumulated in Mombasa by the end of the year, with performance hampered by lack of equipment and compounded by the arrest of some key staff members on charges of fraud.

Congestion started to build up in Los Angeles and Long Beach in early July, with some sea carriers sailing without loading empty boxes back to Asia in order to keep their schedules. Shortages of up to 38 gangs of longshore labour per shift, coupled with traffic increases and protracted negotiations for extending working hours for terminal gates, were at the origin of the problem. The decision to enlist an additional 3,000 casual workers took time to implement; only 1,000 were engaged by October, with about a fifth of them showing up for work, and these workers having uneven skills. The proposal to open terminal gates 24 hours a day clashed with the working practices of warehouses that close during the night and on weekends and unwillingness to pay for off-peak tariffs. As a result, by early September there were 22 container ships waiting for berth, with a peak of 33 during Labour Day, and one month later there were still 26 vessels on the roads. This situation altered shipping schedules: in Australia ports were skipped to recoup delays on the US West Coast, and 19 ships were diverted to Oakland, Seattle and Manzanillo (Mexico) by mid-September. The situation reverted to normal by the end of November, with ship turnaround times being in the range of three to four days rather than the 7 to 10 days of the previous months.

Diversion of container ships was not always easy. As delays started to build up in Rotterdam, with waiting times of up to 24 hours reported during the summer, four of the five members of the Grand Alliance suggested using the empty Ceres Paragon terminal in Amsterdam. The first mainline vessels called in this terminal in early October, but only for a single call. Across the Channel, congestion in Felixstowe and Southampton was caused by the lengthened dwell time of import containers. In October, the average truck turnaround time increased from six hours to one day. By year's end, the situation reverted to normal. Elsewhere, in spite of Brazil's export boom, the lack of investment in road infrastructure connecting Santos with the greater São Paulo area was said to be at the origin of the 6-kilometre truck waiting line at the entrance of the port.

Strikes impaired the ability of some ports to serve trade. In April, crews and masters of tugboats and barges went on strike for wage increases and an improved health benefit plan. In June, a three-week strike affected the container terminal of Chennai after some workers were dismissed and feeder carriers imposed a $50 per laden TEU surcharge. In July, Israeli port workers started to work on rule, seeking pension rights and other benefits in the wake of Government plans for privatization of the ports of Haifa, Ashdod and Eilat. One month later, it was estimated that 131 vessels had been diverted to Egypt, Cyprus and Greece, with losses to the national economy put at $1 billion. The stoppages ended in September, and in December the port authority agreed to compensate traders with $23 million. Two months later, a five-year labour peace was agreed, with dockworkers receiving a one-time bonus of $11,450 and employees of the three port authorities receiving a 15 per cent pay raise spread over several years.

In South Africa, Durban was affected by strikes of casual workers seeking the return of the dock-labour scheme to replace the current system of labour brokers. Port productivity was affected during November and December in Marseille (France) by work-slow crane drivers being reluctant to give up unofficial operator payments. Later on, crane drivers from Marseille and

Le Havre stated their reluctance to change their status from that of employees of the port authority to that of employees of container terminal operators. In Chile, a two-year wage deal was reached in November to end a three-week strike in Iquique in which workers were injured in clashes with the authority. Some strikes stemmed from issues of national concern – for example, the 24-hour strikes affecting Dutch ports during the year were caused by Government plans to abolish pre-pension and social security schemes.

Other strikes affecting ports were caused by problems facing truck companies. In Miami, there was a two-week strike of independent truck owners seeking higher pay and compensation for waiting time at port. Truck companies in the United States were facing high fuel prices and seeking to change a long-standing commercial practice whereby they and not the sea carriers are responsible for damages to chassis outside port premises. In Colombia a three-week nationwide strike of truck drivers left 9,000 containers stranded at the largest port, Buenaventura, and interrupted coal deliveries to small Caribbean terminals.

In July, after protracted negotiations, working conditions for tug crews for the ports of Liverpool, Southampton, Medway, London, Felixstowe and Hull were aligned with those of UK seafarers. Among the new provisions: working time was not to exceed 48 hours a week for 26-week periods, and breaks of less than two hours were not to be regarded as meaningful rest. During the year, the International Transport Workers' Federation started a campaign against the "port of convenience".

The hurricane season affected operation of ports around the Caribbean. The worst hit was the large trans shipment facility of Freeport in the Bahamas, which in September was hit by two hurricanes that damaged the electric system of gantry cranes and disrupted communications. The Through Transport Club reported damages worth $11 million and has prepared a checklist to help ports minimize the impact of such events.

Other ports in South Florida were affected by hurricanes, but to a lesser extent. The December tsunami in the Indian Ocean had a modest impact on ports, and most of them resumed operation within two days. Chennai reported abnormal siltation that would require dredging at a cost of $2.5 million.

Automation is seen by many as a way to raise performance after teething problems have been solved. In March 2004, the Altenwerder Container Terminal in Hamburg exceeded 100 movements per crane per hour for the first time since being commissioned in 2002, and the following month it handled more than 1,825 truck and 810 rail containers in a day. Unforeseen computer software problems had delayed the start of operation three times and for months created headaches with keeping timetables and schedules. Automation was not limited to large terminals. In Brisbane, after successive trials that had started almost 10 years ago, one manufacturer, Kalmar, and one terminal operator, Patrick Corp., successfully converted straddle carriers into driverless equipment that can follow all typical orders in a terminal – pick up, drop off, corner turn, stop and so on. The operator claims savings of about $15 per move and ordered 14 new driverless straddle carriers for a new terminal.

Cooperation from the labour force was required in order to successfully test and implement new technologies. In October, about 150 dock workers blocked the demonstration in Genoa of a remote-controlled vehicle said to be able to transfer up to 500 TEUs per hour from ro-ro and passenger vessels. The agreement reached in July with clerical workers in the ports of Los Angeles and Long Beach provided that any new job created by new technology would be unionized.

In other cases, it was necessary to challenge long-standing administrative barriers. Members of the Hong Kong (China) port community found that it cost an additional $200 to ship a 40-foot box to destination in southern China owing to a cross-boundary licensing system and the rule that the same truck, driver, container and chassis must do the return trip to the port.

Customers also measured efficiency in terms of charges paid at the port, and they reacted to actual and potential tariff changes. High ship charges in force in Japanese ports were said to be under revision by the Ministry of Transport to align them with those prevailing in other ports of the region, which were said to be 30 to 40 per cent lower. In ports of the European Union, it was feared that dues could rise as guidelines for state aid were revised following a ruling on waived local landing charges in one Belgian airport. In India it was suggested that the policy of attracting direct calls might herald a reduction in ship dues. In Shenzhen (China) new charges were also questioned. A port construction fee of $9.76 per 20-foot box introduced by the Ministry of Communications was opposed by agents, which were asked to pay in advance but feared not being able to recoup the costs later from shippers.

Some complaints reached the World Trade Organization (WTO). In June, the Hong Kong (China) representative charged that the Singapore port was offering discounts on bills and handling expenses, but the representative of Singapore explained that the discounts were provided on a non-discriminatory basis and added that the WTO had not even agreed on a definition of distorting services subsidies; later in the month, the 20 per cent reduction on port dues for container ships was extended to 2006.

Commercial activity in war-torn countries also continued. In May, after suicide attacks damaged some Iraqi sea terminals, it was decided that US Marines would guard them. In October, the United Nations Development Programme estimated the cost of rehabilitating Iraqi ports Umm Qasar and Al-Zubair –mainly to restore access channels to the designed draft and eliminate more than 300 wrecks – at $34 million. Elsewhere, it was reported that the first commercial ship in almost a decade was berthed at the port of Mogadishu in December.

Port capacity increased in Egypt with the commissioning of the Suez Canal Container Terminal in October 2004. This terminal is planned to move up to 0.5 million TEUs during its first year of operation. Development of new port capacity was underway in several countries. In June, the Maasvlakte 2 plan for long-term development of Rotterdam received confirmation of Government funding. This plan will increase port land by 20 per cent, equivalent to 1,000 hectares, and will increase port capacity by 100 million tons. The Government's contribution reached $726 million of the total bill of about $3 billion and was made in exchange for one third of shares in the port authority, with the remaining two thirds being kept by the city. A few months later, it as reported that delays could be expected in the project, as the highest administrative court had raised questions about its environmental impact.

In September, a two-year study concluded that deepening the Scheldt to provide access to Antwerp would not have negative environmental impacts. Accordingly, the Dutch and Flemish Governments were said to be close to a decision about dredging the river to 13.10 metres, although the latter preferred dredging to 14 metres.

Finance-for-development schemes were a concern in several countries. Development of the six-berth port in Ulsan (Republic of Korea), at an estimated cost of $225 million, was financed largely by a syndicated loan of $196 million on the basis of a 50-year build-operate-transfer lease contract. In China, the construction of the 3-million-TEU capacity of Yangshan Port continued with the aim of providing spare capacity for the predicted traffic growth in the Yangtze River Delta. The company in charge of this development is Shanghai International Port Group, which early in 2005 announced its intention of being listed on the Hong Kong (China) stock exchange in order to raise up to $800 million for several port development schemes. In June, the northern port of Dalian signed a strategic partnership with AP Terminals, Cosco Pacific and PSA to develop this port as a complement to the agreed expansion of capacity in Qingdao to serve northern regions of the country. In September, APM Terminals signed an agreement with Xiamen Port Authority to finance on equal shares the development of a new three-berth terminal estimated to cost $350 million.

On the US East Coast, APM stated its intention to invest $500 million to build a container terminal on the Elizabeth River in Portsmouth, Virginia, the largest privately built terminal in the country. In June, the Port of New York and New Jersey signed an agreement with the US Corp of Engineers setting up funding and a time frame for dredging access channels to 50 feet (15.2 metres). It also released $5 million for planning the expansion of the Express Intermodal Facility at Elizabeth Terminals and rail connections reaching the Midwest and Canada to carry up to 1 million TEUs per year. In September a 10-year deal was concluded with a rail operator to operate those connections. Capital budget expenditures for 2005 of up to $50 million were contemplated for upgrading intermodal facilities in the cities of Newark and Elizabeth (New Jersey) and Howland Hook on Staten Island (New York City).

Attracting direct calls was the motive underlying the launch of the $486 million Vallarpadam project off Kochi in southern India. On the east coast, the bulk port of Ennore sought tenders to start a 1-million-TEU terminal, with some road and rail developments underway in the hinterland. Also, the Ministry of Shipping lifted the ban precluding operators of container terminals from bidding for a second concession in the same or a neighbouring port and raised the minimum quay length for these terminals from 800 to 1,000 metres.

More ambitious schemes for commercial ports were under consideration in Kuwait and Panama, namely the $1.2 billion Bubiyan Island and the $0.6 billion Westport mega-hub, respectively.

C. INSTITUTIONAL CHANGE

The acquisition activity of container terminal operators continued during the year. After several attempts, PSA managed to secure a foothold in Hong Kong (China) by purchasing NWS Holdings' stakes in Terminals Three and Eight West for $385 million. PSA was also said to participate in the second phase of Tanjung Pelepas (Malaysia). The winner of the sale of CSXWT assets, however, was Dubai Ports International (DPI), which paid $1.15 billion for them. This purchase allowed DPI to enter Hong Kong with a majority stake in Terminal Three, as this was one of the assets on sale. DPI expanded its network to the Far East and became the sixth largest world operator. In fact, DPI and PSA found themselves partners in Hong Kong. HPH, the world's largest operator, based in Hong Kong and with a strong presence in mainland China, was selected to double the container capacity of the port of Laem Chabang (Thailand), expanding its South-East Asia portfolio.

In April, P&O Ports, which held 67.5 per cent of the shares of Antwerp Gateway, added 3.5 million TEUs of capacity to its operations in this port by signing a 40-year concession for the east side of Deurganckdok. The west side of this dock was controlled by PSA through its subsidiary Hesse-Noord Natie. Three months later, P&O Ports through its subsidiary Bengal Port Ltd. won a 50-year concession to build a new port in Kulpi located 45 miles downriver from Kolkata (India). The investment was estimated at $235 million for a two-berth terminal with initial capacity of 0.5 million TEUs.

In June, MSC, one of the few large container carriers without interests in container terminals, set up a joint venture with Eurogate called MSC Gate Bremerhaven to operate a dedicated terminal in this port. A similar previous deal involving Maersk highlighted this port's strategy of having dedicated terminals. In July, APM Terminals, Maersk's subsidiary, reported adding new terminals to its portfolio in several regions – for example, in Douala (Cameroon) after winning a 15-year concession, and in India after being awarded a 30-year lease jointly with Container Corporation of India for the third terminal of Jawarharlal Nehru Port. Short management contracts signed in Aqaba (Jordan) and Khor Al Zubair (Iraq) added to MSC's strong presence in the Middle East.

Other operators also reported network expansion. ICTSI from the Philippines completed the $80 million development of Gdynia (Poland) and secured a lease to operate Terminals 9 and 10 of the trans-shipment hub of Naha in Okinawa (Japan) together with six Japanese stevedoring companies. HHLA from Germany was expanding in the Baltic in a joint venture with Russian interests to develop container capacity off Saint Petersburg and in the fruit sector with Sea-Invest of Belgium. Mersey Docks and Harbour Co. (United Kingdom) and an American partner secured a 10-year lease for operating the port of Beirut, which had been left by DPI. Finally, Maher Terminals, the largest operator in New York, was selected to develop the container terminal at the Port of Prince Rupert on Canada's West Coast. In Cartagena (Colombia), SPRC purchased the facilities of Contecar, a smaller operator in the same port, for $24 million and secured 70 hectares of land and 1 kilometre of quaywall for future expansion.

The participation of the private sector in the port industry proceeded at a pace adapted to the economic and social situation of given countries. By mid-year, the Russian government discussed the disposal of 20 per cent of the public ownership for the ports of Novorossiysk, St. Petersburg, Murmansk and Tuapse. In Nigeria, 94 bidders were prequalified during the fourth quarter of the year for the envisaged 24 port concessions. The values were estimated to fluctuate between $5 and $100 million, and the durations between 10 and 25 years. In Togo, it was reported in December that a French-Spanish consortium had entered into a joint venture with a Togolese company to develop the port of Lomé as a regional hub. South Africa and Peru followed a parsimonious path, with the former leaning towards public-private partnerships and allocating $340 million for improvement of terminals in Durban, Cape Town and Port Elizabeth and the latter trying to issue tenders that accommodated operators having dissimilar financial capacities.

Contentious issues between authorities and operators surfaced in India and Panama. In India, Jawarhalal Nehru Port and Nhava Sheva International Container Terminal — in which P&O Ports has a majority shareholding — sought arbitration on some vexed points. The former claimed annual royalties, an increase in bank guarantees and a contribution to expenditures on port premises security. The latter disputed the clauses dealing with royalties and guarantees and stated that a landlord port normally ensures security for the entire port premises. In Panama, the issue of a disputed decree that awarded one operator payments similar to those awarded to two other operators was set to be renegotiated by the new government. This position was restated in early

2005 when royalties per TEU were raised by 50 per cent and a down payment of $20 million was agreed to with the two operators in exchange for increased land to expand their terminals.

The conditions available to operators were eased in India and China. In June 2004, India's Ministry of Shipping sought to allow a private operator to develop and run a maximum of two container terminals in a major port, provided a third terminal was tendered out. In China, a new Port Law allows municipalities to negotiate and deal financially with port foreign investors. In the European Union, the new draft directive for port services introduced in October sparked fears of over-regulation of terminal tenders as well as being said to discourage investors in German ports.

The scope and status of port authorities were matters for discussion in some countries. In August, competing claims by the city of Jakarta and a regional port authority to a construction site cast a shadow over a $500 million port development scheme in East Ancol. Later on, the government suggested the merger of the four regional port authorities into one that would have national scope for and thereby achieve greater efficiency. In Malaysia, there were also calls for establishing a national port authority.

In Denmark, the Supreme Court ruled in August 2004 that the port of Copenhagen belonged to the State, and that the prior conversion of the port into a company with the ownership of assets, was against the Constitution. This port had merged with Malmö, a Swedish port across the Oresund Strait, in the wake of the commissioning of the bridge linking the two countries, which had substantially reduced sea traffic. In Germany, calls for efficiency suggested the establishment of a port authority along the lines of a private company in the state of Lower Saxony and Hamburg. The concept of the Straits of Gibraltar as a single port linking Algeciras, Gibraltar, Ceuta and Tanger was broached in Spain in September.

Development of new facilities highlighted the need for a national port policy. The rejection of the Associated British Ports proposal for developing container facilities in Dibden Bay, near Southampton, on environmental grounds prompted statements by several parties. The Transport and General Workers' Union asked the Government to produce a port policy strategy that provided controlled capacity growth in the country. In Parliament it was stated that the Dibden decision had been taken after consideration of alternatives which also seemed to include EU ports. A white paper on transport strategy was planned to review the ports policy framework by the end of 2006. Industry representatives reiterated their opposition to any centralized port planning. In the meantime, the three remaining applications for port development continued to move through the different stages of the planning system. In July, Hutchinson Ports struck a deal with the highway and rail agencies that supported its application for a $360 million Bathside Bay proposal near Harwich. In January 2005, P&O Ports agreed to fund additional infrastructure around its proposed London Gateway Container port to boost its chances for approval. These applications, together with Hutchison's expansion of Felixstowe, were also reviewed in respect of environmental compliance with current EU directives.

The large port development schemes envisaged in northern Germany received a boost when, in June, four coastal states, Hamburg, Schleswig-Holstein, Lower Saxony and Bremen, decided to have a common port development policy. This meant support for dredging the Elbe and Weser rivers to reach the ports of Hamburg and Bremen respectively and for developing the deep-water port in Wilhelmshaven. However, in September the federal government stated that deepening the Elbe and Weser rivers to 16 metres was not included in the national plan. In December, calls for tenders to develop Wilhemshaven were made, and the four coastal states proposed that the federal government reject the new EU draft directive for ports services on the grounds that it would harm the security of new long-term investments.

The importance of environmental concerns in port development was highlighted in several countries. In Spain, Greenpeace objected to development plans in Coruña and Tenerife. In Italy, a dredging ban in La Spezia was suspended after an administrative court accepted an appeal. Dredging was said to cost $30 million and take six months, while the alternative of cleaning the sea bottom could be 10 times as costly. In California, the Governor vetoed a law that would have required drastically curbing air pollution in the ports of Los Angeles and Long Beach, in which a number of vessels already plug into shoreside electric connections instead of relying on ships' engines.

Chapter 6

TRADE AND TRANSPORT EFFICIENCY

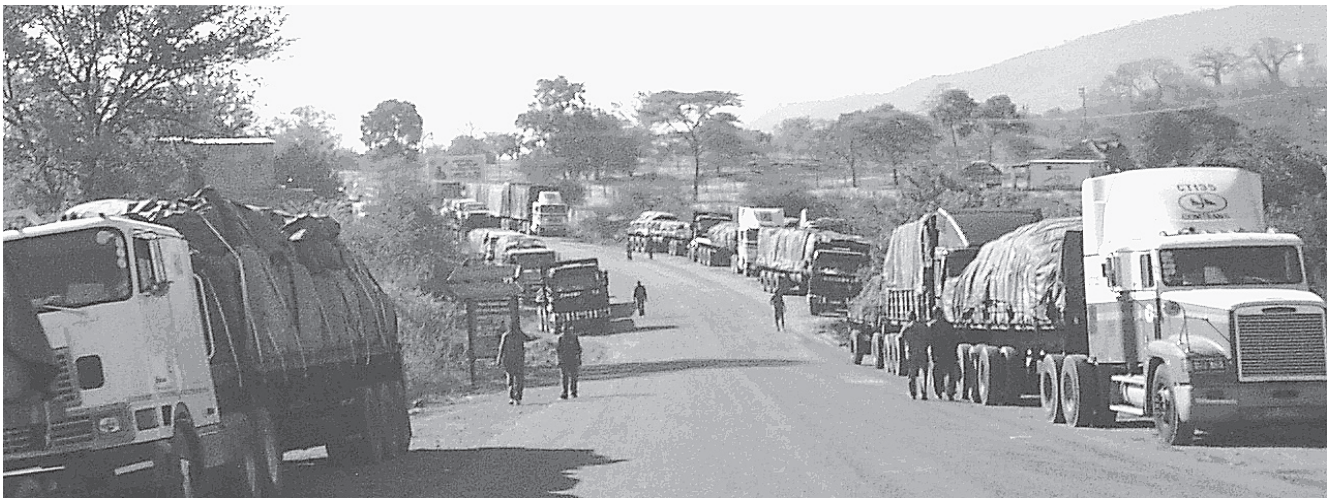
This chapter provides information on recent developments in the fields of transport, trade facilitation and multimodal transport, along with information on the status of the main maritime conventions.

A. NEGOTIATIONS ON TRADE FACILITATION AT THE WORLD TRADE ORGANIZATION

Long waiting times at border crossings and ports, inappropriate fees and formalities, and unclear trade and transport rules and regulations can all become serious obstacles to trade and thereby adversely affect investment and job creation. Developing countries depend on effective trade facilitation for their development process. They will benefit from the "new geography of trade" (increased exports of manufactured goods and more South-South trade) only if their imports and exports are not confronted with excessive transaction costs, uncertainty and delays.

Negotiations on trade facilitation were covered in the 1 August 2004 Decision of the WTO's General Council, the so-called July package. WTO Members have since then started negotiations that focus on improving GATT 1994 Articles V, VIII and X, which deal respectively with "Freedom of Transit", "Fees and Formalities connected with Importation and Exportation", and the "Publication and Administration of Trade Regulations".

The inclusion of trade facilitation in the WTO negotiating agenda reflects trends in international trade and the resulting requirements for effective global supply chains. Globalized production processes go hand in hand with growing intra-company trade as well as trade in components and unfinished products. Countries with inadequate trade and transport facilitation will not attract the investment required to participate in this process. The changing production and trade patterns would not be possible without enhanced transport and logistics services, and the latter in turn would not



Average waiting times of two weeks at some borders between LDCs are a serious obstacle to the countries' competitiveness and their participation in globalized production and international trade.

be possible without trade and transport facilitation. Containerization, for example, significantly facilitates multimodal door-to-door transport services. Since 1985, global port container moves have increased sevenfold, yet many landlocked LDCs are still served mostly by non-containerized transport services. This situation is at least partly the consequence of high risks, red tape and costs involved in transit trade.

Another important trend is the increase of the share of transport in international logistics expenditures, whereas the share of inventory holding is declining. This trend goes hand in hand with faster, more frequent and more reliable transport services. Lengthy customs and other procedures at border crossings and ports, on the other hand, lead to involuntary expensive inventory holding, effectively preventing any trade or foreign direct investment that would require just-in-time deliveries of unfinished goods or components.

The negotiations on trade facilitation at the WTO take place within the Negotiating Group on Trade Facilitation (NGTF). The NGTF started its work towards the end of 2004, and since then has met at regular intervals of between one and two months. Over 50 documents were tabled by WTO member countries by mid-2005, most of them containing proposals on a wide range of trade facilitation issues. Specific topics covered include, for example, the publication of trade regulations, fees, clearance and release of goods, reduction and simplification of formalities, and use of existing international standards.

Some of the tabled proposals also refer to Annex D of the WTO July package. Annex D establishes links and conditions with regard to the identification of the needs and priorities of Members as well as technical assistance and capacity-building. These elements are interrelated, while at the same time being linked to special and differential treatment. In particular, Annex D stipulates that the scope of the commitments resulting from the WTO negotiations must be commensurate with the implementation capacity of developing and least developed countries. It further states that the capacity for implementation of the new commitments will, particularly in the case of developing and least developed countries, be determined in accordance with their trade facilitation needs and priorities. Finally, technical assistance and capacity-building should help developing and least developed countries to implement the commitments resulting from the negotiations. Several of the proposals tabled at the NGTF suggest that these elements of Annex D should be dealt with in parallel with the process of clarification and improvement of Articles V, VIII and X of the GATT 1994, as they can make a significant contribution to the progress of the negotiations.

The inclusion of trade facilitation in the WTO negotiations has pushed the issue further to the forefront of the development agenda of most developing countries. This has resulted in growing awareness and capacity-building activities in this area. Several countries have created new trade and transport facilitation committees; numerous national, regional and international workshops are being held; and new research on trade and transport facilitation is being published. Many of these activities have been made possible as a consequence of increased funding from donors and international financial institutions to support trade and transport facilitation. UNCTAD in particular has initiated a trust fund to help Geneva- and capital-based negotiators from developing and least developed countries to better understand the possible scope and implications of the negotiated trade facilitation measures. The trust fund aims at assisting developing-country WTO Members in analysing the issues at stake, defining their position regarding the treatment of trade facilitation within the context of WTO negotiations on trade facilitation, and formulating modalities for effective implementation of the negotiated commitments. The activities of the major international players in the area of trade and transport facilitation are coordinated through established mechanisms, including the Global Facilitation Partnership[4] and UN inter-agency arrangements.

B. DEVELOPMENTS IN INTERNATIONAL MARITIME SECURITY: ENTRY INTO FORCE OF THE ISPS CODE

Internationally, one of the most important recent developments in the field of maritime security was the entry into force, on 1 July 2004, of the International Ship and Port Facility Security Code (ISPS Code).[5] In

[4] See www.gfptt.org.

[5] For the complete text of the ISPS Code, see SOLAS/CONF.5/34, Annex 1. See also *The International Ship and Port Facility Security Code*, 2003 Edition, ISBN 92-801-5149-5. For further information, see the IMO website (www.imo.org). Please note that all ISPS-related circulars issued by the IMO are available on the website under "legal", "maritime security".

December 2002, the International Maritime Organization (IMO) had adopted the ISPS Code as part of an additional chapter[6] to the 1974 Safety of Life at Sea Convention (SOLAS). The Code, together with a number of other amendments to SOLAS,[7] provides a new comprehensive security regime for international shipping.[8] It applies to all cargo ships of 500 gross tonnage or above, passenger vessels, mobile offshore drilling units and port facilities serving such ships engaged in international voyages.[9] Part (A) of the Code establishes a list of mandatory requirements, and Part (B) provides recommendations on how to fulfill each of the requirements set out in Part (A).

The new security regime imposes a wide range of responsibilities on governments, port facilities and ship-owning and -operating companies. These responsibilities were described in some detail and with appropriate references to the respective provisions of the Code in an earlier UNCTAD report.[10] However, for ease of reference, the main obligations are briefly summarized here.

Responsibilities of Contracting Governments

The principal responsibility of Contracting States under SOLAS chapter XI-2 and Part (A) of the Code is to determine and set security levels. Responsibilities also include, *inter alia*:

- approval of *Ship Security Plans*
- issuance of *International Ship Security Certificates* (ISSC) after *verification*
- carrying out and approval of *Port Facility Security Assessments*
- approval of *Port Facility Security Plans*
- *determination of port facilities* which need to designate a *Port Facility Security Officer*
- exercise of *control and compliance measures*.

Governments may delegate certain responsibilities to Recognized Security Organizations (RSO) outside Government.

Responsibilities of vessel-owning and/or -operating companies

Vessel-owning and/or -operating companies have a number of responsibilities, chief among which is to ensure that each vessel a company operates obtains an *International Ship Security Certificate* (ISSC) from the administration of a flag state or an appropriate RSO, such as a classification society. In order to obtain an ISSC, the following measures must be taken:

- designation of a *Company Security Officer* (CSO)
- carrying out *Ship Security Assessments* (SSA) and development of *Ship Security Plans* (SSP)
- designation of a *Ship Security Officer* (SSO)
- training, drills and exercises

A number of special mandatory requirements in SOLAS chapters V, X-1 and X-2 apply to ships and create additional responsibilities for vessel-owning companies and for Governments. These include in particular the following:

- *Automatic Identification System* (AIS)
- *Ship Identification Number* (SIN)
- *Ship Security Alert System* (SSAS)
- *Continuous Synopsis Record* (CSR)

Responsibilities of port facilities

Depending on size, there may be, within the legal and administrative limits of any individual port, several or even a considerable number of port facilities for the purposes of the ISPS Code.

- *Port Facility Security Plans* (PFSP): based on the *Port Facility Security Assessment* carried out and, upon completion, approved by the relevant national Government, a *Port Facility Security Plan* needs to be developed.
- *Port Facility Security Officer* (PFSO): For each port facility, a Security Officer must be designated.
- Training drills and exercises

Both Governments and industry faced the challenging task of implementing the various new security

[6] Chapter XI-2 on "Special measures to enhance maritime security".

[7] Chapters V and XI of the annex to SOLAS were amended, the latter chapter being renumbered as chapter XI-1.

[8] Cf. ISPS Code (A), Art. 1.2.

[9] See SOLAS, chapter XI-2/2 and ISPS Code (A), Art. 3.

[10] *Container Security: Major Initiatives and Related International Developments,* UNCTAD/SDTE/TLB/2004/1, paras. 80–86 (www.unctad.org).

requirements within a short timeframe, by 1 July 2004. Full and complete compliance by that date was crucial, as the repercussions of non-compliance could be severe.[11] Efforts to ensure compliance intensified in the weeks and days prior to the deadline date, and continued in the period immediately afterwards. Despite the initially slow progress in implementation of the ISPS Code, figures provided by IMO member Governments indicate that by 1 July 2004, more than 86 per cent of ships and 69 per cent of declared port facilities had security plans approved.[12] By August 2004, the IMO reported that 89.5 per cent of over 9,000 declared port facilities had had their Port Facility Security Plans approved and "well beyond 90 per cent" of all ships had been issued International Ship Security Certificates, which indicated that almost complete compliance with the new IMO security measures was being achieved. However, according to the IMO, the picture was uneven, with "regional pockets in which progress had not been as rapid as might be hoped". Africa and the countries of the former Soviet Union and Eastern Europe were described as being slow in implementing the new ISPS security rules.[13]

According to the IMO, national authorities as well as any relevant industries displayed a pragmatic and reasonable attitude towards parties responsible for the implementation of the new security measures in the weeks following the 1 July deadline. No major disruptions to global trade were reported as a result of non-compliance, and, in particular, a responsible attitude was displayed in cases where administrative bottlenecks were to be blamed for any identifiable shortcomings. Nevertheless, there were some reports of ships being detained, cautioned or turned away.[14]

Overall, it appears that the challenge of ensuring compliance with a wide range of requirements and within a tight timeframe has been remarkably well met by Governments and industry alike. However, it needs to be emphasized that the challenge remains, both for Governments and industry, of maintaining substantive compliance with the new international security regime. The ISPS Code is far-reaching, and the scope of the relevant security requirements is wide. In addition to ensuring compliance with the relevant formal requirements of the Code,[15] both Governments and industry are under a continuous obligation to conduct risk assessments and to ensure that effective and appropriate responses to the identified level of risk are taken.

A number of guidance circulars relating to the implementation of the ISPS Code have been issued by the Maritime Safety Committee (MSC) of the IMO. These include in particular the following:

- MSC Circular 1111[16] deals in some detail with the security measures and procedures to be applied at the ship/port interface when either the ship or the port facility do not comply with the requirements of chapter XI-2 and of the ISPS Code.[17] An Annex provides detailed "*Interim Guidance on Control and Compliance measures to Enhance Maritime Security*".[18]

[11] For further details on control and compliance measures, see UNCTAD report *Container Security: Major Initiatives and Related International Developments,* UNCTAD/SDTE/TLB/2004/1, para. 85 (www.unctad.org).

[12] See Press Briefing of 1 July 2004, *Secretary-General Mitropoulos pays tribute to the efforts made to implement the ISPS Code* (www.imo.org).

[13] See Press Briefing of 6 August 2004, *Security compliance shows continuous improving* (www.imo.org). Regarding ISPS Code compliance by IAPH Member Ports, see the IAPH website (www.iaphworldports.org).

[14] See *Measures to Enhance Maritime Security; Progress Report on the Implementation of the Special Measures to Enhance Maritime Security Detailed in SOLAS chapter XI-2 and the ISPS Code*, MSC 79/5/1, 24 September 2004, paras. 6, 7 (www.imo.org).

[15] Note, for instance, a survey on ISPS Code implementation carried out by the European Seaports Organisation (ESPO), which draws attention to the fact that some ships appear to be presenting tonnage certificates of below 500 GT, issued under pre-1969 Tonnage Measurement Rules, and are thus exempt from the ISPS Code requirements. See *ESPO Survey of implementation of ISPS Code/EU Regulation in EU Ports*, of 8 March 2005 (www.espo.be).

[16] See *Guidance relating to the Implementation of SOLAS chapter XI-2 and the ISPS Code* MSC/Circ. 1111, of 7 June 2004. The guidelines also provide recommendations for ships calling at the port of a State that is not a Contracting Government and remind all parties that the requirement for ships to keep records of their last 10 calls at port facilities applies only to calls made on or after 1 July 2004.

[17] Ibid. Annex 1. The Guidance also addresses the position of ship construction, conversion and repair yards and deals with the requirements of chapter XI-2 and the ISPS Code, when a ship interfaces with a floating production, storage and offloading unit (FPSO) or a floating storage unit (FSU).

[18] Ibid. Annex 2.

- MSC Circular 1130[19] contains guidance on security-related information, which must be supplied or may be requested prior to entry of a ship into port.
- MSC Circular 1132[20] provides guidance on a variety of matters, in particular the setting of and response to security levels, the practice of requiring and responding to requests for a declaration of security and matters relevant to access and boarding procedures.
- MSC Circular 1131[21] provides *Interim guidance on Voluntary Self-Assessment by SOLAS Contracting Governments and by Port Facilities*. The guidance contains a questionnaire to allow Governments to assess the effectiveness with which obligations in respect of port facilities are and continue to be fulfilled.

In order to effectively implement the wide range of ISPS Code security requirements, Governments and industry incur significant costs. Attempts have been made to assess the approximate costs involved, both globally and at the national level, but no comprehensive assessment has been published since the ISPS Code entered into force. How costs should be distributed, between Governments and industry and among different parties within the affected industries, remains a matter of debate.

As concerns cost sharing between parties within the affected industries, so far there is a clear trend, particularly among port authorities and terminal operators but also among ship-owning or -operating companies, to pass on the extra costs associated with the new security regime to their customers through the imposition of security fees and charges. While increasingly common, the practice is not yet uniform, and there seem to be considerable variations in the level of charges. While generally accepting the need to recover security costs, shippers are faced with charging practices of both ports and shipping lines that lack transparency and add to transaction costs, particularly for developing-country traders.

For instance,[22] terminal security fees quoted for continental European ports range from around €2 per container (import and export container, excluding trans-shipment) for Oslo to around €5 for several Spanish ports, €8 for most Italian ports, €8.50 for Rotterdam and €9 for Bremerhaven, Hamburg, Le Havre, Antwerp and Zeebrugge. Charges quoted for UK ports range, for export containers, from £4.75 in Thamesport to £7.50 in Felixstowe and, for import containers, from £5.50 in Southampton to £10.50 in Felixstowe. Similar variations may be observed in other parts of the world.[23]

Security charges introduced by some container lines also vary, albeit to a lesser extent. For instance, the Far Eastern Freight Conference (FEFC) announced in August 2004[24] that its members would charge €5 for containers "moved to or from ports in the North Continent of Europe, Scandinavia, the Baltic and the Mediterranean", £1.50 for movements to and from the UK ports of Tilbury, Felixstowe, Southampton and Thamesport (where lines recover the security charge from shippers/consignees), and £3.50 for movements to and from other UK ports. Hapag-Lloyd Container Line charges a "carrier security fee" of $6 per container,[25] and P&O Nedlloyd announced in December 2004 that it would charge a $6 carrier security charge on all containers handled by the line from 1 January 2005.[26]

[17] Ibid. Annex 1. The Guidance also addresses the position of ship construction, conversion and repair yards and deals with the requirements of chapter XI-2 and the ISPS Code, when a ship interfaces with a floating production, storage and offloading unit (FPSO) or a floating storage unit (FSU).

[18] Ibid. Annex 2.

[19] MSC/Circ.1130, of 14 December 2004, *Guidance to Masters, Companies and Duly Authorized Officers on the Requirements Relating to the Submission of Security-Related Information Prior to the Entry of a Ship into Port* (www.imo.org).

[20] MSC/Circ.1132, of 14 December 2004, *Guidance relating to the Implementation of Solas Chapter XI-2 and the ISPS Code,* (www.imo.org).

[21] See *Interim guidance on voluntary self-assessment by SOLAS Contracting Governments and by port facilities,* MSC/Circ.1131, of 14 December 2004.

[22] The information in the text is taken from a table compiled by Hapag-Lloyd Container Line providing details of 'Terminal Security Fees' applicable in various European, Australian, US, South American and New Zealand ports (www.hlcl.com). An informative and useful summary of port security fees and charges assessed by North American port authorities and terminal operators has been published by the American Association of Port Authorities (www.aapa-ports.org).

[23] Ibid.

[24] See announcement of 13.8.2004 (www.fefclondon.com)

[25] See www.hlcl.com.

[26] See www.ponl.com.

Table 44

World container fleet

(in thousand TEUs)

End of the year	World fleet	Lessors fleet	Sea carrier fleet
2001	15 455	6 895	8 560
2002	16 405	7 465	8 940
2003	17 925	8 240	9 685
2004	19 310	8 830	10 480

Source: Containerisation International, various issues.

C. PRODUCTION AND LEASING OF CONTAINERS

Over the past three years, the container fleet expanded at an average rate of 7.7 per cent (see table 44), from 15.45 million TEUs at the end of 2001 to 19.31 million TEUs at the end of 2004. The rate of expansion was particularly high during 2003, when it reached an impressive 9.27 per cent, and slowed down during 2004 to 7.73 per cent. Fleet ownership is broadly equally split between container lessors and sea carriers. At the end of 2004, the container fleet owned by lessors was slightly above 8.8 million TEUs, which represented about 45 per cent of the world fleet.

During 2002 and 2003, lessors increased the size of their container fleets at a rate faster than that of sea carriers. During 2004, however, lessors were more cautious buyers of new boxes than sea carriers, increasing their fleets by 7.2 per cent to 8.83 million TEUs, while sea carriers expanded theirs by 8.2 per cent to 10.5 million TEUs.

Box prices partly explain the paucity of procurement of new boxes by lessors. The price of dry freight containers increased by over 50 per cent during 2004 owing to increases in the prices of steel and timber (see figure 9). In the previous year, container production had increased by 40 per cent, depleting manufacturers' stocks, and procurement of materials was made at higher prices. The price of Corten-steel, a basic material for box manufacturing, rose from $410 per ton at the end of 2003 to more than $550 per ton in mid-2004. Timber plywood for box flooring increased from $450 at the end of 2003 to over $600 per cubic metre by September 2004. During the same period, the prices of other items, such as corner castings and locks, rose by double-digit figures. As a result, the price of a new general-purpose 20-foot dry freight container increased in one year from $1,350 to over $2,000 by mid-2004 and to $2,200 by early 2005. This price increase is the highest since 1995. During the same period, the price of a 40-foot high cube box increased from $2,200 to $3,300. A 40-foot high cube reefer container fetched $19,000 by the end of 2004. The delivery of new container ships made sea carriers continue their box procurement, even at higher prices.

Container production increased by 20.8 per cent in 2004 (see table 45) and was concentrated in China. Of the 2.9 million TEUs manufactured in 2004, over 95 per cent of the dry freight boxes and almost 90 per cent of the reefer containers were produced in China. A slow concentration process is occurring among these manufacturers, whose numbers have fallen from over 30 a decade ago to about a half-dozen today. Two major producers are CIMC and Singama, which respectively account for about 50 per cent and 20 per cent of world production. Part of the latter's production is made in Indonesia.

Lease rates for containers were also up during 2004. At the end of 2004, rates for 20-foot general-purpose boxes were $0.86 per day, similar to the level reached in 1998 but $0.20 per day more than the levels of the previous two years. In early 2005 the lease rates for this type of box reached $0.92 per day.

Security concerns have led to testing of "smart" containers, which use embedded sensors to record any tampering with them or their contents. Eighteen Tamper Evident Secure Containers (TESC) were tested during the last quarter of 2004 between Hong Kong (China) and

Figure 9

Evolution of prices for new containers

(in US dollars)

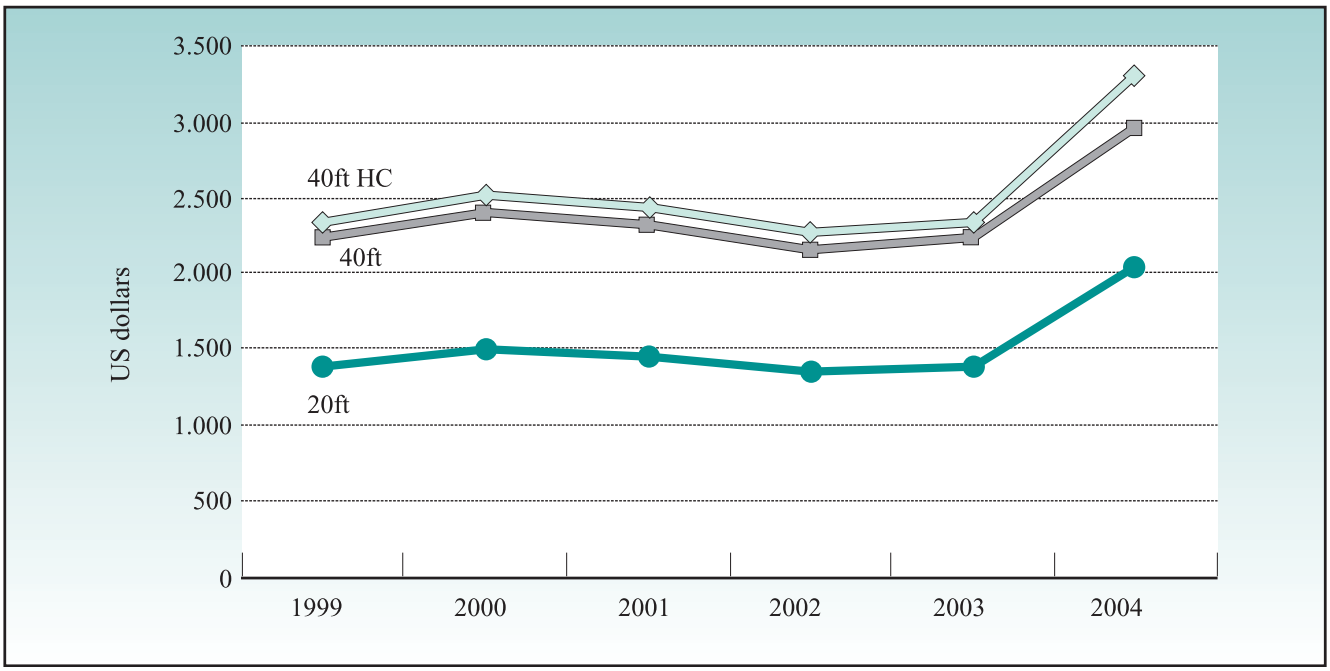


Table 45

Container production

(in thousand TEUs)

Container types	Production 2003	Production 2004
Dry freight	2 170	2 630
Integral reefer	132	150
Tank containers	12	20
Regional types	85	100
Total	2 400	2 900

Long Beach, with satisfactory results. These containers have a device integrated into the doorframe and use public wireless communication readers to transmit encrypted data to authorized parties. Another system, the RAEWatch, being tested by Matson on the domestic Oakland-Honolulu route, provides similar service.

D. INLAND TRANSPORT DEVELOPMENTS

The increase of trade volumes during 2004 highlighted the challenges faced by rail transport companies in North America and Western Europe. Six companies in North America reported combined net income of $3.4 billion for 2004, with individual results all positive and fluctuating between $0.1 billion and $1.2 billion. These results reflected increases in traffic volume of about 10.4 per cent and revenue increases resulting from rate increases. The latter was facilitated by increased rates charged by trucking companies facing increased demand, high fuel costs and a lack of qualified drivers. The investment capacity of railroads, however, was still limited by modest returns on infrastructure, costing about $2.5 million per mile and the companies therefore focused on operational measures such as increased train speed and improved frequency. In Western Europe,

rail competitiveness got a boost when the European Commission nominated a senior official to monitor the interoperability of European networks, including with those of neighbouring countries, and five rail carriers set up a rail freight alliance to supply one-window pan-European services to customers. Operators of Austria, Germany, Italy, Spain and the Czech Republic launched the European Bulls Alliance in Rotterdam in early 2005.

Important rail developments were started in China. Double-stack container train services between Shanghai and Beijing were launched in April 2004. These services use Chinese-standard equipment to carry 40-foot boxes with a transit time of 38 hours. Service started with three trains per week running in each direction and market share being modest. Also by mid-2004, construction started on the first container distribution centre in Kunming, the capital of Yunnan Province (in south-west China). The centre will cost around $60 million and will be operational in two years to handle 300,000 TEUs of containers. Large-scale modernization seems to be underway, with three suppliers of rail equipment from Canada, France and Japan having contracts worth $885 million to modernize more than 2,000 kilometres of railways. Plans include the construction of a network of 18 container distribution centres by the end of this decade. These centres will link major coastal and inland cities with double-stack rail container services.

Other rail developments focused on Mozambique and Saudi Arabia. The rehabilitation of the Nacala Corridor linking the port of Nacala (Mozambique) with landlocked Malawi was completed at a cost of $30 million, and upgrading of one 77-kilometre section started during the year. Also in 2004, the Saudi Railways Organization announced the opening of a rail bridge on the Arabian peninsula that will link the port of Yambu, on the Red Sea, with Daman, on the Persian Gulf.

Pricing of rail services caused concern in the Russian Federation and in India. The proposed 12.5 per cent increase in tariffs for domestic and port-connected routes proposed by Russian Rail was said to hamper the competitiveness of Russian ports, since rail tariffs for export and import traffic across land borders were not affected by the proposal. Sea carriers and shippers were opposing the "telescopic intermodal rates" proposed by the Indian rail operator Concor (Container Corporation of India), whereby rates decrease with distance. They argued that complicated calculations using "distance slabs" were causing uncertainty for users.

E. STATUS OF CONVENTIONS

There are a number of international conventions affecting the commercial and technical activities of maritime transport. Box 3 gives the status of international maritime conventions adopted under the auspices of UNCTAD as of 21 July 2005. Comprehensive and updated information about these and other relevant conventions is available on the United Nations website at *www.un.org/law*. This site also provides links to, *inter alia*, the following organizations' sites, which contain information on the conventions adopted under the auspices of each organization: the International Maritime Organization (*www.imo.org/home.html*), the International Labour Organization (*www.ilo.org*) and the United Nations Commission on International Trade Law (*www.uncitral.org*).

Box 3

Contracting States parties to selected conventions on maritime transport as of 21 July 2005

Title of convention	Date of entry into force or conditions for entry into force	Contracting States
United Nations Convention on a Code of Conduct for Liner Conferences, 1974	Entered into force 6 October 1983	Algeria, Bangladesh, Barbados, Belgium, Benin, Bulgaria, Burkina Faso, Cameroon, Cape Verde, Central African Republic, Chile, China, Congo (Republic of the), Costa Rica, Côte d'Ivoire, Cuba, Czech Republic, Democratic Republic of the Congo, Denmark, Egypt, Ethiopia, Finland, France, Gabon, Gambia, Germany, Ghana, Guatemala, Guinea, Guyana, Honduras, India, Indonesia, Iraq, Italy, Jamaica, Jordan, Kenya, Kuwait, Lebanon, Madagascar, Malaysia, Mali, Mauritania, Mauritius, Mexico, Morocco, Mozambique, Netherlands, Niger, Nigeria, Norway, Pakistan, Peru, Philippines, Portugal, Qatar, Republic of Korea, Romania, Russian Federation, Saudi Arabia, Senegal, Serbia and Montenegro, Sierra Leone, Slovakia, Somalia, Spain, Sri Lanka, Sudan, Sweden, Togo, Trinidad and Tobago, Tunisia, United Kingdom of Great Britain and Northern Ireland, United Republic of Tanzania, Uruguay, Venezuela, Zambia **(78)**
United Nations Convention on the Carriage of Goods by Sea, 1978 (Hamburg Rules)	Entered into force 1 November 1992	Austria, Barbados, Botswana, Burkina Faso, Burundi, Cameroon, Chile, Czech Republic, Egypt, Gambia, Georgia, Guinea, Hungary, Jordan, Kenya, Lebanon, Lesotho, Malawi, Morocco, Nigeria, Paraguay, Romania, Saint Vincent and the Grenadines, Senegal, Sierra Leone, Syrian Arab Republic, Tunisia, Uganda, United Republic of Tanzania, Zambia **(30)**
International Convention on Maritime Liens and Mortgages, 1993	Entered into force 5 September 2004	Ecuador, Estonia, Monaco, Nigeria, Russian Federation, Spain, Saint Vincent and the Grenadines, Syrian Arab Republic, Tunisia, Ukraine, Vanuatu **(11)**
United Nations Convention on International Multimodal Transport of Goods, 1980	Not yet in force — requires 30 contracting parties	Burundi, Chile, Georgia, Lebanon, Malawi, Mexico, Morocco, Rwanda, Senegal, Zambia **(10)**
United Nations Convention on Conditions for Registration of Ships, 1986	Not yet in force — requires 40 contracting parties with at least 25 per cent of the world's tonnage as per annex III to the Convention	Albania, Bulgaria, Côte d'Ivoire, Egypt, Georgia, Ghana, Haiti, Hungary, Iraq, Libyan Arab Jamahiriya, Mexico, Oman, Syrian Arab Republic **(13)**
International Convention on Arrest of Ships, 1999	Not yet in force — requires 10 contracting parties	Albania, Algeria, Bulgaria, Estonia, Latvia, Spain, Syrian Arab Republic **(7)**

Source: For official status information, *see www.un.org/law/.*

Chapter 7

REVIEW OF REGIONAL DEVELOPMENTS: LATIN AMERICA

This chapter focuses on developments in Latin America. It covers the economic background, merchandise trade, merchant fleet development and shipping services.

A. ECONOMIC BACKGROUND

During the period covered by this review (2002–2004), the economies of Latin America and the Caribbean rebounded from the depths of the crisis generated in the previous year by the collapse of Argentina's economy, which had resulted in the regional GDP's contracting by 0.5 per cent in 2002 (see table 46). In 2002, the economies of Latin America contracted 0.6 per cent, with Argentina and Uruguay recording negative economic growth of 10.8 and 12.7 per cent respectively. Venezuela's economy contracted 8.9 per cent owing to domestic upheaval. The Andean countries performed well, with Peru and Ecuador leading with 4.9 and 3.8 per cent growth respectively. Brazil, the largest economy in South America, recorded modest 1.5 per cent GDP growth, partly because of the crisis in neighbouring countries. The economic performance of the Caribbean countries was positive, with 1.8 per cent GDP growth (although this was less that the 2.3 per cent achieved the previous year), with only three out of 12 countries recording negative growth. The regional economic contraction resulted in increased unemployment, which reached 10.8 per cent in 2002, and in an expansion of informal activities together with a considerable drop in regional consumption. Investment too was low, about 18 per cent of GDP measured in 1995 constant prices, comparable to the lowest figure recorded in the 1980s and down from the 19.5 per cent average recorded during the 1990s.

The recovery started in 2003 and gained momentum during 2004, with average GDP growth for the region being 1.9 and 5.5 per cent respectively for the two years. Only three countries, Venezuela, the Dominican Republic and Guyana, saw their economies contract in 2003. For Venezuela the drop was substantial, 9.7 per cent, and caused by protracted domestic problems. For the other two countries the contraction was modest, less than 1 per cent. The economic rebound in Argentina was remarkable – a GDP increase of more than 8 per cent for 2003 and 2004. Uruguay followed strongly in 2004, when it reached 12 per cent GDP growth, followed by Chile and Brazil with 5.8 and 5.1 per cent respectively. Output increases in the Andean countries and countries of Central America were also significant during 2003 and 2004, and Mexico more than trebled its GDP growth in these years. For 2003, countries in the Caribbean recorded better performance than Latin American countries – GDP growth of 3.4 per cent for the former against 1.9 per cent for the latter. The situation was reversed during 2004, when Latin American countries achieved 5.5 per cent growth. The 2003–2004 recovery reduced the overall unemployment rate to 10 per cent in 2004 as the economies of most of these countries, which had been under intense reform during the 1990s, took advantage of booming international trade. Nevertheless, other structural shortcomings, such as wealth concentration and decreased social security coverage for employed workers, remained.

As table 47 shows, the commercial balance for Latin American and Caribbean countries was positive for the period 2002 to 2004. Increased demand from the main world markets and the remarkable expansion of trade in China accounted for the increased levels of exports during these years, which reached $460.7 billion in 2004. Poor domestic demand in most Latin American and Caribbean countries, coupled with modest investment levels, reduced imports below the figure reached in

Table 46

Percentage growth of GDP at 1995 constant market prices for countries in Latin America and the Caribbean, 2001–2004

(percentage change)

Country	2001	2002	2003	2004
Argentina[a]	-4.4	-10.8	8.7	9.0
Bolivia[a]	1.5	2.8	2.9	3.6
Brazil[a]	1.5	1.5	0.6	4.9
Chile[a]	3.1	2.2	3.3	6.1
Colombia[a]	1.1	2.5	2.0	4.0
Costa Rica	1.2	2.7	6.4	4.1
Cuba	3.0	1.2	2.5	3.0
Dominican Republic	4.0	4.3	-0.4	1.8
Ecuador[a]	5.1	3.8	3.1	6.9
El Salvador	1.7	2.1	2.0	1.8
Guatemala	2.6	2.2	2.0	2.6
Haiti	-0.6	-0.3	0.5	-3.0
Honduras	2.7	2.6	3.5	4.3
Mexico[a]	-0.2	0.9	1.3	4.4
Nicaragua	3.0	0.9	2.3	4.0
Panama	0.7	2.1	4.7	6.0
Paraguay[a]	2.7	-2.3	2.6	4.0
Peru[a]	0.3	4.9	4.0	4.8
Uruguay[a]	-3.4	11.2	2.5	12.3
Venezuela[a]	2.8	-8.9	-7.5	17.9
Subtotal	0.4	-0.6	1.9	5.5
Antigua and Barbuda	1.6	2.1	5.8	5.9
Barbados	-2.2	-0.5	2.2	3.0
Belize	5.0	4.2	4.9	7.0
Dominica	-3.3	-5.8	2.5	0.0
Grenada	-3.8	-1.1	4.7	-1.4
Guyana	2.3	1.1	-0.6	1.5
Jamaica	1.8	0.9	2.3	1.9
Saint Kitts and Nevis	2.0	0.9	0.1	5.7
Saint Vincent and the Grenadines	0.0	1.3	3.9	5.8
Saint Lucia	-4.1	0.2	3.7	5.1
Suriname	5.0	3.0	5.6	4.0
Trinidad and Tobago	4.3	3.0	4.2	6.2
Subtotal	2.3	1.8	3.4	4.3
Total	0.4	-0.5	1.9	5.5

Source: *Balance preliminar de las economias de America Latina y el Caribe 2003–2004,* statistical appendix, Table A-2.

[a] UNCTAD secretariat calculations based on UNCTAD, *Handbook of Statistics 2004*; UNDESA/Development Policy and Planning Office.

Table 47

Value of international trade of countries in Latin America and the Caribbean and several groups of countries and individual countries

(in billions of current US dollars)

	Exports (fob)			Imports (fob)		
	2002	**2003**	**2004**	**2002**	**2003**	**2004**
Value of trade for countries in Latin America and the Caribbean	346.6	376.3	460.7	322.8	333	398.8
Mercosur	89.9	107	134.6	59.7	66	89.1
CAN (Andean Community of Nations)	53.3	57.3	77.6	40.7	39.6	50.3
Caribbean countries	5.4	5.8	6	9.8	9	9.2
MCCA (Central American Common Market)	13.8	15.2	15.9	21.6	23.7	25.9
Mexico	160.6	164.9	189	168.7	170.5	195.2
Chile	18.2	21	31.6	15.4	18	22.4
Panama	5.3	5.1	5.9	6.3	6.1	6.7
Percentage growth in volume of merchandise trade for countries in Latin America and the Caribbean	1.3	4.5	10.8	-7.2	0.6	14.4

Source: From *Balance preliminar de las economias de América Latina y el Caribe 2003–2004,* statistical appendix, Tables A-6 and A-8; ECLAC publication, 2005, LC/G.2265-P/E. Data for 2004 are provisional and from balance of payments.

2000, which was exceeded only in 2004, when imports reached $398.8 billion. These trade values resulted from the combined effect of increases in dollar terms of the prices of traded goods and substantial increases in volume, which for 2004 were 10.8 per cent for exports and 14.4 per cent for imports.

The contribution of the different country groupings to the value of the international trade of the region is also shown in table 47. Mercosur comprises four countries (Argentina, Brazil, Paraguay and Uruguay), and its exports made up 29.2 per cent of the region's exports in 2004, up from 25.9 per cent in 2002. The Andean Community (CAN) comprises five countries (Bolivia, Colombia, Ecuador, Peru and Venezuela) and contributed 16.9 per cent of the region's 2004 exports. The Caribbean region includes 20 countries and territories (Anguilla, Antigua and Barbuda, Aruba, the Bahamas, Barbados, Belize, Cuba, Dominica, the Dominican Republic, Grenada, Guyana, Haiti, Jamaica, Montserrat, the Netherlands Antilles, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Suriname, and Trinidad and Tobago), including those belonging to the Caribbean Common Market (CARICOM), the Organisation of Eastern Caribbean States (OECS) and the Caribbean Basin Initiative of the Government of the United States. In 2004, these countries together contributed 1.3 per cent of regional exports. For the same year, the five countries (Costa Rica, El Salvador, Guatemala, Honduras and Nicaragua) of the Central American Common Market (MCCA) contributed 3.5 per cent of regional exports. The remaining three countries, Chile, Mexico and Panama, do not belong to any of the above groupings and contributed 41 per cent, 6.9 per cent and 1.2 per cent respectively of regional exports. Exports from Mexico, a partner in the North America Free Trade Agreement (NAFTA) together with the United States and Canada, included "maquila", goods produced in foreign-owned assembly plants.

B. MERCHANDISE TRADE

The structure of the foreign trade of the countries of Latin America and the Caribbean is indicated in table 48, which shows figures for 2002. The important share of commodities (food items, agricultural products, ores and fuels) in exports is reflected in their 32.4 per cent share of the value of total exports. Within this category, crude oil stands out with a total of $42.4 billion. The main destination of Latin American and Caribbean exports is the US market, with a share of almost 60 per cent of the total, which reflects the important role of Mexican exports. Other countries within the region are a clear second destination, with a share of 14.8 per cent. Therefore, destinations within the hemisphere account for almost three quarters of exports from countries in Latin America and the Caribbean. This share may increase in the following years; trade within the Andean Community increased 59 per cent from 2003 to 2004, with trade in non-traditional commodities increasing 56 per cent. The share of exports from Latin America and the Caribbean countries to Europe accounts for 11.5 per cent, and that of exports to Japan and other Asian countries accounts for 6.5 per cent.

The share of commodities in the imports of countries in Latin America and the Caribbean reached 11.4 per cent. Expenses fluctuated around $13 billion for each of the three major commodities imported, namely food items, agricultural products and fuel. Again, the US market took the major share of these imports (45.9 per cent), while countries within the region accounted for 15.9 per cent. Therefore, imports originating within the hemisphere accounted for two thirds of total imports. The share of imports from Japan and other Asian countries reached 16.3 per cent and was larger than that of imports from Europe (14.1 per cent).

Table 48

Structure of foreign trade of countries in Latin America and the Caribbean for 2002

(world total in billions of US dollars; all regional allocations in percentages)

EXPORTS from Latin American countries	World	United States	Japan	European Union	Asia-Pacific[a]	Latin America	Other
ALL products	326.1	58.9	1.8	11.5	4.7	14.8	8.3
of which:							
Food items	26.3	19.0	3.3	29.0	7.6	20.1	20.9
Agricultural raw materials	28.5	35.5	5.1	28.6	8.8	11.4	10.5
Ores	8.3	8.6	18.5	27.1	22.8	8.5	14.5
Fuels	42.4	61.6	0.3	8.6	1.2	16.3	12.0
All other manufactured	220.6	68.1	0.8	7.2	3.8	14.5	5.5
IMPORTS to Latin American + Caribbean countries	**World**	**United States**	**Japan**	**European Union**	**Asia-Pacific[a]**	**Latin America**	**Other**
ALL products	317.4	45.9	5.1	14.1	11.2	15.9	7.7
of which:							
Food items	13.8	41.2	0.1	11.0	5.0	37.8	4.9
Agricultural raw materials	12.4	50.3	0.1	4.5	4.5	30.0	10.7
Ores	1.7	20.4	2.2	10.6	5.0	45.3	16.6
Fuels	11.7	15.7	0.4	1.0	6.8	43.7	32.3
All other manufactured	277.8	47.4	5.8	15.3	12.1	12.8	6.6

Source: Balance preliminar de las economias de América Latina y el Caribe 2003–2004, ECLAC publication, 2005, (LC/G.2265-P/E). Data were collected from trade sources following a different methodology than that indicated in table 47.

[a] Eleven countries in the Asia-Pacific region: China, Hong Kong (China), Taiwan Province of China, the Philippines, Malaysia, the Republic of Korea, Singapore, Thailand, India, Australia and New Zealand.

Table 49

Structure of foreign trade of selected countries in Latin America and the Caribbean, 2003

Country	$ billion	Destination of exports in percentage					
	World	USA	Japan	EU-15	Asia developing	Region	Other
Argentina	29.6	10.6	1.2	19.7	19.9	38.8	9.9
Brazil	73.1	23.1	3.2	24.8	16.9	20.2	11.8
Chile	20.1	17.8	11.2	24.3	20.9	19.3	6.5
Colombia	13.1	47.1	1.5	14.4	2.6	28.7	5.7
Costa Rica	5.8	47.1	1.0	18.2	9.5	22.7	1.4
Mexico	165.4	88.9	0.4	3.4	1.1	3.7	2.6
Panama	0.8	52.0	0.8	23.2	3.7	17.7	2.6
Peru	8.7	26.5	4.5	25.4	13.6	18.2	11.9
Venezuela	25.0	44.3	0.5	12.6	1.9	31.9	8.8
Country	**$ billion**	**Origin of imports in percentage**					
	World	USA	Japan	EU-15	Asia developing	Region	Other
Argentina	13.8	16.4	2.9	19.6	11.1	42.1	8.0
Brazil	50.8	20.0	5.2	26.0	16.1	17.6	15.2
Chile	17.4	14.6	3.7	18.5	14.2	42.0	7.0
Colombia	13.9	29.6	4.6	15.5	11.6	27.4	11.2
Costa Rica	7.4	49.8	4.2	13.4	5.9	23.3	3.4
Mexico	171.3	61.9	4.5	10.6	14.0	4.5	4.5
Panama	3.1	35.0	6.2	7.4	5.4	29.6	16.5
Peru	8.4	18.6	4.4	12.6	15.7	41.6	7.1
Venezuela	8.4	33.0	2.3	21.6	5.5	31.5	6.1

Source: Data from UN COMTRADE database as of 5 July 2005.

Note: Trade data are not available for the Dominican Republic.

For the top 10 countries in Latin America and the Caribbean, the destination of exports and origin of imports for the year 2002 are indicated in table 49. The share of the US market in the foreign trade of developing countries of Latin America and the Caribbean is larger for those countries closer to it. The share of regional trade is greater in South America, notably between Mercosur countries.

C. MERCHANT FLEET IN DEVELOPING COUNTRIES AND TERRITORIES IN THE AMERICAS

Table 50 shows the merchant fleet registered in developing countries of America, excluding major open registries (the Bahamas, Bermuda and Panama). The share of the merchant fleet registered in these countries increased steadily from 1980 to 2000 and then stalled at the level reached that year. In 1980, the share of the merchant fleet of these countries stood at 3.2 per cent of the world fleet; it increased to 3.5 per cent by 1990 and reached 4.2 per cent in 2000. The same share was maintained until 2003; in 2004 there was a modest decrease to 4.1 per cent. The current tonnage owned by these countries amounts to 36.74 million dwt.

The geographical ownership has changed dramatically since 1980. Countries on the east coast of South America owned 58 per cent of the regional fleet in 1980. The share decreased slightly to 56.6 per cent by 1990 and

Table 50

Merchant fleet of the world and that of Latin American and Caribbean countries, selected years

(in thousands dwt)

	Year	Total	Tanker	Dry bulker	General	Container ship	Other
World total	1980	682 768	339 324	185 652	115 824	11 243	30 725
	1990	658 377	245 936	234 659	102 676	25 955	49 151
	2000	808 377	285 442	281 655	102 653	69 216	69 412
	2002	844 234	304 396	300 131	97 185	82 793	59 730
	2003	856 974	316 759	307 660	94 767	90 461	47 327
	2004	895 843	336 156	320 584	92 048	98 064	48 991
Latin America - total[a]	1980	21 794	7 914	6 183	6 547	37	1 113
	1990	25 529	7 501	9 025	6 348	364	2 291
	2000	34 051	7 645	9 934	9 837	3 540	3 095
	2002	35 648	8 946	9 760	9 265	4 096	3 581
	2003	36 001	9 387	9 899	9 092	4 889	2 732
	2004	36 741	8 687	10 299	9 672	5 345	2 738
East Coast South America	1980	12 649	4 866	3 893	3 491	0	399
	1990	14 459	5 119	6 303	1 907	214	916
	2000	6 923	3 039	2 625	687	196	376
	2002	6 663	2 992	2 409	578	188	495
	2003	6 418	2 867	2 201	622	189	539
	2004	5 131	2 444	1 403	528	189	567
West Coast South America	1980	2 717	484	929	1 212	0	92
	1990	2 770	558	973	1 022	0	217
	2000	1 646	615	370	236	77	348
	2002	1 746	770	286	204	76	409
	2003	1 817	859	328	209	51	369
	2004	1 740	818	323	189	21	389
Others (including Mexico, Caribbean and Central America)	1980	6 428	2 564	1 361	1 844	37	622
	1990	8 300	1 824	1 749	3 419	150	1 158
	2000	25 482	3 991	6 939	8 914	3 267	2 371
	2002	27 239	5 183	7 065	8 483	3 832	2 677
	2003	27 766	5 661	7 370	8 262	4 650	1 823
	2004	29 871	5 425	8 574	8 955	5 135	1 783

Source: *Review of Maritime Transport*, various issues.

[a] Tonnages registered in the Bahamas, Bermuda and Panama are not included in the Latin American subregion total, since these are classified as open registries.

by more than half by the year 2000, to only 20.4 per cent. This share has continued to decrease and in 2004 stood at 14 per cent of the regional fleet. For the period 1980 to 2000, this trend was mirrored by countries on South America's west coast; their share decreased from 12.5 per cent in 1980 to 10.8 per cent by 1990 and was halved to 4.8 per cent in the year 2000. This long-term decline seems to be over: the share increased to 5 per cent in 2003 and slipped to 4.7 per cent last year. The gains were for countries located in and around the Caribbean, including Mexico and others in Central America. They have almost trebled their share, from 29.5 per cent in 1980 to 32.6 per cent in 1990 and 74.8 per cent in 2000. Their fleets now account for more than four fifths of the regional fleet. The substantial share achieved by these countries reflects the expansion of three minor open registries, Antigua and Barbuda, the Cayman Islands and Saint Vincent and the Grenadines, which together account for three quarters of the tonnage recorded by countries of the Caribbean, Central America and Mexico.

The composition of the fleet in the year 2004 was as follows: 23.6 per cent were tankers, 28 per cent dry bulk carriers, 26.3 per cent general cargo vessels, 14.5 per cent container ships and 7.5 per were other types of vessels. Since 2000, the share of tankers (23.6 per cent) and container ships (14.5 per cent), particularly the latter has increased, while the shares of other types of ships have decreased. The share of tankers may increase in the next few years given that PDVSA (Petróleos de Venezuela S.A.) plans to build 42 tankers. Still, the shares of general cargo (26.3 per cent) and other vessels (7.5 per cent) in the regional fleet are above the world averages (10.3 and 5.5 per cent respectively). Tankers make up a substantial share, close to 50 per cent, of the fleets of countries along the east and west coasts of South America, while container ships make up 17.2 per cent of the fleet of countries in and around the Caribbean, Mexico and Central America.

Age distribution of merchant fleets

At the end of 2004, the average age of the fleet of developing countries in America, excluding major open registries, was 16.7 years (see table 51). The fleet was thus older than those of developing countries and the world, which by the end of 2004 were 13.1 and 12.3 years old respectively. However, the fleet of developing countries in America was younger than at the end of 2001, when the average age was 17.1 years. The fleet of bulk carriers and other vessels of developing countries in America was the oldest (19.1 years), followed closely by the fleet of general cargo ships (18.3 years). Tankers were slightly younger (16.3 years). The container ship fleet, however, at only 8.3 years old, was younger than the container shi fleets of developing countries as a whole or of the world, which were 9.3 and 9.4 years old respectively.

D. SHIPPING SERVICES IN LATIN AMERICA AND THE CARIBBEAN

Shipping services for countries of Latin America and the Caribbean are organized to serve bulk and liner cargoes. In the year 2003, the region's ports loaded 897.8 million tons; this is equivalent to 27.9 per cent of loaded cargoes from ports of developing countries and 13.9 per cent of loaded cargoes from world ports.

Table 52 gives estimates of the amount of tanker, dry bulk and liner cargoes for each of the subcodes of code 9 (see annex 1). The share of tanker cargo in the total loaded by the whole region was 39.4 per cent, and 44.5 per cent were dry bulk cargoes. Unloaded cargoes were 374.3 million tons, equivalent to 18.4 per cent of unloaded cargoes in developing-country ports and 5.7 per cent of unloaded cargoes in world ports. Liner cargo reached 144.6 million tons, or 16.1 per cent of loaded cargo, and 96.5 million tons, or about a quarter of unloaded cargo, and therefore there was an imbalance in favour of exports. Preliminary figures for 2004 show an increment of 1.7 per cent in loaded tonnage to 913.5 million tons.

Tanker services

Exports of crude oil are made through specialized terminals integrated within the operations of the oil companies. For instance, PDVSA own a number of oil export terminals and a tanker fleet to carry crude oil abroad, partly to its network of refineries in the Caribbean, the United States and Europe. Export terminals are located mainly around the Caribbean, as is the case with the three major terminals Cayo Arcas, Dos Bocas and Pajaritos – operated by the Mexican oil company PEMEX (Petróleos Mexicanos) – and the Venezuelan terminals located on the Maracaibo Lake and along the north coast of South America. The Colombian terminal at Coveñas, which in 2003 loaded about 13.6 million tons, is also located on this coast. Ecuador has terminals along the west coast of South America.

Aframax tonnage is mostly chartered for shipping oil from the Caribbean to the Louisiana Oil Offshore Platform

Table 51

Age distribution of merchant fleet in Latin America and the Caribbean by type of vessel

Country grouping	Types of vessel	0-4 years	5-9 years	10-14 years	15-19 years	20 years and over	Age end 2004	Age end 2001
World fleet	ALL	23.0	21.9	16.5	11.3	27.3	12.3	13.9
	Tanker	29.0	22.8	20.9	11.7	15.7	10.3	
	Dry bulk carrier	20.2	22.0	14.6	12.4	30.8	13.0	
	General cargo	7.3	15.0	10.7	10.9	56.1	17.5	
	Container ship	31.9	29.3	16.3	8.8	13.7	9.4	
	Others	16.0	15.7	11.9	8.1	48.4	15.6	
Developing countries (including major open-registry)	ALL	23.3	25.1	15.2	10.0	26.3	11.9	14.3
	Tanker	27.4	25.8	20.7	9.7	16.4	10.3	
	Dry bulk carrier	23.7	26.4	12.9	11.2	25.8	11.8	
	General cargo	8.1	18.2	11.4	9.1	53.1	16.8	
	Container ship	29.4	29.9	16.4	10.1	14.1	9.7	
	Others	17.1	16.2	8.8	5.2	52.6	15.8	
Developing countries (excluding major open-registry)	ALL	10.2	16.1	10.9	10.9	51.9	16.7	17.1
	Tanker	9.2	18.8	10.5	14.3	47.3	16.3	
	Dry bulk carrier	8.3	5.0	6.4	16.5	63.7	19.1	
	General cargo	6.6	12.0	11.5	7.0	62.9	18.3	
	Container ship	25.0	44.5	20.4	2.2	7.9	8.3	
	Others	4.9	10.2	8.4	11.0	65.4	19.1	
Anguilla	ALL	0.0	0.0	0.0	0.0	100.0	23.5	20.0
	Tanker	0.0	0.0	0.0	0.0	0.0	0.0	
	Dry bulk carrier	0.0	0.0	0.0	0.0	0.0	0.0	
	General cargo	0.0	0.0	0.0	0.0	100.0	23.5	
	Container ship	0.0	0.0	0.0	0.0	0.0	0.0	
	Others	0.0	0.0	0.0	0.0	0.0	0.0	
Antigua and Barbuda	ALL	26.1	38.7	18.8	3.6	12.7	9.1	
	Tanker	0.0	33.6	0.0	4.1	62.3	17.7	
	Dry bulk carrier	44.2	13.4	8.7	0.0	33.7	10.8	
	General cargo	18.4	33.8	19.9	7.8	20.1	11.2	
	Container ship	27.2	47.0	20.5	1.8	3.5	7.4	
	Others	36.1	35.0	8.7	0.1	20.1	9.0	
Argentina	ALL	0.8	7.4	2.9	9.1	79.9	21.2	
	Tanker	0.0	34.0	0.0	0.0	66.0	17.9	
	Dry bulk carrier	0.0	0.0	0.0	0.0	100.0	23.5	
	General cargo	4.1	0.0	6.2	0.0	89.7	21.9	
	Container ship	0.0	0.0	0.0	0.0	0.0	0.0	
	Others	0.0	0.2	3.4	18.8	77.6	21.9	

Country grouping	Types of vessel	0-4 years	5-9 years	10-14 years	15-19 years	20 years and over	Age end 2004	Age end 2001
Barbados	ALL	16.2	27.3	11.8	4.5	40.1	13.9	
	Tanker	53.5	18.5	0.0	0.0	28.0	8.9	
	Dry bulk carrier	0.0	43.5	22.2	0.0	34.3	13.8	
	General cargo	5.1	10.1	6.0	19.7	59.1	18.8	
	Container ship	0.0	0.0	0.0	0.0	0.0	0.0	
	Others	0.7	0.0	7.9	7.6	83.7	21.9	
Belize	ALL	2.8	0.7	9.6	11.3	75.7	21.0	
	Tanker	1.2	0.5	8.0	5.6	84.7	21.9	
	Dry bulk carrier	5.0	0.0	0.4	4.2	90.3	22.1	
	General cargo	3.0	1.0	13.3	12.0	70.6	20.4	
	Container ship	0.0	0.0	10.5	0.0	89.5	22.3	
	Others	0.4	0.4	6.3	19.9	73.1	21.3	
Bolivia	ALL	0.0	0.4	0.0	0.0	99.6	23.4	
	Tanker	0.0	0.0	0.0	0.0	100.0	23.5	
	Dry bulk carrier	0.0	0.0	0.0	0.0	100.0	23.5	
	General cargo	0.0	0.0	0.0	0.0	100.0	23.5	
	Container ship	0.0	0.0	0.0	0.0	100.0	23.5	
	Others	0.0	7.9	0.0	0.0	92.1	22.2	
Brazil	ALL	1.7	9.8	19.3	23.4	45.8	17.8	
	Tanker	0.4	12.5	23.8	20.1	43.2	17.3	
	Dry bulk carrier	0.0	6.3	6.5	36.8	50.4	19.3	
	General cargo	0.0	9.5	54.3	3.7	32.5	15.5	
	Container ship	0.0	9.5	35.8	0.0	54.7	17.8	
	Others	20.2	9.1	1.2	19.8	49.7	16.2	
British Virgin Islands	ALL	1.3	0.0	0.0	3.3	95.4	23.0	
	Tanker	0.0	0.0	0.0	0.0	0.0	0.0	
	Dry bulk carrier	0.0	0.0	0.0	0.0	0.0	0.0	
	General cargo	0.0	0.0	0.0	0.0	100.0	23.5	
	Container ship	0.0	0.0	0.0	0.0	0.0	0.0	
	Others	28.6	0.0	0.0	71.4	0.0	12.7	
Cayman Islands	ALL	18.8	21.2	11.9	12.1	36.0	13.8	
	Tanker	28.8	38.1	9.4	10.3	13.3	9.3	
	Dry bulk carrier	17.0	6.3	14.2	17.9	44.6	16.0	
	General cargo	0.0	0.0	3.3	7.7	89.0	22.6	
	Container ship							
	Others	6.2	48.2	40.4	0.0	5.2	9.6	
Chile	ALL	6.8	5.1	18.6	14.2	55.4	18.1	
	Tanker	15.2	0.0	36.7	20.5	27.6	14.7	
	Dry bulk carrier	0.0	0.0	0.0	0.0	100.0	23.5	
	General cargo	3.5	0.0	0.1	18.2	78.3	21.6	
	Container ship	0.0	100.0	0.0	0.0	0.0	7.0	
	Others	1.7	15.5	18.1	20.4	44.3	17.2	

Country grouping	Types of vessel	0-4 years	5-9 years	10-14 years	15-19 years	20 years and over	Age end 2004	Age end 2001
Colombia	ALL	2.3	0.8	0.6	1.0	95.3	22.7	
	Tanker	0.0	0.0	0.0	0.0	100.0	23.5	
	Dry bulk carrier	0.0	0.0	0.0	0.0	100.0	23.5	
	General cargo	0.0	0.0	0.0	0.8	99.2	23.4	
	Container ship	0.0	0.0	0.0	0.0	0.0	0.0	
	Others	5.8	1.9	1.5	1.6	89.2	21.7	
Costa Rica	ALL	0.0	0.0	11.9	0.0	88.1	22.1	
	Tanker	0.0	0.0	0.0	0.0	0.0	0.0	
	Dry bulk carrier	0.0	0.0	0.0	0.0	0.0	0.0	
	General cargo	0.0	0.0	0.0	0.0	0.0	0.0	
	Container ship	0.0	0.0	0.0	0.0	0.0	0.0	
	Others	0.0	0.0	11.9	0.0	88.1	22.1	
Cuba	ALL	0.2	0.0	0.0	0.1	99.7	23.4	
	Tanker	0.0	0.0	0.0	0.0	100.0	23.5	
	Dry bulk carrier	0.0	0.0	0.0	0.0	100.0	23.5	
	General cargo	0.0	0.0	0.0	0.0	100.0	23.5	
	Container ship	0.0	0.0	0.0	0.0	0.0	0.0	
	Others	0.6	0.0	0.0	0.3	99.1	23.3	
Dominica	ALL	0.0	0.9	3.3	33.2	62.6	20.8	
	Tanker	0.0	0.0	0.0	55.6	44.4	19.9	
	Dry bulk carrier	0.0	0.0	0.0	0.0	100.0	23.5	
	General cargo	0.0	3.2	0.0	0.0	96.8	23.0	
	Container ship	0.0	0.0	0.0	0.0	100.0	23.5	
	Others	0.0	0.0	67.2	6.1	26.8	15.4	
Dominican Republic	ALL	4.4	0.0	0.0	0.0	95.6	22.5	
	Tanker	0.0	0.0	0.0	0.0	0.0	0.0	
	Dry bulk carrier	0.0	0.0	0.0	0.0	0.0	0.0	
	General cargo	0.0	0.0	0.0	0.0	100.0	23.5	
	Container ship	0.0	0.0	0.0	0.0	0.0	0.0	
	Others	31.8	0.0	0.0	0.0	68.2	16.7	
Ecuador	ALL	0.1	63.9	0.8	2.7	32.5	12.7	
	Tanker	0.0	77.3	0.0	0.7	22.0	10.7	
	Dry bulk carrier	0.0	0.0	0.0	0.0	0.0	0.0	
	General cargo	0.0	0.0	0.0	0.0	100.0	23.5	
	Container ship	0.0	0.0	0.0	0.0	0.0	0.0	
	Others	0.7	0.0	4.8	12.7	81.8	22.0	
El Salvador	ALL	0.0	0.0	100.0	0.0	0.0	12.0	
	Tanker	0.0	0.0	0.0	0.0	0.0	0.0	
	Dry bulk carrier	0.0	0.0	0.0	0.0	0.0	0.0	
	General cargo	0.0	0.0	0.0	0.0	0.0	0.0	
	Container ship	0.0	0.0	0.0	0.0	0.0	0.0	
	Others	0.0	0.0	100.0	0.0	0.0	12.0	

Country grouping	Types of vessel	0-4 years	5-9 years	10-14 years	15-19 years	20 years and over	Age end 2004	Age end 2001
Falkland Islands [b]	ALL	0.0	0.0	17.1	62.1	20.8	17.5	
	Tanker	0.0	0.0	0.0	0.0	0.0	0.0	
	Dry bulk carrier	0.0	0.0	0.0	0.0	0.0	0.0	
	General cargo	0.0	0.0	0.0	0.0	100.0	23.5	
	Container ship	0.0	0.0	0.0	0.0	0.0	0.0	
	Others	0.0	0.0	17.3	63.0	19.7	17.4	
Grenada	ALL	0.0	4.5	0.0	0.0	95.5	22.8	
	Tanker	0.0	0.0	0.0	0.0	0.0	0.0	
	Dry bulk carrier	0.0	0.0	0.0	0.0	0.0	0.0	
	General cargo	0.0	0.0	0.0	0.0	100.0	23.5	
	Container ship	0.0	0.0	0.0	0.0	0.0	0.0	
	Others	0.0	100.0	0.0	0.0	0.0	7.0	
Guatemala	ALL	0.0	0.0	78.9	0.0	21.1	14.4	
	Tanker	0.0	0.0	0.0	0.0	100.0	23.5	
	Dry bulk carrier	0.0	0.0	0.0	0.0	0.0	0.0	
	General cargo	0.0	0.0	0.0	0.0	0.0	0.0	
	Container ship	0.0	0.0	0.0	0.0	0.0	0.0	
	Others	0.0	0.0	100.0	0.0	0.0	12.0	
Guyana	ALL	0.0	1.6	0.0	7.2	91.2	22.8	
	Tanker	0.0	0.0	0.0	0.0	100.0	23.5	
	Dry bulk carrier	0.0	0.0	0.0	0.0	0.0	0.0	
	General cargo	0.0	0.0	0.0	8.4	91.6	23.0	
	Container ship	0.0	0.0	0.0	0.0	0.0	0.0	
	Others	0.0	6.7	0.0	5.7	87.6	22.0	
Haiti	ALL	0.0	0.0	0.0	0.0	100.0	23.5	
	Tanker	0.0	0.0	0.0	0.0	0.0	0.0	
	Dry bulk carrier	0.0	0.0	0.0	0.0	0.0	0.0	
	General cargo	0.0	0.0	0.0	0.0	100.0	23.5	
	Container ship	0.0	0.0	0.0	0.0	0.0	0.0	
	Others	0.0	0.0	0.0	0.0	100.0	23.5	
Honduras	ALL	0.1	0.3	0.2	0.5	98.9	23.4	
	Tanker	0.0	0.0	0.0	0.0	100.0	23.5	
	Dry bulk carrier	0.0	0.0	0.0	0.0	100.0	23.5	
	General cargo	0.1	0.2	0.1	0.4	99.1	23.4	
	Container ship	0.0	0.0	0.0	0.0	100.0	23.5	
	Others	0.1	1.3	0.9	2.1	95.7	23.0	
Jamaica	ALL	0.0	0.0	8.5	14.4	77.1	21.6	
	Tanker	0.0	0.0	0.0	0.0	100.0	23.5	
	Dry bulk carrier	0.0	0.0	9.1	15.5	75.4	21.4	
	General cargo	0.0	0.0	0.0	0.0	100.0	23.5	
	Container ship	0.0	0.0	0.0	0.0	0.0	0.0	
	Others	0.0	0.0	100.0	0.0	0.0	12.0	

Country grouping	Types of vessel	0-4 years	5-9 years	10-14 years	15-19 years	20 years and over	Age end 2004	Age end 2001
Mexico	ALL	1.6	3.1	0.2	23.2	72.0	21.1	
	Tanker	0.0	0.0	0.0	32.1	67.9	21.4	
	Dry bulk carrier	0.0	0.0	0.0	0.0	100.0	23.5	
	General cargo	0.0	0.0	0.0	17.6	82.4	22.4	
	Container ship	0.0	0.0	0.0	0.0	0.0	0.0	
	Others	4.7	9.5	0.5	9.0	76.2	20.3	
Montserrat	ALL	0.0	0.0	0.0	0.0	0.0	0.0	
	Tanker	0.0	0.0	0.0	0.0	0.0	0.0	
	Dry bulk carrier	0.0	0.0	0.0	0.0	0.0	0.0	
	General cargo	0.0	0.0	0.0	0.0	0.0	0.0	
	Container ship	0.0	0.0	0.0	0.0	0.0	0.0	
	Others	0.0	0.0	0.0	0.0	0.0	0.0	
Nicaragua	ALL	0.0	0.0	0.0	6.7	93.3	23.1	
	Tanker	0.0	0.0	0.0	0.0	0.0	0.0	
	Dry bulk carrier	0.0	0.0	0.0	0.0	0.0	0.0	
	General cargo	0.0	0.0	0.0	0.0	100.0	23.5	
	Container ship	0.0	0.0	0.0	0.0	0.0	0.0	
	Others	0.0	0.0	0.0	19.5	80.5	22.2	
Paraguay	ALL	0.0	0.0	0.0	0.0	100.0	23.5	
	Tanker	0.0	0.0	0.0	0.0	100.0	23.5	
	Dry bulk carrier	0.0	0.0	0.0	0.0	0.0	0.0	
	General cargo	0.0	0.0	0.0	0.0	100.0	23.5	
	Container ship	0.0	0.0	0.0	0.0	100.0	23.5	
	Others	0.0	0.0	0.0	0.0	100.0	23.5	
Peru	ALL	1.5	12.9	16.0	2.3	67.4	19.1	
	Tanker	0.0	0.0	0.0	0.0	100.0	23.5	
	Dry bulk carrier	0.0	0.0	0.0	0.0	0.0	0.0	
	General cargo	0.0	0.0	0.0	0.0	100.0	23.5	
	Container ship	0.0	0.0	0.0	0.0	0.0	0.0	
	Others	2.6	22.7	28.2	4.0	42.4	15.7	
Saint Kitts and Nevis	ALL	0.0	0.0	0.0	0.0	100.0	23.5	
	Tanker	0.0	0.0	0.0	0.0	0.0	0.0	
	Dry bulk carrier	0.0	0.0	0.0	0.0	0.0	0.0	
	General cargo	0.0	0.0	0.0	0.0	100.0	23.5	
	Container ship	0.0	0.0	0.0	0.0	0.0	0.0	
	Others	0.0	0.0	0.0	0.0	0.0	0.0	
Saint Lucia	ALL	0.0	0.0	0.0	0.0	0.0	0.0	
	Tanker	0.0	0.0	0.0	0.0	0.0	0.0	
	Dry bulk carrier	0.0	0.0	0.0	0.0	0.0	0.0	
	General cargo	0.0	0.0	0.0	0.0	0.0	0.0	
	Container ship	0.0	0.0	0.0	0.0	0.0	0.0	
	Others	0.0	0.0	0.0	0.0	0.0	0.0	

Country grouping	Types of vessel	0-4 years	5-9 years	10-14 years	15-19 years	20 years and over	Age end 2004	Age end 2001
Saint Vincent and the Grenadines	ALL	2.0	2.0	3.8	12.4	79.8	21.5	
	Tanker	0.5	5.9	1.8	0.0	91.9	22.2	
	Dry bulk carrier	3.1	0.6	3.7	19.1	73.4	21.1	
	General cargo	0.7	2.2	4.2	5.2	87.7	22.2	
	Container ship	0.0	15.5	8.1	15.1	61.3	19.0	
	Others	1.5	4.9	4.1	9.4	80.1	21.3	
Suriname	ALL	0.0	3.7	0.0	44.6	51.7	20.0	
	Tanker	0.0	0.0	0.0	89.4	10.6	17.7	
	Dry bulk carrier	0.0	0.0	0.0	0.0	0.0	0.0	
	General cargo	0.0	0.0	0.0	0.0	100.0	23.5	
	Container ship	0.0	0.0	0.0	0.0	0.0	0.0	
	Others	0.0	100.0	0.0	0.0	0.0	7.0	
Trinidad and Tobago	ALL	8.9	5.0	0.0	12.7	73.3	19.9	
	Tanker	0.0	0.0	0.0	0.0	0.0	0.0	
	Dry bulk carrier	0.0	0.0	0.0	0.0	0.0	0.0	
	General cargo	0.0	0.0	0.0	0.0	100.0	23.5	
	Container ship	0.0	0.0	0.0	0.0	0.0	0.0	
	Others	9.3	5.3	0.0	13.2	72.2	19.8	
Turks and Caicos Islands	ALL	0.0	0.0	0.0	0.0	100.0	23.5	
	Tanker	0.0	0.0	0.0	0.0	0.0	0.0	
	Dry bulk carrier	0.0	0.0	0.0	0.0	0.0	0.0	
	General cargo	0.0	0.0	0.0	0.0	100.0	23.5	
	Container ship	0.0	0.0	0.0	0.0	0.0	0.0	
	Others	0.0	0.0	0.0	0.0	0.0	0.0	
Uruguay	ALL	1.7	0.4	0.7	2.7	94.5	22.8	
	Tanker	0.0	0.0	0.0	0.0	100.0	23.5	
	Dry bulk carrier	0.0	0.0	0.0	0.0	0.0	0.0	
	General cargo	0.0	0.0	0.0	4.6	95.4	23.2	
	Container ship	0.0	0.0	0.0	0.0	0.0	0.0	
	Others	2.4	0.5	1.0	3.0	93.1	22.6	
Venezuela	ALL	2.6	20.8	5.8	7.3	63.4	18.4	
	Tanker	4.2	32.2	7.5	10.9	45.2	15.7	
	Dry bulk carrier	0.0	0.0	0.0	0.0	100.0	23.5	
	General cargo	0.0	0.0	6.5	0.0	93.5	22.7	
	Container ship	0.0	0.0	0.0	0.0	100.0	23.5	
	Others	0.6	7.8	5.4	4.1	82.1	21.2	

Source: Lloyd's Register – Fairplay.

[a] In calculating 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 midpoint is assumed to be 23.5 years.

[b] A dispute exists between the Government of Argentina and the United Kingdom of Great Britain and Northern Ireland concerning sovereignty over the Falkland Islands (Malvinas).

Table 52

Estimated international traffic per type of shipping service

(millions of tons)

	Goods loaded			Total	Goods unloaded			Total
	Tanker	Dry bulk	Liner	Loaded	Tanker	Dry bulk	Liner	Unloaded
Caribbean	25.7	9.5	3.2	38.4	40.6		17.9	58.5
Mexico & Central America	116.3	4.1	45.1	165.5	27.4	26.6	38.7	92.7
South America – North Coast	139.8		3.5	143.3	15.9		7.6	23.5
South America – East Coast	44.7	308.7	63.6	417.0	40.4	46.7	28.2	115.3
South America – West Coast	27.0	77.5	29.2	133.7	20.7	59.5	4.2	84.4
	353.5	399.8	144.6	897.8	144.9	132.8	96.5	374.3

Source: Compiled by the UNCTAD secretariat.

(LOOP) terminal off the US coast in the Gulf of Mexico, other terminals along the US east coast, and refineries on some Caribbean islands. Between 2002 and 2004, rates increased in line with the evolution of the tanker market worldwide. During 2002, average rates from Mexico to the US east coast were WS127 in April and WS185 in November. During the following year, rates rose from WS146 in January to WS278 in December, and during 2004 there was a less pronounced increase from WS314 at the beginning of the year to WS349 in December (a time charter equivalent of $67,600 per day). Actual fixtures reflected the volatility of tanker markets during these years. In April 2003, Royal Dutch Shell chartered the *Genmar Boss* to take 70,000 tons of crude oil from Mexico's east coast to the US coast in the Gulf of Mexico at WS200, while May 2004 it secured the *Regent* for the same route and cargo at WS170. Tonnage for destinations in the Caribbean islands fetched freight commensurate with vessel size. In the same month, Valero chartered the *Tito Tapias* to take 130,000 tons to Aruba at $495,000, while Petro-Jamaica secured the *Andros* to take 50,000 to Kingston at $260,000. Larger tankers were used for distant destinations: Reliance chartered the *Utah* to take 275,000 tons to India at $2.55 million. Rates remained below WS 200 for routes across the Caribbean in September 2004 — Exxon chartered the *Genmar Constantine* to take 70,000 tons from Coveñas to Baton Rouge at WS155. Smaller tankers are used to ship crude oil from other South American exporters: in September 2004, Citgo secured the *Maya* to take 50,000 tons from Ecuador to the west coast of North America. Imports of crude oil are made from West Africa and the Persian Gulf, notably to Brazil. Oil companies engage tonnage at or above the Suezmax level for this trade and benefited from rate volatitlity. In April 2003, the Brazilian oil company Petrobras chartered two tankers, the *Kimolo* and the *Front Emperor,* with a three-day difference to take 130,000-ton parcels from West Africa to Brazil and paid WS150 and WS 107 respectively. In May 2004, it chartered another two vessels, the *Tropic Brilliance* and the *Genmar Ariston,* for similar trips and cargo and found that the rates were WS115 and WS112.

Trade of clean oil products, notably from refineries to US ports, important in the Caribbean. Smaller tankers in the range of 25,000–35,000 dwt are engaged for this transport. Typical spot rates on the Curaçao–Houston route rose from $9.80 per ton in December 2002 to $14.30 per ton in December 2003 and then further to $20.50 a year later. The time-charter equivalent for a 30,000-dwt tanker was $34,100 per day in December 2004, more than two and a half times the level of December 2002 ($13,900 per day). Elsewhere, crude oil imports together with coastal domestic trade in crude oil, oil products and petrochemicals constitute a significant traffic. For instance, Brazilian imports of crude oil together with domestic traffic of petroleum products are handled in Petrobras terminals, such as those of Aratu, Angra dos Reis and São Sebastião, which respectively handled 19.2, 14.1 and 51.6 million tons of liquid bulks in 2003.

Elsewhere, there were plans to export LNG from Camisea fields in Peru to Mexico and Chile, notably since the latter suffered gas shortages in 2004.

Dry bulk shipping services

Dry bulk trade is focused on South America, with minor bulks shipped from the Caribbean (notably bauxite and alumina from Jamaica). From the east coast, iron ore and grain are exported from Brazil and grain from Argentina; smaller volumes of iron ore are exported from the west coast; and coal is exported from Colombia and Venezuela on the north coast.

The largest ports are those operated by Companhia Vale do Rio Doce (CVRD) in Tubarão and Ponta da Madeira in central and northern Brazil, which in 2003 reached throughput of 74.4 and 59.3 million tons, consisting largely of iron ore exports. In the same year, another large operator loaded 44.3 million tons of iron ore from the port of Sepetiba. Discharges of dry bulks, among them imports of coal for steel manufacturing, come through the ports of Praia Mole and Sepetiba, which handled 11.9 and 5.2 million tons respectively. Praia Mole handles significant coastal trade in iron ore, which led to 7.3 million tons of steel products being exported through it. Similarly, coastal trade in bauxite and alumina led to exports of aluminium products through private terminals located near the port of Itaqui.

Vessels over 100,000 dwt are engaged in trade of iron ore from Brazil. Since 2002, freight rates have increased substantially. Between December 2002 and December 2003, rates from Brazil to northern Europe increased from $8.05 per ton to $19.20 per ton. During 2004, rates rose to $24.25 per ton by the end of the year. These rate increases were mirrored on the Brazil–China route: between December 2002 and December 2003, rates increased from $12.85 per ton to $33.20 per ton, and during 2004 they increased 27 per cent more to reach $42.45 per ton in December 2004. These increases in freight rates should be viewed in conjunction with the substantial price increases reported in chapter 1 under the heading “Iron Ore Shipments”.

Along South America’s west coast, iron ore exports travel through the ports of Huasco and Guayacan (Chile) and San Nicolas (Peru). In 2003, the Chilean ports, owned by a subsidiary of CAP S.A., the largest steel manufacturer in Chile, loaded 6.7 million tons of iron ores, of which fourth fifths went to Asian countries (2.1 million tons to China and 1.5 million tons to Japan, with Malaysia, the Republic of Korea and Indonesia accounting for the balance). In the same year, the Peruvian port, part of a mining joint venture with Chinese investors, exported 5 million tons, half of it to steel makers of that country; this share rose to 60 per cent the following year. The port of Ventanas, operating in central Chile, serves several dry bulk traffics and reported total throughput of 2.8 million tons, almost evenly split between loaded and unloaded cargo.

Coal exports from Colombia are the largest dry bulk exports from the north coast of South America. Thermal coal is mined from El Cerrejon Basin by the joint venture Intercor-Carbocol and railed about 150 kilometres to Puerto Bolivar, from where 22.2 million tons were shipped to the US and European markets in 2003. Another exporter uses rail, barges and a floating facility offshore from Cienaga and shipped 16.4 million tons of thermal coal in 2003. Other minor exporters using smaller terminals loaded about 4 million tons. Venezuelan thermal coal comes from Guasare Basin, is trucked about 85 kilometres and then uses barges to reach a floating facility close to the navigation channel of Maracaibo Lake.

Cape-size tonnage is engaged for coal exports. Representative single-voyage rates from Puerto Bolivar to northern Europe indicate a steady increase in freight rates. In December 2002, rates were $8.20 per ton after doubling during the year; one year later, freight rates had increased to $19.65 per ton. The pace of increases slowed during 2004, and in December freight rates averaged $24.55 per ton.

Dry bulk vessels in the range of 15,000 to 75,000 dwt are used in the region’s grain trade. Leading exporters are the port of Paranagua in southern Brazil, which in 2003 exported 14.5 million tons of grain out of 32.5 million tons of total throughput, and a number of Argentinean ports along the Parana River, including topping-off facilities in the River Plate. Imports are spread out among many general cargo ports of the region. Sometimes the same port handles exports and imports. In 2003, the port of Santos (Brazil) exported 9.5 million tons of soya and imported 1 million tons of wheat.

Representative fixtures for grain shipments suggest the prevalence of trip rather than voyage charters. In April 2003, Bunge chartered the 41,093-dwt *Nikos N* to carry grain from Paranagua to the Mediterranean at $10,800 per day. In June 2004, Transgrain secured the 64,916-dwt *Popi S* for taking grain from the River Plate

to Spain at $22,000 per day. Two months later, Martini chartered the *Avdeevka* to take a 25,000-ton grain parcel from the River Plate to Italy at $45.50 per ton.

Other dry bulk shipping services are related to exports of bauxite and alumina from Jamaica and sugar from southern Brazil. Although most of the 9 million tons exported by Jamaica goes to the US and European markets, some is exported to other regions. In August 2004, the 48,263-dwt *Probo Bear* was chartered for a trip to China at $14,200 per day. Sugar is usually shipped from Santos to transatlantic destinations in parcels of up to 40,000 tons. In April 2003, two vessels were chartered to take two 40,000-ton parcels to the Baltic and Black Seas at $26.75 per ton. Bagged sugar is taken to Africa in small vessels; in the same month Tate & Lyle chartered unnamed vessels to take 10,000 tons to West Africa at $34.50 per ton. By August 2004, rates seemed higher. A 30,000-ton parcel from Santos to the Black Sea fetched $42.50 per ton, while 14,000 tons of bagged sugar fetched $65 per ton.

Liner and other shipping services

Liner services in Latin America and the Caribbean are made up of a mix of container shipping services, back-up general cargo services and reefer shipping services, notably for the carriage of bananas. Container shipping services in the region make up one of the south–south world container routes in which gear and gearless cellular tonnage, in the 1,500-to-3,000-TEU range, is deployed together with smaller geared vessels. The efficient operation of these services takes into consideration proximity to the main east–west world container routes, the availability of modern port facilities, and the type, stability and volume of cargo flows. Most of the world's major container ship operators are active in the region independently or through slot agreements or joint operations with others. With the exception of CSVA from Chile, which briefly featured among the world's top 20 container ship operators in 2002, regional liner operators are of modest size and engaged in feeder services.

Containerized services are concentrated in those ports of Latin America and the Caribbean having specialized facilities. The majority of them adopted security and protection measures mandated by the ISPS Code and were compliant with it by the 1 July 2004 deadline.

During 2003, container traffic in ports of the region increased by 8.6 per cent to 19.8 million TEUs, about 6.8 per cent of the world total (see table 53). The largest share (28.4 per cent) of the regional total is accounted for by Caribbean ports and reflects the considerable trans-shipment activity that takes place in them. South America's east coast accounts for 25.9 per cent of the regional total and comprises the most industrialized area of the southern hemisphere. Container traffic on this coast increased 27.6 per cent in 2003 to 5.13 million TEUs. Central America, which includes Panama, accounts for 17 per cent of regional container traffic owing to the extensive trans-shipment activity undertaken by this country.

Table 53

Container throughput in ports of the region

(millions of TEUs)

Country/Subregion/Coast	2002	2003
Mexico	1.56	1.68
Central America	3.5	3.38
Caribbean	5.28	5.62
South America – North Coast	1.38	1.22
South America – East Coast	4.02	5.13
South America – West Coast	2.47	2.75
Total	18.21	19.78

Source: ECLAC, *Puertos y transporte marítimo en América Latina y el Caribe: un análisis de sus desempeño reciente* (2004). Publication LC/L.2227-P.

Table 54

Top 20 container ports in Latin America and the Caribbean

(in millions of TEUs)

Position	Port (Country)	Million TEUs in 2003
1	San Juan (Puerto Rico – USA)	1.67
2	Santos (Brazil)	1.56
3	Colon (Panama)	1.51
4	Kingston (Jamaica)	1.14
5	Freeport (Bahamas)	1.06
6	Buenos Aires (Argentina)	0.9
7	Manzanillo (Mexico)	0.71
8	Callao (Peru)	0.63
9	Limon-Moin (Costa Rica)	0.61
10	Veracruz (Mexico)	0.57
11	Rio Grande do Sul (Brazil)	0.54
12	San Antonio (Chile)	0.52
13	Cartagena (Colombia)	0.51
14	Guayaquil (Ecuador)	0.47
15	Itajai (Brazil)	0.46
16	Balboa (Panama)	0.46
17	Puerto Cortes (Honduras)	0.4
18	Rio Haina (Dominican Republic)	0.39
19	Puerto Cabello (Venezuela)	0.38
20	Montevideo (Uruguay)	0.33
	Total	**14.83**

Source: ECLAC, *Puertos y transporte marítimo en América Latina y el Caribe: un análisis de sus desempeño reciente* (2004). Publication LC/L.2227-P.

Container traffic is concentrated in a few ports. In 2003, the top 10 ports (see table 54), which make up 12 per cent of 83 surveyed ports, accounted for 52 per cent of regional container traffic. For the top 20 ports (24 per cent of container ports in the region), the share increases to almost three quarters of regional throughput.

Direct shipping services to the main US, European and Asian markets are more often found in Mexico, Central America and the Caribbean than on the east and west coasts of South America, particularly the latter, which relies heavily on trans-shipment via ports in the Caribbean or along North America's east and west coasts. Direct shipping services from South America's east coast to the Far East include calls in South Africa, and some carriers such as Evergreen have been expanding them.

While container ships with capacity of more than 4,000 TEUs are rarely found on routes to South America owing to severe port constraints, the trend towards large vessels is clear: Hamburg Sud deployed 3,800-TEU-capacity ships in 2002 along the east coast of South America and has announced the deployment of 5,500-TEU-capacity ships from the middle of 2005. Sea carriers rely on short-term chartered tonnage to quickly adapt their shipping services to the changing conditions that prevail in much of the region.

Traffic imbalance is a major feature that sea carriers must contend with in South America, and one exacerbated by expanding trade flows. In 2003, the percentage of empties reached 43.6 per cent of the total container traffic along the east coast of South America and 32.2 per cent of that of the west coast. Temporary and permanent reasons explain the imbalance. Along the east coast, sudden and significant currency devaluation in Argentina and a phased and mild one in Brazil have contracted imports and boosted exports since 2002. On both coasts, a large share of exports is reefer cargo requiring reefer vessels or containers. Accordingly, sea carriers devise complex patterns to deploy owned and chartered tonnage of different sizes along these coasts in order to adjust their slot capacity to demand.

The remarkable growth of exports and the progressive recovery of imports resulted in record cargo throughput in many ports, which highlighted the need for investments. In Santos, the largest port in the region, port capacity was stretched to the limit, and labour and administrative stoppages led to congestion and highlighted the urgent need for further investment. Investment in the port's several container facilities has succeeded in bringing down container-handling expenses to less than $200 per box, about half the level prevailing in the late 1990s. The acute lack of investment in Callao (Peru) resulted in overly costly container-handling operations. In Buenos Aires, deepening the sea channel access was critical for bringing back the large container ships deployed on some direct services to world markets, but channel tolls, which constitute about half the cost of a ship call, were increased.

Under-investment was not limited to single ports and required appropriate legislation. Many Brazilian ports were approaching saturation in the wake of strong export volumes, and competitiveness was being affected; port costs for exporting steel were said to be two to four times higher in Brazilian ports than in other ports with similar traffic. Still, the investment capacity of port authorities was weak: eight Brazilian port authorities reported a total deficit of about $100 million for 2002, and shippers estimated that port delays cost them $1.2 billion in 2004. In early 2005, the protracted passage of the private-public partnership bill was finally completed and paved the way for modernization of the country's transport infrastructure, including ports and their intermodal connections to domestic highways. Also, the Government allocated $100 million for dredging in Santos, Rio de Janeiro, Sepetiba, Vitoria, Rio Grande do Sul, São Francisco do Sul and Itajai. A number of private-sector schemes were under consideration, notably the 100-hectare Embraport project for Santos, sponsored by Coimex, a large Brazilian trader, to serve container and bulk traffic. Similarly, in Peru the enactment of a port bill in 2003 paved the way for establishing a national port authority and opening the concession process to attract badly needed investment.

Investments were more likely to be found in the proximity of the major east–west routes and close to the US market, with trans-shipment activities fuelling them. February 2004 saw the start of the fourth expansion of Kingston (Jamaica) to increase capacity by 25 per cent to 1.5 million TEUs; two months later, the $290 million Caucedo port was commissioned by CSX World Terminals in the Dominican Republic; and in November began the dredging of the access channel for the new 1.4 million-TEU Americas Port near Ponce (Puerto Rico – United States). The industrial port of Lazaro Cardenas entered the container traffic business in 2004 by attracting Maersk, CP Ships and APL to complement Manzanillo for serving central Mexico, and both ports saw potential for serving US destinations too. In Central America, dredging started in the new La Union port in El Salvador. On Panama's Pacific coast, HPH completed its $600 million investment in Balboa, where there are now two container berths linked by a railway across the Isthmus, with facilities at Cristobal on the Caribbean coast (where further investment is planned). Nearby Cartagena (Colombia) invested $20 million in equipment and in dredging to 14 metres to expand capacity to 1.2 million TEUs in 2004. Further south, the $110 million deep-water port of Mejillones (Chile) was inaugurated in November 2003 to serve a hinterland encompassing northern Chile, southern Bolivia and northeastern Argentina.

Reefer export traffic from the east coast of South America expanded when Patagonian fruit and frozen seafood began to be transported by Maersk and Hamburg Sud to Montevideo (Uruguay) for onward carriage to northern Europe, where demand has increased, notably in Eastern European countries and Russia. Freight rates for reefer exports from Buenos Aires to Europe were said to be about $3,000 per box, but southbound they were only $500, plus a $58 channel toll and other charges. Other established reefer export flows from Brazil faced severe constraints because Itajai, one of the main exporting outlets, was hampered by shallow drafts and limited quay length. Representative freight rates from this port to northern Europe during 2004 were $3,200 per FEU for apples and $2,900 for oranges. In Mercosur countries,

feeder services complemented direct calls: Lineas Feeder connected ports and terminals across the River Plate, while Mercosur Shuttle provided sea and river services up to Paraguay with shallow draft barges.

On South America's west coast, reefer tonnage was the mainstay for sea carriers, which faced rate increases on account of the almost full employment of the reefer fleet worldwide. Rates for feeder tonnage rose from $0.42 per cubic foot in January 2002 to $0.46 in January 2004 and $1.03 in 2005.

Banana traffic from Colombia, Ecuador and Central America was affected even though most of it moves in trader-owned fleets. But high charter rates for reefer vessels increased the use of reefer containers for fruit exports from Chile to distant destinations such as the Far East. In 2004, Dole and Del Monte decided to ship fruit to Europe in containers using the TA3 Maersk direct service from San Antonio (Chile). By mid-2004, representative freight rates for reefer containers from Chile to northern Europe were $4,100 to $6,800 per FEU, including the general rate increase but excluding THC and BAF. For the same route and direction, standard containers were charged $1,500 to $2,050 per TEU, and those heading southbound fetched about $1,225 per TEU. The level of freight rates worried Chilean exporters, who estimated a 90 per cent increase in freight rates over the 12 months leading to December 2004, but the local shipowner community, the largest in the region, explained that the large tonnage on order would result in oversupply and lead to future rate reductions.

Along the west coast, the new toll structure proposed by the Panama Canal Authority in October 2002 was cause for concern. The new structure replaced the flat rate for all ships in force since 1912 with new rates based on ship size and type, plus separate locomotive usage rates. For container vessels, this means that the Universal Measurement System (PCUMS) is being replaced by an equivalent TEU charge to be applied according to vessel capacity, with the changes to be phased in from May 2005 until 2007. Shipping companies and cargo interests, notably from the west coast of South America, made representations concerning the full impact of the proposed change, which could increase costs for transiting container ships by 68 per cent. The Authority explained that, with the traditional system, only 8.78 per cent of the total on-deck TEU capacity of container ships transiting the Canal was being charged, and that 100 per cent of that capacity would now be charged. Currently about a third of transits involve container ships, and the Authority is engaged in deepening access, smoothing curve alignments and ensuring water supplies to allow more Panamax vessels to transit the Canal. The first step, a new toll of $42 per TEU, entered into force in May 2005.

Development of inland transport in South America

During the period under review, the development of the inland transport network in South America along the lines defined by the IIRSA (Integration of South America Regional Infrastructure) initiative became a priority for regional financial development institutions. Two priority axes were defined, one linking Mercosur countries with Chile and therefore connecting the east and west coasts, and the other linking the Andean countries, so that the north and west coasts were connected. Other complementary axes made use of South America's extensive river network to develop inland waterways, as with the axis using the Amazon River to reach the Pacific coast in northern Peru.

By June 2003, Corporacion Andina de Fomento (CAF) was funding 15 transport projects amounting to $875 million and had, jointly with BNDES (Banco Nacional de Desenvolvimento do Brasil), identified 22 additional projects for joint funding. About half of these were for new roads and highways, the rest for railways, ports and inland waterways. National initiatives were also contributing to the expansion of the road network. An example is the 1,765-kilometre Brazilian highway linking Cuiba (in Matto Grosso) to Santarem, a port on the Amazon River, from which soya beans are increasingly being exported.

In the meantime, transport companies are developing railway networks and providing logistics services to the trading community and sea carriers. CVRD Logistics, a subsidiary of the mining company, operates along three Brazilian rail networks, Vitoria-Minas, Carajas and Centro Atlantica, with a total length of 9,306 kilometres. Building up on the extensive transport of bulk minerals for exports, the Express Train Service links the major production centre (São Paulo) and consumption centres in the north (Salvador) and centre (Uberlandia) of the country. Three trains run daily, and door-to-door service, including tracking of containers, is available to domestic and international customers.

America Latina Logistica (ALL) operates about 16,000 kilometres of rail network split almost equally between southern Brazil (Curitiba) and Argentina.

ALL operates an intermodal logistics park near Buenos Aires and is connected to the western (Mendoza) and northeastern regions (EntreRios, Corrientes) of the country. More than 60,000 TEUs a year are moved via the network, including 500 TEUs of bottled wine carried monthly from Mendoza to Buenos Aires for export. Overall, containerized traffic makes up about 20 per cent of ALL business, with minerals and grains accounting for the balance. NCA, another transport company, operates about 5,000 kilometres of rail network in Argentina from Buenos Aires to the northwest (Cordoba and Tucuman), over which about 60,000 TEUs were railed during 2004, mostly lemon juice, milk powder and peanuts for export. Although still road transport prevails in Argentina, the share of rail transport increased from 8 per cent to 15 per cent during the last five years.

In Chile, container rail traffic has developed between the ports of San Antonio and Valparaíso and the Concepción region about 400 kilometres to the south. Three rail operators compete amongst themselves and with road transporters for this traffic with rail rates of $350 per TEU — about $100 less than those asked by truck companies. Container rail traffic also flows between these ports and Santiago, the country's capital, and Curico, an agricultural producing region. In 2003, Sitrans, one of the main rail operators, moved 8,000 boxes to Concepción, 3,500 boxes to Santiago and 4,000 boxes to Curico.

Estimates of freight costs in Latin American countries

Cost factor for import trades

In 2003, developing countries in America accounted for 19.7 per cent of the total value of imports and 21.3 per cent of the total value of the freight of all developing countries. In that year (see table 55), the proportion of total freight costs for American developing countries relative to import value was 9.8 per cent, which is slightly above the average of 9.1 per cent for developing countries.

The regional average masks wide differences among trading areas. The cost factor for import trade to countries on South America's west coast is the highest (13.3 per cent), followed by the cost factor for countries on South America's north coast and the Caribbean (12.3 and 11.6 per cent respectively). The cost factor for the east coast of South America was 9.3 per cent, while that for Central America and Mexico was the lowest one at 8.8 per cent. The regional average is heavily influenced by the cost factors recorded by the largest economies of the region, Mexico and Brazil, which recorded 8 and 8.4 per cent respectively. Grenada has the highest percentage, 20.1 per cent.

Table 55

Freight ratios for Latin American and Caribbean countries

	Imports	Freight	Ratio
Bahamas	5 748.6	628.6	10.9
Barbados	1 202.1	232.1	19.3
Cuba	3 394.0	324.0	9.5
Dominica	205.2	15.2	7.4
Dominican Republic	8 802.1	852.1	9.7
Grenada	250.3	50.3	20.1
Haiti	1 315.7	215.7	16.4
Jamaica	4 063.1	603.1	14.8
Saint Kitts and Nevis	248.7	28.7	11.5
Saint Lucia	367.0	40.0	10.9
Saint Vincent and the Grenadines	489.8	39.8	8.1
Trinidad and Tobago	3 693.5	433.5	11.7
Subtotal Caribbean countries	**29 780.1**	**3 463.1**	**11.6**
Costa Rica	7 662.5	722.5	9.4
Salvador	5 762.7	1 022.7	17.7
Guatemala	7 339.0	819.0	11.2
Honduras	4 893.7	623.7	12.7
Mexico	165 046.0	13 166.0	8.0
Nicaragua	1 886.9	176.9	9.4
Panama	17 877.5	1 967.5	11.0
Subtotal Mexico & Central America	**210 468.3**	**18 498.3**	**8.8**
Guyana	1 021.3	191.3	18.7
Suriname	674.4	74.4	11.0
Venezuela	16 841.0	2 021.0	12.0
Subtotal South America – North Coast	**18 536.7**	**2 286.7**	**12.3**
Argentina	13 833.0	1 743.0	12.6
Bolivia	1 660.7	320.7	19.3
Brazil	70 105.0	5 855.0	8.4
Paraguay	2 615.3	255.3	9.8
Uruguay	3 106.0	336.0	10.8
Subtotal South America – East Coast	**91 320.0**	**8 510.0**	**9.3**
Chile	19 413.0	2 313.0	11.9
Colombia	13 880.0	1 950.0	14.0
Ecuador	6 673.2	743.2	11.1
Peru	8 224.3	1 384.3	16.8
Subtotal South America – West Coast	**48 190.5**	**6 390.5**	**13.3**
Total Latin America and Caribbean	**398 295.6**	**39 148.6**	**9.8**

Annex I

Classification of countries and territories [a b c d]

Code 1	Canada	United States
Code 2	Austria	Italy
	Belgium	Luxembourg
	Denmark	Monaco
	Faeroe Islands	Netherlands
	Finland	Norway
	France	Portugal
	Germany	Spain
	Gibraltar	Sweden
	Greece	Switzerland
	Iceland	Turkey
	Ireland	United Kingdom of Great Britain and Northern Ireland
	Israel	
Code 3	Japan	
Code 4	Australia	New Zealand
Code 5	South Africa	
Code 6	Albania	Latvia
	Armenia	Lithuania
	Azerbaijan	Poland
	Belarus	Republic of Moldova
	Bulgaria	Romania
	Czech Republic	Russian Federation
	Estonia	Slovakia
	Georgia	Tajikistan
	Hungary	Turkmenistan
	Kazakhstan	Ukraine
	Kyrgyzstan	Uzbekistan
Code 7	China	Viet Nam
	Democratic People's Republic of Korea	
Code 8–8.1	*Northern Africa*	
	Algeria	Morocco
	Egypt	Tunisia
	Libyan Arab Jamahiriya	

Annex I (continued)

Code 8.2 *Western Africa*

Angola
Benin
Burkina Faso
Cameroon
Cape Verde
Congo
Côte d'Ivoire
Democratic Republic of the Congo
Equatorial Guinea
Gabon
Gambia
Ghana
Guinea
Guinea-Bissau
Liberia
Mali
Mauritania
Nigeria
Saint Helena
Sao Tome and Principe
Senegal
Sierra Leone
Togo

Code 8.3 *Eastern Africa*

Burundi
Comoros
Djibouti
Eritrea
Ethiopia
Kenya
Madagascar
Malawi
Mauritius
Mozambique
Reunion
Seychelles
Somalia
Sudan
Uganda
United Republic of Tanzania
Zambia

Code 9–9.1 *Caribbean and North America*

Anguilla
Antigua and Barbuda
Aruba
Bahamas
Barbados
Bermuda
British Virgin Islands
Cayman Islands
Cuba
Dominica
Dominican Republic
Greenland
Grenada
Guadeloupe
Haiti
Jamaica
Martinique
Montserrat
Saint Kitts and Nevis
Saint Lucia
Saint Pierre and Miquelon
Saint Vincent and the Grenadines
Trinidad and Tobago
Turks and Caicos Islands
United States Virgin Islands

Code 9.2 *Central America*

Belize
Costa Rica
El Salvador
Guatemala
Honduras
Mexico
Nicaragua
Panama

Annex I (continued)

Code 9.3 *South America – Northern Seaboard*

French Guiana
Guyana
Netherlands Antilles
Suriname
Venezuela

Code 9.4 *South America – Western Seaboard*

Chile
Colombia
Ecuador
Peru

Code 9.5 *South America – Eastern Seaboard*

Argentina
Bolivia
Brazil
Falkland Islands (Malvinas) [e]
Paraguay
Uruguay

Code 10–10.1 *Western Asia*

Bahrain
Cyprus
Iran, Islamic Republic of
Iraq
Jordan
Kuwait
Lebanon
Oman
Qatar
Saudi Arabia
Syrian Arab Republic
United Arab Emirates
Yemen

Code 10.2 *Southern and Eastern Asia*

Bangladesh
Bhutan
Brunei Darussalam
Cambodia
Hong Kong (China)
India
Indonesia
Macao (China)
Malaysia
Maldives
Myanmar
Pakistan
Philippines
Republic of Korea
Singapore
Sri Lanka
Thailand

Code 11

Bosnia and Herzegovina
Croatia
Malta
Slovenia
Yugoslavia

Code 12

American Samoa
Christmas Island (Australia)
Fiji
French Polynesia
Guam
Kiribati
Nauru
New Caledonia
Papua New Guinea
Samoa
Solomon Islands
Tonga
Tuvalu
Vanuatu
Wake Island

Annex I (continued)

Notes

[a] This classification is for statistical purposes only and does not imply any judgement regarding the stage of development or the political situation of any country or territory.

[b] The following are groups of countries or territories used for presenting statistics in this *Review*:

Developed market-economy countries: Codes 1, 2, 3, 4 and 5
Countries of Central and Eastern Europe and Republics of the former Soviet Union: Code 6
Socialist countries in Asia: Code 7
Developing countries and territories: Codes 8, 9, 10, 11 and 12
of which:
In Africa: Codes 8.1, 8.2 and 8.3
In America: Codes 9.1, 9.2, 9.3, 9.4 and 9.5
In Asia: Codes 10.1 and 10.2
In Europe: Code 11
In Oceania: Code 12

[c] In certain tables, where appropriate, open-registry countries are recorded in a separate group. The group comprises the Bahamas, Bermuda, Cyprus, Liberia, Malta, Panama and Vanuatu.

[d] Trade statistics are based on data recorded at the ports of loading and unloading. Trade originating in or destined for neighbouring countries is attributed to the country in which the ports are situated; for this reason, landlocked countries do not figure in these tabulations. On the other hand, statistical tabulations on merchant fleets include data for landlocked countries that possess fleets.

[e] A dispute exists between the Governments of Argentina and the United Kingdom of Great Britain and Northern Ireland concerning sovereignty over the Falkland Islands (Malvinas).

Annex II

World seaborne trade a by country groups, 1970, 1980, 1990, 2000 and 2002-2004

(millions of tons)

Area[b]	Year	Goods loaded			Total goods loaded	Goods unloaded			Total goods unloaded
		Oil		Dry cargo		Oil		Dry cargo	
		Crude	Products[c]			Crude	Products[c]		
Developed market-economy countries									
North America	1970	0.7	5.3	308.0	314.0	73.4	103.6	170.0	347.0
	1980	0.5	6.9	498.0	505.3	274.3	71.4	170.1	515.7
	1990	1.4	25.8	515.1	542.3	274.9	100.8	227.6	603.3
	2000	15.2	59.7	438.9	513.8	502.2	122.3	328.8	953.3
	2002	16.1	69.4	420.9	506.4	462.8	117.9	344.0	924.7
	2003	16.1	70.5	412.7	499.3	486.7	129.7	373.7	990.1
	2004	16.2	75.3	443.0	534.5	500.5	133.6	399.3	1 033.4
Europe	1970	28.6	82.3	244.8	355.7	621.0	100.4	469.0	1 190.4
	1980	95.7	79.3	387.4	562.3	585.5	145.1	680.5	1 411.1
	1990	162.1	124.2	482.2	768.5	446.8	172.7	763.2	1 382.7
	2000	59.9	44.5	1 103.3	1 207.7	419.6	103.4	1 494.7	2 017.7
	2002	62.2	41.2	1 055.3	1 158.8	425.6	101.4	1 447.5	1 974.5
	2003	62.7	41.4	1 057.5	1 161.7	433.7	103.3	1 475.5	2 012.6
	2004	63.2	41.6	1 059.9	1 164.7	434.1	103.5	1 476.5	2 014.0
Japan	1970	-	0.3	41.6	41.9	170.4	30.4	235.1	435.9
	1980	-	..	83.6	83.6	216.3	35.0	361.5	612.8
	1990	-	1.2	81.9	83.1	201.2	82.0	440.7	723.9
	2000	0.0	3.8	126.3	130.1	215.0	49.1	542.4	806.5
	2002	0.0	4.3	149.3	153.6	213.0	47.9	523.9	784.7
	2003	0.0	4.2	163.4	167.6	215.0	32.5	562.6	810.1
	2004	0.0	4.3	167.1	171.4	215.0	32.5	578.3	825.8
Australia and New Zealand	1970	-	1.3	92.3	93.6	18.8	2.9	15.4	37.1
	1980	-	1.5	148.4	150.0	9.8	6.6	13.5	29.9
	1990	9.2	1.5	266.3	277.0	8.6	7.2	18.1	33.9
	2000	10.7	2.5	514.7	527.9	32.1	6.7	30.0	68.8
	2002	10.8	2.7	526.8	540.3	32.1	6.7	37.1	75.9
	2003	10.9	2.7	541.6	555.2	32.4	6.7	38.8	77.9
	2004	11.0	2.8	582.8	596.6	32.7	6.8	44.7	84.2
South Africa	1970	-	-	13.2	13.2	8.8	2.6	6.2	17.6
	1980	-	0.1	68.9	69.0	15.0	1.0	9.7	25.7
	1990	-	-	82.5	82.5	21.9	0.3	9.6	31.8
	2000	0.0	0.0	133.3	133.3	11.4	0.0	20.1	31.6
	2002	0.0	0.0	132.7	132.7	15.4	0.9	23.9	40.2
	2003	0.0	0.0	148.6	148.6	15.4	0.9	23.7	40.0
	2004	0.0	0.0	163.4	163.4	15.4	0.9	23.4	39.7
Subtotal	1970	29.3	89.2	699.9	818.4	892.4	239.9	895.7	2 028.0
	1980	96.2	87.8	1 186.3	1 370.3	1 100.9	259.1	1 235.3	2 595.2
	1990	172.7	152.7	1 428.0	1 753.4	953.4	363.0	1 459.2	2 775.6
	2000	85.8	110.5	2 316.4	2 512.7	1 180.4	281.5	2 416.1	3 877.9
	2002	89.1	117.6	2 284.9	2 491.7	1 148.9	274.8	2 376.4	3 800.1
	2003	89.8	118.8	2 323.8	2 532.3	1 183.3	273.1	2 474.2	3 930.7
	2004	90.4	124.0	2 416.2	2 630.6	1 197.7	277.2	2 522.2	3 997.2

Annex II (continued)

Area[b]	Year	Goods loaded			Total goods loaded	Goods unloaded			Total goods unloaded
		Oil		Dry cargo		Oil		Dry cargo	
		Crude	Products[c]			Crude	Products[c]		
Countries of Central and Eastern Europe[d]	1970	38.2	26.3	80.8	145.3	13.3	3.0	41.1	57.4
	1980	55.0	50.2	95.6	200.8	35.5	1.3	108.6	145.4
	1990	58.6	55.3	85.2	199.1	34.2	1.3	137.2	172.7
	2000	91.8	44.2	156.0	292.0	8.0	2.0	75.5	85.5
	2002	91.4	41.9	175.1	308.4	10.0	3.0	66.3	79.3
	2003	116.9	44.0	177.3	338.2	10.2	3.1	66.2	79.5
	2004	124.3	44.4	179.0	347.7	10.3	3.1	66.8	80.2
Socialist countries of Asia[e]	1970	-	0.1	13.3	13.4	5.4	0.4	24.4	30.2
	1980	22.1	5.7	18.3	46.1	21.6	5.1	72.9	99.6
	1990	32.0	4.0	46.1	82.1	3.9	1.3	80.4	85.6
	2000	17.0	5.5	250.0	272.5	70.0	22.3	289.6	381.8
	2002	17.6	10.7	291.3	319.6	69.4	25.4	371.4	466.2
	2003	18.9	12.3	365.5	396.7	86.5	29.5	446.0	562.1
	2004	20.4	14.2	416.2	450.8	99.5	33.2	508.0	640.7
Developing countries and territories									
Developing countries in Africa									
Northern Africa	1970	221.4	5.6	28.3	255.3	9.9	5.9	17.9	33.7
	1980	187.7	2.5	30.0	220.2	50.0	2.0	44.9	96.9
	1990	182.7	31.5	32.0	246.2	63.4	4.3	57.8	125.5
	2000	125.6	32.7	35.6	193.9	49.8	8.5	75.9	134.2
	2002	120.6	33.1	35.7	189.4	44.7	8.0	77.8	130.5
	2003	125.6	34.6	36.2	196.5	46.5	8.2	79.6	134.3
	2004	128.1	35.3	37.0	200.4	47.2	8.3	80.8	136.3
Western Africa	1970	60.5	1.0	61.5	123.0	3.6	4.0	14.8	22.4
	1980	102.6	1.9	66.8	171.3	4.3	5.5	30.8	40.6
	1990	127.1	3.4	55.2	185.7	4.0	3.2	27.7	34.9
	2000	173.0	1.8	19.9	194.7	4.0	4.1	38.4	46.5
	2002	171.3	1.6	19.9	192.8	3.6	4.0	39.8	47.5
	2003	175.3	1.5	19.6	196.4	3.3	4.0	39.4	46.7
	2004	184.8	1.6	20.3	206.7	3.6	4.1	40.9	48.6
Eastern Africa	1970	-	1.2	16.1	17.3	5.5	2.6	8.3	16.4
	1980	-	0.9	6.3	7.2	6.2	2.0	9.9	18.1
	1990	-	0.6	9.3	9.9	6.4	2.6	16.0	25.0
	2000	0.0	0.0	7.2	7.2	0.7	4.8	19.0	24.5
	2002	0.0	0.0	8.9	8.9	0.7	5.1	20.2	26.0
	2003	0.0	0.0	8.7	8.7	0.7	5.1	19.7	25.5
	2004	0.0	0.0	8.8	8.8	0.7	5.2	19.9	25.7
Subtotal: Developing countries in Africa	1970	281.9	7.8	105.9	395.6	19.0	12.5	41.0	72.5
	1980	290.3	5.3	103.1	398.7	60.5	9.5	85.6	155.6
	1990	309.8	35.5	96.5	441.8	73.8	10.1	101.5	185.4
	2000	298.6	34.5	62.7	395.8	54.5	17.4	133.3	205.2
	2002	292.0	34.7	64.5	391.2	49.0	17.2	137.8	204.0
	2003	300.9	36.1	64.6	401.6	50.5	17.3	138.7	206.5
	2004	312.9	36.9	66.1	415.9	51.4	17.6	141.5	210.6

Annex II (continued)

Area[b]	Year	Goods loaded			Total goods loaded	Goods unloaded			Total goods unloaded
		Oil		Dry cargo		Oil		Dry cargo	
		Crude	Products[c]			Crude	Products[c]		
Developing countries in America									
Caribbean, Central and North America	1970	-	5.1	40.3	45.4	29.5	10.0	17.7	57.2
	1980	53.5	29.6	53.5	136.6	62.8	8.9	30.2	102.0
	1990	95.3	18.8	47.5	161.6	33.7	11.2	35.4	81.1
	2000	91.6	28.8	41.4	161.8	33.0	36.4	72.1	141.5
	2002	103.5	29.7	58.1	191.4	32.5	36.0	79.0	147.5
	2003	110.8	31.2	61.9	203.9	33.2	34.8	83.2	151.1
	2004	113.0	31.5	62.9	207.4	33.4	35.3	84.6	153.3
South America: Northern and Eastern seaboard	1970	131.2	12.9	90.3	234.4	81.9	4.0	26.5	112.4
	1980	127.8	64.5	162.3	354.6	136.2	5.8	54.5	196.5
	1990	58.4	28.5	214.8	302.0	37.8	4.3	45.7	87.8
	2000	122.8	61.3	274.3	458.4	47.3	12.0	75.4	134.6
	2002	124.0	61.8	292.4	478.2	47.8	11.9	65.1	124.7
	2003	113.4	71.1	375.7	560.2	48.2	8.0	82.4	138.6
	2004	119.2	71.8	379.5	570.5	48.7	8.1	83.2	140.0
South America: Western seaboard	1970	4.6	1.6	29.8	36.0	4.1	1.5	5.9	11.5
	1980	7.6	3.4	26.7	37.7	4.9	1.4	13.7	20.1
	1990	17.4	8.2	36.0	61.6	3.5	1.3	14.4	19.2
	2000	39.3	3.4	84.4	127.1	15.1	5.3	64.0	84.4
	2002	34.8	2.1	91.4	128.3	15.4	5.1	62.5	83.0
	2003	24.9	2.1	106.7	133.7	15.6	5.2	63.7	84.4
	2004	25.2	2.1	108.3	135.6	15.7	5.2	64.4	85.4
Subtotal: Developing countries in America	1970	135.8	19.6	160.4	315.8	115.5	15.5	50.1	181.1
	1980	188.9	97.5	242.5	528.9	203.9	16.1	98.4	318.6
	1990	171.1	55.5	298.3	524.9	75.0	16.8	95.5	187.5
	2000	253.7	93.5	400.1	747.3	95.5	53.7	211.5	360.6
	2002	262.3	93.6	441.9	797.8	95.7	53.0	206.5	355.2
	2003	249.1	104.4	544.3	897.8	97.0	48.0	229.2	374.2
	2004	257.4	105.4	550.7	913.5	97.8	48.6	232.2	378.7
Developing countries in Asia									
Western Asia	1970	588.7	65.6	3.3	657.6	0.1	1.0	13.1	14.2
	1980	800.6	54.5	12.3	867.4	8.6	4.9	54.9	68.4
	1990	463.9	74.8	30.5	569.2	15.6	7.1	107.0	129.7
	2000	854.7	105.7	63.3	1 023.7	7.0	8.7	121.7	137.4
	2002	820.6	105.2	68.5	994.3	7.5	8.1	125.8	141.3
	2003	848.9	108.7	70.3	1 027.9	9.5	8.6	129.5	147.5
	2004	899.1	111.7	72.7	1 083.5	9.5	8.9	129.3	147.6
Southern and Eastern Asia (n.e.s.)	1970	35.0	23.7	89.3	148.0	54.7	23.3	61.9	139.9
	1980	74.3	42.2	165.9	282.4	97.4	26.9	163.5	287.8
	1990	78.6	88.4	253.0	420.0	150.4	41.6	362.9	554.9
	2000	59.1	101.6	554.7	715.4	306.3	148.1	740.3	1 194.7
	2002	60.3	102.5	636.8	799.6	308.5	150.0	799.0	1 257.5
	2003	61.1	106.6	692.2	859.9	299.4	148.4	823.4	1 271.2
	2004	61.5	106.9	722.5	890.9	299.7	148.2	852.5	1 300.4

Annex II (continued)

Area[b]	Year	Goods loaded			Total goods loaded	Goods unloaded			Total goods unloaded
		Oil		Dry cargo		Oil		Dry cargo	
		Crude	Products[c]			Crude	Products[c]		
Subtotal: Developing countries in Asia	1970	623.7	89.3	92.6	805.6	54.8	24.3	75.0	154.1
	1980	874.9	96.7	178.2	1 149.8	106.0	31.9	218.5	356.2
	1990	542.5	163.2	283.5	989.2	166.0	48.7	469.9	684.6
	2000	913.8	207.3	618.0	1 739.1	313.3	156.8	862.0	1 332.1
	2002	880.9	207.6	705.3	1 793.9	315.9	158.0	924.9	1 398.8
	2003	910.0	215.4	762.5	1 887.8	308.8	157.0	952.9	1 418.7
	2004	960.5	218.6	795.2	1 974.4	309.1	157.0	981.9	1 448.1
Developing countries in Europe	1970[f]	..	-	-	..	-	0.3	0.7	1.0
	1980[f]	-	-	0.1	0.1	-	0.5	0.6	1.1
	1990	0.3	1.1	7.4	8.8	8.7	2.4	17.7	28.8
	2000	0.0	2.2	15.5	17.7	6.6	2.1	10.4	19.0
	2002	0.0	2.3	16.1	18.4	6.8	2.2	10.8	19.8
	2003	0.0	2.3	16.6	18.9	6.9	2.2	10.9	20.0
	2004	0.0	2.3	16.8	19.1	7.0	2.2	11.0	20.2
Developing countries in Oceania (n.e.s.)	1970	-	0.2	9.5	9.7	0.6	1.6	2.9	5.1
	1980	-	0.7	8.4	9.1	1.6	2.3	3.5	7.4
	1990	-	0.3	8.0	8.3	-	2.3	3.6	5.9
	2000	4.0	0.1	2.0	6.1	0.0	5.9	5.2	11.1
	2002	4.1	0.1	2.0	6.2	0.0	6.0	5.3	11.3
	2003	4.1	0.1	2.1	6.3	0.0	6.1	5.4	11.5
	2004	4.1	0.1	2.1	6.4	0.0	6.2	5.4	11.6
Subtotal: Developing countries	1970	1 041.4	116.9	368.4	1 526.7	184.9	54.2	169.7	413.8
	1980	1 354.1	200.2	532.3	2 086.6	372.0	60.3	406.6	838.9
	1990	1 023.9	255.6	693.7	1 973.0	323.5	80.3	688.2	1 092.0
	2000	1 470.1	337.6	1 098.2	2 905.9	469.8	235.9	1 222.3	1 928.1
	2002	1 439.3	338.3	1 229.8	3 007.4	467.4	236.4	1 285.3	1 989.2
	2003	1 464.1	358.2	1 390.1	3 212.3	463.2	230.6	1 337.1	2 030.8
	2004	1 535.0	363.4	1 430.9	3 329.2	465.4	231.7	1 372.0	2 069.1
World total	1970	1 108.9	232.5	1 162.4	2 503.8	1 101.0	297.5	1 130.9	2 529.4
	1980	1 527.4	343.9	1 832.5	3 703.8	1 530.0	325.8	1 823.3	3 679.1
	1990	1 287.2	467.6	2 253.0	4 007.4	1 315.0	445.9	2 365.0	4 125.9
	2000	1 664.7	497.8	3 820.6	5 983.2	1 728.2	541.7	4 003.4	6 273.3
	2002	1 637.4	508.6	3 981.2	6 127.2	1 695.7	539.6	4 099.5	6 334.8
	2003	1 689.6	533.3	4 256.6	6 479.5	1 743.2	536.2	4 323.6	6 603.0
	2004	1 770.0	546.0	4 442.3	6 758.3	1 772.9	545.1	4 469.1	6 787.1

Sources: Compiled by the UNCTAD secretariat on the basis of data supplied by reporting countries and specialized sources.

[a] Including international cargoes loaded at ports of the Great Lakes and St. Lawrence River system for unloading at ports of the system.
[b] See Annex I for the composition of groups.
[c] Including LNG, LPG, naphtha, gasoline, jet fuel, kerosene, light oil, heavy fuel oil and others.
[d] Including the former Soviet Union.
[e] Estimates.
[f] Yugoslavia was classified as a developing country in Europe from 1986 onwards. Data for 1970 and 1980 for this country were recorded under "Developed market-economy countries: Europe."

Annex III (a)

Merchant fleets of the world by flag of registration,[a] groups of countries and types of ship[b] as of 31 December 2004

(in thousands of grt)

	Total fleet	Oil tankers	Bulk carriers	General cargo[c]	Container ships	Other types
World total[d]	623 626	189 107	178 467	88 492	84 842	82 718
Developed market-economy countries						
Australia	1 972	354	542	141	7	927
Austria	34	0	0	30	4	0
Belgium	3 973	1 906	1 147	2	302	616
Canada	2 664	427	1 098	122	2	1 015
Denmark	7 741	1 656	48	446	4 381	1 210
Finland	1 429	319	54	402	10	643
France	4 975	2 391	1	245	862	1 476
Germany	8 246	264	1	268	7 149	565
Gibraltar	1 142	344	19	425	276	79
Greece	32 041	16 921	11 068	390	2 001	1 661
Iceland	194	0	0	4	0	189
Ireland	497	11	88	188	5	204
Israel	740	16	0	2	712	10
Italy	10 956	3 130	1 469	2 157	744	3 456
Japan	13 180	2 972	2 636	1 915	463	5 194
Luxembourg	690	301	0	113	84	192
Netherlands	7 285	439	204	2 945	1 691	2 006
New Zealand	233	52	12	19	0	149
Norway	18 936	6 268	3 736	3 932	50	4 951
Portugal	1 339	598	134	268	35	305
South Africa	167	2	0	0	27	137
Spain	2 869	543	115	444	181	1 586
Sweden	3 667	449	41	2 075	0	1 102
Switzerland	487	4	371	24	83	4
Turkey	4 679	538	2 369	1 181	234	357
United Kingdom	18 293	4 853	2 445	1 510	5 188	4 297
United States	33 257	16 814	4 529	2 400	5 311	4 203
Subtotal	181 685	61 573	32 129	21 646	29 804	36 533
Major open-registry countries						
Bahamas	35 388	13 059	6 335	5 969	2 016	8 010
Bermuda	6 166	730	1 851	253	668	2 664
Cyprus	21 283	4 554	11 289	2 169	2 787	485
Liberia	53 899	24 443	10 616	3 336	11 313	4 191
Malta	22 353	7 006	10 687	2 934	1 207	519
Panama	131 452	30 718	54 086	18 078	19 458	9 112
Subtotal	270 541	80 509	94 864	32 739	37 449	24 980

Annex III (a) (continued)

	Total fleet	Oil tankers	Bulk carriers	General cargo[c]	Container ships	Other types
Central and Eastern Europe and former USSR						
Albania	73	0	0	72	0	1
Armenia	..	..	..	..	..	..
Azerbaijan	664	202	0	99	0	362
Belarus	..	..	..	..	..	..
Bulgaria	790	21	567	106	66	30
Czech Republic	..	..	..	..	..	..
Estonia	335	7	0	89	0	239
Georgia	974	17	342	508	5	102
Hungary	..	..	..	..	..	..
Kazakhstan	26	1	0	7	0	18
Kyrgyzstan	..	..	..	..	..	..
Latvia	294	143	0	26	0	125
Lithuania	453	4	80	177	0	192
Moldova, Republic of	..	..	..	..	..	..
Poland	163	8	0	23	0	131
Romania	427	54	49	157	0	167
Russian Federation	8 639	1 445	800	3 069	259	3 065
Slovakia	126	3	42	82	0	0
Tajikistan	..	..	..	..	..	..
Turkmenistan	43	6	3	14	0	20
Ukraine	1 145	30	100	596	34	384
Former USSR [e]	..	..	..	..	..	..
Uzbekistan	..	..	..	..	..	..
Subtotal	14 155	1 942	1 982	5 029	364	4 838
Socialist countries of Asia						
China	20 369	3 638	7 863	4 910	2 520	1 437
Democratic People's Republic of Korea	1 123	37	152	824	17	92
Viet Nam	1 428	256	198	780	27	166
Subtotal	22 919	3 931	8 214	6 514	2 565	1 695
Developing countries of Africa						
Algeria	862	28	173	127	0	534
Angola	48	3	0	10	0	35
Benin	1	0	0	0	0	1
Cameroon	185	170	0	2	0	13
Cape Verde	21	2	0	10	0	9
Comoros	389	74	102	171	4	37
Congo	3	0	0	0	0	3
Côte d'Ivoire	9	1	0	0	0	8

Annex III (a) (continued)

	Total fleet	Oil tankers	Bulk carriers	General cargo[c]	Container ships	Other types
Democratic Republic of the Congo	..	..	..	..	..	..
Djibouti	5	0	0	2	0	3
Egypt	1 143	225	432	286	48	152
Equatorial Guinea	28	0	0	3	0	25
Eritrea	..	..	..	..	..	..
Ethiopia	79	0	0	79	0	0
Gabon	13	1	0	4	0	8
Gambia	33	4	0	27	0	2
Ghana	117	3	0	14	0	100
Guinea	13	0	0	1	0	13
Guinea-Bissau	6	0	0	1	0	5
Kenya	19	5	0	3	0	11
Libyan Arab Jamahiriya	130	7	0	58	0	66
Madagascar	33	5	0	14	0	14
Malawi	..	..	..	..	..	..
Mauritania	49	0	0	0	0	49
Mauritius	79	0	10	17	0	52
Morocco	523	78	0	72	65	307
Mozambique	36	0	0	6	0	30
Nigeria	429	321	10	22	0	77
Saint Helena	1	0	0	0	0	1
São Tome and Principe	58	5	17	33	0	3
Senegal	41	0	0	1	0	39
Seychelles	67	25	0	13	0	29
Sierra Leone	27	14	0	0	0	12
Somalia	7	1	0	3	0	4
Sudan	16	1	0	12	0	3
Togo	20	0	0	4	0	15
Tunisia	175	53	17	2	0	103
Uganda	..	..	..	..	..	..
United Republic of Tanzania	39	8	0	21	0	10
Subtotal	4 704	1 032	761	1 018	118	1 775
Developing countries of America						
Anguilla	1	0	0	1	0	0
Antigua and Barbuda	6 915	25	604	2 355	3 844	86
Argentina	437	59	34	70	0	274
Barbados	580	156	239	131	0	55
Belize	1 687	105	209	915	27	432
Bolivia	303	218	4	43	2	36

Annex III (a) (continued)

	Total fleet	Oil tankers	Bulk carriers	General cargo[c]	Container ships	Other types
Brazil	2 628	1 172	761	290	160	246
British Virgin Islands	3	0	0	1	0	1
Cayman Islands	2 609	1 143	856	515	0	94
Chile	947	288	189	173	17	280
Colombia	75	6	3	34	0	33
Costa Rica	5	0	0	0	0	5
Cuba	126	54	6	17	0	49
Dominica	304	165	21	92	5	20
Dominican Republic	13	0	0	7	0	6
Ecuador	265	165	0	2	0	98
El Salvador	6	0	0	0	0	6
Falkland Islands [f]	50	0	0	1	0	50
Grenada	3	0	0	1	0	2
Guatemala	6	0	0	0	0	5
Guyana	33	1	0	19	0	13
Haiti	1	0	0	1	0	0
Honduras	784	167	103	265	5	245
Jamaica	131	2	102	25	0	2
Mexico	1 008	553	19	66	0	370
Montserrat	..	..	..	..	..	..
Nicaragua	5	0	0	0	0	4
Paraguay	44	3	0	37	1	4
Peru	227	15	0	25	0	187
Saint Kitts and Nevis	0	0	0	0	0	0
Saint Lucia	..	..	..	..	..	..
Saint Vincent and the Grenadines	6 324	346	2 670	2 563	133	612
Suriname	5	2	0	3	0	1
Trinidad and Tobago	34	1	0	3	0	29
Turks and Caicos Islands	1	0	0	0	0	1
Uruguay	76	8	0	9	0	60
Venezuela	1 011	529	142	37	3	300
Subtotal	26 646	5 181	5 961	7 701	4 197	3 606
Developing countries and territories of Asia						
Bahrain	294	81	58	3	96	55
Bangladesh	456	67	26	285	45	33
Brunei Darussalam	479	1	0	2	0	476
Cambodia	..	..	..	..	..	..
Hong Kong (China)	26 085	6 239	14 616	1 800	3 027	404
India	7 518	4 445	1 973	295	100	704
Indonesia	4 072	1 030	379	1 639	189	835

Annex III (a) (continued)

	Total fleet	Oil tankers	Bulk carriers	General cargo[c]	Container ships	Other types
Iran, Islamic Republic of	5 324	3 300	992	530	334	167
Iraq	163	52	0	40	0	71
Jordan	195	0	32	102	13	48
Kuwait	2 378	1 685	71	145	214	263
Lebanon	184	1	50	130	0	3
Malaysia	6 057	2 062	1 204	574	591	1 625
Maldives	78	8	0	63	0	7
Myanmar	444	3	246	164	0	31
Oman	17	0	0	2	0	15
Pakistan	301	155	0	130	0	16
Philippines	5 137	449	2 693	1 311	44	640
Qatar	575	270	0	43	184	79
Republic of Korea	7 826	754	4 079	1 030	1 042	921
Saudi Arabia	1 678	1 095	0	296	149	138
Singapore	26 283	12 397	5 756	2 681	3 834	1 615
Sri Lanka	157	8	0	95	34	19
Syrian Arab Republic	447	1	42	392	8	3
Thailand	2 890	349	943	1 229	200	169
United Arab Emirates	799	290	13	95	214	187
Yemen	..	..	..	..	..	..
Subtotal	99 837	34 742	33 175	13 076	10 320	8 524
Developing countries of Europe						
Croatia	1 016	151	602	140	0	123
Slovenia	1	0	0	0	0	1
Subtotal	1 018	151	602	140	0	125
Developing countries of Oceania						
Fiji	30	0	0	9	0	21
Kiribati	4	0	0	4	0	0
Nauru	..	..	..	..	..	..
Papua New Guinea	75	6	4	53	0	12
Samoa	..	..	..	..	..	..
Solomon Islands	8	0	0	2	0	6
Tonga	109	4	6	81	0	18
Tuvalu	138	36	0	99	0	4
Vanuatu	1 756	0	771	380	25	581
Subtotal	2 121	46	780	628	25	642
Developing total	134 325	41 152	41 279	22 563	14 660	14 672
Unallocated	-	-	-	-	-	-

Annex III (b)

Merchant fleets of the world by flag of registration,[a] groups of countries and types of ship[b] as of 31 December 2004

(in thousands of dwt)

	Total fleet	Oil tankers	Bulk carriers	General cargo[c]	Container ships	Other types
World total[d]	895 843	336 156	320 584	92 048	98 064	48 991
Developed market-economy countries						
Australia	2 375	596	866	131	10	773
Austria	44	0	0	38	6	0
Belgium	6 815	3 601	2 242	3	311	658
Canada	3 027	702	1 680	106	2	537
Denmark	9 033	2 858	82	388	5 027	678
Finland	1 113	521	85	357	14	136
France	6 311	4 330	1	236	981	763
Germany	9 380	404	2	336	8 413	226
Gibraltar	1 471	542	30	531	350	19
Greece	54 642	31 035	20 468	494	2 237	408
Iceland	80	0	1	3	0	76
Ireland	469	17	141	252	7	51
Israel	863	24	0	3	832	5
Italy	11 316	5 138	2 750	1 361	798	1 269
Japan	16 013	5 504	6 757	2 133	474	1 145
Luxembourg	919	514	0	60	105	240
Netherlands	7 940	695	380	3 632	1 903	1 330
New Zealand	173	86	17	19	0	51
Norway	24 243	10 971	6 866	3 318	72	3 016
Portugal	1 757	1 107	223	219	41	167
South Africa	104	3	0	0	30	71
Spain	2 655	962	215	338	231	909
Sweden	2 191	701	59	1 150	0	281
Switzerland	832	4	665	40	118	5
Turkey	7 048	959	4 087	1 565	290	147
United Kingdom	23 161	8 482	4 645	1 509	5 781	2 744
United States	47 727	28 649	8 302	2 220	5 921	2 636
Subtotal	241 705	108 406	60 565	20 440	33 955	18 339
Major open-registry countries						
Bahamas	48 037	23 928	11 125	6 527	2 226	4 231
Bermuda	6 775	1 412	3 579	240	690	855
Cyprus	34 181	7 922	20 009	2 708	3 377	164
Liberia	83 592	44 361	19 026	2 976	13 476	3 753
Malta	36 101	12 247	18 510	3 422	1 477	445
Panama	195 286	55 248	97 404	13 935	21 779	6 920
Subtotal	403 972	145 118	169 654	29 808	43 024	16 368

Annex III (b) (continued)

	Total fleet	Oil tankers	Bulk carriers	General cargo[c]	Container ships	Other types
Central and Eastern Europe and former USSR						
Albania	105	0	0	104	0	1
Armenia	0	0	0	0	0	0
Azerbaijan	551	275	0	113	0	164
Belarus	0	0	0	0	0	0
Bulgaria	1 151	30	914	112	78	17
Czech Republic	0	0	0	0	0	0
Estonia	164	12	0	95	0	57
Georgia	1 340	27	561	692	8	52
Hungary	0	0	0	0	0	0
Kazakhstan	20	1	0	8	0	11
Kyrgyzstan	0	0	0	0	0	0
Latvia	356	245	0	26	0	85
Lithuania	413	7	116	207	0	82
Moldova, Republic of	0	0	0	0	0	0
Poland	101	12	0	19	0	70
Romania	480	88	80	180	0	133
Russian Federation	8 419	2 170	1 140	3 388	298	1 424
Slovakia	185	4	60	121	0	0
Tajikistan	0	0	0	0	0	0
Turkmenistan	36	8	3	12	0	12
Ukraine	1 131	50	160	670	34	218
Former USSR [e]	0	0	0	0	0	0
Uzbekistan	0	0	0	0	0	0
Subtotal	14 453	2 930	3 034	5 747	417	2 325
Socialist countries of Asia						
China	29 793	6 057	13 340	6 527	2 968	901
Democratic People's Republic of Korea	1 531	61	255	1 143	23	49
Viet Nam	2 127	439	319	1 135	28	205
Subtotal	33 450	6 557	13 914	8 805	3 019	1 154
Developing countries of Africa						
Algeria	913	47	288	135	0	443
Angola	36	4	0	12	0	19
Benin	0	0	0	0	0	0
Cameroon	366	357	0	3	0	5
Cape Verde	21	4	0	15	0	3
Comoros	564	119	174	242	5	24
Congo	1	0	0	0	0	1
Côte d'Ivoire	5	1	0	0	0	4

Annex III (b) (continued)

	Total fleet	Oil tankers	Bulk carriers	General cargo[c]	Container ships	Other types
Democratic Republic of the Congo	0	0	0	0	0	0
Djibouti	4	0	0	4	0	1
Egypt	1 644	381	740	333	58	132
Equatorial Guinea	15	0	0	5	0	10
Eritrea	0	0	0	0	0	0
Ethiopia	98	0	0	98	0	0
Gabon	8	1	0	4	0	3
Gambia	13	6	0	5	0	2
Ghana	88	5	0	17	0	66
Guinea	7	0	0	0	0	6
Guinea-Bissau	2	0	0	0	0	2
Kenya	16	8	0	2	0	6
Libyan Arab Jamahiriya	100	10	0	62	0	28
Madagascar	31	7	0	17	0	6
Malawi	0	0	0	0	0	0
Mauritania	24	0	0	1	0	23
Mauritius	77	0	13	15	0	48
Morocco	388	113	0	66	82	126
Mozambique	28	0	0	11	0	17
Nigeria	692	606	13	30	0	42
Saint Helena	1	0	0	0	0	1
São Tome and Principe	86	9	29	46	0	2
Senegal	17	0	0	2	0	15
Seychelles	70	39	0	10	0	21
Sierra Leone	30	25	0	1	0	4
Somalia	7	2	0	2	0	3
Sudan	17	1	0	14	0	1
Togo	13	0	0	4	0	9
Tunisia	133	79	26	3	0	25
Uganda	0	0	0	0	0	0
United Republic of Tanzania	41	14	0	25	0	2
Subtotal	5 552	1 836	1 283	1 185	145	1 103
Developing countries of America						
Anguilla	1	0	0	1	0	0
Antigua and Barbuda	9 094	37	994	3 038	4 924	100
Argentina	492	105	52	97	0	237
Barbados	860	243	395	180	0	42
Belize	1 949	169	334	1 139	28	278
Bolivia	485	402	7	58	2	15

Annex III (b) (continued)

	Total fleet	Oil tankers	Bulk carriers	General cargo[c]	Container ships	Other types
Brazil	4 021	1 922	1 344	326	184	245
British Virgin Islands	2	0	0	1	0	0
Cayman Islands	4 097	1 858	1 487	633	0	118
Chile	1 143	493	318	104	21	207
Colombia	100	10	4	46	0	40
Costa Rica	1	0	0	0	0	1
Cuba	176	95	9	22	0	50
Dominica	466	291	35	125	8	8
Dominican Republic	10	0	0	8	0	1
Ecuador	349	288	0	3	0	58
El Salvador	2	0	0	0	0	2
Falkland Islands [f]	36	0	0	0	0	36
Grenada	1	0	0	1	0	0
Guatemala	4	1	0	0	0	4
Guyana	32	2	0	23	0	8
Haiti	1	0	0	1	0	0
Honduras	971	304	177	378	6	107
Jamaica	186	3	172	11	0	0
Mexico	1 323	903	28	61	0	333
Montserrat	0	0	0	0	0	0
Nicaragua	2	0	0	1	0	1
Paraguay	47	4	0	40	2	1
Peru	148	27	0	37	0	84
Saint Kitts and Nevis	1	0	0	1	0	0
Saint Lucia	0	0	0	0	0	0
Saint Vincent and the Grenadines	9 136	602	4 707	3 278	166	383
Suriname	7	3	0	3	0	0
Trinidad and Tobago	10	0	0	0	0	9
Turks and Caicos Islands	0	0	0	0	0	0
Uruguay	50	11	0	7	0	32
Venezuela	1 542	914	238	49	3	338
Subtotal	36 741	8 687	10 299	9 672	5 345	2 738
Developing countries and territories of Asia						
Bahrain	380	154	85	4	100	37
Bangladesh	626	117	44	387	61	18
Brunei Darussalam	422	2	0	3	0	418
Cambodia	0	0	0	0	0	0
Hong Kong (China)	43 957	11 301	26 546	2 303	3 433	375
India	12 347	7 872	3 318	351	131	675
Indonesia	5 038	1 651	602	2 179	246	361

Annex III (b) (continued)

	Total fleet	Oil tankers	Bulk carriers	General cargo[c]	Container ships	Other types
Iran, Islamic Republic of	9 115	6 134	1 703	731	420	126
Iraq	210	86	0	55	0	69
Jordan	211	0	53	125	16	17
Kuwait	3 811	3 043	120	154	227	267
Lebanon	239	1	80	154	0	3
Malaysia	8 708	3 614	2 130	670	728	1 566
Maldives	105	18	0	84	0	3
Myanmar	656	5	433	204	0	14
Oman	10	1	0	1	0	7
Pakistan	472	274	0	184	0	14
Philippines	7 008	719	4 543	1 428	56	262
Qatar	793	466	0	58	202	67
Republic of Korea	12 017	1 325	7 455	1 324	1 213	700
Saudi Arabia	2 581	2 050	0	311	156	65
Singapore	40 934	22 317	10 722	2 331	4 590	975
Sri Lanka	196	14	0	129	42	11
Syrian Arab Republic	650	2	65	573	8	1
Thailand	4 383	619	1 562	1 805	274	122
United Arab Emirates	986	485	16	100	227	158
Yemen	0	0	0	0	0	0
Subtotal	155 855	62 271	59 477	15 645	12 130	6 332
Developing countries of Europe						
Croatia	1 522	273	1 054	163	0	32
Slovenia	0	0	0	0	0	0
Subtotal	1 522	273	1 054	163	0	33
Developing countries of Oceania						
Fiji	15	0	0	7	0	8
Kiribati	4	0	0	3	0	1
Nauru	0	0	0	0	0	0
Papua New Guinea	87	10	5	68	0	4
Samoa	0	0	0	0	0	0
Solomon Islands	5	0	0	2	0	4
Tonga	124	7	7	101	0	10
Tuvalu	210	61	0	144	0	5
Vanuatu	2 145	0	1 290	259	29	567
Subtotal	2 592	78	1 302	584	29	599
Developing total	202 262	73 144	73 416	27 249	17 649	10 804
Unallocated	-	-	-	-	-	-

Notes to Annex III

Source: Lloyd's Register–Fairplay.

[a] The designations employed and the presentation of material in this table refer to flags of registration and do not imply the expression of any opinion by the Secretariat of the United Nations concerning the legal status of any country or territory, or of its authorities, or concerning the delimitation of its frontiers.

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

[c] Including passenger/cargo.

[d] Excluding estimates of the United States Reserve Fleet and the United States and Canadian Great Lakes fleets, which amounted to respectively 3.7 million grt (4.1 million dwt), 0.9 million grt (1.8 million dwt) and 1.0 million grt (1.5 million dwt).

[e] All Republics of the former USSR that have not established new shipping registers.

[f] A dispute exists between the Governments of Argentina and the United Kingdom of Great Britain and Northern Ireland concerning sovereignty over the Falkland Islands (Malvinas).

Printed at United Nations, Geneva
GE.05–51910–October 2005–3770

UNCTAD/RMT/2005

United Nations publication
Sales No. E.05.II.D.14
ISBN 92-1-112674-6
ISSN 566-7682

CORRIGENDUM

Ref.: Sales No. E.05.II.D.14
UNCTAD/RMT/2005

December 2005
Geneva

REVIEW OF MARITIME TRANSPORT, 2005

Corrigendum

Page 2

Replace table 1 with new version.

Table 1
World output growth, 2001–2004[a]
(percentage change over previous year)

Region / Country[b]	2001	2002	2003	2004[c]
World	1.3	1.8	2.5	3.8
Developed countries	1.0	1.3	1.7	3.0
of which:				
Japan	0.4	-0.3	1.4	2.6
United States	0.3	2.4	3.0	4.4
European Union	1.7	1.1	0.9	2.1
of which:				
Germany	0.9	0.2	-0.1	1.0
France	2.1	1.2	0.5	2.1
Italy	1.8	0.4	0.3	1.0
United Kingdom	2.1	1.7	2.2	3.1
South-East Europe and CIS	5.6	4.9	6.9	7.5
Developing countries	2.4	3.5	4.7	6.4
Developing countries excluding China	1.5	2.7	3.9	5.7

Source: UNCTAD secretariat preliminary estimates.

[a] Calculations are based on GDP in constant 1995 dollars.

[b] Region and country groups correspond to those defined in the UNCTAD *Handbook of Statistics, 2004*.

[c] Preliminary.

Printed at United Nations, Geneva
GE.06-50529 – April 2006 – 3,770

UNCTAD/RMT/2005/Corr.1
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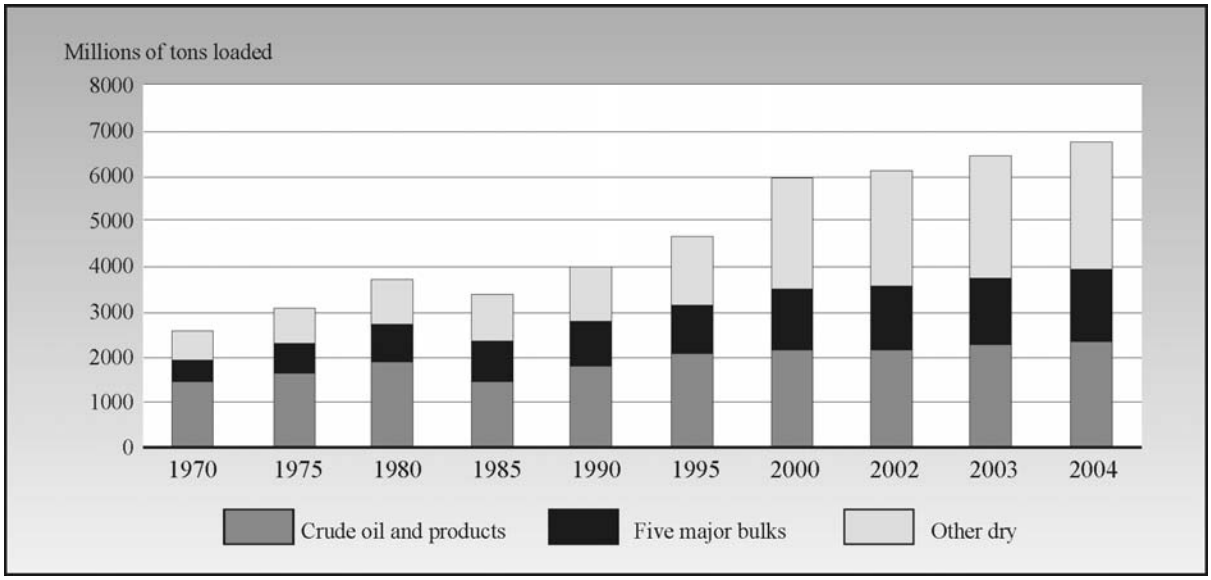
Page 5

Replace figure 2 with new version.

Figure 2
International seaborne trade for selected years



Source: Review of Maritime Transport, various issues.

Page 20

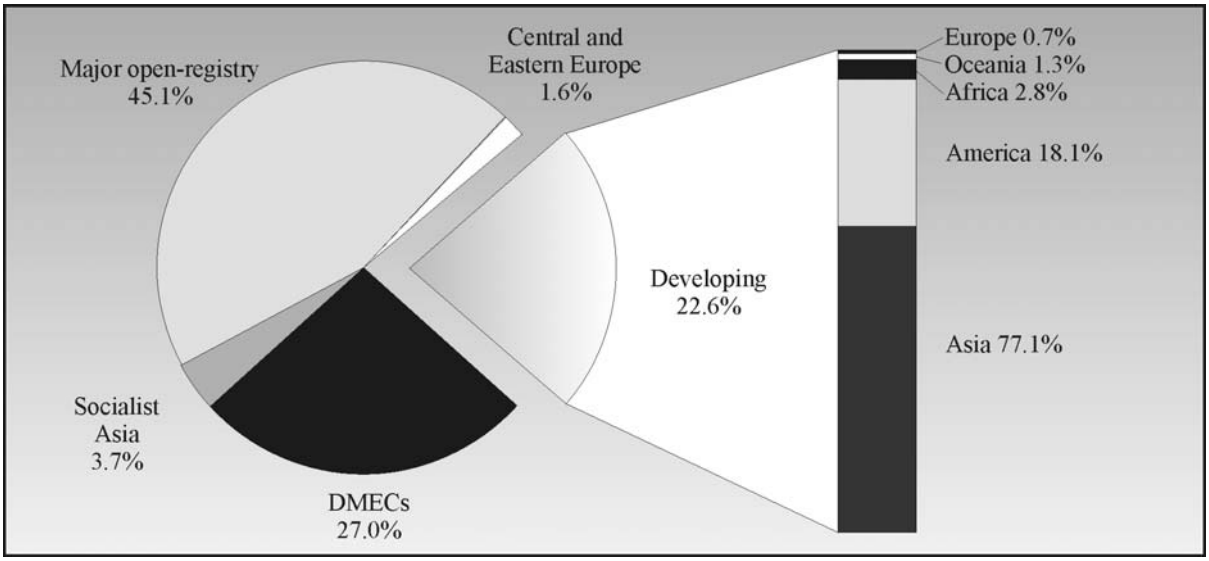
In figure 4, replace "thousands dwt" on the y axis heading with "million dwt".

Page 26

Replace figure 5 with new version.

Figure 5

World tonnage by country groups, as of 1 January 2005
(percentage distribution of dwt)



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

Page 48

Replace footnotes for table 28 with following:

a Aggregates for all sectors shown in this table are averages for the years indicated and therefore differ from the world figures in table 27. This table excludes tankers and dry bulk carriers of less than 10,000 dwt and conventional general cargo/unitized vessels of less than 5,000 dwt.

b Data for 2004 correspond to figures up to October 2004 as compiled in December 2004.

c Including 50 per cent of combined ore/bulk/oil carriers.

d Unitized fleet here includes fully cellular container ships, partly cellular container ships, ro-ro ships and barge carriers.

Page 68

Replace table 37 with new version.

Table 37

Estimated cargo flows along major trade routes
(in millions of TEUs)

Year	Trans-Pacific		Asia–Europe		Transatlantic	
	Asia–US	**US–Asia**	**Asia–Europe**	**Europe–Asia**	**US–Europe**	**Europe–US**
2003	10.19	4.05	7.26	4.92	1.72	2.9
2004	11.78	4.3	8.4	5.6	1.8	3
% change	15.6	6.2	15.7	13.8	4.6	3.4

Source: Compiled by UNCTAD secretariat from *Containerisation International* several issues.

Pages 100 and 113

Replace table headings 51 and 55 with new versions as follows:

Table 51

Age distribution of merchant fleet in Latin America and the Caribbean by type of vessel
(percentage of total dwt and age in years)

Table 55

Freight ratios for Latin American and Caribbean countries
(millions of dollars)