UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT Geneva

REVIEW OF MARITIME TRANSPORT, 2004

Summary

UNITED NATIONS

New York and Geneva, 2004

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.

*

* *

Symbols of United Nations documents are composed of capital letters combined with figures. Use of such a symbol indicates a reference to a United Nations document.

*

* *

The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations concerning the legal status of any country, territory, city or area, or of its authorities, or concerning the delimitation of its frontiers or boundaries.

*

* *

Material in this publication may be freely quoted or reprinted, but acknowledgement is requested, with reference to the document number (see below). A copy of the publication containing the quotation or reprint should be sent to the UNCTAD secretariat at: Palais des Nations, CH-1211 Geneva 10, Switzerland.

UNCTAD/RMT/2004

UNITED NATIONS PUBLICATION

Sales No. E.04.II.D.34

ISBN 92-1-112645-2

ISSN 0566-7682

CONTENTS

			Page
List o	f tables, f	figures, and boxes	v
Abbre	eviations	and explanatory notes	viii
Introd	luction		ix
Sumn	nary of m	ain developments	X
Chapi	ter		Page
1.	Develo	ppment of international seaborne trade	1
	A.	World economic background	1
	B.	World seaborne trade	4
2.	Struct	ure and ownership of the world fleet	19
	A.	Structure of the world fleet	19
	B.	Ownership of the world fleet	26
	C.	Registry of vessels	32
	D.	Shipbuilding and the second-hand market	40
3.	Produ	ctivity of the world fleet and supply and demand in world shipping	45
	A.	Operational productivity	45
	В.	Supply and demand in world shipping	47
	C.	Comparison of cargo turnover and fleet ownership	49
4.	Trade	and freight markets	53
	A.	Crude oil and petroleum products seaborne freight market	53
	В.	Dry bulk shipping market	58
	C.	Liner shipping market	61
	D.	Estimates of total freight costs in world trade	70

Chap	oter		Page
5.	Port do	evelopment	73
	A.	Container port traffic	73
	В.	Improving port performance	77
	C.	Institutional change	79
	D.	Security measures in ports	80
6.	Trade	and transport efficiency	83
	A.	Efficient transport and trade facilitation	83
	B.	Legal framework for international transport	84
	C.	Production and leasing of containers	88
	D.	Inland transport developments	91
	E.	Status of conventions	91
7.	Review	v of regional developments: Asia	93
	A.	Economic background	93
	B.	Maritime trade and the demand for maritime transport services in Asia	99
	C.	The supply of maritime businesses in Asia	104
	D.	Focus on selected cases	111
	Annexes		
	I.	Classification of countries and territories	121
	II.	World seaborne trade by country groups, 1970, 1980, 1990 and 2000–2003	125
	III(a).	Merchant fleets of the world by flag of registration, groups of countries and types of ship, as of 31 December 2003 (in thousand grt)	129
	III(b).	Merchant fleets of the world by flag of registration, groups of countries and types of ship, as of 31 December 2003 (in thousand dwt)	135

LIST OF TABLES, FIGURES AND BOXES

<i>1able</i>		Page
1.	World output growth, 2001–2003	2
2.	Growth in the volume of merchandise trade by geographical region, 2001–2003	3
3.	Development of international seaborne trade, selected years	5
4.	World seaborne trade in 1970, 1980, 1990 and 1999–2003, by types of cargo and country groups	8
5.	World seaborne trade in ton-miles, selected years	17
6.	World fleet size by principal types of vessel, 2002–2004	21
7.	Distribution of the world fleet and TEU capacity of fully cellular containerships, by country groups, in 2002, 2003 and 2004	22
8.	Age distribution of the world merchant fleet, by types of vessel, as of 1 January 2004	23
9.	Deliveries of newbuildings, selected years	24
10.	Broken-up tonnage, 1990 and 1999–2003	25
11.	Tonnage reported sold for breaking, by types of vessel, 1999–2003	25
12.	Average age of broken-up ships, by type, from 1999 to 2003	25
13.	Distribution of world tonnage (dwt) by groups of countries of registration, 1980, 1990, 2002, 2003 and 2004	27
14.	Percentage shares of world tonnage, by types of vessel and country groups, in 1970, 1980, 1990, 2000, 2002 and 2003	29
15.	Structure of the merchant fleets of the main country groups as of 1 January 2004	31
16.	The 35 most important maritime countries and territories as of 1 January 2004	33
17.	Tonnage distribution of major open-registry fleets as of 1 January 2004	35
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	37
19.	True nationality of major open-registry fleets as of 1 January 2004	38
20.	Newbuilding contracts placed for the main types of ship during 1993–2003	41
21.	World tonnage on order as of 1 January 2004	42
22.	Representative newbuilding prices in selected years	42
23.	Second-hand prices for five-year-old vessels, 1998–2003	43
24. 25.	Cargo carried and ton-miles performed per deadweight ton (dwt) of the total world fleet, selected years . Estimated productivity of tankers, bulk carriers, combined carriers and the residual fleet,	46
26.	selected years (tons carried per dwt)	46
20.	selected years (thousands of ton-miles performed per dwt)	47

Table		Page
27.	Tonnage oversupply in the world merchant fleet, 1990 and 1999–2003	48
28.	Analysis of tonnage surplus by main type of vessel, 1997–2003	48
29.	Comparison between total cargo turnover and fleet ownership, by country groups, in 1970, 1980, 1990 and 2000–2003	50
30.	Maritime engagement of 25 major trading nations	52
31.	Tanker freight indices, 2001–2004	54
32.	Dry cargo freight indices, 2001–2003	58
33.	Growth of the world cellular container fleet	61
34.	Leading 20 container service operators as of 30 September on the basis of number of ships and total shipboard capacity	63
35.	Containership time charter rates	65
36.	Freight rates (market averages) on the three major liner trade routes, 2002–2004	66
37.	Estimated cargo flows along major trade routes	68
38.	Capacity share for the trans-Pacific trade	68
39.	Liner freight indices, 2002–2004	69
40.	Ratio of liner freight rates to prices of selected commodities	70
41.	Estimates of total freight costs for imports in world trade, by country groups	71
42.	Container port traffic of 50 developing countries and territories in 2002, 2001 and 2000	74
43.	Top 20 container terminals and their throughput, 2003–2001	76
44.	Breakdown of responses to UNCTAD questionnaire on transport documents in international trade .	86
45.	Growth of output of Asian economies	94
46.	Asian countries' growth rates for merchandise trade	95
47.	Direction of trade, merchandise exports	96
48.	Direction of trade, merchandise imports	97
49.	Containerized trade among South and East Asian countries, 2003	99
50.	Forecast containerized trade among South and East Asian countries, 2005	100
51.	Containerized exports of South and East Asian countries, 2003 and 2005 forecast	101
52.	Forecast containerized trade growth among South and East Asian countries, 2003–2005, annual growth rate	102
53.	Twenty largest Asian container ports in 2001, 2002 and 2003	103
54.	Containership allocation to Asian countries, May 2004	105

Table		Pa
55.	Container vessel fleet deployment on intra-Asian routes, April 2004	10
56.	Asian liner shipping companies	10
57.	Nationally flagged fleet of Asian developing countries, January 2004	10
58.	Participation of Asian economies in different maritime businesses	11
59.	Top 10 container ports of mainland China, 2002 and 2003	11
Figure		
1.	Annual change in OECD industrial production and world seaborne trade, 2000–2003	
2.	International seaborne trade for selected years	
3.	World seaborne trade by country groups	1
4.	World fleet by principal types of vessel, selected years	2
5.	World tonnage by country groups, as of 1 January 2004	2
6.	Ton-miles performed per deadweight ton of total world fleet, 1993–2003	4
7.	Trends in surplus capacity by main vessel types, selected years	4
8.	Estimates of total freight costs for imports in world trade, by groups	7
9.	Annual production of containers	8
10.	Output of non-standard boxes	8
11.	Output new boxes by region	8
12.	Average price of new box	9
13.	Quarterly average lease rates, 2003	9
14.	Structure of port calls in South-East and East Asia	1
15.	Maritime profile of Asia	1
16.	Chinese port throughput, 2001–2003	1
17.	Maritime profile of China	1
18.	National transport in China	1
19.	Comparison of border crossing costs	1
Box		
1.	Vessel and registry groupings used in the Review of Maritime Transport	X
2.	Secure ship operation	5
3.	Contracting States parties to selected conventions on maritime transport as of 30 September 2004	9

ABBREVIATIONS AND EXPLANATORY NOTES

Abbreviations

BAF bunkering adjustment factor c.i.f. cost, insurance and freight

DMECs developed market-economy countries

dwt deadweight tons

ECLAC Economic Commission for Latin America and the Caribbean

EEC European Economic Community

European Union

FDI foreign direct investment

free in and out free on board

GDP gross domestic product grt gross registered tons

IICL Institute of International Container Lessors

IMF International Monetary Fund

IMO International Maritime Organization

IT information technology
LDC least developed country
LNG liquefied natural gas
LPG liquefied petroleum gas
mbpd million barrels per day

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 ULCC ultra-large crude carrier

United Nations Conference on Trade and Development

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 Asian are the subject of this year's special chapter.

SUMMARY OF MAIN DEVELOPMENTS

Development of the world economy and seaborne trade

- World output grew in 2003 by 2.6 per cent over 2002, slightly below the 2.7 per cent average output growth for the period 1990–2000. The developed market-economy countries experienced growth of 2.0 per cent, while developing countries recorded an average increase of 4.5 per cent. For 2004, forecasts of output growth for the world are cautiously optimistic around 3.5 per cent.
- Growth in the volume of world merchandise exports increased by 4.5 per cent compared with 3.0 in 2002. This growth was based on the performance of China and some developing countries.
- The total industrial production index of OECD increased by 1.2 per cent. The positive result was due to the performance of the United States, Japan and, to a lesser extent, OECD European countries.
- World seaborne trade (goods loaded) recorded another consecutive annual increase, reaching a record high of 6.17 billion tons. The annual growth rate increased to 3.7 per cent, well above the 1.0 per cent increase for 2002. Global maritime trade growth is likely to continue to grow during 2004.
- Total maritime activities measured in ton-miles increased to 24,589 billion ton-miles, compared with 23,217 billion ton-miles in 2002.

Development of the world fleet

• The world merchant fleet expanded to 857.0 million deadweight tons (dwt) at the beginning

- of 2004, a 1.5 per cent increase. Newbuilding deliveries increased marginally to 49.2 million dwt and tonnage broken up and lost declined by 16.1 per cent to 25.6 million dwt, leaving a net gain of 23.6 million dwt.
- The fleet of oil tankers and dry bulk carriers, which together make up 72.9 per cent of the total world fleet, increased by 4.1 per cent and 2.5 per cent respectively. There was a 9.3 per cent increase from 82.8 to 90.5 million dwt in the container ship fleet and a 7.6 per cent increase from 19.5 to 20.9 million dwt in the liquefied gas carriers fleet.
- The average age of the world fleet dropped marginally to 12.5 years, with almost 27.7 per cent of the fleet 20 years and over. General cargo vessels had the oldest average age at 17.4 years and container vessels were the youngest at 9.2 years.
- Registration of ships by developed marketeconomy countries and major open-registry countries accounted for 26.9 and 46.6 per cent of the world fleet respectively. Open registries increased their tonnage marginally, and two thirds of this beneficially owned fleet is owned by market-economies and developing countries. Developing countries' share reached 5.9 per cent or 181.4 million dwt, of which 136.0 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 — increased to 7.2 and 28.7 respectively. This was an increase of 2.9 per cent and 4.3 per cent from 2002. • World total surplus tonnage continued to decrease and stood at 10.3 million dwt in 2003 or 1.2 per cent of the world merchant fleet. The surplus capacity in the tanker sector declined to 6.0 million dwt, while overcapacity in the dry bulk sector fell to 3.6 million dwt in 2003.

Freight markets

- The year 2003 was a good year for the tanker market. Overall volume of seaborne crude oil trade increased by 3.4 per cent. The average freight indices for all types of tankers, except all-size clean carriers, were as good as those recorded in 2000, which was a good year for tanker owners. Average freight indices for VLCC/ULCC, medium-size crude carriers and small crude and product carriers increased by 83.3, 68.4 and 55.0 per cent respectively.
- In 2003, seaborne shipments of the main bulks, particularly iron ore and coal, increased by 9.1 per cent. The improved balance between supply and demand resulted in higher rates for both time- and trip-charters, with annual average increases in the indices of 44.0 per cent and 13.3 per cent.
- Again, by the end of 2003 the level of freight rates on the main containerized routes trans-Pacific, transatlantic and Asia-Europe were mostly above the levels that prevailed at the end of 2002. The trans-Pacific eastbound leg recorded the highest increase 23.7 per cent followed by the westbound routes Asia-Europe and Europe-United States, which recorded increases of 16.1 and 15.8 per cent respectively. The two other routes originating in the United States recorded single-digit reductions in freight rates.

Total freight costs in world trade by groups

• World total freight payments as a proportion of total import value increased to 6.64 per cent in 2002 from 6.11 per cent in 2001. The freight factor was 5.76 per cent for developed market-economy countries compared with 5.12 per cent in 2001, while for developing countries it increased slightly to 8.80 per cent from 8.70 per cent in 2001. The freight factor for the developing countries in Africa actually decreased to 12.43 per cent, but for developing countries in the Americas it increased to 9.16

per cent. For Asian developing countries the freight rate factor stood at 8.33 per cent, while for developing countries in Oceania the factor decreased to 11.41 per cent.

Port development

• World container port traffic continued to expand at a rate of 9.2 per cent over 2002, reaching 266.3 million TEUs. Ports of developing countries and territories handled 103.6 million TEUs or 38.9 per cent of the total. In 2002 there were 50 developing countries and territories with terminals that handled more than 100,000 TEUs. In 2003 the top 20 world container ports handled 144.9 million TEUs.

Trade and transport efficiency

- An Expert Meeting on the Development of Multimodal Transport and Logistics Services, convened by UNCTAD, was held in Geneva from 24 to 26 September 2003. Experts called on UNCTAD to continue to review and analyse developments relative to efficient transport and trade facilitation, including support to developing countries in implementing security-related measures.
- Container production exceeded for the first time the 2 million TEU mark in 2003, with China being responsible for more than 90 per cent of this output.

Review of regional developments

• Asian developing and socialist countries showed a rapid and sustained expansion of their economies. The growth rates for merchandise trade measured in value for most of the countries were indeed impressive. The average export and import growth rates for 40 selected economies reached 14.8 per cent in 2003. The highest growth rates for exports were registered for Kuwait (+40 per cent), Lebanon (+39 per cent), China (+35 per cent), Kazakhstan (+33 per cent) and Yemen (+ 26 per cent). The highest growth rates for imports were achieved by Azerbaijan (+58 per cent), China (+40 per cent), Qatar (+30 per cent), Kazakhstan (+27 per cent) and Viet Nam (+26 per cent).

- Asian countries were major players in world maritime transport, with sizeable shares in several activities. These countries accounted for 35.8 per cent of containership ownership, 45.7 per cent of containership operation, 60.4 per cent of seamen, 62.3 per cent of container port throughput, 64.7 per cent of container port operators, 83.2 per cent of containership shipbuilding and 99 per cent of ship demolition. In addition to being one of the focuses of the main eastwest shipping routes articulated around world port leaders such as Hong Kong (China) and Singapore, it is also the focus of an intensive and significant intra-Asian shipping trade.
- In China, 70.5 per cent of port throughput (tons) is cabotage traffic, and 37.7 per cent takes place in inland

- ports. Between 1980 and 2003, waterway transport increased its share from 45.6 per cent to 54.9 per cent of ton-km of national transport in China, reaching 2,972 billion ton-km in 2003. During these 23 years, waterway ton-km increased by an average annual growth rate of 7.8 per cent.
- The plight of Asian landlocked countries, such as the Lao People's Democratic Republic and several Central Asian countries, facing abnormal transport costs, is also present in this diverse region. Border crossings are lengthy and costly. At some borders, the average cost and time can be as much as \$650 and 280 hours. Further costs are added owing to the need for empty back hauling of trucks.

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.

Former Yugoslavia

Most ships have been allocated to either Croatia (CRT) or Slovenia (SLO), with very few left under Yugoslavia (YUG).

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.