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Review of maritime transport, 1978

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CONTENTS

LIST OF TABLES

ANNEXES

ABBREVIATIONS

Organizations

AsDB	Asian Development Bank
BIMCO	Baltic and International Maritime Conference
CARIBANK	Caribbean Development Bank
ESCAP	Economic and Social Commission for Asia and the Pacific
IBRD World Bank	International Bank for Reconstruction and Development
ICAO	International Civil Aviation Organization
IDA	International Development Association
IDB	Inter-American Development Bank
IMF	International Monetary Fund
OAS	Organization of American States
OECD	Organization for Economic Co-operation and Development
SIDA	Swedish International Development Authority
UNDP	United Nations Development Programme

Other

B/C	bulk carrier
b/d	barrels per day
b.h.p.	brake horsepower
CAF	currency adjustment factor
C/H	cargo handling
c.i.f.	cost, insurance, freight
d.w.t.	deadweight tons
ECU	European monetary unit
f.o.b.	free on board
GDP	gross domestic product
GNP	gross national product
g.r.t.	gross registered tons
ha	hectares
km	kilometres
LASH	lighter aboard ship
LNG	liquefied natural gas
LPG	liquefied petroleum gas
m	metres
m^2	square metres
m^3	cubic metres
OBO	ore/bulk/oil
p.w.c.	Pakistan white cuttings (jute)
ro/ro	roll-on, roll-off
RSS	ribbed smoke sheet (rubber)
TEU	20-foot equivalent unit
ULCC	ultra large crude carrier
VLCC	very large crude carrier

EXPLANATORY NOTES

References to dollars ($) are to United States dollars, unless otherwise specified.

References to tons are to metric tons, unless otherwise specified.

The term "billion" signifies 1,000 million.

A hyphen between years, e.g. 1977-1978, signifies the full period involved, including the first and last years.

An oblique stroke between two years, e.g. 1977/78, signifies a financial year.

In tables:

Two dots (..) signify that data are not available or are not separately reported;

A dash (—) signifies that the amount is nil or less than half the unit used;

Figures do not necessarily add up to totals owing to rounding.

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* *

The classification of countries and territories used in the *Review* is intended for statistical convenience and does not necessarily imply any judgement regarding the stage of development of any particular country.

INTRODUCTION

The *Review of maritime transport* is an annual publication prepared by the secretariat of UNCTAD in accordance with item V of the programme of work of the Committee on Shipping.[1] The purpose of the *Review* is to outline and analyse the main developments in world maritime transport in the past year and to assess expected future developments. To the extent possible, historical data are included to reflect long-term trends. Emphasis is placed on the evolution in developing countries in comparison with that in other groups of countries.

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[1] See the report of the Committe on its fourth session (*Official Records of the Trade and Development Board, Tenth Session, Supplement No. 5* (TD/B/301)), annex III.

Chapter I

DEVELOPMENT OF INTERNATIONAL SEABORNE TRADE

1. In 1977 the tonnage of international seaborne trade rose by only 2.5 per cent and preliminary figures indicate that the increase in 1978 may have been as low as 0.5 per cent.[2] The low rate of growth is mainly attributable to the general state of the world economy, but a number of other factors have also influenced the trend.

2. Table 1 gives the tonnages of different categories of cargo shipped from 1965 to 1977 (the latest year for which complete figures are available). It shows that in 1977 growth rates varied according to the category of cargo: tanker cargoes (which accounted for 52 per cent of total cargoes) increased by only 0.8 per cent; tonnage of the main dry bulk commodities declined by 0.2 per cent, while total tonnage for dry cargo increased by 4.3 per cent. However, the growth rate for each category of cargo showed a substantial decline in relation to that recorded in 1976. Preliminary figures for 1978 indicate that tanker cargoes decreased by 1.7 per cent, while dry cargo increased by 3 per cent.

3. The over-all decline in the growth rate of seaborne cargoes is mainly a result of the general decline in the growth rates of the economies of the developed market economy countries, as evidenced by the growth rate of real GNP in the OECD countries, which declined from 5.2 per cent in 1976 to 3.7 per cent in 1977 and 3.5 per cent in 1978.[3] Industrial production growth in OECD countries declined from 8.9 per cent in 1976 to 3.7 per cent in 1977, and 4 per cent in 1978.[4]

4. However, other factors also influenced the growth rates of particular categories of cargo. The low growth rate for tanker cargoes is partly attributable to the rapid increase in indigenous oil production by the traditional oil importing countries of Western Europe and by the United States of America. In 1977, there was a 25 million ton reduction in imports by Western Europe, which can be explained by a 28 million ton increase in indigenous production. It is estimated that half of the increase in Western European demand for oil was met by North Sea output in 1978. The growth rate for United States imports fell from 21.5 per cent in 1976 to 18.4 per cent in 1977,[5] while in 1978 imports of crude oil fell by 3 per cent and of oil products by 9 per cent.

[2] Figures for 1977 are based on data provided by the Statistical Office of the United Nations; preliminary figures for 1978 are based on data obtained from Fearnley and Egers Chartering Co. Ltd., *Review 1978* (Oslo, 1979).

[3] OECD, *Economic Outlook* (Paris), 1977, 1978 issues.

[4] *Ibid.*, 1978 issues.

[5] *B.P. Statistical Review of the World Oil Industry 1976 and 1977* (London).

Table 1

Development of international seaborne trade[a] 1965, 1970, 1975-1977

(Goods loaded)

	Tanker cargo		Dry cargo: Total		Dry cargo: Of which: main bulk commodities[b]		Total (all goods)	
Year	Millions of tons	Percentage increase/decrease over previous year	Millions of tons	Percentage increase/decrease over previous year	Millions of tons	Percentage increase/decrease over previous year	Millions of tons	Percentage increase/decrease over previous year
1965	862	9	812	13	327	6	1 674	11
1970	1 440	13	1 165	13	488	16	2 605	13
1975	1 644	−10	1 428	−3	635	−5	3 072	−4
1976	1 803	9	1 588	11	646	2	3 391	9
1977	1 818	0.8	1 657	4.3	645	−0.2	3 475	2.5

Sources: (i) For tanker cargo, total dry cargo and all goods: data communicated to the UNCTAD secretariat by the Statistical Office of the United Nations. Owing to possible subsequent revisions or other factors, these detailed data may differ marginally from the aggregated figures reported in United Nations, *Monthly Bulletin of Statistics*, January issues of the years concerned.

(ii) For main bulk commodities: Fearnley and Egers Chartering Co. Ltd., *World Bulk Trades 1977* (Oslo, 1978).

[a] Including international cargoes loaded at ports of the Great Lakes and the St. Lawrence system for unloading at ports of the same system, but excluding such traffic in main bulk commodities. Including petroleum imports into Netherlands Antilles and Trinidad and Tobago for refining and re-export.

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

TABLE 2

World seaborne trade by types of cargo 1965, 1970, 1975-1978

(Billions of ton-miles)

Year	Crude oil	Oil products	Iron ore	Coal	Grain[a]	Other cargo	Total trade
1965	2 480	640	527	216	449	1 537	5 849
1970	5 597	890	1 093	481	475	2 118	10 654
1975	8 882	845	1 471	621	734	2 810	15 363
1976	10 229	950	1 469	591	779	3 035	17 053
1977	10 800	1 020	1 400	585	760	3 220	17 785
1978 *(estimated)*	10 150	985	1 320	585	810	3 405	17 255

Source: Fearnley and Egers Chartering Co. Ltd., *Review 1978* (Oslo, 1979).
[a] Including wheat, maize, barley, oats, rye, sorghum and soya beans.

5. The low growth rate for dry cargo was largely a result of a decrease in iron ore shipments, which was in turn attributable to the continued depression in the steel consuming sectors of industry, including shipbuilding. Production of steel remained unchanged from 1976 to 1977 and, although output rose by 6 per cent in 1978, that did not lead to an expansion in the iron ore and coal trade, partly because Japanese steel output was stagnant and partly because of the existence of large stocks of coal and iron ore. As a result, iron ore shipments fell by 6 per cent in 1977, and by a further 4 per cent in 1978. Coal shipments increased marginally in 1977, but declined by 3 per cent in 1978. As a result of good grain harvests in some of the customary importing countries, shipments of grain showed no increase in 1977, and an increase of only about 1 per cent in 1978. Excluding the major dry bulk items, dry cargoes increased by 4 per cent in 1977 and by 6 per cent in 1978.

6. In 1979, the real GNP of the OECD countries is expected to grow by only 3 per cent and their industrial production by 3.8 per cent.[6] In developing countries, GDP is expected to grow at 6 per cent.[7] With expected increases in indigenous oil production in Western Europe and the United States of America, seaborne trade in oil cannot be expected to rise by more than 3 per cent. At the same time, record grain harvests in Europe in 1978 are expected to lead to a decline in grain cargoes in 1979, and the continuing depression in the steel consuming industries is likely to limit any increase in iron ore and coal shipments. Consequently the major bulk trades cannot be expected to show any significant growth, while the remaining dry cargoes are expected to increase by not more than about 4 per cent.

7. Table 2 shows the volume of seaborne trade in ton-miles. The trends are generally in line with those of tonnages shown in table 1, but in 1978 demand for tankers in terms of ton-miles declined by 5.9 per cent compared with a decline of only 1.7 per cent in the tonnage of tanker cargoes. This difference is explicable by the shorter distances involved in transporting oil to consumer countries from newly developed sources in Alaska and in the North Sea. The same trend is likely to continue in 1979.

8. Table 3 summarizes the distribution of seaborne cargoes according to countries of loading and unloading (full details are given in annex II). In 1976 (the last year for which detailed figures are available), developing countries loaded 60.4 per cent of world cargoes (60.2 per cent in 1975), developed market economy countries 33.5 per cent (33.7 per cent in 1975), and socialist countries 6.1 per cent (6.1 per cent in 1975). On the other hand, 78.2 per cent of world cargoes were unloaded in developed market economy countries (77.6 per cent in 1975), 17.7 per cent in developing countries (18.3 per cent in 1975), and 4.1 per cent in socialist countries (4.1 per cent in 1975).

[6] OECD, *Economic Outlook* (Paris), 1978 issues.

[7] See the report by the UNCTAD secretariat, "World economic outlook 1978-1979" (TD/B/712/Add.1/Supp.1), para. 79. Comparable forecast figures are not available for the socialist countries of Eastern Europe and Asia.

TABLE 3

World seaborne trade[a] by types of cargo and shares of groups of countries,[b] 1965, 1970, 1975-1977[c]

(Millions of tons and percentage of world total)

Country group	Goods loaded				Goods unloaded			
	Petroleum				Petroleum			
	Crude	Products	Dry cargo	Total all goods	Crude	Products	Dry cargo	Total all goods
	Trade in millions of tons							
1. (*a*) World total								
1965	622	240	812	1 674	622	222	832	1 676
1970	1 110	330	1 165	2 605	1 101	302	1 127	2 530
1975	1 364	280	1 428	3 072	1 373	287	1 395	3 055
1976	1 544	277	1 554	3 375	1 534	294	1 425	3 253
1977	← 1 818 →		1 657	3 475	← 1 881 →		1 490	3 371
	Percentage share of each category of goods in total							
(*b*) World total								
1965	37.2	14.3	48.5	100.0	37.1	13.2	49.7	100.0
1970	42.6	12.7	44.7	100.0	43.5	11.9	44.6	100.0
1975	44.4	9.1	46.5	100.0	45.0	9.4	45.6	100.0
1976	45.8	8.2	46.0	100.0	47.2	9.0	43.8	100.0
1977	← 52.3 →		47.7	100.0	← 55.8 →		44.2	100.0
	Percentage share of trade by groups of countries							
2. Developed market economy countries								
1965	0.1	23.3	55.9	31.3	78.9	79.0	76.5	78.1
1970	2.0	27.1	60.0	31.1	80.4	79.6	79.5	79.9
1975	4.2	30.3	62.6	33.7	81.2	79.2	74.0	77.6
1976	3.9	31.8	63.2	33.5	80.9	78.2	75.2	78.2
3. Socialist countries of Eastern Europe and Asia								
1965	4.6	8.9	8.2	6.9	0.4	1.0	5.9	3.1
1970	3.4	8.0	8.1	6.1	1.7	1.1	5.8	3.5
1975	3.7	12.3	7.3	6.1	1.9	2.1	6.5	4.1
1976	3.6	12.9	7.2	6.1	2.2	2.1	6.5	4.1
Of which:								
Eastern Europe								
1965	4.6	8.9	6.8	6.3	0.4	0.9	4.2	2.4
1970	3.4	8.0	6.9	5.6	1.2	1.0	3.7	2.3
1975	3.1	12.3	6.4	5.5	1.9	1.3	5.2	3.4
1976	3.1	12.8	6.5	5.5	2.2	1.7	5.3	3.5
Asia								
1965	—	—	1.4	0.6	—	0.1	1.7	0.7
1970	—	—	1.2	0.5	0.5	0.1	2.1	1.2
1975	0.6	0.1	0.9	0.6	—	0.8	1.3	0.7
1976	0.5	0.1	0.7	0.6	—	0.4	1.2	0.6
4. Developing countries, total								
1965	95.3	67.8	35.9	61.8	20.7	20.0	17.6	18.8
1970	94.5	64.7	31.9	62.8	17.9	17.8	15.1	16.7
1975	92.1	57.4	30.1	60.2	16.9	18.7	19.5	18.3
1976	92.5	55.3	29.6	60.4	16.9	19.7	18.3	17.7
Of which:								
Africa								
1965	16.0	1.7	10.6	11.1	2.5	5.1	4.1	3.6
1970	25.4	2.4	9.1	15.2	1.7	4.1	3.6	2.9
1975	16.1	3.8	7.5	11.0	1.2	2.8	4.3	2.8
1976	16.8	2.4	7.3	11.2	1.5	3.0	3.9	2.6
America								
1965	20.9	42.8	15.4	21.0	12.7	6.0	4.3	7.5
1970	12.2	36.2	13.8	16.0	10.5	5.1	4.4	7.2
1975	7.3	27.8	13.7	12.1	9.6	7.4	5.1	7.4
1976	6.0	32.4	12.6	11.2	9.8	6.7	4.9	7.4
Asia								
1965	58.4	23.3	9.2	29.4	5.5	8.5	9.0	7.5
1970	56.9	27.0	8.2	31.3	5.5	7.9	6.7	6.4
1975	68.7	25.8	8.3	36.7	5.9	7.6	9.8	7.9
1976	69.7	20.5	9.1	37.7	5.6	9.0	9.2	7.5
Europe								
1965	..	—	—	..	—	0.1	..	..
1970	..	—	—	..	—	0.1	0.1	..
1975	—	—	—	—	—	0.1	0.1	..
1976	..	—	—	..	—	0.1	..	..

TABLE 3 *(continued)*

World seaborne trade[a] by types of cargo and shares of groups of countries,[b] 1965, 1970, 1975-1977[c]

(Millions of tons and percentage of world total)

Country group	Goods loaded				Goods unloaded			
	Petroleum		Dry cargo	Total all goods	Petroleum		Dry cargo	Total all goods
	Crude	Products			Crude	Products		
Oceania								
1965	—	—	0.7	0.3	—	0.4	0.2	0.1
1970	—	0.1	0.8	0.4	..	0.5	0.3	0.2
1975	—	—	0.6	0.3	0.1	0.8	0.2	0.2
1976	..	..	0.6	0.3	..	0.9	0.3	0.2

Source: Annex II of this study.

[a] See note [a] to table 1 above.

[b] For the composition of these groups, see annex I of this study.

[c] Preliminary estimates from data in United Nations, *Monthly Bulletin of Statistics*, vol. XXXI, No. 1 (January 1979).

CHAPTER II

DEVELOPMENT OF THE WORLD MERCHANT FLEET

A. Size and ownership of the world fleet

9. From 1 July 1977 to 30 June 1978, the world merchant fleet increased by 3.1 per cent in g.r.t. and by 3.4 per cent in d.w.t., rising to 400.7 million g.r.t. and 662.8 million d.w.t. These figures compare with increases of 5.5 per cent in g.r.t. and 6.7 per cent in d.w.t. for the previous 12 months. Annex III gives details of world tonnage by countries of registration and types of vessels. The shares of the various groups of countries are shown in table 4.

10. During the period under review developing countries increased their share of world g.r.t. from 8.5

TABLE 4

Distribution of world tonnage[a] (g.r.t. and d.w.t.) by groups of countries of registration, as at 1 July 1965, 1970, 1977, 1978

Flags of registration by groups of countries	Tonnage and percentage share[b]							Increase in tonnage (g.r.t.)		
	Millions of g.r.t.				Millions of d.w.t.			Percentage share		
	1965	1970	1977	1978	1970	1977	1978	1965-1978	1977-1978	Index 1978 (1965=100)
1. World total	146.8 (100.0)	217.9 (100.0)	388.5 (100.0)	400.7 (100.0)	326.1 (100.0)	641.3 (100.0)	662.8 (100.0)	100	100	273
2. Developed market economy countries	102.7 (70.0)	141.8 (65.1)	211.4 (54.4)	215.3 (53.7)	211.9 (65.0)	345.6 (53.9)	353.6 (53.4)	44.5	35.2	211
3. Open-registry countries	22.1 (15.1)	40.9 (18.8)	109.2 (28.1)	111.0 (27.7)	70.3 (21.6)	203.2 (31.7)	206.8 (31.2)	35.0	14.8	502
4. Total 2 plus 3	124.3 (84.7)	182.0 (83.6)	320.2 (82.4)	326.3 (81.4)	282.2 (86.3)	548.8 (85.5)	560.4 (84.6)	79.5	50.0	263
5. Socialist countries total	10.9 (7.4)	19.5 (8.9)	33.3 (8.6)	35.5 (8.9)	21.7 (6.6)	39.8 (6.2)	43.0 (6.4)	9.7	18.0	326
Of which:										
Eastern Europe	10.3 (7.0)	18.6 (8.5)	28.8 (7.4)	30.1 (7.5)	20.5 (6.2)	33.3 (5.2)	35.1 (5.3)	7.8	10.6	292
Asia	0.6 (0.4)	0.9 (0.4)	4.5 (1.2)	5.4 (1.4)	1.2 (0.4)	6.5 (1.0)	7.9 (1.2)	1.9	7.4	900
6. Developing countries, total	10.4 (7.0)	14.5 (6.7)	33.0 (8.5)	37.3 (9.3)	20.5 (6.3)	50.4 (7.8)	56.9 (8.6)	10.4	32.0	342
Of which:										
Africa	0.6	0.8	3.8	4.4	1.1	5.7	6.6	1.5	4.9	733
America	4.8	6.4	10.8	12.1	8.7	15.9	17.9	2.9	10.7	252
Asia	5.0	7.3	18.2	20.6	10.7	28.6	32.2	6.0	16.4	376
Europe	—	—	0.1	0.1	—	0.1	0.1	—	—	—
Oceania	—	—	0.1	0.1	—	0.1	0.1	—	—	—
7. Other countries	0.7 (0.5)	1.2 (0.5)	1.6 (0.5)	1.6 (0.4)	1.7 (0.5)	2.3 (0.4)	2.5 (0.4)	0.4	—	229

Sources: Compiled from *Lloyd's Register of Shipping: Statistical Tables* (London), and supplementary data covering vessels of 100 g.r.t. and above.

[a] Excluding the reserve fleet of the United States of America and the United States and Canadian Great Lakes fleets, which in 1978 accounted respectively for 1.7, 1.7 and 1.8 million g.r.t.

[b] Percentage share shown in parentheses.

TABLE 5

Percentage shares of world tonnage[a] (g.r.t.) by type of vessel as at 1 July 1965, 1970, 1977, 1978

Country group	All ships of 100 g.r.t. and over: Millions of g.r.t.	All ships of 100 g.r.t. and over: Percentage of world total	Tankers	Ore and bulk carriers,[b] including combined carriers	General cargo ships[c]	Container ships	Barge-carrying vessels	Other ships
			Percentage share by vessel type					
1. World total								
1965	146.8	100.0	37.1	11.1	←	51.8		→
1970	217.9	100.0	39.4	20.2	30.2	0.9	←	9.3
1977	388.5	100.0	44.7	25.2	19.3	1.9	0.2	8.7
1978	400.7	100.0	43.6	25.8	19.5	2.2	0.2	8.7
			Percentage share by group of countries					
2. Developed market economy countries								
1965	102.7	70.0	67.6	75.8	←	74.4		→
1970	141.8	65.1	63.9	69.2	65.6	99.0	—	61.3
1977	211.4	54.4	53.9	59.4	46.1	88.5	100.0	53.7
1978	215.3	53.7	54.2	57.6	44.9	87.4	89.8	51.8
3. Open-registry countries								
1965	22.1	15.0	23.8	20.3	←	6.7		→
1970	40.9	18.8	26.4	24.1	7.6	1.0	—	3.6
1977	109.2	28.1	35.0	29.7	20.6	8.0	—	9.7
1978	111.0	27.7	34.0	29.8	20.4	7.9	10.0	11.4
4. Socialist countries, total								
1965	10.9	7.4	4.5	1.3	←	9.5		→
1970	19.5	8.9	4.7	2.1	13.1	—	—	29.1
1977	33.3	8.6	3.9	4.4	16.9	1.5	—	27.6
1978	35.5	8.9	4.1	4.9	17.2	1.8	—	26.8
Of which:								
Eastern Europe								
1965	10.2	6.9	4.3	1.3	←	8.2		→
1970	18.5	6.8	4.6	2.1	12.0	—	—	28.8
1977	28.8	7.4	3.3	3.6	13.6	1.5	—	26.9
1978	30.1	7.5	3.5	3.8	13.4	1.8	—	26.1
Asia								
1965	0.7	0.5	0.5	—	←	1.3		→
1970	1.0	2.1	0.1	—	1.1	—	—	0.3
1977	4.5	1.2	0.6	0.8	3.3	—	—	0.7
1978	5.4	1.4	0.6	1.1	3.8	—	—	0.7
5. Developing countries								
1965	10.4	7.1	4.0	2.6	←	8.7		→
1970	14.5	6.7	4.7	4.3	12.6	—	—	5.9
1977	33.0	8.5	7.0	6.0	15.7	1.8	—	8.8
1978	37.3	9.3	7.5	7.1	16.8	2.7	0.2	9.7
Of which:								
Africa								
1965	0.6	0.4	0.1	—	←	0.5		→
1970	0.8	0.4	0.2	—	1.3	—	—	0.7
1977	3.8	1.0	1.0	0.1	1.7	—	—	1.8
1978	4.4	1.1	1.1	0.2	1.9	—	—	1.9
America								
1965	4.8	3.2	3.2	0.9	←	3.3		→
1970	6.4	2.9	2.8	1.4	4.3	—	—	2.5
1977	10.8	2.8	2.2	2.1	5.1	—	—	3.2
1978	12.1	3.0	2.4	2.5	5.4	—	—	3.3
Asia								
1965	5.0	3.8	0.7	1.7	←	4.9		→
1970	7.3	3.4	1.7	2.9	6.9	—	—	2.6
1977	18.2	4.7	3.8	3.8	8.7	1.8	—	3.7
1978	20.6	5.2	4.0	4.4	9.3	2.7	0.2	4,4
Europe								
1965	—	—	—	—	—	—	—	—
1970	—	—	—	—	—	—	—	—
1977	0.1	—	—	—	0.1	—	—	—
1978	0.1	—	—	—	0.1	—	—	—

TABLE 5 (*continued*)

Percentage shares of world tonnage[a] (g.r.t.) by type of vessel as at 1 July 1965, 1970, 1977, 1978

Country group	All ships of 100 g.r.t. and over: Millions of g.r.t.	All ships of 100 g.r.t. and over: Percentage of world total	Tankers	Ore and bulk carriers,[b] including combined carriers	General cargo ships[c]	Container ships	Barge-carruing vessels	Other ships
Oceania								
1965	—	—	—	—	—	—	—	—
1970	—	—	—	—	—	—	—	—
1977	0.1	—	—	—	0.1	—	—	—
1978	0.1	—	—	—	0.1	—	—	—
6. Other countries								
1965	0.7	0.5	0.1	—	←	0.7		→
1970	1.2	0.5	0.3	0.3	1.1	—	—	0.1
1977	1.6	0.4	0.2	0.5	0.7	0.2	—	0.3
1978	1.6	0.4	0.2	0.6	0.7	0.2	—	0.3

Source: Compiled from *Lloyd's Register of Shipping: Statistical Tables* (London), and supplementary data on the reserve fleet of the United States of America and the United States and Canadian Great Lakes fleets.

[a] Excluding United States reserve fleet and United States and Canadian Great Lakes fleets.

[b] Ore and bulk carriers of 6,000 g.r.t. and above, including combined ore/oil and ore/bulk/oil carriers.

[c] Including passenger cargo vessels (both liner and tramp).

per cent to 9.3 per cent, and of world d.w.t. from 7.8 per cent to 8.6 per cent. Socialist countries also increased their share, from 8.6 per cent to 8.9 per cent of g.r.t., and from 6.2 per cent to 6.4 per cent of d.w.t. Developed market economy countries and open-registry countries continued to increase their tonnage in absolute terms, but suffered marginal declines in terms of their percentage shares of the world fleet.

11. Table 5 shows the distribution of the world fleet by groups of countries and by vessel type. This indicates that, in terms of g.r.t., the gains achieved by developing and socialist countries applied to most types of vessels, as did the decline in the percentage of open-registry countries and developed market economy countries.

12. Tables 6 and 7 give further data on the management and beneficial ownership of the fleets registered in open-registry countries (including ships registered in Bermuda, the Bahamas and Hong Kong, all of which have some of the characteristics of open-registry countries but which have not been classified as such in annex I). These tables indicate that the vast majority of open-registry vessels are beneficially owned by developed market economy countries (including one territory of a developed country). Consequently, for practical purposes, the fleets registered in developed market economy countries and those registered in open-registry countries may be regarded as constituting a single group. Thus in 1978, the developed market economy countries owned, either directly or through open registers, 85 per cent of total world deadweight tonnage, including 89 per cent of the world tanker fleet and 87 per cent of the world fleet of bulk carriers.

B. Types of vessels

13. Table 8 shows the composition of the world fleet in terms of the g.r.t. of different types of vessels. From mid-1977 to mid-1978, the g.r.t. of tankers declined from 44.2 per cent of the world total to 43.1 per cent, but generally the composition of the fleet remained the same. In absolute terms, the greatest increases were recorded by ore and bulk carriers (5.3 million g.r.t.), general cargo vessels, liquefied gas carriers and cellular container vessels. Of these, the last two are the most significant in relation to the existing fleets of these types of vessels. The cellular container fleet increased from 1.9 per cent to 2.1 per cent of the world fleet, but the increase in cargo-carrying capacity is far greater than these figures would suggest, taking into account the superior turnround times of these vessels compared with that of the conventional liner vessels which they are replacing.

C. Age distribution of the world merchant fleet

14. Table 9 shows the age distribution of the world merchant fleet at mid-1978. The average age of the total fleet increased from 8.89 years in 1977 to 9.02 years in 1978. The increase in average age applied to all types of vessels except general cargo vessels. General cargo vessels continued to have the highest average age of the total fleet, over 60 per cent of vessels being 10 years old and over. The average age of the fleets of developed market economy countries and socialist countries increased, while that of open-registry and developing countries decreased, although variations occurred within the individual country groups.

TABLE 6

True management[a] of open-registry fleets, 1978

(Number of vessels (N) and thousands of d.w.t.)

Country of registration / *Country of true manager*	*Liberia*		*Panama*		*Singapore*		*Cyprus*		*Bermuda*		*Hong Kong*		*Bahamas*		*Total*	
	N	*d.w.t.*	*N*	*d.w.t.*	*N*	*d.w.t.*	*N*	*d.w.t.*	*N*	*d.w.t.*	*N*	*d.w.t.*	*N*	*d.w.t.*	*N*	*d.w.t.*
United States of America	522	51 252	212	6 165	4	82	—	—	3	3	—	—	11	77	752	57 579
Greece	336	21 474	129	1 306	13	105	442	2 765	3	171	—	—	—	—	923	25 822
Hong Kong	458	15 736	364	4 477	19	119	3	5	1	2	21	242	—	—	866	20 581
Japan	172	7 712	413	5 667	75	5 349	—	—	—	—	—	—	—	—	660	18 728
United Kingdom	145	8 736	48	556	32	286	13	77	41	2 368	3	209	2	85	284	12 316
Bermuda	102	9 918	12	1 577	—	—	—	—	2	10	3	65	—	—	119	11 571
Greek owners based in United Kingdom	153	7 669	11	147	2	53	27	233	—	—	—	—	—	—	193	8 101
Monaco	83	6 699	15	329	—	—	1	5	2	126	—	—	—	—	101	7 158
Germany, Fed. Rep. of	68	2 876	53	580	136	1 620	39	145	1	24	—	—	—	—	297	5 246
Unspecified	52	1 424	175	1 868	3	20	—	—	—	—	—	—	—	—	230	3 313
Singapore	20	362	56	180	331	2 561	—	—	—	—	1	1	—	—	408	3 104
Switzerland	59	2 054	47	394	1	1	1	19	—	—	—	—	—	—	108	2 468
Italy	23	1 878	46	324	—	—	6	55	1	81	—	—	—	—	76	2 337
Israel	27	1 804	6	305	—	—	—	—	—	—	—	—	—	—	33	2 109
Norway	40	1 793	4	87	6	24	7	13	4	49	1	35	—	—	62	2 001
Canada	23	1 230	3	15	4	300	—	—	21	385	—	—	2	20	53	1 950
Republic of Korea	14	283	80	709	1	57	—	—	—	—	—	—	—	—	95	1 049
Countries and entities each managing less than 1 million d.w.t.	186	5 121	220	2 135	22	211	31	151	2	34	4	171	12	11	477	7 834
Unidentifred	60	2 415	269	824	—	—	140	323	—	—	—	—	—	—	469	3 562
TOTAL	2 543	150 436	2 163	27 645	649	10 788	710	3 791	81	3 253	33	723	27	193	6 206	196 829

Source: Based on a report prepared for the UNCTAD secretariat by A. and P. Appledore (London) Ltd.

[a] The "true manager" is the person, company or organization responsible for the day-to-day management of the ship concerned (as distinct from the manager of the company nominally owning a vessel). The country of management has been assumed to be the country of domicile of the true manager.

TABLE 7

Beneficial ownership[a] of open-registry fleets, 1978

(Number of vessels (N) and thousands of d.w.t.)

Country of registration	Liberia		Panama		Singapore		Cyprus		Bermuda		Hong Kong		Bahamas		Total	
Country of beneficial owners	N	d.w.t.	N	d.w.t.	N	d.w.t.	N	d.w.t.	N	d.w.t.	N	d.w.t.	N	d.w.t.	N	d.w.t.
United States of America	576	55 647	213	6 212	2	6	2	8	11	425	—	—	11	77	815	62 375
Greece	571	35 482	141	1 516	17	405	475	3 047	4	216	—	—	—	—	1 208	40 666
Hong Kong	550	27 261	283	5 650	28	179	2	2	—	—	13	212	—	—	876	33 304
Japan	168	7 394	421	5 361	75	5 349	—	—	—	—	—	—	—	—	664	18 104
Germany, Fed. Rep. of	72	2 911	54	582	145	1 739	52	201	3	28	—	—	—	—	326	5 461
Unspecified	56	1 553	180	1 949	3	20	—	—	—	—	—	—	—	—	239	3 522
Italy	37	2 642	52	417	—	—	6	55	1	81	—	—	—	—	96	3 195
Switzerland	84	2 477	53	516	3	77	1	19	—	—	—	—	—	—	141	3 089
Singapore	5	141	53	193	297	2 334	—	—	—	—	2	72	—	—	357	2 740
Canada	14	402	4	21	—	—	—	—	47	2 198	1	57	2	20	68	2 698
Israel	37	1 969	7	350	9	204	—	—	—	—	—	—	—	—	53	2 523
United Kingdom	53	1 796	15	98	31	47	8	44	5	86	9	213	—	—	121	2 284
Norway	38	1 737	9	90	12	87	7	13	4	49	1	35	—	—	71	2 011
Netherlands	30	935	46	248	—	—	2	18	—	—	—	—	—	—	78	1 201
Monaco	23	855	2	72	—	—	—	—	2	126	—	—	—	—	27	1 053
Republic of Korea	14	283	80	709	1	57	—	—	—	—	—	—	—	—	95	1 049
Countries and entities each beneficially owning less than 1 million d.w.t.	155	4 536	281	2 837	26	284	15	61	4	44	7	134	14	96	502	7 992
Unidentified	60	2 415	269	824	—	—	140	323	—	—	—	—	—	—	469	3 562
TOTAL	2 543	150 436	2 163	27 645	649	10 788	710	3 791	81	3 253	33	723	27	193	6 206	196 829
							(Percentage)									
share in total open-registry fleets	41.0	76.4	34.9	14.0	10.5	5.5	11.4	1.9	1.3	1.7	0.5	0.4	0.4	0.1	100.0	100.0

Source: Based on a report prepared for the UNCTAD secretariat by A. and P. Appledore (London) Ltd.

[a] The beneficial owner is the person, company or organization which gains the pecuniary benefits from the shipping operations.

TABLE 8

Analysis of world fleet by principal types of vessels, 1970, 1975-1978[a]

(Thousands of g.r.t.[b]*)*

Principal types of vessels	*1970*	*1975*	*1976*	*1977*	*1978*	*Percentage change 1977/1978*
Oil tankers	86 140 (37.9)	150 057 (43.9)	168 161 (45.2)	174 125 (44.2)	175 035 (43.1)	0.5
Liquefied gas carriers	1 350 (0.6)	2 999 (0.9)	3 377 (0.9)	4 411 (1.1)	5 530 (1.4)	25.4
Chemical carriers	451 (0.2)	967 (0.3)	1 274 (0.3)	1 755 (0.5)	1 930 (0.5)	10.0
Miscellaneous tankers	—	114 (—)	115 (—)	168 (—)	189 (—)	12.5
Bulk/oil carriers (including ore/oil carriers)	8 317 (3.7)	23 716 (6.9)	25 023 (6.7)	26 089 (6.6)	26 372 (6.5)	1.1
Ore and bulk carriers	38 334 (16.9)	61 832 (18.1)	66 714 (17.9)	74 832 (19.0)	80 173 (19.7)	7.1
General cargo (including passenger/cargo)	72 396 (31.8)	70 399 (20.6)	73 608 (19.8)	77 088 (19.6)	79 675 (19.6)	3.4
Container ships (fully cellular)	1 908 (0.8)	6 244 (1.8)	6 685 (1.8)	7 543 (1.9)	8 674 (2.1)	15.0
Lighter carriers	—	796 (0.2)	796 (0.2)	795 (0.2)	773 (0.2)	−2.8
Vehicle carriers	—	542 (0.1)	687 (0.2)	633 (0.2)	1 200 (0.3)	89.6
Fish factories and carriers Fishing (including factory trawlers)	7 804 (3.4)	11 339 (3.3)	11 849 (3.3)	12 162 (3.1)	12 372 (3.1)	1.7
Ferries and passenger vessels	2 991 (1.3)	7 420 (2.2)	7 502 (2.0)	7 091 (1.8)	6 864 (1.7)	−3.3
All other vessels	7 799 (3.4)	5 737 (1.7)	6 209 (1.7)	6 986 (1.8)	7 215 (1.8)	3.3
TOTAL (100.0)	227 490	342 162	372 000	393 678	406 002	3.1

Source: Lloyd's Register of Shipping: Statistical Tables (London, 1970 and 1975-1978), (mid-year figures).

[a] The data in this table are not comparable with those in table 4, because they take into account the reserve fleet of the United States of America and the United States and Canadian Great Lakes fleets.

[b] Percentage share of world tonnage shown in parentheses.

D. Comparison of cargo turnover and fleet ownership

15. Figures on total seaborne cargoes handled by each group of countries (total of goods loaded and unloaded) and on the deadweight tonnages of their merchant fleets are given in table 10. The figures demonstrate that there is a large imbalance between cargoes and fleets of the different groups of countries. In 1976, the developed market economy countries handled only some 55 per cent of the volume of world cargoes but owned over 86 per cent of the total world fleet. On the other hand, developing countries handled over 40 per cent of the seaborne cargo traffic but owned less than 7 per cent of the fleet. The socialist countries' share of the world fleet was approximately the same as their share of the cargo turnover. Furthermore, the ratio of cargo turnover to fleet ownership was 7 for developed market economy countries, 11 for socialist countries and 64 for developing countries.

TABLE 9

Age distribution of world fleet by type of vessel as at 1 Juiy 1978

(Percentage of total g.r.t.)

Country grouping and type of vessel	*Total*	*0-4 years*	*5-9 years*	*10-14 years*	*15 years and over*	*Average age,[a] July 1978*	*Average age, July 1977*
1. World total							
All ships	100	34.3	29.8	16.5	19.4	9.02	8.89
Tankers	100	43.2	30.6	13.9	12.3	7.38	7.30
Bulk carriers[b]	100	32.5	35.4	20.6	11.5	8.13	7.68
General cargo	100	19.1	20.5	16.7	43.7	13.43	13.62
2. Developed market economy countries							
All ships	100	33.1	34.0	15.2	17.7	8.76	8.48
Tankers	100	41.2	33.8	12.6	12.4	7.43	7.06
Bulk carriers[b]	100	31.2	39.3	18.8	10.7	7.98	7.43
General cargo	100	17.4	23.6	17.3	41.7	13.25	13.45
3. Open-registry countries							
All ships	100	39.0	27.7	15.5	17.8	8.49	8.69
Tankers	100	46.7	30.1	13.5	9.7	6.79	7.21
Bulk carriers[b]	100	31.1	32.3	23.9	12.7	8.54	8.23
General cargo	100	21.4	13.1	9.8	56.7	14.99	15.34
4. Total 2 plus 3							
All ships	100	35.1	31.9	15.3	17.7	8.66	8.55
Tankers	100	43.4	32.3	13.0	11.3	7.17	7.12
Bulk carriers[b]	100	31.2	36.9	20.5	11.4	8.17	7.69
General cargo	100	18.6	20.4	14.7	46.3	13.75	14.03
5. Socialist countries of Eastern Europe and Asia							
All ships	100	24.3	19.8	28.5	27.4	11.32	11.02
Tankers	100	30.2	9.0	35.4	25.4	11.07	10.89
Bulk carriers[b]	100	40.8	22.4	22.3	14.5	8.25	7.94
General cargo	100	16.7	22.4	26.9	34.0	12.61	12.06
6. Developing countries[c]							
All ships	100	38.2	20.9	15.3	25.6	9.69	9.74
Tankers	100	48.9	21.5	13.2	16.4	7.67	7.43
Bulk carriers[b]	100	44.5	24.6	21.3	9.6	7.28	7.12
General cargo	100	23.8	19.0	13.8	43.4	13.01	13.46

Source: Shipping Information Services of Lloyd's Register of Shipping and Lloyd's of London Press Ltd.

[a] To calculate the average age, it has been assumed that the ages of vessels are distributed evenly between the lower and upper limit of each age group. For the 15 years and over age group, the mid-point has been assumed to be 22 years.

[b] Including combined carriers.

[c] Excluding Cyprus, Liberia, Oman, Panama, Singapore and Somalia.

TABLE 10

Comparison between total cargo turnover and fleet ownership by groups of countries, 1970, 1975, 1976

Country group	Goods loaded and unloaded: Loaded (Millions of tons)	Goods loaded and unloaded: Unloaded (Millions of tons)	Total of goods loaded and unloaded (Millions of tons)	Deadweight tonnage of merchant fleet (Millions of tons)	Percentage of world total of goods loaded and unloaded	Percentage of world total of merchant fleet owned (d.w.t.)
Developed market economy and open-registry countries						
1970	802.7	2 010.4	2 813.1	282.2	54.8	86.5
1975	1 008.8	2 342.3	3 351.1	477.5	54.7	87.4
1976	1 130.1	2 544.0	3 674.1	521.2	55.4	86.7
Socialist countries of Eastern Europe and Asia						
1970	158.8	87.6	264.4	21.7	4.8	6.7
1975	188.4	123.6	312.0	33.0	5.1	6.0
1976	205.9	133.2	339.1	37.0	5.1	6.2
Developing countries						
1970	1 643.3	431.6	2 074.9	20.5	40.4	6.3
1975	1 875.0	588.9	2 463.9	33.3	40.2	6.1
1976	2 038.6	576.0	2 614.6	40.8	39.4	6.8
World total [a]						
1970	2 604.8	2 529.6	5 134.4	326.1	100	100
1975	3 072.2	3 054.8	6 127.0	546.3	100	100
1976	3 375	3 253.2	6 627.8	601.2	100	100

Sources: Annexes II and III of this study, and various publications.

[a] Including unallocated tonnage.

CHAPTER III

PRODUCTIVITY OF THE WORLD FLEET

16. Table 11 gives estimates of the productivity of the world fleet in terms of tons carried and ton-miles per d.w.t. Productivity began to decline in 1974; there was a slight improvement in 1976, but the downward trend continued in 1977 and 1978 as the supply of vessels increased more rapidly than demand. However, the reduced rates of growth of the fleet in the last two years have restrained the rate of decline of productivity.

TABLE 11

World fleet, volume of cargo carried and ton-miles per d.w.t., 1970, 1973-1978

Year	World fleet (millions of d.w.t.)	Total cargo carried (millions of tons)	Total ton-miles (billions of ton-miles)	Tons of cargo carried per d.w.t.	Ton-miles per d.w.t. (thousands)
1970	326.1	2 605	10 654	7.99	32.67
1973	444.6	3 274	15 403	7.36	34.6
1974	486.9	3 304	16 386	6.79	33.65
1975	546.3	3 072	15 363	5.62	28.12
1976	601.2	3 391	17 053	5.64	28.36
1977	641.3	3 475	17 785	5.42	27.73
1978	662.8	..	17 255	..	26.03

Sources: For world fleet: *Lloyd's Register of Shipping: Statistical Tables* (London), various issues (mid-year figures); for total cargo carried: United Nations, *Monthly Bulletin of Statistics*, January issues for years concerned; for ton-miles: Fearnly and Egers Chartering Co. Ltd., *Review* (Oslo), various issues.

17. The slowdown in the growth of the world fleet is expected to continue in 1979 as a result of a fall in new deliveries coupled with continued scrapping, especially of tankers. On the basis of recent developments, the deadweight tonnage of the world fleet is expected to increase by less than 3 per cent, whereas seaborne trade in tons and ton-miles should grow by more than 3 per cent. Thus the net effect to be expected will be an improvement in shipping productivity.

TABLE 12

Estimated productivity of tankers: tons carried and ton-miles performed per d.w.t., 1970, 1973-1977

Year	Total shipments of oil and grain (millions of tons)	Total shipments of oil and grain (billions of ton-miles)	Total tanker fleet (millions of d.w.t.)[a]	Tons of cargo carried per d.w.t.	Ton-miles per d.w.t. (thousands)
1970	1 182	6 039	137.8	8.6	43.8
1973	1 479	8 915	198.2	7.5	45.0
1974	1 491	9 543	230.5	6.5	41.4
1975	1 386	8 922	272.9	5.1	32.6
1976	1 562	10 335	306.6	5.1	33.7
1977	1 591	10 527	327.5	4.8	32.2

Sources: Compiled on the basis of Fearnly and Egers Chartering Co. Ltd., *Review 1978* (Oslo), 1979, and *World Bulk Trades 1977* (Oslo), 1978.

[a] Mid-year figures.

18. Within the total world fleet, productivity has varied for different types of vessels. Tables 12 and 13 give estimates of the productivity of tankers and bulk carriers. Following a slight improvement in 1976, the productivity of tankers in ton-miles continued to decline in 1977. Although ton-mileage figures are not yet available for 1978, the sudden upsurge in demand for tanker transport which occurred in the second half of the year can be expected to lead to some improvement in the 1978 productivity figures. The productivity of bulk carriers and combined carriers has continued to decline steadily. Between 1974 and 1977 the over-all decline in productivity amounted to 22 per cent for tankers, 19.2 per cent for bulk carriers, and 22.7 per cent for combined carriers.

TABLE 13

Productivity of bulk carriers and combined carriers: tons carried and ton-mlles performed per d.w.t., 1970, 1973-1977 [a]

Year	Combined carriers of over 18 000 d.w.t.: oil and dry cargo (millions of tons)	Combined carriers of over 18 000 d.w.t.: oil and dry cargo (billions of tons)	Bulk carriers of over 18 000 d.w.t.: dry cargo (millions of tons)	Bulk carriers of over 18 000 d.w.t.: dry cargo (billions of tons)	World fleet of combined carriers of over 18 000 d.w.t. (millions of d.w.t.)	World fleet of bulk carriers of over 18 000 d.w.t. (millions of d.w.t.)	Combined carriers: Tons per d.w.t.	Combined carriers: Ton-miles per d.w.t. (thousands)	Bulk carriers: Tons per d.w.t.	Bulk carriers: Ton-miles per d.w.t. (thousands)
1970	98	745	403	1 891	14.2	48.0	6.9	52.5	8.4	39.4
1973	206	1 656	573	2 762	32.4	73.7	6.4	51.1	7.8	37.5
1974	241	1 812	579	2 791	39.5	82.3	6.1	45.9	7.0	33.9
1975	219	1 578	567	2 868	42.6	90.2	5.1	37.0	6.3	31.8
1976	244	1 660	607	2 917	45.3	100.2	5.4	36.6	6.1	29.1
1977	268	1 685	643	3 088	47.4	112.9	5.7	35.5	5.7	27.4

Sources: Compiled on the basis of Fearnley and Egers Chartering Co. Ltd., *Review 1978* (Oslo), 1979, and *World Bulk Trades 1977* (Oslo), 1978.

[a] Fleet tonnages are given in mid-year figures.

19. On the assumption that supply and demand for shipping tonnage were reasonably balanced in 1973/74, the average 1973/74 ratios of ton-miles per d.w.t. can be used to give an indication of present needs for shipping tonnage, and hence of the extent of present overcapacity in the world fleet; on this basis, estimations of overcapacity in the total fleet, and in the tanker and bulk carrier fleets, in 1976 and 1977, are shown in table 14. These estimates, based on 1973/74 ton-mileages, appear to be in reasonable accord with estimates reached by independent calculations.[8] The disordered manner in which the merchant fleet has developed, and the current surplus of tonnage, is largely attributable to the unregulated expansion of the open-registry fleets in recent years.

20. As in past years, various groups of shipowners have continued efforts to introduce schemes to reduce the oversupply of tonnage in specific sectors of the shipping industry, but so far without success because of conflicting interests.

TABLE 14

Estimated tonnage oversupply of tankers, combined carriers, bulk carriers and total world fleet, 1976, 1977

	1976 Oversupply		*1977 Oversupply*	
	Millions of d.w.t.	*Percentage of fleet*	*Millions of d.w.t.*	*Percentage of fleet*
Tankers	67.4	22.0	83.6	25.5
Combined carriers	11.1	24.4	12.7	26.7
Bulk carriers	18.5	18.5	26.4	23.4
Residual fleet	15.3	10.2	18.9	12.3
Total world fleet	112.3	18.7	141.6	22.1

Sources: Tables 12 and 13 above.

[8] See the report by the UNCTAD secretariat, "The maritime transport of hydrocarbons" (TD/222/Supp.3), para. 43 (reproduced in *Proceedings of the United Nations Conference on Trade and Development, Fifth Session*, vol. III, *Basic documents* (Sales No. E.79.II.D.16)). It was estimated that at the end of 1977 about 80 million d.w.t. of tanker capacity was surplus to requirements, amounting to an overcapacity of about 30 per cent. This surplus included 31 million d.w.t. laid up, 40 million d.w.t. tied up in slow steaming, and 4 million d.w.t. tied up in abnormal port congestion.

CHAPTER IV

SHIPBUILDING

A. Ship prices

21. Table 15 gives new building prices of different types of vessels. Except for the liner-type vessel, the prices refer to Japanese yards, and increases in dollar prices reflect the appreciation of the yen against the dollar. In the absence of these changes in exchange rates, the prices in yen remained essentially at the same levels in 1978 as in 1977. Price levels continued to be influenced by the existing tonnage oversupply and the resultant fall in orders.

22. The prices in table 15 refer to actual yard quotations and are therefore higher than the average prices actually borne by shipowners, taking into account shipyard rebates, government subsidies and other financial aid. As the volume of orders is likely to continue to decline in 1979, prices of new buildings are likely to remain at a low level.

23. Second-hand prices are listed in table 16. Prices of tankers and bulk carriers generally increased in 1978 but those of liner-type vessels fell slightly. The rise in the second-hand prices of tankers and bulk carriers is largely attributable to the increased demand for these vessels in the second half of the year. Demand for tankers rose partly on account of the expected rise in oil prices in 1979, which encouraged a speed-up of shipments, and partly as a result of increased imports to replenish stocks. Demand for bulk carriers benefited from the temporary improvements in the tanker market, which attracted a sizeable tonnage of combined carriers from the dry cargo to the oil trade.

24. A significant feature of tables 15 and 16 is the large difference between new building prices and second-hand prices. Thus in 1978 the price of a new 200,000 d.w.t. tanker was about $181 per d.w.t., while the second-hand price of a tanker in the same size range built in 1972/73 was about $36 per d.w.t. These differences are also observable in bulk carriers and liner-type vessels.

B. Tonnage on order

25. The volume of tonnage on order of all ships, as shown in table 17, continued to decline in 1978. In September the total order-book was about 38 per cent smaller than during the same month in 1977. Expressed as a percentage of the existing fleet, the order-book decreased from 11.3 per cent at mid-1977 to 6.8 per cent at mid-1978.

TABLE 15

Representative new building prices, 1970, 1974-1978

(Millions of dollars, at year end[a])

	1970	*1974*	*1975*	*1976*	*1977*	*1978*
Bulk carrier, 30 000 d.w.t.	8.7	16.5	13.5	11.0	11.0	12.0
Oil product tanker, 30 000 d.w.t.	10.0	20.0	18.0	15.0	15.0	16.0
Bulk carrier, 70 000 d.w.t.	11.9	25.0	20.0	16.0	16.0	19.0
Tanker, 87 000 d.w.t.	17.0	28.0	22.0	16.0	16.0	20.0
OBO tanker, 96 000 d.w.t.	23.0	33.0	30.0	23.0	21.0	24.0
Bulk carrier, 120 000 d.w.t.	17.2	35.0	32.0	24.0	22.0	26.0
Tanker, 210 000 d.w.t.	31.0	42.0	38.0	34.0	32.0	38.0
Tanker, 400 000 d.w.t.	..	65.0	62.0	56.0	45.0	54.0
LNG carrier, 125 000 m^3	..	125.0	125.0	105.0	115.0	115.0
LPG carrier, 75 000 m^3	..	52.0	52.0	42.0	40.0	45.0
Ro/ro vessel, 5 000 d.w.t.	5.3	14.6	16.2	10.0	10.0	12.0
Liner-type vessel, 11 000/13 000 d.w.t.[b]	1 350	3 500	3 950	4 200	4 600	4 950

Sources: For prices of tankers, bulk carriers, LNG and LPG carriers and ro/ro vessels: Fearnley and Egers Chartering Co. Ltd., *Review* (Oslo), various issues; for prices of 11,000/13,000 d.w.t. liner-type vessels: *Fairplay International Shipping Weekly* (London), vol. 269, No. 4977, 18 Janary 1979.

[a] Except for liner-type vessels, which are expressed in thousands of pounds sterling at year end.

[b] The data refer to the cost of constructing a hypothetical open/closed shelter-decker of 11,000/13,000 d.w.t. propelled by a 7,000 b.h.p. diesel engine giving a speed of 15 knots. The price quoted is payable on delivery, with no discounts.

TABLE 16

Second-hand prices, average values, 1970, 1974-1978

(Millions of dollars, at year end)

Type of vessel and tonnage in d.w.t.	*Year built*	*1970*	*1974*	*1975*	*1976*	*1977*	*1978*
Tankers							
50 000	1963/64	10.0	7.0	2.7	3.5	2.0	2.6
60 000	1964/65	12.0	8.0	3.5	4.0	2.4	2.9
80 000	1966/67	19.0	9.5	4.8	5.0	3.5	3.5
100 000	1967/68	26.0	11.0	5.5	6.0	4.0	4.3
150 000	1974/75	..	..	15.0	17.0	13.5	14.0
200 000	1969/70	40.0	23.0	10.0	9.0	5.0	4.8
250 000	1972/73	..	28.0	16.0	15.5	9.5	9.0
300 000	1971/72	..	36.0	18.0	18.0	10.0	10.0
Dry bulk carriers							
18 000	1963	2.8	4.8	3.5	3.0	1.5	1.9
25 000	1966	4.8	7.2	6.0	5.3	2.8	3.5
35 000	1965	6.0	9.0	6.5	5.5	2.9	3.9
50 000	1965	9.0	13.0	7.0	6.5	3.1	4.4
60 000	1972	11.0	17.0	10.5	9.5	6.2	8.9
Liner-type vessels							
6 600	1958	1.0	1.5	1.3	1.2	0.7	0.5
12 500	1956	1.5	2.2	1.7	1.4	0.7	0.5
13 500	1959	1.7	3.1	2.6	2.0	1.0	0.8
16 000	1963	3.0	4.5	4.0	3.8	2.1	1.5

Source: Fearnley and Egers Chartering Co. Ltd., *Review* (Oslo), various issues.

TABLE 17

World tonnage on order at end of each quarter, 1976-1978

Tonnage on order as at	*All ships (millions of d.w.t.)*	*Percentage change*	*Tankers (millions of d.w.t.)*	*Percentage change*	*Bulk carriers, including combined carriers (millions d.w.t.)*	*Percentage change*	*Other ships (millions of d.w.t.)*	*Percentage change*
30 September 1976	103.5		51.0		30.5		22.0	
		−13.0		−23.7		− 4.2		−0.7
31 December 1976	90.0		38.9		29.2		21.9	
		− 8.6		−14.1		− 6.6		−1.5
31 March 1977	82.3		33.5		27.3		21.6	
		−12.0		−15.8		−12.9		−5.1
30 June 1977	72.4		28.2		23.8		20.5	
		− 9.1		−12.6		−10.5		−3.4
30 September 1977	65.8		24.6		21.3		19.8	
		−14.6		−20.5		−14.2		−7.6
31 December 1977	56.2		19.6		18.3		18.3	
		−10.1		−10.3		−15.0		−5.2
31 March 1978	50.5		17.6		15.6		17.3	
		−10.3		−11.1		−14.2		−6.0
30 June 1978	45.3		15.6		13.4		16.3	
		− 9.4		−13.3		− 9.2		−5.8
30 September 1978	41.0		13.6		12.1		15.4	

Sources: Shipping Information Services of Lloyd's Register of Shipping and Lloyd's of London Press Ltd.

TABLE 18

Distribution of tonnage on order by type of vessel and by country as at 30 September 1976, 1977, 1978

Country group	All ships	Tankers (150 000 d.w.t. and over)	Tankers (under 150 000 d.w.t.)	Bulk/oil carriers (including ore/oil carriers)	Ore and bulk carriers	Container ships (full)	Container ships (part)	Ro/ro cargo ships	General cargo ships	Other ships
					Millions of d.w.t.					
1. (*a*) World total										
1976	103.5	38.6	12.3	5.5	25.8	2.3	0.1	1.2	11.4	6.3
1977	65.7	17.2	7.4	3.2	18.1	1.9	0.3	1.6	10.7	5.3
1978	41.0	7.9	5.6	1.9	10.2	1.8	0.2	1.4	7.7	4.2
					Percentage share by type of vessel					
(*b*) World total										
1976	100.0	37.3	11.9	5.3	24.9	2.2	0.1	1.2	11.0	6.1
1977	100.0	26.2	11.3	4.9	27.5	2.9	0.4	2.4	16.3	8.1
1978	100.0	19.3	13.7	4.7	24.9	4.4	0.6	3.4	18.8	10.2
					Percentage share by country group					
2. Developed market economy countries										
1976	56.0	61.5	57.9	38.1	52.9	81.9	35.3	68.7	46.8	52.8
1977	56.7	66.3	59.8	28.5	50.2	70.1	68.3	73.8	53.5	56.3
1978	53.6	69.2	55.6	28.6	45.3	42.4	93.4	66.8	50.3	57.2
3. Open-registry countries										
1976	26.0	27.0	29.1	20.2	30.4	13.6	—	1.0	18.8	23.2
1977	21.5	26.2	25.7	10.8	24.2	22.5	10.2	3.5	16.0	14.1
1978	14.8	16.5	27.9	4.1	11.7	24.0	—	5.2	13.7	8.7
4. Total 2 plus 3										
1976	82.0	88.5	87.0	58.3	83.3	95.5	35.3	69.7	65.6	76.0
1977	78.2	92.5	85.5	39.3	74.4	92.6	78.5	77.3	69.5	70.4
1978	68.4	85.7	83.5	32.7	57.0	66.4	93.4	72.0	64.0	65.9
5. Socialist countries, total										
1976	2.3	—	4.6	8.4	1.7	0.8	16.2	23.1	2.9	2.4
1977	4.4	—	8.4	14.4	4.4	1.4	5.4	17.7	4.0	4.7
1978	6.7	—	5.6	18.0	10.0	2.3	—	15.1	7.0	6.8
Of which:										
Eastern Europe										
1976	2.1	—	4.5	8.4	1.4	0.8	16.2	23.1	2.5	2.4
1977	4.2	—	8.3	14.4	4.2	1.4	5.4	17.7	3.2	4.7
1978	6.4	—	5.6	18.0	10.0	2.3	—	15.1	5.6	6.8
Asia										
1976	0.2	—	0.1	—	0.3	—	—	—	0.4	—
1977	0.2	—	0.1	—	0.2	—	—	—	0.8	—
1978	0.3	—	—	—	—	—	—	—	1.4	—
6. Developing countries, total										
1976	14.7	10.6	7.3	33.3	13.9	2.6	48.5	4.4	29.5	21.3
1977	16.1	7.5	4.7	46.3	19.7	4.8	16.1	2.7	23.0	23.7
1978	22.0	14.3	9.2	42.5	31.3	17.1	6.6	9.7	24.4	24.5
Of which:										
Africa										
1976	1.7	2.5	0.6	—	0.3	—	—	2.4	2.1	5.2
1977	1.4	—	—	—	0.8	—	—	0.7	5.0	4.9
1978	2.4	—	0.2	—	0.5	—	—	5.6	7.3	7.1
America										
1976	7.1	2.9	4.8	24.4	10.2	2.1	48.5	0.4	12.9	1.6
1977	9.6	6.6	4.3	38.6	13.5	1.7	16.1	1.8	8.7	2.3
1978	13.4	14.3	7.2	42.5	21.6	1.2	6.6	3.9	10.4	0.7
Asia										
1976	5.9	5.2	1.9	8.9	3.3	0.5	—	1.6	14.5	14.5
1977	5.1	0.9	0.4	7.7	5.4	3.1	—	0.2	9.3	16.5
1978	6.2	—	1.8	—	9.2	15.9	—	0.2	6.7	16.7
Oceania										
1976	—	—	—	—	0.1	—	—	—	—	—
7. Other countries										
1976	1.0	0.9	1.1	—	1.1	1.1	—	2.8	2.0	0.3
1977	1.3	—	1.4	—	1.5	1.2	—	2.3	3.5	1.2
1978	2.9	—	1.7	6.8	1.7	14.2	—	3.2	4.6	2.8

Source: Computation on the basis of information provided by Shipping Services of Lloyd's Register of Shipping and Lloyd's of London Press Ltd.

TABLE 19

World tonnage on order as at 30 September 1978

(Thousands of d.w.t.)

Country group	All ships	Tankers (150 000 d.w.t. and over)	Tankers (under 150 000 d.w.t.)	Ore/oil and OBO carriers	Other bulk carriers	Container ships (full)	Container ships (part)	Ro/ro cargo ships	Other ships
1. World total	41 040	7 936	5 602	1 930	10 215	1 802	243	1 416	11 896
2. Developed market economy countries	22 003	5 497	3 116	551	4 631	764	227	946	6 271
3. Open-registry countries	6 076	1 307	1 561	80	1 196	433	—	74	1 425
4. Total 2 plus 3	28 079	6 804	4 677	631	5 827	1 197	227	1 020	7 696
5. Socialist countries, total	2 758	—	312	348	1 017	41	—	215	825
Of which:									
Eastern Europe	2 650	—	312	348	1 017	41	—	215	717
Asia	108	—	—	—	—	—	—	—	108
6. Developing countries, total [a]	9 028	1 132	515	820	3 195	308	16	136	2 906
Of which:									
Africa	1 005	—	13	—	54	—	—	79	859
America	5 484	1 132	402	820	2 204	21	16	55	834
Asia	2 538	—	100	—	937	287	—	2	1 212
Oceania	1	—	—	—	—	—	—	—	1
7. Other countries	1 175	—	98	131	176	256	—	45	469

Source: Shipping Information Services of Lloyd's Register of Shipping and Lloyd's of London Press Limited.

[a] Developing countries in Europe had no tonnage on order.

26. At the beginning of 1978, 56.2 million d.w.t. were on order, and at the end of the third quarter the order-book was down to 41 million d.w.t. During the same period, a total of 21.6 million d.w.t. was delivered, which would indicate that new orders were in the region of 6.4 million d.w.t., compared with an estimated 8.6 million d.w.t. of new orders during the first three quarters of 1977. At the end of the third quarter of 1978, 62 per cent of the new orders were under construction, compared with 56 per cent at the end of the third quarter of 1977.

27. During 1978, the Governments of a number of shipbuilding countries provided subsidies and offered various types of financial inducements to buyers in an effort to stimulate shipyard activity. However, while these measures undoubtedly stimulated demand for vessels that would not otherwise have been ordered, the stimulus was insufficient to counteract the general decline in the world order-book.

28. Given the existing imbalance between shipping demand and supply and an expected low growth of seaborne trade, orders for new tonnage are likely to remain at low levels in the coming year. Orders will be placed for specific categories of vessels that are in relatively short supply despite the over-all surplus of tonnage, but the volume of new orders will depend largely on the size of aid offered by Governments to shipowners and shipyards.

29. Tables 18 and 19 show the distribution of tonnage on order by types of vessels and by groups of countries. In the tanker sector, it is to be noted that tonnage on order for large tankers suffered a larger drop than for small tankers, which were in relatively short supply. Notwithstanding the general reduction in orders, orders for container and ro/ro vessels have suffered only a minimal decline, and this indicates a steady trend towards containerization of the liner trade. These developments are likely to continue in 1979.

30. The distribution of tonnage on order by groups of countries shows a decrease in the share of orders from developed market economy countries and open-registry countries and an increase from socialist countries and developing countries. This development is the result of continuing efforts by socialist countries

TABLE 20

Distribution of tonnage on order by groups of countries of build, 1970, 1976-1978

(Thousands of g.r.t. [a]*)*

Country group	As at end of third quarter of: 1970	1976	1977	1978
Developed market economy countries	67 063 (96.2)	53 449 (85.6)	33 846 (80.2)	20 810 (74.0)
Developing countries	884 (1.3)	6 081 (9.8)	5 297 (12.5)	4 657 (16.6)
Socialist countries	1 592 (2.3)	2 251 (3.6)	2 320 (5.5)	2 146 (7.6)
Other countries	175 (0.2)	645 (1.0)	749 (1.8)	511 (1.8)
WORLD TOTAL	69 714	62 426	42 212	28 124

Source: Computation on the basis of data contained in *Lloyd's Register of Shipping: Merchant Shipbuilding Return* (London), relevant quarterly issues.

[a] Percentage share of world total shown in parentheses.

TABLE 21

Deliveries of new buildings, 1970, 1975-1978

(Number of ships and thousands of g.r.t./d.w.t.)

	1970[a]	*1975*[a]	*1976*	*1977*	*1978*
Tankers					
Number	256	395	366	283	132
G.r.t.	9 866	22 542	19 915	9 948	3 510
D.w.t.	..	45 089	39 658	19 516	6 799
Bulk/oil carriers					
Number	..	23	21	25	8
G.r.t.	..	1 599	1 262	1 351	418
D.w.t.	..	2 966	2 358	2 522	757
Ore and bulk carriers					
Number	199[b]	196	285	367	173
G.r.t.	5 313[b]	4 458	6 655	7 696	3 634
D.w.t.	..	7 731	11 605	13 068	6 255
General cargo ships[c]					
Number	487	350	369	456	299
G.r.t.	3 513	2 635	2 722	3 893	2 584
D.w.t.	..	..	4 097	5 874	3 801
Other ships					
Number	1 677	1 560	1 660	1 648	1 139
G.r.t.	1 627	2 327	3 363	4 365	3 255
D.w.t.	..	..	3 495	4 595	3 561
Total					
Number	2 619	2 524	2 701	2 779	1 751
G.r.t.	20 319	33 561	33 917	27 253	13 401
D.w.t.	..	..	61 213	45 575	21 173

Sources: For 1970 and 1975: computation on the basis of data contained in *Lloyd's Register of Shipping: Merchant Shipbuilding Return* (London), relevant quarterly issues; for 1976-1978, information provided by Shipping Information Services of Lloyd's Register of Shipping and Lloyd's of London Press Limited.

[a] No deadweight figures are available for 1970, or for 1975 in the case of general cargo and other ships.

[b] Figures for 1970 include bulk/oil carriers.

[c] Vessels of 2,000 g.r.t. and over.

and developing countries to increase their participation in the shipping industry and of efforts of shipbuilders to promote sales of new vessels to developing countries through credit and development aid.

31. Table 20 shows the distribution of tonnage on order by groups of countries of build. In 1978, all

TABLE 22

Distribution of deliveries of new vessels by groups of countries of build, 1970, 1976-1978

(Thousands of g.r.t.[a]*)*

Country group	*1970*	*1976*	*1977*	*1978 Jan.-Sept.*
Developed market economy countries	19 570 (93.3)	30 451 (89.8)	23 851 (90.4)	10 948 (83.8)
Developing countries	144 (0.7)	1 501 (4.4)	1 182 (4.5)	797 (6.1)
Socialist countries	1 176 (5.6)	1 886 (5.6)	986 (3.7)	995 (7.6)
Other countries	90 (0.4)	83 (0.2)	355 (1.4)	324 (2.5)
WORLD TOTAL	20 980	33 922	26 374	13 064

Source: Computation on the basis of data contained in *Lloyd's Register of Shipping: Merchant Shipbuilding Return* (London), relevant quarterly issues.

[a] Percentage share of world total shown in parentheses.

groups of countries continued to experience a fall in tonnage on order; nevertheless, the developing and socialist countries continued to increase their share of total world orders.

C. Deliveries of new buildings

32. Deliveries of new buildings are shown in table 21. The total deadweight tonnage of deliveries was reduced by 54 per cent in 1978 from the previous year, with tankers, bulk and combined carriers experiencing much larger reductions than general cargo and other ships. These reductions merely reflected the general changes in the volume of orders. Table 22 shows that deliveries followed the same pattern as orders, with the share of developed market economy countries declining in favour of that of developing and socialist countries. With the volume of orders unlikely to show improvement in 1979, the volume of deliveries is expected to fall further.

CHAPTER V

FREIGHT MARKETS

A. Tanker freight markets

33. As may be seen from table 23, tanker rates for the first half of 1978 were generally lower than in the preceding months. During the second half of the year, the market was influenced by the upsurge in demand which, as noted in paragraph 23 above, was a result of a speed-up of imports caused by expected increases in the price of crude oil in 1979. Rates for all classes of tankers were substantially higher in the second half of 1978 than in the first half, and higher than for the whole of 1977.

34. The upward movement in tanker rates was short-lived because of the transitory nature of the increased demand, and rates began to fall at the end of the year, along with prices of second-hand tankers. The situation at the beginning of 1979 remains uncertain, but rates appear unlikely to return to the levels prevailing in the second half of 1978.

B. Dry cargo freight markets

35. Dry cargo tramp indices for time charters were higher throughout 1978 than in the previous year, and rose substantially higher in the final quarter. Indices for trip charters rose substantially from the second quarter onwards. Annex IV gives maximum and minimum levels for selected single voyage rates for 1975-1978.

C. Liner freight rates

36. Liner rates continued their upward trend in 1978. As shown in annex V, a total of 107 general increases in freight rates was announced, with an average increase of 9 per cent, compared with 160 increases announced in 1977, with an average increase of 11 per cent. There were 41 changes involving new surcharges and increases in existing surcharges, compared with 73 such changes in 1977.

D. Freight rate indices of selected commodities exported by developing countries

37. The freight rate indices of four selected commodities are given in table 24. Generally there was an upward trend during 1978 in both individual indices and the combined index. The combined index rose by 11.7 per cent between the third quarter of 1977 and the third quarter of 1978, compared with an 8.6 per cent increase over a corresponding period in 1976-1977.

E. Liner freight rates as a percentage of prices of selected commodities

38. Table 25 gives the ratio of liner freight rates to prices of selected commodities exported from developing countries. On the whole, the ratios decreased, as they had in 1976. The main reason for the decline was that, while both prices and freight rates increased, the rates of increase of prices were generally higher than those of freight rates. The only exception was in respect of coconut oil, for which the freight rate increased significantly more than the price.

F. Estimates of global freight costs

39. Table 26 gives estimates of freight costs of imports for various groups of countries. The estimates are based on annual f.o.b./c.i.f. factors calculated by IMF in respect of 145 countries and territories [9] (excluding the socialist countries of Eastern Europe, China, Cuba and the Democratic People's Republic of Korea).

40. The IMF data relate to all modes of transport, since it is not possible to isolate maritime transport. The IMF figures on freight costs also include insurance, and for the purpose of estimating net freight costs it has been assumed that insurance amounts on average to 1.5 per cent of total freight costs. Since the data communicated to IMF by reporting countries contain some inevitable approximations and inaccuracies, the estimates presented in table 26 should not be regarded as giving actual freight costs, but rather as indicating general orders of magnitude. Nevertheless, the estimates provide a sound basis for inter-year and inter-area comparisons. The exclusion of certain countries does not affect the value of the estimates for inter-area comparisons, since the excluded countries form separate trading areas.

41. The estimates show that the total annual freight bill for the countries concerned rose from $22.961 billion in 1970 to $69.974 billion in 1977. The over-all freight factor (i.e. the ratio of freight cost on imports to the c.i.f. value of imports) declined from 7.76 per cent in 1970 to 6.58 per cent in 1977.

[9] Data communicated to the UNCTAD secretariat by IMF.

TABLE 23

Freight rate indices, 1976-1978

(Monthly or quarterly figures)

	Liner freight rates[a] (1965=100)			Dry cargo tramp time charter[b] (1976=100)			Dry cargo tramp trip charter[c] (July 1965 – June 1966 = 100)			Tanker freight indices[c]: VLCC/ULCC			Tanker freight indices[c]: Medium-size crude carriers			Tanker freight indices[c]: Small crude and product carriers			Tanker freight indices[c]: Handy size "dirty"			Tanker freight indices[c]: Handy size "clean"		
	1976	*1977*	*1978*	*1976*	*1977*	*1978*	*1976*	*1977*	*1978*	*1976*	*1977*	*1978*	*1976*	*1977*	*1978*	*1976*	*1977*	*1978*	*1976*	*1977*	*1978*	*1976*	*1977*	*1978*
January	208	224	237				129	135	134	22	26	20	45	54	47	69	91	74	98	129	121	104	143	128
February	208	225	241	81	81	87	118	136	133	27	25	21	43	56	43	80	118	80	108	157	110	122	173	123
March	214	226	241				121	133	134	24	29	19	44	53	42	70	86	76	106	125	122	114	140	126
April	214	229	242				129	132	135	29	24	19	42	50	46	69	81	80	96	110	121	110	125	120
May	215	229	242	105	81	115	134	129	148	32	22	20	54	47	49	84	83	79	109	112	114	103	114	121
June	214	229	241				137	131	138	25	20	21	52	39	46	91	78	81	111	106	107	108	108	120
July	213	230	241				138	132	137	30	22	26	58	44	49	83	80	88	98	112	127	109	109	133
August	214	231	241	106	78	112	138	129	139	31	24	31	53	42	65	80	75	104	100	113	148	113	110	172
September	218	231	241				141	131	141	28	23	36	49	42	64	79	77	103	104	113	157	120	115	186
October	219	232	242				143	134	142	30	25	45	51	43	92	79	74	136	112	113	149	119	116	205
November	219	233	242	108	84	133	143	136	149	33	28	50	57	47	128	92	83	212	117	132	282	126	130	275
December	219	233	242				140	134	150	34	30	40	63	55	97	104	95	181	147	136	270	157	149	239
Monthly or quarterly average	215	229	241	100	81	112	134	133	140	29	25	29	51	47	64	82	85	108	109	122	152	117	128	162

NOTE. All indices have been rounded to the nearest whole number.

[a] Index compiled by the Ministry of Transport of the Federal Republic of Germany; monthly weighted assessments of freight rates on cargoes loaded or discharged by liners of all flags at ports in the Antwerp/Hamburg range.

[b] Index compiled and published on a quarterly basis by the General Council of British Shipping.

[c] Index compiled and published by *Norwegian Shipping News* (Oslo). (Worldscale = 100, as effective in each year.)

TABLE 24

Freight rate indices of selected commodities exported by developing countries, 1976-1978[a]

(End of quarter, 1968 = 100)

Year / Quarter	Cocoa	Cotton	Rubber	Tea	Combined index
1976	258.6	243.1	248.2	183.9	233.3
I					
II	258.7	241.6	246.3	179.1	231.2
III	264.0	245.5	249.2	178.6	234.1
IV	288.0	249.8	247.3	186.4	241.8
1977					
I	298.0	261.4	249.7	195.3	249.5
II	295.2	265.3	245.2	199.6	249.7
III	289.5	268.1	257.1	202.4	254.3
IV	292.8	271.5	279.3	211.4	265.1
1978					
I	310.3	282.8	282.5	220.4	274.2
II	313.0	282.4	287.0	226.0	277.1
III	318.7	295.9	294.4	223.4	284.1

Source: Computation by the UNCTAD secretariat on the basis of trade data and freight rates communicated by various liner conferences and shipping lines.

[a] In calculating the freight indices for cocoa for the period from the fourth quarter of 1977 to the third quarter of 1978, some trades that are included in the base period sample have been excluded.

However, there were marked variations between different groups of countries.

42. Eor the industrialized countries of Europe, North America and Japan, the freight factor was lower than for any other group of countries, and at the same time these countries benefited from a greater decline in that factor, from 7.12 per cent in 1970 to 5.52 per cent in 1977 (−1.6 per cent). At the other extreme, African countries (other than oil producing countries) had the highest freight factor in both years, and also suffered from the greatest increase in that factor, from 12.90 per cent in 1970 to 13.38 per cent in 1977 (+0.48 per cent).

43. These variations and trends may be explained, or partly explained, by several factors. The industrialized countries are all substantial importers of bulk maritime cargoes, for which freight rates are relatively low. In the period 1970-1977 there was a substantial increase in the size of the tankers and bulk carriers serving these countries, with corresponding economies of scale, and since 1974 bulk rates have been further reduced by the world surplus of shipping. Furthermore, importers in developed market economy countries appear to be exercising greater control over freight levels applicable to liner imports than importers in developing countries.[10] Thus seaborne bulk cargoes provide one of the explanations for the low freight factors of this group of countries, as well as for the declining trend. In addition, with the exception of Japan, these industrialized countries import to a large degree by land transport (often over short distances), by pipeline, and by short sea ferries, and all these modes of transport may be expected to reduce freight factors below the levels prevailing in countries that are dependent on long-haul shipping services.

44. The high level of freight factors applicable to the imports of African countries would appear to be attributable to the paucity of intra-African trade and to the fact that African countries generally import by sea from distant suppliers, normally using relatively expensive liner services. Liner rates have not been influenced to the same extent as bulk rates by the general surplus of shipping.

[10] See the report by the UNCTAD secretariat, "The relationships between shippers at both ends of a trade" (TD/B/C.4/180).

TABLE 25

Ratio of liner freight rates to prices of selected commodities, 1970, 1973-1977

Commodity	Route	Freight rate as percentage of price[a b] 1970	1973	1974[c]	1975[c]	1976[c]	1977[c]
Rubber	Singapore/Malaysia-Europe	10.5	9.2	11.0	18.5	11.9	11.9
Tin	Singapore/Malaysia-Europe	1.2	1.4	1.1	1.6	1.4	1.0
Jute	Bangladesh-Europe	12.1	15.8	18.1	19.5	19.1	15.8
Sisal hemp .	East Africa-Europe	19.5	10.0	7.3	12.8	17.2	15.9
Cocoa beans	Ghana-Europe	2.4	3.1	2.3	3.4	1.7	1.0
Coconut oil	Sri Lanka-Europe	8.9	—	7.9	9.1	8.3	10.1
Tea	Sri Lanka-Europe	9.5	10.1	14.2	10.4	9.6	6.0
Coffee	Brazil-Europe	5.2	7.0	8.0	9.7	4.4	3.1.
Palm kernels	Nigeria-Europe	8.8	7.2	9.6	25.5	28.4	23.6
Coffee	Colombia (Atlantic ports) Europe	4.2	3.9	4.8	5.7	3.0	1.8
Cocoa beans	Brazil-Europe	7.4	6.9	6.1	8.2	6.4	3.2
Coffee	Colombia (Pacific ports) Europe	4.5	4.3	5.4	6.3	3.2	2.0

Source: Computation by the UNCTAD secretariat on the basis of data supplied by the Royal Netherlands Shipowners' Association.

[a] C.i.f. prices are quoted for rubber (London-RSS), tin, jute (UK-p.w.c. grade), sisal hemp, cocoa beans (Ghana-Europe), and palm kernels. For cocoa beans (Brazil-Europe), and coffee (Colombia-Europe and Brazil-Europe), unit values of exports are quoted. Prices of the remaining commodities are quoted on f.o.b. terms.

[b] Freight rates include Suez Canal varying surcharges, when applicable, bunker and currency adjustment factors, and for coconut oil only a "tank cleaning surcharge". Whenever it has been necessary to convert freight rates to other currencies for 1977, the currency parities published in IMF, *International Financial Statistics* (Washington, D.C.), October 1978, have been used, which were valid for the end of 1977. Annual freight rates have been calculated by taking a weighted average of various freight rates quoted during the year, weighted by the period of their duration.

[c] For the period 1974-1977, the prices of certain commodities have been taken from the following issues of the *Monthly commodity price bulletin* and the *Special supplement* thereto, published by UNCTAD: for 1974, sisal hemp and palm kernels, issue of November 1975 and *Special supplement 1960-1974* (July 1975); for 1975, sisal hemp, issue of December 1976; for 1976, sisal hemp and coconut oil, *Special supplement 1960-1976* (March 1977); for 1977, coconut oil, issue of September 1978.

TABLE 26

Estimated total freight costs in world trade, 1970, 1975, 1977

Year	Area[a]	Total freight costs of imports (Millions of dollars)	Value of imports[b] (c.i.f.) (Millions of dollars)	Freight costs as percentage of value of imports
1970				
	1. Industrialized countries	15 118	212 216	7.12
	2. Other Europe	1 553	18 776	8.27
	3. Australia, New Zealand, South Africa	860	10 162	8.46
	4. Oil exporting countries	901	9 807	9.18
	5. Other Western Hemisphere	1 613	15 400	10.47
	6. Other Middle East	354	4 698	7.53
	7. Other Asia	1 660	18 587	8.93
	8. Other Africa	902	6 994	12.90
	9. Total	22 961	295 758	7.76
1975				
	1. Industrialized countries	32 868	545 939	6.02
	2. Other Europe	4 404	56 070	7.85
	3. Australia, New Zealand, South Africa	2 113	22 611	9.34
	4. Oil exporting countries	4 763	51 023	9.33
	5. Other Western Hemisphere	4 692	48 674	9.64
	6. Other Middle East	1 232	16 581	7.43
	7. Other Asia	4 324	52 326	8.26
	8. Other Africa	2 540	18 287	13.88
	9. Total	56 936	811 511	7.02
1977				
	1. Industrialized countries	39 684	719 321	5.52
	2. Other Europe	5 409	66 872	8.09
	3. Australia, New Zealand, South Africa	2 037	23 296	8.74
	4. Oil exporting countries	7 360	86 427	8.52
	5. Other Western Hemisphere	5 249	54 820	9.57
	6. Other Middle East	1 581	19 847	7.96
	7. Other Asia	5 290	68 192	7.76
	8. Other Africa	3 364	25 134	13.38
	9. Total	69 974	1 063 909	6.58

Source: Computation on the basis of IMF data.

[a] Area classification based on IMF, *Direction of Trade Annual* (Washington, D.C.), which differs from the classification adopted elsewhere in this review.

[b] As reported in IMF, *Direction of Trade Annual 1969-75* and *1971-77* (Washington, D.C.), part B of summary tables.

CHAPTER VI

PORT DEVELOPMENTS

A. Introductory remarks

45. Discussion of trends with regard to ports is hampered by the lack of statistical data comparable with the data available on shipping. In 1976 an attempt was made to select a sample of 90 pilot ports, including both large and medium-sized ports from all geographical regions, from which data on facilities, traffic, productivity and development plans would be obtained on an annual basis. However, this exercise did not prove successful owing to the lack of adequate response from the port authorities contacted. Discussion is therefore limited to available data on demand for port services, supply, adequacy of ports and the situation in regard to congestion.

B. Demand for port services

46. As noted in paragraph 1 above, in 1977 total seaborne trade increased only marginally (+2.5 per cent). It is noteworthy that total tanker cargoes increased by a mere 0.8 per cent, while the main bulk commodities even decreased by 0.2 per cent. Thus the over-all increase in seaborne trade is mainly attributable to the increase in the remaining dry cargo, including general cargo, which rose by 69 million tons (+4.3 per cent). Because general cargoes generate the highest employment potential in ports and also place the heaviest demands on a port's facilities, the growth in this sector has been a particularly welcome element for many ports which, during 1977, faced a depressed demand in the bulk sector.

47. A significant factor that has greatly influenced demand for port services has been the continuous addition throughout 1977 and 1978 of cellular container and ro/ro vessels to the world fleet. As noted in chapters II and IV, the world container fleet has been expanding at a greater rate than most other sectors of the world fleet, while both cellular ships and ro/ro vessels accounted for a substantial percentage of the world order book in September 1978.

TABLE 27

Container traffic in selected ports of developing countries, 1976, 1977

Country or territory	*Port*	*Container traffic in TEU*		*Percentage change 1977 over 1976*
		1976	*1977*	
Hong Kong	Hong Kong	1 029 059	1 258 782	+22
Singapore	Singapore	311 772	373 510	+20
Saudi Arabia	Jeddah	87 406	219 128	+150
Philippines	Manila	133 694	169 174	+27
Nigeria	Lagos/Apapa	60 098	86 672	+44
Jamaica	Kingston	47 486	82 933	+75
Malaysia	Port Kelang	68 726	82 273	+20
Thailand	Bangkok	58 878	72 873	+24
United Arab Emirates	Dubai (Port Rashid)	4 530	55 438	+1 124
Honduras	Puerto Cortes	28 591	47 545	+66
Brazil	Santos	42 874	45 566	+6
United Arab Emirates	Sharjah (Port Khalid)	—	35 665	—
Indonesia	Tanjung Priok	20 011	29 003	+45
Trinidad and Tobago	Port of Spain	—	28 112	—
Malaysia	Penang	14 192	18 037	+27
United Republic of Cameroon	Douala	10 979	17 173	+56
India	Bombay	8 032	8 027	−1
Bahamas	Freeport	7 030	7 720	10
Jordan	Aqaba	—	7 066	—
Barbados	Bridgetown	3 139	5 834	+86
Panama	Bahia Las Minas	5 508	5 302	−4
Chile	Valparaiso	4 185	5 274	+26
	TOTAL	1 946 190	2 661 107	+37

Source: Containerization International Year Book (London).

TABLE 28

Geographical distribution[a] of port development projects, 1978

Key[b]

N = Number of projects D = Decision stage
P = Planning stage C = Construction or design stage.

Country or territory[c]	*N*	*P*	*D*	*C*	*Ports involved:*[d] *stage of development of projects and investment (dollars)*
					8.1 NORTH AFRICA (15 PORTS)
Algeria	2	1	—	1	Arzew (*C* – offshore); new Skikda harbour (*P* – $190 million).
Egypt	6	5	—	1	Alexandria (*P* – $151 million); Port Said (*P*); Marza Matrouk (*C*); Port Suez (*P*); Dekheila (*P* – $350 million); Damietta (*P* – $155 million). Master plan provides for 23 berths in 3 stages.
Libyan Arab Jamahiriya	6	1	—	5	Zuara (*P*); Derna (*C*); Brega (*C* – $116 million); Misurata (*C* – $100 million); Benghazi (*C* – master plan); Tripoli (*C* – 1st phase $100 million, 2nd phase $88 million).
Morocco	1	1	—	—	Casablanca (*P* – $88 million for modernization in 5 years).
					8.2 WEST AFRICA (16 PORTS)
Benin	2	—	—	2	Cotonou (*C* — $46 million); fishing port extension (*C* – $5.8 million).
Congo	1	—	—	1	Pointe Noire (*C* – fishing port, new berths – $20.7 million).
Gabon	2	—	—	2	Port Gentil (*C*), Port Owendo (*C*): both projects $105.8 million.
Ivory Coast	3	1	—	2	Locodjoro (*P* – modernization $9.6 million, expansion $96 million); San Pedro (*C* – $58 million); Abidjan (*C* – container terminal – $28.9 million).
Nigeria	5	2	—	3	Warri and Koko (*P* – $240 million); Harcourt (*C* – $42.5 million); Lagos (*C* – 3rd stage of port complex – $125 million); Calabar (*C* – $144 million).
Senegal	2	—	—	2	Dakar (*C* – container and ro/ro terminal – $24 million); fishing port (*C* – $33.6 million).
United Republic of Cameroon	2	—	—	2	Douala (*C*), Cape Limboh: cost of both projects $120.3 million.
					8.3 EAST AFRICA (3 PORTS)
Djibouti	1	—	1	—	Djibouti (*D* – $7.5 million).
Ethiopia	1	1	—	—	Assab (*P*).
Sudan	1	—	—	1	Port Sudan (*C* – $50 million).
					9.1 CARIBBEAN AND NORTH AMERICA (15 PORTS)
Barbados	1	—	—	1	Bridgetown (*C*).
Cayman Islands	1	—	—	1	New 10 million barrel terminal for crude oll transshipment.
Cuba	4	4	—	—	Havana (*P* – container and ro/ro terminal); Santiago (*P*); Cienfuegos (*P*); Neuritas (*P*); fruit export terminals in other ports, mechanization of loading system; sugar, $550 million (1978-1990).
Dominican Republic	1	—	—	1	Port Santo Domingo (*C* – $35 million).
Guadeloupe	2	1	—	1	Guadeloupe (*P* – industrial port); Pointe-à-Pitre (*C*).
Haiti	1	—	—	1	Port-au-Prince (*C* – IDB loan $27 million, land reclamation, improved handling capacity).
Jamaica	2	2	—	—	Puerto Bustamante (*P* – expansion of industrial area, free-trade zone and storage area).
Montserrat	1	1	—	—	New Plymouth (*P* – expansion of ro/ro terminal).
St. Kitts	2	—	—	2	Basseterre (*C* – berths for cruising ships and CARIBANK loan $3.3 million for expansion).
St. Lucia	4	2	—	2	Cul de Sac Bay (*P* – transshipment and free-trade zone); banana berths, storage sheds and refrigeration capacity with CARIBANK loan $4.5 million; cost of project $6 million. Castrices (*C*); Vieux Port (*C*).
					9.2 CENTRAL AMERICA (17 PORTS)
Costa Rica	3	2	—	1	Puerto Limón (*P* . Federal Republic of Germany loan $24.5 million); Puerto Caldera (*P*); Puerto Moin (*P* – $14 million).
El Salvador	1	1	—	—	Acajutla (*P* – container terminal – $27 million).
Guatemala	1	1	—	—	Pacific coast terminal (*P* – $80 million).
Honduras	2	1	—	1	Puerto Cortes (*C* – grain terminal – $8 million; Puerto Castilla (*P* – $18.7 million).
Mexico	6	1	2	3	Coatzacoalcos – Salina Cruz (*P* – "mini" land bridge – $12 million); Salina Cruz (*D*);

TABLE 28 (*continued*)

Geographical distribution[a] of port development projects, 1978

Key[b]

N = Number of projects
P = Planning stage
D = Decision stage
C = Construction or design stage.

Country or territory[c]	*N*	*P*	*D*	*C*	*Ports involved:*[d] *stage of development of projects and investment (dollars)*
					Lazaro Cardenas (*D* – oil terminal); Pajaritos (*C*), Topolobampo (*C*), Rosarito (*C* – oil terminals).
Nicaragua	2	2	—	—	Puerto Corinto (*P* – container crane – $2.6 million); Atlantic coast terminal.
Panama	1	—	—	1	Puerto Vacamonte (*C* – fishing port – $30 million).
					9.3 SOUTH AMERICA, NORTHERN SEABOARD (10 PORTS)
Trinidad and Tobago	1	—	—	1	Port of Spain (*C* – new container terminal).
Venezuela	9	1	—	8	Port Carenero (*P* – $145 million); Puerto Cabello (*C* – $138 million); La Guardia (*C* – $99 million); Guanta (*C* – $41 million); Maracaibo (*C* – $37 million); Guaranao (*C* – $17 million); Puerto del Estado de Nueva Esparta (*C* – $5.6 million); Puerto del Oriente (*C* – $5.2 million); Puertos Los Totumos (*C* – airdomes).
					9.4 SOUTH AMERICA, WESTERN SEABOARD (19 PORTS)
Chile	3	2	—	1	Isla Rocuant (*P* – industrial and fishing port); San Vicente (*P* – $4 million); Valparaiso (*C* – container depot).
Ecuador	5	—	—	5	Guayaquil (*C*); Puerto Bolivar (*C*); Esmeraldas (*C*); Manta (*C* – fishing port); Posorja (*C* – fishing port). Total all ports: $375 million.
Peru	11	1	—	10	Bayouar (*P*); Malarani (*C*); Callao (*C*); Teo (*C*); Salaverry (*C*); Iquitos (*C*); Pucallapar (*C*); Yusimaguas (*C*); Talara (*C*); General San Martin (*C*); Chinilote (*C*). Total all ports: 9 million.
					9.5 SOUTH AMERICA, EASTERN SEABOARD (26 PORTS)
Argentina	8	3	—	5	Punta Medanos (*P* – temporary deep water port – $700 million); Bahia Blanca – integral study of ports up to 10 metres for long term (1955) – cost $1 million; Bahia Blanca – feasibility study on widening and deepening access channel – cost $3 million, World Bank loan; Punta Colorado, Patagonia (*C* – first, variable orientation offshore bulk terminal); six ports (*C* – expansion of 7 grain elevators, IDB loan); San Pedro and Rosaria (*C* – construction of canal to connect Rio de la Plata and Buenos Aires to ports of Paraná river, IDB loan); Punta Quilla (*C*); Puerto Barranqueras (*C* – largest river terminal of Paraná – $470 million); Buenos Aires (first of two Liebher cranes, 300 ton capacity).
Brazil	15	8	1	6	São Francisco do Sul (*C* – two extensions – $1.5 million and $1.6 million); Manaus (*P* – $6.5 million); Tebig (*P* – largest oil terminal in Latin America, 600,000 b/d); Aracaju (*P* – feasibility study - $8.4 million); Sepetiba (*P*), Santos (*D*), Recife (*C*), Rio Grande (*P*), Capuaba (*P*), Paraguana (*P*): an investment of about $350 million is envisaged for these six projects; Punta da Madeira (*P* – port of integrated project for extraction of iron ore from Carajas mountains – $1.8 billion; Suape (*C* – $229 million); Tubarao (*P* – special bulk terminal for coal – $45 mllion); Praia Mole (*P* – special bulk terminal for iron ore – $250 million); Barra do Riacho (*C* – special terminal for cellulose – $50 million); Santos (*C* – modernization of railway access and sugar terminal – $125 million).
Uruguay	3	1	—	2	Port Montevideo (*C* – silos – $5 million); Port Montevideo (*P* – fishing port); Port Montevideo (*C* – IDB loan).
					10.1 WESTERN ASIA (26 PORTS)
Bahrain	1	—	—	1	Mina Sulman (*C* – $66 million).
Cyprus	2	—	—	2	Limassol and Larnaca (*C* – $29.5 million, World Bank loan – $8.5 million).
Democratic Yemen	2	—	—	2	Hodeidah (*C*); Mokha (*C*).
Iran	1	—	—	1	Chahbahar (*C*).
Iraq	2	—	—	2	Basrah (*C*), Umm Qasr (*C*): expansion of both ports for container terminal.
Jordan	1	—	—	1	Aqaba (*C* – Temporary floating jetties).
Kuwait	2	—	—	2	Shuwaikh (*C*); Shaiba (*C*).
Lebanon	2	1	—	1	Beirut (*P* – master plan under way).
Oman	2	—	—	2	Mina Qaboos; Mina Raysut.
Qatar	2	1	—	1	Doha (*C*); Jarzirat Alyah (*P* – under study).
Saudi Arabia	4	1	—	3	Jubail (*P* – industrial and commercial harbour, phase II of 5-year plan – $1 billion); Damman (*C*); Jeddah (*C*); Yanbu (*C*).

TABLE 28 (*concluded*)

Geographical distribution[a] of port development projects, 1978

Key[b]

N = Number of projects   D = Decision stage
P = Planning stage   C = Construction or design stage.

Country or territory[c]	*N*	*P*	*D*	*C*	*Ports involved:*[d] *stage of development of projects and investment (dollars)*
United Arab Emirates	6	—	1	5	Mina Jebel Ali (*D* – massive new harbour for industrial development – $1.67 billion); Mina Zayed (*C* – $36 million); Mina Sagr (*C* – $52 million); Port Khalid (*C* – $28 million); Khor Fakkan (*C* – $52 million); Port Rashid (*C*).
					10.2 SOUTHERN AND EASTERN ASIA (26 PORTS)
Bangladesh	1	—	—	1	Chalna (*C*).
India	6	1	—	5	Bombay (*C* – $4.6 million); Haldia (*C*); Mormugoa (*P* – deepening and reclaiming); New Tuticorin (*C*); Madras (*C* – outer harbour ore and oil berths, 8,000 t/m); Mangalore (*C*).
Indonesia	3	—	—	3	Belawan (*C* – phase 1 – $100 million); Surabaya (*C* – phase I); Jakarta (*C* – $79 million)
Malaysia	4	—	1	3	Kuantun (*C* – new port); Kota, Kinabalu, Sandakan, Tawau (*C* – master plan review of all ports – $26 million, World Bank loan $13 million); Port Kelang (*C* – conversion of general cargo to container terminal – $4 million); Bintulu (*D* – handling of LNG – $179 million financed by Islamic Development Bank).
Pakistan	1	—	—	1	Kasim (*C* – iron ore and coal terminal, phase I — $220 million, AsDB loan $48.6 million).
Philippines	2	—	—	2	Gayazan de Oro (*C*), General Santos (*C*): cost of both projects $20 million.
Republic of Korea	2	1	—	1	Incheon (*P*); Pusan (*C*); total number of berths will be increased from 93 to 150.
Singapore	3	—	—	3	Changi (*C*); Jurong (*C* – harbour extension); Keppel Wharfs (*C* – re-equipment for container terminal – $8.8 million).
Sri Lanka	1	1	—	—	Colombo (*P* – second container berth).
					7. SOCIALIST COUNTRIES OF ASIA
China	7	2	—	5	Lien Yun Kang (*P* – new deep sea harbour, operative 1986 – $1 billion); River Yangtzee – deepening planned at cost of over $1 billion; Shanghai (*C*); Hsinkang (*C*); Whampoa (*C*); Chang Chian (*C*); Mawei (*C*).
					12. COUNTRIES AND TERRITORIES OF OCEANIA
Solomon Islands	1	—	—	1	Honiara (*C* – expansion of capacity – $2.7 million).
Papua New Guinea	2	—	—	2	Port Moresby (*C*), Samurai (*C*): both projects at cost of $10.5 million, World Bank loan $3.5 million.
TOTAL	185	52	6	127	

Sources: Data on ports are derived from the following organizations and publications: CARIBANK, ESCAP, IBRD, IDB, OAS, *West and Central African Harbor Guide* (Paris), Inf Afrique publication, 1978; *Dredging and Port Construction* (London), *Ports and Harbors* (Tokyo), *The Dock and Harbour Authority* (London), *Fairplay International Shipping Weekly* (London), *Marine Week* (London), *American Seaport* (Washington, D.C.), *Boletin Informativo ALAMAR* (Montevideo), *Navires, ports et chantiers* (Paris), *Marchés tropicaux et méditerranéens* (Paris), *Journal de la marine marchande et de la navigation aérienne* (Paris), *Containerisation Interntional* (London), *Terra et Aqua* (The Hague), H. P. Drewry (Shipping Consultants) Ltd. reports, *Seatrade* (Colchester, Essex), *Portos e Navios* (Rio de Janeiro), *Cargo Systems* (New Malden, Surrey), *Actividad Naviera* (Buenos Aires), and information communicated to the UNCTAD secretariat by United Nations organs responsible for the implementation of field projects.

[a] See annex I below.

[b] Figures following the letters *P*, *D* and *C* indicate the amount of investment for each project. In some cases this information was not available.

[c] The countries and territories covered number 63, of a total of 135 developing countries and territories.

[d] The number of ports involved does not necessarily coincide with the number of projects, since there may be more than one project in one port, or alternatively one project may cover two or more ports. The total number of ports reporting projects on port development is 177.

48. One result of this unequalled commissioning of container and ro/ro vessels has been the accelerated introduction of these systems on developing country trade routes. As a consequence, developing country ports have witnessed a very rapid growth of their container and ro/ro traffic, in particular the ports of the Far East, the Middle East, West Africa and the Caribbean. Table 27 summarizes information on container traffic in selected developing country ports and compares the 1976 and 1977 levels where feasible.

49. The container traffic figures of the 22 ports included in table 27 indicate a 37 per cent increase in the total number of TEU handled in 1977 over 1976. Growth was uneven, however, with some ports achieving a considerable increase in traffic (e.g. Dubai, Jeddah, Kingston, Puerto Cortes), and others showing no significant changes (e.g. Bombay, Bahia Las Minas, Santos).

TABLE 29

Main features of ports under construction

Conventional berths only	13	General cargo	21
With container terminal	5		
With roll-on facilities	3		
Oil terminal	2	Oil and oil products	4
Product terminal	1		
Specialized terminal, liquid gas	1		
Mineral terminal	8	Bulk and specialized cargo	11
Grain terminal	2		
Specialized terminal for timber	1		

C. Supply of port services

50. Table 28 shows the geographical distribution of 185 port development projects in 177 ports of developing countries, classified according to their phase of development during 1978: planning, decision, or design and construction.[11] Approximately 28 per cent of the projects were in the planning stage, 3 per cent in the decision stage and the rest—69 per cent—in the stage of design or implementation.

51. Of the total of 185 port development projects that were examined individually, 44 per cent were projects being carried out under a co-ordinated national master plan, often including several ports, while 56 per cent were projects involving the development of specific ports, under the control of a port authority.

TABLE 30

Summary of projects by type of facility

Provision or extension and/or modernization	*Extension*	*Modernization*	*Total*
Conventional berths for general cargo	24	1	25
Container terminals	30	3	33
Ro/ro terminals	15	1	16
Multipurpose terminal	1	—	1
Oil terminal	10	—	10
Product terminal	2	—	2
Specialized terminal for gas	2	—	2[a]
Mineral terminal	9	2	11
Grain terminal	6	1	7
Specialized terminal for dry bulk cargo	2	—	2[b]
Specialized terminal for sugar	2	—	2[c]
Extensive dredging	7	—	7
Extensive land reclamation	5	—	5
Extensive improvement of storage	—	6	6
Improvement of equipment (floating and cargo handling)	—	11	11
Passenger terminal	—	1	1

[a] Algeria: new Skikda Harbour, liquefied gas (estimated cost $190 million); Malaysia: Port Bintulu, specialized terminal for LNG and general cargo (estimated cost $179 million).

[b] India: Port Haldia, with specialized terminals for iron ore, fertilizer, coal and salt; Port of New Tuticorin, specialized terminals for coal, salt, cement.

[c] Ivory Coast: Port Locodjoro, specialized terminal for sugar and cement (estimated cost $96.2 million); Ecuador: Port Guayaquil, specialized terminal for sugar, project under way; Cuba: various Cuban ports will be modernized to improve handling of sugar.

52. In 44 projects, new ports were being constructed. Among them were 23 commercial seaports, 8 fishing ports, 7 commercial river ports, 5 industrial ports and 1 transshipment port. Of these 44 projects, 12 are in the planning stage while the remaining 32 ports are actually under construction.

55. Tables 31 and 32 list selected projects taken from a sample of 75 from which information on investment was available, classified into innovation and expansion projects. The former correspond to a supply of a new type of port facility; the latter correspond to an increase in the supply of existing port facilities.

56. Investment for expansion varies from $2.6 million for the purchase of a container crane to $240 million for a large port expansion scheme. Investment for innovation varies from $10 million for a new Delong type of speedy construction floating wharf to $1 billion and above for a massive new port development.

57. The region in which by far the most important port development is taking place is the Middle East. Table 33 gives data, obtained from various sources,[12] on existing berths in 1977 and those under construction and scheduled for completion during 1978, 1979 and 1980, as well as on additions planned after 1981.

58. Prior to 1978, existing capacity for general cargo was 190 berths. During the period 1978-1980, a total of 178 berths have been or will be added to this capacity (133 conventional berths, 34 container berths, 11 ro/ro berths and 1 LASH berth). Additionally, 92 new berths have been planned for completion after 1981.

59. Table 34 shows World Bank loans granted during 1977/78. A total of $58 million for a total project cost of $162.8 million will be financed by the World Bank in five port projects. This is considerably less than the total loans granted by the World Bank in the previous year. However, no general conclusions should be drawn from this fact, since the World Bank is currently discussing three projects for the lending programme for 1979, nine for the 1980 programme, with another eight stand-by projects for 1980. This would indicate that the World Bank is still very active in financing port development.

[11] *Planning:* this phase ends with a recommendation on the course of action the port should follow, giving only a broad treatment of technical aspects. *Decision:* this phase, which may be substantial in length, includes the time for the securing of funds. *Design and construction:* this phase covers the implementation of the plan. See *Port development: a handbook for planners in developing countries*, prepared by the secretariat of UNCTAD (United Nations publication, Sales No. E.77.II.D.8), para. 15.

[12] H.P. Drewry (Shipping Consultants) Ltd., *Middle East Liner Shipping: an Economic Analysis of Traffic Services, Ports and Future Prospects* (London, HPD Shipping Publications), July 1978; *The Economist* (London), vol. 265, No. 7006, 10 December 1977, pp. 71 and 72; P.G. Owen, "Middle East general cargo ports", *The Dock and Harbour Authority* (London), vol. LIX, No. 695, October 1978, p. 164; F.B. Roberts, "Dredging and port construction in the Middle East", *Terra et Aqua* (The Hague), No. 15-16, April 1978; "Arabian Gulf — berth overcapacity conformed", *Cargo Systems* (New Malden, Surrey), vol. 5, No. 4, April 1978, p. 55 (article on estimates contained in a report on traffic in the Arabian Gulf, prepared for the Sharjah Port Authority).

TABLE 31

Examples of port development: construction of new ports or new types of port facilities

Country and Port	*Millions of dollars*	*Description of project*
Venezuela		
Puerto Cabello	10.0	New Delong type of speedy construction floating wharf, with capacity for 2 berths, length 180 m.[a]
Mexico		
Salina Cruz-Coatzacoalcos	13.0	"Mini" land bridge, project Alfa Omega. A container land bridge from the Pacific across Mexico's isthmus of Tehuantepec to the Caribbean Sea. Facilities will be provided in both gate ports and improvements will be made to both the highway and the railway connecting the two ports.[b]
Saudi Arabia		
Quadeema	—	Pontoon jetties 180 m long designed to accommodate ships up to 20,000 d.w.t.[c]
Venezuela		
Los Totumos		Poly airdomes employed as warehouses. These air supported structures are classified as semi-permanent buildings. They are 100 m long and 36 m wide, with a maximum height of 12 m. Cost: £25/m^2.[d]
Costa Rica		
Caldera	50.0	Construction of a new port is planned. Provides for extensive land reclamation to build marginal wharf, a breakwater of 200 m and initially storage space for 174,000 m^2, including 3 warehouses. Quay length 500 m.[e]
Venezuela		
Puerto Carenero	139.5	New port near the capital to relieve La Guaira, capacity of 2 million tons of general cargo and 300,000 tons grain cargo.[f]
Brazil		
Rio Grande do Sul	150.0	New soya and wheat loading terminal. Facilities will include 142 m quay allowing simultaneous berthing of one 60,000 d.w.t. and one 40,000 d.w.t. for B/C, fully equipped 600 m barge quay to accommodate $6 \times 1,250$ tons barges, one silo for grain of 130,000 tons, 2 warehouses holding 65,000 tons, road and rail connections, road truck and rail wagon unloading bags, administration. Equipment cost: $30 million.[g]
Brazil		
Praia de Mole	200.0	Specialized three-way terminal to unload coal, crude and refined petroleum products and load steel slabs and rolled steel products. Harbour protection is a mole of 4.2 km. Coal unloading pier will allow 80,000 d.w.t. bulk coal carriers to tie up; 2 berths for loading steel slabs will accommodate 120,000 d.w.t. vessels.[h]
Pakistan		
Port Kasim	220.0	Specialized port for handling bulk and semi-bulk cargoes, to relieve Karachi, which will concentrate on general cargo and liner ships. An iron ore and coal terminal will accommodate vessels up to 75,000 d.w.t. The semi-bulk wharfs will be used for exports of rice and cement and imports of phosphate rock in vessels up to 25,000 d.w.t. Project phased in two stages, 1980-1985.[i]
Gabon		
Cape Santa Clara	—	New open sea deep water terminal to load the largest ore carriers afloat. Designed by Soros Assoc. The principal bulk shiploading berth will be at a record distance of 7.5 km from the shore.[j]
Egypt		
Dekheila	350.0	New port as a part of industrial development, to establish a sponge iron ore plant near Dekheila. A special pier for imported iron ore with deep water to accommodate bulk carriers up to 280,000 d.w.t. is envisaged.[k]
Cuba		
Various ports	500.0	Master plan to improve throughput provides for construction programme up to 1990, with some 7 km of new quays as well as specialized loading facilities. The programme will completely mechanize sugar loading by 1980.[l]
China		
Lien Yun Kang	1,000.0	New deep sea harbour to accommodate ships of up to 100,000 d.w.t. Works involve 7 km long dam, dredging 20 km entrance channel and construction of the harbour basin, quay walls and provision of C/H facilities. Expected to be operational in 1986.[m]
United Arab Emirates		
Mina Jebel Ali	1,670.0	New harbour development for industrial development to serve manufacturing and assembly plants of aluminium smelter, steel making and rolling mills. A commercial harbour includes zones for handling dry bulk, forest products, container, roll-on, refrigeration and warehouse facilities. There will be a total of 66 deep water berths, 6 km of breakwater, dredging, excavations and reclamation of 110 million m^3. Estimated completion in 1982.[n]

TABLE 31 (*continued*)

Examples of port development: construction of new ports of new types of port facilities

Country and Port	Millions of dollars	Description of project
Saudi Arabia		
Jubail	2,816.0	Five-year considerable expansion as part of an industrial complex. The port is being divided into a commercial and an industrial harbour. Dredging and reclamation valued at $680 million, construction of the industrial harbour and open sea tanker terminal at $1.8 billion. Commercial harbour in two phases has been valued at $1.56 billion.[o]

Sources: See foot-notes below.

[a] *Ports and Harbors* (Tokyo), vol. 23, No. 12; vol. 24, No. 1, December 1978 January 1979, p. 35.

[b] *American Seaport* (Washington, D.C.), vol. 40, No. 7, August 1978, p. 6.

[c] *Dredging and Port Construction* (London), vol. V, No. 6, April 1978, p. 13.

[d] *Ibid.*, vol. V, No. 7, May 1978, p. 30.

[e] United Nations project.

[f] *The Dock and Harbour Authority* (London), vol. 58, No. 687, February 1978, p. 426.

[g] *Ports and Harbors* (Tokyo), vol. 23, No. 2, February 1978, p. 28.

[h] *Ibid.*, p. 27.

[i] *The Dock and Harbour Authority* (London), vol. 59, No. 690, May 1978, p. 2.

[j] *Dredging and Port Construction* (London), vol. V, No. 9, August 1978, p. 11.

[k] *Cargo Systems* (New Malden, Surrey), vol. 5, No. 12, December 1978, p. 120 (article on port development in Egypt).

[l] *The Dock and Harbour Authority* (London), vol. 58, No. 686, January 1978, p. 383; *Seatrade* (Colchester, Essex), vol. 8, No. 2, February 1978, p. 113 (special report on Caribbean shipping).

[m] ESCAP, "Review of developments in shipping, ports and inland waterways" (E/ESCAP/STC.1/31 and Corr.1), November 1977; *Ports and Harbors* (Tokyo), vol. 23, No. 4, April 1978, p. 18.

[n] *Dredging and Port Construction* (London), vol. VI, No. 1, October 1978, p. 49.

[o] *Ibid.*

TABLE 32

Examples of port development: expansion projects

(*Expansion of existing ports*)

Country and port	Millions of dollars	Description of project
Nicaragua		
Puerto Corinto	2.6	Purchase of a second container crane.[a]
Solomon Islands		
Honiara	2.7	Extension of the deep water wharf, main components: extension of wharf by about 50 m, provision of limited facilities and equipment for container handling, reconstruction of sea wall protection works and engineering services. Implementation during 1978-1980.[b]
Malaysia		
Port Kelang	4.0	Conversion of a general cargo berth for container traffic and addition of ro/ro facilities.[c]
India		
Bombay	4.6	Container terminal at 12B Indira Dock will be constructed. Planned throughput of some 50,000 containers a year by 1980. A 200 ton capacity mobile crane and supporting equipment are included in phase I. Expansion providing gantry crane is planned in phase II. Phase I represents $1 million.[d]
Ivory Coast		
San Pedro	4.8	Construction of 180 m long cement terminal, 11 m deep. Year of launching 1978. Year of completion, 1979.[e]
	4.8	Construction of 200 m long pulp terminal at 11 m deep. Year of launching 1979. Year of completion, 1980.[f]
Iran		
Khorramshahr	5.1	Clearance, renovation, conversion and screening of dock handling equipment.[g]
Honduras		
Puerto Cortes	7.2	Construction of a grain terminal.[h]
Ivory Coast		
Locodjoro	9.6	Construction of specialized berths, ore bulk cargo berth (180 m quay—7 ha area; one berth for cement plant (220 m quay—10 ha area); sugar terminal (180 m quay—4 ha area).[i]
Venezuela		
Guanta	10.0	Design and construction of a marginal wharf. Concrete cylinder piles will support the new general cargo wharf, an extension of the existing complex. Expected to be completed in late 1979.[j]
Nigeria		
Port Harcourt	11.7	Okirika jetty, designed to accommodate one main line vessel of 5,000 d.w.t. and a coastal vessel of 3,500 d.w.t.[k]
Egypt		
Port Said	12.6	Construction of two new breakwaters, total length 2.5 km.[l]

TABLE 32 (*continued*)

Examples of port development: expansion projects

(*Expansion of existing ports*)

Country and port	*Millions of dollars*	*Description of project*
Djibouti		
Djibouti	14.0	Container terminal is under study. It is said that project might be under way within 9 months.[m]
Nicaragua		
Puerto Corinto	17.3	Construction of a grain terminal. Breakdown of costs: berths, $16.4 million, equipment $900,000.[n]
Congo		
Pointe Noire	20.7	Construction of two berths and 5 ha of open storage.[o]
Senegal		
Dakar	33.6	Construction of a container terminal and ro/ro berth at 11 m depth.[p]
Benin		
Cotonou	46.1	Extension of port, improvement of cargo handling, training of port staff.[q]
Singapore		
Singapore	66.0	Construction of two new container berths, total length 640 m.[r]
Libya Arab Jamahiriya		
Tripoli	94.0	Complete modernization of the port. First phase includes a 2.5 km breakwater up to 12 m depth, also construction of open-air storage and warehouses on an area of 40,000 m^2, refrigerated storage for 5,000 tons and administration building.[s]
Egypt		
Alexandria	150.7	Complete rehabilitation of the port is planned. The elements of the project include civil works, cargo handling equipment and floating equipment, consultancy, training and contingencies. Details are: dredging, $8 million; paving, surfacing of 100,000 m^2, $1.9 million; construction of berths 550 m long, 230 m wide and 14 m deep, $23.9 million; storage facilities on area of 22,000 m^2, $5.3 million; floating equipment, $28.6 million; cargo handling equipment, $25.5 million; transport equipment, $14 million; other, $4.6 million; consultants and training, $4.1 million; contingencies, $34.9 million.[t]
Nigeria		
Warri	240.0	Great expansion, including 6 liner berths, 1 ro/ro berth, 1 service berth; total quay length, 2 km. Sheds and warehouses, office block. Year of launching, 1977; year of completion, 1979.[u]

Sources: See foot-notes below.

NOTE. Expansion represents an increase in the supply of existing port services; innovation represents a new type of service. Investments have been converted into millions of dollars at the rates obtaining on 15 December 1978.

[a] United Nations project.

[b] *Dredging and Port Construction* (London), vol. V, No. 4, February 1978, p. 19.

[c] *Ibid.*, vol. VI, No. 1, October 1978, p. 74.

[d] *The Dock and Harbour Authority* (London), vol. 59, No. 696, November 1978, p. 215.

[e] *West and Central African Harbor Guide* (Paris), Edition Inf Afrique, 1978.

[f] *Ibid.*

[g] *Ports and Harbors* (Tokyo), vol. 23, No. 4, April 1978, p. 20.

[h] United Nations project.

[i] *West and Central African Harbor Guide* (*op. cit*).

[j] *American Seaport* (Washington, D.C.), vol. 41, No. 1, October 1978.

[k] *West and Central African Harbor Guide* (*op. cit*).

[l] *Dredging and Port Construction* (London), vol. VI, No. 1, October 1978, p. 65.

[m] *Fairplay International Shipping Weekly* (London), vol. 268, No. 4970, November 1978, p. 48.

[n] United Nations project.

[o] *West and Central African Harbor Guide* (*op. cit*).

[p] *Ibid.*

[q] Information provided by the World Bank (amount of loan, $11 million).

[r] *The Dock and Harbour Authority* (London), vol. 58, No. 686, January 1978, p. 383.

[s] *Marchés tropicaux et méditerranéens* (Paris), 34th year, No. 1682, 3 February 1978, p. 247.

[t] *Cargo Systems* (New Malden, Surrey), vol. 5, No. 9, September 1978, p. 60.

[u] *West and Central African Harbor Guide* (*op. cit*).

D. Adequacy of port services

60. The adequacy of port services can best be considered in terms of port congestion. Although a port may provide less than satisfactory service simply through slow handling of cargo or ships, this becomes really serious only when congestion results. The resulting ship delays in port are generally evidence of inadequacy in a port.

61. There has recently been a tendency for ship arrivals at some congested ports to be strictly regulated by the port authorities. There is a sober logic in this, since if a port is truly inadequate to meet traffic demands it is better that traffic be held back in a controlled manner rather than arrive only to lie idle outside the port. However, it is quite impossible to measure how much dissatisfaction or economic loss is then caused.

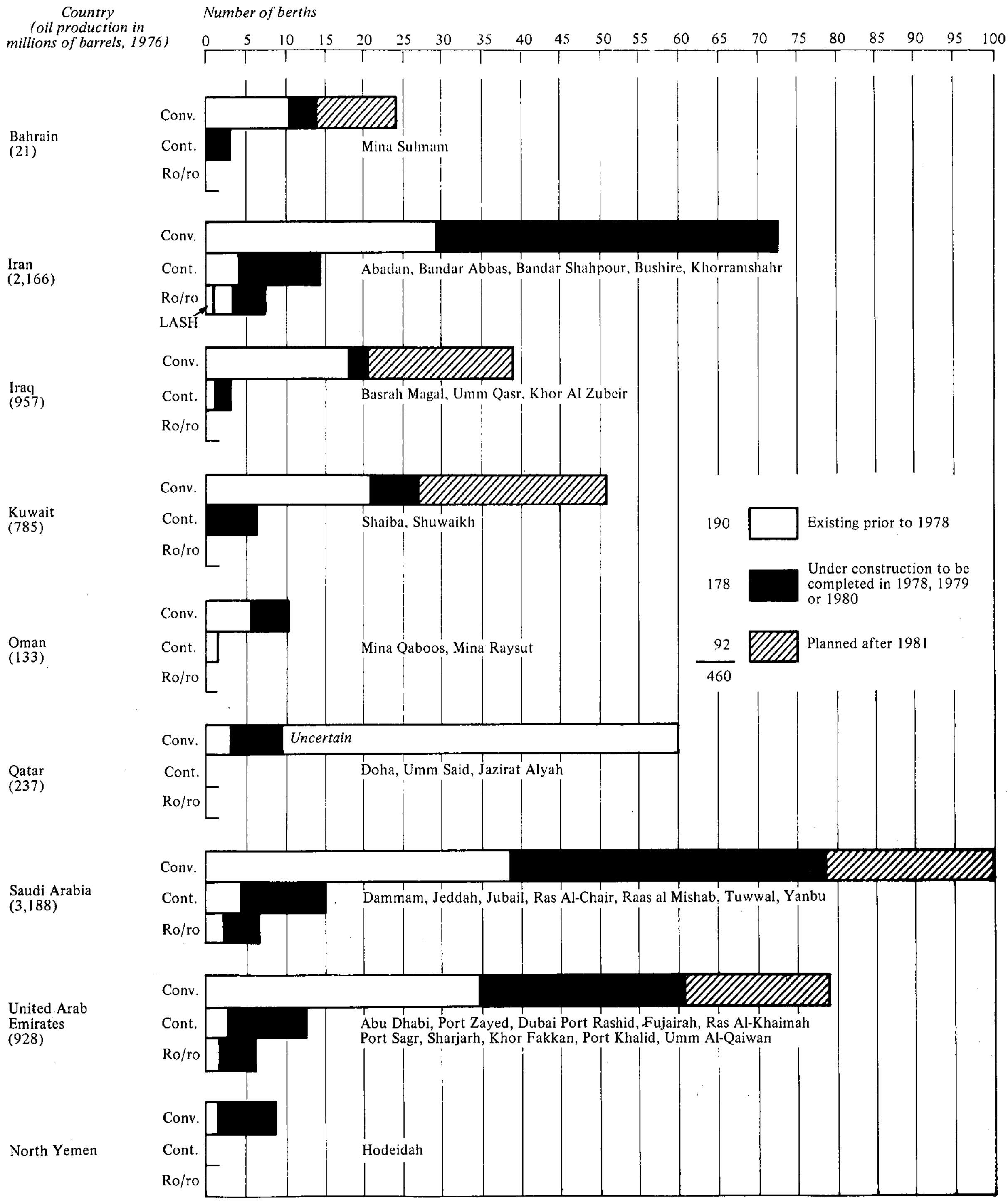
62. An indicator of port congestion used in earlier reviews is the average waiting time before berthing for general cargo ships, as reported for a number of ports

TABLE 33

Commercial berths in Middle East ports: existing, under construction during 1978, 1979 and 1980, and planned

Conv. = conventional berth
Cont. = container berth
Ro/ro = roll-on/roll-off terminal

	Conv.		Cont.		Ro/ro	
	Min.	*Max.*	*Min.*	*Max.*	*Min.*	*Max.*
Length of berth (metres)	150	240	150	245	180	250
Depth (metres)	9.2	16.0	9.8	16.0	12.0	16.0



Sources: H. P. Drewry (Shipping Consultants) Ltd., *Middle East Liner Shipping: an Economic Analysis of Traffic Services, Ports and Future Prospects* (London, HPD Shipping Publications), July 1978; *The Economist* (London), vol. 265, No. 7006, 10 December 1977, pp. 71 and 72; P. G. Owen, "Middle East general cargo ports", *The Dock and Harbour Authority* (London), vol. LIX, No. 695, October 1978, p. 164; F. B. Roberts, "Dredging and port construction in the Middle East", *Terra et Aqua* (The Hague), No. 15-16, April 1978.

TABLE 34

World Bank loans or credits for port development granted in 1977/78

Country	Type and date	Amount of loan/credit (millions of dollars)	Total project cost (millions of dollars)	Description of project
Benin	IDA June, 1978	11.0	46.1	Extension of port of Cotonou, improvement of cargo handling, training of port staff. Maturities: 1988-2028 Service charge: 0.75 per cent
Cyprus	IBRD March, 1978	8.5	29.5	Extension of ports of Limassol and Larnaca to reduce congestion and meet traffic increases up to 1983. Maturities: 1981-1993 Interest rate: 7.45 per cent
Malaysia	IBRD May, 1978	13.0	26.0	Provision of the Sabah ports of Kota Kinabalu, Sandakah and Tawau with cargo handling equipment; construction of new berths and sheds in the port of Tawau. Maturities: 1983-1995 Interest rate: 7.5 per cent
Papua New Guinea	IBRD April, 1978	3.5	10.5	Construction of a container terminal at Port Moresby, a coastal wharf at Samarai and training of port staff. Maturities: 1984-1998 Interest rate: 7.5 per cent
Sudan	IDA March, 1978	22.0	50.7	Development in Port Sudan of physical capacity, operational productivity and management capabilities. Maturities: 1988-2028 Service charge: 0.75 per cent

intermittently subject to congestion.[13] Figures for the first four months of each year since 1971 show the following progression:

	1971	1972	1973	1974	1975	1976	1977	1978
Average number waiting days per ship	2.2	2.3	4.0	4.8	14.3	39.5	22.0	6.8

These figures are not representative of world-wide conditions, but they show how conditions in regions most severely affected by port congestion have developed. An improvement registered between 1976 and 1977 was reinforced in 1978, and the crisis period which started late in 1974 would appear to be over.

63. However, the serious implications of congestion are not disappearing entirely. In parallel with the reduction of congestion in the most seriously affected ports, more ports have tended to become congested. The number of ports surveyed increased steadily from 25 per month in 1971 to 42 per month in 1977 and 54 per month in 1978. This trend appears to stem principally from a rise in the number of congested ports. It must be considered disturbing. The essence of trouble-free port operation is to have spare capacity in reserve with which to take up short-term or sudden increases of traffic or interruptions to operation. With so many ports lightly congested, there is great potential for widespread congestion if there should be an upturn of trade.

64. Monthly ship delay figures for 1978 indicate that the congestion situation has continued to improve. The same indicator calculated on a monthly basis throughout the year is as follows:

	Days		Days
January	7.0	July	7.2
February	6.0	August	6.4
March	7.4	September	6.1
April	7.0	October	5.7
May	8.5	November	5.2
June	7.2	December	5.2

Certain variations are due to the erratic nature of reports published, but a continuing improvement towards the year end is evident.

65. Analysis of the reports by region shows the pattern appearing in table 35. There are relatively few quantitative reports of waiting times from South America, but various reports of the number of ships waiting at ports of the region show that a larger number of them are congested. Noting that the Mediterra-

[13] Indicator calculated on the basis of information contained in the *BIMCO Weekly Circular* (Copenhagen). Examination of waiting time figures based on other sources, notably *Journal de la marine marchande et de la navigation aérienne* (Paris) and *Journal of Commerce* (New York), have in the past confirmed the over-all picture obtained from this source.

TABLE 35

Congestion reports by region

Region	*Average number of ports reported on each month*	*Average waiting days per ship*
Mediterranean	6	9.7
Rest of Africa	23	8.6
Arabian peninsula and Iran	14	2.9
Rest of Asia	8	6.4
South America and Caribbean	5	3.6

nean includes a number of North African ports, it appears that the ports of Africa are most affected by congestion. It is not so easy to identify a common cause of congestion in these ports as it was when serious congestion was largely confined to the Middle East. Failure to adapt to increased national trade has been only one reason; political and social problems and the diversion of cargo through inhabitual routes have also been evident.

66. Another indication of the existence of congestion is the levy of congestion surcharges. During 1978, the attention of the UNCTAD secretariat was drawn [14] to the levy of congestion surcharges in 50 ports, compared with 79 in 1977. The information is by no means exhaustive, but once again the trend is clearly indicative of an improving situation.

67. The easing of congestion at ports which have experienced congestion is due partly to a lessening in the rate of increase of traffic, partly to new port facilities and partly to increased efficiency. An element in the improved efficiency has been a concerted effort by port authorities and ship operators to modify shipping practices: for instance, ports are demanding unitization of cargoes, and are also insisting on advance documentation of cargoes, modern ships and uniform hatch distribution. These steps are not new, but they are being taken more quickly once congestion becomes serious.

[14] By circular from individual conferences or from references in the international press (*Journal pour le transport international* (Basel), *Journal de la marine marchande et de la navigation aérienne* (Paris), *Seatrade* (Colchester, Essex)).

Chapter VII

OTHER DEVELOPMENTS

A. Code of conduct for liner conferences

68. As at 31 December 1978, 33 countries accounting for 6.14 per cent of the relevant world tonnage had become contracting parties to the Convention on a Code of Conduct for Liner Conferences.[15] This represents an increase of eight countries and 0.44 per cent of the relevant world tonnage since February 1977. Article 49, paragraph 1, of the Convention provides that the Convention "shall enter into force six months after the date on which not less than 24 States, the combined tonnage of which amounts to at least 25 per cent of world tonnage, have become Contracting Parties to it ...".[16]

69. The Trade and Development Board, at its eighteenth session, included in the provisional agenda for the fifth session of the United Nations Conference on Trade and Development (Manila, 7 May-3 June 1979) an item 14(*a*) entitled "Developments pertaining to the Convention on a Code of Conduct for Liner Conferences". The Conference will consider the status and prospects of early implementation of the Convention.

B. United Nations Convention on the Carriage of Goods by Sea, 1978

70. The United Nations Conference on the Carriage of Goods by Sea (Hamburg, 6-31 March 1978) adopted the "United Nations Convention on the Carriage of Goods by Sea, 1978", to be known as the "Hamburg Rules".[17] The Convention is intended to replace the Hague Rules. It will enter into force on the first day of the month following the expiration of one year from the deposit with the Secretary-General of the United Nations of the twentieth instrument of ratification, acceptance, approval or accession. As at 31 December 1978, the Convention had been signed by several countries but had not entered into force.

C. Draft convention on international multimodal transport

71. At its sixth session (21 February – 9 March 1979), the Intergovernmental Preparatory Group on a Convention on International Multimodal Transport adopted the text of a draft convention on international multimodal transport.[18] The Trade and Development Board decided at its tenth special session to inform the General Assembly of the conclusion of the work of the Intergovernmental Preparatory Group and to transmit the text of the draft convention, together with the draft provisions on final clauses prepared by the UNCTAD secretariat, with its own report, to the General Assembly. The Board also decided to request the Secretary-General of UNCTAD to make the necessary arrangements for the convening of a conference of plenipotentiaries on a convention on international multimodal transport in early November 1979 for a duration of four weeks, as well as for the convening of a resumed session of the conference if that was considered necessary.[19]

D. Container standards for international multimodal transport

72. The second session of the *Ad Hoc* Intergovernmental Group on Container Standards for International Multimodal Transport, which had been established by the Trade and Development Board in pursuance of Economic and Social Council decision 6 (LVI) of 14 May 1974, took place from 20 November to 1 December 1978.[20] The report of the Group[21] was referred to by the Trade and Development Board at its tenth special session in its decision 182 (S–X) on future follow-up action.

E. Flags of convenience

73. At its first session, held in February 1978, the *Ad Hoc* Intergovernmental Working Group on the Economic Consequences of the Existence or Lack of a Genuine Link between Vessel and Flag of Registry adopted a resolution in which, *inter alia*, it concluded that the expansion of open-registry (i.e. flag of convenience) fleets had adversely affected the development and competitiveness of fleets of countries that did not offer open-registry facilities, including those of developing countries. The resolution also concluded that

[15] See TD/B/C.4/INF.24.

[16] See *United Nations Conference of Plenipotentiaries on a Code of Conduct for Liner Conferences*, vol. II, *Final Act (including the Convention and resolutions) and tonnage requirements* (United Nations publication, Sales No. E.75.II.D.12).

[17] See A/CONF.89/13.

[18] See TD/MT/CONF.1.

[19] See *Official Records of the Trade and Development Board, Tenth Special Session, Supplement No. 1* (TD/B/745), "Other decisions taken by the Board", (*b*).

[20] The first session had been held in November 1976.

[21] TD/B/734-TD/B/AC.20/10.

four elements were normally relevant when considering whether a genuine link existed between a vessel and its country of registry: (*a*) whether the merchant fleet contributed to the national economy of the country; (*b*) whether the revenues and expenditures of shipping, as well as purchases and sales of vessels, were treated in the national balance-of-payments accounts; (*c*) whether nationals were employed on vessels; (*d*) whose was the beneficial ownership of the vessel.[22] The Trade and Development Board referred the report of the Group to the fifth session of the United Nations Conference on Trade and Development.[23]

F. UNCTAD technical assistance in shipping and ports

74. In 1978, the UNCTAD secretariat continued to assist developing countries in executing projects financed by UNDP, and in some cases with local contributions. Assistance was also given by holding training courses and seminars financed by funds in trust. Fifty UNCTAD experts spent a total of 290 man-months in the field assisting Governments, port authorities, shipping companies, and shippers' councils. It is estimated that some $2.3 million was spent on technical assistance in 1978.

75. The following are some of the major technical assistance and training projects executed in 1978: (*a*) modernization of port statistics and introduction of performance indicators in West and Central African ports; (*b*) seminar on port operations for participants from African countries held in Odessa, USSR; (*c*) sixth UNCTAD/SIDA port training course in Abidjan, Ivory Coast; (*d*) congestion task forces in Benin, Mauritius and Algeria; (*e*) assistance to the Algerian Government in connexion with the drafting of new port legislation; (*f*) assistance to the Guinean Government in setting up a maintenance shop and improving operations at the port of Conakry.

G. Suez Canal

76. Table 36 shows that the average daily number of all vessels transiting through the Suez Canal in 1977 was 54, compared with 46 in 1976 and 59 in the first half of 1978. Similarly, the average daily transiting tonnage increased from 513,000 tons in 1976 to 603,633 tons in 1977 and 665,259 tons during the first half of 1978.

77. The average daily number of transiting tankers was the same in 1977 as in 1976, but in the first half

[22] TD/B/C.4/177 - TD/B/C.4/AC.1/3, annex.

[23] See *Official Records of the General Assembly, Thirty-third Session, Supplement No. 15* (A/33/15), para. 447.

TABLE 36

Average daily number and net tonnage of vessels using the Suez Canal, 1966, 1977 and first half of 1978

Types of vessels	*Average 1966*[a]		*Average 1977*		*Average Jan.-June 1978*	
	Number	*Net tonnage*	*Number*	*Net tonnage*	*Number*	*Net tonnage*
Tankers						
Loaded, northbound	12.3	255 701	2.5	54 658	2.4	53 076
Loaded, southbound	1.9	21 085	1.0	10 809	1.1	12 578
Ballast, northbound	0.7	7 069	0.5	4 556	0.5	5 892
Ballast, southbound	12.3	280 896	3.2	136 871	2.7	102 384
Sub-total	27.2	564 751	7.2	206 894	6.7	173 930
(Percentage share of tankers)	(46.7)	(75.2)	(13.4)	(34.3)	(11.6)	(26.1)
General cargo and containers						
Loaded	—	—	27.3	214 984	29.5	241 895
Ballast	—	—	5.8	26 470	6.7	68 194
	—	—	33.1	241 454	36.2	310 089
(Percentage share of general cargo and containers)	—	—	(61.4)	(40.0)	(62.6)	(46.6)
Other						
Loaded	27.9	172 882	10.9	124 936	12.0	148 517
Ballast	3.1	13 737	2.7	30 349	2.9	32 723
Subtotal	31.0	186 619	13.6	155 285	14.9	181 240
(Percentage share of others)	(53.3)	(24.8)	(25.2)	(25.7)	(25.8)	(27.2)
TOTAL	58.2	751 370	53.9	603 633	57.8	665 259

Source: Computation on the basis of information published in *Suez Canal Report*, monthly report by the Suez Canal Authority (Egypt), various issues.

[a] Separate information on general cargo and container vessels not available for 1966.

TABLE 37

Trends in air freight volume and air freight operating revenues, 1974-1977

(Scheduled operations of airlines of ICAO member States)[a]

Year	*Ton-kilometres (million)*	*Percentage change over previous year*	*Total freight operating revenues (millions of dollars)*	*Percentage change over previous year*	*Operating revenue per ton-kilometre (US cents)*
1974	17 168	19.3	3 654	26.4	21.3
1975	17 410	1.4	4 196	14.8	24.1
1976	19 418	11.5	4 763	13.5	24.5
1977	21 535	10.9	5 594	17.4	26.0

Source: ICAO, *Financial data. Commercial air carriers, 1977*, Digest of statistics No. 237 (Montreal), 1979.

[a] Data concerning 66 ICAO contracting States.

of 1978 it dropped slightly. On the other hand, average transiting tanker tonnage declined both in 1977 and in the first half of 1978, indicating reduced tanker movements to and from the Middle East. The number and net tonnage of general cargo, container and other vessels increased both in 1977 and in the first half of 1978. However, over-all, the average daily number and tonnage of all vessels were still lower than the 1966 levels.

H. Air transport

78. Developments in air freight transport are given in table 37. In 1977, the volume of air freight in ton-kilometres carried by scheduled airlines of reporting ICAO member States increased by almost 11 per cent from the previous year, and freight operating revenue by 17.4 per cent, with the result that operating revenue per ton-kilometre increased from 24.5 per cent to 26 per cent.

ANNEXES

Annex I

CLASSIFICATION OF COUNTRIES AND TERRITORIES

Notes

1. This classification is for statistical purposes only and does not imply any judgement regarding the stage of development of any country or territory.

2. 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: these countries are marked "(L)" in the classification that follows.

3. The groups of countries or territories to which the statistics presented in this review pertain are composed as follows:

Developed market economy countries and territories: codes 1, 2, 3, 4 and 5;

Socialist countries of Eastern Europe and Asia: codes 6 and 7;

Developing countries and territories: codes 8, 9, 10, 11 and 12;

of which:

Africa:	codes 8.1, 8.2 and 8.3;
America:	codes 9.1, 9.2, 9.3, 9.4 and 9.5;
Asia:	codes 10.1 and 10.2;
Europe:	code 11;
Oceania:	code 12.

4. In certain tables, where appropriate, five "open-registry countries" (Cyprus, Liberia, Oman, Panama and Singapore) are recorded as a separate group.

Code 1

Canada
United States of America

Code 2

Japan

Code 3

Australia
New Zealand

Code 4

Austria (L)
Belgium
Denmark
Faeroe Islands
Finland
France
Germany, Federal Republic of
Gibraltar
Greece
Iceland
Ireland
Israel
Italy
Monaco
Netherlands
Norway
Portugal
Spain
Sweden
Switzerland (L)
Turkey
United Kingdom of Great Britain and Northern Ireland
Yugoslavia

Code 5

South Africa

Code 6

Albania
Bulgaria
Czechoslovakia (L)
German Democratic Republic
Hungary (L)
Poland
Romania
Union of Soviet Socialist Republics

Code 7

China
Democratic People's Republic of Korea
Viet Nam [a]

Code 8

8.1 *North Africa*

Algeria
Egypt
Libyan Arab Jamahiriya
Morocco
Tunisia

8.2 *West Africa*

Angola
Benin
Cape Verde
Congo
Equatorial Guinea
Gabon
Gambia
Ghana
Guinea
Guinea-Bissau
Ivory Coast
Liberia
Mauritania
Nigeria
St. Helena
Sao Tome and Principe
Senegal
Sierra Leone
Togo
United Republic of Cameroon
Western Sahara
Zaire

8.3 *East Africa*

Burundi (L)
Comoros
Djibouti
Ethiopia
Kenya
Madagascar
Mauritius
Mozambique
Reunion
Seychelles
Somalia
Sudan
Uganda (L)
United Republic of Tanzania
Zambia (L)

Code 9

9.1 *Caribbean and North America*

Antigua
Bahamas
Barbados
Bermuda
British Virgin Islands
Cayman Islands
Cuba
Dominica
Dominican Republic
Greenland
Grenada
Guadeloupe
Haiti
Jamaica
Martinique
Montserrat
St. Pierre and Miquelon
St. Kitts-Nevis-Anguilla
St. Lucia
St. Vincent
Turks and Caicos Islands
United States Virgin Islands

[a] Statistical data for the former Democratic Republic of Viet Nam and the former Republic of South Viet Nam for 1975 and earlier years are included under Viet Nam.

9.2 *Central America*

Belize
Costa Rica
El Salvador
Guatemala
Honduras
Mexico
Nicaragua
Panama

9.3 *South America: northern seaboard*

French Guiana
Guyana
Netherlands Antilles
Suriname
Trinidad and Tobago
Venezuela

9.4 *South America: western seaboard*

Chile
Colombia
Ecuador
Peru

9.5 *South America: eastern seaboard*

Argentina
Brazil
Falkland Islands (Malvinas)
Paraguay (L)
Uruguay

Code 10

10.1 *Western Asia*

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

10.2 *Southern and Eastern Asia*

Bangladesh
Bhutan
Brunei
Burma
Democratic Kampuchea
East Timor
Hong Kong
India
Indonesia
Macao
Malaysia
Maldives
Pakistan
Philippines
Republic of Korea
Singapore
Sri Lanka
Thailand

Code 11

Malta

Code 12

American Samoa
Christmas Island (British)
Fiji
French Polynesia
Gilbert Islands
Guam
Nauru
New Caledonia
New Hebrides
Papua New Guinea
Samoa
Solomon Islands
Tonga
Tuvalu
Wake Island

ANNEX II

WORLD SEABORNE TRADE[a] ACCORDING TO GEOGRAPHICAL AREAS, 1965, 1970, 1975, 1976

(Millions of tons)

Area[b]	Goods loaded				Goods unloaded			
	Petroleum		Dry cargo	Total all goods	Petroleum		Dry cargo	Total all goods
	Crude	Products			Crude	Products		
Developed market economy countries								
North America								
1965	0.1	3.4	228.5	232.0	73.7	65.3	155.2	294.0
1970	0.7	5.3	308.0	314.0	73.4	103.6	170.0	347.0
1975	1.4	6.0	340.8	348.2	210.8	89.0	179.5	479.3
1976	1.3	7.9	363.4	372.6	292.8	100.1	151.1	544.1
Japan								
1965	—	0.8	22.0	22.8	69.7	14.0	115.0	198.7
1970	—	0.3	41.6	41.9	170.4	30.4	235.1	435.9
1975	—	1.3	68.8	70.1	225.9	21.4	302.1	549.4
1976	—	..	76.4	76.4	227.3	13.3	335.0	575.6
Australia and New Zealand								
1965	—	1.2	25.2	26.5	18.7	2.0	13.8	34.4
1970	—	1.3	92.3	93.6	18.8	2.9	15.4	37.1
1975	0.2	2.8	170.4	173.4	10.9	4.0	24.0	38.9
1976	0.2	2.8	163.1	166.1	10.3	4.6	19.6	34.5
Europe								
1965	0.3	51.3	183.7	235.3	327.9	89.6	357.7	775.2
1970	28.6	82.3	244.8	355.6	621.0	100.4	469.0	1 190.4
1975	56.7	74.4	293.8	424.9	652.6	111.5	515.6	1 279.7
1976	58.8	76.9	334.1	469.8	696.0	110.2	559.3	1 365.7
South Africa								
1965	—	0.3	8.3	8.5	4.7	1.5	6.2	12.4
1970	—	—	13.2	13.2	8.8	2.6	6.2	17.6
1975	—	0.2	20.5	20.7	15.0	1.2	10.6	26.8
1976	—	0.2	44.9	45.1	15.1	1.6	7.4	24.1
Socialist countries of Eastern Europe and Asia								
Socialist countries of Eastern Europe (excluding USSR)								
1965	0.4	3.6	22.1	26.1	2.4	1.9	22.6	26.9
1970	0.2	3.4	34.8	38.5	10.8	3.0	29.2	43.0
1975	—	3.5	44.8	48.3	19.4	3.6	44.0	67.0
1976	—	3.5	46.5	50.0	26.5	3.9	42.0	72.4
USSR								
1965	28.3	18.0	32.8	79.1	—	—	12.8	12.8
1970	38.0	22.9	46.0	106.9	2.5	—	11.9	14.4
1975	42.2	30.8	46.8	119.8	6.5	—	29.0	35.5
1976	47.5	32.0	55.1	134.6	7.0	1.0	33.2	41.2
Socialist countries of Asia								
1965	—	—	7.6	7.6	0.2	0.3	11.8	12.2
1970	—	0.1	13.3	13.4	5.4	0.4	24.4	30.2
1975	8.0	0.2	12.1	20.3	—	2.4	18.7	21.1
1976	8.0	0.2	10.8	19.0	—	1.3	17.8	19.1
Developing countries and territories								
North Africa								
1965	84.6	3.4	29.2	117.2	10.9	3.9	16.3	31.1
1970	221.4	5.6	28.3	255.4	9.9	5.9	17.9	33.8
1975	115.9	7.8	24.7	148.4	5.7	2.1	32.0	39.8
1976	142.0	2.9	33.5	178.4	10.7	3.5	29.2	43.4

ANNEX II (*continued*)

WORLD SEABORNE TRADE[a] ACCORDING TO GEOGRAPHICAL AREAS, 1965, 1970, 1975, 1976

(*Millions of tons*)

Area[b]	Goods loaded				Goods unloaded			
	Petroleum		Dry cargo	Total all goods	Petroleum		Dry cargo	Total all goods
	Crude	Products			Crude	Products		
West Africa								
1965	14.7	0.3	41.1	56.1	1.5	4.6	9.9	15.9
1970	60.5	1.0	61.5	123.0	3.6	4.0	14.8	22.4
1975	104.0	1.6	67.7	173.3	4.8	3.7	16.9	25.4
1976	117.3	2.8	65.8	185.9	4.8	2.7	17.6	25.2
East Africa								
1965	—	0.5	11.0	11.5	3.3	3.0	6.0	13.2
1970	—	1.2	16.1	17.3	5.5	2.6	8.3	16.4
1975	—	1.2	14.8	16.0	6.3	2.1	10.5	18.9
1976	—	0.8	13.9	14.7	7.1	2.6	7.7	17.4
Caribbean and North America								
1965	—	0.2	20.4	20.6	4.8	3.0	7.7	15.9
1970	—	1.4	28.4	29.8	23.5	4.5	11.2	39.2
1975	—	9.4	23.3	32.7	46.7	5.8	13.0	65.5
1976	—	7.7	20.3	28.0	44.9	5.5	10.7	61.1
Central America								
1965	1.0	2.6	9.9	13.5	3.5	3.4	4.1	10.9
1970	—	3.7	11.9	15.6	6.0	5.5	6.5	18.0
1975	5.0	1.5	14.2	20.7	7.5	5.6	12.1	25.2
1976	5.7	1.4	14.7	21.8	5.7	5.5	11.6	22.8
South America: northern seaboard								
1965	123.3	99.2	27.7	250.2	53.9	3.0	4.7	61.6
1970	131.1	111.8	36.0	278.9	63.1	3.0	6.7	72.9
1975	84.6	64.4	30.4	179.4	33.0	7.0	10.5	50.5
1976	78.8	78.6	31.7	189.1	46.9	4.8	9.2	60.9
South America: western seaboard								
1965	6.0	0.8	25.9	32.7	1.1	1.5	5.1	7.7
1970	4.6	1.6	29.8	35.9	4.1	1.5	5.9	11.5
1975	8.4	1.6	24.4	34.4	7.0	0.8	7.6	15.4
1976	8.8	1.6	23.6	34.0	7.9	0.9	12.6	21.4
South America: eastern seaboard								
1965	—	0.8	34.4	35.3	15.4	1.4	13.1	29.8
1970	0.1	1.1	54.3	55.5	18.8	1.0	19.8	39.6
1975	0.9	0.9	103.7	105.5	38.2	2.1	27.9	68.2
1976	0.4	0.3	104.9	105.6	44.2	3.0	26.2	73.3
Western Asia								
1965	348.7	42.8	5.6	397.1	7.0	1.8	11.3	20.2
1970	588.7	65.6	3.3	658.6	0.1	1.0	13.1	14.2
1975	870.5	50.1	11.6	932.6	1.5	3.0	35.3	39.8
1976	998.9	41.9	17.2	1 058.0	6.1	5.5	33.4	45.0
Southern and Eastern Asia (n.e.s.)								
1965	14.6	13.1	65.5	93.3	23.3	17.0	58.2	98.5
1970	35.0	23.7	89.3	148.0	54.7	23.3	61.9	139.5
1975	66.1	21.9	107.4	195.4	80.5	18.6	102.0	201.1
1976	76.9	14.9	124.3	216.1	80.3	20.8	97.3	198.4
Developing countries in Europe								
1965	..	—	—	..	—	0.2	0.4	0.6
1970	..	—	—	..	—	0.3	0.7	1.0
1975	—	—	0.1	0.1	—	0.3	0.8	1.1
1976	—	—	0.1	0.1	—	0.3	0.7	1.0
Countries and territories of Oceania (n.e.s.)								
1965	—	—	5.6	5.6	—	0.9	1.7	2.5
1970	—	0.2	9.5	9.7	0.6	1.6	2.9	5.1
1975	—	0.1	8.3	8.4	1.2	2.4	2.6	6.2
1976	—	0.1	9.5	9.6	—	2.7	4.0	6.7
World total[c]								
1965	622	240	812	1 674	622	222	832	1 676
1970	1 111	330	1 165	2 605	1 111	302	1 127	2 530
1975	1 364	280	1 428	3 072	1 374	286	1 395	3 055
1976	1 544	277	1 554	3 375	1 533	294	1 426	3 253

Source: Data communicated to the UNCTAD secretariat by the Statistical Office of the United Nations.

[a] Including international cargoes loaded at ports of the Great Lakes and St. Lawrence system for unloading at ports of the system, including petroleum imports into Netherlands Antilles and Trinidad and Tobago for refining and re-export. Great Lakes and St. Lawrence trade (in dry cargo) amounted to 37 million tons in 1965, 42 million tons in 1970, 39 million tons in 1975 and 49 million tons in 1976.

[b] See annex I for the composition of these groups.

[c] Figures rounded to the nearest million.

ANNEX III

MERCHANT FLEETS OF THE WORLD BY FLAG OF REGISTRATION, [a] GROUP OF COUNTRIES OR TERRITORIES AND TYPE OF SHIPS, [b] IN G.R.T. AND D.W.T., AS AT 1 JULY 1978

(Figures for d.w.t. are shown in parentheses except in cases where such data are not available)

	Total	*Oil tankers*	*Bulk carriers* [c]	*General cargo* [d]	*Container ships*	*Others*
WORLD TOTAL [e]	400 748 658 (662 798 720)	174 729 819 (338 587 336)	103 426 009 (179 377 013)	77 998 525	8 674 055	35 920 250
Developed market economy countries and territories						
Australia	1 531 739 (2 230 305)	284 572 (467 425)	755 159 (1 273 212)	255 411	92 508	144 089
Austria	46 148 (69 510)	—	11 845 (18 224)	25 503	8 800	—
Belgium	1 684 692 (2 600 106)	303 767 (524 958)	747 631 (1 322 170)	356 152	58 821	218 321
Canada	1 129 314 (1 003 683)	207 308 (285 892)	217 807 (396 753)	109 733	21 549	572 917
Denmark	5 530 408 (8 939 266)	2 902 383 (5 551 193)	643 864 (1 048 515)	1 049 844	466 209	468 108
Faeroe Islands	60 939 (37 873)	—	—	9 291	—	51 648
Finland	2 358 623 (3 540 833)	1 139 785 (2 026 867)	478 878 (780 004)	526 507	3 895	209 558
France	12 197 354 (21 101 089)	7 714 800 (15 034 657)	1 711 614 (2 998 616)	1 473 721	307 843	989 376
Germany, Fed. Rep. of	9 736 667 (15 699 696)	3 418 607 (6 598 304)	2 123 195 (3 684 048)	2 735 543	900 857	558 465
Gibraltar	832 (1 250)	—	—	427	—	405
Greece	33 956 093 (57 031 003)	10 653 499 (19 970 717)	12 959 906 (22 576 997)	9 588 980	22 311	731 397
Iceland	175 097 (157 455)	2 491 (3 755)	—	74 787	—	97 819
Ireland	212 143 (269 197)	3 989 (5 382)	123 650 (197 802)	29 152	5 743	49 609
Israel	420 933 (562 723)	368 (642)	206 423 (314 263)	87 608	121 490	5 044
Italy	11 491 873 (18 697 726)	4 874 279 (9 078 286)	4 215 161 (7 280 555)	1 129 280	158 169	1 114 984
Japan	39 182 079 (64 797 256)	16 385 739 (31 396 668)	13 430 909 (22 483 220)	4 341 088	1 312 269	3 712 074
Monaco	3 268 (4 959)	3 268 (4 959)	—	—	—	—
Netherlands	5 180 392 (7 926 136)	2 221 475 (4 110 361)	576 164 (947 847)	1 572 288	234 158	576 307
New Zealand	211 112 (226 520)	32 442 (51 003)	—	133 729	—	44 941
Norway	26 128 428 (46 388 860)	13 893 821 (27 293 191)	8 380 934 (14 553 476)	1 493 282	52 196	2 308 195
Portugal	1 239 963 (1 872 265)	646 041 (1 201 337)	73 204 (116 427)	355 473	6 260	158 985
South Africa	660 735 (794 407)	37 597 (62 554)	150 713 (259 623)	198 688	149 407	124 330
Spain	8 056 080 (13 482 270)	5 079 240 (9 530 034)	1 134 759 (1 979 789)	972 230	29 450	840 401
Sweden	6 508 255 (10 867 733)	3 075 005 (6 047 174)	1 952 280 (3 326 477)	934 079	66 916	479 975
Switzerland	230 762 (351 467)	2 900 (2 901)	111 009 (180 003)	111 928	—	4 925
Turkey	1 358 779 (1 969 537)	356 558 (596 957)	422 915 (696 096)	466 356	—	112 950
United Kingdom	30 896 606 (50 459 252)	14 731 430 (27 836 163)	7 849 961 (13 615 445)	3 774 281	1 800 572	2 740 362

ANNEX III (*continued*)

MERCHANT FLEETS OF THE WORLD BY FLAG OF REGISTRATION, [a] GROUP OF COUNTRIES OR TERRITORIES AND TYPE OF SHIPS, [b] IN G.R.T. AND D.W.T., AS AT 1 JULY 1978

(Figures for d.w.t. are shown in parentheses except in cases where such data are not available)

	Total	*Oil tankers*	*Bulk carriers* [c]	*General cargo* [d]	*Container ships*	*Others*
United States of America	12 759 500	6 422 020	317 297	2 040 805	1 744 397	2 234 981
	(18 909 404)	(12 233 112)	(471 436)			
Yugoslavia	2 365 630	214 779	880 499	1 196 365	20 226	53 761
	(3 588 442)	(363 495)	(1 496 364)			
Subtotal, developed market economy countries	215 314 444	94 608 163	59 475 777	35 042 531	7 584 046	18 603 927
	(353 580 223)	(180 277 987)	(102 017 362)			
Open-registry countries						
Cyprus	2 599 529	204 993	276 721	2 013 019	5 081	99 715
	(3 727 867)	(321 144)	(417 071)			
Liberia	80 191 329	49 778 422	24 114 002	3 839 325	311 903	2 147 677
	(157 096 093)	(103 920 758)	(44 598 496)			
Oman	5 630	—	—	3 456	—	2 174
	(7 868)					
Panama	20 748 679	6 337 292	4 819 721	7 763 962	158 323	1 669 381
	(33 610 313)	(12 318 385)	(7 977 463)			
Singapore	7 489 205	3 155 150	1 652 311	2 287 163	207 229	187 352
	(12 397 813)	(6 021 796)	(2 746 444)			
Subtotal, open registry countries	11 034 372	59 475 857	30 862 755	15 906 925	682 536	4 106 299
	(206 839 954)	(122 582 083)	(55 739 474)			
Socialist countries of Eastern Europe and Asia						
Socialist countries of Eastern Europe						
Albania	55 870	—	—	54 631	—	1 239
	(74 457)					
Bulgaria	1 082 477	(352 617	282 629	328 009	—	119 222
	(1 476 469)	(560 566)	(410 841)			
Czechoslovakia	150 770	—	102 589	48 181	—	—
	(226 899)		(164 382)			
German Democratic Republic	1 539 994	275 651	258 895	754 998	—	250 450
	(1 982 259)	(488 936)	(381 901)			
Hungary	77 738	—	—	77 738	—	—
	(110 350)					
Poland	3 490 587	562 597	1 212 714	1 275 414	—	439 862
	(4 934 314)	(1 015 874)	(1 954 135)			
Romania	1 428 041	246 927	587 663	434 443	—	159 008
	(2 044 368)	(437 750)	(923 773)			
USSR	22 261 927	4 693 173	1 522 473	7 481 481	151 395	8 413 405
	(24 222 311)	(7 255 442)	(2 355 444)			
Total socialist countries of Eastern Europe	30 087 404	6 130 965	3 966 963	10 454 895	151 395	9 383 186
	(35 071 427)	(9 758 568)	(6 190 476)			
Socialist countries of Asia						
China	5 168 898	1 031 825	1 116 953	2 836 281	—	183 839
	(7 598 280)	(1 733 466)	(1 865 311)			
Democratic People's Republic of Korea	90 078	21 734	—	29 287	—	39 057
	(101 542)	(33 252)				
Viet Nam	162 585	33 906	—	113 926	—	14 753
	(225 155)	(55 093)				
Total socialist countries of Asia	5 421 561	1 087 465	1 116 953	2 979 494	—	237 649
	(7 924 977)	(1 821 811)	(1 865 311)			
Total socialist countries of Eastern Europe and Asia	35 508 965	7 218 430	5 083 916	13 434 389	151 395	9 620 835
	(42 996 404)	(11 580 379)	(8 055 787)			

MERCHANT FLEETS OF THE WORLD BY FLAG OF REGISTRATION, [a] GROUP OF COUNTRIES OR TERRITORIES AND TYPE OF SHIPS, [b] IN G.R.T. AND D.W.T., AS AT I JULY 1978

(Figures for d.w.t. are shown in parentheses except in cases where such data are not available)

	Total	*Oil tankers*	*Bulk carriers* [c]	*General cargo* [d]	*Container ships*	*Others*
Developing countries of Africa						
Algeria	1 152 086	642 675	81 170	174 336	—	253 905
	(1 769 955)	(1 207 289)	(126 745)			
Angola	21 820	1 875	—	17 588	—	2 357
	(26 627)	(2 750)				
Benin	1 074	—	—	—	—	1 074
	(360)					
Cape Verde	5 516	216	—	3 314	—	1 986
	(7 596)	(350)				
Comoros	765	139	—	626	—	—
	(1 051)	(59)				
Congo	6 942	—	—	—	—	6 942
	(10 833)					
Djibouti	1 971	—	—	1 780	—	191
	(2 600)					
Egypt	456 291	130 940	—	265 852	—	59 499
	(590 572)	(214 051)				
Equatorial Guinea	3 070	—	—	3 070	—	—
	(3 366)			—		
Ethiopia	23 490	2 051	—	20 643	—	796
	(30 347)	(2 980)				
Gabon	77 520	74 471	—	455	—	2 594
	(143 406)	(141 158)				
Gambia	4 224	—	—	2 238	—	1 986
	(4 493)					
Ghana	186 079	—	—	138 236	—	47 843
	(216 874)					
Guinea	15 041	—	10 764	436	—	3 841
	(17 187)		(15 290)			
Guinea Bissau	370	—	—	—	—	370
	(. . .)					
Ivory Coast	156 749	—	—	142 771	—	13 978
	(196 713)					
Kenya	15 224	2 704	—	9 241	—	3 279
	(19 925)	(4 642)				
Libyan Arab Jamahiriya	885 362	795 693	—	39 586	—	50 083
	(1 573 922)	(1 504 929)				
Madagascar	40 303	1 324	—	34 014	—	4 965
	(52 309)	(2 319)				
Mauritania	489	—	—	—	—	489
	(311)					
Mauritius	40 732	—	—	36 357	—	4 375
	(51 730)					
Morocco	341 410	109 128	58 605	90 759	—	82 918
	(529 549)	(192 977)	(100 501)			
Mozambique	36 169	6 549	—	14 102	—	15 518
	(35 606)	(10 612)				
Nigeria	324 024	143 999	—	161 921	—	18 104
	(503 996)	(274 047)				
Senegal	29 404	1 911	—	8 392	—	19 101
	(26 550)	(2 579)				
Seychelles	53 646	1 595	—	17 447	—	34 604
	(44 575)	(2 700)				
Sierra Leone	4 689	—	—	2 433	—	2 256
	(5 411)					
Somalia	72 961	10 458	—	62 165	—	338
	(104 617)	(16 450)				
Sudan	43 375	—	—	42 255	—	1 120
	(56 893)					
Togo	15 498	—	—	15 106	—	392
	(23 380)					
Tunisia	112 303	27 030	20 157	46 531	—	18 585
	(151 960)	(46 824)	(32 217)			
Uganda	5 510	—	—	5 510	—	—
	(9 115)					

Annex III (*continued*)

MERCHANT FLEETS OF THE WORLD BY FLAG OF REGISTRATION, [a] GROUP OF COUNTRIES OR TERRITORIES AND TYPE OF SHIPS, [b] IN G.R.T. AND D.W.T., AS AT 1 JULY 1978

(Figures for d.w.t. are shown in parentheses except in cases where such data are not available)

	Total	*Oil tankers*	*Bulk carriers* [c]	*General cargo* [d]	*Container ships*	*Others*
United Republic of Cameroon	83 777	47 527	—	30 974	—	5 276
	(126 364)	(85 950)				
United Republic of Tanzania	36 968	997	—	26 765	—	9 206
	(44 304)	(1 503)				
Zaire	109 785	—	—	95 951	—	13 834
	(157 603)					
Zambia	5 513	—	—	5 513	—	—
	(9 110)					
Total developing countries of Africa	4 370 150	2 001 282	170 696	1 516 367	—	681 805
	(6 549 210)	(3 714 169)	(274 753)			
Developing countries of America						
Anguilla	399	—	—	399	—	—
	(525)					
Antigua	410	—	—	147	—	263
	(250)					
Argentina	2 000 879	652 047	415 528	762 394	—	170 910
	(2 802 820)	(982 344)	(676 478)			
Bahamas	84 269	14 506	25 844	29 785	—	14 134
	(106 683)	(22 166)	(38 600)			
Barbados	4 448	—	—	291	—	4 157
	(514)					
Belize	620	—	—	620	—	—
	(800)					
Bermuda	1 814 455	926 890	643 051	111 433	1 593	131 488
	(3 068 276)	(1 699 938)	(1 056 904)			
Brazil	3 701 731	1 259 776	1 118 332	1 176 629	4 800	142 194
	(6 006 521)	(2 218 820)	(2 028 029)			
Cayman Islands	169 100	5 669	36 533	113 874	—	13 024
	(246 157)	(9 355)	(56 065)			
Chile	466 319	60 540	111 229	262 622	—	31 928
	(688 144)	(101 928)	(188 977)			
Colombia	271 953	29 585	—	236 004	—	6 364
	(344 780)	(48 136)				
Costa Rica	10 462	—	—	7 255	—	3 207
	(10 120)					
Cuba	779 187	71 022	29 845	504 878	—	173 442
	(959 847)	(107 969)	(49 933)			
Dominican Republic	18 313	674	9 420	7 834	—	385
	(28 228)	(1 609)	(16 297)			
Ecuador	201 244	96 081	—	95 465	—	9 698
	(274 023)	(157 057)				
El Salvador	1 987	—	—	1 816	—	171
	(3 303)					
Falkland Islands	7 937	—	—	537	—	7 400
	(4 383)					
Grenada	226	—	—	—	—	226
	(340)					
Guatemala	11 645	—	—	11 395	—	250
	(16 076)					
Guyana	16 733	1 626	—	6 694	—	8 413
	(15 934)	(1 745)				
Haiti	394	—	—	394	—	—
	(523)					
Honduras	130 831	2 853	—	122 430	—	5 548
	(141 108)	(3 948)		—		
Jamaica	10 430	—	—	6 094	—	4 336
	(8 064)					
Mexico	727 201	383 006	32 105	135 807	—	176 283
	(977 896)	(620 532)	(50 760)			
Montserrat	1 248	—	—	1 248	—	—
	(1 861)					
Nicaragua	34 588	5 237	—	24 825	—	4 526
	(48 026)	(7 972)				

MERCHANT FLEETS OF THE WORLD BY FLAG OF REGISTRATION, [a] GROUP OF COUNTRIES OR TERRITORIES AND TYPE OF SHIPS, [b] IN G.R.T. AND D.W.T., AS AT 1 JULY 1978

(Figures for d.w.t. are shown in parentheses except in cases where such data are not available)

	Total	Oil tankers	Bulk carriers[c]	General cargo[d]	Container ships	Others
Paraguay	21 930 (23 619)	2 935 (4 114)	—	15 566	—	3 429
Peru	574 718 (714 410)	97 556 (146 776)	147 548 (262 218)	194 096	—	135 518
St. Kitts, Nevis	256 (90)	—	—	—	—	256
St. Lucia	1 243 (1 386)	—	—	886	—	357
St. Vincent	11 523 (14 655)	—	—	10 001	—	1 522
Suriname	8 847 (10 027)	208 (354)	—	6 409	—	2 230
Trinidad and Tobago	15 890 (9 245)	1 736 (2 000)	—	2 664	—	11 490
Turks and Caicos Islands	2 408 (3 700)	499 (850)	—	1 785	—	124
Uruguay	174 357 (274 798)	111 991 (196 529)	—	49 979	—	12 387
Venezuela	823 543 (1 081 253)	368 077 (563 198)	9 070 (13 921)	331 376	—	115 200
Virgin Islands (British)	4 158 (5 970)	—	—	3 438	—	720
Total, developing countries of America	12 105 882 (17 894 355)	4 092 514 (6 897 340)	2 578 505 (4 438 182)	4 237 070	6 393	1 191 400
Developing countries and territories of Asia						
Bahrain	7 161 (4 989)	913 (1 300)	—	1 943	—	4 305
Bangladesh	284 496 (392 095)	41 863 (64 210)	55 752 (93 026)	164 688	—	22 193
Brunei	899 (896)	—	—	283	—	616
Burma	70 848 (78 508)	6 258 (7 519)	—	51 254	—	13 336
Democratic Kampuchea	3 558 (3 779)	—	—	998	—	2 560
Democratic Yemen	10 061 (10 618)	1 886 (3 000)	—	3 255	—	4 920
Hong Kong	874 850 (1 233 511)	29 976 (49 699)	503 630 (838 928)	184 248	124 656	32 340
India	5 759 224 (9 237 927)	1 131 891 (2 018 511)	2 549 699 (4 430 231)	1 901 658	—	175 976
Indonesia	1 272 387 (1 644 095)	105 240 (159 920)	70 823 (109 517)	904 690	—	191 634
Iran	1 194 675 (1 804 693)	597 675 (1 115 364)	—	423 872	—	173 128
Iraq	1 305 907 (2 342 093)	1 141 120 (2 163 415)	—	80 898	—	83 889
Jordan	2 295 (4 060)	—	—	2 095	—	200
Kuwait	2 240 030 (3 819 063)	1 218 912 (2 344 912)	12 860 (18 822)	897 666	—	110 592
Lebanon	277 846 (383 336)	22 633 (26 188)	—	233 280	—	21 933
Malaysia	552 456 (810 725)	4 750 (7 793)	290 073 (475 875)	179 467	—	78 136
Maldives	96 218 (118 985)	1 244 (1 603)	—	92 905	—	2 069
Pakistan	442 401 (583 941)	—	21 903 (32 919)	403 003	—	17 495
Philippines	1 264 995 (1 777 801)	301 522 (538 345)	198 044 (335 555)	598 105	—	167 324

MERCHANT FLEETS OF THE WORLD BY FLAG OF REGISTRATION,[a] GROUP OF COUNTRIES OR TERRITORIES AND TYPE OF SHIPS,[b] IN G.R.T. AND D.W.T., AS AT 1 JULY 1978

(Figures for d.w.t. are shown in parentheses except in cases where such data are not available)

	Total	*Oil tankers*	*Bulk carriers*[c]	*General cargo*[d]	*Container ships*	*Others*
Qatar	87 767	72 570	—	884	—	14 313
	(151 625)	(138 020)				
Republic of Korea	2 975 389	1 065 562	773 394	642 099	106 920	387 414
	(4 681 435)	(1 985 083)	(1 275 324)			
Saudi Arabia	1 246 112	1 021 652	64 418	114 950	—	45 092
	(2 145 388)	(1 892 842)	(85 009)			
Sri Lanka	92 528	21 302	—	61 200	—	10 026
	(125 736)	(35 170)				
Syrian Arab Republic	26 518	—	—	25 065	—	1 453
	(39 473)					
Thailand	335 116	151 220	—	168 501	—	15 395
	(505 441)	(262 836)				
United Arab Emirates	156 479	78 033	—	60 021	—	18 425
	(250 999)	(146 314)				
Yemen	1 436	—	—	1 260	—	176
	(1 850)					
Total, developing countries of Asia	20 581 652	7 016 222	4 540 596	7 198 288	231 576	1 594 970
	(32 153 062)	(12 962 044)	(7 695 206)			
Developing countries of Europe						
Malta	101 541	5 339	30 067	58 686	—	7 449
	(133 768)	(7 805)	(47 972)			
Total, developing countries of Europe	101 541	5 339	30 067	58 686	—	7 449
	(133 768)	(7 805)	(47 972)			
Developing countries and territories of Oceania						
Fiji	10 023	254	—	4 392	—	5 377
	(8 468)	(400)				
Nauru	54 004	—	36 976	13 849	—	3 179
	(74 458)		(58 808)			
New Hebrides	6 584	3 266	—	3 188	—	130
	(9 701)	(5 431)				
Gilbert Islands/Tuvalu	1 333	—	—	1 333	—	—
	(868)					
Papua New Guinea	16 718	1 276	—	8 026	—	7 416
	(16 572)	(1 198)				
Solomon Islands	2 018	—	—	1 058	—	960
	(2 005)					
Tonga	20 663	—	—	17 658	—	3 005
	(23 346)					
Western Samoa	714	—	—	—	—	714
	(60)					
Total, developing countries and territories of Oceania	112 057	4 796	36 976	49 504	—	20 781
	(135 478)	(7 029)	(58 808)			
Other countries and territories n.e.s.	1 619 595	307 216	646 721	554 765	18 109	92 784
	(22 516 266)	(558 500)	(1 049 469)			

Sources: Lloyd's Register of Shipping: Statistical Tables, 1978 (London), and supplementary data regarding the Great Lakes fleets of the United States of America and Canada and the United States reserve fleet.

[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 g.r.t. and over, excluding the Great Lakes fleets of the United States of America and Canada and the United States reserve fleet.

[c] Ore and bulk carriers of 6 000 g.r.t. and over, including ore/bulk/oil carriers.

[d] Including passenger/cargo.

[e] Excluding estimates of:

	Total	*Oil tankers*	*Bulk carriers**	*General cargo***	*Others*
United States Great Lakes Fleet	1 728 136	25 922	1 603 710		
	(2 903 268)	(38 883)	(2 918 752)	20 737	77 767
Canadian Great Lakes Fleet	1 825 185	69 357	1 514 903		
	(2 591 763)	(104 452)	(2 242 056)	136 888	104 037
United States reserve fleet (vessels of 1 000 g.r.t. and over	1 700 000	210 000			
	(2 125 000)	(330 000)	—	1 490 000	—

* See foot-note c above.
** See foot-note d above.

ANNEX IV

SELECTED MAXIMUM AND MINIMUM[a] TRAMP FREIGHT RATES, 1975-1978

Commodity route	Currency unit (sterling and dollars)	1975 High	1975 Low	1976 High	1976 Low	1977 High	1977 Low	1978 High	1978 Low
Heavy grain:									
Gulf of Mexico (United States)–India[b]	Dollars	28.25	24.00	26.50	26.25	..	..	..	..
River Plate–Antwerp/Hamburg range[b]	Dollars	16.00	13.00	21.25	20.75	15.00	15.00	19.25	15.00
River Plate–Japan[c]	Dollars	19.50	17.20	24.00	16.50	21.50	17.00	26.00	18.50
North Pacific–Republic of Korea[c]	Dollars	20.50	11.65	16.60	11.35	14.50	13.25	18.00	13.25
Coal:									
Hampton Roads–Japan[d]	Dollars	9.00	5.65	8.00	5.50	7.45	6.25	11.00	7.25
Sugar:									
Mauritius–United Kingdom	Sterling	10.65	7.50	13.65	9.90	11.90	11.05	13.25	11.15
Philippines–USA	Dollars	16.50[e]	16.00[e]	26.50[e]	22.00[e]	21.00	15.90	..	..
Ore:									
Brazil-continental–Europe	Dollars	4.00	3.00	5.00	3.10	4.25	3.30	3.85	3.075
Monrovia–Continental Europe[f]	Dollars	3.10	2.30	4.45	2.40	2.95	2.95	3.25	2.525
Phosphate:									
Aqaba–West coast of India	Dollars	16.00	7.50	9.50	9.50	9.75	8.25	11.50	8.25
Fertilizers:									
Gulf of Mexico (United States)–India[g]	Dollars	42.50	25.00	23.00	23.00	24.25	21.00	34.00	30.00

Source: Lloyd's List (London), 5 January 1976, 4 January 1977 and 9 January 1979; for 1977, *Fairplay International Shipping Weekly* (London), vol. 265, No. 4924, 19 January 1979, p. 89.

[a] Approximate levels.

[b] About 14,000 tons.

[c] 20 000–25 000 tons.

[d] About 50 000 tons.

[e] According to *Fairplay International Shipping Weekly*,(London), vol. 257, No. 4820, 8 January 1976, p. 115 for 1975; and *ibid.*, vol. 261, No. 4874, 20 January 1977, p. 81, for 1976.

[f] 60 000–80 000 tons.

[g] Diammonium phosphate.

ANNEX V

LINER FREIGHT CHANGES AND SURCHARGES ANNOUNCED [a] IN 1978

Key

Type of surcharge:
bunker = bunker surcharge; l.s.d. = landing, storage and delivery charges; CAF = currency adjustment factor.

Unit:
f.t. = per freight ton; m^3 = per cubic metre; m.t. = per metric ton; p.u. = per paying unit; W/M = per weight and/or measurement ton.

Other:
(. .) indicates that previous level of surcharge not specified in source.

Item No.	Name of conference	Announced date of implementation	General freight rate increases	Surcharges: New or increased	Surcharges: Reduced, cancelled or incorporated in tariff
1	Australia Northbound Shipping Conference	1 January			Bunker, 10.79-9.03 per cent (to Philippines and Hong Kong) Bunker, 6.00-5.47 per cent (to Japan and Republic of Korea)
2	Japan/West Africa (Angola-Cameroon range) Freight Conference	1 January			Bunker, 19.20-17.60 per cent
3	Japan/West Africa (Nigeria-Senegal range) Freight Conference				
4	Australia/Singapore and West Malaysia Outward Shipping Conference	15 January	7.25 per cent		CAF, 8.49-7.83 per cent incorporated in tariff
5	Australia/Indonesia Outward Shipping Conference				
6	Australia/Thailand Outward Shipping Conference	15 January	7 per cent		CAF, 8.12-6.07 per cent incorporated in tariff
7	Conférence Centre Amérique	1 February		Bunker, $7.66-$8.07/p.u.	
8	Australia Northbound Shipping Conference	1 February		Bunker, 9.03-9.87 per cent (to Philippines and Hong Kong)	Bunker, 5.47-5.41 per cent (to Japan and Republic of Korea
9	European South Pacific and Magellan Conference (ESPM)	1 February		Bunker, $11-$12/f.t. (for Italy)	
10	Far East/River Plate/Far East Freight Conference	1 February		Bunker, 14.10-18.10 per cent	
11	Europe/Indonesia and Indonesia/Europe Freight Conference	15 February		Bunker, 18.30-19.60 per cent	
12	Conférence Centre Amérique	1 March	11 per cent (to Central America)		Bunker, $8.07-$7.77/p.u.
13	Australia Northbound Shipping Conference	1 March			Bunker, 9.87-9.48 per cent (to Philippines and Hong Kong) Bunker, 5.41-5.34 per cent (to Japan and Republic of Korea)
14	UK/Israel Conference	1 March	5 per cent		
15	Israel/UK Conference	1 March	2.50 per cent		
16	Brazil/Mediterranean/Brazil Freight Conference	1 March	8 per cent (to Brazil)		Bunker, 17.10-15.83 per cent

17	Bombay/Malabar/Australia Agreement	1 March	n.a.		
18	Association of West India Transatlantic Steamship Lines (WITASS)	16 March		L.s.d. charges for Georgetown, \$12.50-\$18.00/f.t.	
19	Europe/India-Pakistan-Bangladesh Conference	1 April		Cargo handling charges from United Kingdom: Liverpool-Birkenhead, (. .) – £5/f.t. Glasgow, (. .) – £3.75/f.t. Manchester, (. .) – £2.75/f.t. London, (. .) – £1.50/f.t.	
20	US South Atlantic/Spanish, Portuguese, Moroccan and Mediterranean Rate Agreement	1 April	15 per cent		
21	Accordo Merci Italia/Canaria (AICA)	1 April	10 per cent		
22	Japan/Puerto Rico and Virgin Islands Freight Conference	1 April	11 per cent		
23	Australia Northbound Shipping Conference	1 April			Bunker, 9.48-9.00 per cent (to Philippines and Hong Kong) Bunker, 5.34-5.25 per cent (to Japan and Republic of Korea)
24	Conférence internationale Madagascar, Comores, Réunion et Maurice (CIMACOREM)	3 April	13.20 per cent and introduction of a new tariff system based on ECU		
25	Australia/Mauritius and South Africa Conference	10 April	9 per cent (from Australia)		
26	Japan/Latin America Eastbound Freight Conference	10 April	6 per cent (special tax for development of the Guatemalan fleet)		
27	Australia/East India Outward Shipping Conference	11 April	7 per cent		
28	Australia/Burma Outward Shipping Conference	11 April	7 per cent		
29	Conférence Centre Amérique	21 April	6 per cent (special tax for development of Guatemalan fleet)		
30	Canadian North Atlantic Westbound Freight Conference	1 May	4 per cent		
31	North Continent/Aqaba Agreement	1 May	10 per cent		
32	Conférence Centre Amérique	1 May	\$5.50/p.u. for Venezuela \$7.35/p.u. for Colombia		Additional Colombian port surcharge of \$1.85/p.u. incorporated in tariff (for Colombia)
33	Australia Northbound Shipping Conference	1 May		Bunker 9.00-9.25 per cent (to Philippines and Hong Kong)	Bunker, 5.25-5.19 per cent (to Japan and Republic of Korea)
34	India-Pakistan-Bangladesh/Middle East Conference	1 May	20 per cent		Suez surcharge, 6-5 per cent, and bunker, 17-14 per cent
35	West Coast of Italy, Sicilian and Adriatic Ports/North Atlantic Range Conference (WINAC)	1 May	5 per cent		

LINER FREIGHT CHANGES AND SURCHARGES ANNOUNCED[a] IN 1978

Item No.	Name of conference	Announced date of implementation	General freight rate increases	Surcharges: New or increased	Surcharges: Reduced, cancelled or incorporated in tariff
36	Association of West India Transatlantic Steamship Lines (WITASS)	10 May		L.s.d. charges for Belize, (. .)-$10/f.t.	
		22 May	6 per cent (special tax for development of Guatemalan fleet)		
37	Australia Northbound Shipping Conference	1 June			Bunker, 9.25-8.96 per cent (to Philippines and Hong Kong) Bunker, 5.19-5.14 per cent (to Japan and Republic of Korea)
38	Adriatic-Levant-Freight-Agreement (ALFA)	1 June		General port cost surcharge: to Levant ports: 12 per cent on W or 8 per cent on M; to Adriatic ports: 8 per cent	
39	Association of West India Transatlantic Streamship Lines (WITASS)			L.s.d. charges: for Antigua, (. .)-$10/f.t.; for Grenada, (. .)-$9/f.t.; for Montserrat, (. .)-$23.30/f.t.; for St. Kitts and Nevis, (. .)-$15.30/f.f.; for Santa Lucia, (. .)-$6.65/f.t.; for St. Vincent, (. .)-$3.70/f.t.; for Trinidad and Tobago, (. .)-$8.35/f.t.; for Panamaribo, (. .)-$12.90/f.f.	
40	Continental Canadian Westbound Freight Conference	1 July	8 per cent		
41	Canadian Continental Eastbound Freight Conference	1 July	8 per cent		
42	New Zealand European Shipping Association	1 July	5 per cent		
43	UK and Gibraltar Conference	1 July	15 per cent		
44	Conférence de fret France/Antilles et Guyane française	1 July	12 per cent		
45	Europe/South and South East Africa Conference	1 July	6 per cent		
46	Conférence Centre Amérique	1 July			Bunker, $7.77-$7.40/p.u.
47	Australia/West India Outward Shipping Conference	1 July	9 per cent		6.65 per cent CAF incorporated in tariff
48	Australia/Sri Lanka Outward Shipping Conference	1 July	9 per cent		6.65 per cent CAF incorporated in tariff
49	European South Pacific and Magellan Conference (ESPM)	1 July			Bunker, $8.00-$7.50/f.t. (for Europe, excluding Italy)

50	Australia Northbound Shipping Conference	1 July		Bunker, 8.96-9.19 per cent (to Philippines and Hong Kong) Bunker, 5.14-5.19 per cent (to Japan and Republic of Korea)	
51	Lines serving the trade France/Canary Islands	1 August	10 per cent		Bunker, 14.00-12.50 per cent
52	Mediterranean/North Pacific Coast Freight Conference (MED/PAC)	1 August	7 per cent		
53	Australia Northbound Shipping Conference	1 August		Bunker, 5.19-5.20 per cent (to Japan and Republic of Korea)	Bunker, 9.19-8.87 per cent (to Philippines and Hong Kong)
54	Conférence Centre Amérique	1 August			Bunker, $7.40-$7.20/p.u.
55	Brazil/Europe/Brazil Freight Conference (Section 4)	1 August	8 per cent (from United Kingdom/Ireland)		
56	UK/Red Sea Conference Lines	1 August		Cargo handling surcharge for Liverpool, Glasgow and Birkenhead, £2-£3/m.t.	
57	UK/East Africa, Mauritius and Sudan Freight Conference				
58	UK/South and South East Africa Conference				
59	UK/Lobito Conference				
60	Conférence maritime France/Tunisie et Tunisie/France	15 August	8 per cent		
61	Europe/US and Canada Pacific Coast Freight Conference	27 August	15 per cent		
62	Australia and New Zealand Eastern Shipping Conference	1 September	10 per cent (trade Philippines to New Zealand)		Bunker, 5.20-5.19 per cent (to Japan and Republic of Korea)
63	UK/West Africa Lines Joint Service (UKWAL)	1 September	14.25 per cent (temporary increase on African trade)		
64	Japan/Puerto-Rico and Virgin Islands Freight Conference	1 September	4 per cent		
65	Mediterranean/Canada Westbound Freight Conference	1 September	5 per cent		
66	Association of West India Transatlantic Steamship Lines (WITASS)	11 September		Panama handling charges: $20.20-$23.40/w.t., $8.50-$9.35/f.t., and $26.50-$32.00/p.u.	
67	Canadian North Atlantic Westbound Freight Conference	1 October	4 per cent		
68	Interamerican Freight Conference (Section D)	1 October	10.33 per cent		
69	Japan/East Africa Freight Conference	1 October	7.99 per cent		
70	Japan/Hong Kong and Japan/Straits Freight Agreements	1 October	8.30 per cent		
71	Australia to Europe Shipping Conference	1 October	4.50 per cent		
72	Accordo Agenti Mar Rosso e Golfo di Aden	1 October	10 per cent		
73	Japan/Philippines Freight Conference	1 October	7.50 per cent		
74	Outward Continent/Australia Conference	1 October	3 per cent		
75	UK/Australia Conference Lines				

LINER FREIGHT CHANGES AND SURCHARGES ANNOUNCED[a] IN 1978

Item No.	Name of conference	Announced date of implementation	General freight rate increases	Surcharges: New or increased	Surcharges: Reduced, cancelled or incorporated in tariff
76	Conférence COA	1 October	5 per cent		
77	West Coast of India and Pakistan/USA Conference	1 October	15 per cent		
78	Far East/River Plate/Far East Freight Conference	1 October	14 per cent		
79	Australia Northbound Shipping Conference	1 October		Bunker, 8.87-9.02 per cent (to Hong Kong and Philippines)	Bunker, 5.19-5.11 per cent (to Japan and Republic of Korea)
80	UK/Australia Conference Lines	27 October			Bunker, 8.95-7.60 per cent
81	Outward Continent/Australia Conference	27 October			Bunker, 8.95-8.40 per cent
82	Japan and Hong Kong/South Africa Shipping Conference	1 November	9.26 per cent		
83	Australia Northbound Shipping Conference	1 November		Bunker, 5.11-5.18 per cent (to Japan and Republic of Korea)	Bunker, 9.02-8.45 per cent (to Hong Kong and Philippines)
84	European South Pacific and Magellan Conference (ESPM)	1 November		Bunker, $7.50-$8.00/f.t. (for Europe, excluding Italy)	
85	Continent/Turkey/Continent Conference (CONTURCON)	6 November		Bunker, 20-25 per cent	
86	Levant Conference	6 November	15 per cent		
87	Conference of Malta and Alexandria Steamship Companies				
88	Trans-Pacific Freight Conference of Japan/Korea	1 December	4 per cent		
89	Japan-Korea/Atlantic and Gulf Freight Conference				
90	India-Pakistan-Bangladesh/UK and Continental Shipping Conferences	1 December	12.50 per cent (westbound trade)		Bunker, 11.64-10.35 per cent (to United Kingdom)
91	Australia/Eastern USA Shipping Conference	1 December	4.50 per cent		CAF, 13.10-10.14 per cent incorporated in tariff
92	Australia/Eastern Canada Shipping Conference				
93	Association of West India Transatlantic Steamship Lines (WITASS)	1 December		Bunker, $6.30-$7.00/f.t.	
94	Conférence Centre Amérique	1 December		Bunker, $7.20-$7.70/p.u.	
95	European South Pacific and Magellan Conference (ESPM)	1 December		Bunker, $8-$9/f.t. (for Europe, excluding Italy)	
96	Japan/West Canada Freight Conference	1 December	4 per cent		
97	Japan-Korea/East Canada Freight Conference				
98	Japan/Puerto Rico and Virgin Islands Freight Conference				

99	Australia Northbound Shipping Conference	1 December		Bunker, 8.45-8.68 per cent (to Hong Kong and Philippines)	Bunker, 5.18-4.87 per cent (to Japan and Republic of Korea)
100	Australia Pacific Coast Rate Agreement	1 December	4.50 per cent		CAF, 11.83-8.90 per cent incorporated in tariff
101	Association of West India Transatlantic Steamship Lines (WITASS)	11 December		To Haiti: tax for port modernization, $1.50; port charge, $2.30/ton or m³; discharging tax, $4.50/ton or m³; from Haiti: tax for port modernization, $1.00; port charges, $2.30/ton or m³	
102	European South Pacific and Magellan Conference (ESPM)	16 December		Bunker, $12.00-$12.50/f.t. (for Italy)	
103	Conference of Malta and Alexandria Steamship Companies	1 January 1979			
104	Levant Conference	1 January 1979		Bunker, 2.50 per cent (from United Kingdom)	
105	Australia and New Zealand/Eastern Shipping Conference	1 January	6.00 per cent (to New Guinea) 7.50 per cent (to South and East Australia) 9.00 per cent (to North and West Australia) 10.00 per cent (to New Zealand)		
106	Brazil/Europe/Brazil Freight (Section 3)	1 January	4 per cent (to Brazil)		
107	European South Pacific and Magellan Conference (ESPM)	1 January	6 per cent (southound n.a. Northound)		
108	New Zealand European Shipping Association	1 January	5 per cent		
109	North of Brazil and Amazonia/Europe/North of Brazil and Amazonia Freight Conference	1 January	12 per cent (southbound) 10 per cent (northbound)		
110	Mediterranean Europe West Africa Conference (MEWAC)	1 January	15 per cent		
111	Europe/South and South East Africa Conference	1 January	15 per cent		
112	UK and Continent-Letitia and Iquitos Gentlemen Agreement	1 January	10 per cent		
113	North Atlantic Mediterranean Freight Conference	1 January	15 per cent		
114	Japan/Hong Kong and Japan/Straits Freight Agreements	1 January	7 per cent		

ANNEX V (*continued*)

LINER FREIGHT CHANGES AND SURCHARGES ANNOUNCED[a] IN 1978

Item No.	Name of conference	Announced date of implementation	General freight rate increases	Surcharges: New or increased	Surcharges: Reduced, cancelled or incorporated in tariff
115	Continent/US Gulf Freight Association	1 January	12 per cent		
116	Brazil/Mediterranean/Brazil Freight Conference	1 January	14 per cent		
117	Conférence Centre Amérique	1 January		Bunker, $7.70-$8.25/p.u.	
118	Australia Northbound Shipping Conference	1 January	3.50 per cent (to Hong Kong and Philippines)		
119	West Coast of Italy, Sicilian and Adriatic Ports/North Atlantic Range Conference (WINAC)	1 January	13 per cent		
120	Med-Gulf Conference	1 January	11.50 per cent		
121	Japan/East Africa Freight Conference	1 January	6.50 per cent		
122	Japan and Hong Kong/South Africa Shipping Conference	1 January	7.50 per cent		
123	Continent North Atlantic Westbound Freight Conference	1 January	12 per cent		
124	Australia/Thailand Outward Shipping Conference	5 January	4.50 per cent		
125	U.S. South Atlantic/Spanish, Portuguese, Moroccan and Mediterranean Rate Agreement	1 February	15 per cent		
126	UK/USA Gulf Westbound Rate Agreement	1 February	13 per cent		
127	Japan/South Pacific Freight Conference	1 February	13.39 per cent		
128	Japan/Ceylon Freight Conference	1 February	17.90 per cent		
129	North Atlantic Westbound Freight Association	1 February	13 per cent (from United Kingdom/Ireland)		
130	Japan/Thailand Freight Conference	1 February	8.15 per cent		
131	Mediterranean North Pacific Coast Freight Conference (MED/PAC)	1 February	10 per cent		

132	Brazil/Far East/Brazil Freight Conference	1 February	9.25 per cent	
133	Entente de fret de lignes de navigation desservant Papeete et Nouméa au départ des ports européens	12 February	12.50 per cent	
134	Marseilles North Atlantic USA Freight Conference	15 February	12 per cent	
135	UK/Mauritius Conference	1 March	17.50 per cent	
136 to 140	Far Eastern Freight Conference (FEFC) Europe/Japan and Japan/Europe Freight Conference Philippines/Europe Conference Sabah, Brunei and Sarawak Freight Conference Entente de fret en sortie de Marseille et ports annexes sur la Malaisie, la Thailande, les Philippines, Hong Kong, la Chine, la Corée et le Japon	1 March	8 per cent	Suez surcharge, 1.78-0.40 per cent
141	Japan/West Africa (Angola-Cameroon range) Freight Conference	1 April	10.37 per cent	
142	Japan/West Africa (Nigeria-Senegal range) Freight Conference	1 April	10.37 per cent	
143	Bay of Bengal/Japan/Bay of Bengal Conference	1 April	6.64 per cent	
144	Pacific Westbound Far East Conference	1 April	10 per cent	
145	Trans-Pacific Freight Conference of Japan/Korea	1 April	10 per cent	
146	Japan-Korea/Atlantic and Gulf Freight Conference	1 April	10 per cent	

Sources: *Journal de la marine marchande et de la navigation aérienne* (Paris) and *Journal pour le transport international* (Basel), 1978 issues; also information communicated to the UNCTAD secretariat by liner conferences.

[a] Announced by shipping conferences or groups of lines serving particular trades, but excluding announcements by individual lines. This list excludes changes in the level of CAF surcharges, which are listed separately in document TD/B/C.4/Add.1.

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