

UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT
Geneva

REVIEW OF MARITIME TRANSPORT 1999

Chapter IV : Trade and Freight Markets



UNITED NATIONS
New York and Geneva, 1999

CHAPTER IV

TRADE AND FREIGHT MARKETS

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

A. LINER SHIPPING MARKET

(a) Developments in liner markets⁸

Concentration processes

62. The liner shipping industry continues to be characterized by two distinct processes of concentration and vertical integration. Tables 31 and 32 give a picture of the supply-side dynamics of container shipping and reflect ongoing concentration processes. It is interesting to note that among the 20 leading companies, 12 originate in Asian countries. These companies account for more than 55 per cent of the TEU capacity of the top 20. The presently ongoing process of competitive positioning of companies will lead to further concentration and the emergence of new mega-carriers. The merger of P&O and Nedlloyd in 1997, which created a company with a carrying capacity of 250,000 TEU, started a process that was followed up by Asian carriers in 1997 and 1998. In March 1997, Hanjin acquired a majority share in DSR-Senator Lines and in 1998 NOL bought up APL, thus boosting the Singapore-based carrier's capacity to 200,000 TEU. Apart from the quantitative capacity effect, the purchase allowed NOL access to management systems and techniques developed by APL, thus ensuring continued competitiveness of the company. The latest move was that of Maersk Line acquiring shipping internal activities of Sea-Land in July 1999, thus creating a giant carrier of a total capacity of 550,000 TEU, a class of its own. Other companies, particularly those of developing countries, still have to make the necessary decisions on their future competitive positioning either as a global player or more of a niche carrier.

63. The need to respond to global transport requirements of large shippers and, at the same time, to rationalize the use of existing assets and new investments has been at the root of the major carriers'

moves to enter into "global alliances". The creation of global alliances marks the culmination of an evolutionary process of improving transport efficiency through cooperative mechanisms. These processes started with the introduction of containerization in the early 1970s, when operating consortia were created with the aim of reducing investment risks in what was considered to be a highly capital-intensive industry. Later on and particularly during the early 1990s efforts were geared increasingly towards the introduction of mechanisms to safeguard revenues, such as trade-wide stabilization agreements. Today, shipping lines entering global alliances generally expect to realize advantages, both with regard to the cost of shipping and transport services as well as to their marketing. Synergies can be expected not only in the actual ocean carriage, but even more so in equipment management, pre- and post-transportation, including terminal operations. It is particularly the inland portions of the transport chain and the container management where the potential for rationalization gains appears to be the most important. The problem of empties is a major one in container shipping, the magnitude of which is also reflected in the statistics of major ports of the world. In 1998, for instance, 25 per cent of containers handled in the port of Long Beach, California were empty. In terms of TEU, this means that the port handled about 1 million empty boxes. This problem was greatly exacerbated by the Asian crisis. In some Asian trades, the ratio of outgoing to incoming cargoes is reported to have deteriorated to 3:1. This not only causes immense cost of repositioning and container logistics, but has also had adverse effects on rate restoration efforts. While different cargo requirements may make certain empty movements indispensable also in balanced trades, there appears nevertheless to be considerable scope for cost reductions through improved equipment interchange facilities in the context of container logistics within new cooperative arrangements.

Table 31
**Leading 20 container service operators (September 1998) on the basis of number of vessels
and total shipboard capacity (TEUs)**

Ranking	Operator	Country/territory	Total TEU	Tonnage contracted	Millions of TEU carried (1998)
1	Maersk Line	Denmark	346 123	81 256	3.1
2	Evergreen Line/Uniglor	Taiwan Province of China	280 237	89 404	3.5
3	P&O /Nedlloyd	UK /Netherlands	250 858	39 630	2.5
4	Mediterranean Shipping	Switzerland	220 745	7 900	1.6
5	Hanjin Shipping	Republic of Korea	213 081	5 300	2.0
6	Sea-Land Service	United States	211 358	-	3.2
7	COSCO	China	202 094	24 684	3.5
8	NOL/APL	Singapore/United States	201 075	-	2.1
9	NYK Line	Japan	163 930	-	1.7
10	Mitsui OSK Lines	Japan	133 681	10 000	1.4
11	Hyundai Merchant	Republic of Korea	116 644	-	1.5
12	Marine	Israel	111 293	-	1.1
13	Zim Israel Navigation	Canada	105 322	-	1.1
14	CP Ships	France	91 600	4 400	1.1
15	CMA/CGM	Germany	90 879	33 600	1.3
16	Hapag-Lloyd	Hong Kong (China)	90 063	11 000	1.6
17	OOCL	Japan	89 717	6 912	1.0
18	K Line	Taiwan Province of China	79 840	26 000	1.2
19	Yangming Marine	Kuwait	59 331	7 600	0.5
20	UASC	South Africa	55 584	-	0.7
	Safmarine/CMBT Lines				

Source: *Containerisation International*, November 1998.

Table 32
Estimated capacity of global alliances in container shipping, 1998

Grouping	Total capacity (TEUs)	Capacity share (%)
Grand Alliance: Hapag-Lloyd; NYK; P&O Nedlloyd; MISC; OOCL	635 730	11
New World Alliance: Hyundai; NOL/ APL; MOL;	270 500	5
Maersk/Sea-Land	557 481	10
Evergreen/Uniglor	280 237	5
United Alliance: Hanjin; DSR-Senator; Cho Yang; UASC	272 412	5
COSCO/K-Line/Yangming Group	371 651	6
Subtotal	2 388 011	42
Other lines	3 411 989	58
Total world capacity	5 800 000	100

Sources: *Containerisation International*, November 1998 and various press articles.

Vertical integration - shipping companies move into logistics

64. Companies have to realize that the cost-saving potential of alliances is after all limited as they do not address some of the major cost elements, that is cost of cargo acquisition and administration, thus stopping short of making the real cuts that companies might seek in order to improve their profitability and competitiveness. Furthermore, alliances will at some stage have to address the issue of inland transport and logistics. Some of the major problems of shipping lines are linked to pre- and onward carriage and equipment control, which are essential elements of implementing differentiation strategies. Consequently, it does not appear logical that alliances up to now concentrate on the port-to-port side of the transport business, the more so as the same shipping lines seek increasingly to ensure long-term profitability through diversification into logistics services. Based on this consideration, it appears safe to assume that presently existing cooperative structures are also a passing phenomenon. Additionally, growth through mergers and takeovers enables the company to address some of the issues that alliances could not resolve, i.e. the improvement of its revenue-earning potential. Companies get caught in a 'vicious' cycle whereby rationalization gains are immediately passed on in terms of lower freight rates, thus having only marginal impact on company profitability. The perpetual erosion of revenues per TEU due to pre-emptive rebating has in a way become a characteristic of the industry. It appears, therefore, important that shipping companies spend more effort to increase and stabilize revenues. Some lines complain that the share of full-cost rated containers has in some trades declined from 80 to as low as 20 per cent. Rate restoration measures would need to be based on clearer competitive positioning with concentration on differentiation strategies that could sustain higher revenues. Such strategies will have to be based on more sophisticated market segmentation, better-adapted tariff structures and the development of logistics services tailored to individual shippers- requirements.

65. Major shipping lines are increasingly moving into logistics services in an attempt to implement differentiation strategies, while maintaining ocean carriage as a core business. This move from ? hardware based - service suppliers into a service industry that is know-how and information technology driven is expected to open new opportunities for shipping lines. It opens the door to an industry that is estimated to provide for an annual

business volume of around \$40 billion and, most importantly, for above average growth rates. Shippers require global logistics services from carriers, freight forwarders or other suppliers. The provision of these services profoundly changes shipper/carrier relations as much as the concept has changed transport requirements of shippers:

- (a) The logistics service suppliers are integrated in the production and marketing processes of the shipper; this is the single most important change for both shipper and carrier.
- (b) Multinational customers increasingly demand global solutions and one-stop logistics services;
- (c) Prices and conditions negotiated in the context of such global contracts bear little resemblance to traditional ocean tariffs - or for that matter any commodity and route-oriented unimodal tariffs; and
- (d) Only a limited number of global carriers are in a position to compete for such contracts.

66. Shipping lines moving into logistics services compete increasingly with freight-forwarding companies that produce similar competing services. In fact, the freight-forwarding industry can be considered more of a forerunner in logistics services than liner shipping or, for that matter, other modal carriers. Freight forwarders were pressured into multimodal and logistics services, as they had to realize already in the 1970s that there was only a limited future, if any, in traditional agency based freight-forwarding services. Today, the freight-forwarding industry goes through a consolidation process, which is similar to that of the shipping industry. Additionally, linkages are becoming closer and more freight-forwarding companies team up in one way or another with shipping or other transport companies.

67. Further concentration processes on the sea leg could characterize future development, with companies providing shipping as a core around which logistics services will be built. This concentration process will further change the competitive environment on the sea leg, enable remaining companies to provide the necessary investment in hardware and employ them in a commercially viable fashion. Those companies that will not be among the global carriers can be expected to engage increasingly in niche operations,

or become shareholders in globally operating companies or continue to provide global shipping and logistics services without owning or even operating sea-based assets.

(b) Freight level of main liner services

68. In 1998, in the transpacific trades, the average eastbound revenue per TEU rose by 6.6 per cent to \$1,495, while the westbound revenue fell significantly by as much as 23.1 per cent to \$994 (see table 33). The eastbound increase in ratio is attributed mainly to burgeoning exports caused by Asian currency devaluation. Thus, carriers were in a strong position to implement an increase in general tariff rates. For the westbound revenue, the situation was completely different. As a result, directional imbalances between the eastbound and the westbound trades further deteriorated in 1998, when westbound shipments dropped to only 64 per cent of eastbound moves (see table 34) from 78 per cent in 1997. Preliminary information on cargo movements in 1999 indicates a further deterioration of the directional imbalance. While eastbound cargo volumes are expected to expand further, westbound shipping volumes will drop by nearly 5 per cent. This development will clearly be an impediment to rate restoration in the westbound trades. Furthermore, the entry into force on 1 May 1999 of the Ocean Shipping Reform Act of 1998 can be expected to contribute to further downward pressure on freight rates in trades with the United States.

69. In the Asia-Europe trades in 1998, cargo movements on both directions were of almost the same pattern as the transpacific trades. With Asian exports continuously expanding by 6 per cent and

imports marginally declining, the average freight rates in the Asia-Europe trade improved by 13.4 per cent to \$1,307 per TEU, whilst those on the Europe-Asia trade fell by 13.7 per cent to \$897 per TEU. In the Asian export trades, the drop in freight rates was particularly pronounced during 1996 and 1997, followed by a gradual recovery in the course of 1998. This recovery continued in the first quarter of 1999 with westbound rates improving to almost the level of 1995. Given the continuous growth in cargo movement in the westbound trade, freight rates are expected to rise further during 1999. Conversely, freight rates in Asian import trades have continued to fall and reach unprecedented low levels in the first quarter of 1999. The trade imbalance is expected to continue for most of the year, adversely affecting both load factors and rate levels in the eastbound trade.

70. In the transatlantic trades, cargo movements in both directions in 1998 increased by 4 per cent (United States-Europe) and 9 per cent (Europe-United States). Nevertheless, average freight rates per TEU for 1998 in the eastbound trade slipped by 5.2 per cent to \$1,414, and those in the westbound trade were down by 3.5 per cent to \$1,226. These declines of freight rates were the direct result of carriers resigning from the conference and, indirectly, of uncertainty surrounding the changing regulatory environment, following various directives from the European Commission and the implementation of the Ocean Shipping Reform Act 1998. Regulatory uncertainty and pressures on freight rates continued to affect the trades in 1999. Freight rates slipped further in the first quarter of 1999 reaching new lows of \$1,185 (down 9.4 per cent) in the eastbound trades and \$1,100 (down 7.4 per cent) in the westbound trades. Over a 12-month period, this represents a revenue erosion of 20 per cent eastbound and 15 per cent westbound.

Table 33

Freight rates (average in markets) on the three major liner trade routes from the first quarter of 1997 to the second quarter of 1999
(dollars per TEU)

	Transpacific		Europe-Asia		Transatlantic	
	Asia-United States	United States-Asia	Europe-Asia	Asia-Europe	United States-Europe	Europe-United States
1997						
First quarter	1 473	1 280	995	1 112	1 459	1 302
Change (%)	-4.5	-7.5	-12.5	-13.2	-10.0	-0.7
Second quarter	1 407	1 277	1 036	1 156	1 444	1 246
Change (%)	-4.5	-0.2	4.1	4.0	-1.0	-4.3
Third quarter	1 369	1 428	1 067	1 187	1 602	1 274
Change (%)	-2.7	11.8	3.0	2.7	10.4	0.0
Fourth quarter	1 362	1 182	1 056	1 157	1 458	1 261
Change (%)	-0.5	-17.2	-1.0	-2.5	-9.0	-1.0
1998						
First quarter	1 345	1 119	1 040	1 183	1 472	1 284
Change (%)	-1.2	-5.3	-1.5	2.2	1.0	1.8
Second quarter	1 459	1 015	869	1 227	1 477	1 210
Change (%)	8.5	-9.3	-16.4	3.7	0.3	-5.8
Third quarter	1 561	999	873	1 353	1 397	1 221
Change (%)	7.0	-1.6	0.5	10.3	-5.4	0.9
Fourth quarter	1 614	842	807	1 465	1 308	1 188
Change (%)	3.4	-15.7	-7.6	8.3	-6.4	-2.7
1999						
First quarter	1 619	832	716	1 512	1 185	1 100
Change (%)	0.3	-1.2	-11.3	3.2	-9.4	-7.4
Second quarter	2 018	871	723	1 525	1 111	1 045
Change (%)	24.6	4.7	1.0	0.9	-6.2	-5.0

Sources: UNCTAD secretariat on the basis of data supplied by *Containerisation International*, various issues, and other specialized sources.

Table 34
Cargo movements on the three major liner trade routes for 1996-1998 and forecasts for 1999 and 2000
(thousands of TEUs)

	Transpacific		Asia-Europe		Transatlantic	
	Asia-United States	United States-Asia	Asia-Europe	Europe-Asia	United States-Europe	Europe-United States
1996	4 104	3 520	3 142	2 584	1 219	1 421
1997	4 662	3 615	3 290	2 734	1 276	1 556
Growth (%)	13.6	2.7	4.7	5.8	4.7	9.5
1998	5 221	3 326	3 487	2 710	1 327	1 696
Growth (%)	12.0	-8.0	6.0	-0.9	4.0	9.0
1999	5 466	3 266	3 633	2 713	1 362	1 738
Growth (%)	4.7	-1.8	4.2	0.1	2.6	2.5
2000	5 838	3 328	3 811	2 900	1 399	1 788
Growth (%)	6.8	1.9	4.9	6.9	2.7	2.9

Sources: UNCTAD secretariat on the basis of data supplied by the Japan Maritime Research Institute; DRI/McGraw-Hill, *World Sea Trade Service Review*, various issues; *Containerisation International*, various issues, and other specialized sources.

Note: European trades do not include the Mediterranean.

c) Supply and demand of main liner services

71. In the liner trades to and from Asia (transpacific and Europe-Asia), imbalance between supply and demand is improving marginally (see table 35). A number of Asian-based carriers have begun restructuring their operational programmes, including through various tonnage placements or redeployments, in an effort to ensure their survival in the face of falling revenues. The imbalance in cargo movements between the eastbound and the westbound trade routes will continue to force all carriers serving the Asian trades to pay additional operating expenses as the need for repositioning empty boxes increases.

72. On the Europe-Asia trade route, the situation is different from the transpacific trade because of the nature of the trade, in which heavy goods, mainly in 20-foot containers, move east, and lighter goods (such as consumer durables, electrical goods, garments and footwear), which are more suited to 40-foot and 45-

foot containers, are moving west. The need to reposition empty eastbound containers has thus increased considerably for reasons of both trade imbalance and structural imbalance. Carriers are responding to this situation by trying to attract return cargoes in order to minimize empty moves. This course of action has very often been a major cause of the dramatic decline in revenue per container.

73. On the transatlantic trade routes, the imbalance of cargo movements between the eastbound and the westbound is less by comparison with other trade routes. The space utilization on both eastbound and westbound is expected to increase marginally in 1999, but will remain the lowest of the three major trade routes. Furthermore, capacity utilization is expected to decline again in 2000 when supply capacity will increase by 4.1 per cent from the level of 1999, with demand growing by only 2.8 per cent.

Table 35

Supply (ships carrying capacity) and demand (cargo volume) in transpacific, Europe-Asia and transatlantic trades, 1998-2000
(in thousands of TEUs)

Year	Direction	Total ships' carrying capacity on one trade route per year	Estimated cargo volume on one trade route per year	Space utilization on one trade route (%)	Average space utilization on both trade routes (%)
Transpacific (Asia-United States)					
1998	Eastbound	6 896	5 221	75.7	62.0
	Westbound	6 896	3 326	48.2	
1999	Eastbound	6 992	5 466	78.2	62.4
	Westbound	6 992	3 266	46.7	
2000	Eastbound	7 278	5 838	80.2	63.0
	Westbound	7 278	3 328	45.7	
Europe-Asia					
1998	Eastbound	4 687	2 710	57.8	66.1
	Westbound	4 687	3 487	74.4	
1999	Eastbound	4 753	2 713	57.1	66.8
	Westbound	4 753	3 633	76.4	
2000	Eastbound	4 948	2 900	58.6	67.8
	Westbound	4 948	3 811	77.0	
Transatlantic (United States-Europe)					
1998	Eastbound	2 443	1 327	54.3	61.9
	Westbound	2 443	1 696	69.4	
1999	Eastbound	2 477	1 362	55.0	62.6
	Westbound	2 477	1 738	70.2	
2000	Eastbound	2 579	1 399	54.2	61.8
	Westbound	2 579	1 788	69.3	

Sources: UNCTAD secretariat on the basis of data supplied by Japan Maritime Research Institute; DRI/McGraw-Hill, *World Sea Trade Service Review*, various issues; *Containerisation International*, various issues; and other specialized sources.

Note: European trades do not include the Mediterranean.

(d) Liner freight index

74. Table 36 reflects the development of liner freight rates on cargoes loaded or discharged by liners at ports in the Antwerp/Hamburg range from 1996 to date. The overall 1998 liner freight index decreased by four points to an average level of 93 (1991=100), reflecting the market situation in both homebound and outward trades. The average container index declined by four points from the level of the previous year, while the conventional general cargo index also declined by three points. This indicates that the overall index reflects both the continuing pressures on container rates and the other market niches available for the operators of general cargo vessels. The general downward movement observed in 1998 came to a halt in early 1999. By April 1999, all indices except the container index had picked up and surpassed the 1998 averages.

(e) Liner freight rates as a percentage of prices for selected commodities

75. Table 37 provides data on freight rates of liner services as a percentage of market prices for selected commodities and trade routes for selected years between 1970 and 1997. Prices for cocoa beans and tea fell, while those for the other commodities increased. Overall freight rates except for jute were under more pressure than in the previous year, with some bringing about a considerable decrease in the freight/price ratio. The most significant decrease in the ratio was observed in the Brazilian cocoa beans trade, where prices increased by 3.5 per cent, while freight rates decreased by as much as 40.9 per cent. The ratio for the Ghana cocoa beans also decreased considerably because of a large decrease in freight rates (-28.2 per cent) versus an increase in prices (15.8 per cent), while the decrease in the ratio for tea was attributable to a decline in freight rates (-10.0 per cent). The substantial increases in the ratio for jute was attributable primarily to a significant increase in freight rates, which rose by 12.9 per cent, while its f.o.b. price fell by 14.2 per cent. The percentage ratio for the Colombian coffee trades (both Atlantic and Pacific) also increased based on a decrease in prices in the range of 28.2 per cent while freight rates remained stable. In general it can be stated that, with the exception of jute shipments from Bangladesh and rubber exports from Malaysia, the continuing pressure on freight rates has been beneficial to the trades, even though this pressure is not always of such a magnitude as to compensate fully for falling f.o.b. returns of a number of commodities of primary

export interest to developing countries.

B. DRY BULK SHIPPING MARKET**(a) Dry bulk trade**

76. In 1998, total dry bulk shipments showed a moderate growth of 3.7 per cent, of which main bulk commodities increased by 3.7 per cent and other dry bulk commodities by 3.4 per cent. World crude steel production decreased by 2.8 per cent to 776.4 million tons, with a corresponding reduction in shipments of raw material inputs to the steel industry. Iron ore shipments decreased by 2.3 per cent to 420 million tons. Coal was the largest commodity by volume, marginally increasing by 1.1 per cent to 465 million tons, of which the coking coal trade was down by 2.2 per cent to 177 million tons. The grain trade also decreased by 6.4 per cent to 190 million tons. The trading pattern for grain changed drastically from the previous year. Exports from the United States increased significantly, whereas those from Argentina and Australia decreased, thus reversing the 1997 development when Argentina and Australia benefited from reductions in United States' exports.

Steel production, iron ore and coal trades

77. The world steel industry produced 776.4 million tons of crude steel in 1998, representing a decrease of 2.8 per cent from 799 million tons in 1997. There were, however, considerable regional differences in production development. China's crude steel production rose by 5.0 per cent to 114.3 million tons in 1998 from 108.9 million tons in 1997, whereas Japan's crude steel production decreased by 10.5 per cent to 93.5 million tons. The Republic of Korea's production decreased by 6.2 per cent to 39.9 million tons, while Taiwan Province of China increased its production by 5.6 per cent to 16.9 million tons. The combined production of the four countries or territories, China, Japan, the Republic of Korea and Taiwan Province of China, decreased by 2.7 per cent to 264.6 million tons in 1998. This represents 34.1 per cent of the total world production of crude steel. The European Union increased its output by 0.1 per cent to 160 million tons, and the United States' production decreased by 0.8 per cent to 97.7 million tons. The former Soviet Union experienced a decline of 8.1 per cent to 74.4 million tons,⁹ thus reversing again the positive development observed in 1997 when marginal growth was recorded.

Table 36
Liner freight indices, 1996-1999
(monthly figures: 1991=100)

Month	Overall index				Homebound index				Outbound index				Container index				Conventional general cargo index			
	1996	1997	1998	1999	1996	1997	1998	1999	1996	1997	1998	1999	1996	1997	1998	1999	1996	1997	1998	1999
January	94	96	97	90	89	90	90	85	99	102	103	95	92	91	91	83	96	100	103	97
February	93	98	96	89	87	91	90	87	98	104	101	91	91	92	90	80	96	103	102	98
March	93	98	96	91	87	92	91	89	99	104	102	92	91	92	91	82	96	103	102	100
April	94	96	95	96	88	90	89	90	100	102	100	101	92	90	89	83	97	102	101	107
May	95	96	93	96	89	90	88	91	101	101	98	102	92	90	87	84	98	101	100	108
June	95	96	94	98	89	90	89	92	100	102	99	103	92	90	87	86	98	102	100	109
July	93	97	93		86	91	88		98	103	98		89	91	87		96	103	99	
August	92	99	93		86	93	88		97	105	98		88	92	86		95	105	99	
September	92	98	90		86	91	85		98	104	95		89	91	84		95	103	96	
October	93	95	88		87	89	83		99	101	92		90	89	82		96	101	94	
November	93	95	89		87	89	85		98	100	93		89	88	83		96	100	96	
December	94	96	88		88	90	84		100	102	93		91	90	82		97	102	95	
Annual average	93	97	93	93	87	90	87	89	99	102	98	97	90	90	87	83	96	102	99	103

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

Table 37
Ratio of liner freight rates to prices of selected commodities

Commodity	Route	Freight rate as percentage of price ^a						
		1970	1975	1980	1985	1990	1997	1998
Rubber	Singapore/Malaysia	10.5	18.5	8.9	..	15.5	10.3	13.3
Jute	Bangladesh	12.1	19.5	19.8	6.4	21.2	23.4	30.8
Cocoa beans	Ghana	2.4	3.4	2.7	1.9	6.7	-	3.9
Coconut oil	Sri Lanka	8.9	9.1	12.6	12.6	..	-	13.7
Tea	Sri Lanka	9.5	10.4	9.9	6.9	10.0	4.5	3.9
Coffee	Brazil	5.2	9.7	6.0	5.0	10.0	1.5	1.6
Coffee	Colombia (Atlantic) - Europe	4.2	5.7	3.3	6.7	6.8	2.3	3.2
Cocoa beans	Brazil	7.4	8.2	8.6	6.9	11.0	5.1	2.9
Coffee	Colombia (Pacific) - Europe	4.5	6.3	4.4	6.1	7.4	2.4	3.4

Sources: UNCTAD secretariat on the basis of data supplied by the Royal Netherlands Shipowners' Association (data for 1970-1989) and conferences engaged in the respective trades (data for 1990-1998).

^aC.i.f. (cost, insurance and freight) prices are quoted for coffee (Brazil-Europe and Colombia-Europe) and coconut oil. For cocoa beans (Ghana-Europe and Brazil-Europe) and tea, the average of the daily prices in London is quoted. Prices of the remaining commodities are quoted on f.o.b. terms. Freight rates include, where applicable, bunker surcharges and currency adjustment factors, and a tank cleaning surcharge (for coconut oil only). Conversion of rates to other currencies is based on parities given in *International Financial Statistics*, published by the International Monetary Fund (IMF). Annual freight rates were calculated by taking a weighted average of various freight rates quoted during the year, weighted by their period of duration. For the period 1990-1997, the prices of the commodities were taken from UNCTAD, *Monthly Commodity Price Bulletin*, March 1999.

78. Seaborne iron ore trade decreased by 2.3 per cent to 420 million tons in 1998 from 430 million tons in 1997. Exports from Brazil rose by 2.0 per cent to 142.5 million tons, whereas Australia suffered a decrease of about 7 per cent to 140 million tons. Canada's exports decreased by about 1 per cent from 32 million tons in 1997, whereas India's exports were 4.5 per cent larger than the 16.5 million tons in the previous year. Sweden decreased its exports by 13 per cent to 16 million tons. On the import side, trade with Japan decreased by 4.7 per cent to 121 million tons in 1998, while imports to China also decreased by 6 per cent to 52 million tons. The European Union enjoyed a stable year for steel production in 1998, with demand for iron ore up 4.1 per cent to 135 million tons.¹⁰

79. The world seaborne coal trade increased moderately to 465 million tons in 1998 from 460 million tons in 1997. Thermal coal showed favourable growth from 279 million tons to 288 million tons, whereas coking coal fell back moderately to 177 million tons from 181 million tons. Exports from Australia once again showed strong growth (by 6.5 per cent) reaching 167.6 million tons for total exports, while the United States' exports fell by nearly 17 per cent to 52 million tons. Exports from Canada also decreased by about 1.5 per cent to 35 million tons. In South-East Asia, Indonesia's coal exports increased by about 4.5 per cent to nearly 40 million tons. China and South Africa increased

exports by 5.1 and 3.2 per cent, respectively, to 32.3 million tons and 65 million tons in 1998. On the import side, Japan's coal imports decreased by 1.5 per cent to 131.5 million tons. Imports to the Republic of Korea increased by about 6 per cent to approximately 53 million tons. The imports of Taiwan Province of China were up marginally by 1 per cent, to some 37 million tons.¹¹

80. In the grain trade, specifically until the middle of 1998, trends and patterns in supply and demand were affected by surpluses in the major consuming regions. World grain stock again increased significantly after the record-low level registered at the end of the crop year ending June 1996. Large-scale consumer countries or country groups, such as China, Eastern Europe and Japan, remained the most important markets. Major suppliers such as Argentina, Australia, Canada, the European Union and the United States continued to dominate the supply side in 1998. Grain shipments in 1998 decreased to 190 million tons from 203 million tons in 1997. In 1998, United States' exporters remained at almost the same level of 74.3 million tons as in 1997, whereas Canada's exports fell by as much as 32 per cent to 18.2 million tons from 26.7 million tons in 1997. Argentina's exports rose by 14.6 per cent to 24.3 million tons in 1998, whereas Australia's exports were down significantly by 17.5 per cent to 18.9 million tons. Exports from the European Union to third countries were about 5.6 per

cent lower than the year before, registering 18.2 million tons.¹²

(b) Dry bulk freight rates

81. After the increase in economic growth in Western Europe and the United States in 1997, which stimulated the dry bulk charter market, it appeared, at the end of 1997 and heading into 1998, that the Asian financial crisis had adversely affected dry bulk demand and consequently freight rate development. The 1998 dry bulk market ended with rates for all sizes at significantly lower levels than the year before (see table 38).

Dry bulk time-charter (trips)

82. The overall average time-charter trip rates fell substantially in 1998, as compared with those in 1997. The annual average rate for modern Capesize tonnage on the four major trade routes was down in 1998 by as much as 41 per cent to \$9,100 per day from \$15,400 per day in 1997. For the Atlantic round voyage, the tonnage was paid at the average rate of \$8,250 per day in 1998, while it was hired at \$15,000 per day in 1997. For the same trade in the Pacific, the average rate fell to \$10,250 per day in 1998 from \$14,750 per day in 1997. The annual average rate for modern Panamax also fell significantly by 32 per cent to \$5,900 per day in 1998 from \$8,650 per day registered in the previous year. Average rates for round voyages in the Atlantic and in the Pacific were registered at \$4,900 per day and \$6,700 per day, respectively, in 1998 as compared with \$8,850 per day and \$8,600 per day, respectively, in 1997. Modern handymax tonnages were paid at the annual average rate of \$6,000 per day in 1998, which was about 20 per cent less than \$7,450 per day paid in the previous year. For the Atlantic round voyage, the average rate of \$5,100 per day was paid in 1998, as compared with \$6,300 per day in 1997. In the Pacific trade, the average rate for round voyages was fixed at \$6,500 per day in 1998, while \$7,300 per day was earned in 1997.¹³

Dry bulk time-charter (periods)

83. The time-charter period market was much lower in 1998 than in 1997, with registered fixtures down in number by about 40 per cent. Specifically, period time-charter fixtures for Capesize decreased drastically. Shipowners tried to avoid committing tonnage at unsatisfactory rate levels, and cargo owners also showed a modest interest in fixing tonnage for period employment given the uncertain trade situation. In general, at the end of 1998, the rates demanded for a three-year period were significantly higher than for a 12-month period. As

far as time-charter rates for different sizes of vessels are concerned, rate developments did not follow a clear pattern in 1998. As could be expected, the average time-charter rates for 12-month period for middle-aged handy-sized tonnage showed greater stability. Nevertheless, rates declined by some 25 per cent from \$8,000 per day in 1997 to \$6,000 per day in 1998. Modern Capesize tonnage was fixed at \$11,900 per day, down by 22 per cent from the level of \$15,300 paid in 1997. Modern Panamax tonnage was most severely affected by the rate decline, with tonnage being chartered for \$7,700 per day down from the level of \$10,900 per day experienced in 1997.¹⁴

Dry bulk trip-charter

84. The dry bulk trip-charter market started the year in an optimistic mood with Capesize tonnages of about 750,000 dwt in total reported sold for scrapping in the first couple of months, and only up to 11 vessels of similar size to be delivered in 1998. However, with the surplus of Panamax tonnage adversely affecting Capesize rates and growing uncertainty surrounding chartering activities specifically for larger vessels by Asian traders, rates started to fall in early March 1998. Given the continued restraint exercised by charterers, overall freight levels continued to fall gradually until the end of the third quarter. Early in the last quarter, the market conditions improved moderately due mainly to increased volumes of Australian prompt sales of coal to Europe.¹⁵

85. Rate levels in major bulk trades consistently developed along the lines indicated by the global index contained in table 38. Thus, in the coal trades from Hampton Roads to Japan the annual average freight rate declined by 35 per cent to \$8.70 per ton from \$13.45 per ton in 1997. In the beginning of 1998, the market was still relatively strong with freight levels of nearly \$13.00 per ton paid during the first quarter. Since then, however, freight rate levels gradually and continuously declined to \$7.00 per ton at the end of the year. Similarly, rates in the iron ore trades from Brazil to Europe fell by 30 per cent to \$4.15 per ton from \$5.90 per ton in 1997. Also, these trades started the year relatively strongly at rate levels of \$5.00 to \$5.50 during the first quarter. After that rates came under pressure and fell to \$3.30 per ton mid-1998 and slightly recovered to \$4.00 per ton at the end of the year. In the grain trades from the US Gulf to Japan, average rates declined from \$23.25 per ton in 1997 to \$15.35 per ton in 1998. Again markets were still relatively strong at the beginning of the year with rates of \$19.00 being paid during the first four months, followed by an extreme drop in rates to approximately \$12.80 per ton at the end of the year.

Table 38

Dry cargo freight indices, 1996-1999
(monthly figures)

Period	Dry cargo tramp time-charter ^a (1991 = 100)				Dry cargo tramp trip-charter ^b (July 1965 to June 1966 = 100)			
	1996	1997	1998	1999	1996	1997	1998	1999
January	83	84	74	48	207	209	189	166
February	77	87	64	51	202	197	186	170
March	80	91	71	62	192	199	171	169
April	81	89	70	61	192	197	173	172
May	82	82	66	70	196	190	173	173
June	73	81	62	66	195	184	177	176
July	66	87	57		186	183	167	
August	58	90	55		189	196	165	
September	57	85	54		186	190	164	
October	65	82	59		176	191	165	
November	75	79	58		188	189	170	
December	80	75	52		211	186	168	
Annual average	73	84	62	60	193	193	172	171

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

^a Compiled by the German Ministry of Transport.

^b Compiled and published by Lloyd's Ship Manager.

Highest and lowest freight rates for major dry bulk trades

86. Table 39 indicates the highest and lowest freight rates reported during 1997 and 1998 in selected major bulk trades. Rates reflect the overall weak dry bulk market in 1998 with both the highest and lowest rates down significantly from the previous years levels. Generally declining markets observed during 1998 also caused the margins between the highest and lowest rates to widen. These margins were particularly important in the grain and iron ore trades.

87. The lowest freight rate levels and the widest relative margins were recorded in the Brazil/Continental Europe iron ore trade, where rates decreased by more than 50 per cent in the course of the year. The average freight rates for iron ore on this trade route fell from \$6.15 in 1997 to \$4.70 per ton in

1998. Similarly, rates in the Brazil/Japan trade fluctuated heavily, with the lowest rates 60 per cent below the highest ones recorded in the year. Average rates declined from \$10.60 in 1997 to \$6.30 per ton in 1998. Average freight rates for coal from Richards Bay to continental Europe fell from \$7.00 per ton in 1997 to \$5.30 per ton in 1998. Fluctuations, however, were not as pronounced as in the iron ore trades of Brazil.

88. Total grain shipments in the major trades decreased by 13 million tons to 190 million tons in 1998. Rate-wise, the United States (Gulf of Mexico)/Japan saw a decrease of 34 per cent in the annual average spot rate from \$22.90 per ton to \$15.10 per ton. Rate fluctuations in this trade were significant and the monthly average rate fell from \$20.40 per ton in January to \$12.70 per ton in September. The annual average rate for the United States (Gulf of Mexico)/continental Europe trade also decreased by 21 per cent.

Table 39

Freight rates for selected commodities, 1997 and 1998

Commodity	Route	Freight rate range			
		1997 (\$/ton)		1998 (\$/ton)	
		High	Low	High	Low
Grain	United States (Gulf of Mexico)/continental Europe	13.00	10.25	11.00	6.75
Grain	United States (Gulf of Mexico)/Japan	25.55	20.70	22.00	10.80
Coal	Richards Bay/continental Europe	7.80	6.40	7.00	4.00
Iron ore	Brazil/Japan	12.75	9.50	9.75	4.00
Iron ore	Brazil/continental Europe	6.60	5.85	7.00	3.25

Source: Drewry Shipping Consultants Ltd. (London), *Shipping Statistics and Economics*, 1998B1999, various issues.

C. OIL AND OIL PRODUCTS SEABORNE FREIGHT MARKET

(a) Seaborne trade in oil and oil products

89. In 1998, world crude oil production increased by 1.9 per cent or 1.7 million barrels per day over 1997. This increase reflects production growth in the main producing regions with the exception of Africa. The Organization of Petroleum Exporting Countries' (OPEC) output was up by 2.35 per cent to 30.697 million barrels per day compared with 29.99 million barrels per day in 1997. Non-OPEC production rose by 1.58 per cent to 42.75 million barrels per day compared with 42.09 million barrels per day in the previous year. Total growth was less than expected as oil prices stagnated at relatively low levels. United States production rose slightly by 0.97 per cent to 8.37 million barrels per day in 1998 as compared with the output in 1997, while Canada's output was up by 1.18 per cent to 2.57 million barrels per day. Mexico increased its output by 2.05 per cent to 3.48 million barrels per day. African output fell by 4.29 per cent to 6.86 million barrels per day. Output of the Middle East increased by 2.82 per cent to 20.55 million barrels per day. Western European output increased by 5.65 per cent to 6.66 million

barrels per day. The former Soviet Union and Eastern Europe increased their production slightly by 0.69 per cent, totalling 7.60 million barrels per day. Asian countries including the Pacific Rim reduced their output by 2.02 per cent to 7.26 million barrels per day.¹⁶

90. In 1998, the overall volume of the seaborne crude oil trade increased marginally by 0.4 per cent to 1,633 million tons from 1,626 million tons in 1997. Trade structures are changing with major crude oil-importing countries switching sources to regional export-markets that are closer. This trend is evident in exports from the Middle East Gulf, which continued to suffer from a deterioration in market share which had set in in the mid-1990s, even though Asian economies remain dependent largely on crude oil from the Middle East Gulf. Crude oil shipments from Latin America are expanding and the United States remains the largest market for Latin American crude oil. Exports from the Mediterranean, West Africa and Asia are stagnant. Northern European crude oil exports are on the upward trend, depending largely on increased demand in the United States. At the receiving end, in particular, more than 80 per cent of Japan's crude oil is supplied by the Middle East Gulf, while Europe's crude oil imports from non-European sources continue the declining trend. China's imports of crude oil are on the downward trend.

91. Overall shipments of oil products in 1998 increased very marginally by 0.4 per cent to 548 million tons from 546 million tons in 1997. The Far East (including Japan) serves as the largest source of seaborne petroleum product exports. The NIEs remain both a major supplier and a major consumer of petroleum products. Half their imports are intra-NIEs shipments, while the region receives shipments from Japan, the United States and the Middle East Gulf. As the largest import markets, total United States demand remains steady with an average annual growth rate of over 2.0 per cent. Inbound shipments from Latin America and Europe provide for most of the increasing United States demand. Japan, the second largest consumer market, continues a steady level of imports, but at a slower pace than the United States. European demand for petroleum products is concentrated increasingly on intraregional sources, with imports from non-European countries declining gradually.

(b) Tanker freight rates

92. In 1998 oil products increased only marginally to 1,633 million tons and 548 million tons, respectively. The stagnant trade of crude oil in 1998 failed to sustain the favourable freight levels that had prevailed in tanker markets during the previous year. The market weakness is a reflection of both supply- and demand-side developments. In 1998, new oil tankers aggregating 12.6 million dwt were delivered, as compared with 5.5 million dwt broken up and lost, thus increasing supply capacity by more than 7 million dwt. Demand was weak not only because of the Asian financial crisis, but also because of structural developments in the petroleum industry. 1998 was a year of consolidation in the petroleum business in which unprecedented mergers between major oil companies became a reality. More than a mere strategic policy for rationalization, these mergers indicate that their combined collective bargaining power in the market will become stronger. To react to such developments there was much talk among tanker owners about the creation of tonnage pools reducing competition and supporting freight rate levels. One pool was created by combining one Scandinavian and one American-controlled Suezmax fleet. Consolidation was also realized in chartering practices and the trend of combining smaller oil cargo lots into larger vessels continued throughout the year. Tanker ports were also expanded to accommodate very large crude carriers (VLCCs) in support of this strategy.

Very large crude carriers (VLCCs)

93. A downward trend in the VLCC market prevailed from December 1997 to the early months of 1998. A surplus of VLCC units in the Middle East Gulf put pressure on freights, which softened to the Worldscale (WS) 50s for both the eastbound and the westbound voyages. West African fixing, however, continued at the WS 80 level for westbound trades. From the second half of March 1998 onwards, the VLCC market from the Middle East Gulf regained momentum due to brisk demand on the eastern routes, coupled with relatively stronger needs for modern units. However, these tentative favourable factors did not prevail throughout 1998, given the prolonged economic slowdown in Asian countries. Freight continued to be paid at around the WS 70 level depending mainly on discharge options. Rate levels in westbound trades from the Middle East Gulf and West African trade were maintained at around WS 60 until end-July. Since the end of the third quarter, OPEC cutbacks reflecting signs of widespread economic recession, combined with high crude oil inventories and low oil prices, clearly had a dampening effect on the main markets. Furthermore, tonnage was plentiful, eastern charters were not very active and shipments were postponed due to high inventories in the east as well as in the west. Freights therefore continued to slide into the WS 40s to the Far East. At the end of November 1998, the end-year revival in VLCC demand led the market to drive forward. Consequently, freights bottomed out to the higher WS 50s with additional premiums of about 5 Worldscale points for the Far East options (see table 40).

Medium-sized crude carriers

94. In early 1998, decreasing demand and the combination of Suezmax consignments for VLCC shipments out of West Africa put considerable pressure on Suezmax and, consequently, on Aframax rates. The rate level decreased to WS 100 level from an average of WS 111 in 1997, and remained almost unchanged to August 1998. In September, rates for Suezmax units came under considerable pressure. With a very heavy build-up of available tonnage also including modern units, competition for cargoes became quite fierce and voyages even to the United States dropped all the way to WS 55.

Table 40

Tanker freight indices, 1996-1999
(monthly figures)

Period	Tanker freight indices ^a																			
	VLCC/ULCC ^b				Medium-size crude carriers				Small crude and product carriers				Handy-size clean				Handy-size dirty			
	1996	1997	1998	1999	1996	1997	1998	1999	1996	1997	1998	1999	1996	1997	1998	1999	1996	1997	1998	1999
January	61	59	55	62	120	114	105	92	158	164	142	114	228	256	171	159	178	198	155	164
February	67	58	69	49	120	109	97	94	154	156	133	137	230	238	176	144	202	201	147	168
March	61	62	72	38	114	120	106	89	178	201	146	128	233	223	162	158	228	194	161	177
April	49	52	70	41	117	110	92	86	161	182	122	121	221	214	155	157	210	181	157	210
May	57	63	75	49	114	111	98	76	153	183	120	124	212	203	152	165	215	203	63	196
June	67	64	74	42	106	107	105	74	160	173	136	113	204	181	161	159	241	186	167	160
July	70	70	75		101	100	100		136	160	129		181	176	160		217	176	168	
August	63	83	60		101	111	89		139	148	120		180	170	152		185	180	165	
September	54	76	47		98	114	79		133	153	107		174	164	151		212	182	158	
October	55	90	54		110	115	82		138	167	117		197	150	161		198	165	147	
November	60	74	49		108	111	88		148	139	120		187	184	182		190	180	133	
December	57	55	59		107	110	96		166	150	138		234	175	166		188	141	161	
Annual average	60	67	63	47	110	111	95	85	152	165	127	123	207	194	162	157	205	182	157	179

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

Aframax units came under increased pressure in the North Sea where the market deteriorated further to WS 75-78 for short trips. Since October, overall Aframax market rates turned back to WS 85/90 as conditions improved. West Africa, the customary hub of Suezmax fixing remained hampered by Nigerian export disruptions. Demand was slow, hence a lackluster development in freights. At the end of the year, Suezmax freights climbed to WS 90 after a spurt of fresh momentum, which competed favourably with VLCCs for combined cargoes. In the Aframax market, the North Sea saw an upswing to WS 120-130.

Small crude and product carriers

95. The overall markets for products for the first six months of 1998 were depressed as compared with the same period in the previous year. A relatively warm winter in the northern hemisphere, as well as refineries building up stocks and consequent overcapacity, specifically in Asia, have contributed to falling rates in the market. Since August, the same trend has been witnessed as in 1997 rates fell and remained low until December. The voyages from Latin America saw the weak trend continuing, with freights falling to WS 103 for 50,000 tonners, while the North Sea/United States trade paid WS 130 level for the same size. In December, the 50,000 tonners saw a different market profile in Latin America. Caribbean Sea voyages to the United States Atlantic coast paid up to WS 158, while those to the east coast of Mexico hit the WS 160 mark.

Handy-size dirty carriers

96. The unfavourable market trend continued in the early months of 1998. In May and June, 25,000 dwt class tankers were paid at WS 180 in intra-European trades. By comparison, 30,000 dwt size tonners were booked at WS 140 in the Mediterranean trades. The main focus remained on the North Sea trade routes for the months of October and November when freights for 25,000 tonners dropped to below WS 160, while very few Mediterranean cargoes of 30,000 ton lots were reportedly booked at as low as WS 110-130. In the last month, the North Sea market improved with a boost in freights to a higher level of WS 180 for 25,000 dwt tonners.

Clean-cargo carriers

97. From December 1997, the Caribbean market remained firm at up to WS 220-230, while the Mediterranean trades slipped back to WS 150 because of a lack of enquiries. This market trend continued in

the early months of 1998, and then freights in all markets slowed down until September 1998. In the last two months in 1998, slightly activated chartering activities for clean cargo in the Caribbean produced a steep rise in numbers of up to WS 260 for 25,000 to 30,000 ton lots. Mediterranean demand was, however, slow, with rates for 30,000 tonners receding to WS 180.

Tanker period-charter market

98. The time-charter market in 1998 was lower than it was in the previous year. Deals were more difficult to come by in view of the uncertain immediate future of the tanker market, and consequently, rates were down in all segments compared to the interesting time-charter market seen in 1997. Charterers were not willing to commit themselves to period-time charters on the same scale as seen in previous years.

99. On the VLCC front, three major charterers committed two or more such tankers for periods varying from one to five years. The longer periods were covered by one major charterer at fixed rates in the region of \$30,000 per day on newbuildings. In addition to these fixtures, a Japanese charterer secured a 300,000 dwt tanker for \$37,500 per day for a period of eight months; this fixture was concluded in the middle of 1998.

100. In view of the Asian financial crisis, a number of Asian shipowners opted for selling newbuildings and then taking them back on bareboat charter for 10-year periods. Similarly, at the very end of the year, a Norwegian shipowner sold two 1998-built 300,000 tonners to a German shipowner and chartered the same vessels back for a period of up to 10 years at around \$24,500 per day on average.

101. The Suezmax market was fairly active with several oil companies taking vessels for period time charter. The cover taken rarely went beyond 24 months, with the most usual period being 6 to 12 months. During the course of 1998, rates for modern double-hull vessels declined from \$25,000 per day into the low \$20,000 region by the end of the year.

102. Modern Aframax tankers were fixed at rates as high as \$21,500 per day. An older, 1980-built unit was fixed for 12 months at a rate of \$12,500 per day. Time-charter rates for product tankers dropped sharply in 1998 as reflected in the weaker spot market in 1998. A rate of \$13,750 per day was paid for a vessel of 45,000 dwt, built in 1996, for three years straight time-charter. It is reasonable to expect a

continued weakening of the time-charter market as the spot market fails to materialize.

D. ESTIMATES OF TOTAL FREIGHT COSTS IN WORLD TRADE

Trends in global import value and freight costs

103. Table 41 provides estimates of total freight payments for imports and the percentage of total import value by country groups. While the world total value of imports (c.i.f.) increased further by 4.29 per cent in 1997, total freights paid for transport services rose by a slightly lower rate of 4.20 per cent. The relative share of global freight payments in import value remained fairly stable at 5.24 per cent as compared to 5.25 per cent in 1996 (see graph 8). This stability has prevailed for the whole of the 1990s, despite decreases in the prices of raw materials where the incidence of freight costs is most significant. This implies an absolute decline in freight costs and is indicative of the role that maritime transport has been playing as an engine for the growth of world trade. The longer-term analysis further supports the positive role that shipping plays in the promotion of trade by reducing economic distances. In 1980 the share of freight costs in import value stood at 6.64 per cent or nearly 30 per cent above the ratio prevailing in the 1990s. The regional analysis reveals, however, that the benefits of reduced freight costs are not evenly distributed. Relative freight costs incurred in the import trades of developed market-economy countries continued to be only half as high as that of developing countries, with the gap between the two groups tending to widen. For 1997, developed market-economy countries' freight costs were 4.17 per cent, as compared to 8.04 per cent for developing countries. The reasons for this are differences in trade structures, regional infrastructure facilities, distribution systems and their management, and the more influential shipping strategy of shippers of developed market-economy countries when negotiating with shipowners or liner operators/conferences for larger cargo volumes.

Regional trends

104. Notwithstanding this general trend, there are of course large variations in freight cost ratios among the countries of each of the groups in table 41. Among the major trading nations in the group of developed market-economy countries, Canada, Germany and the United Kingdom incurred relatively low freight cost ratios of 2.40, 2.68 and 2.78 per cent, respectively. The United States and France recorded

moderate ratios of 3.24, while Japan's ratio was as high as 8.13 per cent, followed by Italy (6.36 per cent) and Spain (5.58 per cent), as compared to 4.17 per cent for the overall developed market-economy countries as a group. The higher rates of these countries can be explained primarily by geo-locational factors and trade structures, but also to some extent by differences in distribution costs, including cargo-handling activities in ports.

105. The relative freight charges of developing countries steadily decreased from 10.44 per cent in 1980 to 8.04 per cent in 1997. Within this group, African countries had benefited from reduced freight charges in the 1980s, but have followed an upward trend in the present decade, with the ratio increasing from 11.05 in 1990 to 11.53 per cent in 1997. Unlike most other developing countries, African countries have only to a lesser extent ? if at all ? been able to benefit from transport improvements and corresponding cost reductions. This high ratio largely reflects insufficient infrastructure facilities, below average productivity of transport and terminal equipment and low capacity utilization due to inadequate management practices. The subregional breakdown shows that the freight ratios of West and East African countries remained at above average levels in 1997, at 12.89 and 13.83 per cent respectively, while the ratio for North African countries was 8.89 per cent, reflecting primarily trade patterns with a high share of intra-Mediterranean trade. The import trades of African landlocked countries continued to be adversely affected by high relative freight costs: the ratio for Malawi was 39.41 per cent, Rwanda 29.91 per cent, Mali 29.57 per cent, Chad 25.54 per cent and Burkina Faso 21.67 per cent.

106. Developing countries in Asia account for the vast majority of imports and consequently also of freight payments of developing countries. Both in the short and long term, freight factors have declined and reached a level of 7.95 per cent in 1997, as compared with 10.41 per cent in 1980 and 8.19 per cent in 1990. The freight factor was 8.79 per cent in West Asia in 1997, showing 13.59 per cent in the Islamic Republic of Iran and 13.07 per cent in Kuwait as the highest in this subregion. The freight factor in South and East Asia was 7.82 per cent. Among major importing countries in this group, the Republic of Korea and Singapore paid relatively low levels of freight costs at 5.22 and 5.58 per cent of import value respectively, while Malaysia and Thailand paid freight costs as high as 9.36 and 9.60 per cent respectively. India and Indonesia incurred high freight costs of 10.32 and 10.55 per cent, respectively.

Table 41

Estimates of total freight costs for imports in world trade ^a by country groups
(millions of dollars)

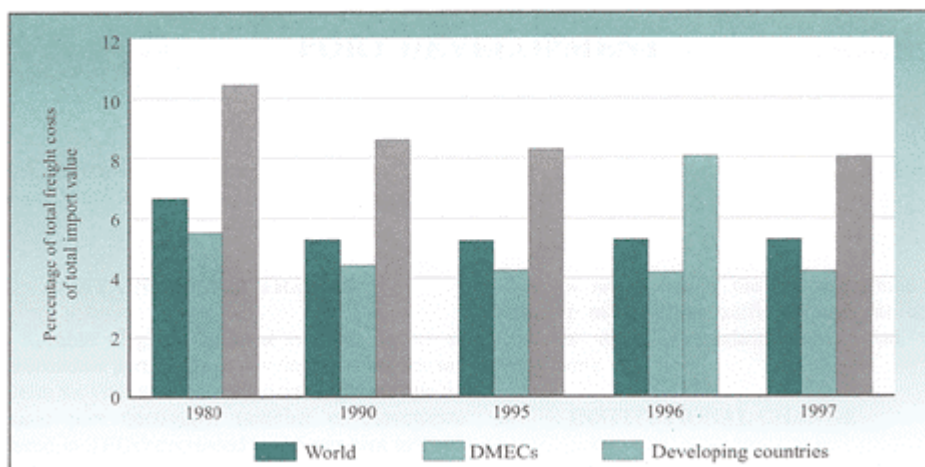
Year	Country group	Estimate of total freight costs of imports	Value of imports (c.i.f.)	Freight costs as percentage of import value
1980	World total	123 264	1 856 834	6.64
	Developed market-economy countries	78 286	1 425 979	5.49
	Developing countries ? total	44 978	430 855	10.44
	of which in:			
	Africa	10 432	77 757	13.42
	America	10 929	123 495	8.85
	Asia	21 979	211 089	10.41
	Europe	1 320	16 037	8.23
Oceania	318	2 477	12.84	
1990	World total	173 102	3 314 298	5.22
	Developed market-economy countries	117 004	2 661 650	4.40
	Developing countries ? total	56 098	652 648	8.60
	of which in:			
	Africa	9 048	81 890	11.05
	America	9 626	117 769	8.17
	Asia	35 054	427 926	8.19
	Europe	1 909	21 303	8.96
Oceania	461	3 760	12.26	
1996	World total	259 940	4 954 040	5.25
	Developed market-economy countries	151 145	3 604 494	4.19
	Developing countries ? total	108 795	1 349 546	8.06
	of which in:			
	Africa	12 073	105 821	11.41
	America	21 929	309 560	7.08
	Asia	72 263	906 714	7.97
	Europe	1 842	21 866	8.42
Oceania	688	5 585	12.32	
1997	World total	270 868	5 166 460	5.24
	Developed market-economy countries	155 603	3 732 257	4.17
	Developing countries - total	115 265	1 434 203	8.04
	of which in:			
	Africa	13 600	117 928	11.53
	America	25 443	362 453	7.02
	Asia	73 558	924 765	7.95
	Europe	1 963	23 387	8.39
Oceania	701	5 670	12.36	

Source: UNCTAD secretariat on the basis of data c.i.f./f.o.b. factors supplied by IMF and IMF's import data.

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

Graph 8

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



Source: UNCTAD secretariat.

These variations can be explained to a certain extent by differences in trade and shipping patterns, particularly in the liner sector, where the growing importance of feeder operations tends to place those countries not covered by main line services at a relative disadvantage.

107. Developing countries in America continued to register the most favourable freight factor of all the developing countries, with 7.02 per cent in 1997 (8.85 and 8.17 per cent in 1980 and 1990). Within this region, as in the previous year, Central America had the lowest freight factor of 5.54 per cent in 1997. This favourable ratio reflects that Mexico, the biggest trading nation in the subregion, had a freight factor of only 4.42 per cent, actually accounting for 77.1 per cent of the total import c.i.f. value of the subregion and paying 61.5 per cent of the total freight costs of the subregion. In 1997, the countries of the South American eastern seaboard also paid relatively low freight costs at 6.62 per cent, while those of Uruguay were as low as 4.51 per cent. The countries of the South American western seaboard paid freight costs

at the rate of 8.92 per cent. Peru paid at 16.42 per cent while all other countries in this subregion incurred rates between 6.5 and 9.5 per cent. The countries on the northern seaboard paid freights at 10.26 per cent, the second highest in this region, with Guinea paying at the higher rate of 12.85 per cent and Guyana at the lower rate of 8.95 per cent. The Latin American landlocked countries, i.e. Bolivia and Paraguay, had to bear freight charges of 11.10 and 11.33 per cent, respectively. While these were among the highest in the region they are considerably lower than those encountered in landlocked countries in other regions of the world.

108. Small island developing countries in the Caribbean and Oceania paid higher freights at 11.10 and 12.36 per cent, respectively, in 1997. These high freight costs reflect the comparatively high freight rates for ocean transport in the island developing countries. Long distances, low cargo volumes, transshipment and high feeder costs contribute to the higher level of freight charges.