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# **REVIEW OF MARITIME TRANSPORT 1999**

## **Chapter VII: Review of Regional Developments: Latin American Economic and Maritime Transport Developments**



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## Chapter VII

# REVIEW OF REGIONAL DEVELOPMENTS: LATIN AMERICAN ECONOMIC AND MARITIME TRANSPORT DEVELOPMENTS

*This chapter reviews and forecasts the global and intraregional trades in Latin American developing countries, together with developments in transport and related services.*

### A. ECONOMIC BACKGROUND

178. Financial markets in some of the Latin American emerging-market countries, such as Brazil, Argentina, Chile and Mexico were adversely affected by the financial crisis in Asia, specifically from the last quarter of 1997. These countries in a good association and some other emerging-market countries took immediate action to tighten monetary and financial policies to ease the pressure. The fallout from the Asian crisis in Latin America was therefore relatively limited. Latin American overall financial markets stabilized after these measures were adopted and implemented. Actually the average current account balance was improved somewhat in 1998. However, this was achieved at the cost of a consequent slowdown of economic growth, which should appear in 1999 (see table 54). Some countries, particularly Brazil, have relied heavily on privatization proceeds to finance and offset significant portions of their current account deficits.

179. In general most countries in Latin America were expected to experience sharp economic slowdowns specifically after the second half of 1998 and throughout 1999 as the result of the decline in private capital inflows and the weakening of the prices of commodity exports. However, the slowdown would unlikely be prolonged, provided that there is no further deterioration in the external environment and that the countries maintain, and where necessary, strengthen the stabilization mechanisms in their financial policy frameworks.<sup>22</sup>

#### *Latin America's GDP and trade growth*

180. Overall Latin American GDP and trade growth slowed substantially in 1998 from the tremendously high levels recorded in 1997. Falling commodity prices, a slowdown in private capital inflows in the second half of 1998 and weaker export markets within the region and in Asia contributed to this development. Remarkable differences in economic performance occurred for the two largest economies in the region, with trade and output growth

slowing strongly in Brazil, while Mexico's trade and output performance remained well above the regional average. Better access to the rapidly expanding United States market and a higher share of manufactures in its merchandise exports are among the factors that explain why Mexico's trade and output developments were superior to those of the other Latin American economies.

181. For Latin America as a whole, the growth in the volume of merchandise imports continued to exceed that of merchandise exports by a large margin, and the region's trade expansion - both imports and exports - remained stronger than the global average. Latin America's merchandise export value, on the other hand, decreased by 2 per cent in 1998, as the expansion of Mexico's exports was more than offset by the decline in exports of all other Latin American countries combined. Latin America's outstandingly strong import growth performance throughout the 1990-1997 period became less dynamic in 1998, although at 5 per cent, this region, together with Western Europe, recorded the highest import growth rate of any region. Mexico's import growth rate of 14 per cent contrasted with the relative stagnation of imports in other Latin American countries.<sup>23</sup>

#### *Merchandise trade*

182. Data on the foreign trade structure of Latin American countries in terms of commodity groups and direction of trade are shown in table 55. Major export items are manufactured goods (48 per cent of total exports) which are traded mainly with North America with a share of nearly two thirds of the total, and all food items (23 per cent) traded with Europe and North America. Imports are dominated largely by manufactured goods, which account for 76 per cent of the total import trade. Equal in terms of geographic structure, they are dominated by trades with North American countries (40 per cent of all imports). Intraregional trade is developing substantially, accounting for 21 per cent of all exports and 19 per cent of all imports of Latin American countries.

183. Tables 56 and 57 provide data on selected Latin American countries' import value (f.o.b.) and volume, and their percentagewise proportion by region of origin, in 1997. All countries except Mexico imported nearly half or more of their total imports in weight from the Latin American region, with Paraguay, Peru and Bolivia's intraregional imports representing 85.7 per cent, 74.7 per cent and 74.2 per cent, respectively. However, in terms of f.o.b. value, their share fell to 63.3 per cent, 36.1 per cent and 43.9 per cent, respectively, and those of

other countries also declined to around one third of the total. These variations reflect the fact that Latin American countries import more high value-added manufactures from outside the region than from inside. Mexico maintained a high level of intraregional trades with the United States and Canada - nearly 85 per cent of its total in terms of both weight and volume.

Table 54

**Selected Latin American countries- real GDP, 1999-2000**

<b>Country</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>
<b>Latin America</b>	<b>5.2</b>	<b>2.3</b>	<b>-0.5</b>	<b>3.5</b>
Argentina	8.6	4.2	-1.5	3.0
Brazil	3.2	0.2	-3.8	3.7
Chile	7.1	3.3	2.0	4.6
Colombia	3.1	0.2	-	3.0
Dominican Republic	8.1	7.0	7.3	6.4
Ecuador	3.5	0.2	-5.0	1.5
Guatemala	4.1	4.9	3.9	5.0
Mexico	7.0	4.9	2.0	3.0
Peru	7.2	1.5	4.5	6.5
Uruguay	5.1	4.5	-1.0	3.1
Venezuela	5.9	-0.4	-3.6	1.8

Source: IMF *World Economic Outlook*, May 1999.

**Foreign trade structure of Latin American countries, 1995**  
(world total in thousands of millions of US dollars;  
all regional allocations in percentages)

	<b>World total</b>	<b>North America</b>	<b>Europe</b>	<b>Japan</b>	<b>Latin America</b>	<b>Others</b>
	<b>Value</b>	<b>Percentage</b>				
	<b>Exports from Latin America</b>					
<b>All products</b>	230.6	47.0	17.6	3.9	21.0	10.5
<i>of which:</i>						
<b>All food items</b>	52.1	24.2	32.8	5.1	17.2	20.7
<b>Agricultural raw materials</b>	8.5	25.6	30.2	10.1	15.4	18.7
<b>Ore and metals</b>	20.8	21.0	30.2	17.5	13.3	18.0
<b>Fuels</b>	34.4	58.4	8.1	1.5	29.3	2.7
<b>Manufactured goods</b>	111.1	60.9	9.2	1.2	22.6	6.1
	<b>World total</b>	<b>North America</b>	<b>Europe</b>	<b>Japan</b>	<b>Latin America</b>	<b>Others</b>
	<b>Imports to Latin America</b>					
<b>All products</b>	252.5	38.3	21.4	7.3	19.2	13.8
<i>of which:</i>						
<b>All food items</b>	23.0	36.0	19.5	0.1	39.0	5.4
<b>Agricultural raw materials</b>	5.3	50.8	5.7	0.4	24.3	18.8
<b>Ore and metals</b>	5.6	32.0	8.4	0.5	49.6	9.5
<b>Fuels</b>	2.0	15.4	4.4	0.2	48.9	31.1
<b>Manufactured goods</b>	192.4	40.0	24.5	9.5	13.0	13.0

Source: UNCTAD, *Handbook of International Trade and Development Statistics, 1996-1997*, (United Nations publication, Sales No. E/F.98.11.D.16), tables 3.1 and 3.2.

**Selected Latin American countries' import f.o.b. value by region of origin, 1997**  
(in millions of dollars)

1997	Latin America	Europe	North America	Asia and the Pacific	Africa	Others	Total
<b>Argentina</b>	9 528.79	8 791.54	6 637.80	3 042.79	320.70	70.70	28 392.32
<b>Bolivia</b>	777.57	278.45	438.02	273.30	2.27	1.24	1 770.85
<b>Brazil</b>	15 895.41	18 551.56	17 554.88	8 432.06	847.40	43.83	61 325.14
<b>Colombia</b>	3 994.52	3 070.16	5 810.58	1 415.21	38.40	81.45	14 410.32
<b>Ecuador</b>	1 623.66	889.08	1 431.97	507.12	57.70	10.52	4 520.05
<b>Mexico</b>	2 742.34	9 991.94	91 363.61	5 560.47	140.07	9.78	109 808.21
<b>Paraguay</b>	1 979.68	354.31	328.01	441.51	21.87	0.12	3 125.50
<b>Peru</b>	2 847.96	1 430.93	2 363.79	1 225.85	16.78	0.72	7 886.03
<b>Uruguay</b>	1 784.00	710.26	388.08	335.79	48.53	210.99	3 477.65
<b>Venezuela</b>	3 192.37	2 437.13	6 378.51	1 081.58	69.23	0.00	13 158.82

Source: ECLAC, on the basis of the Data Bank of Foreign Trade of Latin America and the Caribbean.

Table 57

**Selected Latin American countries' import volume by region of origin, 1997**  
(in thousands of tons)

1997	Latin America	Europe	North America	Asia and the Pacific	Africa	Others	Total
<b>Argentina</b>	13 125.90	3 452.45	3 005.28	1 608.96	1 562.01	15.38	22 769.98
<b>Bolivia</b>	1 149.35	80.28	231.59	87.66	1.26	0.20	1 550.34
<b>Brazil</b>	39 445.05	14 823.18	21 355.19	12 060.12	4 224.04	201.01	92 108.59
<b>Colombia</b>	6 354.78	1 362.33	5 820.81	760.30	85.86	50.00	14 434.08
<b>Ecuador</b>	2 419.60	588.30	1 571.56	325.04	268.45	14.83	5 187.78
<b>Mexico</b>	5 620.89	4 606.12	85 637.09	2 019.51	1 919.34	10.49	99 813.44
<b>Paraguay</b>	2 216.59	61.93	91.55	127.95	89.69	0.06	2 587.77
<b>Peru</b>	9 944.51	598.64	1 974.89	747.67	38.94	0.96	13 305.61
<b>Uruguay</b>	2 482.55	584.84	173.29	274.69	140.74	69.22	3 725.33
<b>Venezuela</b>	4 447.83	1 516.66	5 743.00	430.89	380.09	0.00	12 518.47

Source: ECLAC, on the basis of the Data Bank of Foreign Trade of Latin America and the Caribbean.

## B. SHIPPING ACTIVITIES OF LATIN AMERICA

### (a) General situation

184. The economic and industrial outlook for Latin America in the medium term is, on the whole, encouraging. Governments' policies on commerce, which focus mainly on opening the region's economies, have significantly improved the economic conditions and consequently have ushered in an era of economic stability, which is continuing to attract foreign investment. Notwithstanding these favourable circumstances, Latin America suffers from a chronic lack of presence in the shipping sector (owning only 4.4 per cent of the world fleet in terms of deadweight). On the other hand, this region provides considerable opportunities for those who are looking to enter, or expand their shipping connections with, the region. In the liner sector specifically, the region has been endeavouring to improve its ability to cope with the needs of containerized traffic. At present, a number of service providers are in the process of integrating their ? North/South? operations, while ports position themselves in the race to become ? hub ports? . On the East Coast, Brazil has a number of contenders including Rio Grande and Santos. However, Buenos Aires (Argentina) and Montevideo (Uruguay) equally might be in the picture. On the west coast, various Chilean ports will be vying with Callao (Peru) or Guayaquil (Ecuador). The competitive position of each of these ports is influenced heavily by policy decisions, particularly those on infrastructure development and on privatization. In Latin America, physical transport links have a problematic history resulting in inefficiencies. Removing the bond of the State was recognized, not only by most Latin American countries but also by local and foreign operators, as the solution to the specific Latin American transport problems.

### (b) Merchant fleets in Latin America

#### *General situation of merchant fleets*

185. Table 58 provides data on the overall development of the merchant fleets of the world and Latin American countries by principal types of ship. The total tonnage of all the Latin American countries increased from 3.2 per cent of the world total in 1980 to 3.9 per cent in 1990, reaching 4.4 per cent in 1998. General cargo ships and container ships represented the most steady expansion of the world total respectively from 5.6 per cent and 0.3 per cent in

1980, to 6.1 per cent and 1.4 per cent in 1990, and to 9.5 per cent and 3.8 per cent in 1998.

186. A subregional analysis reveals that, since 1985, the total tonnage of the countries of both the East Coast and West Coast of South America has been decreasing with the exception of container ships. The fleet expansion of other Latin American regions, such as Central America, the Caribbean and Mexico, had offset the decrease of the South American countries, resulting in a continuous increase in the total fleets of Latin American countries. Container ships of Central America, the Caribbean and Mexico had constantly increased from 0.3 per cent of the world total in 1980, to 0.6 per cent in 1990 and 3.4 per cent in 1998. It has to be borne in mind, however, that approximately 75 per cent of the container ship tonnage was registered in the smaller open-registry countries, such as Antigua and Barbuda, and St. Vincent and the Grenadines. These two countries accounted for nearly 95 per cent of the container ship tonnage increase observed in 1998. Thus the container tonnage ownership position of major Latin American trading nations remains unsatisfactory.

#### *Age distribution of the merchant fleet*

187. Table 59 provides data on the age distribution of the merchant fleet of Latin American countries by types of vessel as at the end of 1998. Latin American fleets continue to be far older than the world total or developing countries' totals. The share of vessels aged 15 years and over is around 70 per cent as compared with around 50 per cent of the world total and the developing countries' total. The same general picture emerges with regard to individual ship types, except for container tonnage, where the average age of ships registered in Latin American countries is 8.95 years, as compared with 10.99 years and 11.39 years of the world total and the developing countries' total, respectively. In the majority of Latin American leading economies, i.e. Argentina, Chile, Colombia, Mexico, Peru and Venezuela, it is observed that in each of the five groups of vessel types, ships of 20 years or over account for the majority of the total tonnage. Another leading economy, Brazil, has been contributing to lowering the average ages of all types of vessel, specifically with container ships (6.98 years). Container ships of Antigua and Barbuda, and tankers and bulk carriers of Barbados stood at 7.73 years, 3.18 years and 2.38 years, respectively, reflecting a certain number of newbuildings registered under open-registry conditions.

Table 58

**Merchant fleets of the world and those registered in Latin American countries, selected years  
1980-1998 (in thousand dwt)**

	Year	Total	Tanker	Dry bulker	General cargo	Containe r	Others
<b>World total</b>	1980	682 768	339 324	185 652	115 824	11 243	30 725
	1985	664 800	261 439	232 107	105 846	19 939	45 469
	1990	658 377	245 936	234 659	102 676	25 955	49 151
	1995	734 917	267 650	261 628	104 129	43 849	57 660
	1998	788 725	280 668	275 514	103 388	61 183	67 972
<b>Latin America - total</b>	1980	21 794	7 914	6 183	6 547	37	1 113
	1985	23 283	7 354	7 765	6 363	102	1 699
	1990	25 529	7 501	9 025	6 348	364	2 291
	1995	29 798	8 236	9 238	8 104	1 486	2 734
	1998	34 522	8 718	10 102	9 808	2 298	3 597
<b>East Coast of South America</b>	1980	12 649	4 866	3 893	3 491	0	399
	1985	15 345	5 576	5 749	3 173	78	769
	1990	14 459	5 119	6 303	1 907	214	916
	1995	10 650	4 652	3 975	736	326	961
	1998	8 608	3 823	2 908	635	169	1 071
<b>West Coast of South America</b>	1980	2 717	484	929	1 212	0	92
	1985	2 914	651	880	1 190	0	193
	1990	2 770	558	973	1 022	0	217
	1995	1 763	429	581	372	22	360
	1998	1 599	480	336	322	51	410
<b>Others (including Caribbean, Central America, Mexico)</b>	1980	6 428	2 564	1 361	1 844	37	622
	1985	5 024	1 127	1 136	2 000	24	737
	1990	8 300	1 824	1 749	3 419	150	1 158
	1995	17 384	3 155	4 682	6 996	1 138	1 413
	1998	24 315	4 415	6 858	8 851	2 078	2 116

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

Note: Tonnages registered in the Bahamas, Bermuda and Panama are not included in Latin American subregion total.

Table 59

**Age distribution of the merchant fleet of developing countries of Latin America by types of vessel, as at 31 December 1998**  
(percentage of total dwt)

Country grouping	Types of vessel	Total	0-4 years	5-9 years	10-14 years	15 years and over	Average age (years) <sup>a</sup>
<b>World total</b>	All ships	100	17.8	16.6	14.3	51.4	14.54
	Tankers	100	13.8	22.3	8.7	55.1	15.00
	Bulk carriers	100	22.3	13.7	19.3	44.7	13.56
	General cargo	100	8.9	9.2	15.6	66.3	17.28
	Container ships	100	33.9	18.2	14.8	33.0	10.99
	All others	100	14.2	14.5	14.2	57.1	15.57
<b>Developing countries (excluding open-registry countries)</b>	All ships	100	18.8	15.5	15.2	50.5	14.40
	Tankers	100	14.7	25.8	10.1	49.4	14.18
	Bulk carriers	100	27.2	13.4	23.3	36.1	12.22
	General cargo	100	5.5	5.0	10.2	79.3	19.13
	Container ships	100	36.2	16.4	9.1	38.3	11.39
	All others	100	10.4	11.0	13.4	65.2	16.93
<b>Developing countries in America</b>	All ships	100	9.9	8.3	10.9	70.8	17.66
	Tankers	100	13.2	10.5	8.0	68.3	16.99
	Bulk carriers	100	4.9	7.2	15.3	72.6	18.41
	General cargo	100	5.2	6.8	8.4	79.6	19.10
	Container ships	100	45.3	15.3	17.0	22.4	8.95
	All others	100	6.5	5.7	8.8	78.9	18.94
<b>of which:</b>							
<b>Antigua and Barbuda</b>	Tankers	100	22.1	0.0	0.0	77.9	17.58
	Bulk carriers	100	6.0	0.0	16.3	77.7	19.17
	General cargo	100	19.8	21.3	21.4	37.5	12.71
	Container ships	100	48.4	22.0	12.7	16.8	7.73
	All others	100	36.8	4.1	0.0	59.1	14.03
<b>Anguilla</b>	General cargo	100	0.0	0.0	0.0	100.0	22.00
<b>Argentina</b>	Tankers	100	19.4	0.0	0.0	80.6	18.12
	Bulk carriers	100	0.0	0.0	0.0	100.0	22.00
	General cargo	100	0.0	4.2	0.0	95.8	21.37
	All others	100	1.2	5.4	15.3	78.1	19.42
<b>Barbados</b>	Tankers	100	94.1	0.0	0.0	5.9	3.18
	Bulk carriers	100	98.1	0.0	0.0	1.9	2.38
	General cargo	100	3.3	10.4	19.0	67.2	17.86
	All others	100	3.3	14.8	18.1	63.7	17.29
<b>Bolivia</b>	Bulk carriers	100	0.0	0.0	0.0	100.0	22.00
	General cargo	100	0.0	0.0	0.0	100.0	22.00
<b>Brazil</b>	Tankers	100	11.2	20.4	10.5	57.8	15.63
	Bulk carriers	100	6.5	13.1	21.0	59.4	16.64
	General cargo	100	19.1	32.9	2.0	46.0	13.05
	Container ships	100	50.2	0.0	49.8	0.0	6.98
	All others	100	0.1	2.4	17.8	79.7	19.84
<b>Belize</b>	Tankers	100	0.0	0.9	1.1	98.0	21.76
	Bulk carriers	100	0.0	0.0	0.5	99.5	21.95
	General cargo	100	0.4	1.2	1.9	96.5	21.55
	Container ships	100	0.0	0.0	51.7	48.3	16.83
	All others	100	1.5	1.7	11.2	85.6	20.33



Country grouping	Types of vessel	Total	0-4 years	5-9 years	10-14 years	15 years and over	Average age (years) <sup>a</sup>
<b>Cayman Islands</b>	Tankers	100	27.8	25.2	24.9	22.0	10.15
	Bulk carriers	100	0.0	0.0	67.2	32.8	15.28
	General cargo	100	0.0	1.8	41.7	56.5	17.56
	Container ships	100	0.0	0.0	54.4	45.6	16.56
	All others	100	0.0	26.3	16.7	57.1	16.40
<b>Chile</b>	Tankers	100	0.0	17.4	0.0	82.6	19.39
	Bulk carriers	100	0.0	0.0	11.6	88.4	20.84
	General cargo	100	0.3	0.0	8.7	90.9	21.05
	Container ships	100	15.3	44.0	0.0	40.8	12.36
	All others	100	18.5	13.5	12.0	56.0	15.08
<b>Colombia</b>	Tankers	100	0.0	0.0	3.2	96.8	21.68
	General cargo	100	0.0	0.0	6.1	93.9	21.39
	All others	100	0.8	2.9	8.0	88.4	20.63
<b>Costa Rica</b>	All others	100	0.0	8.3	0.0	91.7	20.76
<b>Cuba</b>	Tankers	100	0.0	0.0	45.4	54.6	17.46
	Bulk carriers	100	0.0	0.0	0.0	100.0	22.00
	General cargo	100	0.0	0.0	0.2	99.8	21.98
	All others	100	0.0	0.1	0.2	99.8	21.99
<b>Dominica</b>	General cargo	100	0.0	0.0	0.0	100.0	22.00
	All others	100	0.0	0.0	0.0	100.0	22.00
<b>Dominican Republic</b>	General cargo	100	0.0	0.0	0.0	100.0	22.00
	All others	100	0.0	0.0	0.0	100.0	22.00
<b>Ecuador</b>	Tankers	100	0.0	0.0	0.0	100.0	22.00
	General cargo	100	0.0	0.0	0.0	100.0	22.00
	All others	100	0.0	8.8	9.0	82.2	19.78
<b>Falkland Islands<sup>b</sup></b>	General cargo	100	0.0	0.0	0.0	100.0	22.00
	All others	100	0.0	29.7	43.5	26.8	13.20
<b>Grenada</b>	General cargo	100	0.0	0.0	0.0	100.0	22.00
<b>Guyana</b>	Tankers	100	0.0	0.0	0.0	100.0	22.00
	General cargo	100	0.0	0.0	0.0	100.0	22.00
	All others	100	0.0	0.0	8.5	91.5	21.15
<b>Haiti</b>	General cargo	100	0.0	0.0	0.0	100.0	22.00
	All others	100	0.0	0.0	0.0	100.0	22.00
<b>Honduras</b>	Tankers	100	0.0	0.0	1.8	98.2	21.82
	Bulk carriers	100	0.0	0.0	0.0	100.0	22.00
	General cargo	100	0.3	0.2	2.4	97.1	21.67
	Container ships	100	0.0	0.0	0.0	100.0	22.00
	All others	100	0.3	0.2	1.8	97.7	21.73
<b>Jamaica</b>	Tankers	100	0.0	0.0	0.0	100.0	22.00
	All others	100	100.0	0.0	0.0	0.0	2.00
<b>Mexico</b>	Tankers	100	0.0	14.8	18.4	66.8	17.94
	General cargo	100	0.0	0.0	0.0	100.0	22.00
	Container ships	100	100.0	0.0	0.0	0.0	2.00
	All others	100	0.0	4.3	5.2	90.5	20.84
<b>Nicaragua</b>	General cargo	100	0.0	0.0	0.0	100.0	22.00
	All others	100	0.0	14.9	0.0	85.1	19.77
<b>Paraguay</b>	Tankers	100	0.0	0.0	0.0	100.0	22.00
	General cargo	100	0.0	0.0	25.7	74.3	19.43
	Container ships	100	0.0	0.0	0.0	100.0	22.00
	All others	100	0.0	0.0	0.0	100.0	22.00

Country grouping	Types of vessel	Total	0-4 years	5-9 years	10-14 years	15 years and over	Average age (years) <sup>a</sup>
Peru	Tankers	100	0.0	0.0	0.0	100.0	22.00
	General cargo	100	0.0	0.0	0.0	100.0	22.00
	All others	100	33.8	17.9	1.2	47.1	12.44
Saint Kitts and Nevis	General cargo	100	0.0	0.0	0.0	100.0	22.00
Saint Vincent and the Grenadines	Tankers	100	0.3	0.0	0.0	99.7	21.94
	Bulk carriers	100	0.7	7.9	6.7	84.8	20.03
	General cargo	100	2.5	3.8	5.3	88.4	20.40
	Container ships	100	31.1	0.0	10.0	58.9	14.78
	All others	100	13.4	4.1	4.8	77.6	18.20
Suriname	Tankers	100	0.0	49.4	50.6	0.0	9.53
	General cargo	100	0.0	0.0	0.0	100.0	22.00
	All others	100	21.9	0.0	0.0	78.1	17.62
Turks and Caicos Islands	General cargo	100	0.0	0.0	0.0	100.0	22.00
	All others	100	0.0	0.0	0.0	100.0	22.00
Trinidad and Tobago	General cargo	100	0.0	0.0	0.0	100.0	22.00
	All others	100	0.0	0.0	28.3	71.7	19.17
Uruguay	Tankers	100	0.0	0.0	0.0	100.0	22.00
	General cargo	100	0.0	0.0	0.0	100.0	22.00
	All others	100	0.5	3.4	16.5	79.6	19.74
Venezuela	Tankers	100	0.0	0.0	23.6	76.4	19.64
	Bulk carriers	100	0.0	0.0	0.0	100.0	22.00
	General cargo	100	0.0	0.0	0.0	100.0	22.00
	Container ships	100	0.0	0.0	0.0	100.0	22.00
	All others	100	0.2	5.2	0.4	94.2	21.14

Source: UNCTAD secretariat on the basis of data supplied by Lloyd's Maritime Information Services (London).

<sup>a</sup> 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.

<sup>b</sup> A dispute exists between the Governments of Argentina and the United Kingdom of Great Britain and Northern Ireland concerning sovereignty over the Falkland Islands (Malvinas).

### (c) Liner shipping services in Latin America

188. Latin America, specifically South America, experienced a period of rapid container traffic growth during the 1990s, with a major surge in import traffic driving the market. Trade liberalization and the breakdown of cargo reservation arrangements have been inducing significantly traffic demand, actually encouraging both North-South niche carriers and the globally operating East-West mega-carriers to enter

the trades or to upgrade previously existing engagements. In trade, some consolidation is in evidence, however, there remains considerable growth potential. The current issue on liner shipping services is how relevant facilities will be improved with the aim of maximizing liner service efficiency, i.e. developing transshipment ports as hubs for the main-haul operations, and as centres for regional feederoperations.

189. The Latin American trades in particular have been the focus of liner operators' grouping, vessel-sharing agreements and other attempts at rationalization. Some of the major east-west liner operators have been making inroads into the trades to expand their presence in this fast-growing business, while smaller carriers based in Latin America recognize the potential for an active involvement as feeder carriers in their overseas trade. Table 60 indicates liner-cargo movements between Latin American countries and the three major areas (North America, Europe and the Far East) of their trading partners. In 1998, total cargo movements amounted to 5.50 million TEUs, of which 40 per cent each were loaded and discharged on the East

190. North America is the largest trading partner with a 57 per cent of the total trade, representing 3.2 million TEUs. The ratio among the East Coast, West Coast and the Caribbean stands at 20:30:50, and the ratio between import and export is 46:54. Europe traded 1.6 million TEUs, sharing one third of the total. The ratios among the East Coast, the West Coast and the Caribbean are approximately 20:50:30. The trades with Japan and the Far Eastern NIEs represent 13 per cent of the total. This trade was highly imbalanced with imports to South America and the Caribbean amounting to two thirds of the export volume only. The ratio among the West Coast, the East Coast and the Caribbean stands at 30:50:20, respectively.

Table 60  
**Estimated liner-cargo movements between Latin American countries and major trading partners, 1998**  
*(in thousands of TEUs)*

	United States	Canada	Northern Europe	Southern Europe	Japan	Far Eastern NIEs	Total
<b>West Coast of South America</b>							
<b>Exports</b>	248	20	125	53	73	76	595
<b>Imports</b>	300	39	82	55	30	30	536
<b>East Coast of South America</b>							
<b>Exports</b>	389	36	269	144	120	121	1 079
<b>Imports</b>	536	90	244	143	38	70	1 121
<b>Caribbean</b>							
<b>Exports</b>	658	97	197	56	34	21	1 063
<b>Imports</b>	679	66	158	76	54	72	1 105
<b>TOTAL</b>							
<b>Exports</b>	1 295	153	591	253	227	218	2 737
<b>Imports</b>	1 515	195	484	274	122	172	2 762
<b>Total</b>	2 810	348	1 075	527	349	390	5 499
<i>Source: UNCTAD secretariat on the basis of data supplied by DRI/McGraw-Hill, World Sea Trade Service Review, Third Quarter, 1998.</i>							

### *Liner shipments and demand for tonnage*

191. Liner shipments and demand for the relevant tonnage in the three major trade routes of South America and the Caribbean are shown in table 61. On the basis of the structure of liner cargo movement and the liner shipping mechanism, it was estimated that the total cargo quantity of the three major trades of South

America and the Caribbean expand at an average annual growth rate of 6.8 per cent over the period from 1998 through to the year 2000. However the growth of trade may be given a downward adjustment as GDP growth for this region is expected to fluctuate around a lower growth path for 1999-2000. At the same time, supply of liner tonnage will increase at least at the same rate as demand generated by trade expansion.

Table 61

#### **Estimated liner shipments and resulting tonnage requirements in the three major trades of South America and the Caribbean**

<b>Trade route</b>		<b>1998</b>	<b>1999</b>	<b>2000</b>
<b>North America (United States and Canada)</b>	Cargo (thousand tons)	15 157	16 411	17 745
	Ships (thousand dwt)	1 648	1 784	1 929
<b>Europe (including Mediterranean)</b>	Cargo (thousand tons)	9 270	9 706	10 185
	Ships (thousand dwt)	1 288	1 348	1 415
<b>Japan and Far Eastern NIEs</b>	Cargo (thousand tons)	6 250	6 581	6 950
	Ships (thousand dwt)	672	708	747
<b>TOTAL</b>	Cargo (thousand tons)	30 677	32 698	34 880
	Ships (thousand dwt)	3 608	3 840	4 091

*Source:* UNCTAD secretariat on the basis of data supplied by DRI/McGraw-Hill, *World Seatrade Service Review*, various issues.

### *North-South liner services for Latin American trade*

192. Table 62 summarizes container ship deployment for the North-South trades as at 1 January 1996 and 1998 respectively. Comparison of the data from 1 January 1998 to similar figures for 1 January 1996 underlines all trends which have characterized the past two years in the North-South trades. The momentum of the containerization process in this type of trade is shown in the overall figures, which rose from 384 ships in 1996

to 517 ships in 1998 (up 35 per cent), the most spectacular rises being in the trades with Latin America. Table 63 indicates container carrying capacity of major operators deployed in the main North-South trades. In terms of capacity by trade, global carriers accounted for 70 per cent of multi-trade operations such as Asia/South Africa/South America and dominated in Australasia (over 50 per cent) and Africa (45 per cent). Only in Latin America were they weaker (41 per cent), owing to the strength of regional carriers (45 per cent).

193. Cooperation between liner operators has developed rather differently in the North-South than in the East-West trades, owing mostly to the varying degrees of historical involvement of specific lines in specific trades, and the small scale or complete absence of North-South activities by certain carriers. In the North-South trades, consortia have tended to be conference-based and their membership subjected to Now, thanks to the rapid increase in the container ship chartering markets (of tramp-owned ships), and the responsiveness of tramp-owners to market needs, container ship operators are able to retonnage minor trade routes also at least at a few months' notice.

194. New vessel-sharing agreements emerge very often, almost always involving larger and faster vessels, and have become so commonplace that the use of ships over-2,000 TEUs on the higher volume routes is the norm rather than the exception. The most recent developments in the North-South liner services have centred on the trade between the East Coast of the United States and that of South America. In the first, Crowley American Transport (CAT), which had introduced seven ships of 2,100 to 2,480 TEUs, announced the addition of Ivaran Lines as a slot-charterer, enabling the latter to fill the gap left by its split with Columbus/Alianca. The second involves no less

considerable fluctuations reflecting changing conference positions in the trade. Larger operators now dominate in these groupings, either directly or via subsidiaries. In the traditional North-South operation, in which ships were built to serve for years, and flexibility only came through adding or withdrawing ships and amending frequency, efficient liner service has become very difficult for operators. than six carriers - Pan-American Independent Line, Zim, Di Gregorio, DSR-Senator, Cho Yang and Hanjin - filed with the United States Federal Maritime Commission (FMC) for a joint service using seven 2,100 TEU ships, which were chosen to replace the 12 smaller units currently engaged in their two separate operations. On the other hand, DSR-Senator, Cho Yang and Hanjin together schemed another development, where all three collaborated in the East-West trades. The three lines can use the operation to relay South American-bound cargoes from Europe or the Far East via United States ports; which became the third major route in the North-South trades or trade integration. In Latin America, this trend was most clearly discernible in the development of hub-port activities in Panama. Another example is Evergreen, which has this type of operation on the new United States East Coast/East Coast of South America service, thereby bringing the subregion into its worldwide network.

Table 62

**Container ship deployment summary for North-South trades**  
(1 January 1996 and 1 January 1998)

	1 January 1996				1 January 1998			
	Vessels		Capacity		Vessels		Capacity	
	No. of ships	Percentage	TEUs	Percentage	No. of ships	Percentage	TEUs	Percentage
<b>Global carriers</b>	167	43.5	249 721	43.3	249	48.2	410 888	49.3
<b>North-South carriers</b>	97	25.3	147 307	25.6	131	25.3	215 481	25.8
<b>Regional carriers</b>	120	31.2	179 324	31.1	137	26.5	207 724	24.9
<b>TOTAL</b>	384	100.0	576 352	100.0	517	100.0	834 093	100.0

Source: LSE/Boxfile Containership database.

Table 63

**Container ship carrying capacity of major operators in main North-South trades, as at  
1 January 1998**  
(by carrier/region)

Carrier	Multi-trade		Australasia		Latin America		Africa		Total	
	Vessels	TEU Capacity	Vessels	TEU Capacity	Vessels	TEU Capacity	Vessels	TEU Capacity	Vessels	TEU Capacity
P&O Nedlloyd	10	18 803	21	38 976	9	16 150	11	19 228	51	93 157
Mediterranean Shipping Company	12	28 395	4	6 017	12	15 986	17	25 495	45	75 893
Maersk Line	1	1 613	4	6 498	18	28 041	16	19 867	39	56 019
Compañía Sudamericana de Vapores	3	4 839	-	-	21	34 582	-	-	24	39 421
SCL (Safmarine/CMBT)	-	-	-	-	-	-	17	31 566	17	31 566
Contship Containerlines	7	11 777	6	16 800	1	2 462	-	-	14	31 039
Cosco	11	20 243	7	8 820	-	-	-	-	18	29 063
NYK Line	5	8 055	7	13 096	6	7 826	-	-	18	28 977
Hamburg Süd	-	-	8	9 408	10	19 258	-	-	18	28 666
Sea-Land	-	-	-	-	16	25 467	-	-	16	25 467
Delmas (inc. ANZDL)	-	-	4	6 092	3	3 003	11	15 549	18	24 644
Wilhelmsen Lines	-	-	9	20 900	-	-	-	-	9	20 900
Evergreen	11	19 632	-	-	-	-	-	-	11	19 632
CGM	4	6 404	-	-	8	12 166	1	1 054	13	19 624
MOL	-	-	3	5 022	6	10 337	2	3 786	11	19 145
Crowley	-	-	-	-	10	18 072	-	-	10	18 072
Kien Hung	9	14 120	-	-	-	-	-	-	9	14 120
Blue Star	-	-	8	11 006	1	2 468	-	-	9	13 474
Transroll	-	-	-	-	7	12 506	-	-	7	12 506
<b>Subtotal top 20</b>	73	133 881	81	142 635	128	208 324	75	116 545	357	601 385
Others (42 carriers)	6	9 949	25	38 192	55	78 792	30	40 849	116	167 782
<b>GRAND TOTAL</b>	79	143 830	106	180 827	183	287 116	105	157 394	473	769 167

Source: LSE/Boxfile Containership database.

*Ocean freight rates of liner services and overland transport charges*

195. Table 64 provides data on ocean and inland freight rates quoted in inbound trades to Bolivia and Argentina via Chile. Land-transport freight for imports to Bolivia is much higher than those of any of the three ocean legs. The land portion for La Paz accounts for 52 per cent of the total freight for United States' trades, 48 per cent for Europe and 43 per cent for Asia. Similarly, that for Santa Cruz accounts for 63 per cent for United States' trades, 59 per cent for Europe and 55 per cent for Asia. On the other hand, the inland

freight for imports to Mendoza (Argentina) stood at a lesser percentage portion than that to Bolivia, accounting for 38 per cent of the United States' trade and 33 per cent and 29 per cent of the European and Asian trades, respectively. Similar freight development has been observed for imports and exports to/from Bolivia in trade with Far Eastern countries (see table 65). Freights for the combined road and rail transport between Buenos Aires-San Antonio/Valparaiso are quoted at \$1,800 for a 20-footer, while all-ocean transport via Cape Horn (Buenos Aires-San Antonio/Valparaiso) is quoted at \$1,200 for a 20-footer and \$1,600 for a 40-footer.

Table 64

**Average through-rates (basic tariff rates) for imports to Bolivia (La Paz and Santa Cruz) via Chile (Arica) and imports to Argentina (Mendoza) via Chile (Valparaiso and San Antonio), 1998/1999**  
(in dollars per TEU)

Trade route	Ocean freight	Land-transport freight to			Additional surcharges			Total		
		La Paz	Santa Cruz	Mendoza	La Paz	Santa Cruz	Mendoza	La Paz	Santa Cruz	Mendoza
<b>United States</b>	1 100	1 800	2 800	800	530	530	200	3 430	4 430	2 100
<b>Europe</b>	1 400	1 800	2 800	800	530	530	200	3 730	4 730	2 400
<b>Asia</b>	1 750	1 800	2 800	800	530	530	200	4 080	5 080	2 750

Sources: ECLAC/The Chilean Chamber of Shipping; K Line, Japan.

Table 65

**Average through-rates (basic tariff rates) for imports and exports to/from Bolivia (La Paz and Santa Cruz) via Chile (Arica) in trade with Far Eastern countries, 1998/1999**  
(in dollars per TEU)

Trade	Ocean freight	Land-transport freight		Additional surcharges	Total	
		La Paz	Santa Cruz		La Paz	Santa Cruz
<b>Exports from Bolivia</b>	1 280	1 800	2 800	200	3 280	4 280
<b>Imports to Bolivia</b>	2 000	1 800	2 800	530	4 330	5 330

Sources: ECLAC/The Chilean Chamber of Shipping; K Line, Japan.

*Development of ocean (liner) freight indices on major trade routes*

196. Graphs 10 to 13 indicate variations during the period 1997-1999 of ocean freight rates for liner shipments, quoted for selected South American

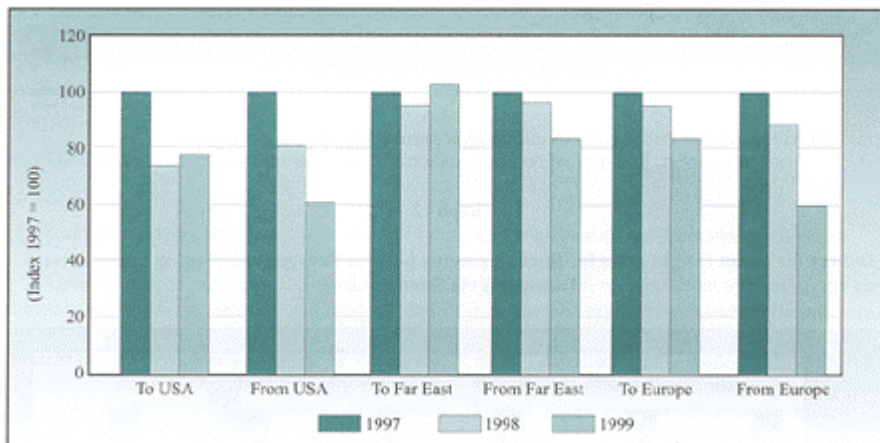
countries' (Brazil, Argentina, Paraguay and Bolivia) trades with the United States, Europe and the Far East. It is notable that freight rate indices for the four countries' trade with the United States have been continuously on the downward trend since 1997.

Looking into each country's trades, indices for Brazil on all trade routes except the outbound to the Far East in 1999 are falling year by year.<sup>24</sup> In Argentina, the trade with the Far East has been rather flat while the outbound trade to Europe is constantly up, albeit that the trade from Europe continued to fall.

Overall indices on the trades of Paraguay are declining while those on the trades of Bolivia fluctuate less than those of the other countries. Its outbound trade to the Far East and both outbound and inbound trades with Europe indicate favourable trends.

Graph 10

Indices of ocean freight rates for liner shipments to/from Brazil via Santos, Rio Grande, São Francisco do Sul

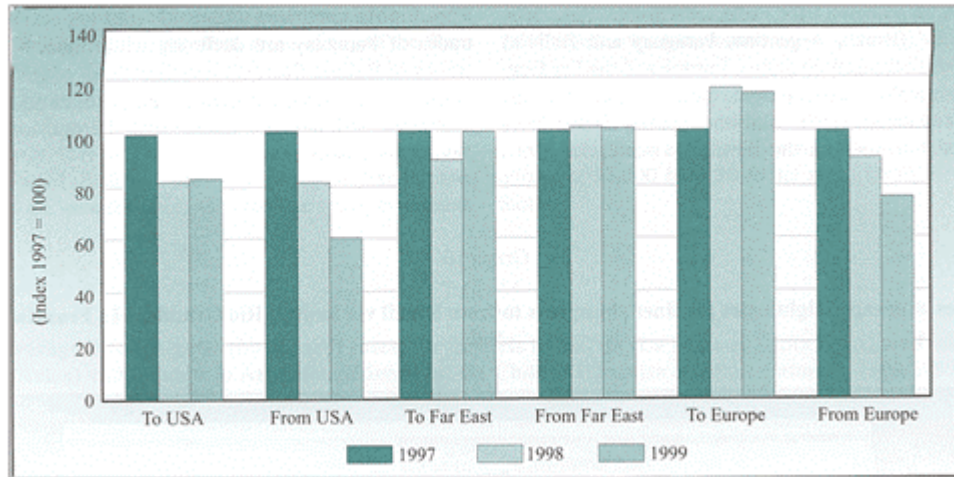


Source: UNCTAD secretariat on the basis of information supplied by shipping companies.



Graph 11

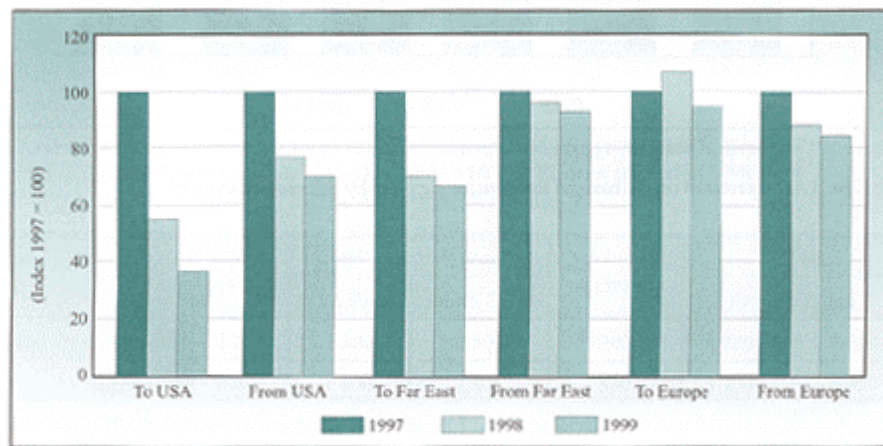
**Indices for ocean freight rates for liner shipments to/from Argentina via Buenos Aires**



Source: UNCTAD secretariat on the basis of information supplied by shipping companies.

Graph 12

**Indices for ocean freight rates for liner shipments to/from Paraguay (including inland (river) transport) via Buenos Aires**



Source: UNCTAD secretariat on the basis of information supplied by shipping companies.

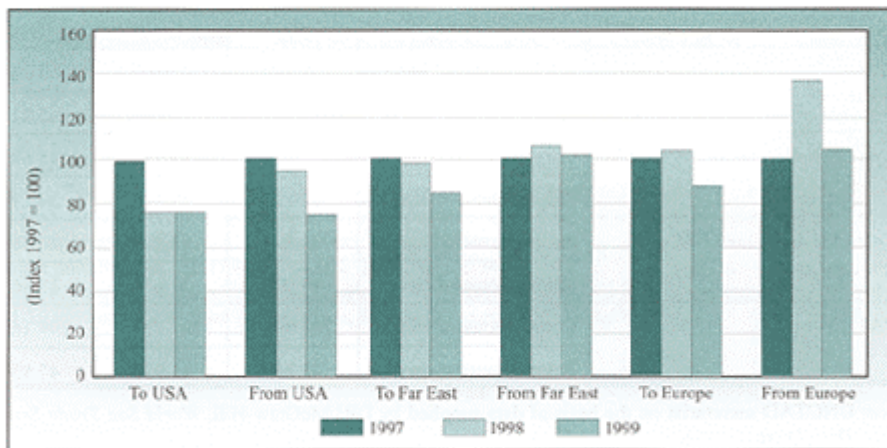
197. Latin America (South America and the Caribbean) supplies approximately one third of world seaborne iron ore trade. Brazil alone exported nearly 140 million tons in 1998, being followed by Venezuela, Chile and Peru. For coal exports, the rapidly expanding steam coal markets have increased opportunity specifically for Colombia, which shipped nearly 28 million tons in 1998, indicating prospects to reach more than 30 million tons per year in the early part of the new century. Grain is an important commodity of South America's exports. Approximately 24 million tons of grain were exported in 1998 by Argentina where improving economic conditions encouraged investment in the agricultural sector, which was influential in increasing the exports of crops. Table 66 shows estimates of major dry bulk cargo shipments and tonnage demand. Europe remains the largest market for Latin America's overall dry bulk cargoes. In 1999 the growth of dry bulk trades with Asia is expected to be negative, but unlike Asia, European trades continue to increase. Overall dry bulk cargo shipments and demand for tonnages are expected to expand by 1 to 2 per cent in 1999 and by higher rates in 2000.

#### Crude oil and oil product shipping services

198. Crude oil production in South America and the Caribbean is expected to increase continuously into the early 2000s. Venezuela, Colombia and Brazil can be main suppliers of crude oil, provided that foreign investment continues to be available. The United States remains the primary market for Latin American production, and is expected to receive 90 per cent of all Latin American shipments. For refined oil products, there is a continuing opportunity for regional oil-product-producing countries, such as Venezuela, Colombia and Brazil, to expand their market presence, especially in the United States whose refining capacity is stagnating owing to environmental costs. Table 67 shows estimates for major oil and oil product shipments and tonnage requirements. The supply and demand mechanism for crude petroleum and its products of this region is largely (nearly 90 per cent) subject to trade expansion with the United States. In these circumstances, supply and demand for these shipments is expected to grow from 3 to 4 per cent in 1999 and from 2 to 3 per cent in 2000.

Graph 13

Indices for ocean freight rates for liner shipments to/from Bolivia, including inland transport via Arica



Source: UNCTAD secretariat on the basis of information supplied by shipping companies.

<b>Trade</b>		<b>1998</b>	<b>1999</b>	<b>2000</b>
<b>North America (United States and Canada)</b>	Cargo (thousand tons)	65 457	65 366	66 762
	Ships (thousand dwt)	5 114	5 107	5 216
<b>Europe (including Mediterranean)</b>	Cargo (thousand tons)	132 748	139 288	145 643
	Ships (thousand dwt)	22 125	23 215	24 274
<b>Japan and Far Eastern NIEs</b>	Cargo (thousand tons)	84 692	83 077	86 761
	Ships (thousand dwt)	18 020	17 676	18 460
<b>TOTAL</b>	Cargo (thousand tons)	282 897	287 731	299 166
	Ships (thousand dwt)	45 259	45 998	47 950

*Source:* UNCTAD secretariat on the basis of data supplied by DRI/McGraw-Hill, *World Sea Trade Service Review*, Third Quarter, 1998.

Table 67

**Oil and oil product shipments and corresponding tanker tonnage requirements  
for the major trades of South America and the Caribbean**

<b>Trade</b>		<b>1998</b>	<b>1999</b>	<b>2000</b>
<b>North America (United States and Canada)</b>	Cargo (thousand tons)	237 672	247 329	253 921
	Ships (thousand dwt)	37 726	39 259	40 305
<b>Europe (including Mediterranean)</b>	Cargo (thousand tons)	17 514	17 500	17 276
	Ships (thousand dwt)	3 503	3 500	3 455
<b>Japan and Far Eastern NIEs</b>	Cargo (thousand tons)	6 034	5 787	5 548
	Ships (thousand dwt)	2 011	1 929	1 849
<b>TOTAL</b>	Cargo (thousand tons)	261 220	270 616	276 745
	Ships (thousand dwt)	43 240	44 688	45 609

*Source:* UNCTAD secretariat on the basis of data supplied by DRI/McGraw-Hill, *World Seatrade Service Review*, Third Quarter, 1998.

### C. ESTIMATES OF FREIGHT COSTS IN LATIN AMERICAN COUNTRIES

#### *Cost factor for import trades*

199. The total value of the imports (c.i.f.) of American developing countries increased by 17.09 per cent in 1997 from the previous year, while their total freight costs rose by 16.02 per cent (see table 68). In 1997, American developing countries accounted for 22.07 per cent of the total freight costs and 25.27 per cent of the total value of imports of developing countries. The 1997 total freight costs of American developing countries as a proportion of import value improved very marginally to 7.02 per cent from 7.08 per cent in the previous year. In 1997, the freight factor for the Caribbean and North American developing countries was 11.10 per cent, the highest in this region, followed

by the northern seaboard with 10.26 per cent and the western seaboard with 7.20 per cent. Freight costs of Central America amounted to 5.54 per cent, which was the lowest in American developing countries and very close to the world average of 5.24 per cent. Among the major importing countries of this group, the freight factors of Mexico, Brazil and Argentina were relatively low, at 4.42 per cent, 6.36 per cent and 6.53 per cent, respectively. The freight factors of the landlocked countries, Bolivia and Paraguay, were very high at 11.10 per cent and 11.33 per cent. Among the Caribbean island countries, the Dominican Republic, Haiti and Jamaica faced the highest charges of between 12 and 13 per cent. These variations in freight costs can be explained by geographical factors as well as by differences in trade and shipping systems and patterns, and the development of port and other infrastructures, particularly in the liner sector.

Table 68

<b>Estimates of total freight costs of total import value in world trade by American developing countries, 1997</b> <i>(millions of US dollars)</i>			
<b>Country</b>	<b>Estimate of total freight costs of imports</b>	<b>Total import value</b>	<b>Freight costs as percentage of import value</b>
<b>Caribbean and North America</b>			
Antigua and Barbuda	26.86	300	8.95
Bahamas	151.44	2 556	5.92
Barbados	89.19	996	8.95
Bermuda	99.31	1 109	8.95
Dominican Republic	913.74	7 112	12.85
Dominica	22.03	246	8.95
Greenland	22.68	420	5.40
Grenada	18.88	183	10.32
Guadeloupe	435.67	3 391	12.85
Haiti	118.97	926	12.85
Jamaica	383.94	3 194	12.02
Martinique	251.69	1 959	12.85
St. Kitts and Nevis	15.22	170	8.95
St. Lucia	23.28	260	8.95
St. Pierre et Miquelon	6.34	65	9.76
St. Vincent and the Grenadines	20.86	233	8.95
Trinidad and Tobago	268.47	2 728	9.84
<b>Subtotal</b>	<b>2 868.57</b>	<b>25 848</b>	<b>11.10</b>
<b>Central America</b>			
Belize	25.61	286	8.95
Costa Rica	407.87	4 284	9.52
El Salvador	323.78	3 317	9.76
Guatemala	335.92	4 048	8.30
Honduras	337.04	3 601	9.36

Country	Estimate of total freight costs of imports	Total import value	Freight costs as percentage of import value
Mexico	5 340.90	120 789	4.42
Nicaragua	126.01	1 260	10.00
Panama	1 785.37	19 075	9.36
<b>Subtotal</b>	<b>8 682.51</b>	<b>156 660</b>	<b>5.54</b>
<b>South America - Northern Seaboard</b>			
French Guyana	367.32	2 859	12.85
Guyana	49.88	557	8.95
Netherlands Antilles	374.86	3 552	10.55
Suriname	61.28	568	10.79
Venezuela	1 576.83	16 154	9.76
<b>Subtotal</b>	<b>2 430.17</b>	<b>23 690</b>	<b>10.26</b>
<b>South America - Western Seaboard</b>			
Chile	1 378.20	18 889	7.30
Colombia	990.88	15 377	6.44
Ecuador	471.26	5 169	9.12
<b>Subtotal</b>	<b>2 840.34</b>	<b>39 435</b>	<b>7.20</b>
<b>South America - Eastern Seaboard</b>			
Bolivia	210.34	1 895	11.10
Brazil	4 298.13	67 604	6.36
Falkland Islands <sup>a</sup>	5.66	58	9.76
Paraguay	483.19	4 264	11.33
Uruguay	167.65	3 716	4.51
Argentina	1 976.72	30 272	6.53
<b>Subtotal</b>	<b>7 141.70</b>	<b>107 809</b>	<b>6.62</b>
<b>Developing countries - America</b>	<b>25 442.59</b>	<b>362 453</b>	<b>7.02</b>
<b>World total</b>	<b>270 867.42</b>	<b>5 166 460</b>	<b>5.24</b>
<b>Developed market-economy countries</b>	<b>155 603.24</b>	<b>3 732 257</b>	<b>4.17</b>
<b>Developing countries - total</b>	<b>115 264.19</b>	<b>1 434 203</b>	<b>8.04</b>
<i>of which in:</i>			
<b>Africa</b>	<b>13 599.57</b>	<b>117 928</b>	<b>11.53</b>
<b>America</b>	<b>25 442.59</b>	<b>362 453</b>	<b>7.02</b>
<b>Asia</b>	<b>73 558.32</b>	<b>924 765</b>	<b>7.95</b>
<b>Europe</b>	<b>1 962.94</b>	<b>23 387</b>	<b>8.39</b>
<b>Oceania</b>	<b>700.77</b>	<b>5 670</b>	<b>12.36</b>

Source: UNCTAD secretariat on the basis of data supplied by the IMF.

<sup>a</sup> A dispute exists between the Governments of Argentina and the United Kingdom of Great Britain and Northern Ireland concerning sovereignty over the Falkland Islands (Malvinas).

*Modes and cost of transport in import trades*

200. Table 69 and graph 14 provide information on selected Latin American countries' import volume in weight and its distribution over different modes of transport in 1997. In all the South American countries on the table, except Bolivia and Paraguay, maritime and river transport facilities carried 70 to 100 per cent of all import cargoes in terms of weight in 1997. Bolivia and Paraguay, both landlocked countries, depend largely upon land transport, representing 62.1 per cent and 49.7 per cent, respectively, whilst they use transport by

water at 32.3 per cent and 48.9 per cent, respectively (see table 70). These transport structures indicate variations in transport costs. Bolivia paid \$145 per ton for its imports, which is the highest among the selected countries, followed by Paraguay that paid \$90 per ton. Brazil incurred the lowest costs of \$31 per ton (see table 70). Again, these variations in freight costs can be due mainly to geographical factors, i.e. landlocked countries, as well as to differences in trade and shipping systems and patterns of each country, and the development of port and other infrastructures.

Table 69

**Selected Latin American countries' imports volume in weight and percentagewise proportion by means of transportation, 1997**  
(in thousands of tons)

1997	Maritime and river transport	Air	Land	Others	Total
Argentina	19 007.44	102.06	3 604.37	56.11	22 769.98
Bolivia	500.92	16.02	962.98	70.42	1 550.34
Brazil	86 100.04	273.85	5 684.08	50.63	92 108.60
Colombia	14 036.92	275.57	32.16	89.44	14 434.09
Mexico	32 656.27	345.17	38 950.05	27 861.95	99 813.44
Paraguay	1 265.90	34.62	1 287.24	0.00	2 587.76
Peru	12 702.46	34.55	393.06	175.55	13 305.62
Uruguay	2 601.99	11.52	1 111.59	0.23	3 725.33
Venezuela	11 924.86	62.52	531.05	0.03	12 518.46

Source: ECLAC.

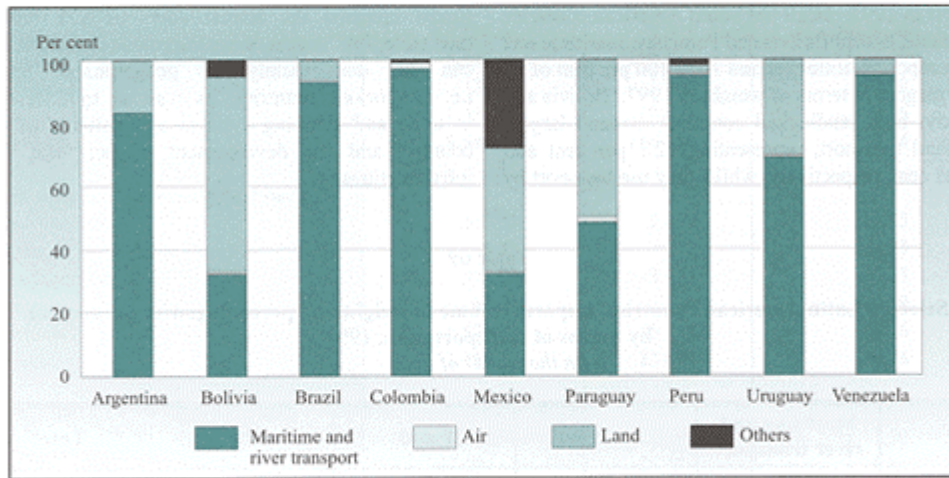
(percentage)

1997	Maritime and river transport	Air	Land	Others	Total
Argentina	83.48	0.45	15.83	0.25	100.00
Bolivia	32.31	1.03	62.11	4.54	100.00
Brazil	93.48	0.30	6.17	0.05	100.00
Colombia	97.25	1.91	0.22	0.62	100.00
Mexico	32.72	0.35	39.02	27.91	100.00
Paraguay	48.92	1.34	49.74	0.00	100.00
Peru	95.47	0.26	2.95	1.32	100.00
Uruguay	69.85	0.31	29.84	0.01	100.00
Venezuela	95.26	0.50	4.24	0.00	100.00

Source: ECLAC.

Graph 14

**Modal split of selected Latin American countries' imports, 1997**  
(percentage of total weight)



Source: ECLAC.

Table 70

**Selected Latin American countries' transport costs (freight and insurance)  
for maritime and river transport, 1997**

1997	Weight (thousands of tons)	Transport costs (millions of dollars)	Costs per ton
<b>Argentina</b>	19 007.44	1 190.76	62.65
<b>Bolivia</b>	500.92	72.41	144.55
<b>Brazil</b>	86 100.04	2 659.66	30.89
<b>Colombia</b>	14 036.92	736.16	52.44
<b>Mexico</b>	32 656.27	-	-
<b>Paraguay</b>	1 265.90	114.01	90.06
<b>Peru</b>	12 702.46	541.39	42.62
<b>Uruguay</b>	2 601.99	139.91	53.77
<b>Venezuela</b>	11 924.86	-	-

Source: ECLAC, on the basis of the Data Bank of Foreign Trade of Latin America and the Caribbean.