## UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT Geneva

# **REVIEW OF MARITIME TRANSPORT, 2002**

Chapter VI I
Review of regional developments: Latin America



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### Chapter 7

### REVIEW OF REGIONAL DEVELOPMENTS: LATIN AMERICA

This chapter focuses on maritime developments in developing countries and territories in the Americas, including inland transport.

#### A. ECONOMIC BACKGROUND

The period covered by this review (1999–2001) was an unsettled one for countries of Latin America and the Caribbean. The financial crisis of 1997 had a severe impact on economic growth, which slowed to 2.3 per cent in 1998 and bottomed out in the following year, when it reached 0.4 per cent (see table 46). Countries in Latin America were most affected by the slowdown; nine of the 20 countries listed in table 46 registered negative growth in either 1998 or 1999, and in one country the economy contracted in both years. Of the 10 countries achieving positive growth, the best performers were those closely linked to the United States economy, including the Dominican Republic, Mexico and countries in Central America. The largest country in South America, Brazil, achieved much less growth. The 12 Caribbean countries performed well, with only three registering negative growth in 1998 or 1999.

During 1999 domestic demand was sluggish and was curtailed by currency devaluations in Brazil, Chile, Colombia and Ecuador. The fiscal deficit increased because of rebuilding in some countries in Central America and the Caribbean after Hurricanes Mitch and Georges, earthquakes in Colombia's coffee-producing areas and pressure for social spending in other countries. Investment was also sluggish as a result of high interest rates in a year in which many domestic banks faced difficulties and were reorganized or merged. Incoming financial flows were less than half of those of 1997, and in most countries foreign payments required the use of reserves.

The strong rebound of economic output in Latin America and the Caribbean in 2000 resulted from economic growth in the United States, in the euro zone and in the Far East, which fuelled demand and lifted the price of crude oil. Seven countries in Latin America (Brazil, Chile, Cuba, the Dominican Republic, Honduras, Mexico and Nicaragua) and four in the Caribbean (Belize, Grenada, St. Kitts and Nevis and Trinidad and Tobago) registered output increases above the regional average of 4.1 per cent, with the best performers taking advantage of the high United States demand. Economic contraction was focused only in the River Plate area and affected three countries.

Domestic demand for countries in the region expanded by 4.5 per cent, mostly because of increased consumption in an environment of low inflation rates or the use of dollars as national currency, as in Ecuador. Strict control of fiscal expenditures and improved tax collection reduced public deficits to 2.3 per cent of GDP and reduced public investments in some key sectors (e.g. agriculture) and social expenditures. Domestic private investment did not rise due to the paucity of bank loans and high interest rates. Proceeds from privatizations increased by 50 per cent from 1999 levels to \$18.5 billion, with Brazil and Mexico representing almost 70 per cent and 23 per cent of the privatization in the regionrespectively. Increased competition resulted in transnational companies' matching producing and consumption areas across national borders – for example, for gas in Mercosur and electricity in Central America.

Table 46

Percentage growth of GDP at 1995 constant market prices for countries in Latin America and the Caribbean, 1998–2001

Countries or territories	1998	1999	2000	2001
Argentina	3.8	-3.4	-0.6	-3.8
Bolivia	5.2	0.4	1.8	0.0
Brazil	0.3	0.9	4.3	1.7
Chile	3.6	-0.1	4.9	3.0
Colombia	0.5	-4.1	2.7	1.5
Costa Rica	8.3	8.1	1.7	0.3
Cuba	1.3	6.8	5.5	3.0
Dominican Republic	7.3	8.0	7.8	3.0
Ecuador	1.0	-9.5	2.8	5.0
El Salvador	3.8	3.3	2.0	1.5
Guatemala	5.1	3.9	3.1	2.0
Haiti	-1.1	2.3	1.2	-0.9
Honduras	3.3	-1.5	5.0	2.5
Mexico	5.1	3.6	6.8	-0.1
Nicaragua	4.1	7.4	4.7	2.0
Panama	4.6	3.5	2.6	0.5
Paraguay	-0.6	-0.1	-0.6	1.5
Peru	-0.5	0.9	3.0	-0.5
Uruguay	4.4	-2.9	-1.5	-2.5
Venezuela	0.7	-5.8	4.0	2.8
Subtotal - Latin America	2.3	0.4	3.9	0.5
Antigua and Barbuda	5.0	4.9	2.6	-
Barbados	5.3	3.1	3.0	-1.5
Belize	2.0	5.9	10.1	-2.0
Dominica	3.1	1.3	0.7	-
Grenada	7.6	7.5	6.5	2.5
Guyana	-2.2	3.9	3.0	1.0
Jamaica	-1.0	0.7	0.5	1.5
Saint Kitts and Nevis	1.1	3.5	7.1	-
Saint Lucia	3.0	3.4	0.6	-
Saint Vincent and the				
Grenadines	5.8	4.2	2.0	-
Suriname	1.9	-2.4	0.1	-
Trinidad and Tobago	5.3	7.8	5.0	1.0
Total - Latin America and the				
Caribbean	2.3	0.4	4.1	0.5

Source: For 1998–2000: Anuario Estadístico de America Latina y el Caribe (2002), ECLAC publication LC/G.2151-P/B, February: 68. For 2001: Estimates from Balance preliminar de las economías de América Latina y el Caribe, (2001) ECLAC publication LC/G-2153-P/E, statistical appendix, table A-1. The ECLAC classification for Latin America includes the Caribbean countires of Cuba and Haiti.

However, the fragility of the recovery was evident one year later. Low prices for commodities and slackening demand in industrialized countries during the second half of the year affected most countries in the region. The price index for minerals estimated by ECLAC is the lowest in the last five years, and price indexes for some agricultural products, such as coffee, are at historical lows. The preliminary estimate of economic growth for countries in Latin America and the Caribbean during 2001 is, at 0.5 per cent, barely above the output growth of 1999. The economies of seven countries contracted, and not a single country showed output growth beyond 5 per cent. By the end of the year, Argentina had defaulted on its debt and the ripples of the collapse had affected neighbouring countries, notably Uruguay.

As table 47 indicates, the value of exports for the 37 countries in Latin America and the Caribbean for the year 2000 reached \$369.8 billion, equivalent to 6 per cent of world exports for that year. Imports for these countries reached \$374.1 billion, equivalent to 5.8 per cent of world imports. The increases over the value of exports and imports reached in 1999 were 20.0 and 15.9 per cent respectively. Preliminary figures for 2001 suggest a decrease in the value of exports and imports for the year.

The contribution of the various regional country groupings to the value of the region's international trade

is also indicated in table 47. Mercosur comprises four countries (Argentina, Brazil, Paraguay and Uruguay) and its exports make up 23.2 per cent of the region's total. The Andean Community (CAN) comprises five countries (Bolivia, Colombia, Ecuador, Peru and Venezuela) and contributes 16.4 per cent of regional exports. The Caribbean includes 20 countries and territories (Anguilla, Antigua and Barbuda, Aruba, the Bahamas, Barbados, Belize, Cuba, Dominica, the Dominican Republic, Grenada, Guyana, Haiti, Jamaica, Montserrat, the Netherlands Antilles, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Suriname and Trinidad and Tobago), including those belonging to the Caribbean Common Market (CARICOM), the Organization of States of the Eastern Caribbean and the Caribbean Basin Initiative of the United States government. These countries together contribute 4.8 per cent of the regional exports. The five countries of the Central American Common Market (MCCA) include Costa Rica, El Salvador, Guatemala, Honduras and Nicaragua and contribute 4 per cent of the regional exports. The remaining three countries, Chile, Mexico and Panama, do not belong to any of these groups and contribute 45, 4.9 and 1.6 per cent respectively to the region's exports. Exports from Mexico, a partner of the North America Free Trade Area (NAFTA) together with the United States and Canada, include maquila – foreign-owned assembly plants.

Table 47

Value of international trade of Latin American and Caribbean countries

(billions of current \$)

		Exports			Imports	
	1999	2000	2001	1999	2000	2001
Value of trade for 37 countries in Latin America and the Caribbean	307.9	369.8	254.8	322.7	374.1	254.5
Mercosur	76.3	86.0		79.6	85.7	
CAN	44.6	60.7		34.5	39.3	
Caribbean countries	15.1	17.9		27.7	31.3	
MCCA	14.3	14.7		18.2	19.6	
Mexico	136.7	166.4		142.0	174.5	
Chile	15.6	18.1		13.9	16.7	
Panama	5.3	5.9		6.7	7.0	
Percentage growth in volume of merchandise trade for countries in Latin America and the Caribbean	7.0	11.0	2.4	2.1	13.9	0.4

Source: Panorama de la inserción internacional de América Latina y el Caribe 2000–2001, ECLAC publication LC/G.2149-P/E, tables II.1a, II.2 and II.5a. Data for 2001 are provisional and from January to September only. All data come from balance-of-payment sources.

#### **B.** MERCHANDISE TRADE

The foreign trade structure of the countries of Latin America and the Caribbean is shown in table 48, which shows figures for 2000. The important share of commodities (food items, agricultural products, ores and fuels) in exports is reflected in their 30.8 per cent share of the value of total exports. Within this category crude oil stands out with a total of \$45.5 billion. The main export destination was the United States market, with a share of almost 60 per cent of the total. Other countries within the region were a clear second destination with a share of 16.2 per cent. In short, destinations within the hemisphere accounted for about three-quarters of exports from countries in Latin America and the Caribbean. Exports to Europe accounted for another 10 per cent and those to Japan and other Asian countries for 5.6 per cent.

The share of commodities in the region's imports stood at 11.4 per cent in 2000. Expenses fluctuate

around \$13 billion for each of the three major imported commodities – food items, agricultural products and fuel. The United States is the major source for these imports, providing 51.1 per cent, while countries within the region account for 15.5 per cent. All told, imports originating within the hemisphere account for two-thirds of total imports. The shares of imports from Europe and Japan and other Asian countries are roughly equal – 13.1 and 12.3 per cent respectively. Together, they make up about a quarter of the total.

For the top 10 countries in Latin America and the Caribbean, the destinations of exports and origins of imports for 2000 are indicated in table 49. The share of the United States market is larger for those countries closer to it. The share of regional trade is greater in South America, notably between Mercosur countries.

Table 48

Foreign trade structure of selected products of Latin American and Caribbean countries, 2000

Exports from	Billion \$		I	Destination of	exports (%	n)	
the region		USA	Japan	Europe	Asia	Region	Other
All products	341.8	59.5	2.2	10.1	3.4	16.2	8.6
of which:							
Food items	22.7	19.4	3.2	26.3	7.9	24.3	18.9
Agricultural	28.5	37.1	6.0	25.3	6.2	13.3	12.1
Ores	8.6	6.8	21.4	22.5	17.5	9.8	21.9
Fuel	45.5	67.1	0.8	7.1	1.0	14.9	9.0
All other	236.6	6.5	1.2	6.9	2.6	16.3	6.5
Imports to	Billion \$			Origin of in	ports (%)		
the region		USA	Japan	Europe	Asia	Region	Other
				<del>_</del>			
All products	362.5	51.1	4.2	13.1	8.1	15.5	7.9
All products  of which:	362.5	51.1	4.2	13.1	8.1	15.5	7.9
	362.5 13.2	51.1 36.1	4.2 0.1	13.1	5.0	15.5	7.9 5.5
of which:							
of which: Food items	13.2	36.1	0.1	12.8	5.0	40.6	5.5
of which: Food items Agricultural	13.2 13.00	36.1 45.6	0.1 0.1	12.8 4.1	5.0 4.1	40.6 32.7	5.5 13.4

Source: Panorama de la inserción internacional de América Latina y el Caribe 2000–2001, ECLAC publication LC/G.2149-P/E, tables 1b and 1c.. Data from 33 countries come from trade sources and have been collected following a different methodology than that indicated in table 55.

Table 49

Foreign trade structure of selected Latin American and Caribbean countries, 2000

	Exports		Destination of exports (%)					
Country	(billion \$)	USA	Japan	Europe	Asia	Region	Other	
Argentina	26.3	12.0	1.5	16.5	6.8	47.9	15.3	
Brazil	55.1	24.1	4.5	23.6	6.9	24.8	16.2	
Chile	18.2	16.4	14.2	21.9	14.9	22.1	10.6	
Colombia	13.6	50.6	1.8	11.9	1.1	28.6	6.0	
Costa Rica	5.9	52.0	0.9	19.5	3.6	18.8	5.2	
Dominican Republic	5.7	n.a.	n.a.	n.a	n.a.	n.a.	n.a.	
Mexico	166.4	88.6	0.6	3.2	0.7	3.1	3.8	
Panama	5.9	44.8	1.0	17.9	2.9	24.0	9.4	
Peru	7.0	31.0	5.7	16.0	16.0	21.7	9.6	
Venezuela	34.0	59.6	0.8	5.4	0.6	19.5	14.0	

	Imports		Origin of imports (%)					
Country	(billion \$)	USA	Japan	Europe	Asia	Region	Other	
Argentina	23.8	19.1	4.0	22.0	10.3	34.6	10.0	
Brazil	55.9	23.2	5.3	23.9	10.2	21.1	16.4	
Chile	16.7	19.7	4.2	16.5	12.7	35.8	11.1	
Colombia	11.1	34.0	4.6	16.0	8.0	27.6	9.8	
Costa Rica	6.1	51.2	3.6	10.2	3.9	25.2	5.9	
Dominican Republic	9.7	n.a.	n.a.	n.a	n.a	n.a.	n.a.	
Mexico	174.5	73.1	4.0	8.4	7.4	2.6	4.6	
Panama	7.0	35.7	7.2	8.7	6.3	25.7	16.4	
Peru	7.3	23.4	6.6	12.9	10.5	38.4	8.1	
Venezuela	16.1	37.8	3.4	18.0	6.9	25.0	9.0	

*Source: Panorama de la inserción internacional de América Latina y el Caribe 2000–2001*, tables II.5a and II.5b. ECLAC publication LC/G.2149-P/E and Annex.

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

#### 1. General situation

Table 50 indicates the percentages of exports by sea in volume and value for six developing countries in Latin America. The percentage fluctuates from 40.7 to 97.5 per cent when export volumes are considered and from 16.7 to 86 per cent when export values are taken into account. The low percentages of seaborne trade for Mexico, the largest trading nation, was a result of rail and road transport with their major trading partner, the United States. For the other five countries seaborne trade was extremely important.

#### 2. General situation of merchant fleets

Table 51 shows the merchant fleet registered in developing countries of America, excluding open registries (the Bahamas, Bermuda and Panama). The share of the merchant fleet registered in these countries has steadily increased since 1980, when it stood at 3.2 per cent of the world fleet. It increased to 3.5 per cent in 1990 and reached 4.2 per cent in 2000. In 2001 the same share was maintained. Current tonnage owned by these countries amounts to 34.6 million dwt.

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

Country	Percentage of exports going by sea measured by					
	Volume in metric tons	Value in \$				
Argentina	83.8	70.2				
Brazil	97.5	74.2				
Chile	95.7	86.0				
Colombia	97.2	74.7				
Mexico	40.7	16.7				

97.5

Table 50

Share of seaborne trade in exports from Latin America and the Caribbean in 2000

Source: Compiled by the UNCTAD secretariat from data in Maritime Profile of Latin America and the Caribbean (2002), ECLAC, http://www.eclac.cl/transporte/perfil/expmdo00.asp.

and was more than halved by the year 2000, when it was only 20.4 per cent. In 2001 the share decreased to 19.2 per cent. This trend was mirrored by countries on South America's western coast, whose share decreased from 12.5 per cent in 1980 to 10.8 per cent by 1990 and to 4.8 per cent in 2000, after which it stabilized in 2001. Gains occurred for countries in and around the Caribbean region, including Mexico and others in Central America: they almost trebled their share from 29.5 per cent in 1980 to 32.6 per cent in 1990 and 74.8 per cent during the last decade.

Peru

The composition of the fleet in 2000 was as follows: 22.5 per cent were tankers, 29.2 per cent dry bulk carriers, 28.8 per cent general cargo vessels, 10.9 per cent container ships and 9 per cent other types of vessels. For 2001 there was a slight increase in the share of tankers, dry bulk carriers and container ships, which reached 23.8, 30.3 and 10.9 per cent respectively. The shares of general cargo and other vessels fell to 26 and 8.8 per cent respectively. Over the last 20 years the main changes have been the reduction in the share of tankers and the appearance and proliferation of container ships. The main difference between the current composition of the regional fleet and that of the world fleet was the share of general cargo vessels in the regional fleet (26 per cent for 2001), which was more than double than of the world (only 12 per cent for the same year).

Table 52 gives a closer look at the merchant fleet of these countries. Nine countries beneficially own vessels amounting to 6.35 million dwt in open registers, notably

in Panama. Thus the fleet owned by developing countries in America is 18.4 per cent larger than is indicated in table 51. However, the five countries in table 60 have merchant fleets with substantial ownership by nationals of countries outside the region, notably the United States. These five countries contributed to the large share of the Caribbean and Central American areas in the composition of the regional fleet. Taking into consideration that the beneficially owned fleet in these countries amounts to 19.44 million dwt, the merchant fleet of developing countries of American amounted to 21.47 million dwt, that is 37.9 per cent smaller than that indicated in table 51.

73.5

#### 3. Age distribution of merchant fleets

The average age of the fleet of developing countries in America at the beginning of 2002, as computed in table 51, was 17.2 years (see table 53). The fleet is thus older than those of developing countries and the world, which at the beginning of 2002 were 13.9 and 13.7 years old respectively. Bulk carrier and general cargo vessel fleets of developing countries in America were the oldest, at 19.2 and 18.2 years old respectively. The container ship fleet, however, at 9.1 years old, was younger than those of developing countries and the world, which were 11.1 and 10.8 years old respectively.

The supply of seafarers from developing countries in America reached 70,000, including officers and ratings; this is 5.7 per cent of the world supply, which in the year 2000 reached 1.2 million seafarers. The share of the merchant fleet registered in these countries was 4.2 per cent.

Table 51

Merchant fleets of the world and those registered in Latin American countries, selected years

(in thousand dwt)

	Year	Total	Tanker	Dry bulker	General cargo	Container	Others
World total	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
	2000	808 377	285 442	281 655	102 653	69 216	69 412
	2001	825 652	285 519	294 589	99 872	77 095	68 577
Latin America – total <sup>a</sup>	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
	2000	34 051	7 645	9 934	9 837	3 540	3 095
	2001	34 556	8 223	10 448	8 999	3 789	3 057
East coast of South	1980	12 649	4 866	3 893	3 491	0	399
America	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
	2000	6 923	3 039	2 625	687	196	376
	2001	6 652	2 906	2 580	589	192	385
West coast of South	1980	2 717	484	929	1 212	0	92
America	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
	2000	1 646	615	370	236	77	348
	2001	1 641	609	382	200	80	370
Others (including	1980	6 428	2 564	1 361	1 844	37	622
Caribbean, Central	1985	5 024	1 127	1 136	2 000	24	737
America, Mexico)	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
	2000	25 482	3 991	6 939	8 914	3 267	2 371
	2001	26 263	4 708	7 526	8 210	3 517	2 302

Source: Review of Maritime Transport, various issues.

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

Table 52

Fleet ownership in developing countries and territories in the Americas

Country or territory	Total tonnage registered	Tonnage bene	eficially owned y	Share of tonnage beneficially owned	Share of tonnage registered under
	under national flag	nationals under open registries	foreign owners <sup>a</sup> under national flag	open registries	national flag controlled by foreign owners <sup>a</sup>
		thousand dwt		percentag	e share
Antigua and Barbuda	6 071	-	5 855	-	96.4
	212	1.040		222.2	
Argentina	312	1 040	-	333.3	-
Belize	2 002	-	781	-	39.0
Brazil	5 959	2 683	-	45.0	-
Cayman Islands	3 184	-	2 539	-	79.7
Chile	915	1 057	-	115.5	-
Colombia	82	43	-	52.4	-
Cuba	92	291	-	316.3	-
Honduras	1 158	-	328	-	28.3
Mexico	1 180	136	-	11.5	-
Peru	200	171	-	85.5	-
Saint Vincent and	d 10 105	-	8 602	-	85.1
the Grenadines	3				
Uruguay	46	94	-	204.3	-
Venezuela	1 307	835	-	63.9	-
Total		6 350	19 440	-	-

Source: Compiled by the UNCTAD secretariat from data provided by Lloyd's Register – Fairplay.

<sup>&</sup>lt;sup>a</sup> In this table, "foreign owners" means owners who are nationals of countries outside the Latin American region.

Table 53  $\begin{tabular}{ll} Age distribution of the merchant fleet of countries in Latin America by types of vessel, as of 1 January 2002 \\ (percentage of total dwt) \end{tabular}$ 

Country or grouping	Types of vessels	Total	0–4 years	5–9 years	10–14 years	15 years and over	Average age (years) 2001 <sup>a</sup>			
World total	All ships	100.00	19.11	18.60	12.47	49.83	13.87			
	Tankers	100.00	19.44	23.26	14.55	42.76	13.24			
	Bulk carriers	100.00	17.59	18.95	11.92	51.54	13.73			
	General cargo	100.00	14.09	10.48	10.57	64.87	16.17			
	Container ships	100.00	30.13	23.79	11.45	34.64	11.03			
	All others	100.00	18.31	14.43	12.56	54.70	14.92			
Developing countries (including open-registry countries)										
	All ships	100.00	17.79	17.74	11.36	53.10	14.31			
	Tankers	100.00	21.47	21.38	16.68	40.47	12.71			
	Bulk carriers	100.00	19.97	19.63	11.43	48.97	13.09			
	General cargo	100.00	7.82	7.48	7.30	77.40	18.46			
	Container ships	100.00	26.63	29.37	8.19	35.82	11.18			
	All others	100.00	11.27	9.98	9.16	69.59	17.43			
Developing co	untries (excluding	g open-reg	istry count	ries)						
	All ships	100.00	10.86	11.92	8.17	69.05	17.10			
	Tankers	100.00	14.83	11.25	9.05	64.86	16.60			
	Bulk carriers	100.00	1.72	7.35	7.70	83.23	19.22			
	General cargo	100.00	7.86	8.65	8.47	74.96	18.25			
	Container ships	100.00	30.96	38.28	5.34	25.42	9.21			
	All others	100.00	10.37	6.28	9.32	74.04	18.23			
Antigua and	All ships	100.00	30.43	29.45	6.98	33.14	10.14			
Barbuda	Tankers	100.00	0.00	30.27	0.00	69.73	16.06			
	Bulk carriers	100.00	6.42	3.92	0.00	89.65	18.33			
	General cargo	100.00	25.54	18.86	10.92	44.67	12.08			
	Container ships	100.00	36.52	40.29	4.82	18.36	7.80			
	Allothers	100.00	35.94	23.31	1.63	39.13	10.37			
Anguilla	All ships	100.00	0.00	0.00	0.00	100.00	20.00			
	Tankers	-	-	-	-	-	-			
	Bulk carriers	-	-	-	-	-	-			
	General cargo	100.00	0.00	0.00	0.00	100.00	20.00			
	Container ships	-	-	-	-	-	-			
	All others	100.00	0.00	0.00	0.00	100.00	20.00			
Argentina	All ships	100.00	4.31	2.28	8.91	84.50	18.21			
	Tankers	100.00	38.57	0.00	0.00	61.43	13.06			
	Bulk carriers	100.00	0.00	0.00	0.00	100.00	20.00			
	General cargo	100.00	0.00	0.00	3.68	96.32	19.71			
	Container ships	_	_	_	_	-	-			
	All others	100.00	0.06	3.88	13.73	82.34	18.39			

Table 53 (continued)

Country or	Types of	Total	0–4	5–9	10–14	15 years and	Average age
grouping	vessels		years	years	years	over	(years) 2001 <sup>a</sup>
Barbados	All ships	100.00	58.63	19.22	1.72	20.43	6.81
	Tankers	100.00	93.64	0.00	0.00	6.36	3.14
	Bulk carriers	100.00	38.67	59.29	0.00	2.04	5.33
	General cargo	100.00	0.00	7.48	11.81	80.71	18.08
	Container ships	100.00	100.00	0.00	0.00	0.00	2.00
	All others	100.00	0.00	34.36	3.50	62.14	15.25
Bolivia	All ships	100.00	1.67	0.52	5.75	92.06	19.17
	Tankers	100.00	0.00	0.00	0.00	100.00	20.00
	Bulk carriers	100.00	0.00	0.00	0.00	100.00	20.00
	General cargo	100.00	0.00	1.59	17.58	80.82	18.39
	Container ships	-	-	-	-	-	-
	All others	100.00	10.81	0.00	0.00	89.19	18.05
Brazil	All ships	100.00	2.07	17.81	14.18	65.95	16.18
	Tankers	100.00	1.64	22.06	16.44	59.86	15.52
	Bulk carriers	100.00	1.85	5.49	14.31	78.35	17.81
	General cargo	100.00	2.98	52.57	5.12	39.34	12.22
	Container ships	100.00	0.00	44.08	0.00	55.92	14.27
	All others	100.00	6.29	1.11	19.47	73.11	17.16
British Virgin	All ships	100.00	0.00	3.52	7.76	88.71	18.92
Islands	Tankers	-	-	-	-	-	-
	Bulk carriers	-	-	-	-	-	-
	General cargo	100.00	0.00	0.00	0.00	100.00	20.00
	Container ships	-	-	-	-	-	-
	All others	100.00	0.00	5.51	12.14	82.35	18.31
Belize	All ships	100.00	2.53	1.74	5.73	90.01	18.86
	Tankers	100.00	0.16	1.07	1.88	96.89	19.68
	Bulk carriers	100.00	0.00	0.00	0.34	99.66	19.97
	General cargo	100.00	1.82	2.28	3.47	92.43	19.10
	Container ships	100.00	0.00	0.00	24.46	75.54	18.04
	All others	100.00	5.83	2.12	9.35	82.70	17.93
Cayman	All ships	100.00	17.87	13.76	9.72	58.64	14.22
Islands	Tankers	100.00	26.61	11.34	3.28	58.77	13.47
	Bulk carriers	100.00	0.00	20.74	22.53	56.73	15.50
	General cargo	100.00	0.00	2.12	10.58	87.30	18.88
	Container ships	100.00	0.00	0.00	0.00	100.00	20.00
	All others	100.00	42.98	16.30	0.63	40.09	10.09
Chile	All ships	100.00	2.20	10.20	4.21	83.39	17.94
	Tankers	100.00	0.00	21.19	0.00	78.81	17.25
	Bulk carriers	100.00	0.00	0.00	0.00	100.00	20.00
	General cargo	100.00	0.00	0.00	0.00	100.00	20.00
	Container ships	100.00	0.00	36.35	0.00	63.65	15.27
	All others	100.00	5.28	11.85	10.08	72.80	16.70
	1 III OHIOIS	100.00	J.20	11.00	10.00	72.00	10.70

Table 53 (continued)

Country or grouping	Types of vessels	Total	0–4 years	5–9 years	10–14 years	15 years and over	Average age (years) 2001 <sup>a</sup>
Colombia	All ships	100.00	1.69	1.80	1.27	95.24	19.36
	Tankers	100.00	0.00	0.00	0.00	100.00	20.00
	Bulk carriers	-	-	-	-	-	-
	General cargo	100.00	0.00	0.00	0.76	99.24	19.94
	Container ships	-	-	-	-	-	-
	All others	100.00	5.33	5.66	2.59	86.43	18.10
Costa Rica	All ships	100.00	7.99	8.39	4.33	79.28	17.12
	Tankers	-	-	-	-	-	-
	Bulk carriers	-	-	-	-	-	-
	General cargo	-	-	-	-	-	-
	Container ships	-	-	-	-	-	-
	All others	100.00	7.99	8.39	4.33	79.28	17.12
Cuba	All ships	100.00	0.00	0.00	0.54	99.46	19.96
	Tankers	100.00	0.00	0.00	0.00	100.00	20.00
	Bulk carriers	100.00	0.00	0.00	0.00	100.00	20.00
	General cargo	100.00	0.00	0.00	0.00	100.00	20.00
	Container ships	-	-	-	-	-	-
	All others	100.00	0.00	0.00	1.01	98.99	19.92
Dominica	All ships	100.00	0.00	0.00	0.00	100.00	20.00
	Tankers	-	-	-	-	-	-
	Bulk carriers	-	-	-	-	-	-
	General cargo	100.00	0.00	0.00	0.00	100.00	20.00
	Container ships	-	-	-	-	-	-
	All others	100.00	0.00	0.00	0.00	100.00	20.00
Dominican	All ships	100.00	0.00	0.00	0.00	100.00	20.00
Republic	Tankers	-	-	-	-	-	-
	Bulk carriers	-	-	-	-	-	-
	General cargo	100.00	0.00	0.00	0.00	100.00	20.00
	Container ships	-	-	-	-	-	-
	All others	100.00	0.00	0.00	0.00	100.00	20.00
Ecuador	All ships	100.00	41.44	0.10	2.88	55.58	12.30
	Tankers	100.00	57.78	0.00	0.00	42.22	9.60
	Bulk carriers	-	-	-	-	-	-
	General cargo	100.00	0.00	0.00	0.00	100.00	20.00
	Container ships	-	-	-	-	-	-
	All others	100.00	0.00	0.37	10.46	89.17	19.12
El Salvador	All ships	100.00	7.97	0.00	0.00	92.03	18.57
	Tankers	-	-	-	-	-	-
	Bulk carriers	-	-	-	-	-	-
	General cargo	-	-	-	-	-	-
	Container ships	-	-	-	-	-	-
	All others	100.00	7.97	0.00	0.00	92.03	18.57

Table 53 (continued)

Country or grouping	Types of vessels	Total	0–4 years	5–9 years	10–14 years	15 years and over	Average age (years) 2001 <sup>a</sup>
Falkland	All ships	100.00	0.00	8.62	48.06	43.32	15.03
Islands	Tankers	-	-	-	-	-	-
(Malvinas)	Bulk carriers	-	-	-	-	-	-
	General cargo	100.00	0.00	0.00	0.00	100.00	20.00
	Container ships	-	-	-	-	-	-
	All others	100.00	0.00	8.71	48.59	42.70	14.98
Grenada	All ships	100.00	0.00	0.00	0.00	100.00	20.00
	Tankers	-	-	-	-	-	-
	Bulk carriers	-	-	-	-	-	-
	General cargo	100.00	0.00	0.00	0.00	100.00	20.00
	Container ships	-	-	-	-	-	-
a	All others	100.00	0.00	0.00	0.00	100.00	20.00
Guatemala	All ships	100.00	5.36	0.00	0.00	94.64	19.04
	Tankers	-	-	-	-	-	-
	Bulk carriers	-	-	-	-	-	-
	General cargo	-	-	-	-	-	-
	Container ships	100.00	- 5.26	-	- 0.00	- 04.64	10.04
C	Allohing	100.00	5.36	0.00	0.00	94.64	19.04
Guyana	All ships Tankers	100.00 100.00	0.00	0.00	4.35 0.00	95.65 100.00	19.65 20.00
	Bulk carriers	100.00	0.00	0.00	0.00	100.00	20.00
	General cargo	100.00	0.00	0.00	0.00	100.00	20.00
	Container ships	100.00	0.00	-	0.00	100.00	20.00
	All others	100.00	0.00	0.00	8.24	91.76	19.34
Haiti	All ships	100.00	0.00	0.00	0.00	100.00	20.00
114141	Tankers	100.00	-	-	-	-	20.00
	Bulk carriers	_	_	_	_	_	_
	General cargo	100.00	0.00	0.00	0.00	100.00	20.00
	Container ships	-	-	-	-	-	-
	All others	100.00	0.00	0.00	0.00	100.00	20.00
Honduras	All ships	100.00	0.17	0.31	6.68	92.84	19.39
	Tankers	100.00	0.00	0.00	0.00	100.00	20.00
	Bulk carriers	100.00	0.00	0.00	0.00	100.00	20.00
	General cargo	100.00	0.26	0.31	4.51	94.92	19.55
	Container ships	100.00	0.00	0.00	0.00	100.00	20.00
	All others	100.00	0.21	0.59	16.01	83.20	18.61
Jamaica	All ships	100.00	1.32	1.33	0.00	97.35	19.59
	Tankers	100.00	0.00	0.00	0.00	100.00	20.00
	Bulk carriers	-	-	-	-	-	-
	General cargo	100.00	0.00	0.00	0.00	100.00	20.00
	Container ships	-	-	-	-	-	-
	All others	100.00	26.36	26.53	0.00	47.10	11.81

Table 53 (continued)

Country or grouping	Types of vessels	Total	0–4 years	5–9 years	10–14 years	15 years and over	Average age (years) 2001 <sup>a</sup>
Mexico	All ships	100.00	2.75	0.26	14.57	82.42	18.31
WEMEO	Tankers	100.00	0.00	0.00	23.18	76.82	18.15
	Bulk carriers	-	-	-	-	-	-
	General cargo	100.00	0.00	0.00	0.00	100.00	20.00
	Container ships	-	-	-	-	-	-
	All others	100.00	6.19	0.58	6.79	86.44	18.27
Nicaragua	All ships	100.00	0.00	0.00	12.93	87.07	18.97
	Tankers	-	-	-	-	-	-
	Bulk carriers	-	-	-	-	-	-
	General cargo	100.00	0.00	0.00	0.00	100.00	20.00
	Container ships	-	-	-	-	-	-
	All others	100.00	0.00	0.00	15.00	85.00	18.80
Paraguay	All ships	100.00	0.00	0.00	0.00	100.00	20.00
	Tankers	100.00	0.00	0.00	0.00	100.00	20.00
	Bulk carriers	<b>-</b>	-	-	-	-	-
	General cargo	100.00	0.00	0.00	0.00	100.00	20.00
	Container ships	100.00	0.00	0.00	0.00	100.00	20.00
-	All others	100.00	0.00	0.00	0.00	100.00	20.00
Peru	All ships	100.00	5.39	16.87	3.26	74.48	16.58
	Tankers	100.00	0.00	0.00	0.00	100.00	20.00
	Bulk carriers	100.00	- 0.00	-	- 0.00	100.00	20.00
	General cargo	100.00	0.00	0.00	0.00	100.00	20.00
	Container ships All others	100.00	- 7.47	23.37	4.51	64.64	15.26
Saint Kitts	All ships	100.00	0.00	0.00	0.00	100.00	20.00
and Nevis	Tankers	100.00	0.00	0.00	0.00	100.00	20.00
and items	Bulk carriers	_	_	_	_		_
	General cargo	100.00	0.00	0.00	0.00	100.00	20.00
	Container ships	-	-	-	-	-	-
	All others	_	_	_	_	_	_
Saint Vincent	All ships	100.00	1.40	3.72	7.12	87.75	18.69
and the	Tankers	100.00	1.13	0.71	0.00	98.16	19.70
Grenadines	Bulk carriers	100.00	0.00	4.43	4.08	91.48	19.10
	General cargo	100.00	1.83	2.16	10.03	85.97	18.59
	Container ships	100.00	5.99	31.53	11.26	51.22	13.92
	All others	100.00	4.56	1.93	12.20	81.31	17.95
Suriname	All ships	100.00	6.26	3.16	35.28	55.30	15.64
	Tankers	100.00	0.00	0.00	100.00	0.00	12.00
	Bulk carriers	-	-	-	-	-	-
	General cargo	100.00	0.00	0.00	0.00	100.00	20.00
	Container ships	-	-	-	-	-	-
	All others	100.00	38.29	19.32	0.00	42.39	10.60

Table 53 (continued)

Country or grouping	Types of vessels	Total	0–4 years	5–9 years	10–14 years	15 years and over	Average age (years) 2001 <sup>a</sup>
Turks and	All ships	100.00	0.00	0.00	0.00	100.00	20.00
Caicos	Tankers	-	-	-	-	-	-
Islands	Bulk carriers	-	-	-	-	-	-
	General cargo	100.00	0.00	0.00	0.00	100.00	20.00
	Container ships	-	-	-	-	-	-
	All others	100.00	0.00	0.00	0.00	100.00	20.00
Trinidad and	All ships	100.00	1.19	0.00	21.46	77.35	18.07
Tobago	Tankers	100.00	0.00	0.00	0.00	100.00	20.00
	Bulk carriers	-	-	-	-	-	-
	General cargo	100.00	0.00	0.00	0.00	100.00	20.00
	Container ships	-	-	-	-	-	-
	All others	100.00	1.41	0.00	25.43	73.16	17.71
Uruguay	All ships	100.00	2.57	7.10	0.98	89.35	18.54
	Tankers	100.00	0.00	0.00	0.00	100.00	20.00
	Bulk carriers	-	-	-	-	-	-
	General cargo	100.00	0.00	0.00	0.00	100.00	20.00
	Container ships	-	-	-	-	-	-
	All others	100.00	3.11	8.60	1.18	87.11	18.23
Venezuela	All ships	100.00	12.80	11.55	6.32	69.33	15.69
	Tankers	100.00	15.14	25.58	10.37	48.91	13.12
	Bulk carriers	100.00	0.00	0.00	0.00	100.00	20.00
	General cargo	100.00	0.00	5.47	0.62	93.90	19.24
	Container ships	100.00	0.00	0.00	0.00	100.00	20.00
	All others	100.00	16.99	0.67	4.94	77.40	16.46

Source: Lloyd's Register - Fairplay.

To calculate the average age, it has been assumed that the ages of vessels are distributed evenly between the lower and upper limits of each age group. For the 20-years-and-over age group, the mid-point has been assumed to be 23.5 years.

### D. SHIPPING SERVICES IN LATIN AMERICA AND THE CARIBBEAN

The shipping services of countries in Latin America and the Caribbean are organized to serve bulk and liner cargoes. In 2000, ports of the region loaded 750.6 million tons, the equivalent of 25.7 per cent of loaded cargoes from ports of developing countries and 12.7 per cent of loaded cargoes from world ports. The share of tanker cargo in this total was 46 per cent, while 54 per cent were dry cargoes, including liner cargo. Unloaded cargoes in the region's ports were 359.8 million tons, equivalent to 18.9 per cent of unloaded cargoes in the ports of developing countries and 5.8 per cent of unloaded cargoes in world ports. Preliminary figures for 2001 show an increase of 3.2 per cent in loaded tonnage to 774.5 million tons.

Estimates of the amounts of bulk and liner cargoes for selected countries appear in table 54. These countries account for more than 90 per cent of exports and 70 per cent of imports. Argentina and Brazil, on the eastern coast of South America, account for about half of loaded tonnage. Countries on South America's northern coast, Venezuela and Colombia (which straddles this coast and the western coast), account for about a quarter of loaded tonnage. Along the western coast, Chile and Peru and western Colombia account for about a tenth of loaded tonnage. Mexico is by far the largest trader outside South America and accounts for 18 per cent of loaded tonnage.

For the selected countries, bulk cargoes make up the largest share of exports, 86.6 per cent of the total, which is almost equally split between tanker cargoes (47.7 per cent) and dry bulk cargo (54.3 per cent). Bulk cargoes also make up the largest share of imports, 81.3 per cent, but tanker cargo is only 29.3 per cent while dry bulks are 71.3 per cent. Export liner cargo accounts for 13.3 per cent of total exports, twice as much as liner imports. Import liner cargo makes up 18.5 per cent of total imports.

#### 1. Crude oil and oil product shipping services

Exports of crude oil are made through specialized terminals integrated within the operations of the oil companies. For instance, PDVSA (Petróleos de Venezuela S.A.) owns a number of oil export terminals and 21 tankers for carrying crude oil abroad, partly to its 2.4 mbpd network of refineries in the Caribbean, the United States and Europe.

Export terminals are mainly located around the Caribbean, as it is the case for the three major terminals of Cayo Arcas, Dos Bocas and Pajaritos operated by the Mexican oil company PEMEX (Petróleos Mexicanos). In 2001 these terminals loaded 46.8, 28.5 and 30.1 million tons respectively. Venezuelan terminals are located in the Maracaibo Lake and along the sea coast, as is the Colombian terminal at Coveñas, which in 2000 loaded about 20 million tons.

Table 54

Estimated international traffic for types of shipping services in selected Latin American countries, 2000

(millions of metric tons)

Country	Exports			Imports				
	Bulk ca Liquid	rgoes Dry	Liner and other cargo	Total exports	Bulk ca Liquid	rgoes Dry	Liner and other cargo	Total imports
Argentina	20.0	39.1	11.9	71.0	2.7	11.5	8.8	23.0
Brazil	4.6	176.7	52.1	233.4	33.2	44.1	9.2	86.5
Chile	0.7	21.5	11.3	33.5	0.4	48.1	6.3	54.8
Colombia	24.7	32.1	7.4	64.2	0.9	7.2	3.7	11.8
Mexico	93.7	25.3	7.6	126.6	16.0	24.2	9.9	50.1
Peru	2.3	9.0	2.3	13.6	4.5	4.2	3.0	11.8
Venezuela	143.5	14.0	1.0	158.5	2.3	5.2	6.0	13.6
Total	289.5	317.7	93.6	700.8	60.0	144.5	46.9	251.6

Source: Compiled by the UNCTAD secretariat from data in Maritime Profile of Latin America and the Caribbean (2002), ECLAC, http://www.eclac.cl/transporte/perfil/.

Aframax tonnage is chartered for shipping oil from the Caribbean to the Louisiana Oil Offshore Platform (LOOP) terminal on the United States Gulf Coast, other terminals along the United States eastern seaboard and refineries located on some islands in the Caribbean. Rates from Mexico to the United States eastern seaboard were at WS 198 in March 2000 and rose during the year to a peak of WS 361 in December. By November 2001, however, the rates had dropped to WS 137. After a brief recovery around year's end, the downward trend continued, with rates reaching WS 105 by March 2002 - the time-charter equivalent of \$12,900 a day. In that month, fixtures for a 70,000 dwt tanker from Cayo Arcas to the LOOP terminal were at WS 112 while fixtures to the Netherlands were at WS105, those from Coveñas to the United States Gulf Coast at WS 102 and those from Puerto La Cruz (Venezuela) to Houston (United States) at WS 120. Smaller tankers are used to ship crude oil from other South American exporters. In March 2002, tankers of 50,000 dwt fetched WS 160 for trips from Esmeraldas (Ecuador) to the United States Gulf Coast and eastern seaboard.

Imports of crude oil are made from West Africa, from where 8.3 million tons were loaded in 2000, and the Middle East Gulf, notably into Brazil. Tonnage at or above the Suezmax level is engaged for this trade by oil companies. In March 2002, Petrobras, the Brazilian oil company, chartered two 10-year old vessels with capacities of 108,712 and 141,950 dwt for 12 to 24 months at \$28,000 and \$34,000 per day respectively. In the same month, for shipping crude oil from West Africa to Brazil, the same company chartered a 130,000-dwt tanker at WS 72 and a 260,000-dwt tanker at WS 45.

Trade of clean oil products, notably from refineries to United States ports, is important in the Caribbean. Smaller tankers in the range of 25,000–35,000 dwt are engaged for this transport. Typical spot rates on the route Curacao-to-Houston route rose from \$7.50 per ton in March 2000 to \$11.60 per ton in March 2001 and then dropped to \$6.90 a year later. Time charter equivalents for a 30,000-dwt tanker stood at \$8,600 per day in March 2002. Elsewhere, crude oil imports may be linked to coastal domestic trade of crude oil and oil products. This is the case for Brazilian imports of crude oil going into Petrobras terminals, such as that of Angra dos Reis, through which 4.3 million tons were imported in 2000 to complement the domestic unloading of 3.5 million tons. This port, together with those of São Sebastião and Aratu, which handled 45.7 and 18.9 million tons respectively, thus participates in significant coastal trade of crude oil, oil products, gas and petrochemical products.

There are also marginal traffics such as those shipping liquid bitumen in tankers from PDVSA terminals in North America, Europe and the Far East. Exports of this specialized and patented fuel reached 6.3 million tons in 2001. LNG traffic is not well developed, with exports from Trinidad to the United States and Spain reaching 2.1 bcm in 1999. However, it may be poised to increase, with new findings in Trinidad and, more significant, the large Bolivian finding, which would start exports from the western coast of South America to markets in Mexico and California. (The latter experienced repeated power outages during 2000.)

#### 2. Dry bulk cargo shipping services

The dry bulk trade is mainly centered in South America. From the eastern coast, iron ore and grain are exported from Brazil and grain from Argentina; exports of iron ore are also made from the western coast; and from the northern coast, coal is exported from Colombia and Venezuela.

The largest ports are those operated by Companhia Vale do Rio Doce (CVRD) in Tubarão and Ponta da Madeira in central and northern Brazil, which in 2000 reached a throughput of 72.6 and 44.5 million tons, consisting largely of iron ore exports. In the same year, another large operator exported 22.7 million tons of iron ore from the port of Sepetiba. Imports of coal for steel manufacturing come through the ports of Praia Mole and Sepetiba, which handled 8.4 and 3.5 million tons respectively in 2000. These imports are complemented by significant coastal trade in iron ore – about 2.2 million tons unloaded in Praia Mole - which led to exports of 6.7 million tons of steel products from this port. Similarly, coastal trade in bauxite and alumina led to exports of aluminium products through private terminals located near the port of Itaqui. Vessels over 100,000 dwt are engaged in the iron ore trades from Brazil. During 2000, rates from Brazil to Northern Europe rose from \$7.50 in March to \$8.70 in November. Rates then dipped to a low of \$3.90 in November 2001; since then, a slight improvement has been observed, and in March 2002 rates were at \$4.90 per ton. These rate fluctuations were mirrored in the Brazil-China routes: during 2000, rates rose from \$11.50 per ton in March to \$13.50 in November; they then fell to \$6.05 in December 2001 and climbed to \$7.75 by March 2002.

Along South America's western coast, iron ore exports are made through the ports of Huasco (Chile) and San Nicolas (Peru). In 2000 the Chilean port, owned by a subsidiary of CAP S.A., the largest steel manufacturer in Chile, loaded 5.5 million tons of iron ores, mainly from Asian countries (46 per cent to Japan, 13 per cent to the Republic of Korea and Indonesia and 14 per cent to Malaysia). In the same year, the Peruvian port, part of a mining joint venture with Chinese investors, exported 3.7 million tons to steelmakers of that country. A new private port, Ventanas, is operating in central Chile, serving several dry bulk traffics.

Coal exports from Colombia are the largest dry bulk exports from the northern coast of South America. Thermal coal is mined from El Cerrejon Basin by the joint venture Intercor-Carbocol and shipped by rail about 150 kilometres to Puerto Bolivar, from where 22.9 million tons were shipped to the United States and European markets in 2000. Another exporter uses rail, barges and a floating facility offshore Cienaga and shipped 8.7 million tons of thermal coal in the same year. Venezuelan thermal coal comes from Guasare Basin, is trucked about 85 kilometres and then uses barges to reach a floating facility close to the navigation channel of Maracaibo Lake.

Cape-size tonnage is engaged for coal exports. Representative single-voyage rates from Puerto Bolivar to Northern Europe in March 2000 reached \$7.70 per ton. After peaking in November of that year at \$8.40 per ton, rates have fallen steadily. They were \$5.95 in March 2001 and \$4.85 per ton one year later – a decrease of 18.5 per cent.

Small dry-bulk vessels in the range of 15,000 to 35,000 dwt are used in the grain trades of the region. Major exporters are the port of Paranagua in southern Brazil, which exported 14 million tons of grain out of 28.3 million tons of total throughput, and a number of Argentinean ports along the Parana River, including topping-off facilities. Imports are spread out in many ports of the region, often general-cargo ones. Sometimes the same port handles exports and imports. In 2000 the port of Santos (Brazil) exported 3 million tons of soya beans and imported 2 million tons of wheat.

In March 2002 shipments of heavy grain from Paranagua (Brazil) to Western Europe in a 35,000 dwt vessel and to Japan in a 30,000 dwt vessel were made at \$16 and \$26 per ton respectively. Two shipments from the River Plate (Argentina) to Morocco in 25,000 dwt vessels

fetched \$21 and \$22 per ton. Typical fixtures for imports into Venezuela in vessels in the 15,000-30,000 dwt range were made at \$11.90 per ton -12.8 per cent lower than a year earlier.

Bulk cargoes figure prominently in the still-developing trade between South America and Africa. An estimate made with 1998 data for seven countries (Argentina, Brazil, Chile, Colombia, Peru, Uruguay and Venezuela) shows that exports to Africa were only 3 per cent of total exports, at 12.6 million tons. Imports reached 7.5 per cent of the total imports of these seven countries and represented a total of 12.1 million tons. Countries along the eastern seaboard of South America, notably Brazil, were more relevant in this South-South trade. South American exports were iron ore, grains, and sugar and molasses, which for 1998 reached 3.1, 3.1 and 2.7 million tons respectively. Egypt and Libya are major importers of these cargoes. African exports included crude oil (about 8.3 million tons, mainly from West Africa) and coal (about 2 million tons from South Africa).

#### 3. Liner and other shipping services

Containerized traffic of the region reached 9.1 million TEUs in 2001. As table 55 indicates, exports reached 4.8 million TEUs, or 52.5 per cent of the total. The growth rate for containerized trade was 1.7 per cent, far below the 7.6 per cent achieved for 2000. The forecasts for 2002 and 2003 are 4.6 and 5.2 per cent respectively. The structure of the containerized traffic is also indicated in table 55. The shares of North America and Europe in exports from the region were almost the same – 32.5 and 31.2 per cent respectively. Intraregional destinations for exports come next with a share of 16.7 per cent, ahead of Asian destinations (11.6 per cent). North America's share in regional imports was clearly the largest at 33.4 per cent, followed by Europe and Asia's respective shares of 22.8 and 21.8 per cent. The share of imports from the region was 18.4 per cent.

Traffic from South America's eastern seaboard accounted for 36.5 per cent of regional containerized traffic. On this coast Europe's share of exports and imports was larger – 37.4 and 32.5 per cent – than that of North America, which reached only 27.5 and 29.6 per cent respectively. The two other areas, Mexico and Central America and the Caribbean (the latter including also the northern coast of South America), have almost equal shares of the regional traffic – 23.8 and 22.4 per cent respectively – and traded mainly with North America, the destination for over 40 per cent of their exports.

Imports from North America to the Caribbean totalled 42.5 per cent. The western coast of South America accounted for 17.3 per cent of regional containerized traffic. The largest share of exports from this coast, 29.5 per cent, had Europe as their

destination, while the largest share of imports, 29.9 per cent, originated in North America. For this coast Asia had a share of about a fifth in exports and imports, and more than a fourth of imports originated within the region.

Table 55

Destination of export and origin of import container traffic from selected trading areas in Latin America and the Caribbean, 2001

			Destina	ation of exp	orts (%)		
Trading areas	Total exports (thousand TEU)	Africa	Asia	Europe America	North region	Within	Unallocated
Mexico and							
Central America	933.8	0.3	7.3	23.1	41.3	21.4	6.6
Caribbean	814.0	0.8	3.5	26.7	44.1	23.6	1.3
East coast of							
South America	2 086.8	3.6	12.4	37.4	27.5	11.0	8.1
West coast of							
South America	963.3	0.4	20.7	29.5	24.8	18.6	6.0
Regional total	4 797.9	1.9	11.6	31.2	32.5	16.7	6.2
			Orig	in of impor	rts (%)		
Trading areas	Total imports (thousand TEU)	Africa	Asia	Europe	North America	Within region	Unallocated
Mexico and							
Central America	1 239.0	1.5	30.1	21.2	29.9	13.2	4.1
Caribbean	1 229.9	0.2	16.7	16.2	42.5	23.8	0.6
East coast of							
South America	1 253.5	2.3	18.8	32.5	29.6	14.5	2.2
West coast of		o <b>-</b>		40.0	•	9 - 9	
South America	618.5	0.7	21.1	19.3	29.9	26.3	2.4
Regional total	4 341.9	1.3	21.8	22.8	33.4	18.4	2.3
Total exports and imports	9 139.8						

Source: Compiled by the UNCTAD secretariat on the basis of data in Maritime Profile of Latin America and the Caribbean (2002), ECLAC, supplied by DRI-WEFA. www.eclac.cl/transporte/perfil/index.htm.

Containerized traffic in the region, like such traffic elsewhere in the world, is characterized by the use of trans-shipment ports and feeder vessels and direct calls. There are a number of trans-shipment ports in the Caribbean, while direct calls are more prevalent along the eastern and western coasts of South America. However, the deployment of larger vessels along the main east-west routes of the northern hemisphere is poised to

change this state of affairs in South America, which has been served for many years by container ships in the 1,000-to-2,500-TEUs range. In 1999 Evergreen introduced four 10-year-old vessels with a capacity of 3,500 TEUs on the routes from the eastern seaboard of South America to the Far East. This was followed by Hamburg-Süd's deployment of 3,800 TEU vessels to trade along the eastern seaboard of South and North

America. One of these vessels called at Suape, a deepwater port in northern Brazil, which was expected to become a trans-shipment center. Labour troubles in early 2002 temporarily dampened those hopes.

Table 56 indicates container throughput in TEUs in the region's ports. Total throughput for 2000, including transshipment, reached 14.8 million TEUs, an impressive 10.2 per cent increase from 1999 that was not repeated in 2001, when traffic stagnated. Major trans-shipment ports were those in Panama, Kingston (Jamaica), Freeport (the Bahamas) and, to a lesser extent, Cartagena (Colombia). The share of Panamanian ports is poised to increase since the opening in late 2001 of the 47-kilometre railway linking Balboa (on the Pacific coast) and Colon (on the Caribbean coast). The \$70 million investment is expected to move initially about 300,000 containers per year, with an average transit time of three hours.

In addition to trans-shipment activity, there are a number of shipping services in the Caribbean making direct calls to several island destinations, which are strongly linked to the United States market. In 2000 Caribbean exports to this market were estimated at 0.14 million TEUs, while imports reached 0.52 million TEUs. The shares of the main carriers moving exports were 19.7 per cent for Maersk-Sealand, 16.8 per cent for Tropical Shipping and 10.5 per cent for Antillean Lines. For imports, the three main carriers were Tropical Shipping with a share of 21 per cent, Seaboard Marine with 11.4 per cent and Maersk-Sealand with 10.9 per cent. Although Maersk-Sealand and other worldwide carriers operating in the Caribbean rely on their feeder networks to serve these islands, other carriers such as Tropical Shipping, Antillean Lines and Seaboard Marine provide niche services from ports in Florida. These carriers make direct calls to serve specific islands' needs, such as garment traffic and deliveries of groceries and cruise supplies.

Estimates of the shares of the five largest carriers in trade between the United States and South America were based on traffic during the first nine months of 2001. The share for exports from South America are as follows: 15.3 per cent for Maersk-Sealand, 10.8 per cent for MSC, 8.6 per cent for CSAV, 7.7 per cent for Crowley American Transport and 6.2 per cent for Dole Ocean Cargo Express. The shares for imports are 13.5 per cent for Maersk-Sealand, 11.3 per cent for Crowley American Transport, 8.2 per cent for CSAV, 7.8 per cent for MSC and 7 per cent for Seaboard Marine.

CSAV (Compañía Sudamericana de Vapores), the largest sea carrier from the region, is the only one included in the above list. CSAV is also among the world's top 20 container carriers. This Chilean company took over two other regional lines, Libra (Brazil) and Montemar (Uruguay), and has now global coverage, deriving 82.7 per cent of its revenues from outside the country. It has also diversified into port activities and, since 2000, has had a controlling interest as operator in three Chilean ports, San Antonio, San Vicente and Iquique. Other regional carriers have a complementary role to play for instance, by focusing in cabotage (i.e. transporting vehicles within Mercosur) – while others have been merged into the services of carriers from outside the region. This is the case with FMC, from Colombia, which was purchased by another regional carrier, TMM Lines from Mexico, which in turn was subsequently purchased by CP Ships (Canada).

The introduction of larger container ships to the eastern seaboard of South America by major carriers such as Maersk-Sealand, MSC and P&ON prompted regional carriers to establish Mercosur cabotage services to complement international services that called only in large ports such as Santos and Buenos Aires. During recent years, Transroll, Docefrota and Global from Brazil covered the routes from the River Plate into the Amazon River, while Feeder Lines and Crowley serviced, from the River Plate, inland destinations along the Parana and Paraguay Rivers as well as coastal destinations in southern Argentina.

Data for freight rates for containerized cargo are sketchy, but the rates probably mirror the downward trend of those along the main containerized routes. Sample freight rates presented in the WTO Symposium on Assessment of Trade in Services (Geneva, 14–15 March 2002) for a 20-foot container shipped from four South American ports in April 2001, including the BAF surcharge and emission of a bill of lading, are shown in table 57. Since then, freight rates have been falling. Anecdotal evidence for early 2002 indicates rates as low as \$700 per 20-foot container from the eastern coast of South America to Europe and a 26.9 per cent reduction (to \$950) in shipments of wine in 20-foot containers from Chile. For some commodities, minor increases have been detected – for example, a 4 per cent increase in shipments of fruit in high cube reefer containers.

Table 56  ${\bf Container\ port\ traffic\ in\ developing\ countries\ and\ territories\ in\ America}$   $(in\ TEUs)$ 

	1999	2000	2001
SOUTH AMERICA			
Argentina	1 076 102	1 126 712	1 010 040
Buenos Aires	1 076 102	1 126 712	1 010 040
Brasil	1 894 964	2 340 836	1 980 094
Belem	47 283	49 108	_
Fortaleza	54 400	69 400	-
Itajai	90 862	106 899	130 000
Manaus	27 654	86 944	-
Paranagua	194 939	252 879	281 941
Rio de Janeiro	204 289	217 332	-
Rio Grande	261 722	317 161	360 468
Salvador	79 106	95 349	-
Santos	774 959	987 708	1 047 685
Sepetiba	-	3 681	-
Suape	45 600	62 800	80 000
Vitoria	114 150	91 575	80 000
Chile	859 195	933 653	908 951
Antofagasta	41 904	48 752	47 152
Arica	73 927	65 366	54 350
Iquique	90 748	107 545	105 250
San Antonio	374 474	455 604	410 796
Valparaiso	278 142	256 386	291 403
Colombia	730 301	759 535	618 711
Barranquilla	66 992	75 049	57 549
Buenaventura	250 299	236 168	-
Cartagena	347 023	395 680	516 310
Santa Marta	65 987	52 638	44 852
Ecuador	400 442	414 104	453 646
Guayaquil	400 442	414 104	453 646
Peru	381 643	414 767	482 210
Callao	378 045	413 646	480 706
Matarani	3 598	1 121	1 504
Uruguay	250 117	287 298	301 641
Montevideo	250 117	287 298	301 641
Venezuela	755 007	788 589	741 946
La Guaira	237 782	237 782	123 751
Maracaibo	20 910	-	-
Puerto Cabello	496 315	550 807	618 195
<b>Total East Coast</b>	3 221 183	3 754 846	3 291 775
<b>Total West Coast</b>	1 891 579	1 998 692	1 844 807

Table 56 (continued)

	1999	2000	2001
<b>Total North Coast</b>	1 235 009	1 311 956	1 360 657
<b>Total South America</b>	6 347 771	7 065 494	6 497 239
Mexico & Central America			
Costa Rica	608 097	585 427	577 621
Puerto Limon	608 097	585 427	577 621
El Salvador	11 132	14 815	-
Acajutla	11 132	14 815	-
Guatemala	211 173	235 013	201 090
Saint Tomas de Castilla	211 173	235 013	201 090
Honduras	277 106	184 839	403 356
Puerto Castilla	3 770		64 424
Puerto Cortes	273 336	184 839	338 932
Mexico	1 127 552	1 311 229	1 378 032
Altamira	181 624	182 997	208 340
Ensenada	21 191	28 859	45 000
Lazaro Cardenas	4 468	759	-
Manzanillo	321 893	426 717	457 946
Mazatlan	15 228	16 811	18 315
Progreso	43 017	60 181	72 000
Salina Cruz	7 511	5 333	3 211
Tampico	47 898	49 462	29 552
Tuxpan	199	96	341
Veracruz	484 523	540 014	543 327
Nicaragua	8 184	104 993	0
Corinto	8 184	104 993	-
Panama	2 234 179	2 550 981	1 571 028
Balboa	-	-	358 868
Coco Solo	180 300	181 300	-
Cristobal	1 175 673	1 353 727	1 212 160
Las Minas Bay			
Puerto Manzanillo	878 206	1 015 954	-
<b>Total Caribbean Coast</b>	4 087 816	4 389 010	3 247 787
<b>Total Pacific Coast</b>	389 607	598 287	883 340
Total Mexico & Central America	4 477 423	4 987 297	4 131 127
Caribbean			
Bahamas	543 993	572 224	0
Freeport	543 993	572 224	-
Nassau			
Barbados	71 577	68 600	0
Bridgetown	71 577	68 600	-

Table 56 (continued)

	1999	2000	2001
Belize	19 945	25 537	26 900
Belize City	19 945	25 537	26 900
Cayman Islands	43 650	0	0
Georgetown	43 650		
Cuba	123 000	250 000	270 000
Habana	123 000	250 000	270 000
Grenada			11 708
St. George's			11 708
Guadeloupe	104 000	226	184
Pointe-à-Pitre	104 000	226	184
Jamaica	709 442	894 779	579 870
Kingston	709 442	894 779	579 870
Martinique	141 700	0	0
Fort-de-France	141 700		
Dominican Republic	460 067	509 389	529 356
Boca Chica	24 364	25 916	19 052
Rio Haina	415 629	460 184	487 827
Santo Domingo	20 074	23 289	22 477
Santa Lucia	45 167	41 037	0
Castries	26 667	27 050	
Vieux Fort	18 500	13 987	
Trinidad and Tobago	298 553	347 934	2 699 921
Point Lisas	46 071	65 447	
Port of Spain	252 482	282 487	2 699 921
Total Caribbean	2 561 094	2 709 726	4 117 939
Total Latin America	13 386 288	14 762 517	14 746 305

Source: Containerisation International – Perfíl Marítimo, http://www.eclac.cl/transporte/perfil/.

Table 57

Examples of freight rates per 20-foot container

(in \$)

From / to	Miami	New York	Hamburg
Santos (Brazil)	1 890	1 920	1 460
Buenaventura (Colombia)	1 850	1 875	1 395
Callao (Peru)	1 875	1 925	1 480
Valparaiso (Chile)	1 865	1 925	1 662

 $Source: www.wto.org/english/tratop\_e/serv\_e/symp\_assessment\_serv\_marchoz\_e.htm.$ 

Exports from developing countries in America also create a significant demand for reefer vessels. Bananas are exported from Costa Rica, Ecuador, Panama and Saint Lucia, among others, and represent a large share of these countries' export earnings – up to 50 per cent for Saint Lucia in 1998 and about a fifth of earnings for each of the others. These exports were badly hit by climatic events (El Niño current affected Ecuadorian production, and Hurricane Mitch wiped out most Central American plantations in late 1998) but have since recovered. European Community import quotas affected Latin American exports and allegedly caused the collapse of Chiquita Brands in early 2002. The banana trade accounted for more than a third of the demand for conventional reefer vessels.

Deciduous fruits, exported from Chile and Brazil, accounted for approximately another fifth of the demand for conventional reefer vessels, while citrus fruits from Brazil were responsible for an additional tenth. In total, these cargoes accounted for about two-thirds of the demand for conventional reefer vessels. The use of reefer containers for carrying these commodities is having a major impact on the demand for conventional reefer vessels and is likely to exercise downward pressure on freight rates with the introduction of large container ships in South American trades. Other cargoes carried include meat from the eastern coast of South America and minor liquid bulks, such as exports of citric concentrates from Santos (Brazil), which were carried in specialized reefer tankers.

Liner and other shipping services make use of public ports. During the last decade, these ports have been the focus of major institutional change, namely the introduction of private operating companies for providing cargo-handling services, including the provision of equipment and infrastructure. Panamanian ports together with the port of Buenos Aires were the first ones to award concessions to private companies for operating terminals for handling container and other cargoes.

The port of Rio Grande was the first to follow in Brazil and then the port of Santos awarded a concession for its first container terminal, located on the left bank, in 1997; this was followed with a concession on the right bank of berths for conversion into another container terminal. In 1999 the Peruvian authorities awarded the concession of the port of Matarani, and in the following year concessions were given in the Chilean ports of San Antonio, Valparaiso, Iquique and Mejillones. In late 2001 Boluda, a Spanish private shipowner, won a concession

to carry out pilotage, towage, mooring and stevedoring services in five Costa Rican ports (Caldera, Golfito, Punta Arenas, Punta Morales and Quepos). In other ports, notably in Colombia, private involvement is mainly smaller lesser operators restricted to providing cargohandling services in various parts of the port.

There are indications that the involvement of the private sector has raised efficiency and reduced costs. In Buenos Aires, annual productivity per worker rose from 800 to 3,000 tons per year over a period of four years, while costs fell from \$450 to \$120 per container. In the port of Cartagena (Colombia), average vessel time at berth for container ships decreased from 72 to 16 hours as productivity increased from 7 to 20 container movements per hour, and the cost per box was slashed from \$984 to \$228.

Also, private-sector involvement has required countries to develop coherent regulations governing the activities of these operators in line with trade requirements. In 2000 authorities in Argentina relaxed the rules that forbade mergers between operators, and soon afterward the two major local operators merged. Awarding concessions that place operators on an equal footing is not always easy, as is demonstrated by the case of Exolgan in Buenos Aires, where the timing and conditions of the concessions were not the same, and by recent events in Panama. In Panama, one operator making substantial fixed payments on its contract asked to have the same conditions as other operators that were basically making variable payments related to traffic.

### E. INLAND TRANSPORT DEVELOPMENTS IN SOUTH AMERICA

The inland transport network in Latin America is not well developed. As table 58 indicates, the road and railway density per 1,000 square kilometres is well below the densities found in more developed parts of the world.

One of the decisions of the first meeting of the Presidents of all South American countries, held in Brasilia in August 2000, was to emphasize the development of physical infrastructure for the establishment and integration of multimodal networks. A plan of action, the IIRSA (Integration of South America Regional Infrastructure) initiative, has been prepared, and a number of priority corridors have been set up linking the opposing coasts of South America. Regional financial institutions and private investors are expected to channel investments into transport, energy and telecommunications along these corridors

Country or		Rail network	Road network		
region	Distance (km)	Density (km per thousand km² of territory)	Distance (km)	Density (km per thousand km² of territory)	
Japan	20 165	53.37	1 160 000	3 434	
European Union	153 802	47.50	3 559 351	1 099	
USA Latin America	230 674 113 796	24.61 5.77	6 370 241 3 251 245	680 158	

Table 58

Inland transport networks

*Source*: Compiled by the UNCTAD secretariat on the basis of data from the International Union of Railways (figures from 2000) and the International Road Transport Union (figures from 1996).

The IIRSA initiative provides a medium-term framework for developments that otherwise would have been implemented piecemeal by countries. It would also address the high cost of inland transport for the international trade of landlocked countries. A study conducted by the International Trade Centre in 2000 for Bolivia<sup>19</sup> indicated that the share of inland transport costs up to the port of loading for exports from Santa Cruz were between 46.3 and 60.5 per cent of the transport costs incurred up to the port of destination in Northern Europe, with the percentages for import cargoes fluctuating between 49.8 and 70 per cent.

Hidrovia, a long-standing project to promote transport along the Paraguay and Parana Rivers for access to the sea through the River Plate, has generated an estimated 10 million tons per year. Weekly and fortnightly barge services were established in 1999 and now move approximately 30,000 TEUs per year, about half of it to Asuncion (Paraguay), with freight rates being about \$300 per TEU. The financial crisis in Argentina at the end of 2001 resulted in the suspension of the \$40 million subsidy for dredging along the Parana River and River Plate access. A halt in this activity would threaten one of Paraguay's routes to the Atlantic Ocean and would similarly cloud prospects for Bolivian traders.

In Brazil the consolidation of railway networks have given inland shippers better access to ports. In 2000 CVRD took control of the FCA railway to complement its own EFVM railway and started logistics activities to serve shippers from the landlocked state of Minas Gerais through the port of Vitoria and potentially through Sepetiba. In early 2002, railway consolidation in the states of São Paulo and Matto Grosso resulted in the establishment of Brasil Ferrovias, which will reduce the cost of grain transport to the port of Santos. In Mexico,

Group TMM, one of the largest logistics and distribution companies in the region, has a controlling interest in TFM (Transportación Ferroviaria Mexicana), which is responsible for over 40 per cent of cargo freight in the country, and operates a terminal in the port of Manzanillo in a joint venture with SSA—the US global port operator. MSC has recently renewed its terminal contract in this port, which is expected to raise its throughput to 0.5 million TEUs by the end of 2002.

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

Cost factor for import trade

In 2000 developing countries in America accounted for 23.7 per cent of the total value of imports and 23 per cent of the total value of freight of all developing countries. In that year the total freight costs of American developing countries as a proportion of import value were 8.58 per cent (see table 59), which is slightly below the average of 8.83 per cent for developing countries. It is, however, higher than the 5.21 per cent achieved by developed market-economy countries and the 6.21 per cent world average.

The regional average masks wide differences among trading areas. The cost factor for the import trades of Caribbean countries is the highest, at 11.92 per cent, followed by the cost factor for countries on the northern coast of South America, 10.52 per cent. The cost factor was higher along South America's western coast, (9.22 per cent) than on the eastern coast (7.87 per cent). The lowest cost factor, 7.87 per cent, is found in Mexico and Central America. The regional average is heavily influenced by the cost factor of the largest economies of the region, Brazil and Mexico, 7.30 per cent. Peru has the highest percentage, 16.42 per cent.

Table 59

Estimates of total freight costs for imports of South American and Caribbean countries, 2000

Country or group	Value of imports	Estimates of total	Freight costs as
	(c.i.f.)	freight cost	% of import
			value
Antigua and Barbuda	876	71	8.1
Bahamas	3 679	388	10.6
Bermuda	4 385	393	9.0
Greenland	422	38	9.0
Barbados	927	98	10.6
Cuba	2 828	253	9.0
Dominica	147	16	10.6
Dominican Republic	10 426	1 567	15.0
Grenada	208	20	9.8
Haiti	1 157	140	12.1
Saint Pierre and Miquelon	53	5	9.8
Jamaica	3 192	434	13.6
Saint Kitts and Nevis	186	20	10.6
Saint Lucia	345	31	9.0
Saint Vincent and the Grenadines	162	15	9.0
Trinidad and Tobago	2 353	248	10.6
Subtotal	31 346	3 736	11.9
Argentina	25 420	2 881	11.3
Bolivia	1 670	215	12.8
Brazil	61 875	4 515	7.3
Falkland Islands (Malvinas)	67	6	9.0
Paraguay	3 060	347	11.3
Uruguay	3 466	163	4.7
Subtotal	95 558	8 125	8.5
Belize	443	40	9.0
Costa Rica	6 533	888	13.6
El Salvador	4 629	560	12.1
Guatemala	6 007	586	9.8
Honduras	4 966	675	13.6
Mexico	191 904	14 002	7.3
Nicaragua	1 736	183	10.6
Panama	3 379	357	10.6
Subtotal	219 597	17 290	7.9
Chile	16 693	1 004	6.0
Colombia	11 538	1 033	9.0
Ecuador	4 031	393	9.8
Peru	7 586	1 245	16.4
Subtotal	39 848	3 676	9.2

Table 59 (continued)

Country or group	Value of imports	Estimates of total freight cost	Freight costs as % of import value
Guyana	535	48	9.0
Suriname	471	53	11.3
Venezuela	16 073	1 696	10.6
Subtotal	17 079	1 798	10.5
Total	403 428	34 624	8.6

Source: UNCTAD secretariat estimates based on data supplied by the International Monetary Fund.