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***REVIEW OF MARITIME
TRANSPORT
2008***

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Chapter 7

REVIEW OF REGIONAL DEVELOPMENTS: LATIN AMERICA AND THE CARIBBEAN

Every year, the Review of Maritime Transport focuses upon developments in a particular region. Last year, the focus was on developments in Asia, while the previous year concentrated upon Africa. This year, the focus of the regional review is on developments in Latin America and the Caribbean. This chapter in particular looks at the developments which have occurred since 2003. Liner shipping and intermodal connectivity are identified as key factors for the region's trade competitiveness. Latin America and the Caribbean experienced a continued GDP per capita growth of 4.9 per cent during the period 2003–2007, driven largely by Asian demand for the region's natural resources. During the period, exports and imports grew at an annual rate of 8 and 10 per cent, respectively. Port throughput reached 1.47 billion tons in 2006, putting a significant strain upon port infrastructure. With the expansion of the Panama Canal and related port developments, discussions of potential hub ports have gained new impetus, and ambitious new port projects are driven by expectations to become regional logistics hubs. This chapter reviews those port developments, as well as some other regional maritime clusters.

A. ECONOMIC BACKGROUND

According to ECLAC (United Nations Economic Commission for Latin America and the Caribbean), the region's GDP grew by around 5.6 per cent in 2007, with a rise in per capita GDP of 3.8 per cent (see table 50). This makes 2007 the fifth year running in which the region has marked a positive growth rate, reaching an average annual rate of increase of 4.9 per cent for 2003–2007, which is more than double the 2.2 per cent recorded for 1980–2002. Table 51 illustrates how this growth relates to the purchasing-power-partly per capita for each country in the region.¹⁷⁸

In general, the growing demand for the region's commodities and for inputs into intermediate and final products, has benefitted the region's ports, maritime transport and internal logistics. In 2006, total foreign trade in goods amounted to \$1.2 billion (representing 45 per cent of the region's GDP, up 20 per cent over 2005 figures). Consequently, Latin America showed a

positive merchandise trade balance of \$103 billion, an increase of 27 per cent over 2005 and more than 80 per cent over 2004.

During much of 2007, the Latin American and Caribbean region witnessed volatility in financial markets, owing to uncertainty about the impact of the financial crisis in the United States. This crisis has to date not had significant repercussions in the level of economic activity or international trade, and records show that most of the economies in the region have grown rapidly. Such growth has been driven primarily by domestic demand, with particularly sharp increases being noted in private consumption and capital formation.

The strength exhibited by domestic demand pushed up imports sharply, while, for the first time since 2000, the volume of goods exported rose more slowly than the region's GDP. Even so, most natural-resource exporters benefited from higher prices, and the region recorded a 2.6 per cent improvement in trade. Higher export prices

Table 50
Latin America and the Caribbean: GDP growth rates, 1998–2007
(Percentages)

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Latin America and the Caribbean	2.5	0.2	3.9	0.3	-0.4	2.2	6.2	4.7	5.6	5.6
Latin America	2.4	0.1	3.9	0.3	-0.5	2.1	6.2	4.7	5.5	5.6
South America										
Argentina	3.9	-3.4	-0.8	-4.4	-10.9	8.8	9.0	9.2	8.5	8.6
Bolivia	5.0	0.4	2.5	1.7	2.5	2.7	4.2	4.0	4.6	3.8
Brazil	0.0	0.3	4.3		2.7	1.1	5.7	2.9	3.7	5.3
Chile	3.2	-0.8	4.5	3.4	2.2	3.9	6.0	5.7	4.0	5.3
Colombia	0.6	-4.2	2.9	2.2	2.5	4.6	4.7	5.7	6.8	7.0
Ecuador	2.1	-6.3	2.8	5.3	4.2	3.6	8.0	6.0	3.9	2.7
Guyana	-1.7	3.8	-1.4	2.3	1.1	-0.7	1.6	-2.0	4.7	4.5
Peru	-0.7	0.9	3.0	0.2	5.0	4.0	5.1	6.7	7.6	8.2
Paraguay	0.6	-1.5	-3.3	2.1	0.0	3.8	4.1	2.9	4.2	5.5
Suriname	3.1	-2.4	4.0	5.9	1.9	6.1	7.7	5.6	5.8	5.0
Uruguay	4.5	-2.8	-1.4	-3.4	-11.0	2.2	11.8	6.6	7.0	7.5
Venezuela, Bolivarian Rep. of	0.3	-6.0	3.7	3.4	-8.9	-7.8	18.3	10.3	10.3	8.5
Central America										
Belize	3.7	8.7	12.9	4.9	5.1	9.3	4.6	3.5	5.6	3.0
Costa Rica	8.4	8.2	1.8	1.1	2.9	6.4	4.3	5.9	8.2	7.0
Guatemala	5.0	3.8	3.6	2.3	3.9	2.5	3.2	3.5	4.9	5.5
Honduras	2.9	-1.9	5.7	2.7	3.8	4.5	6.2	6.1	6.4	6.0
Mexico	5.0	3.8	6.6	0.0	0.8	1.4	4.2	2.8	4.8	3.3
Nicaragua	3.7	7.0	4.1	3.0	0.8	2.5	5.3	4.3	3.7	3.0
Panama	7.3	3.9	2.7	0.6	2.2	4.2	7.5	7.2	8.7	9.5
El Salvador	3.7	3.4	2.2	1.7	2.3	2.3	1.9	3.1	4.2	4.5
Antigua and Barbuda	4.4	4.1	1.5	2.2	2.5	5.2	7.2	4.7	12.5	6.0
Bahamas	6.8	4.0	1.9	0.8	2.3	1.4	1.8	2.7	3.4	3.3
Barbados	6.2	0.5	2.3	-4.6	0.7	2.0	4.8	4.1	3.8	4.0
Caribbean	4.1	3.9	3.4	1.7	3.6	6.5	4.7	4.7	6.9	3.9
Cuba	0.2	6.3	6.1	3.0	1.5	2.9	4.5	n.a.	n.a.	7.0
Dominica	3.2	0.6	0.6	-3.6	-4.2	2.2	6.3	3.4	5.3	1.0
Dominican Republic	7.0	6.7	5.7	1.8	5.8	-0.3	1.3	9.3	10.7	7.5
Grenada	8.2	7.0	7.3	-4.8	1.8	8.1	-7.2	14.0	0.8	3.0
Haiti	2.2	2.7	0.9	-1.0	-0.3	0.4	-3.5	1.8	2.3	3.3
Jamaica	-1.2	1.0	0.7	1.5	1.1	2.3	1.0	1.4	2.5	1.5
Saint Kitts and Nevis	0.9	3.6	4.3	2.0	1.1	0.5	7.6	4.8	6.4	5.5
Saint Lucia	6.4	2.4	-0.2	-5.1	3.1	4.1	5.4	6.0	4.0	4.0
Saint Vincent and the Grenadines	5.2	4.4	1.8	1.0	3.7	3.2	6.2	3.6	8.7	5.0
Trinidad and Tobago	8.1	8.0	6.9	4.2	7.9	14.4	8.8	8.0	12.0	5.5

Source: UNCTAD secretariat based upon UNECLAC, CEPALSTAT various years.

Table 51

Latin America and the Caribbean: GDP per capita, based on purchasing power parity
(Current international dollars)

	2000	2001	2002	2003	2004	2005	2006	2007	2008 ^a
South America									
Argentina	12 210	11 832	10 624	11 699	13 000	14 513	16 080	17 559	18 662
Bolivia	2 366	2 408	2 454	2 517	2 639	2 774	2 931	3 062	3 217
Brazil	7 936	8 113	8 351	8 502	9 113	9 548	10 073	10 637	11 110
Chile	9 240	9 674	9 935	10 442	11 212	12 089	12 811	13 745	14 506
Colombia	6 214	6 344	6 465	6 742	7 155	7 615	8 260	8 891	9 327
Ecuador	3 283	3 683	3 751	3 912	4 285	4 622	4 835	5 021	5 210
Guyana	4 071	4 246	4 355	4 404	4 587	4 631	5 004	5 404	5 732
Paraguay	4 312	4 417	4 404	4 582	4 847	5 060	5 339	5 638	5 848
Peru	4 881	4 932	5 190	5 430	5 782	6 274	6 856	7 410	7 869
Suriname	4 462	4 809	4 961	5 291	5 691	6 111	6 571	6 995	7 293
Uruguay	8 833	8 688	7 819	8 113	9 279	10 844	11 969	12 917	13 640
Venezuela, Bolivarian Rep. of	5 716	5 992	5 448	5 033	6 004	6 704	7 480	8 125	8 590
Central America									
Belize	5 868	6 122	6 351	6 871	7 396	7 409	7 835	8 108	8 240
Costa Rica	8 629	8 746	8 974	9 564	10 072	10 814	11 862	12 683	13 330
El Salvador	4 600	4 702	4 807	4 925	5 072	5 303	5 600	5 885	6 111
Guatemala	3 714	3 792	3 902	3 929	4 009	4 097	4 335	4 547	4 707
Honduras	2 503	2 567	2 621	2 708	2 860	2 999	3 199	3 378	3 470
Mexico	9 038	9 120	9 217	9 412	10 111	10 626	11 369	11 880	12 323
Nicaragua	3 217	3 294	3 290	3 357	3 544	3 719	3 886	4 055	4 224
Panama	6 169	6 234	6 370	6 659	7 236	7 845	8 593	9 395	10 216
Caribbean									
Antigua and Barbuda	10 089	10 336	10 590	11 147	11 924	12 842	14 705	15 489	15 865
Bahamas	16 883	17 169	17 614	17 985	18 578	19 398	20 440	21 360	22 336
Barbados	14 851	14 783	15 087	15 662	16 835	18 038	19 274	20 532	21 388
Dominica	4 969	4 877	4 710	4 815	5 104	5 445	5 840	6 180	6 465
Dominican Republic	6 690	6 999	7 331	7 242	7 488	8 327	9 377	10 241	10 732
Grenada	7 503	7 279	7 430	7 996	7 758	8 941	9 198	9 623	10 082
Haiti	1 786	1 780	1 764	1 772	1 745	1 777	1 840	1 914	1 994
Jamaica	3 601	3 722	3 815	3 963	4 097	4 270	4 494	4 654	4 806
Saint Kitts and Nevis	11 768	12 312	12 533	12 665	14 009	15 130	16 282	17 424	18 527
Saint Lucia	5 813	5 661	5 762	6 012	6 393	6 754	7 300	7 679	8 071
Saint Vincent and the Grenadines	5 817	5 952	6 243	6 548	7 187	7 575	8 343	8 923	9 635
Trinidad and Tobago	9 119	9 693	10 571	12 289	13 668	15 181	17 494	18 975	20 381

Source: UNCTAD secretariat based upon IMF 2008, World Economic Outlook.

^a 2008: forecast by UNECLAC.

were also a contributing factor in the region's fifth consecutive balance of payments surplus, although the upswing in imports brought the surplus down from +1.7 per cent of GDP in 2006 to +0.7 per cent in 2007.

Increased Asian demand for oil and minerals and the increase in world prices, entailed a growing demand for the region's commodities as well as a further specialization in the production of raw materials and their derivatives in the past years, while manufacturing sectors have lost ground. Table 52 illustrates the export–specialization pattern for the region's seven largest economies.

In the manufactures markets in Europe and the United States, strong competition reigns between Latin American and Caribbean, and Asian exporters.

Specialization has also increased, with most Latin American countries showing a higher degree of export concentration in commodities than at the beginning of the decade.

Amongst the region's largest economies, Mexico is the most vulnerable to Asian competition. Intra-industry trade only partially developed in Latin America and the Caribbean, with the exception of Brazil and Mexico. Intraregional intra-industry trade in the region is also significantly lower than in Asia.

The prices of the main exports in Colombia, Chile and Uruguay have been increasing faster than those of their imports. Specialization has also increased, with most Latin American economies showing a higher degree of export concentration in commodities than at the beginning of the decade. The trend towards greater specialization in commodities is most marked in the Bolivarian Republic of Venezuela, Ecuador, Bolivia and Chile; the exceptions are Costa Rica and Argentina.

Table 52
Specialization sectors for selected Latin American countries, 2005
Balassa Index

Product Name	Argentina	Brazil	Chile	Colombia	Mexico	Peru	Venezuela, Bolivarian Rep. of	Average LAC ^a
Food and live animals	6.30	3.81	3.40	3.27	0.85	3.24	0.07	2.51
Beverages and tobacco	1.57	1.72	2.68	0.51	1.29	0.11	0.12	1.31
Crude materials, except food/fuels	3.13	5.46	10.52	1.77	0.46	7.94	0.16	2.82
Mineral fuels/lubricants	1.60	0.60	0.21	3.83	1.45	0.91	8.66	2.14
Animal/veg. oils/fats/waxes	22.07	3.56	0.30	1.60	0.10	2.63	0.01	2.86
Chemicals/products n.e.s.	0.74	0.55	0.47	0.74	0.32	0.21	0.16	0.44
Manufactured goods	0.75	1.32	2.54	0.92	0.59	1.44	0.49	0.92
Machinery/transport equipment	0.27	0.66	0.04	0.15	1.33	0.02	0.03	0.71
Miscellaneous manuf. articles	0.17	0.36	0.06	0.68	1.10	0.70	0.02	0.64
Commodities n.e.s.	0.57	0.12	0.90	0.88	0.11	5.28	0.06	0.40

Source: UNCTAD secretariat based upon OECD Development Centre (2007); based on WITS and Comtrade (2007) data.

^a Latin America and Caribbean.

Note: The Balassa index measures the relative export performance by country and industry, defined as a country's share of world exports of a good divided by its share of total world exports.

Table 53 shows that all countries except the Bolivarian Republic of Venezuela have recorded continuous growth in exports since 2003. Paraguay's (+141 per cent) and Nicaragua's (+134 per cent) exports have been growing the fastest in the region; exports from El Salvador have risen 18.2 per cent and exports from the Bolivarian Republic of Venezuela have declined 14.6 per cent. Import growth has been highest in Ecuador (+151 per cent), Colombia (+132.6 per cent between 2000 and 2007), the Bolivarian Republic of Venezuela (+123.6 per cent) and Chile (+121 per cent). In Central America, the volume of imports has increased most in Guatemala (+96.5 per cent), Honduras (+78.1 per cent) and Costa Rica (+70.9 per cent). The value of exports has increased by 45 per cent and imports 56 per cent between 2000 and 2007.

The growing trade of the region has not been matched by the corresponding transport infrastructure and services. The remainder of this chapter looks at the challenges with regards to maritime trade, shipping services, port reform and transport costs.

B. MARITIME TRADE

Types of commodities traded

Figures 22 and 23 illustrate the composition of seaborne exports from Latin American countries to other regions in terms of value (dollars) and volume (tons). Overall, there is an increase in the share of food and live animals (Standard International Trade Classification (SITC 0) and crude materials except fuel (SITC2). Crude materials were the most important export product in terms of value and volume to the Asia–Pacific region. Machinery (SITC 7) and classified manufactures (SITC 6) to North America and Latin America and the Caribbean (intra-regional trade) had the highest shares of exports in terms of value. Figure 23 clearly depicts the dominance of crude materials (SITC 2) and food and live animals (SITC 0) in terms of volume. Four commodities – oil, copper, soy and coffee – account for approximately two thirds of total Latin American raw material exports. The majority of these exports, except coffee, are transported by bulk carriers.

The dominance of exports of crude materials also reflects in trade balances of the Latin American economies in terms of volume (tons) (Figure 24). In 2006, Brazil displayed the most significant imbalance, exporting seven times more than it imported.

Containerized trade

Latin America and Caribbean economies have a surplus in terms of trade volume (tons), mostly due to the exports of bulk cargoes, as regards manufactured goods and other containerized trade, there is a trade deficit. Overall, containerized trade of Latin America and the Caribbean is estimated to have reached 17.5 million TEUs in 2007. This is a rise of 26 per cent over 2004.

In 2007, 9.9 million TEUs were imported into the region and 7.6 million TEUs were exported, creating an imbalance of 2.3 million TEUs. The highest imbalance was recorded for the trade with Asia–Pacific (see table 54).

In 2007, the largest share of containerized cargo was traded with North America (5.5 million TEUs), followed by Europe (4.2 million TEUs) and the Asia–Pacific region (3.8 million TEUs). In addition, 2.8 million TEUs were intraregional maritime trade and other regions (1.2 million TEUs).

In 2007, Mexico and several Caribbean countries had the largest trade deficits in terms of TEUs; Mexico imported 424,000 TEUs more than it exported. Brazil and Chile, on the other hand, achieved surpluses of 1.7 million and 671,000 TEUs, respectively.

Between 2000 and 2007, growth of containerized imports has been highest in Colombia (152 per cent), Brazil (128 per cent) and Chile (10 per cent). In terms of containerized exports, the highest growth can be observed in Peru (135 per cent), Brazil (120 per cent) and the Central American countries (104 per cent). In this period, exports have continuously outgrown imports. Table 55 clearly depicts the impact of the economic crisis in 2002/03 on imports to Argentina, Uruguay and Brazil. Since 2003, the economic upturn is strongly reflected in the rise of imports.

Containerized trade of Latin America and the Caribbean is estimated to have reached 17.5 million TEUs in 2007. This is a rise of 26 per cent over 2004.

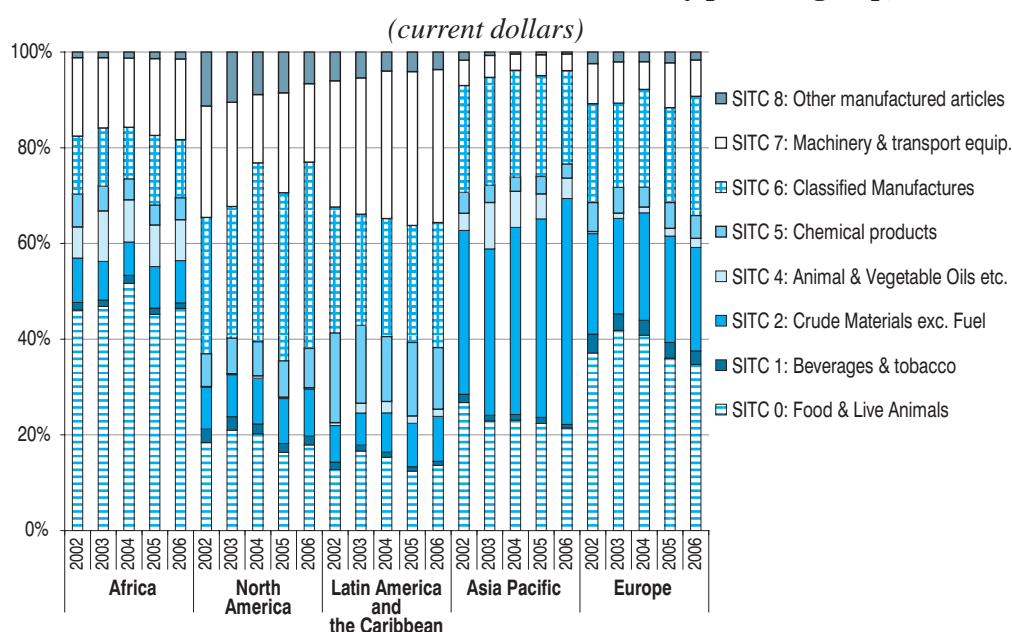
Table 53
Trade volume index, 2000–2007

Base year 2000 = 100

	2000	2001	2002	2003	2004	2005	2006	2007
Exports								
Latin America	100	102.7	103.7	107.7	118.9	128.7	137.5	144.9
South America								
Argentina	100	104.3	104.8	112.6	118.2	136.0	144.9	157.0
Bolivia	100	109.2	109.6	127.8	151.9	171.8	183.4	196.6
Brazil	100	109.6	119.0	137.7	163.8	178.5	185.7	198.6
Chile	100	107.4	107.4	117.5	135.7	141.2	144.0	151.9
Colombia	100	103.1	101.7	107.6	116.7	128.0	136.1	141.9
Ecuador	100	111.7	119.4	138.1	159.5	171.8	185.0	179.8
Paraguay	100	86.3	87.9	94.9	113.8	134.7	190.6	241.4
Peru	100	110.2	116.6	127.2	152.4	175.1	176.4	182.7
Uruguay	100	91.8	89.0	99.0	127.7	149.1	162.7	171.9
Venezuela, Bolivarian Rep. of	100	97.1	92.0	81.4	92.6	95.6	91.0	85.4
Central America								
Costa Rica	100	89.8	98.6	114.2	115.7	129.0	146.6	163.3
El Salvador	100	100.6	105.9	111.7	113.6	111.2	112.3	118.2
Guatemala	100	100.6	99.7	108.2	110.2	163.1	173.9	190.7
Honduras	100	126.2	142.3	144.1	162.6	166.1	164.4	173.9
Mexico	100	100.8	100.2	99.5	105.1	112.0	124.4	130.8
Nicaragua	100	117.4	121.9	140.7	172.1	191.7	219.5	234.3
Panama	100	102.8	91.2	88.8	103.3	125.3	137.1	155.8
Imports								
Latin America	100	100.8	94.0	94.4	108.2	120.6	136.5	155.9
South America								
Argentina	100	82.4	37.7	58.4	87.7	108.4	126.6	154.3
Bolivia	100	99.5	102.9	91.3	98.3	124.3	138.8	160.3
Brazil	100	102.9	90.5	87.1	103.1	108.8	126.2	158.7
Chile	100	101.3	101.9	112.4	134.3	163.8	183.7	212.0
Colombia	100	114.8	114.2	121.7	136.2	162.9	191.5	232.6
Ecuador	100	139.2	166.6	168.0	193.1	223.9	241.7	251.0
Paraguay	100	93.1	79.4	88.2	104.7	121.3	176.5	205.5
Peru	100	102.2	104.2	111.3	122.6	137.3	157.2	198.2
Uruguay	100	93.7	64.1	67.8	87.4	96.9	115.1	117.3
Venezuela, Bolivarian Rep. of	100	114.3	79.9	61.5	93.3	126.5	166.3	223.6
Central America								
Costa Rica	100	99.5	114.6	123.8	125.5	143.1	162.5	170.9
El Salvador	100	108.3	109.7	118.6	124.5	129.2	137.4	146.6
Guatemala	100	113.7	127.5	132.0	140.9	173.1	183.5	196.5
Honduras	100	121.7	128.4	135.2	152.8	157.4	161.5	178.1
Mexico	100	99.1	97.8	96.9	106.5	114.4	126.3	135.7
Nicaragua	100	102.3	105.0	111.0	124.6	136.3	147.4	153.2
Panama	100	98.5	92.6	89.3	103.2	115.0	125.4	151.5

Source: UNCTAD secretariat based upon UNECLAC, CEPALSTAT various years.

Figure 22

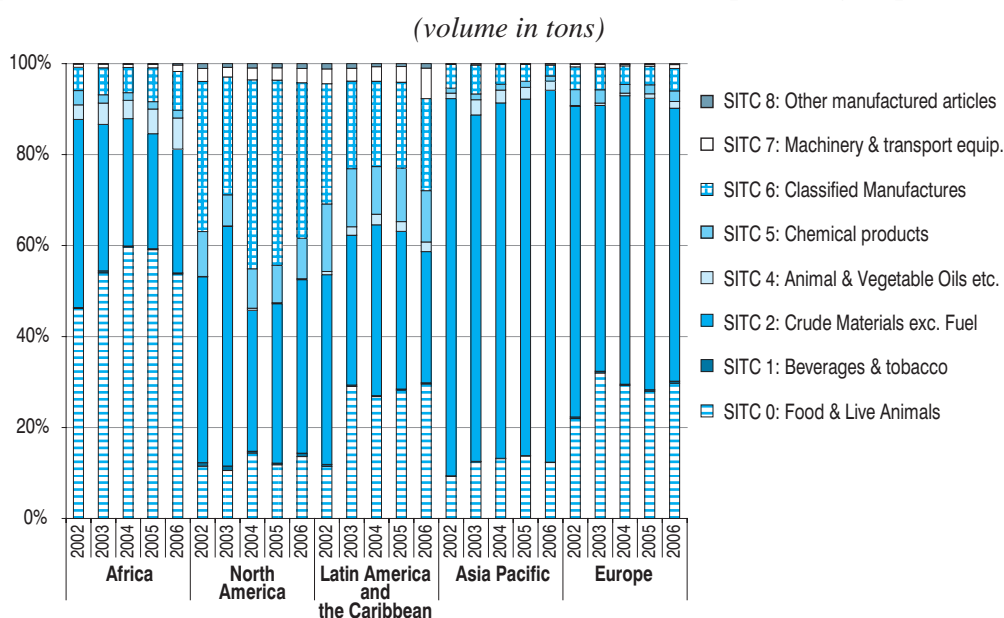
Exports from Latin American and Caribbean economies ^a by product group, 2002–2006

Source: UNCTAD secretariat based upon International Transport Database (BTI), UNECLAC, 2006.

Note: SITC 3 and SITC 9 products are excluded in this figure.

^a Argentina, Brazil, Chile, Uruguay, Peru, Ecuador, Mexico, Colombia, Paraguay and the Bolivarian Republic of Venezuela.

Figure 23

Exports from Latin American and Caribbean economies ^a by product group, 2002–2006

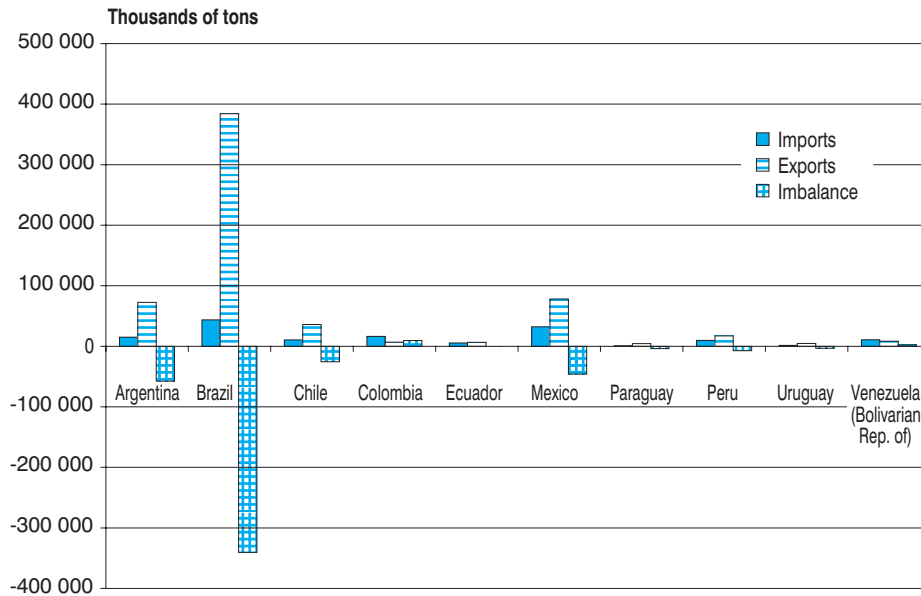
Source: UNCTAD secretariat based on International Transport Database (BTI), UNECLAC, year 2006.

Note: SITC 3 and SITC 9 products are excluded in this figure.

^a Argentina, Brazil, Chile, Uruguay, Peru, Ecuador, Mexico, Colombia, Paraguay and the Bolivarian Republic of Venezuela.

Figure 24

Maritime trade balance imports and exports, 2006
(Thousands of metric tons)



Source: UNCTAD secretariat based upon International Transport Database (BTI), UNECLAC, 2006.

Note: SITC 3 and SITC 9 products are excluded in this presentation.

Table 56 shows the evolution of maritime containerized trade in TEUs in the period 2004–2007. Imports from Asia to the region displayed some of the highest growth rates. Imports from that region to Colombia rose 82 per cent, to Argentina 78 per cent, to Brazil 68 per cent, to Chile 58 per cent and to Mexico 52 per cent during the period. Export volumes from Latin America and the Caribbean to the Asia–Pacific region was significantly lower, which added to the growing trade imbalance between the regions. Central America¹⁷⁹ experienced the highest growth in containerized trade in exports to North America. Containerized exports from the Caribbean and Mexico to North America declined by 49 per cent and 16 per cent respectively in the same period. Mexico was able to increase its exports to Asia–Pacific by 73 per cent. Trade from Mexico and the Caribbean to other Latin American and Caribbean countries showed growth rates of 45 per cent and 39 per cent, respectively.

The recent growth in the demand for export products and expansion of trade activities throughout the region created new opportunities and challenges for the

maritime and port industry, especially for the supply of shipping services and port infrastructure development.

C. SHIPPING

Liner shipping services

The impacts of concentration in liner shipping and the quality of service are especially important for regions with lower trade volumes, which lead more easily to oligopolistic market structures.

Generally, shipping lines have adopted two strategies for achieving economies of scale in liner services – firstly, by internal economies of scales, increasing the ship sizes, and secondly, by increasing the size of the shipping company through organic growth or mergers and acquisitions. Where strategies of takeover were not possible or effective, shipping lines searched for economies of scale in conferences and alliances.

The achievements in economies of scale are reflected by the continuous growth of ship size within the market.

Table 54
Containerized trade balance, 2007
TEUs

	Argentina	Brazil	Central America	Chile	Colombia	The Caribbean	Mexico	Other countries on the East Coast of South America	Other Countries on the West Coast of South America	Peru	Venezuela (Bolivarian Republic of)
Africa											
Export	66 002	244 526	2 993	10 356	4 780	9 756	7 546	8 437	6 853	3 095	3 589
Import	3 822	10 816	1 290	1 430	2 831	6 006	13 127	3 898	611	2 210	1 868
Imbalance	62 180	233 710	1 703	8 926	1 949	3 750	-5 581	4 539	6 242	885	1 721
Asia Pacific											
Export	85 598	453 080	18 281	304 842	12 470	12 016	131 456	22 638	8 125	43 063	21 207
Import	133 709	909 696	260 088	213 797	142 194	138 050	619 099	44 687	56 671	133 698	78 731
Imbalance	-48 111	-456 616	-241 807	91 045	-129 724	-126 034	-487 643	-22 049	-48 546	-90 635	-57 524
Europe											
Export	296 356	1 161 029	220 390	287 743	120 879	166 122	218 287	62 701	55 725	80 070	56 744
Import	99 981	425 690	123 982	76 474	57 371	249 348	217 505	43 672	27 189	53 601	97 809
Imbalance	196 375	735 339	96 408	211 269	63 508	-83 226	782	19 029	28 536	26 469	-41 065
North America											
Export	176 422	924 135		305 402	312 825	347 100	183 898	32 644	187 801	86 376	120 861
Import	89 307	253 236	388 050	103 196	139 312	368 948	73 991	24 892	53 280	65 034	120 066
Imbalance	87 115	670 899	718 492	202 206	173 513	-21 848	109 907	7 752	134 521	21 342	795
Latin America and the Caribbean											
Export	120 708	379 121	74 397	215 248	129 862	85 428	219 619	31 553	28 424	65 028	63 130
Import	86 934	91 497	201 720	89 369	134 129	223 572	256 463	43 895	49 016	95 298	140 625
Imbalance	33 774	287 624	-127 323	125 879	-4 267	-138 144	-36 844	-12 342	-20 592	-30 270	-77 495
Total global											
Export	825 433	3 428 569	1 442 984	1 165 825	623 446	632 864	788 075	169 036	311 912	281 155	265 899
Import	440 862	1 730 331	1 022 140	494 353	562 732	1 019 311	1 211 643	165 638	195 318	359 621	445 731
Imbalance	384 571	1 698 238	420 844	671 472	60 714	-386 447	-423 568	3 398	116 594	-78 466	-179 832

Source: UNCTAD secretariat based upon UNECLAC Perfil Marítimo 2008 and Global Insight; Several publications.

Note: Figures for 2007 are preliminary.

Table 55
Imports and exports of containerized trade
(Index, base year 2000)

	2000	2001	2002	2003	2004	2005	2006	2007
Imports								
Argentina	1.00	0.88	0.40	0.62	0.86	0.97	1.08	1.20
Chile	1.00	0.97	1.10	1.19	1.48	1.70	1.89	2.10
Colombia	1.00	1.12	1.17	1.28	1.57	1.86	2.25	2.52
Other countries WCSA	1.00	0.94	1.02	1.00	1.25	1.27	1.35	1.44
Venezuela (Bolivarian Republic of)	1.00	1.25	0.90	0.66	1.12	1.29	1.45	1.56
Central America	1.00	1.09	1.15	1.24	1.46	1.54	1.90	2.04
Peru	1.00	0.97	1.05	1.10	1.41	1.66	1.82	2.00
Other countries ECSA	1.00	0.89	0.72	0.74	0.99	1.02	1.24	1.34
The Caribbean	1.00	1.09	1.09	1.04	1.25	1.36	1.48	1.52
Mexico	1.00	1.13	1.23	0.92	1.06	1.14	1.30	1.39
Brazil	1.00	1.00	0.83	0.83	1.51	1.73	2.06	2.28
Total LAC	1.00	1.05	1.00	0.95	1.27	1.41	1.62	1.76
Exports								
Argentina	1.00	1.10	1.23	1.47	1.56	1.68	1.81	2.00
Chile	1.00	1.11	1.09	1.27	1.56	1.59	1.82	1.86
Colombia	1.00	0.95	1.07	1.31	1.50	1.66	1.78	1.86
Other countries WCSA	1.00	0.97	0.98	1.03	1.11	1.18	1.36	1.40
Venezuela (Bolivarian Republic of)	1.00	0.93	0.84	0.84	1.05	1.05	0.97	0.91
Central America	1.00	1.02	1.04	1.11	1.22	1.31	1.90	2.04
Peru	1.00	1.25	1.31	1.30	1.68	1.92	2.24	2.35
Other countries ECSA	1.00	1.15	1.00	1.37	1.55	1.85	1.87	1.96
The Caribbean	1.00	1.00	1.06	1.18	1.47	1.63	0.99	1.01
Mexico	1.00	1.70	1.35	1.25	1.39	1.45	1.55	1.65
Brazil	1.00	1.09	1.28	1.55	1.88	1.97	2.13	2.20
Total LAC	1.00	1.11	1.15	1.30	1.54	1.63	1.74	1.82

Source: UNCTAD secretariat based on UNECLAC, data provided by Global Insight Inc. (www.globalinsight.com).

Table 56
Containerized trade, 2004–2007
TEUs

Origin/Destination		2004	2005	2006	2007	Change 2004-2007		
Argentina	Africa	Export	48 459	56 223	60 882	66 002	36%	
		Import	2 910	3 409	3 549	3 822	31%	
	Asia Pacific	Export	69 244	74 720	80 594	85 598	24%	
		Import	75 121	95 454	114 919	133 709	78%	
	Europe	Export	260 292	273 844	282 481	296 356	14%	
		Import	77 049	86 510	93 252	99 981	30%	
	North America	Export	121 347	124 159	136 321	176 422	45%	
		Import	74 645	77 094	82 318	89 307	20%	
	Latin America and the Caribbean	Export	101 179	110 201	114 971	120 708	19%	
		Import	67 806	73 263	78 667	86 934	28%	
	Total global	Export	641 836	693 924	744 939	825 433	29%	
		Import	316 934	357 141	396 885	440 862	39%	
	Brazil	Africa	Export	191 063	206 086	225 366	244 526	28%
			Import	7 791	7 890	10 164	10 816	39%
Asia Pacific		Export	338 384	390 149	432 252	453 080	34%	
		Import	540 058	642 669	796 923	909 696	68%	
Europe		Export	966 941	1022 407	1097 907	1161 029	20%	
		Import	308 852	352 669	413 288	425 690	38%	
North America		Export	939 028	938 437	966 183	924 135	-2%	
		Import	197 868	201 390	224 322	253 236	28%	
Latin America and the Caribbean		Export	316 066	315 896	357 315	379 121	20%	
		Import	63 378	76 129	83 076	91 497	44%	
Total global		Export	2940 584	3079 350	3319 649	3428 569	17%	
		Import	1144 342	1310 341	1563 646	1730 331	51%	
Central America		Africa	Export	2 471	2 645	2 774	2 993	21%
			Import	1 108	1 116	1 257	1 290	16%
	Asia Pacific	Export	14 509	16 175	17 872	18 281	26%	
		Import	162 240	184 758	235 037	260 088	60%	
	Europe	Export	142 863	171 732	206 745	220 390	54%	
		Import	85 810	89 495	122 015	123 982	44%	
	North America	Export	635 063	654 309	1028 031	1106 542	74%	
		Import	319 740	325 747	364 327	388 050	21%	
	Latin America and the Caribbean	Export	54 051	63 019	69 905	74 397	38%	
		Import	134 384	139 998	187 632	201 720	50%	
	Total global	Export	864 777	924 250	1343 660	1442 984	67%	
		Import	732 676	775 483	954 002	1022 140	40%	

Table 56 (continued)

Origin/Destination		2004	2005	2006	2007	Change 2004-2007	
Chile	Africa	Export	6 875	7 207	9 221	10 356	51%
		Import	1 301	1 240	1 323	1 430	10%
	Asia Pacific	Export	270 453	269 384	282 278	304 842	13%
		Import	135 574	160 307	189 735	213 797	58%
	Europe	Export	247 662	241 140	273 220	287 743	16%
		Import	58 622	70 616	74 104	76 474	30%
	North America	Export	261 772	274 325	335 508	305 402	17%
		Import	70 965	80 438	87 903	103 196	45%
	Latin America and the Caribbean	Export	162 854	170 192	200 134	215 248	32%
		Import	72 713	78 924	82 496	89 369	23%
Total global	Export	979 406	995 867	1 137 348	1 165 825	19%	
	Import	347 043	399 780	444 856	494 353	42%	
Columbia	Africa	Export	3 887	3 868	4 451	4 780	23%
		Import	2 329	2 480	2 706	2 831	22%
	Asia Pacific	Export	12 337	11 374	11 865	12 470	1%
		Import	78 200	97 086	123 442	142 194	82%
	Europe	Export	91 554	99 494	113 059	120 879	32%
		Import	42 610	48 884	54 587	57 371	35%
	North America	Export	272 670	315 983	311 926	312 825	15%
		Import	92 349	105 355	121 005	139 312	51%
	Latin America and the Caribbean	Export	97 464	99 763	117 743	129 862	33%
		Import	90 765	107 613	121 324	134 129	48%
Total global	Export	503 867	558 510	597 992	623 446	24%	
	Import	351 777	415 830	503 084	562 732	60%	
The Caribbean	Africa	Export	6 909	7 392	8 632	9 756	41%
		Import	5 087	5 309	5 861	6 006	18%
	Asia Pacific	Export	10 938	10 665	11 958	12 016	10%
		Import	87 718	102 156	125 836	138 050	57%
	Europe	Export	147 788	143 103	154 628	166 122	12%
		Import	203 589	226 103	247 746	249 348	22%
	North America	Export	682 011	770 587	352 906	347 100	-49%
		Import	306 093	339 150	360 198	368 948	21%
	Latin America and the Caribbean	Export	61 449	76 312	81 539	85 428	39%
		Import	210 553	207 140	217 824	223 572	6%
Total global	Export	918 286	1 017 712	620 550	632 864	-31%	
	Import	839 758	908 666	989 597	1 019 311	21%	

Table 56 (continued)

Origin/Destination		2004	2005	2006	2007	Change 2004-2007	
Mexico	Africa	Export	3 350	6 700	6 999	7 546	125%
		Import	12 419	12 552	12 956	13 127	6%
	Asia Pacific	Export	76 028	109 989	123 045	131 456	73%
		Import	407 192	461 950	558 487	619 099	52%
	Europe	Export	204 720	187 437	203 309	218 287	7%
		Import	194 718	201 047	216 049	217 505	12%
	North America	Export	218 678	190 848	185 031	183 898	-16%
		Import	66 921	67 689	73 200	73 991	11%
	Latin America and the Caribbean	Export	151 272	179 382	198 751	219 619	45%
		Import	218 127	224 916	244 782	256 463	18%
Total global	Export	666 983	695 590	742 033	788 075	18%	
	Import	922 852	994 902	1 134 773	1 211 643	31%	
Other countries on the East Coast of South America	Africa	Export	6 505	7 011	7 867	8 437	30%
		Import	3 172	3 329	3 784	3 898	23%
	Asia Pacific	Export	17 035	19 975	20 996	22 638	33%
		Import	27 366	30 382	39 910	44 687	63%
	Europe	Export	48 136	53 773	59 039	62 701	30%
		Import	31 173	34 147	42 496	43 672	40%
	North America	Export	31 145	43 272	32 833	32 644	5%
		Import	23 311	21 472	21 529	24 892	7%
	Latin America and the Caribbean	Export	25 578	28 334	30 444	31 553	23%
		Import	34 591	33 978	40 611	43 895	27%
Total global	Export	133 505	159 226	160 643	169 036	27%	
	Import	122 204	126 142	152 526	165 638	36%	
Other Countries on the West Coast of South America	Africa	Export	4 069	4 764	6 112	6 853	68%
		Import	308	523	581	611	98%
	Asia Pacific	Export	5 825	6 585	7 713	8 125	39%
		Import	38 831	46 380	51 504	56 671	46%
	Europe	Export	44 059	50 939	51 112	55 725	26%
		Import	23 255	26 424	27 250	27 189	17%
	North America	Export	157 957	160 270	188 336	187 801	19%
		Import	63 223	50 060	51 394	53 280	-16%
	Latin America and the Caribbean	Export	21 692	23 234	26 566	28 424	31%
		Import	39 847	43 240	46 371	49 016	23%
Total global	Export	247 742	262 082	301 374	311 912	26%	
	Import	170 744	172 276	184 093	195 318	14%	

Table 56 (continued)

Origin/Destination			2004	2005	2006	2007	Change 2004-2007
Peru	Africa	Export	2 241	2 263	2 791	3 095	38%
		Import	1 785	2 031	2 154	2 210	24%
	Asia Pacific	Export	30 842	33 591	39 492	43 063	40%
		Import	87 728	101 075	119 749	133 698	52%
	Europe	Export	57 930	62 598	75 092	80 070	38%
		Import	37 126	47 091	51 608	53 601	44%
	North America	Export	61 306	73 790	86 100	86 376	41%
		Import	59 747	61 285	56 651	65 034	9%
	Latin America and the Caribbean	Export	46 510	55 003	61 201	65 028	40%
		Import	60 548	78 553	88 285	95 298	57%
	Total global	Export	201 673	230 090	267 854	281 155	39%
		Import	253 358	297 988	327 185	359 621	42%
Venezuela (Bolivarian Republic of)	Africa	Export	3 060	3 229	3 225	3 589	17%
		Import	1 602	1 691	1 814	1 868	17%
	Asia Pacific	Export	18 290	19 660	20 701	21 207	16%
		Import	45 105	56 988	69 049	78 731	75%
	Europe	Export	38 956	46 025	54 299	56 744	46%
		Import	80 228	88 915	94 938	97 809	22%
	North America	Export	190 377	181 238	145 248	120 861	-37%
		Import	83 538	98 557	113 383	120 066	44%
	Latin America and the Caribbean	Export	57 489	57 690	60 661	63 130	10%
		Import	102 892	115 272	128 162	140 625	37%
	Total global	Export	308 540	308 163	284 461	265 899	-14%
		Import	318 428	366 879	413 424	445 731	40%

Source: UNCTAD secretariat based upon UNECLAC Perfil Maritimo 2008 and Global Insight: Several publications.

Note: Figures for 2007 are estimates from September 2007.

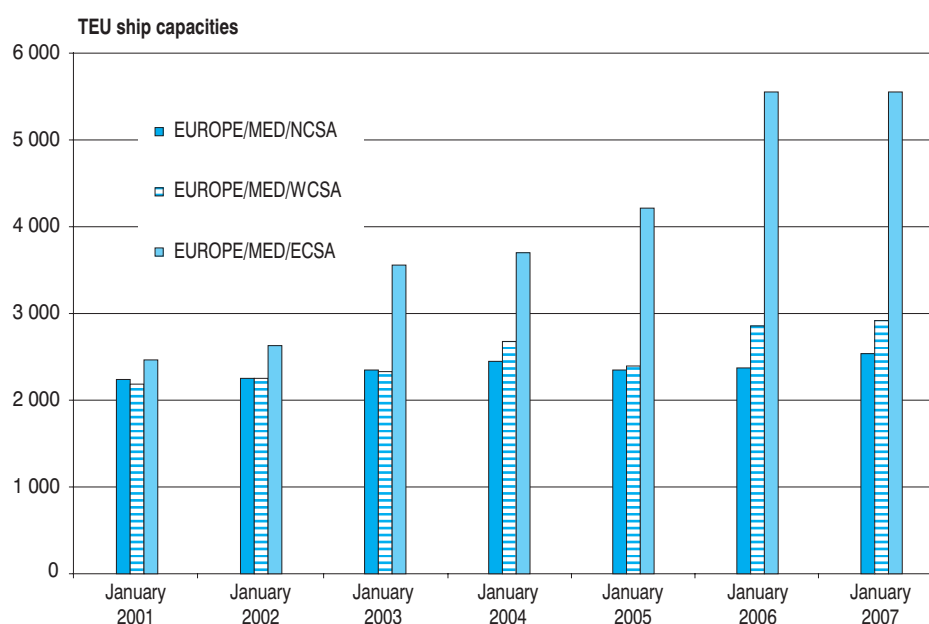
Figure 25 illustrates the increase of ship size in the trades between South America and the European/Mediterranean market since 2000. Increases in ship size on the West Coast of South America (WCSA) could be greater if the draft restrictions were eliminated in a number of main ports. In the case of WCSA–Europe, Mediterranean and the United States East Coast and Gulf of Mexico, ship size is also limited by the Panama Canal. The widening of the canal will open new opportunities for bigger ships in these services.

Shipping capacity on routes to South America has increased.

Shipping capacity on routes to South America has increased in response to market demands. Capacity on routes between the North Coast South America (NCSA)–North America, East Coast of South America (ECSA)–North America, Asia–West Coast South America (WCSA), and Europe–ECSA more than doubled between 2000 and 2007. The direct impact of changes in economic development, such as the economic crisis in 2002 and 2003, which struck especially the countries on the ECSA, is clearly visible in the figures (table 57) and show how quickly the shipping sector

Figure 25

Containership size development, South America–Europe Mediterranean trades, 2000–2007



Source: UNCTAD secretariat, based upon ComPair Data 2000–2007.

Table 57

Liner shipping capacity development in major South American trade routes, 2000–2007

Index, base year 2000

	2000	2001		2002		2003		2004		2005		2006		2007
	Jul	Jan	Jul	Jan	Jul	Jan	Jul	Jan	Jul	Jan	Jul	Jan	Jul	Jan
Asia–ECSA	100	99.4	120.0	124.3	120.2	106.5	107.0	121.3	127.2	136.1	164.8	210.6	209.3	194
Asia–WCSA	100	125.0	127.7	136.5	141.2	141.4	127.0	164.5	174.3	190.9	240.7	260.8	277.7	236
Europe–ECSA	100	106.9	142.9	142.9	149.0	176.3	193.0	190.6	191.8	211.2	241.5	241.8	n.a.	253
Europe–NCSA[i]	100	87.5	129.8	134.7	147.4	147.4	141.6	137.2	135.4	109.8	124.4	127.7	132.0	171
Europe–WCSA	100	78.9	91.4	92.1	105.4	106.9	127.0	128.4	126.4	119.2	143.6	137.8	139.7	148
North America–ECSA	100	205.3	133.5	n.a.	149.8	189.5	198.7	181.6	158.9	238.5	245.4	246.1	252.6	240
North America–NCSA	100	113.8	123.1	141.1	147.6	181.9	163.0	139.4	179.6	150.9	155.5	193.2	193.3	223

Source: UNCTAD secretariat based upon data from American Shipper various years.

reacts to market changes. During the time of the economic crisis, capacity was stagnant and even declined on certain routes (e.g. Asia–ECSA and Asia–WCSA for July 2002 to January 2003).

Besides the general increase of shipping capacity, the capacity for transport of reefer containers¹⁸⁰ has grown substantially. The changes in trade composition and the growing importance of food products (e.g. fruits and fish) have also increased the demand for capacity for the transport of refrigerated cargo. The shipping service industry has responded by offering reefer capacities which in 2007 were more than three times higher as in 2000 (see table 58).

In containerized transport, the age of the fleet is an indicator for the implementation of technology in the region. Table 59 shows fleet evolution in containerized services to and from the three main coastal regions in South America during the period 2000 to 2007. The route that has experienced the highest level of fleet renewal is Europe–WCSA. Services on the Europe–WCSA and Europe–ECSA, had the most modern fleet with an average ship age of seven years.

The oldest and the most diverse fleet operate on the routes Asia–WCSA, North America–ECSA and North America–NCSA. The lowest level of fleet replenishment can be observed on the Asia WCSA routes between 2000 and 2007.

The capacity for transport of reefer container has grown substantially.

Latin America and the Caribbean display a highly varying level of integration within the global liner shipping network. South American countries on average have a higher level of connectivity presented in UNCTAD's Liner Shipping Connectivity Index (LSCI) than Central American and Caribbean countries (see chapter 5).

The clear advantage of hub ports in terms of connectivity becomes evident in figure 26 with Jamaica, the Dominican Republic, the Bahamas and Puerto Rico in the Caribbean, and Mexico and Panama in Central America, having the highest level of connectivity, respectively.

The changes in the level of connectivity in the period 2004–2007 also shows that the position of the traditional hub port locations (i.e. Jamaica and Panama) is rather stable, while the level of connectivity of the medium-size economies displays the highest level of variation in the respective period. Further, the more peripheral countries and small economies show lower rankings in the LSCI in 2007 in comparison to 2004/2005, which indicates that these countries have been less successful in extending their direct connectivity to other countries. As reported previously by UNCTAD, in Latin America and the Caribbean, there appears to be a growing “connectivity divide”. The change can also be seen as an indication of the further extension of hub and spoke networks structures in the region, which reduces the level and reach of point-to-point services from smaller ports.

Table 58

Reefer capacity development in major South American trade routes, 2000–2007

Index, base year 2000

	2000		2001		2002		2003		2004		2005		2006		2007
	Jul	Jan	Jul	Jan	Jul	Jan	Jul	Jan	Jul	Jan	Jul	Jan	Jul	Jan	
Asia–ECSA	100	88.7	196.9	227.7	209.2	207.7	202.9	233.7	254.4	277.9	329.0	444.4	453.3	380	
Asia–WCSA	100	129.1	147.4	182.5	194.4	203.4	188.7	215.9	243.3	263.2	319.6	368.5	381.3	299	
Europe–ECSA	100	110.6	171.1	171.1	164.3	172.8	247.7	265.3	272.3	290.6	343.0	329.4	n.a.	362	
Europe–NCSA	100	78.7	137.9	175.4	204.5	204.5	189.0	185.3	183.2	144.2	167.2	167.5	174.3	249	
Europe–WCSA	100	59.4	79.4	111.7	136.3	136.0	228.9	315.0	351.6	294.9	419.4	386.3	373.8	422	
North America–NCSA	100	107.1	121.5	172.2	180.2	221.9	213.2	177.5	230.3	196.4	211.9	282.9	268.8	303	

Source: UNCTAD secretariat based upon data from *American Shipper*, various years.

Table 59

Development of fleet age in main routes to South America, 2000–2007

			Asia– ECSA	Asia– WCSA	Europe– ECSA	Europe– NCSA	Europe– WCSA	North America– ECSA	North America– NCSA
2000	Jul	Average year of construction	1991	1995	1994	1993	1991	1993	1992
		Standard deviation	7.3	5.4	6.2	7	8.1	6.2	7.6
2001	Jan	Average year of construction	1992	1996	1994	1993	1990	1994	1992
		Standard deviation	7	4.5	5.7	7.1	8.4	6.9	7.7
	Jul	Average year of construction	1993	1996	1995	1992	1990	1993	1992
		Standard deviation	6.9	3.4	5	6.8	8.8	7.8	7.4
2002	Jan	Average year of construction	1993	1997	1995	1992	1990	..	1994
		Standard deviation	7.1	3.4	5	6.8	8.9	..	6.2
	Jul	Average year of construction	1992	1997	1995	1993	1992	1995	1994
		Standard deviation	7.4	3.9	5.1	7.2	8.7	6.4	6.2
2003	Jan	Average year of construction	1992	1998	1995	1993	1992	1995	1995
		Standard deviation	9.2	2.4	5.9	7.2	8.7	6	5.6
	Jul	Average year of construction	1991	1998	1996	1994	1996	1994	1995
		Standard deviation	9	2.3	5.6	6.3	6.4	7.7	6
2004	Jan	Average year of construction	1994	1997	1996	1994	1997	1995	1995
		Standard deviation	6.3	4.4	6.2	7.1	6.8	7.7	5.7
	Jul	Average year of construction	1994	1998	1997	1994	1997	1998	1994
		Standard deviation	7	3	6.4	7.1	7	4.8	6.4
2005	Jan	Average year of construction	1996	1998	1996	1993	1996	1995	1996
		Standard deviation	7.3	3.5	7.6	7.4	6.8	7.9	5.8
	Jul	Average year of construction	1997	1997	1996	1994	1997	1995	1996
		Standard deviation	5.5	4.7	7.2	7.4	6.8	8.6	5.3
2006	Jan	Average year of construction	1998	1997	1996	1993	1997	1996	1996
		Standard deviation	5.7	5.2	7.8	7.6	6.8	7.8	6.3
	Jul	Average year of construction	1998	1998	..	1995	1998	1997	1996
		Standard deviation	5.8	4.4	..	7.1	5.5	6.6	6.6
2007	Jan	Average year of construction	1999	1997	2000	1996	2000	1997	1997
		Standard deviation	5.9	6.9	5.5	6.7	2.8	6	6.8
Average improvement of fleet age									
2000–2007 (years)			-1	-7	-2	-5	2	-5	-3

Source: UNCTAD secretariat based upon data from *American Shipper*, various years.

Transport costs

In line with global trends (see also chapter 4), liner shipping freight rates in Latin America and the Caribbean have increased considerably since 2002.

UNECLAC's index of freight rates from the ECSA, WCSA and Central America–NCSA in the second quarter of 2007 was 55 per cent higher than in 2002. Freight rates on the presented routes have shown a

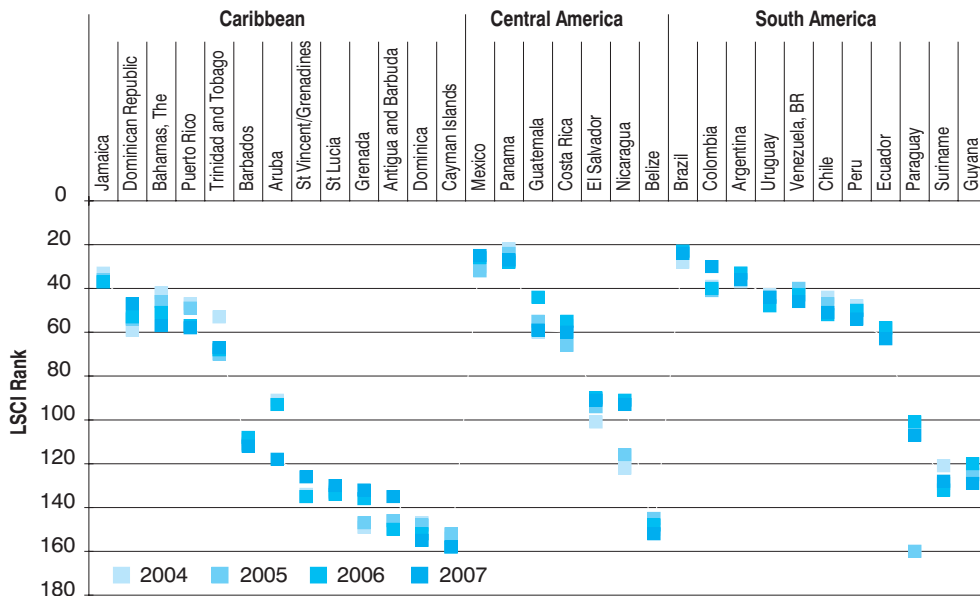
Liner shipping freight rates in Latin America and the Caribbean have increased considerably since 2002.

similar evolution pattern between 2001 and 2007 (see figure 27). The strongest surge can be observed between the first quarter of 2003 and third quarter of 2004, when the index climbed almost 60 per cent.

Table 60 presents the relation of c.i.f./f.o.b. values in international maritime transport as an indicator for transport costs for imports from world regions to South American countries in 2005 and 2006. Intraregional

Figure 26

Connectivity in Latin America and the Caribbean, 2004–2007

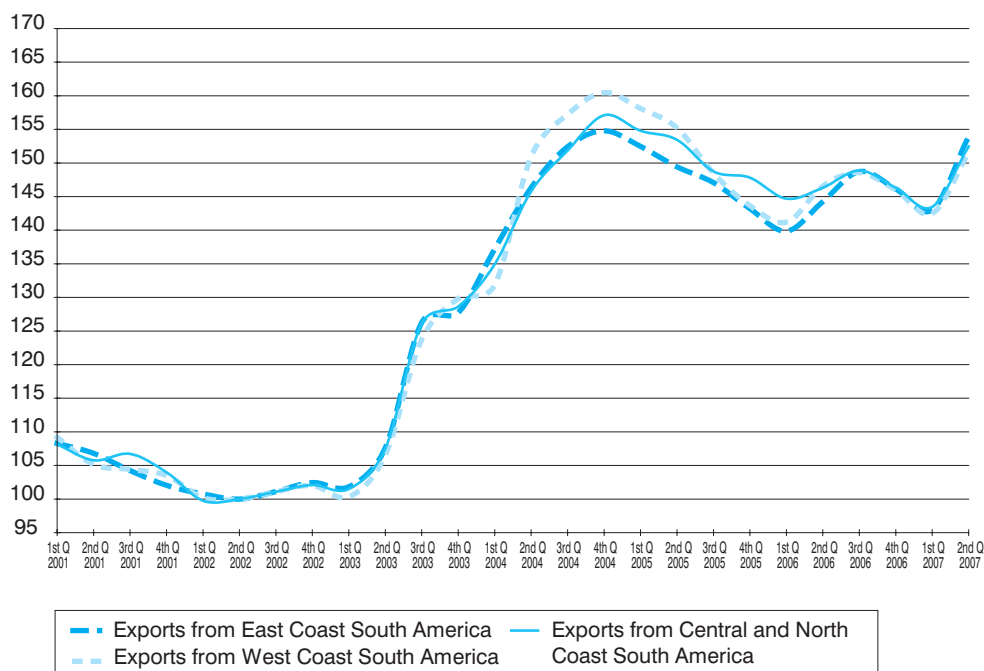


Source: UNCTAD secretariat's Liner Shipping Connectivity Index, calculated on the basis of data provided by *Containerisation International*.

Figure 27

Container freight rate index, 2001–2007

base 2nd quarter 2002=100



Source: UNCTAD secretariat based upon UNECLAC, *Perfil Marítimo 2008*.

Table 60

Transport costs for imports to selected South American countries, 2005 and 2006

(Percentages of c.i.f. value)

Import to	Export regions	2005	2006
Argentina	Africa	6.9	7.6
	Asia/Pacific	9.6	8.5
	Europe	5.2	5.0
	Latin America and the Caribbean	7.5	6.6
	North America	6.3	6.7
Brazil	Africa	8.4	9.4
	Asia/Pacific	11.1	9.4
	Europe	6.0	5.8
	Latin America and the Caribbean	7.4	7.3
	North America	6.2	6.0
Chile	Africa	11.6	12.7
	Asia/Pacific	12.4	11.0
	Europe	8.1	7.4
	Latin America and the Caribbean	8.8	7.9
	North America	9.3	7.5
Colombia	Africa	14.7	16.0
	Asia/Pacific	13.3	12.7
	Europe	8.6	8.4
	Latin America and the Caribbean	10.9	11.1
	North America	9.0	9.3
Ecuador	Africa	..	16.1
	Asia/Pacific	..	12.7
	Europe	..	9.5
	Latin America and the Caribbean	..	11.4
	North America	..	11.5
Paraguay	Africa	10.0	10.5
	Asia/Pacific	16.0	13.2
	Europe	12.3	10.1
	Latin America and the Caribbean	10.6	9.5
	North America	15.9	9.2
Peru	Africa	13.5	13.0
	Asia/Pacific	12.0	11.4
	Europe	11.5	11.6
	Latin America and the Caribbean	9.7	10.3
	North America	12.7	12.1
Uruguay	Africa	9.5	9.0
	Asia/Pacific	8.9	8.5
	Europe	7.0	7.3
	Latin America and the Caribbean	7.9	6.7
	North America	7.6	8.7

Source: UNCTAD secretariat, based upon data provided by UNECLAC's International Transport Database BTI.

Note: Excluding SITC 3 and 9 products.

imports face relatively higher transport costs in relation to the value of the product than imports from Europe, North America and the Asia–Pacific region. It can be observed that imports to countries of the ECSA face lower transport costs in relation to higher product values for both years presented.

An analysis at shipments level for different product groups (figure 28) illustrates that the greatest economies of scale are realized in transport products that are usually transported in bulk ships (SITC 2, 4 and 10). The least economies of scale can be realized in transport of machinery (SITC 7).

D. PORTS

Ports in Latin America and the Caribbean accounted for approximately 6.8 per cent of world container throughput in 2006. This share is distributed evenly between the South American ports and the ports in Central America and the Caribbean.

Ports in Latin America have experienced significant growth rates over the last 10 years. Container ports have been the central focus of attention, but ports and terminals for bulk cargoes show even higher growth rates, driven

by the demand for commodities. Data on bulk terminals is sparse, because many of them are operated by private companies, which do not share data on port throughput.

Ports in Latin America and the Caribbean handled approximately 1.5 billion metric tons.¹⁸¹ In terms of overall traffic volumes (tons) through ports Brazil is the leading country with over 714 million tons, followed by Mexico (271 million tons), Argentina (141 million tons) and Chile (112 million tons) (see table 61).

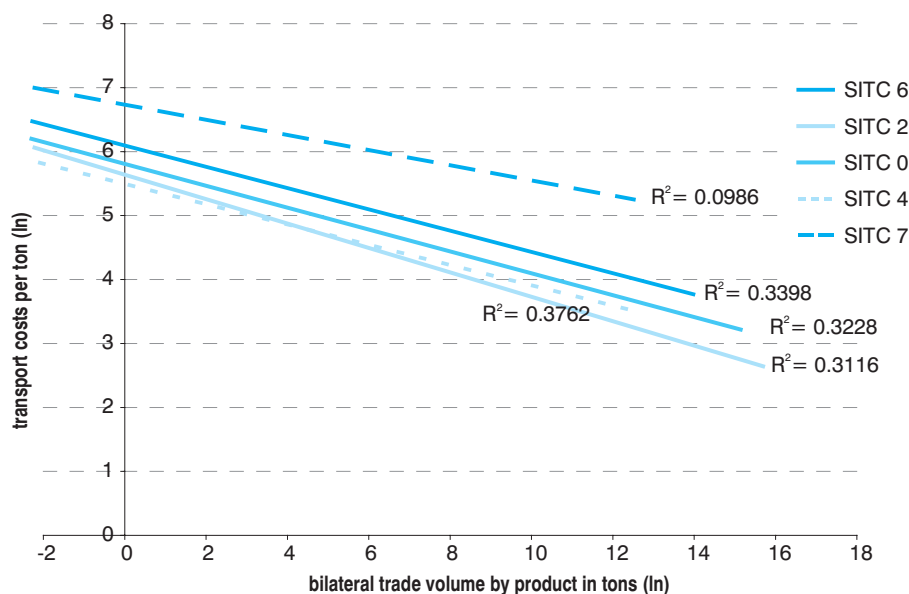
In the period 2004–2007, Belize, Colombia and Uruguay experienced the highest growth rates in port throughput volumes (in tons). The port throughput figures in tons also reflect the dominance of bulk trade in countries such as Brazil, Argentina, and Chile. If current average growth rates continue, port throughput will double in seven years. The speed of this development poses a number of opportunities and challenges to port and hinterland access development.

As regards containerized port traffic, table 62 shows that Brazil (8.7 million TEUs) continues to be the country with the highest volume of port throughput in 2007, followed by Panama (3.9 million TEUs) and Mexico

Ports in Latin America have experienced significant growth rates over the last 10 years.

Figure 28

Economies of scale in maritime transport in imports to South American countries, SITC product groups, 2006



Source: UNCTAD secretariat based upon International Transport Database BTI–2006.

Table 61
Port traffic by country in Latin America
(Thousands of tons)

	Region	2004	2005	2006	2007	Change 2004-2007
Brazil	South America	618 796	645 560	629 177	714 817	15.5%
Mexico	Central America	264 530	282 720	286 724	271 638	2.7%
Argentina	South America	100 843	101 495	134 758	141 258	40.1%
Colombia	South America	99 000	100 500	102 610	112 973	14.1%
Chile	South America	91 453	104 922	103 123	112 650	23.2%
Ecuador	South America	70 642	69 685	75 250	40 716	^a
Panama	Central America	26 246	34 198	36 685	32 386	23.4%
Jamaica	Caribbean	16 998	18 624	20 177	19 998	17.6%
Peru	South America	16 998	17 946	19 005	18 561	9.2%
Guatemala	Central America	14 717	15 755	16 081	15 968	8.5%
Dominican Republic	Caribbean	15 208	14 987	15 055	15 586	2.5%
Costa Rica	Central America	10 794	11 051	12 706	13 615	26.1%
Venezuela (Bolivarian Republic of)	South America	11 205	9843	10 544	11 426	2.0%
Uruguay	South America	7670	8416	10 528	10 215	33.2%
Honduras	Central America	8 765	9 273	9 464	9 902	13.0%
El Salvador	Central America	4 686	5 098	5 965	4 372	-6.7%
Guadeloupe	Caribbean	2 741	2 973	3 137	3 436	25.3%
Nicaragua	Central America	2 328	2 505	2 707	2 919	25.4%
Barbados	Caribbean	1 189	1 202	1 308	1 313	10.4%
Netherlands Antilles	Caribbean	809	895	915	985	21.8%
Belize	Central America	251	247	256	723	187.9%
Saint Lucia	Caribbean	418	498	535	548	31.2%
Bolivia	South America	625	n.a.	n.a.	n.a.	
Trinidad and Tobago	Caribbean	6 254	6 520	13 239	n.a.	

Source: UNCTAD secretariat based upon UNECLAC– Perfil Marítimo, *Containerisation International* and individual port data for 2006 and 2007.

^a Data for some ports are estimates. Data for Ecuador 2007 does not include private terminal data.

Table 62
 Ranking of port activity by country in Latin America and Caribbean
 (TEUs)

	2004	2005	2006	2007	Average annual growth 2004-2007
Brazil	4 977 180	5 302 242	7 122 054	8 713 984	25.03%
Panama	2 428 762	2 731 705	2 949 072	3 907 839	20.30%
Mexico	1 902 754	2 133 476	2 676 774	3 063 539	20.34%
Chile	1 544 935	1 715 999	2 041 145	2 680 939	24.51%
Jamaica	1 356 034	1 670 800	2 150 408	2 016 792	16.24%
Argentina	1 251 895	1 490 378	1 800 000	1 863 954	16.30%
Colombia	875 415	953 331	1 333 764	1 835 018	36.54%
Bahamas	1 059 581	1 121 285	1 390 000	1 636 000	18.13%
Peru	806 567	991 681	1 085 040	1 175 329	15.24%
Venezuela (Bolivarian Republic of)	920 884	1 069 008	1 218 798	1 125 221	7.40%
Costa Rica	734 088	778 651	828 781	976 621	11.01%
Ecuador	564 093	632 237	670 237	894 320	19.51%
Guatemala	750 343	785 868	809 348	830 936	3.58%
Trinidad and Tobago	449 468	322 466	632 266	714 972	19.69%
Honduras	555 703	553 013	593 800	636 435	4.84%
Uruguay	423 343	454 517	519 218	596 487	13.63%
Dominican Republic	537 316	355 404	366 255	309 344	-14.14%
Guadeloupe	108 658	154 263	154 506	168 839	18.46%
El Salvador	45 315	49 151	124 331	144 458	72.93%
Barbados	82 028	88 758	98 511	99 623	7.15%
Netherlands Antilles	82 087	89 229	90 759	97 271	6.17%
Nicaragua	16 983	18 951	47 854	58 614	81.71%
Belize	35 565	35 891	38 005	39 191	3.40%
Saint Lucia	24 965	60 747	30 656	32 339	9.85%

Source: UNCTAD secretariat based upon UNECLAC – Perfil Marítimo and individual port data.

3 million TEUs) The average annual growth rates in Latin America and the Caribbean was 19 per cent from 2004 to 2007. If the current trend continues, port throughput in 2008 will be double that of 2004. In 2007, total container port throughput in Latin America was around 33.6 million TEUs.

The need to double port capacity in a short period of time means capacity improvements need to be given a high priority in national port policies. This development will require significant investment.

The three biggest container ports – Santos, Brazil; Kingston, Jamaica; and Colon-Manzanillo, Panama – each handled over 2 million TEUs in 2007 (see table 63). Their market share is equal to 19.65 per cent of total port throughputs in Latin America and the Caribbean. The top 10 ports account for around 45 per cent of the region's total container throughputs.

The top 10 ports account for 47.5 per cent of the region's total container throughputs.

The region's key trans-shipment hubs are (a) Manzanillo, Panama, with 84.4 percent of its overall port throughput being trans-shipment; (b) Kingston, Jamaica (85.9 per cent); (c) Freeport, Bahamas (99 per cent); and (d) Balboa, Panama (84.9 per cent).¹⁸² Recently, ports in Cartagena, Colombia, and Point Lisas, Trinidad and Tobago, have started to challenge the traditional hub ports by increasing their share of trans-shipment traffic. The success of these new entrants is partly reflected in the latest reduction in concentration of port throughput on the NCSA (figure 29).

Terminal construction in smaller ports – e.g. Rio Grande, Brazil; Manta, Ecuador; and Mejillones, Chile – has created new opportunities for liner services.

Private sector involvement in ports

The participation of private sector companies in port operations has contributed to significant infrastructure investment and gains in efficiency. Private sector participation in Latin America has been driven by port reforms since the 1990s. Today, about 65 per cent of all ports in the region operate under a landlord scheme. Recent research¹⁸³ has emphasized the positive impact of port privatization on efficiency in port and port-related operations in Latin America and the Caribbean. Sound institutional and effective frameworks able to adapt to market changes, reducing transaction costs and organizing and leadership of clusters are key success factors.¹⁸⁴

With growing opportunities for private sector involvement, the presence of international terminal operators has increased in the region. International port operators are operating in the terminals of almost all main ports in South America, Panama, Mexico and the main container hub ports in the Caribbean (i.e. Jamaica, Bahamas, Puerto Rico, and Trinidad and Tobago). International operators continue to extend their market shares in the region and to control the strategically important ports in trade (see figure 30).

In June 2007, APM Terminals (APMT) assumed full ownership of the Terminal de Containers do Vale do Itajai S/A at the Port of Itajai in Southern Brazil. A terminal expansion plan will increase the facility's capacity to over 1 million TEUs. APMT further strengthened its presence in the region in October 2007, when purchasing a majority share of Alinport S.A. at the Port of Posorja, near Guayaquil, Ecuador. Construction has begun, with the opening of the planned 700,000 TEU capacity terminal facility expected in late 2009. This latest acquisition will bring the number of international terminal operators competing in Ecuador to three: ICTSI in Guayaquil, Hutchison Whampoa in Manta and APMT in Posorja.

In Brazil, the private sector is estimated to have invested \$600 million in container facilities since the beginning of the privatization process in the 1990s, however it is expected that the current developments and new port projects and expansions in Santos, Rio Grande, Santa Catarina, Itajai, Manaus and other locations will require a further \$2.5 billion over the next five years.

Tenders for concessions and the preparation of the legal framework for operation of port terminals in the main ports in Central American countries, other than Mexico, are trailing behind. Previous reform efforts, such as the port labour reform in Acajutla, El Salvador have resulted in significant efficiency gains, but did not bring new investments to the port. The development of a new port in La Union, El Salvador, as a port which could also serve Nicaragua and Honduras, is expected to be operational in 2009.

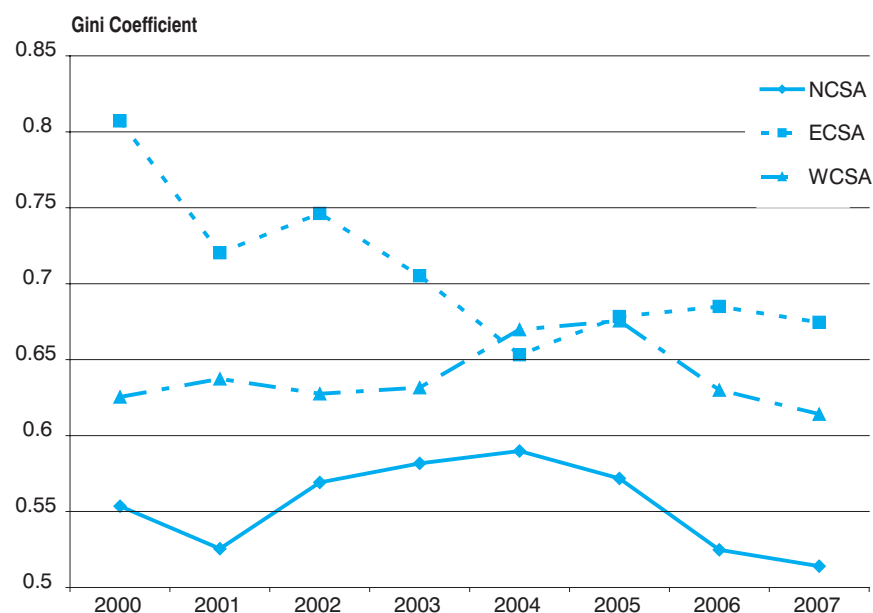
Port infrastructure and efficiency differs significantly throughout Latin America and even the best performing ports rank behind ports in other regions with comparable traffic volumes. Investments in ports have been increasing with private sector involvement since the start

Table 63
 Top 25 container ports by port throughput in Latin America and the Caribbean
 (TEUs)

Country	Port	2004	2005	2006	2007	Average annual growth 2004-2007
Brazil	Santos	1 882 838	2 267 921	2 855 480	2 532 900	10.39%
Jamaica	Kingston	1 356 034	1 670 800	2 150 408	2 016 792	14.15%
Panama	Colon (MIT, Evergreen, Panama Port)	1 943 712	2 054 285	1 946 986	2 056 095	1.89%
Argentina	Buenos Aires (includes Exolgan)	1 138 503	1 370 015	1 624 077	1 710 905	14.54%
Bahamas	Freeport	1 059 581	1 121 285	1 390 000	1 636 000	15.58%
Mexico	Manzanillo	829 603	872 386	1 249 630	1 411 146	19.37%
Panama	Balboa	465 091	664 185	988 583	1 833 778	57.98%
Peru	Callao	727 840	887 035	938 119	1 022 246	11.99%
Venezuela (Bol. Rep. of)	Puerto Cabello	597 930	746 810	844 952	831 732	11.63%
Brazil	Itajai	564 012	644 000	842 519	668 521	5.83%
Costa Rica	Puerto Limon-Moin	667 344	688 563	765 672	842 903	8.10%
Brazil	Rio Grande	617 808	665 111	712 907	607 275	-0.57%
Colombia	Cartagena (includes S.P.R., El Bosque, Contecar)	397 186	549 860	711 529	795 380	26.05%
Mexico	Veracruz	591 736	620 858	674 872	729 717	7.24%
Chile	San Antonio	639 762	773 048	673 000	650 697	0.57%
Colombia	S.P.R Buenaventura	347 938	403 471	622 233	914 720	38.02%
Chile	Valparaiso	388 353	377 275	613 889	845 234	29.59%
Brazil	Paranagua	379 068	420 000	609 840	595 261	16.23%
Ecuador	Guayaquil	516 557	567 608	603 693	597 622	4.98%
Uruguay	Montevideo	423 343	454 517	519 218	596'487	12.11%
Honduras	Puerto Cortes	466 805	468 563	507 980	553'139	5.82%
Brazil	Rio de Janeiro	343 082	326 000	375 570	636 299	22.86%
Mexico	Altamira	297 017	324 601	342 656	407 625	11.13%
Venezuela (Bol. Rep. of)	La Guaira	261 036	269 114	341 846	341'846	9.41%
Guatemala	Santo Tomas de Castilla	323 045	332 251	333 816	376 666	5.25%

Source: UNCTAD secretariat based upon UNECLAC – Perfil Marítimo and individual port data 2008.

Figure 29

Gini Index – concentration of port throughput by coast, 2000–2007

Source: UNCTAD secretariat.

of the port devolution¹⁸⁵ processes in the 1990s. The effectiveness of liberalization and the developed regulatory and institutional frameworks have not always created the most fruitful environment for success. In a recent investment climate survey, over 50 per cent of Latin American businesses considered inadequate infrastructure to be a serious problem.¹⁸⁶

Despite the success of private sector involvement in ports and a growing port throughput, access to ports and hinterlands have become a crucial factor in transport and port efficiency. Significant emphasis needs to be placed on the development of infrastructure to provide accessibility to port hinterlands.

The persistent high transport costs in Latin American maritime trade can be partly attributed to management and legal variables, as well as to infrastructure and superstructure restrictions. Empirical evidence has shown that port infrastructure and excessive regulatory mechanisms lead to higher transport costs, as is also underlined in the results from the 2007 *World Bank Doing Business Report*.¹⁸⁷

Thirty-three per cent of the world fleet is registered in Latin America and the Caribbean.

Regional integration and infrastructure development have been recognized as key issues for success in the region. The IIRSA initiative¹⁸⁸ in South America and the Plan Puebla Panama¹⁸⁹ Central America have evolved, both working on the development of infrastructure, providing financing mechanism and realization of infrastructure projects with regional impact.

E. VESSEL REGISTRATION

Thirty-three per cent of the world fleet is registered in Latin America and the Caribbean (see table 64). In 2008, this was equal to 363 million dwt. Five of the 10 major open and international registries are in Latin America and the Caribbean; they account for 56 per cent of the tonnage. Their biggest share is in general cargo vessels (72 per cent), bulk carriers (65 per cent) and container ships (50 per cent).

Panama, the Bahamas and Antigua and Barbuda flag 89 per cent of all the ships registered in Latin America and the Caribbean.

Figure 30

Geographical distribution of international terminal operators in Latin America and the Caribbean, 2008



Source: UNCTAD secretariat based upon and updated from Wilmsmeier G. and Sánchez R. (2006), Port development in Latin America. The complementarity and divergence of systems. Annual meeting of American Geographers. AAG. Chicago.

Note: The borders and names on this map do not imply official support or acceptance from the United Nations. Abbreviations used: APM: APM Terminals; DPW: Dubai Ports World; HHLA: Hamburger Hafen und Logistik AG; HPH: Hutchison Whampoa Inc.; ICTSI: International Container Terminal Services, Inc.; KN: Katoen Natie; PSA: PSA Singapore; SAAM: Sudamericana Agencias Aéreas y Marítimas S.A.; SSA: SSA Marine; TCB: Terminales de contenedores e instalaciones multipropósito Grup TCB.

Table 64

Participation of Latin America and Caribbean flags of registration, ^a types of ship ^b
(dwt, 1 January 2008)

	Total fleet	Oil tankers	Bulk carriers	General cargo ^c	Container ships	Other types
Share among major 10 open and international registries	56%	45%	65%	72%	50%	68%
Share of world total	33%	27%	40%	34%	27%	33%

Source: UNCTAD secretariat on the basis of data provided by Lloyd's Register-Fairplay.

^a The designations employed and the presentation of material in this table refer to flags of registration and do not imply the expression of any opinion by the Secretariat of the United Nations concerning the legal status of any country or territory, or of its authorities, or concerning the delimitation of its frontiers.

^b Ships of 100 GT and over, excluding the Great Lakes fleets of the United States, Canada and the United States Reserve Fleet.

^c Including passenger/cargo.

Table 65 illustrates the growth of vessel registration in Latin America and the Caribbean. Vessel registration in the region has shifted away from South American countries towards Caribbean countries, which have focused on ship registrations as a new source of economic activity. At the beginning of 2008, 10.7 per cent of the fleet registered in Latin America and the Caribbean was running flags from ECSA countries, in comparison to 58.7 per cent in 1980. A similar development can be observed on the WCSA; in 2008, 4.2 per cent of the Latin American and Caribbean fleet was running flags from this region, one third of the participation in 1980.

Central American countries show a small participation in the world fleet, with the exception of Panama and Mexico. The composition of the fleet in 2008 was as follows: 23.0 per cent were tankers, 25.4 per cent dry bulk carriers, 27.6 per cent general cargo vessels,

16.1 per cent containerships and 7.7 per cent other types of vessels. Since 2000, the share of tankers (23.6 per cent) has been constant. The share of containerships has increased, while the share of dry bulk carriers have decreased. The share of tankers may increase in the next few years, given that Petrobras, Brazil has plans to significantly expand its fleet over the next few years and thus also contribute to shipbuilding activities in Brazil.

The composition of the open and international registries in the region shows that these countries have specialized in certain ship types. By way of example, 51.6 per cent of the ships registered in Panama in 2008 are dry bulk carriers. The fleet registered in the Bahamas consists of 51.1 per cent oil tankers, while Bermuda seems to focus on dry bulk (43.7 per cent) and general cargo ships (42.4 per cent) (for details see table 66).

Table 65

Merchant fleets of the world and of Latin American and Caribbean countries, selected years
(In thousand dwt)

	Year	Total	Oil tankers	Bulk carriers	General	Container ships	Other types
World total	1980	682 768	339'324	185 652	115 824	11 243	30 725
	1990	658 377	245 936	234 659	102 676	25 955	49 151
	2000	808 377	285 442	281 655	102 653	69 216	69 412
	2004	895 843	336 156	320 584	92 048	98 064	48 991
	2008	1 117 779	407 881	391 127	105 492	144 655	68 624
Latin America – total ^a	1980	21 794	7 914	6 183	6 547	37	1 113
	1990	25 529	7 501	9 025	6 348	364	2 291
	2000	34 051	7 645	9 934	9 837	3 540	3 095
	2004	36 741	8 687	10 299	9 672	5 345	2 738
	2008	41'802	9'615	10'621	11'563	6'760	3'244
East Coast South America	1980	12 649	4 866	3 893	3 491	0	399
	1990	14 459	5 119	6 303	1 907	214	916
	2000	6 923	3 039	2 625	687	196	376
	2004	5 131	2 444	1 403	528	189	567
	2008	4514	2286	945	416	246	621
West Coast South America	1980	2 717	484	929	1 212	0	92
	1990	2 770	558	973	1 022	0	217
	2000	1 646	615	370	236	77	348
	2004	1 740	818	323	189	21	389
	2008	1783	864	299	196	21	403
Others (including Mexico, Caribbean and Central America) ^a	1980	6 428	2 564	1 361	1 844	37	622
	1990	8 300	1 824	1 749	3 419	150	1 158
	2000	25 482	3 991	6 939	8 914	3 267	2 371
	2004	29 871	5 425	8 574	8 955	5 135	1 783
	2008	35 505	6 464	9 376	10 951	6 493	2 220

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

^a Vessels registered in Antigua and Barbuda, the Bahamas, Bermuda, Panama and Saint Vincent and the Grenadines are not included since these are included in the top 10 major open and international registries. See also annex III.

Table 66

Merchant fleets of Latin America and the Caribbean by flag of registration ^a and types of ship, ^b
as of 1 January 2008

(In thousand dwt)

	Total fleet	Oil tankers	Bulk carriers	General cargo ^c	Container ships	Other types
Anguilla	1	0	0	1	0	0
Argentina	1 143	628	144	115	18	238
Aruba	0	0	0	0	0	0
Barbados	1 006	242	389	301	0	74
Belize	1 490	50	294	918	9	219
Bolivia	127	50	7	49	0	21
Brazil	3 296	1 645	802	289	227	334
British Virgin Islands	11	0	0	1	0	10
Cayman Islands	4 358	2 238	1 719	259	0	142
Chile	1 088	459	299	101	21	207
Colombia	111	13	0	55	0	43
Costa Rica	0	0	0	0	0	0
Cuba	77	25	9	13	0	31
Dominica	1 734	755	796	148	0	36
Dominican Republic	7	0	0	6	0	1
Ecuador	377	309	0	3	0	65
El Salvador	2	0	0	0	0	2
Falkland Islands ^d	36	0	0	1	0	35
Grenada	1	0	0	1	0	0
Guatemala	4	1	0	0	0	4
Guyana	42	7	0	28	0	7
Haiti	2	0	0	1	0	0
Honduras	795	265	108	325	2	94
Jamaica	248	3	200	33	11	0
Mexico	1 519	1 005	28	78	0	409
Netherlands Antilles	1 713	51	374	909	102	278
Nicaragua	3	1	0	1	0	1
Paraguay	59	4	0	47	6	1
Peru	207	83	0	37	0	87
Saint Kitts and Nevis	977	205	219	520	2	30
Suriname	7	3	0	3	0	0
Trinidad and Tobago	19	4	0	0	0	14
Turks and Caicos Islands	0	0	0	0	0	0
Uruguay	75	14	0	12	0	49

Table 66 (continued)

	Total fleet	Oil tankers	Bulk carriers	General cargo ^c	Container ships	Other types
Venezuela	1 574	875	281	58	2	358
French Guyana	0	0	0	0	0	0
Guadeloupe	5	0	0	2	0	4
Antigua and Barbuda	11 183	29	1 229	3 635	6 205	85
Bahamas	59 744	30 510	13 239	6 610	1 998	7 387
Bermuda	9 870	2 100	3 438	123	813	3 397
Panama	252 564	66 342	130 433	17 274	30 007	8 508
Saint Vincent and the Grenadines	8 503	651	3 723	3 610	154	365
Total	363 981	108 567	157 731	35 569	39 578	22 536

Source: UNCTAD secretariat based upon *Fairplay* 2008.

- ^a The designations employed and the presentation of material in this table refer to flags of registration and do not imply the expression of any opinion by the Secretariat of the United Nations concerning the legal status of any country or territory, or of its authorities, or concerning the delimitation of its frontiers.
- ^b Ships of 100 GT and over, excluding the Great Lakes fleets of the United States, Canada and the United States Reserve Fleet.
- ^c Including passenger/cargo.
- ^d 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).