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Chapter 5

PORT AND MULTIMODAL TRANSPORT DEVELOPMENTS

This chapter covers container port throughput for developing countries, improvements in port performance, institutional change, port development and inland transportation. World container port throughput grew by 13.4 per cent to reach an estimated 440 million TEUs in 2006 after stumbling slightly in 2005 with 8.7 per cent growth after a gain of 12.8 per cent in 2004. Freight traffic on inland waterways increased most significantly in China. Also in China, rail freight traffic grew by 11 per cent, in India by 8.0 per cent, in Europe by 4.9 per, in the United States by 3 per cent and in Japan by 1.3 per cent. The global road transport market is estimated to have grown by 4.5 per cent in 2006.

A. CONTAINER PORT TRAFFIC

World growth in container port throughput (measured in TEUs — 20-foot equivalent of units) increased by 8.7 per cent in 2005. This is down from 12.8 per cent for the previous year but in line with the rate for 2002 over 2003 of 8.2 per cent. Preliminary figures for 2006 indicate an increase of 13.5 per cent over 2005.

Table 45 shows the latest figures available on world container port traffic in 62 developing countries with an annual national throughput of over 100,000 TEUs for the period from 2004 to 2006. The figures for 2005 show 387.6 million TEU moves, an annual increase of 31 million TEUs over 2004. In 2005 the container throughput growth rate for developing countries was 10.03 per cent with a throughput of 241 million TEUs; this corresponds to 62 per cent of total world throughput. The rate of growth was lower than that reached in 2004 (12.6) per cent. Preliminary figures for 2006 show a similar growth rate — 10.29 per cent — for developing countries.

The figures for developing countries reveal that their share of world container moves grew by approximately a third more than that of developed countries for the periods 2004 to 2005. There were 22 countries with double-digit growth in 2005 over 2004 out of a total of 62 developing countries listed. The top 10 countries by growth were Kuwait (77.4), Benin (61.8), Peru (40.9), Colombia (31.8), Bahrain (31.5), Panama (26.3), the United Republic of Tanzania (25.1), Egypt (24.7), Jamaica (22.8) and China (21.7). The growth rate in developing countries can be uneven from year to year, owing sometimes to strong trade fluctuations, the pendulum effect of transhipment cargo, improved reporting of data or lack of data for some years. Generally, developed countries tend to experience growth at low incremental rates, whereas developing countries tend to ride with market forces.

In 2006 preliminary figures put container growth rate in developing countries at 10.3 per cent with a throughput of 264.9 million TEUs. Currently, there are 24 countries with double-digit growth in 2006 out of the 62 developing

Table 45

Container port traffic for 62 developing countries and territories, 2004, 2005 and 2006

(TEUs)

Country/territory	2004	2005	Preliminary figures for 2006	Percentage change 2004/2005	Percentage change 2005/2006
China	54 943 153	66 871 473	81 927 000	21.71	22.51
Singapore	21 329 100	23 192 200	24 796 000	8.74	6.92
Hong Kong (China)	21 984 000	22 427 000	23 539 000	2.02	4.96
Republic of Korea	14 173 106	14 885 942	15 521 072	5.03	4.27
Taiwan Province of China	13 029 492	12 791 429	13 101 870	-1.83	2.43
Malaysia	11 775 743	12 027 045	13 365 018	2.13	11.12
United Arab Emirates	9 001 636	9 845 927	10 969 305	9.38	11.41
Indonesia	5 716 307	5 653 176	5 737 754	-1.1	1.5
Brazil	5 056 793	5 410 427	6 116 889	6.99	13.06
Thailand	4 847 000	5 115 213	5 701 145	5.53	11.45
India	4 467 229	4 984 079	5 642 558	11.57	13.21
Saudi Arabia	3 185 699	3 732 706	3 919 027	17.17	4.99
Egypt	2 959 895	3 690 691	4 632 070	24.69	25.51
Philippines	3 701 044	3 593 544	3 973 974	-2.9	10.59
Turkey	2 966 972	3 170 357	3 337 403	6.85	5.27
South Africa	2 704 690	3 111 121	3 553 179	15.03	14.21
Panama	2 428 762	3 067 637	2 949 072	26.3	-3.87
Viet Nam	2 466 869	2 905 154	2 605 323	17.77	-10.32
Oman	2 515 546	2 727 341	2 543 284	8.42	-6.75
Sri Lanka	2 220 525	2 455 297	3 079 132	10.57	25.41
Mexico	1 903 581	2 145 269	2 676 749	12.7	24.77
Chile	1 665 925	1 813 173	1 788 879	8.84	-1.34
Puerto Rico	1 667 868	1 727 389	1 729 000	3.57	0.09
Jamaica	1 360 623	1 670 820	2 150 408	22.8	28.7
Pakistan	1 405 306	1 564 827	1 760 956	11.35	12.53
Argentina	1 485 399	1 449 508	1 649 677	-2.42	13.81
Iran (Islamic Republic of)	1 369 244	1 325 643	1 528 518	-3.18	15.3
Colombia	884 182	1 165 255	1 437 762	31.79	23.39
Bahamas	1 184 800	1 135 131	1 463 000	-4.19	28.88
Venezuela	921 205	1 120 492	1 186 798	21.63	5.92
Peru	703 716	991 474	1 005 000	40.89	1.36
Bangladesh	714 420	808 924	897 139	13.23	10.91
Costa Rica	917 441	778 651	828 781	-15.13	6.44
Guatemala	966 338	776 395	809 348	-19.66	4.24
Côte d'Ivoire	670 000	710 000	-	5.97	-
Kuwait	379 658	673 472	750 000	77.39	11.36
Ecuador	595 863	632 722	671 087	6.19	6.06
Morocco	660 713	560 682	-	-15.14	-
Honduras	557 998	553 013	593 800	-0.89	7.38
Yemen	491 171	508 085	590 981	3.44	16.32
Lebanon	389 876	464 976	594 601	19.26	27.88

Table 45 (continued)

Country/territory	2004	2005	Preliminary figures for 2006	Percentage change 2004/2005	Percentage change 2005/2006
Uruguay	424 791	454 531	519 218	7.00	14.23
Ghana	385 902	440 761	471 368	14.22	6.94
Kenya	438 597	436 671	479 355	-0.44	9.77
Syrian Arab Republic	416 653	422 231	-	1.34	-
Trinidad and Tobago	582 464	421 466	307 727	-27.64	-26.99
Jordan	358 723	392 177	430 000	9.33	9.64
Dominican Republic	559 906	368 230	377 352	-34.23	2.48
Cuba	290 484	317 105	-	9.16	-
Angola	288 981	316 396	-	9.49	-
Senegal	331 191	309 000	-	-6.7	-
United Republic of Tanzania	244 479	305 866	352 548	25.11	15.26
Bahrain	193 112	253 950	-	31.5	-
Mauritius	290 118	253 772	266 425	-12.53	4.99
Cambodia	213 916	211 141	221 490	-1.3	4.9
Togo	184 998	203 372	-	9.93	-
Djibouti	159 359	193 600	-	21.49	-
Benin	97 801	158 201	-	61.76	-
Guam	140 803	150 960	147 972	7.21	-1.98
Cameroon	136 605	143 284	88 248	4.89	-38.41
El Salvador	92 857	103 483	124 331	11.44	20.15
Madagascar	104 000	102 000	-	-1.92	-
Subtotal	218 304 628	240 191 857	264 908 593	10.03	10.29
Other reported [a]	2 992 265	821 154	540 047	-72.56	-34.23
Total reported [b]	221 296 893	241 013 011	265 448 640	8.91	10.14
World total [c]	356 678 110	387 693 380	440 000 000	8.7	13.49

Source: Derived from information contained in *Containerisation International Online* as of May 2007, from various Dynamar B.V. publications and from information obtained by the UNCTAD secretariat directly from terminal and port authorities.

[a] Comprises developing countries where fewer than 100,000 TEUs per year were reported or where a substantial lack of data was noted.

[b] Certain ports did not respond to the background survey. While they were not among the largest ports, total omissions can be estimated at 5 to 10 per cent.

[c] Whilst every effort is made to obtain up-to-date data, figures for 2006 are in some cases estimated. Port throughput figures tend not to be disclosed by ports until a considerable time after the end of the calendar year. In some cases this is due to the publication of annual accounts at the close of the financial year. Country totals may conceal the fact that minor ports may not be included; therefore, in some cases the actual figures may be higher than those given. The figures for 2005 are generally regarded as more reliable and hence are more often quoted in the accompanying narrative.

countries listed. Preliminary data obtained by UNCTAD show that world container moves grew by around 13.4 per cent and that container throughput reached 440 million TEUs[28] in 2006. According to the data available for 2006, China now has 13 ports with a throughput of over 1 million TEUs. In decreasing order of throughput these are as follows: Shanghai, Shenzhen, Qingdao, Ningbo, Guangzhou, Tianjin, Xiamen, Dalian, Lianyungang, Zhongshan, Yantai, Fuzhou and Yingkou. These ports grew on average by 18.75 per cent in 2006 over the previous year. Chinese ports (including Taiwan Province of China and Hong Kong, China) accounted for 102.1 million TEUs in 2005, representing some 26.6 per cent of world container port throughput. In 2006 preliminary figures show that throughput has increased to 118.6 million TEUs, a rise of 16 per cent over 2005.

Table 46 shows the world's leading 20 container ports. Container throughput in these ports reached 208.7 million TEUs in 2006, a rise of 14.6 per cent over 2005, which had increased 13.5 per cent over 2004. There are 13 ports from developing countries in the list, all from Asia, with the remaining from developed countries located in Europe (4) and the United States (3). From the list of 13 ports in developing countries or territories, 8 are located in China (including Taiwan Province of China and Hong Kong, China). The remaining ports are located in Malaysia (2), the Republic of Korea, the United Arab Emirates and Singapore.

The ports occupying positions 1 to 7 remain unchanged over the previous year after posting mixed results for traffic growth. Singapore ranked the second largest

Table 46

Top 20 container terminals and their throughput for 2004, 2005 and 2006

(TEUs and percentage change)

Port	2004	2005	2006	Percentage change	
				2005–2004	2006–2005
Singapore	21 329 100	23 192 200	24 792 400	8.74	6.90
Hong Kong (China)	21 984 000	22 427 000	23 539 000	2.02	4.96
Shanghai	14 557 200	18 084 000	21 710 000	24.23	20.05
Shenzhen	13 655 500	16 197 173	18 468 900	18.61	14.03
Busan	11 491 968	11 843 151	12 030 000	3.06	1.58
Kaohsiung	9 714 115	9 471 056	9 774 670	-2.50	3.21
Rotterdam	8 291 994	9 288 349	9 690 052	12.02	4.32
Dubai	6 428 883	7 619 219	8 923 465	18.52	17.12
Hamburg	7 003 479	8 087 545	8 861 545	15.48	9.57
Los Angeles	7 321 440	7 484 624	8 469 853	2.23	13.16
Qingdao	5 139 700	6 307 000	7 702 000	22.71	22.12
Long Beach	5 779 852	6 709 818	7 290 365	16.09	8.65
Ningbo	4 005 500	5 208 000	7 068 000	30.02	35.71
Antwerp	6 050 442	6 482 061	7 018 799	7.13	8.28
Guangzhou	3 304 000	4 685 000	6 600 000	41.80	40.88
Port Klang	5 243 593	5 543 527	6 320 000	5.72	14.01
Tianjin	3 814 000	4 801 000	5 900 000	25.88	22.89
New York/New Jersey	4 478 480	4 792 922	5 092 806	7.02	6.26
Tanjung Pelepas	4 020 421	4 177 121	5 000 000	3.90	19.70
Bremen/Bremerhaven	3 469 253	3 735 574	4 450 000	7.68	19.12
Total top 20	167 082 920	186 136 340	208 701 855	13.52	14.63

Source: *Containerisation International*, May 2007.

country, handling 24.7 million TEUs with a growth rate of 6.9 per cent in 2006 over the previous year. This growth is down from 8.74 per cent in 2005 over 2004. In 2006 the Port of Singapore could claim to have retained the title of the world's busiest container port; however, in comparison with some of it closest rivals growth rates look timid. Early indications for the first quarter of 2007 put throughput in the port at 6.6 million TEUs up by 14.2 per cent on 2006, a fact that proves that the contest for top position will be hard fought.

The second busiest port remains Hong Kong (China). Although its growth rate of 4.9 per cent is an improvement on the 2 per cent increase for 2005, the prospects are that it will continue to slip down the league table as a result of stronger growth by the competition. Early indications for the first quarter of 2007 show growth at a mere 0.8 per cent over 2006 with 5.38 million TEUs despite a particularly strong month in February. Mainland Chinese ports continued to record outstanding results: Shanghai and Shenzhen recorded yet another year of impressive increases in throughput, amounting to 20 (23.8 in 2005) and 14.3 (18.7 in 2005) per cent respectively. Early indications for 2007 show throughput growth by 44 and 40 per cent with container throughput for the month at 1.8 million and 1.4 million TEU respectively.

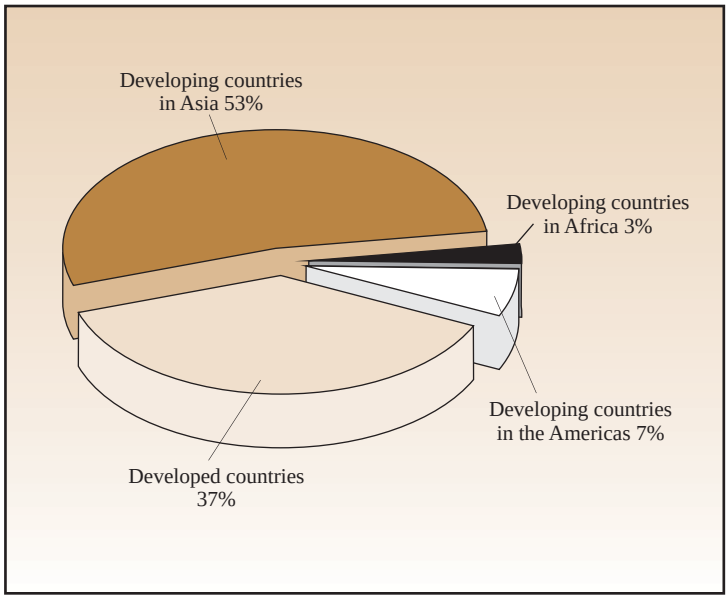
Busan recorded a modest increase of 1.6 per cent, while Kaohsiung climbed by 3.2 per cent from negative growth in 2005. Growth slowed for Rotterdam at 4.3 per cent, down from double-digit figures in 2005. Hamburg, despite its impressive 9.6 per cent increase, was overtaken by Dubai because of its even more impressive 17 per cent rise. On average between the period from 2000 to 2005 Dubai ports grew at around 20 per cent per annum. Los Angeles remained in tenth position despite achieving a 13.2 per cent increase. Of the 10 remaining ports Guangzhou moved up three places into 15th position with a phenomenal growth rate of over 40 per cent. Growth for Guangzhou port is dramatic when it is remembered that in 2005 it was a new entrant into the top 20 container ports. Qingdao and Ningbo each moved up two places. Port Klang dropped two places whilst Long Beach, Tianjin, New York and Antwerp dropped one place each. The new entry into the top 20 was Bremen/Bremerhaven in position 20, ousting the port of Laem Chabang.

These top 20 ports accounted for 48 per cent of the world container port traffic for 2005 (47.6 per cent in 2004). Preliminary figures show that they increased throughput by an average of 14.6 per cent in 2006.

Figure 14 shows the breakdown of containerized trade by region: developing countries in Asia account for approximately 53 per cent of world container throughput, up slightly from 52 per cent in 2004.

Figure 14

Regional breakdown of container throughput for 2005



Source: UNCTAD secretariat based on information from www.ci-online.co.uk.

B. IMPROVEMENTS IN PORT PERFORMANCE

In 2006, Shanghai reported total cargo throughput of 537 million tons, firmly establishing its position as the world's busiest port, a title which it seized the previous year from Singapore. Singapore's throughput in 2006 reached 448.5 million tons. Guangzhou achieved a 16.4 per cent increase with total cargo throughput up from 250.9 million to 300 million tons in 2006. In Europe, Rotterdam achieved a marginal increase in cargo traffic to 378.2 million tons from 370.2 the previous year, Antwerp increased to 167.4 million from 160.1 million tons and Hamburg to 134.8 million from 125.7 million tons.

Malaysia's Westport reported handling some 452 container moves per hour whilst discharging CMA-CGM's *MV Puccini in 2006*. On that occasion 3,559 containers were moved with the highest total moves being achieved during the second hour of operations. During this period, two cranes were performing at 61 moves per hour and another one at 60. The other five cranes deployed in the operation were doing between 48 and 59 moves per hour. Whilst under ideal conditions records continue to be broken, sustainability of these figures for any port over a prolonged period does not yet appear to be the norm. Some ports such as Jebel Ali Port (United Arab Emirates) have introduced tandem lift gantry cranes capable of handling two FEUs or, four TEUs simultaneously. The port in June 2006 put the tandem lift cranes into operation when discharging a single ship. In perhaps the largest single transfer of containers at any one time the port made 8,571 moves in 41 hours for the 9,000 TEU ship the *MSC Rania*. As containerships continue to increase it is likely that attention will be given by terminal operators to turnaround times in order to allay fears regarding port congestion.

At the Chiwan Container Terminal in Shenzhen, China, cranes capable of lifting six TEUs or three FEUs are in operation. In an effort to further improve container handling efficiency, a leading crane manufacturer has begun research into a concept crane capable of discharging four FEUs simultaneously, or eight TEUs.

The world's largest insurer of ports and terminals, the TT Club, reported an increase in claims in the last quarter of 2006, apparently attributable to human error. A significant occurrence in the toppling of straddle carriers was noted, with the most probable cause being excessive speed.

The Tecondi Container Terminal in Santos, Brazil, increased productivity by 17.7 per cent in 2006 over the previous year. Tecondi, the third largest box terminal in Santos, reported acquiring two post-Panamax gantry cranes at a cost of $7 million, resulting in increased container moves of up to 42 per hour.

Shahid Rajaee's Container Terminal in Bandar Abbas, Islamic Republic of Iran, saw throughput increased to 1.4 million TEUs, up 9 per cent over 2005. Work began on the construction of a new terminal, including the delivery of eight new super post-Panamax quay cranes. With a depth of 17m it is expected capacity will triple to 6 million TEUs.

Phase one of Pusan Newport (PNP), Republic of Korea, opened in January 2006 at a cost of over $9 billion. It is owned by a consortium consisting of Samsung Corporation, Hanjin Group and Hyundai Engineering & Construction, as well as by DP World, which also manages the operation. PNP's first major customer was MSC and during it its first year of operation the port handled 238,866 TEUs against a target of 800,000 and a capacity of 3.5 million. Still to be constructed are phases two, three and four, consisting of three 50,000 dwt (3,000–4,000 TEUs) berths with a total quay length of 1.05 km and 63 ha port area. Three consortiums, led by Ssangyong Construction, Posco Construction and Hyundai Development respectively, have submitted proposals to the Republic of Korea's Ministry of Maritime Affairs and Fisheries for their construction.

PSA International-owned *Inchon Container Terminal* plans to increase capacity by 400,000 TEUs annually, by adding a second berth to its existing container facility by June 2008. In 2006 the port handled approximately 1.38 million TEUs. Concurrently, the local terminal operator *E1* is investing $70.34 million in the construction of a new berth with an annual capacity of 185,000 TEUs, to be completed in 2009.

In Malaysia plans are underway to invest $142 million in Port Klang's Northport in order to deepen the draught and fit post-Panamax ship-to-shore gantries with a 22-box outreach, and to extend quay length to 3,350 metres. Port Klang's Westport handled 6.3 million TEUs in 2006, up 14 on 2005. Port Klang is home to the newly-completed 405-ha Port Klang Free Zone (PKFZ).

C. INSTITUTIONAL CHANGE AND PORT DEVELOPMENT

There is a clear trend for geographically disparate ports to be brought together under the management of one company in the form of a global terminal operator, a multi-port operator or a conglomerate of enterprises whose parent company may be a State or a financial institution. In 2006 this trend received much publicity in the form of DP World's bid for P&O Ports. Previously DP World had purchased another rival, CSX World Terminals, thrusting the company up the league tables and into the limelight. In 2006 the global port terminal operators saw Hutchison Port Holdings (HPH) maintain its lead with 59.3 million TEU moves. Closely following is PSA International with 51.3 million, APM Terminals (43 million), DP World (42 million), Cosco Pacific (32.5 million), Eurogate (12.5 million) and SSA Marine

(11.9 million). Cosco Pacific recorded growth of 24.8 per cent over the previous year, followed closely by PSA International with 24.6 per cent increase. The gap between first and second place is narrowing, and in a move that surprised the industry, PSA International purchased a 20 per cent stake in its rival HPH for $4.4 billion plus the right to buy the remaining stake should its parent company, Hutchison Whampoa, decide to sell. Another port group showing strong signs of growth is International Container Terminal Services Inc. (ICTSI), posting a 36 per cent increase in first quarter results for 2007. Table 47 shows the share of world container throughput of leading market players in global terminal operations. HPH maintained it lead through the period from 2004 to 2006, although the gap between its rivals has narrowed. Whereas in 2004 HPH had a 4 per cent lead over its closest rival, PSA International, this has narrowed to 1 per cent. PSA International growth can also be compared to that of DP World and APM Terminals, with which it shared a 9 per cent market in 2004, but which it has now surpassed from their present 10 per cent share.

The global terminal operators have increased their market share through better performance and the acquisition of additional concessions. A trend is emerging for ports and terminals to be brought together either by the global terminal operators or through equity funds

Table 47

Global terminal operators' percentage share of world container throughput

(Percentages)

Global terminal operators	2004	2005	2006
HPH	13	13	13
PSA International	9	11	12
APM Terminals	9	10	10
DP World [a]	9	9	10
Cosco Pacific	6	7	7
Eurogate	3	3	3
SSA Marine	3	3	3
Total share of world throughput	53	56	57
World throughput (in millions of TEUs)	356.6	387.7	440.0

Source: Adapted by the UNCTAD secretariat from information obtained by Dynamar B.V.

[a] DP World includes CSX World Terminals and P&O Ports for all three years.

managed by institutional investors. In the United Kingdom, ABP was bought by Admiral Acquisitions and PD Ports by Babcock & Brown Infrastructure Limited, while MDHC, owned by Peel Holdings, which also control the ports of Medway and Clyde, is now itself owned 49 per cent by Deutsche Bank.

The trend in the United Kingdom 25 years on from the first port privatization is that now all privatized ports are owned by financial institutions. The only exceptions are MDHC, in which Deutsche Bank has a 49 per cent stake, and Forth Ports, which is still run by a "traditional" port operating company. However, speculation remains as to when Forth Ports will follow the same path as other ports given that it has amongst it assets the port of Tilbury, located in the fast-growing South-East of the country. Since privatization in 1993 Forth ports' share price has risen by a factor of ten.

The reason why financial institutions control ports is that in an era of ever-increasing container shipments ports are a stable business seemingly underpriced compared with other industries. The emergence of the hub and spoke port network has greatly increased the number of containers being handled and thus revenue for ports. Developing countries' ports may thus be attractive to foreign investors. If so, with investment there invariably follows an overhaul of management and operational practices, often resulting in increased efficiency.

Perhaps another emerging trend stemming from the United Kingdom is the introduction of a $11 charge per TEU for infrastructure costs by the port of Felixstowe. The cost of paying for external road and rail connections to the port has been passed from the Government to the port and on to the customer. Traditionally, it has been accepted that national or local government should finance all infrastructure leading to the port boundary. As the United Kingdom's largest container port, the port of Felixstowe handled 3 million TEUs in 2006 and was successful in its planning application to build additional facilities, which would bring total capacity to 5.2 million TEUs.

The United Kingdom was the first country in the world to privatize its ports with the creation of ABP in 1983, a practice that has gained worldwide appeal. However, in order for port projects to be attractive to foreign direct investment (FDI) this practice may only work in developing countries with a significant volume of import/export cargo. Transhipment ports will have a limited leverage power in convincing its customers to pay for an infrastructure charge that benefits import/export cargo.

Elsewhere in Europe, the Russian Federation is planning major port reforms through its State ports body, RosMorPort, which was set up in 2003 to manage more than 40 ports. As part of this reform RosMorPort is seeking a $96 million corporate loan through the European Bank for Reconstruction and Development. Ust Luga, one of Russian newest container ports, is expected to relieve congestion at St. Petersburg and take trade from the Baltic States to make it the largest container port in the Russian Federation. Construction work started on a container terminal in the port of Ust-Luga in early 2007. Two berths with a total length of 440 m are expected to be completed by the end of 2007, and operations to begin in early 2009. The terminal is to have an annual throughput capacity of 3 million TEUs with the growth potential up to 6 million TEUs annually. Eurogate will have a 26 per cent stake in the project, which will make it one of the very limited foreign interests involved in Russian ports. In the Black Sea port of Novorossiysk a $700 million expansion plan is underway to construct new terminals for grain, fertilizers, timber and containers, plus a second deepwater tanker terminal. At the other end of the Russian Federation, Vladivostok is seeing growth in raw materials to China, with throughtput expected to be 250,000 TEUs and capacity 300,000 TEUs by 2010. The Russian Federation's container terminal operator, National Container Company (NCC), in partnership with the Far-Eastern Shipping Company (FESCO), will begin construction of a container terminal in Vladivostok in late 2007. The first phase will provide 120,000 TEU capacity by 2010. The second phase will start in 2011 and aim to further increase capacity to 250,000 TEUs by 2014.

The port of Illichivsk, Ukraine, in May 2007 was among the first container terminals in CIS countries and the Baltic to accommodate a containership with a capacity over 5,000 TEUs from Maersk Line. As part of a regular service between Ukraine and China eight containerships of 5,000 TEU capacity will be deployed on the service. Container moves for the port Illichivsk are around 26 moves per hour and throughput is expected to be 800,000 TEUs by the end of 2007.

In East Asia the growth in container throughput of Chinese ports continues. Throughput for all mainland Chinese ports in 2001 overtook Hong Kong (China), then the world's busiest container port. In 2007 Shanghai is likely to become the world's busiest container port. The port of Shenzhen is not far behind and is tipped to take the number two position in the near future.

The port of Ningbo, China, a natural deepwater port, is expected to take third position within a few years. Behind this growth lies the government investment programme, under which the 10th five-year plan (2001–2005) invested some $8.7 billion of public money in ports. The figure of total investment in ports is thought to be double if private investment is included. China's investment in new port facilities seems unabated, with the announcement in its 11th five-year plan that expansion of its port network is a priority. In the port of Tianjin $385 million is to be invested in the development of a new four-berth, 2 million TEU capacity container terminal. The new facility is to be commissioned by 2012 and will be built in the port's Dongjiang area, to be developed as a free trade zone. The port of Fuzhou handled over 1 million TEUs in 2006, and thus became the 13th Chinese port to pass the 1 million TEU mark. PSA International's Fuzhou International Container Terminal (FICT) only started operations in 2003. A third berth will be commissioned in 2007, which will bring total quay length to nearly 1,000 metres and capacity to 1.2 million TEUs. HPH and Huizhou Port Affairs Group Co. Ltd. signed a joint venture agreement on operating Huizhou Port International Container (HPIC) Terminals in Guangdong province, southern

China. The port has four multi-purpose berths and five oil berths, capable of handling non-containerized goods such as oil and LPG as well as container and bulk cargo.

In South-East Asia in 2006, there were strikes in several major Indonesian ports following the imposition of 10 per cent VAT. The Government's reform plans for ports include the changing of shipping law that prevents foreign investors from controlling more than 49 per cent of port development and operations. Other plans include condensing 141 international ports into 25 hubs in a series of port projects valued at $1.5 billion, including Jakarta Newport, a $500 million port construction comprising over 245 ha. In Aceh province, the Port of Dublin is investing in a 50-year concession with the Sabang port located on the island of Weh just off the northern tip of Sumatra. A natural deepwater port with a depth of 18 metres, it is positioned at the northern entrance to the world's busiest shipping lane — the Malacca Straits — ideal for transhipment traffic. Thailand announced plans to build a new container port at Pak Bara, capable of handling 2.4 million TEU when operational. Pak Bara is about 150 miles from international shipping routes and has a natural deepwater of 13 metres that could be deepened to 25 metres. Road and rail infrastructure connections to the rest of Thailand will need to be upgraded if more than transhipment cargo is targeted. Both Sabang and Pak Bara are located on the same latitude just 300 miles apart. In Brunei Darussalam, PSA International announced its withdrawal from Muara Container Terminal after only six years into a 25-year lease. In Singapore the Government announced plans to increase its port capacity to 50 million TEUs by 2018. The Government of the Philippines announced that it is offering a concession to operate the port of Batangas, and a deal is expected to be completed by the end of 2007.

In the south of Viet Nam, Saigon Port Company has signed up for a number of projects with international companies to develop potential and take advantage of its location close to international shipping lanes. APM Terminals and Saigon Port Company agreed to build a new container terminal with a draft of 14 m at Cai Mep Thuong, 15 miles south of Ho Chi Minh City, at a cost of $186 million. SSA Marine and Saigon Port Company are to build a container port in Cai Mep Ha with a total investment of $160 million. PSA International and Saigon Port Company are to build Thi Vai Port in Ba Ria-Vung Tau Province, and the Hiep Phuoc project in Ho Chi Minh City, planned to start operation by 2010. HPH and Saigon Investment Construction & Commerce Company Ltd (SICC) have signed a 50-year concession to also jointly convert the existing greenfield site in Ba Ria Vung Tau province in Viet Nam into a new container terminal. The Cai Mep and Thi Vai area of Ba Ria Vung Tau province is an area designated to be a deep-sea port under the Vietnamese Government's Detailed Master Plan. The new terminal is expected to become operational in 2011 and will have a quay length of 730 m, with a depth alongside of 14 m and a total yard area of 33 ha (see box 2, country focus report on Viet Nam's port developments, in chapter 7).

In South Asia, Pakistan's largest port, Karachi, is expected to complete the first phase of its expansion plans, including a draft of 18 m, by 2009. Also, the Government has signed a 40-year concession with PSA International to operate Gwadar deep-sea terminal. Currently, Gwadar Port has a 500,000 TEU capacity, a quay length of 602 m at a depth of 14.5 m alongside, with the possibility of increasing this to 16 m. The Government aims to turn Pakistan's second deep-sea port after Karachi into a free-trade zone connected via a 700 km coastal highway between the two cities.

In India, work started in early 2007 on building a container terminal at Vallarpadam capable of handling 8,000–9,000 TEUs. Surrounding the port will be a Special Economic Zone with an area of 115.25 hectares and another at Puthuvypeen with 285.84 hectares. A tendering process is also underway for the development of a deepwater international container transhipment terminal in Vizhinjam. The proposed project has faced difficulties with security clearance issues and lack of interest from established international operators. In an attempt to save the project, the Government announced its intentions with regard to rail and road connections. Mumbai's offshore container terminal (OCT) is planned for expansion to 1.2 million TEUs in two phases. Mumbai has been losing traffic to Jawaharlal Nehru port, which was set up in 1989 to take the pressure off Mumbai. Similarly, in Sandshead, West Bengal, plans are underway for the Government to establish a deepwater port. Similarly, the small and shallow port of Puducherry in south-east India will be part of a $475 million joint venture between Subhas Group and Om Metals to transform it into a deepwater port by 2014. These form part of India's $320 billion investment earmarked for infrastructure development, of which ports are due to receive $11 billion in plans that will double the country's ports' capacity by 2012. Shipping is also expected to receive a boast of $9 billion. In the port of Tuticorin in south-east India, the global

terminal operator PSA International adopted a work-to-rule practice following a disagreement with local authorities over a 54 per cent reduction in TEU tariffs. Annual throughput of 377,000 TEUs may be reduced to the contractual minimum of 300,000 TEUs unless the dispute can be resolved.

In Bangladesh, following the blockade by shippers of the country's ports, the Government decided to adopt reforms along the lines of a Service Operation Transfer (SOT) system for Chittagong Port's New Mooring Container Terminal. This does not require government money to be used for the terminal's operation. The sentiment of employees of the container terminal appears to be against the SOT system. Despite this, the Government has further plans to increase the role of the private sector in ports.

Sri Lanka secured a $300 million loan from the Asian Development Bank (ADB) for the expansion of the port of Colombo to include dredging the port to a depth of 20 metres to accommodate the latest container ships and improving navigational aids. Handling capacity at the port is expected to rise from 3.3 million TEUs to 5.7 million TEUs by 2010.

In the Middle East, at the end of 2006, APM Terminals signed a 25-year concession agreement for Mina Salman and Khalifa bin Salman ports in Bahrain. The concession starts with the opening of Khalifa bin Salman Port, which is due to be ready by the end of 2008. APM Terminals will provide the operational equipment, principally four post-Panamax Gantry Cranes, and install a RTG container management system. Plans are also underway to construct a 40 km causeway linking Bahrain and Qatar. About half of the $1.8 billion causeway will consist of bridges and the rest will be built on reclaimed land.

In Oman phase one of the Oman International Container Terminal officially opened in 2006 with four post-Panamax quay cranes, eight rubber-tyred gantry cranes, two reachstackers, and a fleet of 15 tractors and 33 trailers. The second phase is due for completion in 2007 and will provide an additional 520 m quay and 28 ha yard area. The port of Salalah revealed plans to increase capacity by more than 200 per cent to approximately 4.5 million TEUs. Work, which has already started, is expected to be finished in 2008.

In Kuwait, Shuwaikh Port expected to be privatized at the end of 2007, and plans are underway to dredge the present 8.5 m channel to 14 m. In the United Arab Emirates, the port of Fujairah has plans to build berths to cater for general cargo. A new road project reducing the distance from Fujairah to Dubai from 120 km to 80 km bodes well for the Emirate. Khor Fakkan port opened a new 400 m container berth with a depth of 16 m. The port handled its largest container vessel, the *CMA-CGM Fidelion* at 9,414 TEUs and in the first month of 2007 container traffic was up 10 per cent on the same period in the previous year. Abu Dhabi Port plans to build a $2.5 billion industrial complex at Khalifa bin Salman port. In 2006 a 25year concession was signed with APM Terminals. Sharjah (the third largest of the seven Emirates), located within the Persian Gulf, is planning to increase the size of free trade zones. The port of Saqr in the northern UAE opened in January 2007 with a target of 3 million TEUs within five years.

In the Syrian Arab Republic, ICTSI signed a 10-year concession to operate the Tartous container terminal, the first port in that country to introduce foreign expertise into its container handling operations. Tartous has a 540 m quay and 250,000 square metre back-up area. ICTSI plans to invest approximately $39 million in the new container terminal over the lifetime of the concession.

Elsewhere in the Middle East tenders are being made for the Khalifa Port and Industrial Zone (KPIZ) in Abu Dhabi. KPIZ, located on a reclaimed island in the Taweelah area between Dubai and Abu Dhabi, aims to become a major transhipment, industrial and logistics hub. The island will be connected to the mainland by a 4.5 km causeway in part of a development which will see more than 100 sq. km of industrial, logistics and commercial zones constructed. The first vessels to docks at KPIZ are expected around September 2009, at which time the port's handling capacity will be 2 million TEUs, rising to 8 million TEUs by 2015.

In Western Asia, Turkey's long-drawn-out legal disputes regarding the port privatization of Mersin inched slowly through the courts, with the calls by various unions for the privatization process to be cancelled finally being rejected. Around 50 port concessions were eagerly awaiting the outcome of this test case. HPH was the successful bidder for the 49-year concession to operate the Port of Izmir. Elsewhere in Turkey, DP World acquired the greenfield site of port of Yarimca with plans to develop it into a 1 million TEU facility.

In the Americas, Mexico plans to develop a megaport at Colonet on the Baja California peninsular, 150 miles south

of San Diego. The entire project including rail connections is expected to cost around $9 billion and have a handling capacity of 6 to 8 million TEUs. Further south in Buenaventura, Colombia, Grup Marítim TCB of Spain bought a 30 per cent stake in Complejo Portuario Industrial de Buenaventura, SA (CPIBSA), the company that holds the concessionaire contract for the future Buenaventura Port Container Terminal (BPCT). The Ecuador port of Guayaquil granted a 20-year concession to ICTSI of Manila. ICTSI is to spend $170 million within the first three years of operation. Also in Ecuador, the port of Manta, a natural deepwater port, saw the start of a 30-year concession agreement with HPH. The port will have a total quay length of 1,700 m and a depth of 16 m alongside, plus a total area of 63 ha. In Brazil large traffic volumes at Santos prompted expansion of the port of Imbituba in 2006 to increase capacity from 150,000 TEUs per year to 400,000 TEUs. In Chile, San Antonio lost out to Valparaiso when a number of clients, including MSC and NYK, moved their liner business. Container throughput for San Antonio for 2006 was down by around 12 per cent on the previous year. Conversely, container throughput for Valparaiso increased by 65 per cent to 217,697 TEUs in the first quarter of 2007 compared with 131,819 TEUs for the same period in 2006. Manzanillo International Terminal (MIT) at the Caribbean entrance of the Panama Canal started work on increasing handling capacity from 1.5 million to 2.2 million TEUs through the construction of a 400 m container berth, plus the purchase of container-handling equipment, including six new gantry cranes (including three super post-Panamax).

In Africa, DP World is investing $400 million into a new container terminal at Doraleh Port, Djibouti. The first phase of the new container terminal will have six super post-Panamax gantry cranes and a quay length of 1,050 m, and is expected to be operational in late 2008 with a capacity of 1.5 million TEUs. A second phase doubling this capacity is also planned. While in Dakar, Senegal, DP World will invest more than €100 million in infrastructure and equipment which will more than double the capacity of the existing Terminal à Conteneur to around 550,000 TEUs. In the United Republic of Tanzania the port group Kuwait Gulf Link Ports International (KGLPI) was awarded a contract to redevelop the northern port of Tanga as part of a $400 million programme which includes the construction of new quays and dredging of the port.

D. INLAND TRANSPORT DEVELOPMENTS

Inland waterway transport

Inland waterway systems remain an important transport route for many developed and developing countries where other transport systems are either underdeveloped or have become congested. Multimodal transport solutions are increasing being sought by transport operators looking to lower cost. In the Russian Federation, inland waterways cargo volumes reached 170 million tons in 2005. In Europe some 465 million tons of cargo was handled along inland waterways in 2005. In Asia, the Yangtze River handled 795 million tons in 2005 and estimates for 2006 put this figure at around 1 billion tons. Traffic levels along the Yangtze river have been growing at about 25 per cent per annum, with ports such as Taicang seeing an astounding 139 per cent increase in traffic in 2006. The world's third largest river will receive around $1.87 billion of investment made in its ports during China's 11th five year plan (2006–2010). Most of this investment will be given to the ports of Chongqing, Wuhan and Nanjing, with Shanghai acting as the regional hub. Longtan, Port of Nanjing, is working on the second stage of construction which is expected to raise container throughput to 1.4 million TEUs. By 2010 throughput is expected to double to 3 million TEUs after the completion of the fourth stage of development. In 2006, Wuhan, 1,000 km west of Shanghai, saw throughput reach 25 million tons with 250,000 TEUs. Currently there are around 8,000 km of canals capable of handling vessels over 1,000 dwt in China; this is expected to increase to 10,000 by 2010 and to 19,000 by 2020. Elsewhere in Asia, the Irrawaddy River in Myanmar handled some 23.23 million passengers and 3.89 million tons of cargo in 2006.

Railway transport

Market development

According to the International Union of Railways (UIC), substantial increases in world rail traffic were registered in 2006 with varied individual and regional performances.

Across Europe, freight traffic measured in tonne-km grew by 4.9 per cent over the previous year, during which the traffic declined by 2.4 per cent. Several freight

transport operators recorded double-digit growth figures. Recovery in rail transport, especially international freight traffic, in South-East Europe (an increase of 5 per cent) continues to enable further continental integration.

Growth was also strong in European economies in transition, with Russian Railways recording an increase of 5.0 per cent in freight traffic.

In Asia, Chinese Railways' positive performance continued with an expansion of freight traffic of 11 per cent, while Indian Railways recorded one of its best years in the past decade with an 8.0 per cent growth rate.

Japan's rail freight traffic expanded at a moderate rate of 1.3 per cent, much in line with previous years.

In the United States, rail freight operators also had a good year with a growth rate of 3.0 compared with 2005. US railroads together carried close to 3,000 billion tonne-km (2,788 billion in 2006).

In March 2007, in order to ensure future growth the railways, members of UIC set out a number of strategic goals, including integration of the rail freight industry in the global logistics chain, including ports, shipping lines, container transport operators and freight forwarders; development of intercontinental and intermodal rail freight networks, focusing in particular on the Asia–Europe corridors, the China–India corridor and in Asia the Trans-Asian Railway (TAR); establishment of dedicated freight networks or freight corridors; attracting new types of partners to finance the construction, modernization and operation of railways on these future corridors; and finally achieving technical and operational interoperability. It is worth noting that the Protocol of 3 June 1999 for the Modification of the Convention concerning International Carriage of Rail (COTIF) of 9 May 1980 (1999 Protocol) entered into force on 1 July 2006. [29]

Infrastructure development

In order to improve and extend rail services efforts to upgrade physical infrastructure were made in many regions in 2006.

In Asia, the TAR agreement developed by ESCAP envisages the creation of an integrated freight railway network across Europe and Asia. The network includes about 81,000 km of rail routes — the 12,600 km South-East Asia corridor, the 32,500 km North-East Asia corridor, the 13,200 km Central Asia and Caucasus corridor, and the 22,600 km South Asia–Islamic Republic of Iran–Turkey corridor — and connects 28 countries in the region.

At the national level, Indian Railways announced that it will construct a 350 km link between Jiribam (India) and Moreh (Myanmar) linking India with Asian countries. Along the same lines the Myanmar Government announced that it will share part of the project cost. The Jiribam–Imphal–Moreh rail link will cost $649 million, while the Tamu–Kalay–Segyi link in Myanmar will cost $296 million. Refurbishing the Segyi–Chungu–Myohaung line has been pegged at $62.5 million.

China expects its rail containerized cargo volume to increase to 10 million TEUs in 2010, 6.0 per cent in total rail freight. Therefore, China is focusing its attention on its landside segment of containerized transport and plans to speed up development of its rail container transport network to meet growing demand. The mainland's lack of rail capacity to cater to the rapidly expanding container volume has become a bottleneck for efficient transport. According to China's Ministry of Railways, in 2006 only 1.5 per cent of the nation's total container turnover of 75.8 million TEUs was shipped to and from ports through railways. Meanwhile, the rail containerized cargo volume on China's mainland is about 3 million TEUs annually, which accounts for about 2.2 per cent of the total rail freight, according to the Ministry of Railways. Also on the agenda, the ministry aims to build 18 large-scale pivotal rail container terminals in the mainland's 18 major cities, including Shanghai, Beijing and Guangzhou, by 2020.

In Africa, several projects were launched in 2006 to build freight railways, in particular with a view to hauling raw materials. In Senegal a $2 billion project is planned for building a 750 km railway linking the mining area near Falémé to the port of Dakar with the aim of transporting iron ore. A similar project is being planned in Gabon linking the iron mining area of Belinga with the existing Trans-Gabon Railway, providing access to the Atlantic coast via construction of a new line. In Guinea, a 1,000 km rail line project is planned from Nimba to the deepwater port of Matakang at a cost of $3 billion. It is foreseen that the rail line will transport both iron ore and other goods, such as coffee, cotton and bananas. Sudan is planning to establish a new railway line from Khartoum to Port Sudan on the Red Sea coast at a cost of $2 billion. The line will run parallel to the existing single gauge line.

Road transport

Market development

The global market for road freight traffic and related services may be estimated at a value of around $600 billion in 2006.[30] The road transport sector, including truck rental, leasing services and passenger transport, is estimated to have generated total revenues of $866.5 billion in 2006, representing a compound annual growth rate of 4.6 per cent. For 2011, the value of the global trucking sector (including truck leasing and rental and passenger transport) is forecast to expand by 29.8 per cent to reach $1,124.5 billion. The compound annual growth rate of the sector in the period 2006–2011 is predicted to be 5.4 per cent. If the segment goods transport and related services maintains its 70 per cent share of the total road transport market in 2011, as was the case in 2006, it can be estimated that the road-borne goods transport segment will have a value of around $790 billion in 2011.

The market is still largely dominated by smaller and medium-sized companies, with the four largest companies in the sector estimated to have a combined market share of the global market of only 7 per cent. These four largest companies all have global operations and have extensive logistics and supply chain operations. The market segmentation highlights the fragmented and competitive nature of the global road transport and trucking sector. In terms of geographical spread, the Asian, European and US road transport markets are each estimated to account for between a quarter and a half of the global market measured by value, while the rest of the world accounts for around 8 per cent. A study[31] concludes that the Chinese and Indian markets are by far the largest in terms of number of establishments and number of employees, whereas the US market is the largest in terms of total sales measured in dollars (see table 48).

Infrastructure development

Globalization shifted its focus towards the importance of ensuring alternatives to often congested international trade lanes. The volume cargo shipped using land transport options between Asia (China) and Europe is very limited.[32] Rail transport, in particular the Trans-Siberian Railway, may account for up to 3–4 per cent of the current volume. Road transport accounts for roughly the same share, while 90 to 95 per cent of the cargo in the Asia–Europe traffic is transported by sea (see table 49).

In this context, interregional infrastructure projects are flourishing, and in particular the revitalization of the "Silk Road" as a commercial land-bridge between Asia and Europe is receiving a great deal of attention. China announced in 2006 that it would build 12 highways in its north-west province of Xinjing, better connecting the Chinese road system to roads in the Russian Federation, Kazakhstan, Pakistan and other countries. The new highways plugs into the Asian Highway project, promoted by ESCAP, which has 140,000 km of road in 32 Asian countries.

Table 48

Road transport markets: country comparisons

	Total establishments	Total employment	Total sales (million $)
Brazil	140.2%	152.9%	1185.7%
China	18.0%	19.7%	627.4%
France	428.7%	467.5%	553.2%
Germany	304.6%	332.2%	347.2%
India	26.2%	28.5%	1819.1%
Japan	200.0%	218.1%	163.2%
Russian Federation	165.2%	180.1%	1667.5%
United Kingdom	443.2%	483.3%	653.5%
United States	100.0%	100.0%	100.0%

Source: Barnes Reports.

Table 49

Transport of full-load containers between China and Europe: modal split[33]

(In million full-load TEUs)

	Westbound	Eastbound	Total
Sea transport	4.5	2.5	7.0
Rail	< 0.2	< 0.1	< 0.3
Road (truck)	< 0.03	< 0.03	< 0.06

Source: US Chamber of Commerce, *Land Transport Options between Europe and Asia*.

It is expected that the improvements to the Asian Highway network and the linking to the European Highway network could lead to an increase in the cargo transported by road, in particular for some high-value goods types. However, such developments should also be considered in the context of sustainability. Therefore, particular interest is being expressed by shippers and carriers in intermodal solutions combining road and rail transport and also using the transport links via the Black Sea and the Caspian Sea. Shippers and carriers are also considering the Asia–Europe land transport bridge with onward shipping to the United States via the Atlantic Ocean as a way of bypassing congestion in the Pacific maritime trade lanes.

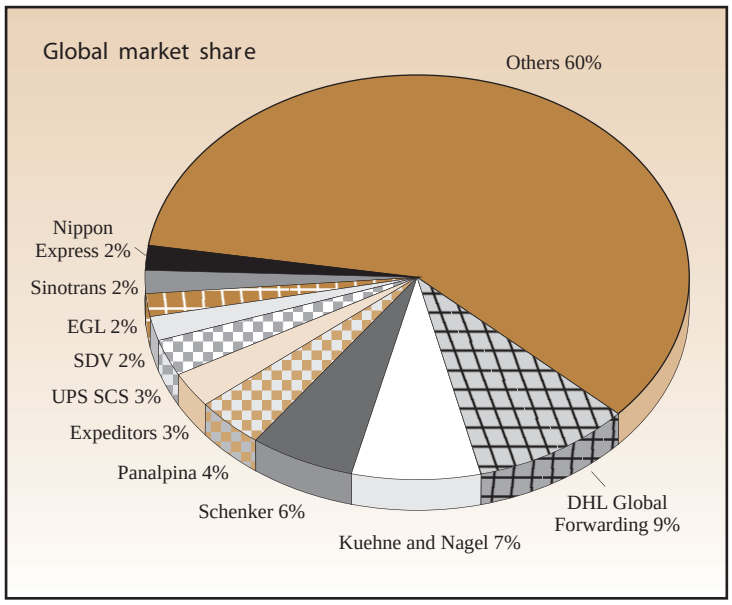
Logistics

In recent years many forwarders have developed their operations to take advantage of the current trend towards outsourcing and to meet shippers' requirements for more sophisticated logistics and supply chain services, often defined as Third Party Logistics (3PL), especially on a global scale. Many of the major companies have adopted as their strategic goal the aim of becoming a globally integrated logistics provider. These companies have attempted to introduce value-added services at both ends of the supply chain, either organically or acquisitively. Data for 2006[34] indicate that Europe is the largest market for freight forwarding and logistics services, with a share of just over a third. Asia–Pacific (29 per cent) has moved ahead of North America (27 per cent) as the market, both intra- and extra-Asian, continues to grow rapidly.

The global logistics and freight forwarding market is in a state of rationalization and consolidation. There are now a handful of major players that claim to have global coverage. DHL Global Forwarding is the largest logistics provider, taking into account air, sea and customs brokerage revenues. Kuehne & Nagel and Schenker make up the top three (see figure 15). There is a considerable gap separating those companies from the next largest forwarder, Panalpina. Many of the companies outside the top three are believed to be possible targets for takeover, whether by other trade buyers wishing to build scale or by private equity companies looking to take advantage of the buoyant market. In terms of market share, DHL holds about 9 per cent of the entire global freight forwarding and logistics market. The top 10 companies have a consolidated share of about 40 per cent of the global forwarding and logistics market. The major reason for this is the low barriers to market entry and exit, as it takes very little capital investment to establish a forwarding operation.

Figure 15

Total freight forwarding market: market share



Source: Transport Intelligence, Global Freight Forwarding 2007.

Consolidation has also occurred among other logistics companies such as Agility (a combination of PWC

Logistics, GeoLogistics and a number of smaller acquisitions); CEVA Logistics (former TNT Logistics), which in 2007 has made an offer to acquire EGL Logistics, another major company; Geodis, which has acquired Wilson Logistics; ABX; DSV (formerly known as DFDS Transport); C.H. Robinson; Kintetsu, which is particularly strong in Japanese trade, but lacks major presence elsewhere; and finally Sinotrans, the Chinese logistics provider, which is focused on the Chinese market, where it also operates through a number of joint ventures.

Outside the traditional freight-forwarding industry, both shipping lines, through dedicated entities such as Maersk Logistics, as well as express carriers/integrators such as Fedex, are also entering the logistics market. The levels of profitability in the market, growth prospects and the asset-light nature of freight forwarders' and logistics business models have made the sector highly attractive to outside investors.

Although at a slower pace than during the previous year, the global logistics and freight forwarding market expanded further in 2006, supported by steady growth in Europe and the Asia–Pacific trades, whilst the US economy did not slow down as much as had been feared. Intra-Asian trade was also a key driving force and has focused many companies' development strategies (see table 50). During 2006, exceptional results were achieved by most major logistics providers and freight forwarders. European-based Kuehne & Nagel saw turnover rise by 30 per cent and profits by 52 per cent. Panalpina declared a 43 per cent increase in profits, with net revenues growing by 11 per cent. DHL Global Forwarding saw the impact of its acquisition of Exel take effect. Its air freight division revenues leapt by almost 70 per cent and sea freight revenues by 40 per cent. The US freight forwarder, Expeditors, announced strong growth over the year with net revenue up by 21 per cent and net earnings up by 23 per cent at $235 million. UTi Worldwide meanwhile saw gross revenues increase by 28 per cent to $3.6 billion, with net revenues totalling $1.2 billion, up by 27 per cent.

Table 50

Global freight forwarding market size and growth rate, 2003–2006

(In millions of €)

	2003	2004	2005	2006
Global	72 530.00	81 211.00	92 862.00	105 317.00
Percentage growth rate		12.00%	14.30%	13.40%

Source: Transport Intelligence, Global Freight Forwarding 2007.

There is no doubt that logistics providers and forwarders are enjoying an exceptional period which has lasted for several years. This has seen them attract considerable attention from the financial community from the perspective of investment opportunities and mergers and acquisitions. The year 2007 is forecast to be yet another dynamic year for an industry which is still very much in a state of flux. This outlook is likely to be affected by security (15.6 per cent), technology requirements (14.9 per cent), and other factors.

Mainly driven by globalization, overall the freight forwarding market is expected to continue to grow at 9.4 per cent over the next five years. By 2010 the market is forecast to reach €150.7 billion. This positive outlook is, however, subject to downward risks, including the cooling US economy and its potential impact on trans-Pacific and transatlantic trade. In addition, freight forwarders are negatively perceived by some customers as being a low-value-adding resource, providing a range of commoditized, cost-based services.

E. OTHER DEVELOPMENTS

UNCTAD recently conducted a global study on the impact of the International Ship and Port Facility Security (ISPS) Code, which imposed wide-ranging obligations on Governments, shipping companies and port facilities. A total of 55 completed questionnaires were received from respondent ports, representing about 16 per cent of the global port cargo throughput (tonne), and based on 2004 world seaborne trade figures, and approximately

24 per cent of the global container port throughput (TEU). Reported initial cost figures from respondent ports range from a low of $3,000 to a high of $35 million, while reported annual costs range from $1,000 to $19 million. The estimated global port-related costs of the ISPS Code range from approximately $1.1 billion to $2.3 billion initially, and approximately $0.4 billion to $0.9 billion annually thereafter. These costs are equivalent to an increase in international maritime freight payments of about 1 per cent with respect to initial expenditure and 0.5 per cent with respect to annual expenditure. The full study titled "Maritime Security: ISPS Code Implementation, Costs and Related Financing" can be downloaded from http://www.unctad.org/en/docs/sdtetlb20071_en.pdf.

Endnotes

28 Estimated.

29 For a list of member States, see the site of the Intergovernmental Organization for International Carriage by Rail, www.otif.org.

30 Datamonitor, a business information company, has made a high-level analysis of the global road transport and trucking market; http://www.datamonitor.com/.

31 Barnes Reports, www.barnesreports.com.

32 US Chamber of Commerce, Report: Land Transport Options between Europe and Asia: Commercial Feasibility Study; www.uschamber.com.

33 "Modal split" describes the percentage of goods being transported using a particular transport type for road, rail or maritime.

34 Transport Intelligence, Global Freight Forwarding 2007.