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**Council for Trade in Services**

**LOGISTICS SERVICES**

Note by the Secretariat<sup>1</sup>

1. This Note has been produced at the request of the Council for Trade in Services in order to encourage discussion of logistics services within the Council. It provides some basic information and focuses on the trends and issues deemed to be the most relevant to the GATS. It is not intended to provide an exhaustive picture of the sector.

2. This Note will first describe the economic and regulatory features of the logistics sector using the same concepts and categories as those generally used by professional operators and the trade press. These categories and concepts are somewhat nebulous and do not always correspond to precise legal definitions, but at least they have the advantage of being the subject of a relative consensus and serving as the basis for compiling a large number of data.<sup>2</sup>

3. Second, the Note will describe the commitments on logistics services undertaken by Members, attempting to provide as complete a picture as possible of the various services covered in the classifications in use and in Members' commitments.

**I. STRUCTURE AND ECONOMIC AND REGULATORY FEATURES OF LOGISTICS SERVICES**

4. The concept of logistics has military origins. The first companies that specialized in organizing all modes of transport emerged in Switzerland and Germany (Danzas, for example) in the late XVIII<sup>th</sup> and early XIX<sup>th</sup> centuries in connection with the wars of the French Revolution and the

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<sup>1</sup> This document was prepared under the Secretariat's own responsibility and without prejudice to the positions of Members and to their rights and obligations under the WTO.

<sup>2</sup> The logistics sector does not appear as such in the classifications commonly used by the majority of Members to formulate and negotiate their commitments (document MTN.GNS/W/120 and provisional CPC) and a search by key word in the Uruguay Round archives shows that "logistics" was not negotiated or considered to be a separate sector by negotiators at that time, and was not the subject of discussions as such. Its emergence in the GATS sphere came later and its definition varies according to the various proposals in which it is mentioned. See, for example, the documents "Logistics and Related Services, Communication from Hong Kong, China" (S/CSS/W/68, 28 March 2001), "GATS 2000: Services Auxiliary to All Modes of Transport, Communication from Switzerland" (S/CSS/W/78, 4 May 2001), "Logistics Services, Communication from Australia; Hong Kong, China; Liechtenstein; Mauritius; New Zealand; Nicaragua; Switzerland; and the Separate Customs Territory of Taiwan, Penghu, Kinmen and Matsu" (TN/S/W/20, 25 June 2004) and "Joint Statement on Liberalization of Logistics Services, Communication from Australia Canada, Chile, Djibouti, the European Communities, Hong Kong, China, Iceland, Japan, Korea, Liechtenstein, Mauritius, New Zealand, Nicaragua, Norway, Panama, Peru, Singapore, Switzerland, the Separate Customs Territory of Taiwan, Penghu, Kinmen and Matsu and the United States" (TN/S/W/34, 18 February 2005). For a summary of Members' discussions of these proposals, see the Information Note from the Secretariat "Road, Rail, Inland Waterways and Auxiliary Transport Services, and Logistics Services" (JOB/(05)/297 of 18 November 2005).

Empire in order to supply the armies at war.<sup>3</sup> The etymology of the word derives from the Greek "*logistikos*", literally "skilled in calculating". Until the mid-1980s, in most firms logistics was essentially an internal function and they only turned to transport organizers, brokers or freight forwarders (all these concepts being legally and economically equivalent) when they needed to arrange for complex consignments that involved several modes of transport.

5. At the beginning of the 1980s, the managerial trend was to bring down the cost of maintaining stocks (lean inventory, just-in-time production), which made this function more complex and incited companies to make increasing use of third party specialist firms. As a result, the profession of freight forwarder changed radically from simply being an intermediary in the transport chain to a real organizer and coordinator of logistics flows on behalf of someone else (what the profession calls 3 PL and 4 PL for third party and fourth party logistics providers). This trend became even more marked with the increase in the number and complexity of flows as a result of delocalization.

6. One of the reasons for the strong growth in outsourced logistics is in fact changes in production methods: the generalized use of subcontracting within a country and then delocalization of plants manufacturing components to a country where labour costs are lower or even the use of third party firms situated in those countries to manufacture these components. While suppliers in developed countries tend to focus on design, final assembly and marketing, they increasingly rely on long-distance logistics flows of rising complexity (break-bulk of consignments, larger number of destinations, increased frequency of deliveries). This has led to supply chain management developing as an activity *per se*. Companies often decide to entrust this task to trade specialists, the 3 PL (third party logistics providers), which usually come from the freight forwarding sector, or if not to express delivery or transport services. The 4 PL (fourth party logistics providers) represent the culmination of this trend; these are companies which have no physical assets of their own but specialize in buying and coordinating logistics.

7. Geographical developments in production structures have not all been in the same direction either. Continual increases in transport costs caused by higher fuel prices; the signing of free-trade agreements or the extension of unilateral trade concessions; geopolitical uncertainties and similar factors sometimes incite companies to relocate or compartmentalize production by major geographical zone (usually at the continental level), thus combining the advantages of relative proximity and lower production costs in the zone in question. In all three cases, firms seek to avoid the risks associated with a breakdown in the long-distance logistics chain. Recent studies (Vinod Singhal, Georgia Institute of Technology) suggest that financial markets react more negatively to announcements of breakdowns in supply chains than to other "bad news" and that the global costs of such incidents may have an impact on performance lasting at least two years.<sup>4</sup>

8. The trend towards growing complexity in the logistics chain has been abundantly documented, although mostly in an anecdotal way, for the aeronautical, automotive and electronics industries. It would appear that these phenomena now extend to industry as a whole, even if it is not possible to quantify them with any precision.

9. While the increase in flows and in their complexity could have meant ever higher logistics costs, on the contrary more efficient spending on inventories and technical progress have enabled

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<sup>3</sup> Logistics also played a key role in the two World Wars in the XX<sup>th</sup> century, both for supplying the "rear" and the "front", especially when theatres of operations were far away and dispersed, as was the case during the war in the Pacific. On these aspects, see for example, the memoirs of Jean Monnet or "The Role of Transportation in Logistics Chain" by Tseng, Yue and Taylor (2005) in Proceedings of the Eastern Asia Society for Transportation Studies, Vol. 5, pages 1657-1672.

<sup>4</sup> See Hendricks, K. B., and Singhal, V. R. (2003), The effect of supply chain glitches on shareholder value, *Journal of Operations Management*, 21, 501-522

costs to be brought down in mature markets (relevant developments include bar codes, tracking, integrated data systems that allow orders and restocking in real time without the need for any buffer stock or any breakdowns in supply, etc.). In the United States, they have fallen by 60 per cent in 20 years.

10. The Council of Supply Chain Management estimates logistics costs in 2006 to be 21 per cent of GDP in China, 13 per cent in India, 11 per cent in Europe, and 8 per cent in the United States.<sup>5</sup> These costs should not be confused with the turnover in the *outsourced* logistics sector, which is measured rather in tenth of percent of national GDP.

11. The Table below, gives an idea of the variety of services grouped under the catchword "logistics" and, even more, of the different ways in which specialist firms combine these various services.

**Table 1: Top 25 third-party logistics services providers (3PL), by revenue**

<b>3PL</b>	<b>Logistics services provided</b>
<b>2003 total revenue in US\$ millions</b>	
Exel plc (United Kingdom) 8,900	Warehousing and distribution (contract logistics), air and ocean freight forwarding, supply-chain consulting, customs brokerage, transportation management, returns management, home delivery.
Kuehne and Nagel International AG (Switzerland) 6,900	Ocean and air freight forwarding, value-added warehousing and distribution, transportation management, customs brokerage, supply-chain management.
Schenker (Germany) 6,400	Air and ocean freight forwarding, customs brokerage, warehousing and distribution, transportation management.
DHL Danzas Air & Ocean North America (Germany) 5,700	Air and ocean freight forwarding, customs brokerage, transportation management, warehousing and distribution, supply-chain consulting.
P&O Nedlloyd (United Kingdom and Netherlands) 4,800	Warehousing and distribution, ocean shipping, supply-chain consulting, customs brokerage, port services.
TPG/TNT (Netherlands) 4,700	Manufacturing support and subassembly, transportation management, supply-chain consulting, dedicated contract carriage, warehousing and distribution, returns management.
Panalpina (Switzerland) 4,600	Air and ocean freight forwarding, transportation management, warehousing and distribution, oil and gas services.
UPS Supply Chain Solutions (United States) 4,100	Air and ocean freight forwarding, customs brokerage, transportation management, warehousing and distribution, supply-chain consulting, dedicated contract carriage, trade finance and insurance, equipment leasing, mail services.

<sup>5</sup> See <http://cscmp.org/press/fastfacts.asp>.

<b>3PL</b>	<b>Logistics services provided</b>
<b>2003 total revenue in US\$ millions</b>	
Nippon Express (United Kingdom) 4,000	Air and ocean freight forwarding, warehousing and distribution, transportation management, supply-chain consulting, customs brokerage.
C.H. Robinson Worldwide (United States) 3,600	Freight brokerage, air and ocean freight forwarding, transportation management, print logistics.
Menlo Worldwide (United States) 3,100	Transportation management, warehousing and distribution, air freight forwarding, customs brokerage, supply-chain consulting, returns management and expedited.
NYK Logistics (Japan) 3,000	Freight forwarding, customs brokerage, inter-modal transportation, value-added warehousing.
Expeditors International of Washington (United States) 2,600	Air freight forwarding, customs brokerage, transportation management, warehousing and distribution, supply-chain consulting.
Penske Logistics (United States) 2,500	Dedicated contract carriage, transportation management, supply-chain consulting, warehousing and distribution, equipment leasing.
Eagle Global Logistics (United States) 2,200	Air and ocean freight forwarding, transportation management, warehousing and distribution, customs brokerage, expedited, project management.
BAX Global (United States) 2,000	Air freight forwarding, transportation management, warehousing and distribution, supply-chain consulting, freight payment and auditing, customs brokerage.
Ryder (United States) 1,900	Supply-chain consulting, transportation management, warehousing and distribution, dedicated contract carriage, air and ocean freight forwarding, equipment leasing, returns management, payment and auditing, insurance.
Schneider Logistics (United States) 1,900	Transportation management, supply-chain consulting, dedicated contract carriage, freight payment and auditing.
UTi Worldwide (United States) 1,200	Air and ocean freight forwarding, customs brokerage, warehousing and distribution.
Caterpillar Logistics (United States) 1,000	Warehousing and distribution, transportation management, logistics consulting.
APL Logistics (Singapore) 990	Ocean and air freight forwarding, warehousing and distribution, transportation management, dedicated contract carriage, customs brokerage.
Wilson Logistics Group (Sweden) 860	Warehousing and distribution, air and ocean freight forwarding, customs brokerage, transportation management, supply-chain consulting.

<b>3PL</b>	<b>Logistics services provided</b>
<b>2003 total revenue in US\$ millions</b>	
FedEx Supply Chain Services (United States)	Domestic and international transportation management, customs brokerage and freight forwarding, supply-chain consulting, warehousing and distribution services.
603	
Maersk Logistics (Denmark)	Ocean and air freight forwarding, warehousing and distribution, customs brokerage, supply-chain consulting.
350	
SembCorp Logistics Ltd. (Singapore)	Warehousing and distribution, air and ocean shipping, supply-chain management, dangerous goods management, offshore logistics.
275	

Source: Thomas A. Foster and Richard Armstrong (2004), "Top 25 Third-Party Logistics Providers Extend Their Global Reach", in *Global Logistics & Supply Chain Strategies*, May 2004, pages 2 to 11, also cited in USITC (2005), "Logistics Services: An Overview of the Global Market and Potential Effects of Removing Trade Impediments".

12. There are three major subsectors in the logistics chain: storage and warehousing (A), freight forwarding (B), and contract logistics (C). Each subsector has its particular economic structure and regulatory frameworks, which are described separately in the following sections before turning to the logistics chain as a whole.

13. It is not always easy to separate the activities provided by these subsectors. For example, freight forwarding and contract logistics operators often provide warehousing services alongside firms that specialize in this sector alone. Likewise, a freight forwarder, who mainly focuses on organizing and coordinating transport without using any assets other than an efficient data system, may occasionally become a contract logistics operator and be responsible for all a client's physical logistics operations. Nevertheless, these categories have different features and are viewed by those in the trade as distinct entities.

#### A. WAREHOUSING AND STORAGE SERVICES

##### 1. Economic aspects

14. All logistics services commence with a warehouse, a couple of warehouses or a network of warehouses, as can be seen from Table 1, in which warehousing is one of the activities mentioned in 24 out of the 25 cases.<sup>6</sup> The data available on warehousing and storage are, however, extremely fragmentary, since there is no international trade association bringing together all actors in the sector, and in many cases not even a national association.<sup>7</sup>

15. Warehousing and storage activities are often integrated within the manufacturing process, with the infrastructure being owned and operated by the companies themselves (around their factory, but increasingly also in the "logistics zones" or distribution centres which are springing up in ports, airports, and around motorway hubs). Since they do not involve any trade, such activities are, therefore, not within the purview of the GATS and hence of this Note.

<sup>6</sup> According to its website, the 25<sup>th</sup> operator, Schneider Logistics, also provides warehousing services, even though this is not mentioned in the table. (See <http://www.schneider.com/logistics/index.htm>.)

<sup>7</sup> The International Warehouse and Logistics Association (IWLA) in fact only represents North American operators and its website (<http://www.iwla.com>) does not have any publicly accessible global data.

16. Another common example is warehousing or storage integrated within a broader range of services: handling (for example, yards used by port operators to store containers); transport (for example, the investment by the Israeli shipping operator ZIM in a controlled temperature warehouse in Kingston for storing tropical fruit); express delivery services (for example, FedEx's facilities at Roissy); or distribution. Lastly, some warehousing services are provided by freight forwarders or contract logistics operators. To the extent that these storage/warehousing services are provided to a third party, they come within the scope of this Note. Consequently, there are a probably very few independent and non-integrated warehousing and storage activities ("pure players"). In addition, available sources refer at length to the builders, promoters and developers of warehouses and logistics zones such as the American Pro-logis or the British Gazelay.

17. In such circumstances, it is virtually impossible to develop a clear picture of the size and special features of the sector or to identify a common regulatory framework.

18. The warehousing sector is not confined to operations between industrial operators. Specialized firms in fact provide individual consumers with a whole series of services. For example, the supply of storage space to individuals (self storage), where the overall sales figure for 2006 was US\$18.5 billion and is growing strongly (by over 10 per cent annually), with major mergers taking place.<sup>8</sup>

19. Types of warehousing not only consist of traditional closed warehouses with loading bays for trucks. Rather, they range from extremely simple forms such as storage yards in the open air or just with a roof for heavy materials to highly sophisticated forms that involve substantial investment and high operating and maintenance costs.<sup>9</sup> Even in the case of traditional warehouses, there is a wide variety. They range from fully automatic warehouses which may manage spare parts for a car producer for the whole world, to the less mechanized warehouse of an Internet retailer, where employees on roller skates, but equipped with handheld computers, put together the orders and replenish stocks. Informatics can now be integrated with commands for forklifts and even the storage system itself. Another technological advance consists of combining conveying and sorting functions by using belts with adjustable speed (dynamic gapping).<sup>10</sup> Whether the warehouse is computerized or mechanized (conveyor belts, etc.) or not, informatics plays an increasingly important role because it allows closer tracking of orders and restocking. Where it is managed by an outside logistics provider, it is often integrated with the client's central production and distribution computer system by means of complex interfaces (Enterprise Resource Planning ERP, of the Baan or SAP type). Stock management in warehouses has created a whole sector producing software and offering informatics consulting services.

20. One trend is towards "green" warehouses (for example, with roofs made of plant material and "zero" emissions). Environmental pressure sometimes coincide with shortages of land, in Japan for example, where multi-storey warehouses have begun to be seen.

21. Another trend is to transfer upstream in the original warehouse activities traditionally undertaken by the manufacturer or distributor themselves (quality audits, packing, labelling, sorting,

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<sup>8</sup> According to Financial Times; see also:

<http://www.selfstorage.org/SSA/Home/AM/ContentManagerNet/ContentDisplay.aspx?Section=Home&ContentID=4590>

<sup>9</sup> Cases in point are cold stores, tanks for petroleum or chemical products, storage facilities for regasifying liquefied natural gas, or even natural cavities converted for storing gas and monitored electronically, and perhaps also for CO<sub>2</sub>.

<sup>10</sup> For further details on these technological advances, see the site of the Material Handling Industry Association of America, <http://www.mhia.org>.

even management of product guarantees, returns or repairs).<sup>11</sup> According to experts, this development is gradually moving down the value chain, from electronics to clothing and footwear, because it allows considerable savings to be made in terms of labour and inventory costs. Such practices of course require infallible computer systems, fully interconnected with the client's system, and hence the means to develop such interfaces, which explains the growing concentration in the sector.

22. This trend should not, however, be exaggerated. According to a survey by the review Fortune 500 in 2007, 47 per cent of firms outsource warehousing activities, while 86 per cent still managed their own stocks, deemed to be strategic.

23. A virtually reverse trend – insourcing - can also be perceived: distributors (for example, Carrefour, Tesco and Sainsburys) may move up the logistics chain in order to provide logistics themselves from the production site (factories or agricultural cooperative associations) to the warehouses and, further on, to their stores (factory gate pricing). This type of phenomenon mostly applies to fresh products and/or goods produced domestically. The development of public, but above all private, practices, for ecological traceability (carbon footprint, Food Miles) could increase this trend as distributors consider they have more control when they act directly.

24. Warehouses have also developed in connection with collection and recycling facilities, often managed by third parties or by trade associations, for the legally mandatory recycling of an ever-increasing number of products (tyres, batteries, electronic goods, etc.). These warehouses often take the place of "fly tips". This has led to international trade in waste, whether or not toxic (for example, paper is the main maritime cargo between the United States and China) and, as a result, a whole storage and recycling industry in developing countries. "Reverse logistics" was estimated to amount to US\$35 billion in 2000<sup>12</sup>, or 4 per cent of total logistics costs (including collection services), and may have grown significantly since then.

25. It is difficult to detect trends in the size and geographical distribution of warehouses, even though it appears that, overall, the average surface area is increasing.<sup>13</sup> The industry constantly appears to balance the savings associated with a few centralized warehouses which, if they are blocked, could have disastrous impact on the supply chain, and a series of small warehouses, which are easier to manage but also more difficult to coordinate. In any event, the type of product matters. A stock of heavy goods is not managed in the same way as a stock of pharmaceutical products.

26. There is less talk of "warehouses" but more and more of "logistics parks" or "distribution platforms". These terms cover the link between warehouses and multimodal transport infrastructure: loading bays for heavy goods vehicles, railway line, and sometimes a river port with equipment for handling heavy goods and the associated containers.

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<sup>11</sup> To take an example, Carrefour no longer sorts deliveries in its warehouses in Europe before distributing them among its supermarkets. This is now done in a centralizing warehouse before shipment in China, at Ningbo by Geodis for the North and in Yantian/Shenzhen by Kuehne and Nagel for the South. This third party provider may be a logistics/forwarding agent as in the case mentioned, or an express delivery operator such as UPS or DHL, a road carrier such as Yellow, or companies that specialize in audits such as Veritas or SGS.

<sup>12</sup> *La Tribune*, April 2000.

<sup>13</sup> A warehouse of 1,000 sq. ft. - the standard unit of measurement in the sector - was deemed to be "large" ten years ago, whereas today this term applies to warehouses covering 500,000 to 1 million sq. ft. Yet, these are only averages, one current record is the Transpak project, launched in 2007 by Deutsche Post World Network (DPWN) and Dubai International City (DIC) for a warehouse in Dubai covering 20 million sq. ft.

## 2. Regulatory aspects and trade restrictions

27. Regulators rarely seem to take warehousing and storage activities into account as a separate sector. Indeed, such activities may be subject to a myriad of regulators - and regulations - which are pursuing different policy objectives: town planning, safety at dangerous facilities (for example, chemical and oil storage), economic development (promotion of logistics zones), security at port and airport storage facilities, etc.

28. The fragmentary information available mainly concerns emerging economies, where strong expansion in the sector is accompanied both by liberalization measures (in the sense of Articles XVI and XVII of the GATS) and regulatory reform. This is the case for China, where improving the logistics network has been made a national priority. According to some data, transport accounts for 30 to 50 per cent of the final cost of a Chinese product, whereas the share ranges from 3 to 10 per cent in OECD countries. The industrialization of China's internal provinces makes such developments even more necessary because logistics costs there are higher than in the coastal provinces, reflecting the structural handicap of land and river transport compared to maritime transport.<sup>14</sup> Reportedly, the Swiss company Kuehne and Nagel, the first logistics operator to create a wholly foreign-owned company, used China's Closer Economic Partnership Agreement (CEPA) with Hong Kong, China as a legal vehicle.

29. In terms of market access specifically, it is difficult to obtain any comprehensive data apart from the commitments made under the GATS. As is well known, however, these do not necessarily correspond to the applied regime, which may be more open. Nevertheless, the bound regimes appear to be reasonably liberal.

### B. FREIGHT FORWARDING

#### 1. Economic aspects

30. Global figures on the size of the sector are fragmentary and contradictory, reflecting, among other things, different statistical conventions. According to one source, in 2008 global freight forwarding revenue amounted to US\$700 billion, with the following breakdown by sector and mode: warehousing and land transport commissioning, US\$500 billion; air transport commissioning, US\$50 billion; and maritime transport commissioning, US\$150 billion.<sup>15</sup>

31. Firms operating in this sector may be divided into four major groups:

- (a) Firstly, truly global actors (Deutsche Post World Network-DHL-Excell-Tibbet and Britain group; Deutsche Bahn-Schenker-BAX Global-Stinnes; and the Swiss group Kuehne and Nagel);
- (b) secondly, around a dozen actors that provide some or all of the services in certain geographical areas (in Europe: Panalpina (Switzerland), DFDS (Denmark), Wincanton (United Kingdom), Geodis (France), DSV (Denmark); in the United

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<sup>14</sup> One ship can carry up to 14,000 containers, whereas a truck only carries one or two and a train or large river barge around 100.

<sup>15</sup> *Les Echos*, 11 March 2008. Another source, the consultancy Transport Intelligence, estimates that the freight forwarding and transport commissioning market in 2007 amounted to a figure over six times lower than that quoted above. This discrepancy can be explained by the fact that the figures in *Les Echos* also take into account contract logistics activities by freight forwarders, which are estimated separately by Transport Intelligence (at US\$140 billion), and also probably total turnover for the modes of transport covered (air, maritime and land). According to Transport Intelligence, growth in the sector was over 10 per cent in each of the years preceding the crisis.

States: Expeditors, CEVA, C.H. Robinson, UPS-SPS, and UTi; in Japan: Kintetsu and Nippon Express; and in the Middle East: Agility Logistics (Kuwait));

- (c) regional operators (for example, Sinotrans (China)); and
- (d) a myriad of small or medium-sized firms, specializing in one type of product and/or one destination, and/or one mode of transport.<sup>16</sup>

32. In terms of geographical breakdown, the relevant shares (revenue in 2007) are estimated at some 33 per cent for Europe, 30 per cent for Asia-Pacific, 26 per cent for North America, 5 per cent for Latin America and the Caribbean, 4 per cent for Middle East, and 2 per cent for Africa.<sup>17</sup> The highest rates of growth are recorded in those markets that are proportionately smaller, while the larger markets seem to be more mature.

33. The share of traffic controlled by freight forwarders differs greatly according to the mode of transport. It is estimated to be 50 per cent in the case of container traffic (maritime, road and rail), but 95 per cent for air traffic.<sup>18</sup> According to another source<sup>19</sup>, for maritime transport alone freight forwarders only control around 30 per cent of shipments, with the remainder being directly in the hands of ship operators. Also, average company size differs significantly between specializing on different modes of transport. For example, 95 per cent of shipping agencies are small companies with a strong domestic focus, while only three global actors emerge: Inchcape (United Kingdom), Barwill (Norway), and GAC (United Arab Emirates). The air freight sector, on the other hand, is highly concentrated and most shipments are in the hands of a few operators, which continue to be indispensable intermediaries.<sup>20</sup>

34. Overall, the freight forwarding sector is still highly dispersed (according to several sources, the "top 10" only account for 40 per cent of total turnover), but marked by a strong move towards concentration. It is occurring mostly on a transnational basis along two major axes: on the one hand, consolidation of large operators and, on the other, many small companies are being taken over by large groups.<sup>21</sup> The "national" nature of freight forwarding has never been very marked, unlike what is still the case for air and road transport, where the national flag element remains essential. There is also cross-ownership among large groups, for example, Semb Corp (Singapore) took 6 per cent of the capital of Kuehne and Nagel in 2000, with the latter in turn taking 5 per cent of the capital of Semb Corp.

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<sup>16</sup> According to Les Echos, op.cit.

<sup>17</sup> Transport Intelligence.

<sup>18</sup> According to Mr. Hugo B. Ross (presentation at the UNCTAD Ad Hoc Expert Meeting on Logistics Services, 13 July 2006).

<sup>19</sup> Les Echos, 11 March 2008

<sup>20</sup> For further details on these points, see document S/C/W/270/Add.2 of 28 September 2007, paragraphs 439-446, pages 335-337.

<sup>21</sup> In the case of postal operations, Deutsche Post World Net bought the express delivery operator DHL, then the forwarder Exel (for €5.5 billion), the forwarder Danzas, and the all-cargo air operator AEI. Among rail operators, the Belgian railway company SNCB bought the forwarder ABX, while the German railway company Deutsche Bahn bought the forwarders Stinnes, BAX Global (for €1.1 billion) and Schenker. The express delivery operator UPS bought the forwarders Fritz and Menlo (formerly Emery). The French forwarder Geodis bought the forwarding branch of TNT Logistics (formerly Wilson), while the Swiss forwarder Kuehne and Nagel bought ACR Logistic (formerly Hays) and USCO. UPS made 30 purchases over two years amounting to US\$20 billion. In 2005, Kuehne and Nagel also took over the forwarder Seabrock and Smith, specialists in shipping wines and spirits, in order to gain a larger footing in this subsector. This is why large logistics groups often appear to be a "multitude of SMEs".

35. The present economic and financial crisis should reinforce the consolidation trend because it is weakening many small firms that are over-dependent on certain forms of transport and are less able to cope with longer delays in payment or the bankruptcy of their clients. Overall, the trend will be particularly marked in the air cargo sector. Consolidation may occur across virtually all regions and not solely along North-North or North-South lines.<sup>22</sup> Also, some medium-sized operators have sought to form alliances in order to expand their networks and combine their resources without losing their independence.<sup>23</sup>

36. In the wake of the current economic crisis, transport volumes have fallen sharply, by around 20 per cent for containers by sea during 2009, 20 to 50 per cent for road transport in Europe and some 25 per cent for air cargo.<sup>24</sup> Furthermore, the virtual collapse in demand in some sectors, the automotive industry for example, caused companies to hold larger stocks, meaning a slowdown in logistics operations. This was followed by a technical recovery for "restocking" in May 2009. In any event, these developments cannot yet be seen in the 2008 performance figures for the major forwarders, as is shown in Table 2.

**Table 2: Financial performance of the major freight forwarders in 2008, in US\$ millions**

Company	Turnover 2008	Turnover 2007	Percentage trend	Earnings before interest and tax (EBIT) 2008	Earnings before interest and tax (EBIT) 2007	Percentage trend
Agility	6.735	6.094	10.5	589	636	-7.3
CEVA	8.922	7.048	26.6	149	-54	
DB Schenker	20.695	20.652	0.2	537	620	-13.4
DHL	19.989	19.087	4.7	548	602	-9.0
Kuehne and Nagel	20.461	18.634	9.8	697	616	13.3
Panalpina	10.039	9.371	7.1	183	266	-31.3
UTi	4.543	4.366	4.1	23	150	-84.7

Source: *Containerisation International*, May 2009.

## 2. Regulatory aspects and trade restrictions

37. There is little evidence of systemic regulatory barriers impeding trade in the sector. The focus of the trade associations concerned seems to be on the solution of problems related to customs regulations (for example, the question of compulsory security in in-bond warehouses and the different obligations it imposes for nationals and foreigners, but also between different types of providers). Such associations have been highly active in recent years in ensuring that freight forwarders are given the same status and can use the same fast lanes as other operators in the transport chain under the new security regulations such as the American programme C-TPAT (Customs Trade Partnership against Terrorism) or the status of Authorized Economic Operator (AEO) in the European Community.

<sup>22</sup> For example, the Kuwaiti company PWC Logistics bought out the company Geologistics, and the Indian companies All Cargo Logistics and Tirupur, respectively, bought the Belgian company ECU Lines (a large operator: 120 offices in 60 countries), and the British firm Saint Patrick, specialist in dealing with textile articles. There are also the cases of the Kenyan company Star Freight, which bought LEP International, based in Australia and New Zealand, as well as the takeover of the Chinese company Cosa Freight in July 2008 by the Kuwaiti company Agility Logistics.

<sup>23</sup> This is the case, for example, for the Logistics World Alliance group, composed of Azkar (Spain), MGF Logistics (France), Bartolini (Italy) and Rhenus (Germany), which together have 3.3 million m<sup>2</sup> of warehouses.

<sup>24</sup> According to IRU and IATA.

38. While China has notified the laws and regulations governing the sector, including in the context of the Transitional Review Mechanism, there is little information of a comparably comprehensive nature on other Members' trade regimes.<sup>25</sup> Available sources are either relatively dated or limited to particular initiatives by individual Members.<sup>26</sup>

## C. CONTRACT LOGISTICS

### 1. Economic aspects

39. Contract logistics consists of carrying out the logistics operations of a client company, ranging from organizing transportation to warehousing and the actual transport itself. This activity is also known by the generic term 3 PL (third party logistics providers). Contract logistics is a very different activity to freight forwarding, even if it is often provided by companies that were originally forwarders. It implies substantial investment in physical assets (warehouses, fleets of trucks, or even aircraft and ships) and in personnel. Contract logistics operations are fully integrated into the client's production and sometimes use the latter's resources and personnel. For example, in BMW's American plant in Spartanburg, forklifts belonging to and managed by TNT feed the assembly lines. Likewise, Michelin sold its warehouses to TNT and made the personnel available, while TNT invested in modernizing the warehouses in exchange for a long-term contract

40. The size of the contract logistics sector in 2008 was estimated at some US\$140 billion, a 9 per cent increase in comparison with the previous year.<sup>27</sup> Pre-crisis estimates forecast an annual rate of growth of around 8 per cent, as compared to 12 per cent for freight forwarding. A key factor in this estimate is the degree of outsourcing of logistics functions, also called the "penetration rate". In 2008, this rate overall was 15.4 per cent, with significant variations across countries (some 40 per cent in the United Kingdom compared with 24 per cent in France, 19 per cent in the United States, 10 per cent in the Asia-Pacific region, and less than 3 per cent in China). The geographical breakdown of the market is fairly similar to that recorded above for freight forwarding, although its structure is even more dispersed. The cumulative share of the world's ten largest operators does not exceed 25 per cent of the total (compared to 40 per cent for forwarding).<sup>28</sup>

41. Several types of operator have developed contract logistics activities in addition to the traditional freight forwarders: express carriers, many major shipping lines (Maersk, CMA-CGM, APL, OOCL, Zim), railway companies, often in association with shipping lines (to develop and manage dry ports and inland container depots) and road carriers (Yellow, Penske, Willy Betz, Calberson, GEFECO). Carriers undertaking such activities, particularly ship operators, essentially try

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<sup>25</sup> Document S/C/N/246 of 24 November 2003 and document S/C/W/296 of 4 December 2008, pages 16-17. In addition, there is some (dated) evidence of trading conditions in the Asia-Pacific region, *inter alia* based on a survey carried out in 2000 by the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP). See UNESCAP, "Review of developments in transport and communications in the ESCAP region 1996-2001", pages 126-127. In 2004, during a seminar organized by a group of interested WTO Members ("Friends of Freight Logistics"), Mr. Tschui, a representative of a major freight forwarder, Panalpina, spoke about obstacles encountered in various countries. The presentation is available at the WTO Secretariat upon request.

<sup>26</sup> Reportedly, there have been initiatives recently to reserve maritime freight forwarding activities, previously open to foreigners, to nationals alone. Cases in point are Kenya (Article XVI of the 2009 Shipping Act, to come into effect in 2010) and Egypt (Decree No. 451/2009 of 1 October 2009, to come into effect in October 2010).

<sup>27</sup> According to Transport Intelligence.

<sup>28</sup> DPWN-DHL-Exel (Germany, clearly first with 9.5 per cent of the global market), CEVA (United States, far down in second place with 2.5 per cent), Kuehne and Nagel (Switzerland), Wincanton (United Kingdom), UPS-SCS (United States), CAT Logistics (United States), Penske Logistics (United States), Fiege Logistik (Germany), Ryder (United States), and Schenker (Germany).

to diversify into activities with higher value added than transport *per se*, and to reap cost savings via productivity gains.

42. Compared to transport by the shipper itself ("merchant haulage"), transport by specialized carriers ("carrier haulage") has the following advantages: door-to-door delivery with a one-stop shop, more efficient planning of transport by consolidating loads and lessening the number of empty return trips<sup>29</sup>, meaning better use of equipment, gains in productivity and cost, and economies of scale that justify subsequent investment in infrastructure by the government. They also claim that intermodal distribution is better from an environmental perspective (merchant haulage: river barge 31 per cent, railway 8 per cent, road 61 per cent; carrier haulage: river barge 34 per cent, rail 40 per cent, road 26 per cent).<sup>30</sup> Environmental concerns will undoubtedly play an increasingly important role. In Europe in particular governments are tending more and more to promote intermodal transfer of freight from the road to "greener" modes (river, rail, sea) by means of incentives (subsidies) or constraints (fiscality, transport regulations, etc.).

43. Contract logistics operations can cover the whole logistics chain, as can be seen from Table 1, but they may also cover only one specialized branch.<sup>31</sup> The contracts involved can be extraordinarily broad in scope, both in terms of duration and business volumes.<sup>32</sup>

44. One important trend is the emergence of major logistics operators in emerging economies, which are becoming more international in order to support domestic exporters. This is typically the case for the Chinese company COSCO Logistics. There are also numerous joint ventures that involve all types of providers and all national origins.<sup>33</sup> Nevertheless, the degree of internationalization in the sector should not be over-estimated. If shippers are increasingly turning to logistics operators, and more generally 3 PL, this is to gain access to their networks but, in the case of large markets, does not necessarily involve cross-border moves. For example, the 20 foremost 3 PL in the United States include several companies with very little international scope. In other instances, however, the focus is predominantly international as can be observed in Japan and elsewhere.<sup>34</sup>

45. Unlike the freight forwarding sector, contract logistics is an activity in which margins are low. Stiff competition has prompted the withdrawal of some operators, while others have adopted an increasingly cautious attitude. Due to generally heavier investments in assets, logistics providers tend to be more vulnerable to downturns than freight forwarders.<sup>35</sup>

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<sup>29</sup> Empty return trips are estimated to be 20 to 30 per cent for international transport and 50 per cent for short distances.

<sup>30</sup> According to Mr. Maarten Tromp, Maersk Line.

<sup>31</sup> For example, FedEx has a subsidiary, FedEx Trade Networks, which specializes in customs clearance and provides services to clients other than its parent company.

<sup>32</sup> For example, DHL and the British National Health Service have concluded a 10-year contract for a total of US\$1.6 billion.

<sup>33</sup> For example, Tata Steel (India) has teamed up with IQ Martaade Holding (Germany) to create inland container depots and offer warehousing and distribution services, or Yes Log (the logistics subsidiary of the Chinese Taipei shipping line Yang Ming) with Chinese company Chong Qing National Shipping Group to build a multi-use distribution centre.

<sup>34</sup> Japanese companies sometimes renounce their traditional practice of *Keretsu* (using companies that belong to the same group) and utilize the services of foreign logistics operators such as Exel, even on the domestic market. Likewise, many freight forwarders are engaged in third party traffic (cross trade), that is, trade flows that do not involve their own countries, such as the French company Bolloré for traffic between India and the United States. In addition, there is "triangular" or "quadrangular" trade in which, for instance, a Japanese company entrusts a European logistics operator with the management of logistics for its production units in China, most of its output being exported to the United States.

<sup>35</sup> To the Secretariat's knowledge, there are no global data on the impact of the crisis on this sector similar to those for freight forwarders. It is nevertheless highly probable that they have been badly affected.

## 2. Regulatory aspects and trade restrictions

46. As is the case for warehousing and forwarding, there is little information on the regulatory regime applicable to the contract logistics sector. In 2005, the United States International Trade Commission (USITC) published a survey based on a questionnaire sent to 73 American logistics companies covering 53 countries and territories. The findings relate to measures falling under the market access and national treatment provisions of GATS (Articles XVI and XVII) as well as to perceived regulatory restrictions:

- (a) In 26 countries (or territories) the firms surveyed considered that in practice "domestic firms have an easier time obtaining licenses than foreign-owned firms";
- (b) in 20 countries regulations that affect logistics services were deemed not to be transparent;
- (c) in 13 countries domestic competitors reportedly have easier access to information affecting regulations than foreigners;
- (d) in 30 countries firms were required to hire local residents in certain positions; and
- (e) in 19 countries firms experienced difficulties in obtaining entry visas and work permits in order to engage in their activities.<sup>36</sup>

47. In general terms, observers commenting on longer-term trends in the sector have noted that, "[r]egardless of the important role market deregulation has played in transport over the last decades, public policy remains a major factor of influence for the framework of distribution and thus freight traffic performance. This is due to the vital role of nation States in providing and maintaining transport infrastructure, to the jurisdiction issue, particularly the enforcement of loads and vehicle inspection, labour regulations or vehicle noise and air emissions standards."<sup>37</sup>

48. Based on a survey of operators in the trade, completed by quantitative data, the World Bank created a Logistics Performance Index (LPI)<sup>38</sup>, which classifies countries or territories according to broad variety of parameters, including regulatory issues.<sup>39</sup> The Index is regularly updated and has been published twice to date (2007 and 2010). According to operators, in general, obtaining a licence is the main obstacle to market access. The scope of licences and the criteria for obtaining them differ considerably between countries and modes of transport.

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<sup>36</sup> For further details, see in the USITC survey Tables 3-3, page 3-18; 3-4, page 3-19; 3-5, page 3-21; and 3-6, page 3-23.

<sup>37</sup> Markus Hesse and Jean Paul Rodrigue (2007), in: Rob Kitchin and Nigel Thrift (eds), *International Encyclopedia of Human Geography*, Elsevier publisher.

<http://www.elsevier.com/wps/find/bookdescription.authors/722034/description#description>

<sup>38</sup> Available at: <http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTTRANSPORT/EXTTTLF/0..contentMDK:21514122~menuPK:3875957~pagePK:210058~piPK:210062~theSitePK:515434.00.html>.

<sup>39</sup> Efficiency of the customs process, quality of trade- and transport-related infrastructure (ports, airports, roads, railways, warehouses, trans-shipment and telecommunications), the ease of arranging competitively priced shipments, competence and quality of local logistics services (e.g. transport operators and customs brokers), ability to track and trace consignments, the relative difficulty (compared to the situation in 2005) of complying with cargo security requirements (screening, advance information), observance of scheduled delivery dates, the amount of certain charges (port, airport, rail, storage, trans-shipment and agency) compared to the service provided, the frequency of unforeseen delays, criminal activities and solicitation of informal payments, the regulatory framework for logistics, the number of government agencies involved, and the percentage of physical inspection of freight.

49. The ease of operations also depends greatly on the conditions for market access, national treatment and MFN within the meaning of the GATS for the various modes of transport used by contract logistics operators. These conditions differ considerably from mode to mode and Member to Member. They have been or are to be discussed in the context of relevant Background Notes, e.g. on maritime and on road freight transport (forthcoming), and the documents prepared for the Air Transport Reviews (documents S/C/W/270 and S/C/W/270/Add.1 and Add.2).

50. China, India and other emerging economies have experienced strong growth in this sector as well<sup>40</sup>, which may have been stimulated by liberalization measures. For example, since January 2007, foreign firms have been able to own up to 100 per cent of the capital of a road carrier in China. Operators reportedly view it as a major step forward to be able to carry out their own logistics operations after an initial joint venture phase.<sup>41</sup> The playing field is still very open, given that none of the 18,000 logistics firms in China holds a market share of more than 2 per cent. In a similar vein, India abolished a monopoly of rail transport of containers in January 2006, leading to a series of private sector initiatives both from national and foreign firms. Indian railways, for its part, announced Private Public Partnership (PPP) projects in February 2005 to rehabilitate and operate 7'000 rail freight depots.

## II. GATS COMMITMENTS ON LOGISTICS SERVICES

51. The following overview will focus on existing commitments as scheduled under the "traditional" classification system contained in document MTN.GNS/W/120 which, in turn, is based on the provisional UN Central Product Classification (CPC provisional). However, given their specific relevance in this sector, the section first addresses certain classification issues as raised in a proposal made by the so-called "Friends of Freight Logistics" (TN/S/W/20).

### A. CLASSIFICATION OF CORE FREIGHT LOGISTICS SERVICES/SERVICES AUXILIARY TO ALL MODES OF TRANSPORT

52. According to the classification proposal TN/S/W/20, "Core freight logistics services", the first of the three categories of logistics services in the proposal, are virtually synonymous with heading 11.H in document MTN.GNS/W/120, "Services auxiliary to all modes of transport". The only difference concerns the explicit listing of certain services that could be considered as implicitly included, as can be seen from Table 3, where the relevant details are shown in bold.

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<sup>40</sup> For example, the Chinese Ministry of Trade has estimated that between 2003 and 2004 the Chinese 3 PL market rose from US\$8.5 billion to US\$14 billion, an increase of 40 per cent in one year.

<sup>41</sup> FedEx, therefore, has bought up the shares of its local partner in the joint venture FedEx Tianjin-Datian in order to have direct access to the express delivery and logistics market in Central China. The French company GEFCO has done the same with its Chinese partner DTW. The Japanese company NYK has also been able to set up a distribution system for automobile spare parts "*overnight*" (in 24 hours) for Toyota concessionaires in Western and Central China, which it considered impossible under the previous regulations.

**Table 3: Core freight logistics services according to the proposal in document TN/S/W/20**

Description and W/120 category where applicable	CPC codes and inclusions where applicable
<u>11.H Services auxiliary to all modes of transport</u>	
a. Cargo handling services:	
Container handling services	CPC 7411
Other cargo handling	CPC 7419
b. Storage and warehousing services	<b>CPC 742 (including distribution centre services and materials handling and equipment services such as container station and depot services)</b>
c. Transport agency services	<b>CPC 748 (including customs agency services and load scheduling)</b>
d. Other auxiliary services	<b>CPC 749 (including through-chain logistics services, reverse logistics, container leasing and rental services)</b>

53. Document TN/S/W/20 does not explicitly address the partial overlapping between 11.H.c/CPC 748 "Freight transport agency services" and 11.H.d/CPC 749 "Other supporting and auxiliary transport services". Both categories include in their definitions "freight brokerage services", although classifications should be mutually exclusive. This "double counting" is already contained in the CPC provisional. Indeed, it is not easy to see what differentiates the activities covered by each category, especially in the light of actual economic conditions in these sectors as described before. In both cases, it appears to be a question of organizing transport from both a physical and a documentary point of view, as can be seen from the comparison in Table 4.

**Table 4: Comparison of the definitions in the headings 11.H.c and 11.H.d in document MTN.GNS/W/120**

11.H.c/CPC 748 Freight transport agency services	11.H.d/CPC 749 Other supporting and auxiliary transport services
Freight brokerage services, goods shipment services (principally services organizing their transport on behalf of the shipper or consignee), air and maritime brokerage services, consolidation and break-bulk freight services.	Freight brokerage services; bill auditing and freight rate information services; transportation document preparation services; packing and unpacking services; freight inspection, weighing and sampling services; freight receiving and acceptance (including local pick-up and delivery).

54. The additions proposed to these two headings in document TN/S/W/20 appear to limit one, 11.H.c/CPC 748, to the traditional functions of freight forwarding and transport commissioning, and to reserve the other, 11.H.d/CPC 749, either to more "modern" tasks (management of the logistics chain) or to truly supporting services (leasing of containers).

**B. CURRENT COMMITMENTS ON SUPPORTING AND AUXILIARY SERVICES FOR ALL MOPDES OF TRANSPORT**

55. The commitments described below (Table 5) are confined to generic commitments under heading 11.H, without reference to any particular mode of transport. In turn, the commitments on auxiliary transport services limited to maritime transport services alone are set out in the Background Note on maritime transport (S/C/W/ 315).

**Table 5: Specific commitments on supporting and auxiliary services for all modes of transport**

Country or territory	11.H.a. Cargo-handling services	11.H.b. Storage and warehousing services	11.H.c. Transport agency services	11.H.d. Other supporting and auxiliary transport services	Total
Albania	X	X	X	X	4
Armenia	X	X	X		3
Australia		X	X	X	3
Austria		X	X		2
Brazil	X	X			2
Bulgaria		X	X	X	3
China		X	X	X	3
Croatia	X	X	X	X	4
Estonia	X	X	X		3
EC 12		X	X	X	3
Finland		X	X	X	3
FYROM		X	X		2
Georgia	X	X	X	X	4
Hungary		X			1
Iceland		X			1
Japan		X	X		2
Jordan			X	X	2
Korea, Rep. of		X			1
Kyrgyz Republic	X	X	X		3
Latvia	X	X	X	X	4
Liechtenstein	X	X	X	X	4
Lithuania	X	X	X	X	4
Mexico				X	1
Moldova	X	X	X	X	4
Nepal		X			1
Philippines	X	X	X		3
St. Lucia				X	1
St. Vincent & G.				X	1
Saudi Arabia	X	X	X		3
Sierra Leone	X	X	X	X	4
Slovenia		X	X	X	3
Switzerland	X	X	X	X	4
Chinese Taipei	X	X	X	X	4
Thailand		X			1
Tonga	X	X	X	X	4
Ukraine	X	X	X	X	4
United States				X	1
Uruguay		X			1
Viet Nam	X	X	X	X	4
<b>Total*</b>	19	34	28	24	105

\* Counting EC 12 as one

56. As regards handling services, a total of 19 Members have made commitments. Four of them have explicitly qualified the scope of their commitments, one by limiting them solely to the activities of approved customs brokers, a second by excluding handling services for air transport, a third by limiting them to containers and also excluding air transport, and a fourth by explicitly excluding maritime handling services. For other Members, the exclusion of maritime transport is implicit from the coexistence of commitments on maritime handling and handling in general. Lastly, other Members have not qualified their commitments sectorally and have made no handling commitments under the heading of maritime transport. In the latter case, their general commitments under the 11.H heading also apply to maritime transport.

57. The issue of implicit or explicit linkage to commitments on auxiliary maritime services becomes even more acute for the three other auxiliary services in heading 11.H, given the lack of precise correspondence between the CPC-W/120 classification system, on the one hand, and comparable activities defined differently (freight forwarding, maritime agencies, customs clearance services, container depots) or in a modified way (storage and warehousing services) in the model maritime schedule, on the other.

58. The regimes governing handling services appear to be fairly liberal. Nine Members considered that it was technically impossible to provide this service under mode 1, two Members which made commitments in this subsector did not bind the mode. One Member has a requirement, for mode 2 as well, on the commercial presence of legal persons and a residence requirement for natural persons. Other Members bound mode 1 without any restrictions. Only one Member with commitments in the subsector did not bind mode 2.

59. With regard to mode 3, all Members which made commitments in the subsector bound them without limitations, with the exception of four. Of these four Members, one imposed a requirement to create a company under domestic law with a majority of directors who are nationals of the country or residing there or, for natural persons, a partnership requirement combined with a nationality or residence requirement. Another Member indicated that, for maritime transport alone, the land needed was a scarce resource that could be limited and awarded by means of a concession procedure; a third imposed an obligation to set up a joint venture without any foreign ownership limitation; and a fourth required a joint venture limited to 50 per cent foreign ownership. Mode 4 does not have any sector-specific limitations.

60. Secondly, with regard to storage and warehousing services, a total of 34 Members have made commitments. These include six schedules, covering 18 Members, that explicitly exclude maritime transport-related warehousing services from their commitments. One Member limited its commitments solely to road transport-related warehousing services while at the same time excluding certain products (including military products, dangerous goods and waste); another excluded fisheries and agricultural products; and one limited its commitments solely to activities carried out by approved customs brokers. Twenty-seven Members did not bind trade under mode 1, referring in 23 cases to the technical impossibility of providing this service cross-border. One Member has a requirement, for mode 2 as well, on the commercial presence of legal persons and a residence requirement for natural persons. Other Members bound mode 1 without any limitations. All but one Member which made commitments in the subsector bound mode 2 without any limitations. As regards mode 3, one Member imposed a requirement to create a company under domestic law with a majority of directors who are nationals of the country or reside there or, for natural persons, a partnership requirement combined with a nationality or residence requirement, and two Members indicated that, for maritime transport alone, the land needed for this activity was a scarce resource that could be limited and awarded by means of a concession procedure. Two Members did not bind this mode, three imposed joint venture requirements, one with a 51 per cent limitation on foreign ownership and, lastly, another Member imposed a requirement to set up a company under domestic

law combined with an 80 per cent limitation on foreign ownership. Mode 4 does not have any sector-specific limitations.

61. Thirdly, with regard to freight transport agency services, 28 Members have made commitments. Four of these specifically excluded maritime transport-related services. Two Members limited their commitments to freight forwarding, one of them solely for air transport. One Member excluded certain products (including military products, dangerous goods and waste), as well as local pick-up and delivery services. Another Member confined its commitments to activities by approved customs brokers. Lastly, one Member excluded freight inspection. All Members which made commitments in this subsector bound mode 1 without limitations, except for four. The latter did not bind this mode or, in one case, imposed a commercial presence requirement for legal persons, and a residence requirement for natural persons. Mode 2 was bound without restrictions, except by two Members, which imposed a commercial presence requirement.

62. As regards mode 3, there are various types of limitations. One Member requires three years' of previous experience, another accepts operations only if through subsidiaries or legal persons under domestic law, with a foreign ownership component limited to 49 per cent, while another operates composition and partnership requirements for the boards of directors. Again, one Member indicated, for maritime transport alone, the possibility of land scarcity and of a concession procedure. Three Members imposed joint venture requirements, one with foreign ownership limited to 51 per cent. Two Members requires the creation of firms under domestic law combined in one case with a requirement that directors must be nationals. Other Members with commitments in this subsector bound mode 3 without limitations. There are no sector-specific limitations for mode 4.

63. Lastly, as regards other supporting and auxiliary transport services, a total of 24 Members have undertaken commitments. Among these, several have in one way or another limited the sectoral scope of their commitments. For example, three Members specifically excluded maritime transport-related services, four Members excluded local pick-up and delivery services, two limited their commitments to the activities of approved customs brokers alone, another excluded certain products (including military products, dangerous goods and waste), two others limited their commitments to trans-shipment services alone, another solely to packing, crating, unpacking and de-crating services and freight inspection, all in the case of air transport only. Three Members focused exclusively on freight inspection services, while one Member excluded freight inspection services. Another Member limited its commitments to weighing services for transport purposes, while one Member limited them to freight brokerage services, bill auditing and freight rate information services and freight inspection services.

64. Only two Members considered that providing such services was unfeasible under mode 1, while one Member required a commercial presence and a second also a commercial presence for legal persons, but combined with a residence requirement for natural persons, and these limitations also apply to mode 2. All other Members which have made commitments in this subsector bound mode 1 without limitations. The same applies to mode 2, except for two Members - in addition to the Member previously mentioned - which imposed a commercial presence requirement.

65. As is the case for transport agencies, there are some differences in the limitations imposed under mode 3. One Member has made it a requirement to operate solely through subsidiaries or legal persons under domestic law, with a limitation of 49 per cent on foreign ownership; another made it a requirement to set up a company under domestic law with a majority of directors who are nationals of the country or reside there or, for natural persons, a partnership requirement combined with a nationality or residence requirement. Four Members made joint ventures compulsory, two with limitations on foreign ownership of 49 and 51 per cent, respectively. One Member made three years of previous experience a condition. Another Member indicated again that the land needed for maritime transport was a scarce resource that could be awarded by means of a concession procedure.

One Member referred to the general legislation on establishment without specifying any restrictions which it might contain. Lastly, one Member indicated that such services must be supplied by a corporation, association or partnership, that one officer or member of a partnership must hold a valid customs broker's licence and that this licence could only be obtained by its own citizens. All other Members which made commitments in this subsector bound mode 3 without any particular limitations. Mode 4 does not have any sector-specific limitations.

66. There are also some commitments defined *sui generis*, even though they appear under heading 11.H in the schedules of commitments. For example, one Member made commitments on customs clearance services, another on container depot services, two others on free zone services and another on support services for air transport. While two of these definitions are identical to the terms used in the model schedule on maritime transport, they now apply to all transport.

67. Lastly, there is one "multimodal" MFN exemption concerning auxiliary services for all modes of transport. It concerns storage and warehousing services, freight forwarding services, container stations and depots services and, more curiously, internal transport by truck, and the intention is to protect bilateral agreements guaranteeing reciprocal access to these services if it is not always possible to obtain full access at the multilateral level. The exemption is for an indefinite period, but it is explicitly stated that the situation will be regularly reviewed according to developments in market access. A second exemption is "semi-modal" and concerns handling and storage services relating to maritime and river transport alone. It provides cover for reciprocal treatment under relevant bilateral agreements.

#### C. RELATED FREIGHT LOGISTICS SERVICES

68. This second category, as defined in document TN/S/W/20, is divided into two sub-headings: a series of freight transport services needed for the transport of freight by a supplier of integrated logistics services, included under the services in heading 11 (transport services)<sup>42</sup>, and an additional list of "other related logistics services", covering distribution services, courier services, testing and technical analyses services.

69. The following Table of correspondence shows the services selected in the proposal in document TN/S/W/20, relevant comments and references to documents.

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<sup>42</sup> This is very close to the concept of "contract logistics", except that the commitments undertaken in these sectors also apply to operators specializing in each of the modes of transport but not providing any integrated logistics services.

**Table 6: Related logistics services in the proposal in document TN/S/W/20**

<b>Selected sectors</b>	<b>Correspondence or comments</b>	<b>Documents setting out the commitments</b>
<b>(1) Freight transport services</b>		
<u>11.A Maritime transport services</u>	<i>Services identified under maritime transport negotiations</i>	Document S/C/W/ 315
<u>11.B. Inland waterways transport services</u>	<i>Services identified under maritime transport negotiations</i>	Present document
<u>11.C. Air transport services</u>		
b. Air freight transport	CPC 732 ( <i>Currently excluded from GATS, subject to Annex on Air Transport Services</i> )	Document S/C/W/59, of 5 November 1998, pages 14-18, and document S/C/W/270, pages 16, 35 and 60
c. Rental of aircraft with crew	CPC 734 ( <i>Currently excluded from GATS, subject to Annex on Air Transport Services</i> )	
e. Supporting services for air transport	CPC 746	
<u>11.E Rail transport services</u>		
b. Freight transport	CPC 7112	Document S/C/W/61, of 28 October 1998, pages 10-13 <sup>43</sup>
c. Pushing or towing services	CPC 7113	
e. Supporting services for railway transport <sup>44</sup>	CPC 743	
<u>11.F Road transport services</u>		
b. Freight transport	CPC 7123	Document S/C/W/60, of 28 October 1998, pages 16-20. 2010 Background Note on road transport
c. Rental of commercial vehicles with operator	CPC 7124	
- without operator	CPC 83102	
e. Supporting services for road transport	CPC 744 (excluding CPC 7441, bus station services)	
<b>(2) Other related logistics services</b>		
<u>1.F.e Testing and technical analyses services</u>	CPC 8676	Present document
<u>2.B Courier services</u>	CPC 7512	2010 sectoral document on postal and courier services
<u>4.A Commission agents' services</u>	CPC 621	2010 sectoral document on distribution services
<u>4.B Wholesale trade services</u>	CPC 622	
<u>4.C Retail trade services</u>	CPC 631, 632, 6111, 6113, 6121 (including inventory management of goods, assembling, sorting and grading of goods, break-bulk, re-distribution and delivery services)	

70. Some of the services listed in Table 6 have been or will be the subject of other Background Notes or documents prepared for the Air Transport Reviews. The following remarks will thus focus on other subsectors (river transport, testing and technical analyses services) that have not been described elsewhere. Table 7 deals with river transport.

<sup>43</sup> Since this document was prepared in 1998, the following commitments on freight transport (11.E.b.) have been made by countries or territories that subsequently acceded to the WTO: China, Georgia, Kyrgyz Republic, Moldova, Saudi Arabia, Chinese Taipei, Ukraine, Viet Nam. For railway pushing or towing services (11.E.c.): Georgia, Kyrgyz Republic, Moldova, Saudi Arabia; and for supporting services for railway transport (11.E.e.): Croatia, Kyrgyz Republic, Moldova, Saudi Arabia, Ukraine.

<sup>44</sup> The headings 11.C.e. (supporting services for air transport), 11.E.c. (railway pushing or towing services), 11.E.e. (supporting services for railway transport) and 11.F.e. (supporting services for road transport), which are listed separately in document TN/S/W/20, have been replaced by transport services in order to simplify the table.

**Table 7: Specific commitments on inland waterway transport services**

Country or territory	Passenger transportation services	Freight transportation services	Rental of vessel with crew	Maintenance and repair of vessels	Pushing and towing services	Supporting services for transport by inland waterways	Total
China		X					1
Côte d'Ivoire	X	X				X	3
Czech Republic	X	X	X	X	X	X	6
EC 12			X				1
Gambia	X			X	X		3
Hungary				X			1
Japan					X	X	2
Latvia	X	X	X	X	X	X	6
Lithuania			X				1
Moldova	X	X	X	X	X	X	6
Myanmar	X						1
Niger	X	X					2
Peru	X						1
Sierra Leone	X	X	X	X	X	X	6
Slovak Republic	X	X	X	X	X	X	6
Switzerland	X	X	X	X	X	X	6
Ukraine	X	X	X	X	X	X	6
Viet Nam	X	X					2
<b>Total*</b>	13	11	9	9	9	9	60

\* Counting EC 12 as one

71. A large percentage of Members which made commitments on river transport excluded transport *per se*, either of passengers or freight. The commitments covering river transport services other than passenger and freight transport are fairly liberal. Where transport services are covered, in general the commitments are somewhat restricted. Only mode 2 shows no limitations. While four Members made commitments on mode 1 without limitations, this mode has not been bound by six other Members and has been limited to ports open to international traffic by a seventh Member. The mode 3 regime seems to be more varied. Four Members which have made commitments on river transport *per se* to varying degrees have not bound this mode, two require an authorization for providing services, and in one case such an authorization may be provided in a discretionary manner. Two Members have scheduled joint venture requirements and one Member has an ownership requirement, which is extended to Members of the Mannheim Convention on Navigation on the Rhine. Lastly, four Members have full commitments on commercial presence. The commitments under mode 4 do not have any sector-specific limitations.

72. Ten Members have listed MFN exemptions for inland waterway transport. With two exceptions, these concern access to a given network of navigable waterways and the related traffic.<sup>45</sup> One exemption concerns a reciprocity regime for rental of vessels and another, in more general terms,

<sup>45</sup> The relevant network is formed by the three rivers, the Rhine, the Main and the Danube, and the neighbouring canals, which are in fact governed by ancient plurilateral conventions, 1819 for the Mannheim Convention on the Rhine and 1856 for the Paris Convention on the Danube. The entry into force of the consolidated schedule of 25 and then 27 Members of the European Union should lead to a reformulation of these exemptions and a lowering of their number. Another MFN exemption relating to traffic rights concerns the basin of the Mekong.

is intended to cover "procedures, charges and regulations applicable to vessels of the countries concerned". Lastly, one exemption has a limited duration of eight years and is due to expire in 2016.

73. In general, the commitments made by Members on testing and technical analyses services are fairly liberal.<sup>46</sup> Eight of the 54 Members which made commitments limited their scope, but each time in a different way: by excluding testing of vehicles or analyses leading to the preparation of official documents, or biological analyses, or analyses undertaken in relation to government-financed projects. Others limited the scope of these analyses to a specific sector, agriculture and raw materials in one case, agriculture alone in another, petroleum analyses in a third case and pharmaceutical analyses in a fourth instance.

74. Mode 2 has been bound without limitations except in five cases. Mode 1 has remained unbound in 11 cases. In two cases, the requirement to be registered with an international accreditation system has been listed as a limitation in mode 1. In all other cases, mode 1 has been bound without any limitations.

75. There is a greater variety in the mode 3 regime. In two cases, it is not the subject of any commitment. Five Members imposed joint venture requirements and one Member combined a transitional joint venture requirement with minimum capital requirements and required previous experience in the country of origin. Three Members imposed a combined authorization regime, in two instances with a local content, local employment requirement and training requirement. Three Members restricted the supply of these services to natural persons alone. Lastly, one Member required joint operations with a local partner through an agency and another Member imposed an economic need test.

76. As regards mode 4, there are some sector-specific entries: a total absence of commitments in one case, an economic needs test in another case, and the requirement of a university degree or professional experience in the case of further four Members.

#### D. NON-CORE FREIGHT LOGISTICS SERVICES

77. The authors of document TN/S/W/20 include three services under this third heading: Computer and related services, for which the commitments are described in the Background Note on this sector (S/C/W/300 of 22 June 2009, pages 7-8); packaging services; and management consulting and related services. The following Table summarizes the commitments concerned.

**Table 8: Specific commitments on management consulting and related services and packaging services**

Country or territory	Management consulting services	Services related to management consulting	Packaging services
Albania	X	X	X
Argentina	X		
Armenia	X	X	
Australia	X	X	

<sup>46</sup> The sector has been scheduled by Albania, Armenia, Austria, Bulgaria, Cambodia, Canada, Cape Verde, China, Colombia, Côte d'Ivoire, Croatia, Dominican Republic, Estonia, European Union (EC12), Finland, FYROM, Gabon, Georgia, Hungary, Iceland, India, Indonesia, Japan, Jordan, Korea (Rep. of), Kuwait, Kyrgyz Republic, Latvia, Lesotho, Liechtenstein, Lithuania, Madagascar, Malawi, Moldova, Mongolia, Nepal, Norway, Oman, Pakistan, Qatar, Saudi Arabia, Sierra Leone, Slovenia, South Africa, Swaziland, Switzerland, Chinese Taipei, Thailand, Tonga, Ukraine, United Arab Emirates, Viet Nam, and Zambia.

Country or territory	Management consulting services	Services related to management consulting	Packaging services
Austria	X	X	X
Brazil	X	X	
Bulgaria	X		X
Burundi	X		X
Cambodia	X	X	X
Canada	X	X	X
Cape Verde	X	X	
Chile	X		
China	X		X
Colombia	X		
Croatia	X	X	
Cuba	X		
Czech Republic	X	X	X
Dominican Republic	X		
Ecuador	X	X	
Estonia	X	X	
EC 12	X	X	X
Finland	X	X	
FYROM	X	X	X
Gambia	X	X	
Georgia	X	X	X
Hong Kong, China	X		
Hungary	X		X
Iceland	X	X	X
Indonesia		X	
Israel	X	X	
Jamaica	X		
Japan	X	X	X
Jordan	X	X	X
Korea, Rep. of	X	X	X
Kuwait	X	X	X
Kyrgyz Republic	X	X	
Latvia	X	X	X
Lesotho	X	X	
Liechtenstein	X	X	X
Lithuania	X	X	
Malaysia	X		
Mexico	X	X	
Moldova	X	X	X
Mongolia	X		
Morocco	X		
Nepal	X		X
Norway	X	X	X
Oman	X	X	X
Panama	X	X	
Papua New Guinea	X		

Country or territory	Management consulting services	Services related to management consulting	Packaging services
Poland	X		
Qatar	X		
Romania	X	X	
Saudi Arabia	X	X	X
Sierra Leone	X	X	X
Singapore	X		
Slovak Republic	X	X	X
Slovenia	X	X	
South Africa	X	X	
Swaziland	X		
Sweden	X	X	
Switzerland	X	X	X
Chinese Taipei	X	X	X
Thailand	X		X
Tonga	X	X	
Trinidad and Tobago	X		
Turkey	X		X
Ukraine	X	X	X
United Arab Emirates	X		
United States	X	X	X
Uruguay	X	X	
Venezuela	X		
Viet Nam	X	X	
<b>Total*</b>	72	48	32

\* Counting EC 12 as one

78. Only six Members of the 72 which made commitments on management consulting services narrowed down their sector scope. As in many other sectors, mode 2 provides for the most liberal regime as only five Members have not bound it and only one qualified it by excluding government-financed projects. One Member imposed accreditation and citizenship requirements for certain professions and certain provinces. As regards mode 1, ten Members have not made any commitment, two Members inscribed the same limitations as under mode 2, and all other Members have made full commitments.

79. Again, Mode 3 presents a more varied picture. It has been left unbound by seven Members.. Six Members scheduled the requirements of a university degree and previous professional experience of three years plus, in two cases an economic needs test. There is also one case of joint operation requirement through an agency, three joint venture requirements (with variable limits on foreign ownership), in one case accompanied by a requirement to set up a company under domestic law. Lastly, one Member inscribed a requirement to obtain local certification. Commitments under mode 4 have no sector-specific limitations, except one case without any binding.

80. As regards services related to management consulting services, only five of the 48 Members concerned narrowed the sectoral scope of their commitments. Modes 1 and 2 provide for a particularly liberal regime as all but one Member have undertaken full commitments. Similarly, only one Member has not made commitments under mode 3. Other Members scheduled, respectively, a registration requirement, a foreign-ownership ceiling, and a joint venture requirement. The

commitments under mode 4 do not have any sector-specific limitations, apart from six Members which inscribed requirements related to education (university degree), previous professional experience and, in two cases, economic needs tests. An additional six Members have not made any commitment under this mode.

81. Packaging services have always been scheduled, in 32 cases, without modifications of sectoral coverage. Mode 2 has been left unbound in only two cases, while all other Members committed without limitations. In contrast, nine Members refrained from scheduling commitments on mode 1, with the other Members binding it without limitations. Mode 3 has drawn full commitments in all but three cases where Members have scheduled foreign ownership limitations (twice) and a joint venture requirement. Mode 4 does not have any sector-specific limitations.

82. There are no specific MFN exemptions in these three sectors.

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