# Statistics in focus

### **TRANSPORT**

THEME 7 - 3/2001

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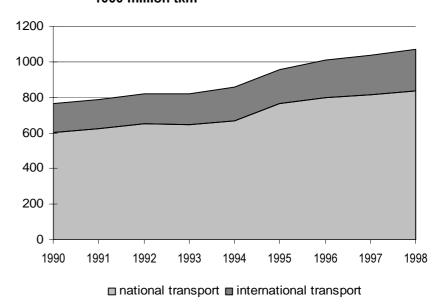


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# Trends in road freight transport 1990-1998

### Anita Hedbrand

Figure 1: Trend of the contribution of national and international road transport 1990-1998 in selected\* Member States - in 1000 million tkm



\*Data of the following countries were compiled: B, DK, D, EL, E, F, I, NL, P, UK. Source: Eurostat (New Cronos)

### Main trends

The total volume of road freight transport in the EU in 1998 can be established at 1170 000 million tonne-kilometres. National transport accounts for 77% of this total, international transport for 20%. Cross-trade transport contributes 2% and finally cabotage transport 0.2%.

Considering the tonne-kilometres performed by hauliers in national transport, Germany -influenced by the re-unification process-progressed most with 68% between 1990 and 1998 (annual average growth rate 6.7%). Greece is another country with considerable growth in volumes (over 50% between 1990 and 1998).

In Spain, international transport increased with an average annual growth rate of 13.1% between 1990 and 1998. Denmark, Germany and Portugal display a doubling of the volume in international transport.

Due to a relatively small national markets and the vicinity of foreign markets, Benelux hauliers remain very active in both cross-trade and cabotage transport throughout the period observed.

Own account national transport is in steady decrease in all countries, but still accounted for more than 30% of the total in Belgium and Germany.

The breakdown by type of goods carried show no major shifts in share over time, however building materials clearly dominates the national transport, manufactured and miscellaneous articles the international transport.

### **National transport**

In 1998, the total volume of national road transport at EU level could be estimated at roughly 900 000 million tkm; this is nearly four times the volume of international road transport (approx. 240 000 million tkm). This relation is also illustrated in Graph 1 on the previous page.

Obviously, geographically big Member States have important national markets and display the highest figures. Germany, France, Italy and the United Kingdom taken together account for 73% of the cumulated national transport in the EU.

Table 1 displays the time series for the individual countries: it appears that most countries show a steady increase throughout the period observed.

The figures for Germany are influenced by the reunification process: the increased volume of the national German market explains the 68% increase compared to 1990. Whereas Germany recorded the second largest figure in 1990, after the United Kingdom and closely followed by Italy, this country is by far the leader in 1998.

Table 1: National transport - in million tkm

	1990	1991	1992	1993	1994	1995	1996	1997	1998	change 1990-98 (%)
EU-15	:	:	:	:	:	:	:	:	:	:
Belgium	12 616	13 499	13 887	14 808	17 629	18 616	16 615	18 426	16 693	32
Denmark	9 354	9 027	9 407	8 779	9 531	9 327	9 432	9 712	10 108	8
Germany	120 168	138 071	158 817	153 815	200 014	201 299	199 195	203 119	202 230	68
Greece	12 485	11 929	9 755	13 952	15 109	12 357	15 056	16 394	19 322	55
Spain	69 924	74 661	75 226	75 517	77 174	78 744	76 257	80 634	91 329	31
France	118 200	120 900	122 400	118 800	124 600	135 300	136 502	138 960	145 459	23
Ireland	3 878	4 205	4 707	4 160	:	:	:	:	:	:
Italy	115 786	116 283	122 283	115 974	:	150 301	151 025	153 600	:	:
Luxembourg	:	:	453	484	519	531	392	:	:	:
Netherlands	22 581	23 037	25 271	25 658	25 458	26 683	27 303	27 384	28 240	25
Austria	:	:	:	:	:	11 069	11 444	11 559	11 715	:
Portugal	10 978	11 788	10 652	9 941	11 171	11 119	13 994	14 443	14 693	34
Finland	:	:	:	:	:	21 804	22 185	23 508	24 397	:
Sweden	:	:	:	:	:	28 357	30 288	32 176	30 369	:
United Kingdom	132 968	127 205	123 565	131 453	140 646	146 714	150 195	152 502	155 431	17

Source: Eurostat (New Cronos) Estimates in italic

Greece (average annual growth rate: 5.6%) experienced an increase of more than 50% during the period observed, followed by Belgium (average annual growth rate: 3.6%), Italy (average annual growth rate between 1990-97: 3.6) and Portugal (average annual growth rate: 3.7), where the number of tonne-kilometres hauled increased by approximately 30%.

With more than 200 000 million tkm forwarded in 1998, the volume of national traffic of Germany is nearly 5 times as important as international traffic.

National transport is around 15 times higher than international transport in Greece and 10 times in countries like Finland, Sweden and the United Kingdom. On the opposite, the volume of national transport represents only one-third of the international transport of Luxembourg.

It should be noted that national transport figures are slightly higher than indicated in Table 1 since cabotage transport figures (national transport by a haulier based in another country – see special section in this report) should be added to the individual country totals.



### International transport

Total international road freight transport sums up to approximately 240 000 million tkm in 1998.

Germany, France and the Netherlands alone account for half of this transport. If the latter country is grouped with it's two Benelux partners it appears that the very active hauliers from these three, relatively small Member States account for about 25% of the EU total. The traditionally high share of Dutch hauliers is often referred to as the 'Rotterdam-effect'.

With an average annual increase of 2.2% between 1990 and 1998, Dutch international transport is growing only slowly. At a lower level in absolute transport performance, other countries display a more dynamic market: in 1998 compared to 1990,

Spain's international road transport increased by 167% (average annual growth rate: 13%), that of Denmark more than doubled (average annual growth rate 9.7%). Germany (8.7%) and Portugal (8.6%) display similar average annual growth rates as those recorded for Denmark.

Belgium's international transport shows virtually no progress. The figures for Italy (available up to 1997) display a relatively important fluctuation after 1994.

The only country that registered a decline is Greece, where international road transport seems to recover only slowly from the Yugoslav conflict.

Table 2: International transport - loaded and unloaded - in million tkm

	1990	1991	1992	1993	1994	1995	1996	1997	1998	change 1990-98 (%)
EU-15	:	:	:	:	:	:	:	:	:	:
Belgium	19 433	20 604	18 210	20 178	23 073	22 833	21 084	21 920	19 900	2
Denmark	5 145	5 872	6 384	10 423	11 433	12 421	11 344	11 226	10 796	110
Germany	21 432	23 137	24 203	25 681	25 772	29 507	31 679	36 736	41 884	95
Greece	2 119	1 983	2 732	1 415	636	867	841	1 734	1 272	-40
Spain	12 271	13 086	14 187	16 277	20 171	22 513	25 250	28 348	32 814	167
France	34 064	34 381	37 070	34 911	38 360	40 041	40 333	39 439	40 291	18
Ireland	1 008	780	411	887	:	:	:	:	:	:
Italy	20 498	18 423	19 661	18 179	19 309	12 497	23 940	19 754	:	:
Luxembourg	:	:	1 661	1 615	1 395	:	:	1 213	:	:
Netherlands	30 896	29 033	30 468	31 232	32 719	33 901	35 147	35 999	36 809	19
Austria	:	:	:	:	:	4 485	3 547	3 617	3 874	:
Portugal	5 152	6 901	6 140	5 764	6 739	:	8 846	10 046	9 954	93
Finland	:	:	:	:	:	:	2 570	2 122	2 413	:
Sweden	:	:	:	:	:	2 914	2 768	2 571	2 829	:
United Kingdom	10 651	11 229	11 755	12 479	14 370	14 415	15 523	16 263	16 122	51

Source: Eurostat (New Cronos)

As mentioned in the previous chapter, international road transport can be of considerable importance for geographically small countries. Expressed in tonne-kilometres forwarded, international transport clearly outnumbers national transport in Belgium, the Netherlands and especially Luxembourg (by factor 4).

Apart from 'regular' international transport, crosstrade transport figures (international transport performed by a haulier from a third country) should be added to the account of the hauliers of the various Member States. This shows then the total amount of tonne-kilometres forwarded in international traffic.



### **Cross-trade transport**

International road transport performed by a road motor vehicle registered in a third country (cross-trade road transport) can be of major importance for certain countries. From the data available, it appears that – as for cabotage transport (see next section) - especially smaller Member States with a geographically central location have a high proportion

of cross-trade transport, not only in absolute numbers but also when compared to 'regular' international transport: this is notably the case for Belgium and the Netherlands, where cross-trade transport in 1998 was equivalent to 20% of the volume of total international transport (based on tkm).

Table 3: Cross-trade transport performed in EU-15 by hauliers from reporting countries - in million tkm

	1990	1991	1992	1993	1994	1995	1996	1997	1998
Belgium	2 298	1 975	3 129	3 166	3 822	3 799	3 746	2 933	3 848
Denmark	:	:	:	659	603	499	432	478	390
Germany	:	:	1 542	1 593	:	2 762	2 656	3 293	3 855
Greece	4	7	:	:	:	:	:	:	:
Spain	:	:	:	218	220	373	454	495	703
France	2 174	2 570	2 990	3 144	2 957	2 694	2 911	2 795	2 811
Ireland	184	112	:	:	:	:	:	:	:
Italy	:	:	149	143	153	186	237	:	:
Luxembourg	:	1 255	1 854	2 058	1 979	:	1 767	2 594	:
Netherlands	4 396	4 921	5 058	4 955	5 355	5 972	6 269	6 493	7 014
Austria	438	413	422	408	430	446	306	349	390
Portugal	133	247	219	326	440	468	361	332	352
Finland	:	:	1	:	:	:	153	21	64
Sweden	:	:	:	:	:	64	50	70	26
United Kingdom	361	541	269	216	277	291	401	392	403

Source: Eurostat (New Cronos) - Directive data

Largely due to the small size of its home markets, Luxembourg's cross-trade transport is even more than twice as big as 'regular' international transport (in 1997). For all other Member States, and especially peripheral EU Member States, this type of transport is of lesser importance: equivalent to 10% of the total international transport for Germany and Austria, this figure falls to nearly 7% for France

(1997) and less than 4% for all other Member States

Table 3 outlines however that throughout the period observed, fluctuations occurred at Member State level. Even if a general upward trend can be noted for most countries, one cannot speak about a 'steady' increase.

### Cabotage transport

Cabotage is road transport inside a country by a haulier based in another country. Cabotage transport was gradually introduced in 1990 (authorization quotas) and entirely liberalized in 1998. The cabotage regime was extended to the EFTA states (except Switzerland) following the creation of the EEA.

Although Table 4 shows an considerable increase of

cabotage transport over the years, the overall influence remains small: national transport by resident hauliers is 250 times more important than cabotage.

Certain countries are clearly preferred to undertake cabotage transport: in 1997, 68% of the entire cabotage was performed in Germany, 13% in France.

Table 4: Total cabotage by hauliers from EEA countries in million tkm

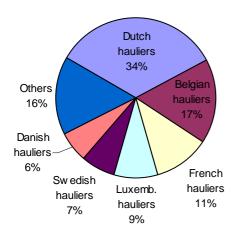
	1991	1992	1993	1994	1995	1996	1997	Jan June 1998
TOTAL	646	745	881	1 146	1 677	2 215	3 558	2 423

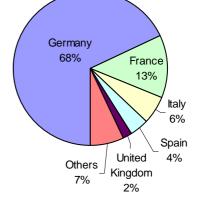
Source: DG TREN



Figure 2: The most active 'caboteurs'...... and the most 'cabotaged' countries

Source: DG TREN





Hauliers from geographically small countries have more incentive to undertake cabotage because their national markets are small and other national markets geographically close. Hauliers from the Benelux countries have been particularly active in the market: in 1997, together, they were responsible for

nearly 60% of the entire cabotage in the EEA. Fears for 'unfair competition' from low labour cost countries remain unfounded: only 2% of the entire cabotage was carried out by Greece, Spain and Portugal.

### Breakdown by type of transport

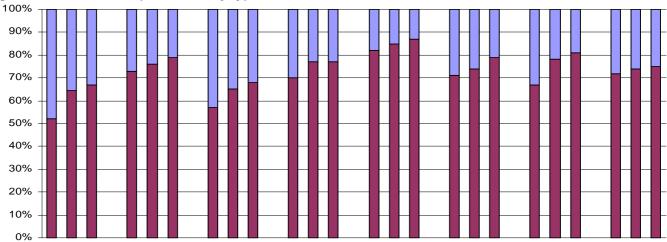
If national transport is observed by type of transport, it appears that 'own account' transport is steadily decreasing. In all Member States for which data were available, this trend can be observed. More and more companies seem to concentrate on their core business and 'outsource' their ancillary transport activities.

Influenced by different economic and industrial structures, the situation differs however from country to country. Figure 3 shows that among the 8

countries observed, Belgium and Germany show the highest 'own account' share in 1998 with 33% and 32% respectively. All other countries now have an 'own account' share of well below 30%, the lowest share being registered for Spain (13%).

The gradual shift towards more hire and reward transport appears to be slowest in the United Kingdom, where the 'own account' share was only slightly reduced (from 28% in 1990 to 25% in 1998).

Figure 3: National transport, share by type - in %



■ hire & reward ■ own account

Source: Eurostat (New Cronos). Note: data based on million tkm forwarded.



Nearly the entire international road transport consists of 'hire and reward' transport. From the observed countries (the same countries as in the previous section, except Greece), the country with the most important shift from 'own account' to 'hire and reward' transport was Belgium: whereas the share of 'own account' transport still stood at 31% in 1990, the

same figure reads 13% in 1998. Germany displays the second most important 'own account' share (9%, down from 11% in 1990). All other countries record an 'own account' share of well below 5%.

'Own account' international transport is sometimes so negligable that certain countries not even collect these data.

### Breakdown by goods groups (NST/R chapters)

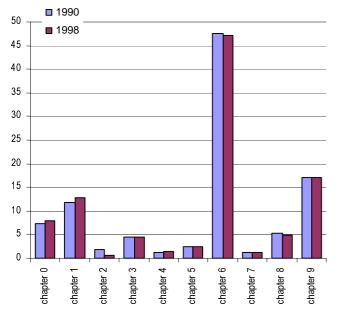
If one observes transport from the point of view of the various kinds of goods forwarded, some notable differences appear between national and international transport.

Looking at Figure 4 and 5 individually, it appears that there have been no major changes in the percentual shares of the various goods groups between 1990 and 1998. More interesting is the comparison of the various NST/R chapters between national and international transport. It then appears that the transport of crude and manufactured minerals and building materials (chapter 6) alone accounts for nearly half (47%) of the total volume of national road transport (expressed in tonnes) whereas the same goods category represents only around 15% in international traffic.

The other most remarkable difference concerns NST/R chapter 9 (Machinery, transport equipment, manufactured articles and miscellaneous goods): here, the opposite applies: in national transport, the share amounts to 17%, whereas in international transport, this same group accounts for 33%.

Figure 5 further outlines that apart from NST/R chapter 9, there is a much more equal distribution in the kind of goods.

Figure 4: Share of goods groups in national transport - by NST/R chapter (in %)



Note: Data are based on tonnes forwarded in the following Member States: B, DK, D, EL, E, F, NL, P, UK. Source: Eurostat (New Cronos)

Although not visible in Figure 5, it should be noted that NST/R goods group 24 - "miscellaneous articles"-, a subgroup of chapter 9, is largely responsible for the higher share in 1998 compared to 1990: whereas group 24 was responsible for 30% of the volume in tonnes of chapter 9 in 1990, it increased to 42% in 1998. It has been experienced that goods in containers, for which the content is not exactly known by reporting authorities, are increasingly allocated to "miscellaneous goods".

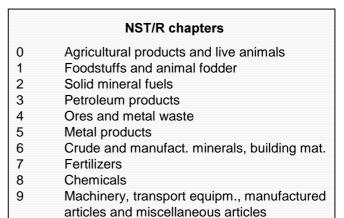
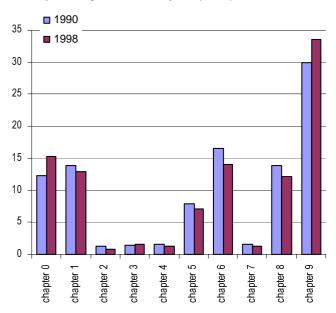


Figure 5: Share of goods groups in international transport - by NST/R chapter (in %)



Note: Data are based on tonnes forwarded in the following Member States: B, DK, D, EL, E, F, NL, P, UK. Source: Eurostat (New Cronos)



In both national and international road transport, 'high volume-low value' goods like solid mineral fuels (chapter 2), petroleum products (chapter 3), ores and metal waste (chapter 4) as well as fertilizers (chapter 7) have a very small share.

A side-look to rail and inland waterway goods transport reveals a relatively high share for goods under NST/R chapter 2 and 3 in these modes (share of nearly 10% for both chapters in rail, nearly 20% in inland waterway transport).

### ESSENTIAL INFORMATION – METHODOLOGICAL NOTES

Data presented in this bulletin were collected in the frame of Council Directive 78/546/EEC 'on statistical returns in respect of carriage of goods by road', amended by Council Directive 89/462/EEC, except for data on cabotage transport. Cabotage data have been collected on the base of the Council Regulation (EEC) N° 3118/93 'laying down the conditions under which non-resident carriers may operate national road haulage services within a Member State'.

### Cabotage

Apart from the 'traditional' national transport, cabotage (national transport performed by hauliers registered in another country) should also be considered as national transport. Whereas 'traditional' national transport is based on the transport performance declared by Member States for their own territory and hauliers registered in their own country, cabotage is declared by Member States for hauliers registered in their own country who performed national transport abroad.

Cabotage data have been taken from the Cabotage database of DG TREN. The table on cabotage takes into account cabotage done in the EEA countries. They have been adjusted to take into account increasing underreporting from 1996 onwards.

### International transport

International transport as presented in this bulletin is based on declarations of dispatched and received goods by the various Member States. Double counting is avoided since declarations relate only to resident carriers of the reporting countries: the figures sum up the goods dispatched from resident carriers to all countries of the world and the goods brought into the reporting country by resident carriers from all countries of the world.

### **Cross-trade transport**

Cross-trade transport is defined as international road transport performed by a road motor vehicle registered in a third country. It should therefore be considered as being part of international transport.

Figures presented in the table take into account cross-trade transport by hauliers of the reporting countries. Thus, figures do not express where this type of transport has taken place but by who. Cross-trade data are not complete; data presented in the table are those available to date. Two sources have been used: Council Directive data and figures from the 'Common Questionnaire' (joint questionnaire from Eurostat, UN-ECE and ECMT).

### Breakdown by type of transport

The information presented takes into account the Member States that have supplied data for 1990, 1995 and 1998.

### Breakdown by goods groups

The NST/R classification (Standard Goods Nomenclature for Transport Statistics / Revised) consists of 24 goods groups. Because of the lack of available space, it is not possible to present all 24 groups separately. The individual goods groups have thus been aggregated at NST/R chapter level. A brief description of the NST/R chapters is given in the relevant section of the commentary to enhance readability.

This publication was prepared with the assistance of Jelle Bosch, Artemis Information Management.



## Further information:

### **Databases**

New Cronos, Theme 7 Domaine Road transport

BELGIQUE/BELGIË	DANMARK	DEUTSCHLAND	ESPAÑA	FRANCE	ITALIA – Roma	
Eurostat Data Shop   DANMARKS STATISTIK		STATISTISCHES BUNDESAMT Eurostat Data Shop Berlin Otto-Braun-Straße 70-72 (Eingang: Karl-Marx-Allee) D-10178 BERLIN Tel. (49) 1888-644 94 27/28 Fax (49) 1888-644 94 30 E-mail: datashop@statistik-bund.de	INE Eurostat Data Shop Paseo de la Castellana, 183 Oficina 009 Entrada por Estébanez Calderón E-28046 MADRID Tel. (34) 91 583 91 67 Fax (34) 91 579 71 20 E-mail: datas hop.eurostat@ine.es	INSEE Info Service Eurostat Data Shop 195, rue de Bercy Tour Gamma A F-75582 PARIS CEDEX 12 Tel. (33) 1 53 17 88 44 Fax (33) 1 53 17 88 22 E-mail: datashop@insee.fr	ISTAT Centro di Informazione Statistica Sede di Roma, Eurostat Data Sho Via Cesare Balbo, 11a I-00184 ROMA Tel. (39) 06 46 73 31 02/06 Fax (39) 06 46 73 31 01/07 E-mail: dipdiff@stat.it  SCHWEIZ/SUISSE/SVIZZEI	
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