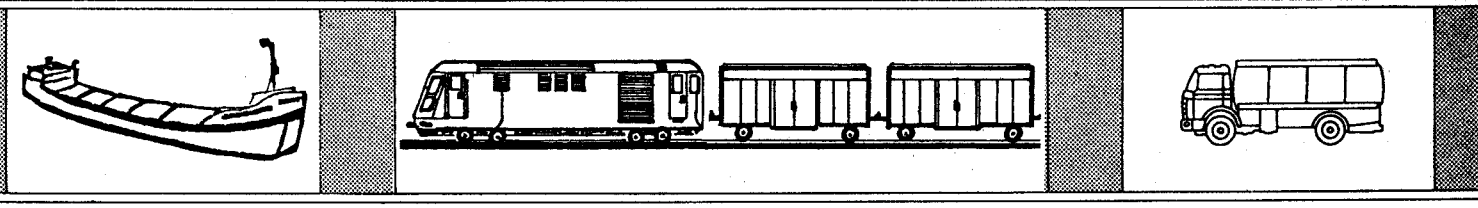
EUROPEAN COMMUNITIES

EUROPA TRANSPORT



OBSERVATION OF TRANSPORT MARKETS

ANNUAL REPORT
1989

Published by the Directorate-General for Transport
Commission of the European Communities - 200, rue de la Loi, 1049 Brussels

Supplement to the Documentation Bulletin - D/TRANS/EN

Document

ANNUAL REPORT
1989

Manuscript finished in June 1991

A bibliographical slip can be found at the end of this volume
Luxembourg: Office for Official Publications of the European Communities, 1992
ISBN 92-826-0468-3

Printed in Belgium

PRESENTATION OF THE 1989 ANNUAL REPORT

The "EUROPA Transport" publications present a substantial part of the statistical information on the international intra-Community transport of goods collected under the "Market Observation System".

Three reports are published:
- Analysis and Forecasts
- Annual Report
- Market Developments

The contents of the following "Annual Report 1989" are as follows :

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CHAPTER 1

GENERAL MARKET ASSESSMENT - ALL 3 MODES

1.1. Economic Background

After several years of steady economic growth with gdp growing at about 2.5% per annum, Community gdp accelerated to 4.0% in 1988 ; subsequently the growth rate eased slightly, 3.3% in 1989 and 2.7% in 1990. The forecast growth for 1991 is sharply down at 1.4% with a recovery in 1992 to 2.3%.

Correspondingly there has been a similar pattern of growth of industrial production with growth of just over 2% in 1986 and 1987 followed by 4.3% in 1988 and 3.7% in 1989. For 1990, growth in industrial production was only 1.7%, a much sharper decline than for gdp.

1.2. Development of Total Community Transport Activity, 1986-1989 in tkm

Table 1.1 shows the development of total transport activity in the Community, i.e. international intra-Community + national transport activity in Milliards of tkm for the years 1986-1989. (1 Milliard = 10^9)

TABLE 1.1 TOTAL TRANSPORT ACTIVITY IN THE COMMUNITY IN tkm (Milliards)

	Road	Rail	Inland Waterways	Total 3 modes
1986	653.7	147.6	92.1	893.4
1987	699.4	146.1	89.2	934.7
1988	759.1	150.4	94.7	1004.2
1989	797.8	149.7	95.0	1042.5
Annual Growth Rates				
1986-1987	+7.0%	-1.0%	-3.1%	+4.6%
1987-1988	+8.5%	+2.9%	+6.2%	+7.4%
1988-1989	+5.1%	-0.5%	+0.3%	+3.8%
Modal Split				
1986	73.2	16.5	10.3	100
1987	74.8	15.6	9.6	100
1988	75.6	15.0	9.4	100
1989	76.5	14.4	9.1	100

The increase of 7.4% in tkm for the total of all 3 modes in 1988 was quite exceptional and was linked to the high growth of gdp and industrial production for that year. This increase dropped to 3.8% for 1989, despite the fact that industrial production grew almost as fast as in 1988. The increase for road haulage in 1989 (5.1%) was smaller than the previous year, but since rail (down 0.5%) and inland waterways (up 0.6%) showed very small changes, the shift in the modal split for road went up one percent compared to 1988.

1.3. Development of National Transport Activity 1986-1989 in tkm

Table 1.2 shows the summary figures for national transport activity in the Community in Milliards of tkm.

TABLE 1.2 NATIONAL TRANSPORT ACTIVITY IN tkm (Milliards)

	Road	Rail	Inland Waterways	Total 3 modes
1986	537.5	110.8	26.5	674.8
1987	569.9	109.3	25.7	704.9
1988	615.2	111.4	26.5	753.1
1989	641.1	108.4	25.6	775.1
Annual Growth Rates				
1986-1987	+6.0%	-1.4%	-3.0%	+4.5%
1987-1988	+7.9%	+1.9%	+3.1%	+6.8%
1988-1989	+4.2%	-2.7%	-3.4%	+2.9%
Modal Split				
1986	79.7	16.4	3.9	100
1987	80.9	15.5	3.6	100
1988	81.7	14.8	3.5	100
1989	82.7	14.0	3.3	100

The figures show that despite the growth of international transport, national transport still accounts for some 75% of total Community transport. As is the case with the international intra-Community transport activity, road transport dominates even more in the modal split of national transport. The impressive increase of 7.9% for the road transport in 1988 was followed by a further increase of 4.2% for 1989. Inland waterways account for only 3.3% in the modal split of national transport showing a decreasing trend for the years 1986-1989.

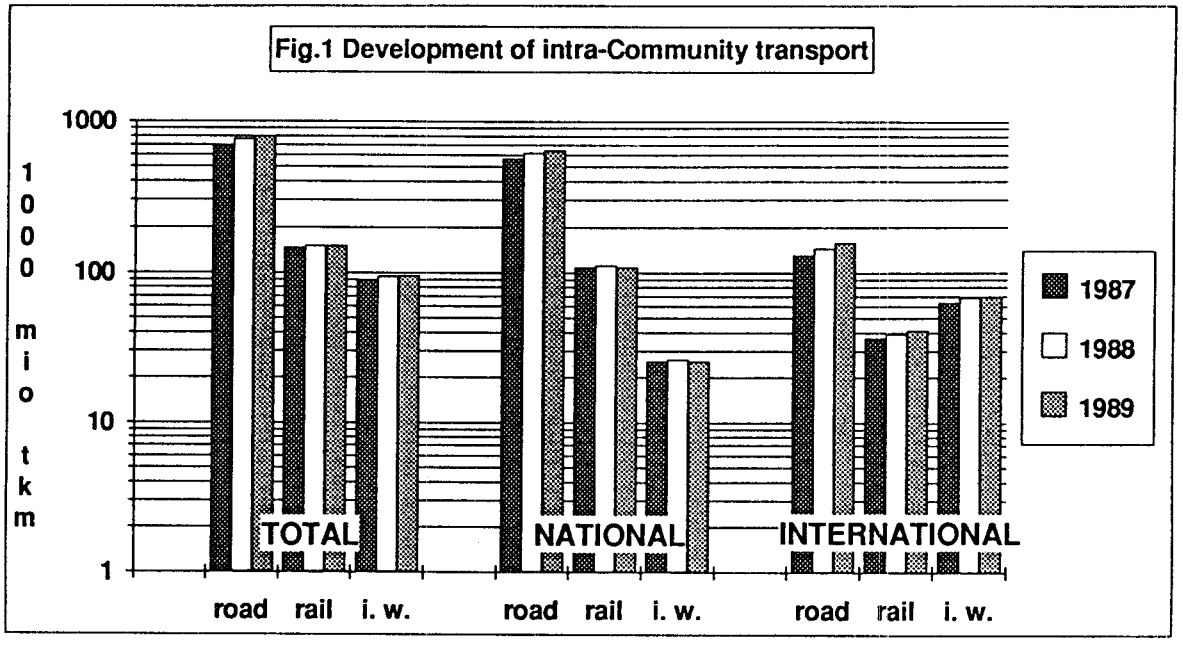
1.4. Development of International Intra-Community Transport Activity, 1986-1989 in tkm

Table 1.3 gives the summary figures for international intra-Community transport activity in Milliards of tkm. It should be noted that the figures for road relate only to Community registered vehicles (which account for a very high proportion of intra-Community journeys) and that the figures given are the sum of the bilateral journeys (as reported in Directive 78/546) and the cross-trade journeys under Community Quota authorisations (as reported in Regulation 3164/76).

TABLE 1.3 INTERNATIONAL INTRA-EUR 12 TRANSPORT ACTIVITY IN tkm (Milliards)

	Road	Rail	Inland Waterways	Total 3 modes
1986	116.2	36.8	65.6	218.6
1987	129.5	36.8	63.5	229.8
1988	143.9	39.0	68.2	251.1
1989	156.7	41.3	69.4	267.4
Annual Growth Rates				
1986-1987	+11.4%	+0.0%	-3.2%	+5.1%
1987-1988	+11.1%	+6.0%	+7.4%	+9.3%
1988-1989	+8.9%	+5.9%	+1.8%	+6.5%
Modal Split				
1986	53.2	16.8	30.0	100
1987	56.4	16.0	27.6	100
1988	57.3	15.5	27.2	100
1989	58.6	15.4	26.0	100

The results show that the impressive increase of 9.3% in 1988 dropped to 6.5% in 1989. Road haulage showed again the highest increase and therefore the modal split moved in 1989 further in favour of road. With increases of about 6% in both the last two years, rail produced its best performance for some time and the decline of its modal share was almost halted.



1.5. Development of International Intra-Community Transport Activity, 1986-1989 in tonnes

Table 1.4 gives the summary figures for international intra-Community transport activity in millions of tonnes. The figures for road, as in Table 1.3 on tkm, only cover Community vehicles.

TABLE 1.4 INTERNATIONAL INTRA-EUR 12 TONNAGES (MILLIONS)

	Road	Rail	Inland Waterways	Total 3 modes
1986	207.7	65.3	191.9	464.9
1987	226.6	64.1	186.0	476.7
1988	253.0	68.4	199.8	521.2
1989	271.5	70.7	206.7	548.9
Annual Growth Rates				
1986-1987	+9.1%	-1.8%	-3.1%	+2.5%
1987-1988	+11.7%	+6.7%	+7.4%	+9.3%
1988-1989	+7.3%	+3.4%	+3.5%	+5.3%
Modal Split				
1986	44.7	14.0	41.3	100
1987	47.5	13.5	39.0	100
1988	48.6	13.1	38.3	100
1989	49.5	12.9	37.6	100

The pattern of annual increases for tonnes is generally similar to that of tkm, but the increases for road and rail are slightly lower for tonnes implying an increase in average distance; a table of average distances is shown in Table 1.5.

TABLE 1.5 INTERNATIONAL AVERAGE DISTANCES

	Road	Rail	Inland Waterways	Total 3 modes
1986	559	564	342	470
1987	571	574	341	482
1988	569	570	341	482
1989	577	584	337	488

Table 1.5 shows that the average distance in international intra-Community transport for road and rail are remarkably similar and both have increased by about 20 km between 1986 and 1989, due mainly to the larger than average increase in transport with Spain and Portugal following their adhesion to the Community in 1986. For inland waterways, which is limited to Germany, France, Netherlands, Belgium and Luxembourg, average distances are 40% lower and have dropped marginally over the period.

1.6. Preliminary assessment of International Transport Activity in 1990

While only partial information is yet available for 1990, the indications are that the strong growth observed in 1988 and 1989 virtually disappeared at the beginning of 1990 except for road transport.

For road haulage, traffic across the German border increased by 8.5% in the first nine months of 1990 while powered vehicles across the Channel increased by 10% in the first six months of 1990. Information from statistics relating to intra-Community trade for the first half of 1990 indicates an increase of 6.9% in road tonnages.

In the first nine months of 1990, UIC reports that international transport on the Community rail network (intra + extra) rose by 0.5% in tkm (0.7% in tonnes) while the total transport on the Community rail network (intra + extra + national) fell 1.8% in tkm (fell 1.5% in tonnes).

For inland waterways, the Central Rhine Commission reported an increase of 2.3% in tkm for traditional Rhine shipping in the first 6 months of 1990 (-0.2% in tonnes).

CHAPTER 2

ROAD TRANSPORT

Contents

The contents of Chapter 2 can be summarized as follows:

2.1 Introduction, Political developments affecting the market, 1989-1990
2.2 Infrastructure : motorways
2.3 Transport activity
2.4 Transport supply and utilisation
2.5 Market situation

2.1. Introduction, Political Developments Affecting the Market, 1989-1990

The progressive liberalisation of the market due to the rapid increase in the number of the Community quota authorisations, (average number of authorisations 15282 in 1988, 24021 in 1989, 30430 in 1990) took the share of tkm performed under such authorisations from 21% in 1988 to 28% in 1989 (expected to rise to 34% in 1990); hauliers from a number of Member States, Luxembourg, Denmark and Ireland are no longer, effectively, subject to quota restrictions for international journeys between the Member States.

A limited experiment in cabotage, domestic movements by non-resident hauliers, started in mid 1990. In the 1989 Analysis and Forecasts Report, it was estimated that cabotage might rise to about 0.6% under this limited scheme, but very preliminary results suggest a much lower level.

Obligatory road tariffs for international journeys between the Member States were finally abolished on 1 January 1990 although enforcement had not recently been very strict in most Member States where they were applied; the new system permits the free fixing of rates between the haulier and his client.

Difficulties with the transit countries, Austria, Switzerland and Yugoslavia continued. Italy had difficulty in getting sufficient permits to transit Austria, while Greece had similar difficulties in transiting Yugoslavia; Switzerland with its 28 tonne limit, deflected most of the transit traffic to other routes.

Towards the end of 1990, 5 Länder of the former German Democratic Republic adhered to the Federal Republic of Germany and the Community. The Community responded quickly by allocating extra Community Quota and Cabotage authorisations to allow for this increase in the internal market.

Developments in Central and Eastern Europe are expected to present Community hauliers with new opportunities, this will be carefully monitored.

2.2. Infrastructure : Motorways

The classification of roads in different Member States follows national criteria (except for motorways) so that presentation of useful tables at Community level is virtually impossible; additionally the evolution of the length of "ordinary" roads is very slow and does not provide a very helpful market indicator.

It has thus been decided to restrict the analysis in this Report to motorways. Even here there are definitional problems such as inclusion of access ramps and examination of the published figures in different international publications (EUROSTAT, ECMT, UN, IRF) often indicates a slippage of one year - data on length of roads is usually taken as at 31st December but there is a suspicion that data may be established as at 1st January and than reported sometimes as 31st December of the previous year and sometimes as 31st December of the current year. The choice of source used in this Report has been based on the availability of 1989 results. For this reason UN (Geneva) has been chosen supplemented principally by IRF, this has enabled apparent declines in reported lengths of motorway to be avoided.

The lengths of motorways in the Community, EFTA and the rest of Europe in 1980 and (annually) since 1986 are presented in Table 2.1 which also gives the "density of motorways" both per 1000km^2 and per million population.

The results of Table 2.1 show that :

- 53% of European motorways are in D, F or I (although these 3 countries only have 32% of the population.)

- The greatest density of motorways (in terms of km per 1000km^2) occur in B an NL where the density is $3^1/_2$ times the Community average and 7 times the European average.

- The greatest density of motorways (in terms of km per mio population) occur in CH, L and A where the density is 2 times the Community average and 3 times the European average.

- Growth of length of motorways has been about 2% in the Community since 1980 and has slowed to 2 to 3% in EFTA and the rest of Europe.

TABLE 2.1 LENGTH OF MOTORWAYS

Country	At the end of					Ratio		per 1000 km^2	per mio pop.
	1980	1986	1987	1988	1989	86/80	89/86	1989	1989
D	7292	8350	8437	8618	8721	1.15	1.04	35	141
F	5080	6265	6440	6570	6950	1.23	1.11	13	123
I	5900	5997	6091	6091	6106	1.02	1.02	20	106
NL	1749	2040	2054	2060	2074	1.17	1.02	50	140
B	1203	1549	1567	1613	1631	1.29	1.05	53	167
L	44	58	64	75	78	1.32	1.34	30	210
UK	2561	2843	2980	2981	2993	1.11	1.05	13	54
IRL		8	8	8	8		1.0	0.1	2
DK	516	593	599	599	601	1.15	1.01	14	117
GR	86	86	86	90	90	1.0	1.05	0.7	9
E	2008	2154	2223	2344	2424	1.07	1.13	5	62
P	127	183	238	247	256	1.44	1.40	3	25
EUR 12	26566	30126	30787	31296	31932	1.13	1.06	14.2	98
N	266	336	336	355	363	1.26	1.08	1	86
S	835	994	999	1032	1032	1.19	1.04	3	121
SF	204	204	204	214	215	1.0	1.05	0.6	43
CH	1171	1409	1451	1486	1495	1.20	1.06	36	223
A	926	1335	1373	1405	1407	1.44	1.05	17	184
EFTA	3402	4278	4363	4492	4512	1.26	1.05	3.8	141
YU	417	720	805	828	908	1.73	1.26	4	39
TR	83	95	125	138	138	1.14	1.45	0.2	3
SU									
DDR	1687	1855	1855	1855	1855	1.10	1.0	17	111
PL	139	213	213	220	243	1.53	1.14	0.8	6
CS	373	489	489	518	527	1.31	1.08	4	34
H	209	311	311	311	333	1.49	1.07	4	31
R	96	113	113	113	113	1.18	1.0	0.5	5
BG	108	228	242	258	266	2.11	1.17	2	30
Rest of Europe excl SU	3112	4024	4153	4241	4383	1.29	1.09	2.2	23
Europe excl SU	33080	38428	39303	40029	40827	1.16	1.06	7.5	75

Sources : ABTS Table 11, IRF, SOEC.

2.3. Transport Activity

2.3.1. Introduction

Information on transport activity is based largely on that provided under the Road Statistical Directive (78/546) - the modified directive (89/462) providing information from calendar year 1990. Because of gaps in the data provided under the Directive, notably for I and L, it has been necessary to use other sources principally foreign trade data.

It has been possible to use the foreign trade data on a more consistent basis due to the availability of foreign trade statistics broken down by mode of transport for the first time at Community level following the introduction of the Single Administrative Document on 1.1.1988. This has provided data for 1988 and 1989 (and, already, most of 1990) which has been used to estimate the growth of road transport in 1989 for the hauliers of certain Member States, it may also be used in the future to estimate road transport between Member States by non-Community hauliers. The use of this foreign trade data presents some difficulties, for example the large proportion of unknown nationality for some reporting Member States (especially NL, but also D and B/L). A fuller investigation of the trade data will be made in the 1990 Analysis and Forecasts Report.

It must be emphasized that this method of estimating transport movements via trade data is only expected to be a short-term palliative for intra-Community movements due to the decision, recently formally confirmed by the Council, to abandon the Single Administrative Document for intra-Community trade as from 1.1.1993. While monitoring of intra-Community trade is expected to continue based on V.A.T. returns, it seems unlikely that this source will provide adequate information for transport purposes. It is thus most important that the Road Directive be strengthened in sample size, timeliness and methodology. The extension of the Directive to cover hauliers from the EFTA countries from 1993 in the context of the European Economic Area agreement should also be borne in mind.

2.3.2. Total International intra-EUR 12 Transport by Community Vehicles, 1986-1989, in tkm

The development of total international intra-EUR 12 transport by Community road hauliers has continued to be very strong throughout the whole of the period 1986 to 1989. Successive increases of 11.4% in 1987 and 11.1% in 1988 have been followed by 8.9% in 1989 (see Table 2.2). The changes for 1987 and 1988 are slightly different from those quoted in the 1988 Annual Report (10.1% and 12.3% respectively) due to revisions to the series for some Member States, particularly I and D (for details see next section).

Total international intra-EUR 12 road transport is defined as the sum of "bilateral" transport as reported in the Statistical Directive (78/546) and "cross-trade" transport as (partially) reported in the Community Quota Statistics (Regulation 3164/76). Complete information on cross-trades is covered in the modified Directive (89/462) as from 1990; data for the first 2 quarters of 1990 is now available from some Member States but, as yet, there is insufficient information available to check the quality of the data on cross-trade transport.

TABLE 2.2 INTERNATIONAL INTRA-EUR 12 tkm (mio)

Nation. of vehicle	TOTAL 1986	1987	1988	1989	% change 87/86	88/87	89/88
D	19996	20728	21689	22634	+3.7	+4.6	+4.4
F	18249	20530	25414	27412	+12.5	+23.8	+7.9
I	16110	17309	19884	19948	+7.4	+14.9	+0.3
NL	20758	22937	25788	28073	+10.5	+12.4	+8.9
B	13352	15505	17125	19719	+16.1	+10.4	+15.1
L	1023	1214	1647	2329	+18.7	+35.7	+41.4
UK	4522	6862	7426	8476	+51.7	+8.2	+14.1
IRL	836	889	966	1259	+6.3	+8.7	+30.3
DK	4454	4702	4360	4896	+5.6	-7.3	+12.3
GR	1973	2009	2592	2657	+1.8	+29.0	+2.5
E	13208	14709	14802	15276	+11.4	+0.6	+3.2
P	1751	2113	2194	4023	+20.7	+3.8	+83.4
EUR 12	116232	129507	143887	156702	+11.4	+11.1	+8.9

Nationality of vehicle	Share of EUR 12 total (%) 1986	1987	1988	1989
D	17.2	16.0	15.1	14.4
F	15.7	15.9	17.7	17.5
I	13.9	13.4	13.8	12.7
NL	17.9	17.7	17.9	17.9
B	11.5	12.0	11.9	12.6
L	0.9	0.9	1.1	1.5
UK	3.9	5.3	5.2	5.4
IRL	0.7	0.7	0.7	0.8
DK	3.8	3.6	3.0	3.1
GR	1.7	1.6	1.8	1.7
E	11.4	11.4	10.3	9.7
P	1.5	1.6	1.5	2.6
EUR 12	100.0%	100.0%	100.0%	100.0%

TABLE 2.3 STRUCTURE OF INTERNATIONAL INTRA-EUR 12 t-km (mio)

Nationality of vehicle		OUT	IN	Cross-Trade	TOTAL	Ratio out/in	% cross-trade
D	86	10 026	9 864	106	19 996	1.02	0.5%
	87	10 369	10 270	89	20 728	1.01	0.4%
	88	10 703	10 861	125	21 689	0.99	0.6%
	89	**11 032**	**11 444**	**158**	**22 634**	**0.96**	**0.7%**
F	86	9 423	8 210	616	18 249	1.15	3.4%
	87	10 373	9 357	800	20 530	1.11	3.9%
	88	12 939	11 322	1 153	25 414	1.14	4.5%
	89	**13 883**	**11 975**	**1 554**	**27 412**	**1.16**	**5.7%**
I	86	9 005	7 066	40	16 111	1.27	0.2%
	87	9 907	7 368	35	17 309	1.34	0.2%
	88	11 754	8 083	48	19 885	1.45	0.2%
	89	**12 299**	**7 596**	**54**	**19 949**	**1.62**	**0.3%**
NL	86	11 033	8 561	1 164	20 758	1.29	5.6%
	87	11 985	9 365	1 587	22 937	1.28	6.9%
	88	13 394	10 475	1 919	25 788	1.28	7.4%
	89	**14 546**	**11 078**	**2 449**	**28 073**	**1.31**	**8.7%**
B	86	7 080	5 395	877	13 352	1.31	6.6%
	87	7 875	5 750	1 880	15 505	1.37	12.1%
	88	9 189	6 621	1 315	17 125	1.39	7.7%
	89	**9 906**	**7 305**	**2 508**	**19 719**	**1.36**	**12.7%**
L	86	411	274	338	1 023	1.50	33.0%
	87	438	292	484	1 214	1.50	39.9%
	88	525	349	773	1 647	1.50	46.9%
	89	**683**	**453**	**1 193**	**2 329**	**1.51**	**51.2%**
UK	86	2 110	2 324	88	4 522	0.91	1.9%
	87	3 255	3 514	93	6 862	0.93	1.4%
	88	3 582	3 709	135	7 426	0.97	1.8%
	89	**4 082**	**4 224**	**170**	**8 476**	**0.97**	**2.0%**
IRL	86	377	406	53	836	0.93	6.3%
	87	393	397	99	889	0.99	11.1%
	88	420	424	122	966	0.99	12.6%
	89	**563**	**540**	**156**	**1 259**	**1.04**	**12.4%**
DK	86	2 359	2 005	90	4 454	1.18	2.0%
	87	2 441	2 127	134	4 702	1.15	2.8%
	88	2 191	1 974	195	4 360	1.11	4.5%
	89	**2 489**	**2 090**	**317**	**4 896**	**1.19**	**6.5%**
GR	86	1 154	819	0	1 973	1.41	0.0%
	87	1 152	855	2	2 009	1.35	0.1%
	88	1 411	1 177	4	2 592	1.20	0.2%
	89	**1 487**	**1 160**	**10**	**2 657**	**1.28**	**0.4%**
E	86	7 470	5 713	25	13 208	1.31	0.2%
	87	8 789	5 882	38	14 709	1.49	0.3%
	88	8 417	6 330	55	14 802	1.33	0.4%
	89	**7 892**	**7 313**	**71**	**15 276**	**1.08**	**0.5%**
P	86	841	906	4	1 751	0.93	0.2%
	87	1 006	1 092	15	2 113	0.92	0.7%
	88	1 065	1 098	31	2 194	0.97	1.4%
	89	**1 937**	**2 009**	**77**	**4 023**	**0.96**	**1.9%**
EUR-12	86	61 289	51 543	3 401	116 233	1.19	2.9%
	87	67 983	56 269	5 256	129 507	1.21	4.1%
	88	75 590	62 423	5 875	143 888	1.21	4.1%
	89	**80 799**	**67 187**	**8 717**	**156 703**	**1.20**	**5.6%**

2.3.3. Total International intra-EUR 12 Transport by Nationality of Vehicle, 1986-1989, in tkm

While, as in the earlier years, there remain many caveats on the data for individual Member States for some years, it has been decided this year to incorporate the caveats into the performance trends relating to vehicles from each Member State. Comments are given in the "standard" order of the Member States for the period 1986-1989, with emphasis on 1988-1989.

D : Slow growth, much below EUR 12 average; consequently D share (of EUR 12 transport) has fallen from 18.2% to 14.4% over the 3 years. The restrictive D policy, especially for national transport, taken together with observed trends suggests that D hauliers will not be well prepared for 1993.
The 1988 data supplied by D under the Directive is acknowledged by the D authorities to be too high due to methodological changes following the abolition of the Zählkarte. In the absence of any specific correction from the D authorities, the D figure(s) for 1988 has thus been revised downwards so as to be the average of 1987 and 1989, the 1989 figure is actually slightly lower than the 1988 figure published in the 1988 Annual Report.

F : Outstanding growth, although slightly below EUR 12 average in 1989; consequently F share has increased from 15.7% to 17.5% over the 3 years - roughly the reverse of D. The decision by the F authorities to abolish the national pricing regulation has encouraged F hauliers to develop their services especially with E.
It may also be noted that the F authorities consider that the present survey may underestimate the real activity by F hauliers.

I : Due to the variable quality of the data, no reliable information is available on the trend for I hauliers, the overall level of transport by I hauliers has been revised sharply upwards (13.8% for 1988 as opposed to 10.9% in the 1988 Annual Report) due to fairly consistent figures being received for 1988 and 1989.
The I data is based on I foreign trade data because no data has been received under the Directive since 1987 and that for 1986 was not published by EUROSTAT due to incompleteness. The I trade data shows unacceptable variation in the proportion carried by I hauliers although the total for all hauliers is reasonably stable. Consequently the data now presented corresponds to the I trade data for 1989 with estimates for 1986-1988 based on the trend(s) for all hauliers. One effect of these changes is to substantially increase the ratio of out/in transport for I hauliers.

NL : Growth almost exactly on the EUR 12 average for each year, consequently NL share is virtually stable at 17.9%, just the highest of the Member States.

B : A high growth, up 48% in 3 years, has increased B share from 11.5% to 12.6%. This may however be a slight overstatement due to some inconsistencies in the cross-trades (reported under the Community Quota Regulation), namely 877, 1880, 1315 and 2508 mio tkm for 1986 to 1989 respectively.

L : A very high growth is shown for L, up 128% in 3 years, but this is a "guess-estimate" and could be subject to a fairly wide margin of error. The reason for the large growth is that, owing to the rather generous policy adopted by the Council in allocating Community Quota authorisations to L, hauliers from other Member States have been encouraged to set up a "firm" in Luxembourg where authorisations could fairly easily be obtained.
The reason for the "guess-estimate" is that L has not supplied any data under the Directive since 1986. It has not been possible to use trade statistics because L is combined with B in trade statistics. The estimate is based on an appraisal of Community Quota Statistics and D statistics.

UK : Growth has only been just above the EUR 12 average since the apparent large increase for 1986 to 1987 is mainly due to a change in methodology. It should be emphasized that the UK figures do not include unaccompanied semi-trailers, in line with the rules set out in Directive 89/462; their inclusion would approximately double the tkm.

IRL: The very strong growth in 1989, up over 30%, is due particularly to the large increase in transport with I (the increase in tonnage is less than 20%).

DK : Growth is close to EUR 12 average if one allows for the change in methodology between 1987 and 1988. Given the fairly generous allocation of Community Quota authorisations in recent years, a stronger performance by DK hauliers might have been expected; an off-setting factor could well have been the relatively weak performance of DK economy. DK hauliers had the largest relative increase in cross-trades during the period ; cross-trades do not, of course, depend on the DK economy. The change in methodology in 1988 only affected the relation with UK ; DK anticipated the formal exclusion of unaccompanied semi-trailers prescribed in Directive 89/462.

GR : Growth is close to EUR 12 average, but growth for intra-EUR 12 transport depends largely on GR possibilities for obtaining YU and A transit permits since GR hauliers do very little cross-trading. Recent agreement with YU to increase transit permits by 5% per year will help to relieve GR difficulties.

E : After expanding in line with the EUR 12 average in 1987, subsequent performance by E hauliers has been disappointing although by 1989 there was a better ratio of out/in transport for E hauliers. The highly fragmented nature of the E road haulage industry - many owner drivers - has not, perhaps, been condusive to them making the most of their opportunities; consequently the E authorities have taken a rather cautious view towards the abolition of quotas in 1993.
It should however be noted that there are some weaknesses in the E statistics and the figures presented for 1989 are estimates based on E trade statistics.

P : Growth by P hauliers has been outstanding although the figures for individual years have to be treated with some caution. The methodology was changed from 1987 to 1988 so that the figures for these two years are not comparable. The very large increase shown for 1989 is based on data received just before this Annual Report was drafted - an earlier estimate based on trade data showed a 40% increase. Further checks on the P data will continue to be made.

Readers of the more detailed analysis of the data as given below should bear in mind the caveats given above which cannot always be repeated.

2.3.4. Structure of total international intra-EUR 12 tkm (out/in/cross-trades) by Nationality of Vehicle, 1986-1989

Table 2.3 shows the total international intra-EUR 12 tkm subdivided by out ("exports"), in ("imports") and cross-trades by nationality of vehicle for 1986-1989. Data for "out" and "in" are derived from the Directive 78/546, data for "cross-trades" from Regulation 3164/76 on Community Quota Statistics. As from 1990 data on cross-trades will also be available under the modified Directive 89/462. Information on cross-trades from the Community Quota Statistics will disappear with the abolition of the quotas themselves in 1993.

The overall "out/in" ratio is very stable (1.20) but somewhat higher than that reported in the 1988 Annual Report; this is due, essentially, to the revision of the I hauliers data which now shows a much higher ratio, 1.48 in 1988 (and even higher in 1989) as opposed to 1.19 in the 1988 Annual Report. For most other Member States the out/in ratio is fairly stable, except for E which has shown a reduction from 1.49 (in 1987) to 1.08 (in 1989). It is also interesting to note, from the detailed matrices described later, that there has been an "explosion" in traffic from I to E (up 150% from 1986 to 1989), especially by I hauliers.

The proportion of cross-trades has almost doubled (from 2.9% in 1986 to 5.6% in 1989) reflecting the growth in the number of Community Quota authorisations which give hauliers "free" access to cross-trades. Detailed interpretation of the figures is however confused by the oscillations of the B data on cross-trades (as mentioned earlier).

2.3.5. Structure of total international intra-EUR 12 tkm (hire and reward/own account) by Nationality of Vehicle, 1986-1989

Table 2.4 shows the tkm by hire and reward hauliers for each nationality of vehicle, from 1986 to 1989; the layout is the same as for all (Community) hauliers (hire and reward + own account) given in Table 2.2.

A similar table could be prepared for own account, it can be extracted by difference from Tables 2.2 and 2.4; hire and reward was chosen for publication since it is the base used elsewhere for examining share of hire and reward haulage accounted for by Community Quota authorisations.

Since hire and reward accounts globally for about 90% of the total market, percentage changes for hire and reward are very similar to the changes for the total market given in Table 2.2 and deserve no special comment. It should however be noted that there is no "observed" data for hire and reward for I or L (since 1987) or for E (1989 only) and that the figures in Table 2.4 are based on the (known) cross-trade figures (derived from the Community Quota Statistics) combined with estimates for bilateral transport where it has been assumed that the percentage held by hire and reward is the same as the last known value.

TABLE 2.4 INTERNATIONAL INTRA-EUR 12 TRANSPORT : tkm ACHIEVED BY HIRE & REWARD HAULIERS (mio)

nation. of vehicle	1986	1987	1988	1989	% change 87/86	88/87	89/88
D	17802	18468	19262	20046	+3.7%	+4.3%	+4.1%
F	16060	18283	22607	24393	+13.8%	+23.7%	+7.9%
I	15757	16928	19448	19510	N	N	N
NL	18962	21299	23781	26003	+12.3%	+11.7%	+9.3%
B	9078	10988	12080	14552	+21.0%	+9.9%	+20.5%
L	884	1064	1469	2098	N	N	N
UK	4051	6708	7165	8102	+65.6%	+6.8%	+13.1%
IRL	778	809	871	1191	+4.0%	+7.7%	+36.7%
DK	4071	4274	3986	4496	+5.0%	-6.7%	+12.8%
GR	1973	2009	2592	2667	+1.8%	+29.0%	+2.9%
E	13124	14614	14647	15116	+11.4%	+0.2%	N
P	1751	2111	2068	3910	+20.6%	-2.0%	+89.1%
EUR 12	104291	117555	129975	142084	+12.7%	+10.6%	+9.3%e

Details of the shares held by hire and reward are given in Table 2.5. At the EUR 12 level there is little evidence of change in the percentage held by hire and reward, and such changes as are observed seem to be "random" or due to changes in methodology in some M.S. (UK, DK and P).

The most interesting result for individual M.S. in Table 2.5 is the very low share of hire and reward in B, around 70%, although this is increasing. At the other extreme, GR estimates that own account has only 0.5% of the market but does not attempt to measure it while for E own account share is 1%. Sharp discontinuities in the series for UK and P are due to changes in survey methodology as mentioned above.

TABLE 2.5	INTERNATIONAL INTRA-EUR 12 TRANSPORT : MARKET SHARE BY HIRE & REWARD HAULIERS			
nationality of vehicle	1986	1987	1988	1989
D	89.0%	89.1%	(88.8%)	88.6%
F	88.0%	89.1%	89.0%	89.0%
I	97.8%	N	N	N
NL	91.3%	92.9%	92.2%	92.6%
B	68.0%	(70.9%)	70.5%	(73.8%)
L	86.4%	N	N	N
UK	89.6%	97.8%	96.5%	95.6%
IRL	93.1%	91.0%	90.2%	94.6%
DK	91.4%	90.9%	91.4%	91.8%
GR	100.0%	100.0%	100.0%	100.0%
E	99.4%	99.4%	99.0%	N
P	100.0%	99.9%	94.3%	97.2%
EUR 12	89.7%	90.8%	90.3%	90.7%

2.3.6. Structure of international intra-EUR 12 Hire and reward tkm (Community Quota/other) by Nationality of vehicle, 1986-1989

Reference has already been made earlier to the statistics on the use of Community Quota authorisations which is the only (general) source of information on cross-trades up to 1989. In earlier Annual Reports (up to 1987) and in recent Analysis & Forecasts Reports considerable analysis of the (total) use of Community Quota authorisations (ie. bilateral + cross-trade transport) has been carried out; this has been with a view to showing the effect of the rapid increase in the number of authorisations as method of freeing the international intra-EUR 12 market from quantitative restrictions. In this section a few tables are presented which brings the analysis up to 1989.

Between 1986 and 1989 the number of Community Quota authorisations increased from 7437 to 24021 (up 223%). Despite a reduction in the average tkm per authorisation (from 2089 thousand to 1676 thousand), there was still an impressive increase in the total use of Community Quota authorisations from 15538 mio (1986) to 40269 mio (1989), an increase of 159%. This latter result is given in Table 2.6 which also gives the data for individual M.S.

TABLE 2.6 INTERNATIONALINTRA-EUR 12 TRANSPORT : TKM ACHIEVED UNDER COMMUNITY QUOTA AUTHORISATIONS							
Nationality of vehicle	1986	1987	1988	1989	% change 87/86	% change 88/87	% change 89/88
D	2722	3104	3876	5840	14.0	24.9	50.7
F	1853	2850	3724	5157	53.8	30.7	38.5
I	1902	2587	3281	4299	36.0	26.8	31.0
NL	1908	2753	3494	4777	44.3	26.9	36.7
B	1474	2309	2486	5035	56.6	7.7	102.5
L	445	610	957	1509	37.1	56.9	57.7
UK	1032	1224	1595	2185	18.6	30.3	37.0
IRL	280	393	571	948	40.4	45.3	66.0
DK	1776	2053	2577	3784	15.6	25.5	46.8
GR	217	222	437	852	2.3	96.8	95.0
E	1549	2116	2913	3967	36.6	37.7	36.2
P	380	644	1074	1916	69.5	66.8	78.4
EUR 12	15538	20865	26985	40269	34.3	29.3	49.2

The method of allocation of Community Quota authorisations in the past has favoured the "smaller" M.S. with the result that there are considerable differences between M.S. in the share of market held by Community Quotas. The results are set out in Table 2.7 which shows that 3 M.S. (L, IRL and DK) have had consistently higher shares than the Community average and that by 1989, over 70% of the tkm performed by vehicles from these 3 M.S. were performed under Community Quota. This compares, in 1989, with 28% for EUR 12 as a whole. Necessarily, there are some M.S. below the EUR 12 average, especially NL, F and I with 18-22% performed under Community Quota. It should also be noted that the apparent drop to 49% for P in 1989 occurred despite a 78% increase in the use of Community Quota authorisations, this is due to the even larger increase (83%) in total tkm by P hauliers - although this exceptional increase is still being checked (see section 2.3.3).

As the Council has already decided on 40% (cumulative) increases in the number of authorisations in 1990, 1991 and 1992, the proportion of tkm performed under the Community Quota is expected to rise to 34% in 1990 and almost 50% by 1992.

Finally in Table 2.8 is shown the tkm performed by hire and reward hauliers not under the Community Quota. As predicted in Table 4.12 of the 1989 Analysis and Forecasts Report (December 1989) the total EUR 12 tkm not under Community Quota declined for the first time in 1989. The series for the different M.S. help to explain the pressures exercised by or on the M.S. to increase the number of bilateral quotas - an analysis by relation would really be necessary but that would be too extensive here - however it can clearly be seen that tkm by F and NL vehicles continues to increase whereas for D and E vehicles, tkm are declining. This helps to explain M.S. attitudes towards quotas.

TABLE 2.7 INTERNATIONNAL INTRA-EUR 12 TRANSPORT : MARKET SHARE OF COMMUNITY QUOTA AUTHORISATIONS IN HIRE AND REWARD HAULIERS

Nationality of vehicle	1986	1987	1988	1989
D	15.3	16.8	20.1	29.1
F	11.5	15.6	16.5	21.1
I	12.1	15.3	16.9	22.0
NL	10.1	12.9	14.7	18.4
B	16.2	21.0	20.6	34.6
L	50.3	57.3	65.1	71.9
UK	25.5	18.2	22.3	27.0
IRL	36.0	48.6	65.6	79.6
DK	43.6	48.0	64.7	84.2
GR	11.0	11.1	16.9	31.9
E	11.8	14.5	19.9	26.2
P	21.7	30.5	51.9	49.0
EUR 12	14.9	17.7	20.8	28.3

TABLE 2.8 INTERNATIONAL INTRA-EUR 12 TRANSPORT : TKM ACHIEVED BY HIRE AND REWARD HAULIERS NOT UNDER COMMUNITY QUOTA AUTHORISATIONS (mio)

Nationality of vehicle	1986	1987	1988	1989	% change 87/86	% change 88/87	% change 89/88
D	15080	15364	15386	14206	+1.9	+0.1	-7.7
F	14207	15433	18883	19236	+8.6	+22.4	+1.9
I	13855	14341	16167	15211	+3.5	+12.7	-5.9
NL	17054	18546	20287	21226	+8.7	+9.4	+4.6
B	7604	8679	9594	9517	+14.1	+10.5	-0.8
L	439	454	512	589	+3.4	+12.8	+15.0
UK	3019	5484	5570	5917	+81.6	+1.6	+6.2
IRL	498	416	300	243	-16.5	-27.9	-19.0
DK	2295	2221	1409	712	-3.2	-36.6	-49.5
GR	1756	1787	2155	1815	+1.8	+20.6	-15.8
E	11575	12498	11734	11149	+8.0	-6.1	-5.0
P	1371	1467	994	1994	+7.0	-32.2	+100.6
EUR 12	88753	96690	102991	101815	+8.9	+6.5	-1.1

Table 2.9 Total international intra-EUR 12 transport in tonne-kilometres
(inward + outward + cross-trades) (mio t-km)

from	to	D	F	I	NL	B	L	UK	IRL	DK	GR	E	P	EUR-12
D	86		4 970	5 657	5 819	2 765	204	643	54	1 428	579	2 333	434	24 886
	87		5 594	6 147	6 137	2 797	227	966	102	1 414	613	2 554	479	27 030
	88		5 784	6 336	6 751	3 127	288	1 010	54	1 417	835	2 478	504	28 584
	89		**6 215**	**6 418**	**7 242**	**3 140**	**369**	**1 196**	**83**	**1 526**	**792**	**2 937**	**797**	**30 715**
F	86	5 270		4 967	1 746	3 600	104	1 378	75	360	165	2 661	348	20 674
	87	5 850		4 941	1 826	3 690	85	1 707	43	405	142	2 914	548	22 151
	88	6 259		6 051	2 064	4 153	166	1 759	73	406	237	3 820	644	25 632
	89	**6 835**		**6 348**	**2 316**	**4 699**	**153**	**2 109**	**87**	**447**	**296**	**4 168**	**602**	**28 060**
I	86	6 633	4 667		1 740	1 725	62	2 241	124	503	149	980	300	19 123
	87	7 243	5 057		2 090	1 836	72	2 844	96	488	175	1 316	458	21 676
	88	7 718	6 649		2 216	2 095	64	3 109	147	465	281	1 991	576	25 310
	89	**7 976**	**6 766**		**2 415**	**2 534**	**100**	**3 387**	**213**	**478**	**295**	**2 450**	**1 023**	**27 636**
NL	86	6 262	2 648	3 075		1 705	34	458	71	496	195	1 077	127	16 148
	87	6 590	2 825	3 453		1 864	39	549	27	550	193	1 221	151	17 462
	88	7 309	3 268	4 146		2 042	42	638	42	585	295	1 301	218	19 886
	89	**7 868**	**3 634**	**3 750**		**2 142**	**55**	**700**	**30**	**605**	**326**	**1 697**	**240**	**21 047**
B	86	3 200	4 358	2 063	2 020		232	182	19	213	58	744	101	13 190
	87	3 348	4 749	2 284	2 159		242	403	21	250	61	823	125	14 465
	88	3 651	5 720	2 532	2 326		286	405	30	275	91	1 162	88	16 566
	89	**3 958**	**6 074**	**2 870**	**2 282**		**326**	**421**	**28**	**248**	**103**	**1 421**	**175**	**17 906**
L	86	348	157	52	75	170		14	0	1	3	14	1	835
	87	355	184	66	77	194		17	0	0	2	17	2	914
	88	409	205	67	87	226		23	0	1	3	3	2	1 026
	89	**495**	**205**	**96**	**111**	**267**		**23**	**0**	**1**	**3**	**5**	**1**	**1 207**
UK	86	553	827	1 177	219	118	7		187	168	47	821	67	4 191
	87	902	1 063	1 580	272	199	6		191	240	82	1 046	127	5 708
	88	1 034	1 071	1 564	319	179	4		235	67	123	999	134	5 729
	89	**1 106**	**1 405**	**1 675**	**318**	**255**	**6**		**225**	**90**	**158**	**1 252**	**276**	**6 766**
IRL	86	63	117	71	18	15	0	198		12	0	11	3	508
	87	63	104	58	9	26	0	221		13	1	20	0	515
	88	83	128	63	20	10	0	205		6	1	18	5	539
	89	**101**	**151**	**124**	**20**	**26**	**2**	**223**		**4**	**2**	**29**	**1**	**683**
DK	86	1 142	325	467	265	103	0	473	24		95	127	37	3 058
	87	1 173	377	475	294	117	0	490	24		93	135	53	3 231
	88	1 313	451	447	326	130	0	103	11		97	139	51	3 068
	89	**1 484**	**450**	**460**	**351**	**129**	**1**	**149**	**19**		**120**	**176**	**72**	**3 411**
GR	86	767	135	125	178	44	1	68	0	39		55	0	1 412
	87	774	172	127	158	45	1	109	0	36		64	1	1 487
	88	960	157	111	226	59	0	109	0	44		9	0	1 675
	89	**933**	**157**	**120**	**274**	**56**	**1**	**126**	**0**	**45**		**9**	**4**	**1 725**
E	86	2 277	3 690	1 176	813	562	5	1 344	33	163	1		717	10 781
	87	2 709	4 335	1 389	1 009	688	11	1 723	54	188	4		911	13 021
	88	3 103	4 667	1 357	1 075	912	5	1 580	29	197	13		758	13 696
	89	**3 195**	**4 572**	**1 573**	**1 170**	**965**	**7**	**1 568**	**47**	**161**	**18**		**949**	**14 225**
P	86	262	376	116	87	62	3	55	0	29	0	437		1 427
	87	303	497	177	103	84	3	98	0	51	0	531		1 847
	88	322	533	222	143	56	5	134	0	76	0	684		2 175
	89	**525**	**763**	**509**	**113**	**100**	**8**	**255**	**0**	**73**	**0**	**976**		**3 322**
EUR-12	86	26 777	22 270	18 946	12 980	10 869	652	7 054	587	3 412	1 292	9 260	2 135	116 233
	87	29 310	24 957	20 698	14 134	11 540	686	9 127	558	3 635	1 366	10 641	2 855	129 507
	88	32 161	28 633	22 898	15 553	12 989	860	9 075	621	3 539	1 976	12 604	2 980	143 888
	89	**34 476**	**30 392**	**23 943**	**16 612**	**14 313**	**1 028**	**10 157**	**732**	**3 678**	**2 113**	**15 120**	**4 140**	**156 703**

2.3.7. International intra-EUR 12 matrix by Community Vehicles, 1986-1989, in tkm

In this section the international intra-EUR 12 data is presented in Table 2.9 by relation in the form of a matrix, ie. from "Member State of loading" to "Member State of unloading", and not according to "nationality of vehicle" or "hire and reward/own account" as in the earlier sub-sections.

The high (or low) growth of transport by hauliers from a specific Member State may be at least partially due to a high (or low) growth of transport by all (Community) hauliers from the specific Member State concerned, i.e. have little to do with a change in the share held by hauliers from the Member State concerned, (this ignores cross-trades, but these are still a fairly modest share, 5%, of all tkm).

This analysis is pursued in Table 2.10 which compares the tkm indices for 1989 (1986=100) for the transport "loaded and unloaded" in the Member State concerned with the transport performed by hauliers from the Member State concerned. A negative value implies that transport to and from the Member State has grown faster than transport performed by hauliers from that Member State (E, D, I, GR) while a positive value implies that transport performed by hauliers from the Member State has grown faster than transport to and from that Member State (L, [UK], IRL, P, F, B, NL); the [DK] figure is close to 0 (Figures in [] are affected by discontinuities in time series).

TABLE 2.10 TKM INDEX NUMBER FOR 1989 (1986=100)

Member State	loaded	unloaded	loaded unloaded average	performed by national hauliers	difference
D	123.4	128.8	126.1	113.2	-12.9
F	135.7	136.5	136.1	150.2	+14.1
I	144.5	126.4	135.4	123.8	-11.6
NL	130.3	128.0	129.2	135.2	+6.0
B	135.8	131.7	133.8	147.7	+13.9
L	144.6	157.7	151.2	227.7	+76.5
UK *	161.4	144.0	152.7	187.4	+34.7
IRL	134.4	124.7	129.6	150.6	+21.0
DK *	111.5	107.8	109.6	109.9	+0.3
GR	122.2	163.5	142.8	134.7	-8.1
E	131.9	163.3	147.6	115.7	-31.9
P	232.8	193.9	213.4	229.8	+16.4
EUR 12	134.8	134.8	134.8	134.8	0.0

* : Indices affected by discontinuities in time series

2.3.8. International intra-EUR 12 Matrices by Nationality of Vehicle, 1986-1989, in tkm

In this sub-section the tkm matrix for all Community vehicles (given in Table 2.9) is subdivided into 3 parts according to the nationality of the vehicle, i.e.

Table 2.11 : "outward transport"
(vehicles from Member State of loading)
Table 2.12 : "inward transport"
(vehicles from Member State of unloading)
Table 2.13 : "cross-trade transport"
(vehicles from other Member States)

A further table, Table 2.14 gives the share of cross-trades in total tkm.

The quantity of information in these four matrices, Tables 2.11 - 2.14, is quite extensive and no interpretation at this level of detail will be presented here; readers with an interest in a particular relation can extract the detailed information for further analysis. The analysis presented in this Report will be restricted to the margins of the Tables 2.11 - 2.14, this will be discussed below.

2.3.9. International intra-EUR 12 Transport by Member State of Loading and by Nationality of Vehicle, 1986-1989, in tkm

An alternative way of assessing the relative performance is to examine, for each Member State of loading, the share held by vehicles registered in that M.S., the partner M.S. or by other M.S. (cross-trades). The analysis can, equally, be done for each Member State of unloading, this is done in the next sub-section.

The results extracted from the right-hand columns of the relevant matrices given earlier, are shown in Table 2.15. The main results can be summarised as follows.

Share held by vehicles registered in M.S. of loading		
	Increasing	Decreasing
	F, L IRL, GR	D, I, E
Share of cross-trades		
	Low	High
	F, NL, GR, P	D, I, E

This indicates that hauliers from D, I and E are under pressure.

Table 2.11 International intra-EUR 12 transport by relation by vehicles from M.S. of loading (OUTWARD)
(mio t-km)

from	to	D	F	I	NL	B	L	UK	IRL	DK	GR	E	P	EUR-12
D	86		2 720	2 738	1 441	1 237	97	202	15	564	111	763	138	10 026
	87		2 781	2 903	1 382	1 242	112	202	9	514	138	915	171	10 369
	88		2 844	2 949	1 477	1 267	153	234	9	507	169	916	178	10 703
	89		**2 906**	**2 995**	**1 571**	**1 292**	**194**	**265**	**8**	**500**	**199**	**917**	**185**	**11 032**
F	86	2 299		3 179	514	1 281	58	811	2	84	108	910	177	9 423
	87	2 782		3 123	521	1 239	36	1 033	9	109	68	1 093	360	10 373
	88	2 989		4 240	590	1 449	107	1 141	3	95	178	1 737	410	12 939
	89	**3 251**		**4 451**	**632**	**1 683**	**74**	**1 273**	**5**	**108**	**231**	**1 849**	**326**	**13 883**
I	86	3 408	2 117		504	619	19	1 347	65	196	91	482	158	9 005
	87	3 701	2 284		582	654	20	1 382	59	192	106	710	216	9 907
	88	4 023	2 932		645	699	21	1 560	65	184	226	1 088	312	11 754
	89	**4 042**	**2 789**		**665**	**823**	**25**	**1 701**	**86**	**204**	**217**	**1 309**	**439**	**12 299**
NL	86	4 998	1 823	1 814		1 327	27	277	4	332	44	314	73	11 033
	87	5 341	2 018	1 960		1 447	31	304	7	368	38	373	98	11 985
	88	5 972	2 290	2 112		1 606	33	359	8	391	35	452	136	13 394
	89	**6 408**	**2 585**	**2 193**		**1 630**	**43**	**384**	**6**	**406**	**59**	**696**	**136**	**14 546**
B	86	1 779	2 693	1 176	809		138	32	3	38	1	375	36	7 080
	87	1 879	3 005	1 275	798		142	225	1	65	4	421	60	7 875
	88	2 057	3 630	1 564	823		165	219	5	89	0	611	26	9 189
	89	**2 190**	**3 843**	**1 764**	**885**		**169**	**224**	**3**	**61**	**0**	**670**	**97**	**9 906**
L	86	146	75	33	46	100		11	0	0	0	0	0	411
	87	155	80	35	49	107		12	0	0	0	0	0	438
	88	186	96	42	59	128		14	0	0	0	0	0	525
	89	**242**	**125**	**55**	**77**	**166**		**18**	**0**	**0**	**0**	**0**	**0**	**683**
UK	86	378	510	777	80	99	6		53	3	30	155	19	2 110
	87	710	611	1 152	117	133	5		32	5	63	352	75	3 255
	88	803	607	1 198	147	116	3		68	9	90	455	86	3 582
	89	**819**	**737**	**1 295**	**146**	**142**	**5**		**40**	**22**	**124**	**653**	**99**	**4 082**
IRL	86	40	101	30	16	15	0	169		0	0	3	3	377
	87	45	78	29	6	24	0	202		0	0	9	0	393
	88	66	109	27	16	8	0	183		0	0	7	4	420
	89	**83**	**136**	**86**	**17**	**24**	**2**	**199**		**1**	**0**	**15**	**0**	**563**
DK	86	827	289	398	84	71	0	469	24		80	85	32	2 359
	87	859	314	395	81	70	0	489	23		81	89	40	2 441
	88	978	346	372	91	75	0	93	11		77	99	49	2 191
	89	**1 123**	**356**	**398**	**103**	**73**	**0**	**134**	**19**		**91**	**131**	**61**	**2 489**
GR	86	691	104	77	160	43	1	60	0	12		6	0	1 154
	87	693	99	79	146	44	1	59	0	17		13	1	1 152
	88	874	95	67	217	58	0	75	0	19		6	0	1 411
	89	**842**	**113**	**81**	**263**	**55**	**1**	**94**	**0**	**27**		**7**	**4**	**1 487**
E	86	1 286	2 990	749	506	256	3	1 083	6	68	0		523	7 470
	87	1 513	3 517	881	595	301	3	1 274	8	81	0		616	8 789
	88	1 704	3 460	718	592	361	0	998	13	76	9		486	8 417
	89	**1 511**	**3 316**	**802**	**486**	**302**	**0**	**867**	**10**	**50**	**11**		**537**	**7 892**
P	86	180	238	98	25	40	3	45	0	13	0	199		841
	87	197	253	150	27	32	3	38	0	23	0	283		1 006
	88	206	233	191	56	26	4	69	0	40	0	240		1 065
	89	**388**	**410**	**473**	**32**	**29**	**8**	**164**	**0**	**33**	**0**	**400**		**1 937**
EUR-12	86	16 032	13 660	11 069	4 185	5 088	352	4 506	172	1 310	465	3 292	1 159	61 289
	87	17 875	15 040	11 982	4 304	5 293	353	5 220	148	1 374	498	4 258	1 637	67 983
	88	19 858	16 642	13 480	4 713	5 793	486	4 945	182	1 410	784	5 611	1 687	75 590
	89	**20 899**	**17 316**	**14 593**	**4 877**	**6 219**	**521**	**5 323**	**177**	**1 412**	**932**	**6 647**	**1 884**	**80 799**

Table 2.12 International intra-EUR-12 transport by relation by vehicles from M.S. of unloading (INWARD) (mio t-km)

from	to	D	F	I	NL	B	L	UK	IRL	DK	GR	E	P	EUR-12
D	86		2 080	2 767	4 321	1 434	100	405	35	847	463	1 420	268	14 140
	87		2 587	2 977	4 673	1 433	107	714	88	879	470	1 462	267	15 657
	88		2 672	3 064	5 201	1 709	128	711	43	872	659	1 293	265	16 617
	89		**2 868**	**2 966**	**5 554**	**1 635**	**166**	**838**	**73**	**970**	**587**	**1 520**	**531**	**17 708**
F	86	2 798		1 729	1 201	2 256	42	550	71	248	56	1 743	165	10 859
	87	2 838		1 728	1 264	2 371	45	644	33	259	73	1 795	181	11 231
	88	3 001		1 729	1 441	2 606	54	593	68	276	57	2 048	223	12 096
	89	**3 163**		**1 765**	**1 606**	**2 861**	**70**	**781**	**80**	**299**	**62**	**2 232**	**262**	**13 181**
I	86	2 918	2 471		1 131	916	28	750	57	286	58	463	125	9 203
	87	3 079	2 658		1 278	963	30	1 199	34	276	69	476	199	10 261
	88	3 186	3 594		1 415	1 174	36	1 306	78	261	54	747	204	12 055
	89	**3 292**	**3 770**		**1 475**	**1 431**	**47**	**1 358**	**121**	**255**	**74**	**898**	**516**	**13 237**
NL	86	1 225	798	1 101		376	7	178	67	160	150	736	46	4 844
	87	1 198	767	1 179		415	7	239	19	173	151	758	40	4 946
	88	1 285	934	1 797		434	8	269	33	186	258	761	62	6 027
	89	**1 371**	**969**	**1 195**		**508**	**10**	**300**	**24**	**188**	**265**	**852**	**64**	**5 746**
B	86	1 316	1 605	561	1 210		94	142	16	157	56	348	58	5 563
	87	1 355	1 667	600	1 359		100	167	20	163	55	358	53	5 897
	88	1 454	1 984	557	1 501		120	169	24	158	90	484	39	6 580
	89	**1 553**	**2 067**	**655**	**1 393**		**156**	**173**	**24**	**162**	**101**	**641**	**54**	**6 979**
L	86	193	79	16	29	69		3	0	0	3	13	1	406
	87	194	102	18	28	87		5	0	0	2	14	2	452
	88	216	106	17	28	97		9	0	0	3	0	2	478
	89	**238**	**69**	**20**	**33**	**100**		**4**	**0**	**0**	**3**	**0**	**0**	**467**
UK	86	153	299	330	135	10	1		134	164	17	656	47	1 946
	87	162	425	285	150	52	1		159	234	19	675	50	2 212
	88	197	436	269	170	50	1		167	57	33	517	46	1 943
	89	**231**	**623**	**281**	**167**	**92**	**1**		**185**	**66**	**34**	**558**	**173**	**2 411**
IRL	86	13	6	35	2	0	0	29		12	0	8	0	105
	87	10	15	24	3	1	0	19		11	0	8	0	91
	88	11	2	31	4	2	0	22		4	0	6	0	82
	89	**11**	**0**	**32**	**3**	**2**	**0**	**24**		**2**	**0**	**8**	**0**	**82**
DK	86	288	21	58	179	26	0	4	0		15	41	4	636
	87	282	41	60	208	39	0	1	0		12	42	12	697
	88	294	71	49	229	44	0	9	0		20	35	0	751
	89	**305**	**57**	**51**	**244**	**45**	**0**	**11**	**0**		**29**	**35**	**9**	**786**
GR	86	70	31	45	18	0	0	8	0	27		49	0	248
	87	74	72	44	11	0	0	49	0	19		51	0	320
	88	82	61	39	8	0	0	34	0	25		3	0	252
	89	**89**	**43**	**32**	**10**	**0**	**0**	**32**	**0**	**18**		**2**	**0**	**226**
E	86	814	689	410	279	291	2	247	26	89	1		192	3 040
	87	991	790	433	325	349	2	418	44	92	4		288	3 736
	88	1 043	1 173	506	400	486	2	524	11	105	3		257	4 510
	89	**1 095**	**1 173**	**569**	**528**	**570**	**3**	**621**	**33**	**98**	**5**		**400**	**5 095**
P	86	76	131	14	56	17	0	8	0	15	0	236		553
	87	87	233	19	66	40	0	59	0	21	0	243		768
	88	92	289	23	78	19	0	63	0	30	0	436		1 030
	89	**96**	**336**	**30**	**65**	**61**	**0**	**82**	**0**	**32**	**0**	**567**		**1 269**
EUR-12	86	9 864	8 210	7 066	8 561	5 395	274	2 324	406	2 005	819	5 713	906	51 543
	87	10 270	9 357	7 368	9 365	5 750	292	3 514	397	2 127	855	5 882	1 092	56 269
	88	10 861	11 322	8 063	10 475	6 621	349	3 709	424	1 974	1 177	6 330	1 098	62 423
	89	**11 444**	**11 975**	**7 596**	**11 078**	**7 305**	**453**	**4 224**	**540**	**2 090**	**1 160**	**7 313**	**2 009**	**67 187**

Table 2.13 International intra-EUR 12 transport by relation by vehicles from other M.S. (CROSS-TRADES)
(mio t-km)

from	to	D	F	I	NL	B	L	UK	IRL	DK	GR	E	P	EUR-12
D	86		170	152	57	94	7	36	4	17	5	150	28	720
	87		226	267	82	122	8	50	5	21	5	177	41	1 004
	88		268	323	73	151	7	65	2	38	7	269	61	1 264
	89		**441**	**457**	**117**	**213**	**9**	**93**	**2**	**56**	**6**	**500**	**81**	**1 975**
F	86	173		59	31	63	4	17	2	28	1	8	6	392
	87	230		90	41	80	4	30	1	37	1	26	7	547
	88	269		82	33	98	5	25	2	35	2	35	11	597
	89	**421**		**132**	**78**	**155**	**9**	**55**	**2**	**40**	**3**	**87**	**14**	**996**
I	86	307	79		105	190	15	144	2	21	0	35	17	915
	87	463	115		230	219	22	263	3	20	0	130	43	1 508
	88	509	123		156	222	7	243	4	20	1	156	60	1 501
	89	**642**	**207**		**275**	**280**	**28**	**328**	**6**	**19**	**4**	**243**	**68**	**2 100**
NL	86	39	27	160		2	0	3	0	4	1	27	8	271
	87	51	40	314		2	1	6	1	9	4	90	13	531
	88	52	44	237		2	1	10	1	8	2	88	20	465
	89	**89**	**80**	**362**		**4**	**2**	**16**	**0**	**11**	**2**	**149**	**40**	**755**
B	86	105	60	326	1		0	8	0	18	1	21	7	547
	87	114	77	409	2		0	11	0	22	2	44	12	693
	88	140	106	411	2		1	17	1	28	1	67	23	797
	89	**215**	**164**	**451**	**4**		**1**	**24**	**1**	**25**	**2**	**110**	**24**	**1 021**
L	86	9	3	3	0	1		0	0	1	0	1	0	18
	87	6	2	13	0	0		0	0	0	0	3	0	24
	88	7	3	8	0	1		0	0	1	0	3	0	23
	89	**15**	**11**	**21**	**1**	**1**		**1**	**0**	**1**	**0**	**5**	**1**	**57**
UK	86	22	18	70	4	9	0		0	1	0	10	1	135
	87	30	27	143	5	14	0		0	1	0	19	2	241
	88	34	28	97	2	13	0		0	1	0	27	2	204
	89	**56**	**45**	**99**	**5**	**21**	**0**		**0**	**2**	**0**	**41**	**4**	**273**
IRL	86	10	10	6	0	0	0	0		0	0	0	0	26
	87	8	11	5	0	1	0	0		2	1	3	0	31
	88	6	17	5	0	0	0	0		2	1	5	1	37
	89	**7**	**15**	**6**	**0**	**0**	**0**	**0**		**1**	**2**	**6**	**1**	**38**
DK	86	27	15	11	2	6	0	0	0		0	1	1	63
	87	32	22	20	5	8	0	0	1		0	4	1	93
	88	41	34	26	6	11	0	1	0		0	5	2	126
	89	**56**	**37**	**11**	**4**	**11**	**1**	**4**	**0**			**10**	**2**	**136**
GR	86	6	0	3	0	1	0	0	0	0		0	0	10
	87	7	1	4	1	1	0	1	0	0		0	0	15
	88	4	1	5	1	1	0	0	0	0		0	0	12
	89	**2**	**1**	**7**	**1**	**1**	**0**	**0**	**0**	**0**		**0**	**0**	**12**
E	86	177	11	17	28	15	0	14	1	6	0		2	271
	87	205	28	75	89	38	6	31	2	15	0		7	496
	88	356	34	133	83	65	3	58	5	16	1		15	769
	89	**589**	**83**	**202**	**156**	**93**	**4**	**80**	**4**	**13**	**2**		**12**	**1 238**
P	86	6	7	4	6	5	0	2	0	1	0	2		33
	87	19	11	8	10	12	0	1	0	7	0	5		73
	88	24	11	8	9	11	1	2	0	6	0	8		80
	89	**41**	**17**	**6**	**16**	**10**	**0**	**9**	**0**	**8**	**0**	**9**		**116**
EUR-12	86	881	400	811	234	386	26	224	9	97	8	255	70	3 401
	87	1 165	560	1 348	465	497	41	393	13	134	13	501	126	5 256
	88	1 442	669	1 335	365	575	25	421	15	155	15	663	195	5 875
	89	**2 133**	**1 101**	**1 754**	**657**	**789**	**54**	**610**	**15**	**176**	**21**	**1 160**	**247**	**8 717**

Table 2.14 Share of cross-trade in total tkm

from	to	D	F	I	NL	B	L	UK	IRL	DK	GR	E	P	EUR-12
D	86		3.4%	2.7%	1.0%	3.4%	3.4%	5.6%		1.2%	0.9%	6.4%	6.5%	2.9%
	87		4.0%	4.3%	1.3%	4.4%	3.5%	5.2%		1.5%	0.8%	6.9%	8.6%	3.7%
	88		4.6%	5.1%	1.1%	4.8%	2.4%	6.4%		2.7%	0.8%	10.9%	12.1%	4.4%
	89		**7.1%**	**7.1%**	**1.6%**	**6.8%**	**2.4%**	**7.8%**		**3.7%**	**0.8%**	**17.0%**	**10.2%**	**6.4%**
F	86	3.3%		1.2%	1.8%	1.8%	3.8%	1.2%		7.8%	0.6%	0.3%	1.7%	1.9%
	87	3.9%		1.8%	2.2%	2.2%	4.7%	1.8%		9.1%	0.7%	0.9%	1.3%	2.5%
	88	4.3%		1.4%	1.6%	2.4%	3.0%	1.4%		8.6%	0.8%	0.9%	1.7%	2.3%
	89	**6.2%**		**2.1%**	**3.4%**	**3.3%**	**5.9%**	**2.6%**		**8.9%**	**1.0%**	**2.1%**	**2.3%**	**3.5%**
I	86	4.6%	1.7%		6.0%	11.0%		6.4%	1.6%	4.2%	0.0%	3.6%	5.7%	4.8%
	87	6.4%	2.3%		11.0%	11.9%		9.2%	3.1%	4.1%	0.0%	9.9%	9.4%	7.0%
	88	6.6%	1.8%		7.0%	10.6%		7.8%	2.7%	4.3%	0.4%	7.8%	10.4%	5.9%
	89	**8.0%**	**3.1%**		**11.4%**	**11.1%**		**9.7%**	**2.8%**	**4.0%**	**1.4%**	**9.9%**	**6.6%**	**7.6%**
NL	86	0.6%	1.0%	5.2%		0.1%		0.7%		0.8%	0.5%	2.5%	6.3%	1.7%
	87	0.8%	1.4%	9.1%		0.1%		1.1%		1.6%	2.1%	7.4%	8.6%	3.0%
	88	0.7%	1.3%	5.7%		0.1%		1.6%		1.4%	0.7%	6.8%	9.2%	2.3%
	89	**1.1%**	**2.2%**	**9.7%**		**0.2%**		**2.3%**		**1.8%**	**0.6%**	**8.8%**	**16.7%**	**3.6%**
B	86	3.3%	1.4%	15.8%	0.0%		0.0%	4.4%		8.5%		2.8%		4.1%
	87	3.4%	1.6%	17.9%	0.1%		0.0%	2.7%		8.8%		5.3%		4.8%
	88	3.8%	1.9%	16.2%	0.1%		0.3%	4.2%		10.2%		5.8%		4.8%
	89	**5.4%**	**2.7%**	**15.7%**	**0.2%**		**0.3%**	**5.7%**		**10.1%**		**7.7%**		**5.7%**
L	86	2.6%	1.9%			0.6%								2.2%
	87	1.7%	1.1%			0.0%								2.6%
	88	1.7%	1.5%			0.4%								2.2%
	89	**3.0%**	**5.4%**			**0.4%**								**4.7%**
UK	86	4.0%	2.2%	5.9%	1.8%	7.6%			0.0%			1.2%	1.5%	3.2%
	87	3.3%	2.5%	9.0%	1.8%	7.0%			0.0%			1.8%	1.6%	4.2%
	88	3.3%	2.6%	6.2%	0.6%	7.3%			0.0%			2.7%	1.5%	3.6%
	89	**5.1%**	**3.2%**	**5.9%**	**1.6%**	**8.2%**			**0.0%**			**3.3%**	**1.4%**	**4.0%**
IRL	86		8.5%					0.0%						5.1%
	87		10.6%					0.0%						6.0%
	88		13.3%					0.0%						6.9%
	89		**9.9%**					**0.0%**						**5.6%**
DK	86	2.4%	4.6%	2.4%	0.8%	5.8%		0.0%				0.8%		2.1%
	87	2.7%	5.8%	4.2%	1.7%	6.8%		0.0%				3.0%		2.9%
	88	3.1%	7.5%	5.8%	1.8%	8.5%		1.0%				3.6%		4.1%
	89	**3.8%**	**8.2%**	**2.4%**	**1.1%**	**8.5%**		**2.7%**				**5.7%**		**4.0%**
GR	86	0.8%	0.0%	2.4%	0.0%			0.0%						0.7%
	87	0.9%	0.6%	3.1%	0.6%			0.9%						1.0%
	88	0.4%	0.6%	4.5%	0.4%			0.0%						0.7%
	89	**0.2%**	**0.6%**	**5.8%**	**0.4%**			**0.0%**						**0.7%**
E	86	7.8%	0.3%	1.4%	3.4%	2.7%		1.0%		3.7%			0.3%	2.5%
	87	7.6%	0.6%	5.4%	8.8%	5.5%		1.8%		8.0%			0.8%	3.8%
	88	11.5%	0.7%	9.8%	7.7%	7.1%		3.7%		8.1%			2.0%	5.6%
	89	**18.4%**	**1.8%**	**12.8%**	**13.3%**	**9.6%**		**5.1%**		**8.1%**			**1.3%**	**8.7%**
P	86	2.3%	1.9%	3.5%	6.9%			3.6%				0.5%		2.3%
	87	6.3%	2.2%	4.5%	9.7%			1.0%				0.9%		4.0%
	88	7.5%	2.1%	3.6%	6.3%			1.5%				1.2%		3.7%
	89	**7.8%**	**2.2%**	**1.2%**	**14.2%**			**3.5%**				**0.9%**		**3.5%**
EUR-12	86	3.3%	1.8%	4.3%	1.8%	3.6%	4.0%	3.2%	1.5%	2.8%	0.6%	2.8%	3.3%	2.9%
	87	4.0%	2.2%	6.5%	3.3%	4.3%	6.0%	4.3%	2.3%	3.7%	1.0%	4.7%	4.4%	4.1%
	88	4.5%	2.3%	5.8%	2.3%	4.4%	2.9%	4.6%	2.4%	4.4%	0.8%	5.3%	6.5%	4.1%
	89	**6.2%**	**3.6%**	**7.3%**	**4.0%**	**5.5%**	**5.3%**	**6.0%**	**2.1%**	**4.8%**	**1.0%**	**7.7%**	**6.0%**	**5.6%**

Table 2.15 tkm by vehicles from M.S. of LOADING

M.S. of loading		Vehicles registered in M.S. of loading	partner	other (C-T)	TOTAL	Share of M.S. of loading	Share of cross-trade
D	86	10 026	14 140	720	24 886	40.3%	2.9%
	87	10 369	15 657	1 004	27 030	38.4%	3.7%
	88	10 703	16 617	1 264	28 584	37.4%	4.4%
	89	**11 032**	**17 708**	**1 975**	**30 715**	**35.9%**	**6.4%**
F	86	9 423	10 859	392	20 674	45.6%	1.9%
	87	10 373	11 231	547	22 151	46.8%	2.5%
	88	12 939	12 096	597	25 632	50.5%	2.3%
	89	**13 883**	**13 181**	**996**	**28 060**	**49.5%**	**3.5%**
I	86	9 005	9 203	915	19 123	47.1%	4.8%
	87	9 907	10 261	1 508	21 676	45.7%	7.0%
	88	11 754	12 055	1 501	25 310	46.4%	5.9%
	89	**12 299**	**13 237**	**2 100**	**27 636**	**44.5%**	**7.6%**
NL	86	11 033	4 844	271	16 148	68.3%	1.7%
	87	11 985	4 946	531	17 462	68.6%	3.0%
	88	13 394	6 027	465	19 886	67.4%	2.3%
	89	**14 546**	**5 746**	**755**	**21 047**	**69.1%**	**3.6%**
B	86	7 080	5 563	547	13 190	53.7%	4.1%
	87	7 875	5 897	693	14 465	54.4%	4.8%
	88	9 189	6 580	797	16 566	55.5%	4.8%
	89	**9 906**	**6 979**	**1 021**	**17 906**	**55.3%**	**5.7%**
L	86	411	406	18	835	49.2%	2.2%
	87	438	452	24	914	47.9%	2.6%
	88	525	478	23	1 026	51.1%	2.2%
	89	**683**	**467**	**57**	**1 207**	**56.6%**	**4.7%**
UK	86	2 110	1 946	135	4 191	50.3%	3.2%
	87	3 255	2 212	241	5 708	57.0%	4.2%
	88	3 582	1 943	204	5 729	62.5%	3.6%
	89	**4 082**	**2 411**	**273**	**6 766**	**60.3%**	**4.0%**
IRL	86	377	105	26	508	74.2%	5.1%
	87	393	91	31	515	76.3%	6.0%
	88	420	82	37	539	77.9%	6.9%
	89	**563**	**82**	**38**	**683**	**82.4%**	**5.6%**
DK	86	2 359	636	63	3 058	77.1%	2.1%
	87	2 441	697	93	3 231	75.6%	2.9%
	88	2 191	751	126	3 068	71.4%	4.1%
	89	**2 489**	**786**	**136**	**3 411**	**73.0%**	**4.0%**
GR	86	1 154	248	10	1 412	81.7%	0.7%
	87	1 152	320	15	1 487	77.5%	1.0%
	88	1 411	252	12	1 675	84.2%	0.7%
	89	**1 487**	**226**	**12**	**1 725**	**86.2%**	**0.7%**
E	86	7 470	3 040	271	10 781	69.3%	2.5%
	87	8 789	3 736	496	13 021	67.5%	3.8%
	88	8 417	4 510	769	13 696	61.5%	5.6%
	89	**7 892**	**5 095**	**1 238**	**14 225**	**55.5%**	**8.7%**
P	86	841	553	33	1 427	58.9%	2.3%
	87	1 006	768	73	1 847	54.5%	4.0%
	88	1 065	1 030	80	2 175	49.0%	3.7%
	89	**1 937**	**1 269**	**116**	**3 322**	**58.3%**	**3.5%**
EUR 12	86	61 289	51 543	3 401	116 233	52.7%	2.9%
	87	67 983	56 269	5 256	129 507	52.5%	4.1%
	88	75 590	62 423	5 875	143 888	52.5%	4.1%
	89	**80 799**	**67 187**	**8 717**	**156 703**	**51.6%**	**5.6%**

Table 2.16 tkm by vehicles from M.S. of UNLOADING

M.S. of unloading		Vehicles registered in M.S. of unloading	partner	other (C-T)	TOTAL	Share of M.S. of unloading	Share of cross-trade
D	86	9 864	16 032	881	26 777	36.8%	3.3%
	87	10 270	17 875	1 165	29 310	35.0%	4.0%
	88	10 861	19 858	1 442	32 161	33.8%	4.5%
	89	**11 444**	**20 899**	**2 133**	**34 476**	**33.2%**	**6.2%**
F	86	8 210	13 660	400	22 270	36.9%	1.8%
	87	9 357	15 040	560	24 957	37.5%	2.2%
	88	11 322	16 642	669	28 633	39.5%	2.3%
	89	**11 975**	**17 316**	**1 101**	**30 392**	**39.4%**	**3.6%**
I	86	7 066	11 069	811	18 946	37.3%	4.3%
	87	7 368	11 982	1 348	20 698	35.6%	6.5%
	88	8 083	13 480	1 335	22 898	35.3%	5.8%
	89	**7 596**	**14 593**	**1 754**	**23 943**	**31.7%**	**7.3%**
NL	86	8 561	4 185	234	12 980	66.0%	1.8%
	87	9 365	4 304	465	14 134	66.3%	3.3%
	88	10 475	4 713	365	15 553	67.3%	2.3%
	89	**11 078**	**4 877**	**657**	**16 612**	**66.7%**	**4.0%**
B	86	5 395	5 088	386	10 869	49.6%	3.6%
	87	5 750	5 293	497	11 540	49.8%	4.3%
	88	6 621	5 793	575	12 989	51.0%	4.4%
	89	**7 305**	**6 219**	**789**	**14 313**	**51.0%**	**5.5%**
L	86	274	352	26	652	42.0%	4.0%
	87	292	353	41	686	42.6%	6.0%
	88	349	486	25	860	40.6%	2.9%
	89	**453**	**521**	**54**	**1 028**	**44.1%**	**5.3%**
UK	86	2 324	4 506	224	7 054	32.9%	3.2%
	87	3 514	5 220	393	9 127	38.5%	4.3%
	88	3 709	4 945	421	9 075	40.9%	4.6%
	89	**4 224**	**5 323**	**610**	**10 157**	**41.6%**	**6.0%**
IRL	86	406	172	9	587	69.2%	1.5%
	87	397	148	13	558	71.2%	2.3%
	88	424	182	15	621	68.3%	2.4%
	89	**540**	**177**	**15**	**732**	**73.8%**	**2.1%**
DK	86	2 005	1 310	97	3 412	58.8%	2.8%
	87	2 127	1 374	134	3 635	58.5%	3.7%
	88	1 974	1 410	155	3 539	55.8%	4.4%
	89	**2 090**	**1 412**	**176**	**3 678**	**56.8%**	**4.8%**
GR	86	819	465	8	1 292	63.4%	0.6%
	87	855	498	13	1 366	62.6%	1.0%
	88	1 177	784	15	1 976	59.6%	0.8%
	89	**1 160**	**932**	**21**	**2 113**	**54.9%**	**1.0%**
E	86	5 713	3 292	255	9 260	61.7%	2.8%
	87	5 882	4 258	501	10 641	55.3%	4.7%
	88	6 330	5 611	663	12 604	50.2%	5.3%
	89	**7 313**	**6 647**	**1 160**	**15 120**	**48.4%**	**7.7%**
P	86	906	1 159	70	2 135	42.4%	3.3%
	87	1 092	1 637	126	2 855	38.2%	4.4%
	88	1 098	1 687	195	2 980	36.8%	6.5%
	89	**2 009**	**1 884**	**247**	**4 140**	**48.5%**	**6.0%**
EUR-12	86	51 543	61 289	3 401	116 233	44.3%	2.9%
	87	56 269	67 983	5 256	129 507	43.4%	4.1%
	88	62 423	75 590	5 875	143 888	43.4%	4.1%
	89	**67 187**	**80 799**	**8 717**	**156 703**	**42.9%**	**5.6%**

2.3.10. International intra-EUR 12 Transport by Member State of Unloading and by Nationality of Vehicles, 1986-1989, in tkm

The analysis resembles that of the previous section, but relates to Member States of unloading rather than Member States of loading; the results are shown in Table 2.16 and can be summarised as follows :

Share held by vehicles registered in M.S. of unloading	
Increasing	Decreasing
F	D, I, GR, E
Share of cross-trades	
Low	High
F, NL, IRL, GR	D, I, E

This indicates that hauliers from D, I, GR and E are under pressure - note that GR is under pressure for transport to GR but is doing well in transport from GR (see 2.3.9).

2.3.11. National Transport, 1986-1989, in tkm

While the development in national transport in tkm from 1986 to 1989 has not been quite as dramatic as international intra-EUR 12 transport, there have been substantial increases, +6.0% in 1987, +8.0% in 1988, (both figures slightly revised from the 1988 Annual Report) and an estimated 4.2% in 1989 giving an estimated growth of 19% over the 3 years ; this compares with a 35% growth for international intra-EUR 12 transport.

National transport has recorded particularly large increases in UK (31%) and E (estimated 29%) over the 3 years, see Table 2.17; national transport in IRL, DK and GR has shown no decided trend over the same period.

TABLE 2.17 tkm ACHIEVED IN NATIONAL TRANSPORT (mio tkm)

nation. of vehicle	1986	1987	1988	1989	% change 87/86	88/87	89/88
D	103089	104880	110847	115123	+1.7%	+5.7%	+3.9%
F	82610	88259	97570	100377	+6.8%	+10.5%	+2.9%
I	111271	116426e	121154e	123517e	N	N	N
NL	18981	19935	21856	21757	+5.0%	+9.6%	-0.5%
B	10834	10958	12375	12513	+1.1%	+12.9%	+1.1%
L	239	250e	270e	284e	N	N	N
UK	102582	109899	126682	134292	+7.1%	+15.3%	+6.0%
IRL	4200	3986	3948	4044	-5.1%	-1.0%	+2.4%
DK	8825	8808	9057	9214	-0.2%	+2.8%	+1.7%
GR	12539	13064	12354	13844	+4.2%	-5.4%	+12.1%
E	74144	84751	89661	95998e	+14.3%	+5.8%	N
P	8225e	8636	9462	10127	+5.0%	+9.6%	+7.0%
EUR 12	537539	569852	615236	641090e	+6.0%	+8.0%	+4.2%e

Table 2.18 gives the market share of national transport in each Member State held by hire and reward vehicles, this varies enormously from 14% in L (1986) to 82% in E. The share of hire and reward is increasing in F, B and, particularly, in IRL. The share of hire and reward in GR has returned in 1989 to its earlier level of 1986/1987 suggesting that the 1988 results were erroneous (see 1988 Annual Report).

TABLE 2.18 NATIONAL TRANSPORT : MARKET SHARE BY HIRE & REWARD HAULIERS

nationality of vehicle	1986	1987	1988	1989
D	56.7%	57.0%	56.9%	56.7%
F	58.8%	60.4%	62.6%	64.9%
I	80.6%	N	N	N
NL	66.6%	67.2%	65.7%	65.3%
B	46.9%	48.2%	49.9%	52.8%
L	14.2%	N	N	N
UK	67.5%	70.7%	70.0%	72.0%
IRL	38.4%	40.4%	42.2%	50.0%
DK	74.1%	74.3%	74.0%	73.9%
GR	69.7%	66.0%	56.0%	69.6%
E	82.7%	82.4%	82.5%	N
P	28.5%e	28.5%	29.5%	31.0%
EUR 12	67.8%	68.9%	68.8%	69.9%e

TABLE 2.19 NATIONAL TRANSPORT : tkm ACHIEVED BY HIRE & REWARD HAULIERS (mio)

Nation. of vehicle	1986	1987	1988	1989	% change 87/86	88/87	89/88
D	58432	59779	63096	65316	+2.3%	+5.5%	+3.5%
F	48603	53345	61077	65157	+9.8%	+14.5%	+6.7%
I	89727	93884e	97696e	99602e	N	N	N
NL	12650	13404	14365	14215	+6.0%	+7.2%	-1.0%
B	5078	5286	6169	6604	+4.1%	+16.7%	+7.1%
L	34	36e	38e	40e	N	N	N
UK	69246	77665	88673	96652	+12.2%	+14.2%	+9.0%
IRL	1613	1610	1665	2021	-0.2%	+3.4%	+21.4%
DK	6535	6540	6701	6805	+0.1%	+2.5%	+1.6%
GR	8740	8624	6913	9631	-1.3%	-19.8%	+39.3%
E	61295	69825	74001	79231e	+13.9%	+6.0%	N
P	2345e	2462	2790	3137	+5.0%	+13.3%	+12.4%
EUR 12	364298	392460	423184	448411e	+7.7%	+7.8%	+6.0%e

The actual tkm performed by hire and reward vehicles in national transport is given in Table 2.19; these figures are given for their own interest as well as a base against which to assess the use of cabotage operations (approved as from 1.7.90). Partial results for the cabotage operations in Q3 and Q4 suggest that cabotage accounted for about 0.1% of national transport, much lower than the 0.6% which was estimated in 1989 Analysis and Forecasts Report as the level to which cabotage might rise. Further details on cabotage will be published when data is available.

2.3.12. Total intra-EUR 12 Transport by Community Hauliers, 1986-1989, in tkm

Combining the results from Table 2.2 for international transport (bilateral + cross-trades) with Table 2.17 for national transport gives total intra-EUR 12 transport by Community hauliers, this is given in Table 2.20.

TABLE 2.20 tkm ACHIEVED IN TOTAL INTRA-COMMUNITY TRANSPORT (national + bilateral intra-EUR 12 + cross-trades) FOR EACH NATIONALITY OF VEHICLE (mio tkm)

nation. of vehicle	1986	1987	1988	1989	% change 87/86	88/87	89/88
D	123085	125608	132536	137757	+2.0%	+5.5%	+3.9%
F	100859	108789	122984	127789	+7.9%	+13.0%	+3.9%
I	127382	133735e	141039e	143466e	+5.0%	+5.5%	+1.7%
NL	39739	42872	47644	49830	+7.8%	+11.1%	+4.6%
B	24186	26463	29500	32232	+9.4%	+11.5%	+9.3%
L	1262	1464e	1917e	2613e	+16.0%	+30.9%	+36.3%
UK	107104	116761	134108	142768	+9.0%	+14.9%	+6.5%
IRL	5036	4875	4914	5303	-3.2%	+0.8%	+7.9%
DK	13279	13510	13417	14110	+1.7%	-0.7%	+5.2%
GR	14512	15073	14946	16501	+3.9%	-0.8%	+10.4%
E	87352	99460	104463	111274e	+13.9%	+5.0%	+6.5%
P	9976e	10749	11656	14150	+7.7%	+8.5%	+21.4%
EUR 12	653772	699359	759124	797793e	+7.0%	+8.5%	+5.1%

The increase in 1989, estimated at 5.1%, is somewhat lower than the previous years (+7.0% and +8.5% - figures marginally revised from the 1988 Annual Report) giving a 22% increase over the 3 years. Although there has been a considerable variation between M.S., hauliers from all Member States have shown an increase in total tkm over the 3 years, and, except for some minor deviations, in each of the 3 years. The largest increases have been observed for hauliers from F (up 27%), UK (up 33%), E (up 27%) and P (up 42%); the very large increase for L (up 107%) is an estimate by the Commission services.

The very substantial increases in tkm are putting a considerable strain on the Community's road network, the 22% increase in tkm in the last 3 years having to be accommodated on a network where the length of motorway has only increased by 6% over the same period (see Table 2.1). It may also be noted that those M.S. which had particularly large increases in tkm (see above) had the following increases in motorway km: F, 11%; UK, 5%; E, 13%; P, 40%; L, 34%.

2.3.13. Relative Importance of International Transport in Total intra-EUR 12 Transport, 1986-1989, in tkm

As shown in Table 2.21, the relative importance of international transport (as opposed to national transport), continues to rise steadily on a Community-wide basis from 17.7% in 1986 to 19.6% in 1989. Growth in the relative importance of international transport has been particularly strong for F (up from 18.1% to 21.5%), Benelux, IRL and P hauliers - for details see Table 2.21 but care is needed in interpreting this table. It is noticeable that the share of international transport in D has remained almost constant while that in E has fallen.

TABLE 2.21 IMPORTANCE OF INTERNATIONAL INTRA-COMMUNITY TRANSPORT IN TOTAL TRANSPORT FOR EACH NATIONALITY OF VEHICLE (tkm)

nationality of vehicle	1986	1987	1988	1989
D	16.2%	16.5%	(16.3%)	16.4%
F	18.1%	18.9%	20.7%	21.5%
I	12.6%	12.9%e	14.1%e	13.9%e
NL	52.2%	53.5%	54.1%	56.3%
B	55.2%	58.6%	58.1%	61.2%
L	81.1%	82.9%e	85.9%e	89.1%e
UK	4.2%	5.9%	5.5%	5.9%
IRL	16.6%	18.3%	19.7%	23.7%
DK	33.5%	34.8%	32.5%	34.7%
GR	13.6%	13.3%	17.3%	16.1%
E	15.1%	14.8%	14.2%	13.7%e
P	17.6%	19.6%	18.8%	28.4%
EUR 12	17.7%	18.5%e	18.9%e	19.6%

2.3.14. International intra-EUR 12 Matrix by Community Vehicles, 1986-1989, in tonnes

Analysis on a tonnage basis is limited since, as in the last Annual Report, the detailed analysis is carried out on tkm. This year, however, the analysis on tonnage has been extended from just bilateral transport to include the partial cross-trades under Community quota (as is the case for tkm), this facilitates any overall comparisons between tonnes and tkm that readers may wish to make.

Table 2.22 Total intra-EUR 12 transport by relation '1000 tonnes

from	to	D	F	I	NL	B	L	UK	IRL	DK	GR	E	P	EUR-12
D	86		10 041	6 056	20 698	8 288	984	816	43	2 617	251	1 254	179	51 227
	87		11 654	6 530	21 530	8 413	1 092	1 130	76	2 627	265	1 400	198	54 915
	88		11 694	6 736	23 421	9 339	1 397	1 194	40	2 644	360	1 382	217	58 424
	89		**13 022**	**6 795**	**25 382**	**9 174**	**1 798**	**1 339**	**71**	**2 830**	**351**	**1 624**	**323**	**62 709**
F	86	11 556		5 732	2 862	11 031	383	1 997	70	309	73	3 503	236	37 752
	87	11 871		5 629	3 080	11 623	321	2 335	43	333	61	3 830	330	39 456
	88	13 364		6 903	3 405	12 862	675	2 383	87	339	144	4 997	390	45 549
	89	**14 448**		**7 357**	**3 878**	**14 100**	**640**	**2 895**	**81**	**362**	**170**	**5 402**	**369**	**49 702**
I	86	6 764	5 239		1 229	1 281	66	1 400	66	296	233	617	132	17 323
	87	7 359	5 660		1 461	1 406	70	1 780	54	287	274	828	194	19 373
	88	7 865	7 421		1 560	1 641	66	1 921	71	272	439	1 264	240	22 760
	89	**8 116**	**7 613**		**1 683**	**2 008**	**97**	**2 096**	**103**	**281**	**456**	**1 558**	**415**	**24 426**
NL	86	18 225	4 492	2 061		10 570	107	862	68	679	72	585	56	37 777
	87	18 822	4 799	2 338		11 654	105	958	31	743	71	664	66	40 251
	88	20 740	5 370	2 833		13 054	119	1 076	44	793	110	699	100	44 938
	89	**22 504**	**6 072**	**2 524**		**13 613**	**151**	**1 185**	**27**	**815**	**109**	**920**	**101**	**48 021**
B	86	8 941	14 141	1 593	12 497		1 155	394	22	235	24	450	47	39 499
	87	9 688	16 143	1 766	13 802		1 225	975	22	276	23	506	60	44 486
	88	10 499	19 988	2 030	15 603		1 551	1 018	34	304	35	720	45	51 827
	89	**11 436**	**20 916**	**2 297**	**14 878**		**1 745**	**1 020**	**30**	**272**	**35**	**868**	**88**	**53 585**
L	86	1 689	691	55	241	903		28	0	1	1	11	1	3 621
	87	1 698	704	68	244	1 007		29	0	0	1	13	1	3 765
	88	1 930	897	72	269	1 173		39	0	1	1	2	1	4 385
	89	**2 277**	**1 069**	**98**	**341**	**1 380**		**41**	**0**	**1**	**1**	**3**	**0**	**5 211**
UK	86	699	1 207	720	424	242	12		808	154	14	390	30	4 700
	87	1 063	1 572	979	496	373	8		935	217	30	532	56	6 261
	88	1 207	1 486	959	577	335	7		964	60	42	523	60	6 220
	89	**1 240**	**1 919**	**1 019**	**572**	**544**	**9**		**1 020**	**80**	**50**	**643**	**109**	**7 205**
IRL	86	49	119	40	18	12	0	732		7	0	4	1	982
	87	47	108	35	13	24	0	769		8	0	8	0	1 012
	88	65	118	30	20	13	0	749		3	0	9	2	1 009
	89	**74**	**127**	**61**	**17**	**24**	**3**	**854**		**2**	**1**	**14**	**0**	**1 177**
DK	86	2 654	276	275	368	112	0	433	14		33	52	12	4 229
	87	2 526	316	278	405	127	0	445	13		32	54	17	4 213
	88	2 879	379	263	449	142	0	94	7		34	56	17	4 320
	89	**3 210**	**374**	**270**	**481**	**141**	**0**	**135**	**11**		**40**	**73**	**24**	**4 759**
GR	86	331	49	195	67	17	0	21	0	14		17	0	711
	87	336	73	196	59	17	0	37	0	13		20	0	751
	88	415	76	170	85	22	0	38	0	15		3	0	824
	89	**423**	**72**	**180**	**93**	**19**	**0**	**39**	**0**	**15**		**3**	**1**	**845**
E	86	1 207	4 509	712	413	327	3	610	18	65	0		855	8 719
	87	1 497	5 340	830	510	407	7	835	30	75	1		1 091	10 623
	88	1 701	5 568	812	537	546	3	759	15	78	5		917	10 941
	89	**1 769**	**5 417**	**943**	**591**	**579**	**3**	**766**	**23**	**64**	**6**		**1 220**	**11 381**
P	86	108	245	51	39	31	1	23	0	9	0	611		1 118
	87	127	333	74	46	41	1	47	0	17	0	764		1 450
	88	145	354	97	68	31	3	56	0	22	0	991		1 767
	89	**209**	**482**	**205**	**51**	**50**	**4**	**107**	**0**	**24**	**0**	**1 421**		**2 553**
EUR-12	86	52 223	41 009	17 490	38 856	32 814	2 711	7 316	1 109	4 386	701	7 494	1 549	207 658
	87	55 034	46 702	18 723	41 646	35 092	2 829	9 340	1 204	4 596	758	8 619	2 013	226 556
	88	60 810	53 351	20 905	45 994	39 158	3 821	9 327	1 262	4 531	1 170	10 646	1 989	252 964
	89	**65 706**	**57 083**	**21 749**	**47 967**	**41 632**	**4 450**	**10 477**	**1 366**	**4 746**	**1 219**	**12 529**	**2 650**	**271 574**

Table 2.23 Intra-EUR 12 transport by relation by vehicles from M.S. of loading (OUTWARD) '1000 tonne

from	to	D	F	I	NL	B	L	UK	IRL	DK	GR	E	P	EUR-12
D	86		5 581	2 947	5 683	3 935	429	291	13	1 174	47	497	61	20 658
	87		5 859	3 120	5 472	3 881	505	296	8	1 127	59	596	75	20 998
	88		6 042	3 181	5 839	3 948	698	335	7	1 124	71	595	78	21 918
	89		**6 225**	**3 241**	**6 205**	**4 014**	**891**	**374**	**6**	**1 120**	**82**	**593**	**80**	**22 831**
F	86	4 548		3 678	749	3 643	204	1 213	6	79	53	1 288	139	15 600
	87	4 772		3 573	890	3 541	132	1 518	13	88	35	1 536	220	16 318
	88	5 787		4 854	892	4 249	444	1 609	14	79	123	2 378	250	20 679
	89	**6 232**		**5 187**	**1 005**	**4 570**	**333**	**1 882**	**5**	**80**	**149**	**2 506**	**215**	**22 164**
I	86	3 513	2 379		360	476	20	842	34	115	142	301	66	8 248
	87	3 815	2 566		416	503	21	864	31	113	166	444	90	9 029
	88	4 147	3 294		461	538	22	975	34	108	353	680	130	10 742
	89	**4 167**	**3 169**		**475**	**633**	**26**	**1 063**	**45**	**120**	**339**	**818**	**183**	**11 038**
NL	86	13 644	3 171	1 215		8 063	88	526	4	446	15	192	32	27 396
	87	14 417	3 472	1 330		8 570	85	557	9	483	13	223	43	29 202
	88	16 007	3 931	1 446		9 617	95	647	9	516	12	266	59	32 605
	89	**17 377**	**4 425**	**1 477**		**9 936**	**117**	**708**	**6**	**532**	**20**	**403**	**59**	**35 060**
B	86	4 712	9 319	877	4 825		614	65	2	38	1	245	17	20 715
	87	5 361	10 775	999	5 284		650	638	1	70	1	284	29	24 092
	88	5 828	13 342	1 269	5 449		861	677	6	96	0	409	15	27 952
	89	**6 343**	**14 031**	**1 424**	**5 831**		**847**	**632**	**4**	**63**	**0**	**438**	**51**	**29 664**
L	86	603	273	36	142	528		21	0	0	0	0	0	1 603
	87	640	291	38	151	565		23	0	0	0	0	0	1 708
	88	768	349	46	181	678		28	0	0	0	0	0	2 050
	89	**998**	**454**	**59**	**236**	**881**		**36**	**0**	**0**	**0**	**0**	**0**	**2 664**
UK	86	446	641	472	153	206	10		127	4	9	85	11	2 164
	87	787	722	709	210	229	6		78	4	24	212	34	3 015
	88	877	718	733	244	190	5		149	7	31	270	38	3 262
	89	**838**	**818**	**785**	**236**	**266**	**5**		**76**	**19**	**40**	**363**	**42**	**3 488**
IRL	86	31	102	17	15	12	0	668		0	0	1	1	847
	87	33	68	18	10	22	0	730		0	0	4	0	885
	88	52	104	13	16	11	0	708		0	0	5	2	911
	89	**61**	**116**	**43**	**14**	**21**	**3**	**805**		**1**	**0**	**8**	**0**	**1 072**
DK	86	1 749	241	234	121	79	0	426	14		27	35	11	2 937
	87	1 618	262	232	116	77	0	444	13		27	36	13	2 838
	88	1 902	288	219	130	83	0	85	7		26	41	16	2 797
	89	**2 168**	**297**	**234**	**147**	**81**	**0**	**122**	**11**		**30**	**55**	**20**	**3 165**
GR	86	300	36	120	60	17	0	19	0	5		2	0	559
	87	301	35	123	55	17	0	19	0	7		5	0	562
	88	379	33	105	82	22	0	24	0	7		2	0	654
	89	**386**	**36**	**126**	**88**	**19**	**0**	**28**	**0**	**9**		**2**	**1**	**695**
E	86	638	3 638	445	235	140	2	497	3	27	0		592	6 217
	87	751	4 279	524	277	164	3	585	3	32	0		697	7 315
	88	832	4 112	421	271	193	0	448	5	29	3		571	6 885
	89	**738**	**3 941**	**470**	**222**	**161**	**0**	**389**	**4**	**19**	**4**		**631**	**6 579**
P	86	72	140	43	11	19	1	19	0	4	0	266		575
	87	80	160	64	12	16	1	17	0	7	0	406		763
	88	93	148	83	29	17	2	26	0	10	0	361		769
	89	**148**	**237**	**189**	**14**	**13**	**4**	**65**	**0**	**10**	**0**	**604**		**1 284**
EUR-12	86	30 256	25 521	10 084	12 354	17 118	1 368	4 587	203	1 892	294	2 912	930	107 519
	87	32 575	28 489	10 730	12 893	17 585	1 403	5 691	156	1 931	325	3 746	1 201	116 725
	88	36 672	32 361	12 370	13 594	19 546	2 127	5 562	231	1 976	619	5 007	1 159	131 224
	89	**39 456**	**33 749**	**13 235**	**14 473**	**20 595**	**2 226**	**6 104**	**157**	**1 973**	**664**	**5 790**	**1 282**	**139 704**

Table 2.24 Intra-EUR 12 transport by relation by vehicles from M.S. of unloading (INWARD) '1000 tonne

from	to	D	F	I	NL	B	L	UK	IRL	DK	GR	E	P	EUR-12
D	86		4 215	2 975	14 890	4 123	527	477	27	1 412	201	685	107	29 639
	87		5 484	3 201	15 906	4 235	564	772	64	1 465	204	705	106	32 706
	88		5 271	3 295	17 433	5 021	677	782	31	1 453	286	624	113	34 986
	89		**6 163**	**3 189**	**18 921**	**4 677**	**880**	**855**	**63**	**1 617**	**267**	**734**	**208**	**37 574**
F	86	6 752		2 001	2 065	7 257	171	760	62	207	20	2 208	93	21 596
	87	6 777		1 977	2 136	7 915	183	774	29	215	25	2 273	107	22 411
	88	7 197		1 978	2 466	8 408	220	744	71	230	20	2 592	134	24 060
	89	**7 616**		**2 057**	**2 757**	**9 235**	**286**	**949**	**75**	**249**	**20**	**2 825**	**146**	**26 215**
I	86	3 008	2 792		791	668	30	469	31	168	91	290	53	8 391
	87	3 184	2 995		893	747	32	753	22	162	108	299	85	9 280
	88	3 302	4 023		995	940	38	800	35	153	85	467	83	10 921
	89	**3 419**	**4 274**		**1 027**	**1 158**	**49**	**833**	**55**	**150**	**115**	**561**	**201**	**11 842**
NL	86	4 501	1 279	739		2 503	19	332	64	228	56	377	20	10 118
	87	4 313	1 271	802		3 080	19	393	22	248	57	388	18	10 611
	88	4 630	1 374	1 231		3 433	23	418	34	266	97	380	32	11 918
	89	**4 946**	**1 529**	**805**		**3 661**	**30**	**457**	**21**	**268**	**88**	**425**	**24**	**12 254**
B	86	3 977	4 691	419	7 666		539	313	20	175	22	188	27	18 037
	87	4 066	5 205	469	8 510		573	318	21	181	21	193	25	19 582
	88	4 352	6 433	453	10 144		688	312	27	175	34	266	20	22 904
	89	**4 637**	**6 586**	**528**	**9 032**		**894**	**346**	**25**	**180**	**34**	**352**	**25**	**22 639**
L	86	1 056	411	17	98	372		6	0	0	1	11	1	1 973
	87	1 040	408	20	92	441		6	0	0	1	11	1	2 020
	88	1 141	542	19	88	493		11	0	0	1	0	1	2 296
	89	**1 241**	**597**	**22**	**103**	**497**		**4**	**0**	**0**	**1**	**0**	**0**	**2 465**
UK	86	224	540	200	264	22	2		681	149	5	300	19	2 406
	87	237	809	175	282	126	2		857	212	6	309	21	3 036
	88	284	732	165	330	123	2		815	52	11	237	21	2 772
	89	**331**	**1 038**	**170**	**329**	**242**	**3**		**944**	**60**	**10**	**256**	**65**	**3 448**
IRL	86	12	11	20	2	0	0	64		7	0	3	0	119
	87	9	33	15	3	1	0	39		7	0	3	0	110
	88	9	2	15	4	2	0	41		2	0	2	0	77
	89	**8**	**1**	**16**	**3**	**3**	**0**	**48**		**1**	**0**	**3**	**0**	**83**
DK	86	854	22	34	244	26	0	7	0		6	16	1	1 210
	87	847	35	35	283	41	0	1	0		5	16	4	1 267
	88	894	62	29	311	46	0	8	0		8	13	0	1 371
	89	**941**	**47**	**30**	**329**	**47**	**0**	**10**	**0**		**10**	**13**	**3**	**1 430**
GR	86	29	13	70	7	0	0	2	0	9		15	0	145
	87	32	37	69	4	0	0	18	0	6		15	0	181
	88	34	42	61	3	0	0	13	0	8		1	0	162
	89	**36**	**36**	**50**	**4**	**0**	**0**	**11**	**0**	**6**		**1**	**0**	**144**
E	86	523	861	244	156	177	1	101	15	36	0		261	2 375
	87	635	1 037	258	183	220	1	232	26	38	1		387	3 018
	88	669	1 425	296	218	310	1	279	8	43	1		332	3 582
	89	**702**	**1 407**	**333**	**281**	**355**	**1**	**333**	**17**	**40**	**1**		**578**	**4 048**
P	86	33	101	6	25	9	0	4	0	5	0	343		526
	87	39	167	8	30	20	0	29	0	7	0	353		653
	88	41	199	10	35	9	0	29	0	10	0	622		955
	89	**42**	**234**	**13**	**29**	**31**	**0**	**38**	**0**	**11**	**0**	**809**		**1 207**
EUR-12	86	20 969	14 936	6 725	26 208	15 157	1 289	2 535	900	2 396	402	4 436	582	96 535
	87	21 179	17 481	7 029	28 322	16 826	1 374	3 335	1 041	2 541	428	4 565	754	104 875
	88	22 553	20 105	7 552	32 027	18 785	1 649	3 437	1 021	2 392	543	5 204	736	116 004
	89	**23 919**	**21 912**	**7 213**	**32 815**	**19 906**	**2 143**	**3 884**	**1 200**	**2 582**	**546**	**5 979**	**1 250**	**123 349**

Table 2.25 Intra-EUR 12 transport by relation by vehicles from other M.S. (CROSS-TRADES) '1000 tonnes

from	to	D	F	I	NL	B	L	UK	IRL	DK	GR	E	P	EUR-12
D	86		245	134	125	230	28	48	3	31	3	72	11	930
	87		311	209	152	297	23	62	4	35	2	99	17	1 211
	88		381	260	149	370	22	77	2	67	3	163	26	1 520
	89		**634**	**365**	**256**	**483**	**27**	**110**	**2**	**93**	**2**	**297**	**35**	**2 304**
F	86	256		53	48	131	8	24	2	23	0	7	4	556
	87	322		79	54	167	6	43	1	30	1	21	3	727
	88	380		71	47	205	11	30	2	30	1	27	6	810
	89	**600**		**113**	**116**	**295**	**21**	**64**	**1**	**33**	**1**	**71**	**8**	**1 323**
I	86	243	68		78	137	16	89	1	13	0	26	13	684
	87	360	99		152	156	17	163	1	12	0	85	19	1 064
	88	416	104		104	163	6	146	2	11	1	117	27	1 097
	89	**530**	**170**		**181**	**217**	**22**	**200**	**3**	**11**	**2**	**179**	**31**	**1 546**
NL	86	80	42	107		4	0	4	0	5	1	16	4	263
	87	92	56	206		4	1	8	0	12	1	53	5	438
	88	103	65	156		4	1	11	1	11	1	53	9	415
	89	**181**	**118**	**242**		**16**	**4**	**20**	**0**	**15**	**1**	**92**	**18**	**707**
B	86	252	131	297	6		2	16	0	22	1	17	3	747
	87	261	163	298	8		2	19	0	25	1	29	6	812
	88	319	213	308	10		2	29	1	33	1	45	10	971
	89	**456**	**299**	**345**	**15**		**4**	**42**	**1**	**29**	**1**	**78**	**12**	**1 282**
L	86	30	7	2	1	3		1	0	1	0	0	0	45
	87	18	5	10	1	1		0	0	0	0	2	0	37
	88	21	6	7	0	2		0	0	1	0	2	0	39
	89	**38**	**18**	**17**	**2**	**2**		**1**	**0**	**1**	**0**	**3**	**0**	**82**
UK	86	29	26	48	7	14	0		0	1	0	5	0	130
	87	39	41	95	4	18	0		0	1	0	11	1	210
	88	46	36	61	3	22	0		0	1	0	16	1	186
	89	**71**	**63**	**64**	**7**	**36**	**1**		**0**	**1**	**0**	**24**	**2**	**269**
IRL	86	6	6	3	1	0	0	0		0	0	0	0	16
	87	5	7	2	0	1	0	0		1	0	1	0	17
	88	4	12	2	0	0	0	0		1	0	2	0	21
	89	**5**	**10**	**2**	**0**	**0**	**0**	**1**		**0**	**1**	**3**	**0**	**22**
DK	86	51	13	7	3	7	0	0	0		0	1	0	82
	87	61	19	11	6	9	0	0	0		0	2	0	108
	88	83	29	15	8	13	0	1	0		0	2	1	152
	89	**101**	**30**	**6**	**5**	**13**	**0**	**3**	**0**		**0**	**5**	**1**	**164**
GR	86	2	0	5	0	0	0	0	0	0		0	0	7
	87	3	1	4	0	0	0	0	0	0		0	0	8
	88	2	1	4	0	0	0	1	0	0		0	0	8
	89	**1**	**0**	**4**	**1**	**0**	**0**	**0**	**0**	**0**		**0**	**0**	**6**
E	86	46	10	23	22	10	0	12	0	2	0		2	127
	87	111	24	48	50	23	3	18	1	5	0		7	290
	88	200	31	95	48	43	2	32	2	6	1		14	474
	89	**329**	**69**	**140**	**88**	**63**	**2**	**44**	**2**	**5**	**1**		**11**	**754**
P	86	3	4	2	3	3	0	0	0	0	0	2		17
	87	8	6	2	4	5	0	1	0	3	0	5		34
	88	11	7	4	4	5	1	1	0	2	0	8		43
	89	**19**	**11**	**3**	**8**	**6**	**0**	**4**	**0**	**3**	**0**	**8**		**62**
EUR-12	86	998	552	681	294	539	54	194	6	98	5	146	37	3 604
	87	1 280	732	964	431	681	52	314	7	124	5	308	58	4 956
	88	1 585	885	983	373	827	45	328	10	163	8	435	94	5 736
	89	**2 331**	**1 422**	**1 301**	**679**	**1 131**	**81**	**489**	**9**	**191**	**9**	**760**	**118**	**8 521**

Table 2.22 shows that the increase in tonnages was 9.1% in 1987, 11.7% in 1988 and 7.4% in 1989 (this compares with 11.4%, 11.1% and 8.9% for tkm - see Table 2.2) bringing the total international intra-EUR 12 tonnage to 271.6 million tonnes in 1989.

Note these figures are slightly different from the last Annual Report due not only to minor revisions in the data but also to the inclusion of the (partial) cross-trades which add over 3% to the tonnage in 1989.

Table 2.22 (which has the same layout as Table 2.9 for tkm) gives the tonnages transported by all Community vehicles, the tonnages transported by vehicles from the Member States of loading, Member States of unloading and other Member States (cross-trades) are shown separately in Tables 2.23, 2.24 and 2.25 respectively.

2.3.15. International extra-EUR 12 Matrix by Community Vehicles, 1986-1689, in tonnes

It should be noted in this section that only data collected under the Road Statistics Directive (78/546) or equivalent data is presented.

Thus there is no information on cross-trades (only available under the modified Directive (89/462) from 1990) by Community vehicles on extra-EUR 12 transport nor, more importantly, by vehicles from non-Member States. Contrary to the 1988 Annual Report, data for I vehicles has been estimated from trade data (for 1988 and 1989) and data for E vehicles has been estimated in the inward direction (for 1989) from trade data, due to the surprising agreement between the 1988 trade and transport data in this direction only. Because of this incompleteness, however, I and E (and L) have been omitted from the totals.

While there have been some "improvements" in the data - particularly with a finer split of Eastern Europe compared to the last Annual Report - readers should note that it has been necessary to omit E from the totals this year. It has also been decided to publish the full breakdown of partner countries as specified in the Directive; from this it can be seen that the I and DK figures for "other countries" are particularly high (the I and DK figures are both based on trade data and thus give partner country in a trade sense and not necessarily the non-Community destination (origin) of the road vehicle journey. Similarly the B figures show little disaggregation - they are still based on the 78/546 Directive list of partner countries while other Member States have given a fuller list prior to the formal modification in the 89/462 Directive.

The results given in Tables 2.26 and 2.27 show a 15 to 16% increase in both the outward and inward directions in 1989, about twice the increase for intra-EUR 12 transport. However, a large part of the increase is due to transport between F and CH which has been particularly variable in recent years; this one relation accounted for almost 20% of all extra-EUR 12 tonnage in 1989.

Table 2.26 Transport with third countries : EUR - OUTWARD tonnages ('000 tonnes)

from	to	N	S	SF	CH	A	YU	TR	SU	DDR	PL	CS	H	RUM	BUL	other european	north africa	near & middle east	other countries	TOTAL
from D	86	111	355	36	3227	1783	71	33	4		43	28	32	8	5	2	12	5		5755
	87	96	403	35	3650	1891	62	44	5		43	36	22	11	6	1	13	2		6320
by	88	142	536	72	4408	2267	72	55	11		73	45	30	15	7	1	14	3		7751
D hauliers	**89**	**92**	**325**	**75**	**4776**	**2379**	**76**	**61**	**17**		**117**	**59**	**37**	**18**	**9**	**1**	**14**	**5**		**8061**
from F	86		67		1828	67	4									13	37	9	8	2033
	87	12	68		1170	88	7	4		5	7		4	4		7	27	2		1405
by	88		127	4	1733	57	6	9	2	3	11	5	11	4	1	36	36	5		2050
F hauliers	**89**		**124**		**3024**	**85**	**20**		**6**	**8**	**14**	**4**	**6**	**20**	**1**	**41**	**37**		**5**	**3395**
from I	86																			
	87																			
by	88	36	145	74	2207	691	211	93	86	20	27	19	33	9	19	72	274	196	725	4937
I hauliers	**89**	**57**	**160**	**84**	**2310**	**690**	**271**	**82**	**110**	**20**	**31**	**21**	**34**	**9**	**16**	**68**	**216**	**191**	**886**	**5256**
from NL	86	57	305	10	433	175	45	38	2	28	26	7	15	6	3	3			11	1164
	87	61	366	18	496	215	34	35	1	38	17	13	12	5	3		1		11	1326
by	88	65	402	20	541	244	40	38	2	42	39	13	11	7	3	6	4	1		1478
NL hauliers	**89**	**59**	**415**	**26**	**560**	**301**	**46**	**36**	**6**	**44**	**74**	**18**	**11**	**6**	**2**	**5**	**5**	**1**		**1615**
from B	86				144	50	15			6		1							39	255
	87				202	64	22			3		3							96	390
by	88				219	78	2			4		2							118	423
B hauliers	**89**				**223**	**103**	**7**			**6**									**107**	**466**
from L	86				5															5
	87																			
by	88																			
L hauliers	**89**																			
from UK	86		4		94	20	7									11		2	1	139
	87	21	3		140	22	10	5				1				7	3	10		222
by	88	1	6		100	23	2	11				1				14		10		168
UK hauliers	**89**	**7**	**15**		**95**	**45**	**6**	**25**	**2**		**5**	**2**	**1**			**4**	**1**	**10**		**218**
from IRL	86		1																	1
	87		2			9	3													14
by	88			1	3															4
IRL hauliers	**89**		**3**	**2**	**2**	**4**														**11**
from DK	86	355	841	75	44	21	5	2		4	7	6	1	1		3	12	74	289	1740
	87	334	960	70	50	25	3	3	1	5	5	7	1		2	3	13	27	291	1800
by	88	312	994	79	52	29	4	2		9	5	8	2		1	19	12	29	281	1838
DK hauliers	**89**	**267**	**1136**	**92**	**59**	**36**	**8**	**3**	**1**	**8**	**14**	**10**	**3**	**1**	**2**	**14**	**9**	**40**	**312**	**2015**
from GR	86		2		4	20	9	16		4	1	9	1	14	15	2		6		103
	87		2		3	16	8	22		3		9	1	5	11	1		2		83
by	88		3		3	21	10	9		3	2	20	2	4	14	3		1		95
GR hauliers	**89**		**3**		**3**	**19**	**18**	**7**		**3**	**2**	**16**	**3**	**4**	**18**	**6**		**1**		**103**
from E	86		102		101	40	2									265				510
	87		120		119	47	2									312				600
by	88	14	39	16	80	38	2	2	1	2	4	7	3		1	513	1		12	735
E hauliers	**89**																			
from P	86		3		9	3				1										16
	87		2		10	6														18
by	88	6	4		13	11				4										38
P hauliers	**89**	**4**	**6**		**34**	**8**														**54**
TOTAL (D +	86	523	1578	121	5783	2139	156	89	6	43	77	51	49	29	23	34	61	96	348	11206
F + NL + B +	87	524	1806	123	5721	2336	149	113	7	54	72	69	40	25	22	19	57	43	398	11578
UK + IRL +	88	526	2072	176	7072	2730	136	124	15	65	130	94	56	30	26	79	66	49	399	13845
DK + GR + P)	**89**	**429**	**2029**	**195**	**8776**	**2980**	**181**	**132**	**32**	**69**	**226**	**109**	**61**	**49**	**38**	**71**	**66**	**57**	**424**	**15918**

Table 2.27 Transport with third countries : EUR - INWARD tonnages ('000 tonnes)

to	from	N	S	SF	CH	A	YU	TR	SU	DDR	PL	CS	H	RUM	BUL	other european	north africa	near & middle east	other countries	TOTAL
	86	55	408	35	650	907	89	16	2		267	664	99	34	4	1	11	1		3243
to D	87	51	419	39	679	1058	95	26	3		289	609	120	38	4	1	12	1		3444
by	88	68	508	59	778	1228	105	29	2		288	640	141	41	5	1	13	1		3907
D hauliers	**89**	**53**	**392**	**60**	**819**	**1272**	**114**	**33**	**6**		**494**	**705**	**162**	**62**	**7**	**1**	**13**	**3**		**4196**
	86		49		998	61										23	4		8	1143
to F	87	8	46		478	66	10		4	7	9		4	1		2	30	1		666
by	88		96	2	894	72	38		1	7	15		7	5		7	9		1	1154
F hauliers	**89**		**104**		**1690**	**77**	**26**			**11**	**21**		**22**	**7**		**19**	**37**			**2014**
	86																			
to I	87																			
by	88	15	80	34	308	1053	809	18	69	31	70	91	123	264	13	3	289	524	448	4242
I hauliers	**89**	**51**	**109**	**30**	**269**	**1035**	**896**	**47**	**76**	**34**	**74**	**86**	**161**	**137**	**11**	**7**	**103**	**103**	**404**	**3633**
	86	18	224	5	188	126	56	7	1	72	43	39	34	29	2	1			2	847
to NL	87	17	264	8	208	140	48	6	1	80	54	43	26	29	1				3	928
by	88	22	303	10	236	176	51	9	1	96	91	40	29	31	1	1	2			1099
NL hauliers	**89**	**29**	**334**	**13**	**249**	**194**	**56**	**10**	**2**	**114**	**136**	**49**	**39**	**25**	**1**	**1**	**4**			**1256**
	86				69	43	10			11		1							32	166
to B	87				110	44	10			6		3							83	256
by	88				129	76				4		3							80	292
B hauliers	**89**				**126**	**79**	**3**			**6**									**72**	**286**
	86				2															2
to L	87																			
by	88																			
L hauliers	**89**																			
	86		4		78	23	6									9		2	1	123
to UK	87	6	3		122	24	15	1		1		1				12	1			186
by	88	3	14		77	24	9	2				3				22		1		155
UK hauliers	**89**	**8**	**6**		**85**	**54**	**12**	**3**				**2**	**3**	**9**	**17**	**1**				**200**
	86																			
to IRL	87					7														7
by	88				2	2														4
IRL hauliers	**89**				**1**															**1**
	86	162	1388	91	30	18	6	1		20	62	9	9	1	1	1	1	1	57	1858
to DK	87	152	1320	78	27	19	6	2	3	49	60	8	12	1	1	1	1	1	70	1811
by	88	141	1279	78	28	24	7	1	3	103	69	8	10	1	1	2	1	1	67	1824
DK hauliers	**89**	**115**	**1383**	**70**	**23**	**25**	**6**	**1**	**2**	**125**	**89**	**6**	**10**		**2**	**1**	**1**	**1**	**39**	**1899**
	86		1		3	10	28	2		1		1	7	2	15	1				71
to GR	87		1		2	8	42	2				1	4	3	21	1				85
by	88		3		2	12	62	1		1		2	7	7	22					119
GR hauliers	**89**		**2**		**3**	**12**	**57**	**2**		**1**	**1**	**2**	**10**	**6**	**25**	**1**				**122**
	86		55		38	23	3									47				166
to E	87		57		39	23	3									48				170
by	88	5	70	9	25	40	7	8	5	5	6	12	2	2	1	93	28			318
E hauliers	**89**	**4**	**91**	**10**	**21**	**50**	**8**	**8**	**9**	**4**	**12**	**14**	**3**	**2**		**64**	**4**	**9**	**234**	**537**
	86		2		5	4				1										12
to P	87		2		5	7														14
by	88		5		9	21				6										41
P hauliers	**89**	**2**	**13**		**10**	**4**														**29**
TOTAL (D +	86	235	2076	131	2021	1192	195	26	3	105	372	714	149	66	22	36	16	4	100	7463
F + NL + B +	87	234	2055	125	1631	1373	226	37	11	143	412	665	166	72	27	17	44	3	156	7397
UK + IRL +	88	234	2208	149	2155	1635	272	42	7	217	463	696	194	85	29	33	25	3	148	8595
DK + GR + P)	**89**	**207**	**2234**	**143**	**3006**	**1717**	**274**	**49**	**10**	**257**	**741**	**764**	**246**	**109**	**52**	**24**	**55**	**4**	**111**	**10003**

2.3.16. Transport through the Transit Countries, Switzerland and Austria

Figures up to 1987 published in the 1988 Annual Report have been based on Swiss and Austrian statistics as republished by BDF in Germany. As no data later than 1987 has been published from these sources, it was necessary to look for an alternative source. The figures quoted below are taken from "Transalpiner Güterverkehr 1989" published by the Swiss "Dienst für Gesamtverkehrsfragen des Eidgenössischen Verkehrs- und Energiewirtschaftsdepartementes Bern". The figures are in a simpler form than that published earlier but have the advantage of including the Mont Blanc and Mont Cenis/Fréjus tunnels in France (which are an alternative route to Swiss transit in some cases) as well as giving late data up to 1989.

TABLE 2.28 Goods transport through the Alps (F, CH, A)
(mio tonnes per year)

Crossing point	period	Rail Piggy-back	Road	Total	Annual growth rate
	1970	4.70	2.20	6.90	
	79/80	8.50	9.90	18.40	70-81
F	1981	7.86	9.93	17.79	9.0%
	1984	8.78	12.92	21.70	81-89
	1989	8.53	20.84	29.37	6.5%
	1970	14.20	0.80	15.00	
	79/80	16.06	1.26	17.32	70-81
CH	1981	15.19	1.74	16.93	1.1%
	1984	14.66	2.39	17.05	81-89
	1989	18.77	3.98	22.75	3.8%
	1970	3.20	3.10	6.30	
	79/80	4.46	11.09	15.55	70-81
A	1981	4.11	11.60	15.71	8.7%
	1984	4.19	13.49	17.68	81-89
	1989	4.98	15.78	20.76	3.6%
	1970	22.10	6.10	28.20	
	79/80	29.02	22.25	51.27	70-81
Total	1981	27.16	23.27	50.43	5.4%
	1984	27.63	28.80	56.43	81-89
	1989	32.28	40.60	72.88	4.7%

F : total goods transport via Mt Cenis/Fréjus and Mt Blanc
CH : total goods transport via Gr. St. Bernhard, Simplon, Gotthard and San Bernardino
A : total goods transport via Brenner

2.4. Transport Supply and Utilisation

2.4.1. Introduction

The 1988 Annual Report presented information on supply for the first time; in this Report the evolution of supply from 1986 to 1989 is examined together with a cross-sectional analysis on the size of vehicles, to increase the number of Member States for which data is available analysis is done for 1988. As last year data from the UN publication has been largely used, this is more complete, more up to date and the only international organisation to give details of the carrying capacity of the vehicles.

Because of the incompleteness of the data it has sometimes been necessary to give more than one EUR total so that valid comparisons can be made; data for 1989 is, additionally, less complete so that EUR indices for 1989 are, provisionally, based on those Member States with data for both 1988 and 1989.

2.4.2. Evolution of Stock 1986-1989

Data on the evolution of the number of vehicles is given in Table 2.29 which gives, lorries, tractors, semi-trailers and trailers separately. The data is based on UN data except that, due to incompleteness of the published data for 1986 it has been necessary to use EUROSTAT data for F, I, B, NL (except lorries) and E (tractors only). EUROSTAT data has also been used to separate trailers and semi-trailers for E in 1987. Irish data for trailers and semi-trailers is included with lorries throughout and trailers and semi-trailers for P are combined throughout.

The number of tractors (EUR 11 basis) has grown more rapidly (1989 index 126.2, 1986 = 100) than lorries (index 118.0, also on EUR 11 basis). However the high increase in tractors is due to the rapid increase in D index 132.0) which accounts for almost half the EUR 11 tractors by 1989; given the relatively small number of semi-trailers in D, it seems probable that D figures for tractors include agricultural tractors.

According to Table 2.29 the growth of semi-trailers (index 116.2) and trailers (index 117.1) is somewhat lower than either lorries (index 118.0) or tractors (index 126.2 or 122.0 if D excluded); this is surprising since (as will be shown below) the carrying capacity of semi-trailers has been rising faster than that of lorries or trailers.

Considering the results by Member States, the following cautionary remarks should be made

(i) Large number of F lorries is due to inclusion of very large number of small lorries (camionettes)

(ii) Large numbers of DK trailers is due to inclusion of very large number of small trailers.

Given the inconsistencies of definitions and some surprising evolutions for particular Member States (eg. the 18.6% increase in UK lorries from 1988 to 1989 alone) it does not seem possible to carry out any realistic detailed analysis on the number of vehicles broken down into the four classes. However it is evident that the stock of goods vehicles has increased by about 20% between 1986 and 1989.

2.4.3. Evolution of Carrying Capacity, 1986-1989

To overcome some of the difficulties of the previous section (especially (i) and (ii) mentioned in that section) and more particularly to monitor the increasing permitted capacity of the largest lorries, it is useful to examine the carrying capacity in each of the 3 classes (lorries, trailers and semi-trailers) and the total of all 3 classes - this is shown is Table 2.30.

Unfortunately, information on carrying capacity is available for less Member States than the number of vehicles (7 M.S. for lorries, 5 M.S. for trailers and semi-trailers - the Portuguese figures shown in Table 2.30 are too "unstable" to be taken into the EUR indices.)

Table 2.30 gives two sets of totals (and indices) for lorries, based on 7 M.S. and 5 M.S. respectively so as to show the evolution of (a) as many M.S. as possible and (b) the same M.S. as for trailers and semi-trailers. The results show that carrying capacity of lorries has increased (index 113.2) for the 7 M.S. but that this is reduced (index 109.0) if the index is restricted to the 5 M.S. for which data is also available for semi-trailers and trailers. Carrying capacity of semi-trailers (index 124.0) and trailers (index 113.6) has grown far more rapidly than lorries. The index for total capacity (for the 5 M.S.) stands at 114.3 in 1989 (1986 = 100).

As the data in Table 2.30 relates to less M.S. than Table 2.29, fair comparison between the growth of number of vehicles and carrying capacity should be on the basis of the smaller number of M.S. given in Table 2.30; for this reason Table 2.29 also includes totals (and indices) for this smaller number of M.S.

Fair comparisons between Tables 2.29 and 2.30 thus indicate

(i) number of lorries (index 115.6, EUR 7 basis; index 110.2, EUR 5 basis) has grown slightly faster than carrying capacity (index 113.2 EUR 7 basis ; index 109.0 EUR 5 basis)

(ii) carrying capacity of semi-trailers (index 124.0) has grown faster than number of semi-trailers (index 118.9)

(iii) number of trailers (index 117.0) has grown faster than carrying capacity of trailers (index 113.6)

An alternative way of expressing these results is to examine the average carrying capacity (here it is necessary to descend to EUR 3 level: D, F & B) ; these results show (Table 2.31) that the average carrying capacity of semi-trailers has increased from 22.7 to 23.7 tonnes whereas the average carrying capacity of lorries and trailers has remained unchanged at 1.8 tonnes and 7 tonnes respectively.

TABLE 2.29 STOCK OF GOODS VEHICLES AT END OF YEAR Number (1000)

Nationality	Lorries				Tractors				Semi-Trailers				Trailers			
of vehicle	1986	1987	1988	1989	1986	1987	1988	1989	1986	1987	1988	1989	1986	1987	1988	1989
D	1295	1305	1322	1345	300	329	361	396	79	82	86	91	276	282	292	305
F	3087E	3204	3322	3442	139E	144	151	160	112E	114	121	131	23E	24	25	26
I	2308E				43E				45E				489E			
NL	415	438	468	484	27E	30	32	34	36E				63E			
B	246E	258	270	288	20E	22	23	26	38E	42	45	51	36E	39	43	48
L	10	10	11	11	5	5	5	6								
UK	1841	1877	2004	2376	95	98	98	114	213	211	218	231				
IRL	101	111	119		64	66	68		*	*	*		*	*	*	
DK	268	279	287		13	14	14		13	14	14		235	256	273	
GR	618	647	680		1	1	1		4	4	4		4	5	5	
E	1679	1822	1976	2162	42E	47	54	62	54	61E	68		16	16E	11	
P	378	366	412		7	7	8	10					65	8	14	
EUR-	11	11	11	7	11	11	11	8	8	8	8	4	7	7	7	3
TOTAL	9938	10317	10871	10108	713	763	815	808	513	528	556	504	596	630	663	379
INDEX	100.0	103.8	109.4	118.0	100.0	107.0	114.3	126.2	100.0	102.9	108.4	116.2	100.0	105.7	111.2	117.1
EUR-	7	7	7	4	7	7	7	5	7	7	7	4	6	6	6	3
TOTAL	7733	7936	8297	7451	575	615	656	706	459	467	488	504	580	614	652	379
INDEX	100%	102.6	107.3	115.6	100	107	114.1	125.7	100%	101.7	106.3	114	100	105.9	112.4	118.3
EUR-	5	5	5	3	5	5	5	3	5	5	5	3	5	5	5	3
TOTAL	5514	5693	5881	5075	473	510	550	582	246	256	270	273	574	606	638	379
INDEX	100.0	103.2	106.7	110.2	100.0	107.8	116.3	126.5	100.0	104.1	109.8	118.9	100.0	105.6	111.1	117.0

E = Eurostat (otherwise UN)
r = revised
* = included with lorries

TABLE 2.30 CARRYING CAPACITY OF GOODS VEHICLES AT END OF YEAR (1000t)

Nationality of vehicle	Lorries				Semi trailers				Trailers				Total			
	1986	1987	1988	1989	1986	1987	1988	1989	1986	1987	1988	1989	1986	1987	1988	1989
D	3739	3852	3921	3990	1718	1840	1952	2073	1936	2008	2072	2142	7393	7700	7945	8205
F	3960E	4110	4215	4320	2651E	2698	2889	3141	273E	285	309	333	6884E	7103	7413	7794
I																
NL																
B	706E	740	770	814	835E	1000	1095	1252	135E	146	161	183	1676E	1886	2025	2250
L																
UK	3814	3814	3860	4445												
IRL																
DK	517	534	537		280	298	312		211	228	237		1008	1060	1086	
GR	1066	1115	1182		88	93	95		93	95	96		1246	1303	1365	
E																
P	793	866	1057		--->	--->	--->		432	113	235		1226	979	1292	
EUR-	7	7	7	4	5	5	5	3	5	5	5	3	5	5	5	3
TOTAL	14595	15031	15542	13569	5572	5929	6343	6466	2648	2762	2875	2658	18207	19052	19834	18249
INDEX	100.0	103.0	106.5	113.2	100.0	106.4	113.8	124.0	100.0	104.3	108.6	113.6	100.0	104.6	108.9	114.3
EUR-	5	5	5	3												
TOTAL	9988	10351	10625	9124												
INDEX	100.0	103.6	106.4	113.2												

TABLE 2.31 AVERAGE CARRYING CAPACITY (D, F and B only)				
Lorries	1986	1987	1988	1989
Number of vehicles(1000)	4628E	4767	4914	5075
Carrying Capacity (1000t)	8405e	8702	8906	9124
Average Carrying Capacity (t)	1.82	1.83	1.81	1.80
Semi-trailers				
Number of vehicles (1000)	229E	238	252	273
Carrying Capacity (1000t)	5204e	5538	5936	6466
Average Carrying Capacity(t)	22.7	23.3	23.6	23.7
Trailers				
Number of Vehicles (1000)	335E	345	360	379
Carrying Capacity (1000t)	2344e	2439	2542	2658
Average Carrying Capacity (t)	7.0	7.1	7.1	7.0

2.4.4. Distribution of Size of Vehicles ,1988

As has clearly been shown in Table 2.31, the average carrying capacity of lorries, 1.8 tonnes, is quite low; this is due to the very large number of vehicles of small carrying capacity (especially in F). In assessing long distance and, more particularly, international transport, interest concentrates mainly on large vehicles - for example the Commission's recent proposal on tax harmonisation applies to lorries with gross vehicle weight over 12 tonnes (roughly equivalent to a carrying capacity of 7 tonnes).

Several of the international publications give breakdowns of the stock of goods vehicles by carrying capacity classes - frequently with different class boundaries although discussions are in progress between EUROSTAT, ECMT and UN to standardise such breakdowns so as to reduce the burden on countries supplying the data. However only the UN gives the carrying capacity of the vehicles in a given carrying capacity class so that the analysis continues here with UN data.

1988 has been chosen for this cross-sectional analysis as this is the most recent year for which data is fairly complete. Table 2.32 gives the breakdown of the number of lorries, semi-trailers and trailers according to the capacity classes published by the UN, Table 2.33 gives the carrying capacity of the corresponding vehicles.

TABLE 2.32 STOCK OF GOODS VEHICLES BY CARRYING CAPACITY (t) AT END OF 1988, Number (1000)

Nationality	Lorries						Semi-Trailers		Trailers		
of vehicle	Up to 1.5	1.5t - 5t	5t - 7t	7t - 10t	10t - 15t	15t or +	Up to 20t	20t or +	Up to 5t	5t - 15t	15t or +
D	673	402	58	118	67	5	19	67	138	109	45
F	2758	398	46	62	51	7	16	105	3	15	7
I											
NL											
B	152	67	15	18	15	3	6	39	33	5	5
L											
UK	1643	168	27	78	49	38					
IRL											
DK	223	36	7	10	10	0	1	13	263	6	4
GR	557	76	15	24	13	5	0	4	0	0	4
E											
P	256	90	23	29	4	<--	--->	--->	2	3	9
EUR-	7	7	7	7	7	7	5	5	6	6	6
TOTAL	6262	1237	191	329	219	58	42	228	439	138	74
% exceeding carr.cap.		25%	10%	7%	3%	1%		84%		33%	11%

TABLE 2.33 STOCK OF GOODS VEHICLES BY CARRYING CAPACITY (t) AT END OF 1988, Carrying capacity 1000t

Nationality	Lorries						Semi-Trailers		Trailers			Total
of vehicle	Up to 1.5	1.5t - 5t	5t - 7t	7t - 10t	10t - 15t	15t or +	Up to 20t	20t or +	Up to 5t	5t - 15t	15t or +	
D	570	1141	349	964	813	83	221	1731	194	1093	785	7945
F	1862	859	270	527	590	107	233	2656	10	167	132	7413
I												
NL												
B	127	170	89	151	177	55	75	1020	29	45	87	2025
L												
UK	1060	630	164	670	560	780						
IRL												
DK	200	81	43	83	122	6	10	302	116	63	58	1086
GR	502	225	94	138	146	78	2	93	0	3	93	1365
E												
P	270	231	141	238	177				6	34	195	1292
EUR-	7	7	7	7	7	7	5	5	6	6	6	6
TOTAL	4591	3337	1150	2771	2585	1109	541	5802	355	1405	1350	21126
% exceeding carr.cap.		76%	53%	45%	26%	8%		91%		89%	43%	

Source : UN (ABTS) Table 13

The totals show , for instance, that 7% of the lorries (EUR 7 basis) have a carrying capacity of 7 tonnes or more, but that these lorries account for 45% of the carrying capacity of all lorries. One can also see, for example, that exclusion of vehicles of up to 1.5 tonnes carrying capacity in a survey would eliminate 75% of the vehicles but only 24% of the carrying capacity (and even less of the tkm performed as small vehicles have, on average, lower annual kilometres).

Similarly, as could be expected from the results of Table 2.31, 84% of semi-trailers have a carrying capacity of 20 tonnes or more (91% of the carrying capacity is in such large semi-trailers) and 33% of trailers have a carrying capacity of 5 tonnes or more (89% of the carrying capacity is in such trailers).

2.5. Market Situation

2.5.1. Cost Indices

As part of the Market Observation System, cost indices were produced every six months during the period 1982-1989, disaggregated by cost category and by geographic relation. Six Member States were included in the system. NEA carried out the survey during this period.

From January 1989, The Directorate General for Transport decided to enlarge the information system by introducing all Member States, examining different types of transport and allowing for the calculation of absolute cost values, not only indices; CSST (Italy) has undertaken the cost survey for the periods starting 1.1.1989 (period 1), 1.7.1989 (period 2), 1.1.1990 (period 3) and 1.7.1990 (period 4). The computer program CROAD has been developed on a PC for computing cost values and indices and performing sensitivity analysis. The methodology defined is based on a "standard journey" between two Member States. The standard journey is assumed to be made throughout the year back and forth. A percentage of empty trips is assumed. The cost values are dissagregated by cost categories which are later aggregated into the main cost items : wages, capital, fuel and others. The results are given in ECU and local currencies.

The consultants faced great difficulties in collecting the data from the Member States in the appropriate form. Most of the data provided refer to general transport only. Some Member States provided data as indices only and not as absolute values as well. After almost two years of operation of the new system the results are neither complete nor homogeneous. Therefore a thorough comparative analysis of cost values between all countries is not feasible at this moment. The current situation of cost data by country is as follows :

FRANCE

For periods 1, 2 and 3 data for general transport by geographic relation. For period 4 data by type of transport and relation. Absolute cost values and indices.

ITALY

Cost data by type of transport and by geographic relation. Absolute values plus indices.

NETHERLANDS

Cost data have been supplied as indices and not computed by the program CROAD. These include cost indices by type of transport, cost structure by type of transport and cost indices (ECU) by item.

BELGIUM - LUXEMBOURG

Data exist as indices and not disaggregated by type of transport and by geographical relation.

UNITED KINGDOM

Data were provided for period 1. For periods 2, 3 and 4 the data come from the specialized review "Motorway Transport". General transport only. Absolute values plus indices.

GERMANY

Cost indices have been estimated for general transport (not by geographic relation) for the 4 periods. The cost structure has to be modified.

IRELAND

Data are not available. A cost structure should be built.

DENMARK

Data are not available by type of transport and by geographical relation. The cost structure is available for general transport. Cost indices are available for general transport.

GREECE

Data for periods 3 and 4 only. General transport only. Absolute cost values plus indices.

SPAIN

Data are available for the beginning of the 2nd and 4th period. Data by type of transport and by geographical relation. Absolute figures plus indices.

PORTUGAL

Data for periods 3 and 4 only. General transport only. Absolute cost values plus indices.

The following set of graphs allows for an analysis of cost vales and indices for general transport for the countries which provided the most complete data, i.e. F, I, UK, GR, E and P. The graphs show the comparative evolution of cost values in ECU/tkm for total, variable and fixed cost as well as the cost indices in ECU and local currency. I and E show the highest cost in ECU/tkm followed by F, UK, GR and P. When comparing the figures per country in ECU with those based on the local currencies some important differences may be observed due to the changing exchange rates during the period considered.

Fig 2.1 Cost survey. Road - General Transport Ecu/t-km - Total Cost

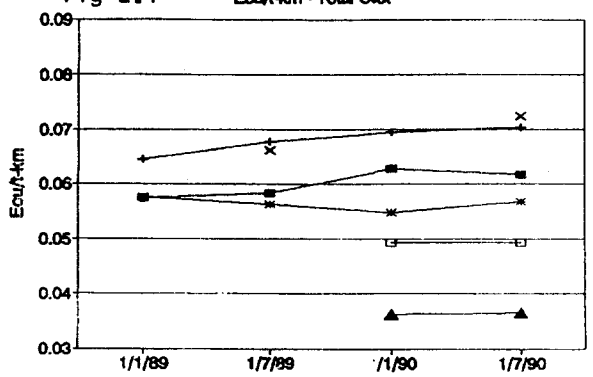


Fig 2.2 Cost survey. Road- General Transport Ecu/t-km - Fixed Cost

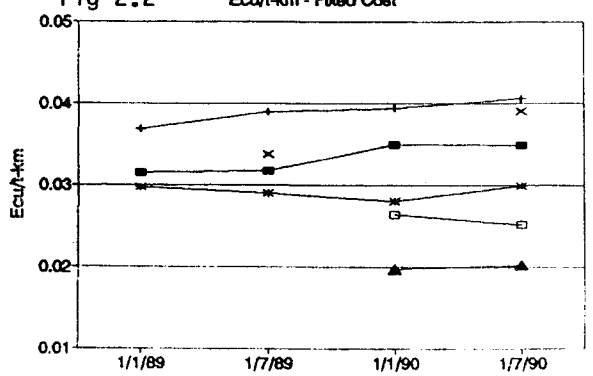


Fig 2.3 Cost survey. Road- General Transport Ecu/t-km - Variable Cost

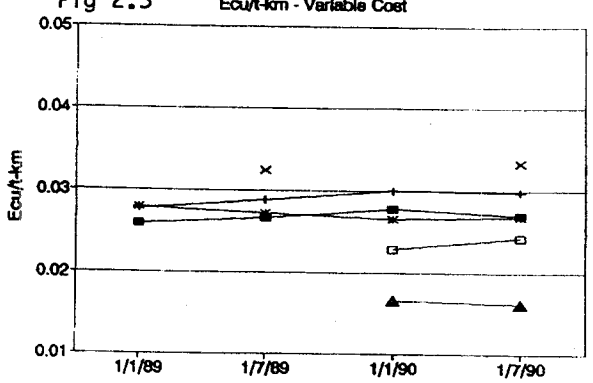


Fig 2.4 Cost survey. Road- General Transport Cost Indices - Total Cost (ECU)

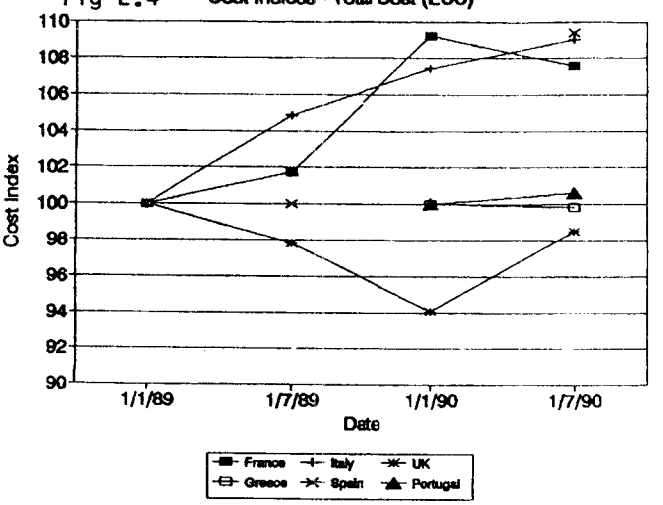
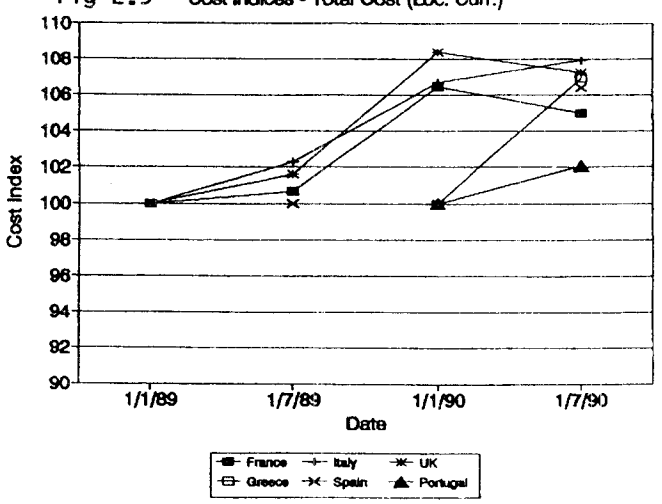


Fig 2.5 Cost survey. Road- General Transport Cost Indices - Total Cost (Loc. Curr.)



2.5.2. Quarterly Price Evolution in International Road Transport

Up to Q2/1989 the indices on prices observed in international road transport, that were published as part of the Market Observation System, were based upon the results of a sophisticated multi-regression model. The model (and the survey system for collecting the basic price data) was mainly oriented towards the subdivision of the market into tariff classes (i.e. into types of commodities transported). However, since the abolition of the compulsory (and later reference) tariffs the old tariff classes cannot be regarded as real "submarkets" anymore. Now that prices are free in international road transport, it is felt that prices will mainly be based on the distance of the journey and the weight of the consignment, whereby differences will occur depending on the "type of transport" (such as transport with tanker vehicles or refrigerated vehicles). Furthermore, the disappearance of the tariffs and the liberalisation of the market might also gradually lead to a certain degree of "merging" of the many submarkets for the different relations in international transport.

The data published further (for the period Q3/1989 - Q2/1990) were all collected and calculated within the framework of a new simplified observation system, whereby the indices are based on prices per tkm within a specific distance band (all relations combined), for a specific set of "types of transport".

*Distance bands considered:

1) < 150 km
2) 150 - 499 km
3) 500 - 1.499 km
4) >= 1.500 km

*Types of transport considered:

1) General transport (including groupage)
2) Bulk transport (including tanker transport)
3) Container transport (including swap bodies)
4) Traction (of unaccompanied semi-trailers)
5) Special transport (including refrigerated)

The basic data have continued to be collected by specialised institutes, through sample surveys in the different countries.

Every system for observing prices in transport will be confronted with the problem of a large heterogeneity of submarkets. This poses problems for the observation of the price development, as it is very important that the average prices compared refer (as much as possible) to the same "transport product" (in our system: comparable combinations of distance bands and types of transport).

The considerable difference in the tkm distribution per distance band for the different nationalities of hauliers is illustrated by the following table:

TABLE 2.34 BREAKDOWN OF TOTAL TKM PER DISTANCE BAND, PER NATIONALITY OF HAULIER, FOR Q3/1989 AND Q4/1989 COMBINED, IN %

Country	Distance bands 1	2	3	4	Total
D	1.6	23.5	62.8	12.1	100.0%
F	0.7	14.5	71.9	12.9	100.0%
I	0.0	3.0	61.3	35.7	100.0%
NL	1.1	17.2	44.7	37.0	100.0%
B/L	3.3	31.1	49.7	15.9	100.0%
GR	0.0	0.0	1.9	98.1	100.0%
E	0.0	0.2	20.5	79.3	100.0%

In the same way, a breakdown of the tkm into different types of transport will also be distinct from country to country:

TABLE 2.35 BREAKDOWN OF TOTAL TKM PER TYPE OF TRANSPORT, PER NATIONALITY OF HAULIER, FOR Q3/1989 AND Q4/1989 COMBINED, IN %

Country	Types of transport 1	2	3	4	5	Total
D	56.5	30.3	1.0	0.0	12.2	100.0%
F	53.2	38.9	1.1	0.0	6.8	100.0%
I	55.6	18.7	2.1	1.0	22.6	100.0%
NL	56.9	10.4	4.2	0.4	28.1	100.0%
B/L	75.6	8.0	6.2	0.9	9.3	100.0%
GR	85.3	1.3	0.0	0.1	13.3	100.0%
E	56.2	9.4	0.2	0.0	34.2	100.0%

As transport type 1 (general transport) is the main category for all nationalities of hauliers, and the available space does not permit to deal with all price data that has, until now, been collected by the new system, only the results for transport type 1 are presented in this document. In other documents of the Europa Transport Series, a more complete set of data will be presented, whereby further refinements and improvements in the calculation and weighting system might be introduced at a later stage. Therefore, the data published below only have a provisional and indicative character.

Tables 2.36 and 2.37 and fig.2.6 indicate the evolution of the average price/tkm during the period Q3/1989 - Q2/1990. Quite a lot of strong fluctuations are observed. It is not impossible that the indices represent the actual price development, but on the other hand the strong fluctuations might indicate that the contents of the distance/type -cells observed are still too heterogeneous and can change considerably from quarter to quarter. By calculating a moving average over a longer period than the four quarters observed here, the intensity of the fluctuations might be reduced.

Note that a fixed set of weights is applied to obtain data for total transport (first row for each country); these data refer to all type 1 journeys in the samples, including some for distance band 1 for D, F, NL and B/L hauliers. For GR and E hauliers no (or almost no) price data were available for distance band 2. Price data for Q3/1989 for E were not available and were considered identical with price data obtained for Q4/1989.

TABLE 2.36 EVOLUTION OF AVERAGE PRICE/tkm LEVELS IN NATIONAL CURRENCIES BY NATIONALITY OF HAULIERS, FOR TOTAL TRANSPORT AND DISTANCE BANDS 2, 3, 4, Q3/89-Q2/90

		Q3/89	Q4/89	Q1/90	Q2/90	Q3+Q4/89	Q1+Q2/90
D	TOT.	100	101.7	102.8	104.8	100	102.9
	Dist.B.2	100	102.6	103.2	103.5	100	102.0
	Dist.B.3	100	102.6	103.5	104.6	100	102.7
	Dist.B.4	100	92.9	94.5	103.4	100	102.6
F	TOT.	100	97.7	92.9	95.1	100	95.1
	Dist.B.2	100	101.0	88.5	89.6	100	88.6
	Dist.B.3	100	96.9	87.1	90.7	100	90.3
	Dist.B.4	100	99.2	130.0	127.4	100	129.3
I	TOT.	100	101.1	99.0	100.5	100	99.2
	Dist.B.2	100	96.0	89.7	90.3	100	91.8
	Dist.B.3	100	100.5	96.4	97.3	100	96.6
	Dist.B.4	100	104.1	108.2	111.8	100	107.8
NL	TOT.	100	103.3	101.3	100.6	100	99.3
	Dist.B.2	100	97.5	94.2	94.1	100	95.4
	Dist.B.3	100	104.0	102.3	101.0	100	99.7
	Dist.B.4	100	106.1	104.1	105.8	100	101.8
B/L	TOT.	100	105.1	103.9	93.2	100	96.1
	Dist.B.2	100	106.0	93.8	96.5	100	92.3
	Dist.B.3	100	101.5	110.3	88.5	100	98.6
	Dist.B.4	100	121.0	110.2	94.7	100	92.7
GR	TOT.	100	106.0	114.4	131.1	100	119.1
	Dist.B.2						
	Dist.B.3	100	102.9	134.4	151.7	100	141.0
	Dist.B.4	100	106.1	113.7	130.4	100	118.5
E	TOT.	100	100	88.7	92.2	100	90.5
	Dist.B.2						
	Dist.B.3	100	100	97.1	100.8	100	99.0
	Dist.B.4	100	100	84.6	88.1	100	86.3

When combining the data for the four quarters into a series of two indices (comparing the first half year of 1990 with the last half year of 1989), the following general picture emerges (as mentioned before: only for transport type 1, i.e. general transport): D and GR hauliers only indicate a general price increase; the increase is moderate for D hauliers, but very strong for GR hauliers; all other nationalities of hauliers indicate a status quo or a price reduction for total transport and/or for transport within certain distance bands.

TABLE 2.37	EVOLUTION OF THE AVERAGE PRICE/TKM LEVELS (in ECU) FOR DIFFERENT NATIONALITIES OF HAULIERS FOR TOTAL TRANSPORT AND DISTANCE BANDS 2, 3, 4 Q3/89-Q2/90					
	Q3/1989	Q4/1989	Q1/1990	Q2/1990	Q3+Q4/89	Q1+Q2/90
D TOT.	100	103.1	104.5	106.1	100	103.7
DIST.B.2	100	104.0	105.1	104.7	100	102.8
DIST.B.3	100	104.1	105.3	105.8	100	103.5
DIST.B.4	100	94.1	96.2	104.6	100	103.5
F TOT.	100	98.7	94.4	96.7	100	96.2
DIST.B.2	100	101.7	89.8	91.1	100	89.7
DIST.B.3	100	97.8	88.4	92.2	100	91.3
DIST.B.4	100	99.7	131.6	129.4	100	130.7
I TOT.	100	100.4	97.9	99.8	100	98.7
DIST.B.2	100	95.3	88.6	89.7	100	91.3
DIST.B.3	100	99.7	95.2	96.6	100	96.0
DIST.B.4	100	103.1	106.8	111.0	100	107.2
NL TOT.	100	104.5	103.2	101.9	100	100.3
DIST.B.2	100	98.6	95.8	95.3	100	96.2
DIST.B.3	100	105.3	104.2	102.3	100	100.6
DIST.B.4	100	107.3	105.8	107.1	100	102.7
B/L TOT.	100	106.2	106.0	95.6	100	97.8
DIST.B.2	100	107.0	95.6	99.0	100	94.0
DIST.B.3	100	102.6	112.6	90.9	100	100.4
DIST.B.4	100	122.2	112.4	97.4	100	94.4
GR TOT.	100	102.8	106.5	117.1	100	110.2
DIST.B.2						
DIST.B.3	100	99.9	125.2	135.5	100	130.4
DIST.B.4	100	103.0	106.1	116.5	100	109.6
E TOT.	100	100.0	88.0	93.9	100	91.0
DIST.B.2						
DIST.B.3	100	100.0	96.5	102.8	100	99.7
DIST.B.4	100	100.0	84.1	89.8	100	87.0

Other interesting comparisons can be made, after compressing the data for the four quarters into one set of (overall average) indices for the period Q3/1989 up to Q2/1990.

In table 2.38 and fig. 2.7 a comparison is made between the average price/tkm (in ECU) in indices per distance band (in national currencies). The indices clearly indicate the degression of the price per tkm in function of the distance.

TABLE 2.38	COMPARISON OF THE AVERAGE PRICE/tkm LEVELS (IN NATIONAL CURRENCIES) FOR DIFFERENT NATIONALITIES OF HAULIERS, DISTANCE BANDS 2, 3, 4						
	B/L	D	F	I	NL	GR	E
DIST.B.2	100.0	100.0	100.0	100.0	100.0		
DIST.B.3	85.5	77.0	77.8	87.1	78.2		
DIST.B.4	77.6	63.6	69.6	77.6	68.2		
DIST.B.3	100.0	100.0	100.0	100.0	100.0	100.0	100.0
DIST.B.4	90.8	82.6	89.4	89.1	87.2	59.3	73.3

Finally, in table 2.39 and fig. 2.8 a comparison of absolute average minimum and maximum price/tkm levels in ECU is made, for all nationalities of hauliers combined. An important price/tkm dispersion is observed, which seems to increase with the distance bands. The price differences could (partially) be explained by the fact that in the samples of some countries, quite a high proportion of journeys are "regular" journeys (e.g. series of identical journeys made by contract within a certain period), for which a lower price/tkm will apply in comparison with the price/tkm for "irregular" journeys.

TABLE 2.39	COMPARISON OF MINIMUM AND MAXIMUM PRICE/tkm LEVELS (IN ECU) , ALL NATIONALITIES OF HAULIERS COMBINED, FOR TOTAL TRANSPORT AND FOR DISTANCE BANDS 2, 3, 4		
		ecu/tkm	ind.
TOTAL	MIN.:	0.0391	100.0
	MAX.:	0.0666	170.3
DIST.B.2	MIN.:	0.0599	100.0
	MAX.:	0.0776	129.5
DIST.B.3	MIN.:	0.0468	100.0
	MAX.:	0.0685	146.4
DIST.B.4	MIN.:	0.0354	100.0
	MAX.:	0.0602	170.1

Fig. 2.6
EVOLUTION OF THE AVERAGE PRICE/TKM LEVELS (IN ECU), FOR DIFFERENT NATIONALITIES OF HAULIERS, FOR TOTAL TRANSPORT AND DISTANCE BANDS 2, 3 AND 4, DURING THE PERIOD Q3/1989 - Q2/1990 (ONLY TRANSPORT TYPE 1)

IN INDICES: 100 = AVG. PRICE/TKM IN Q3/1989

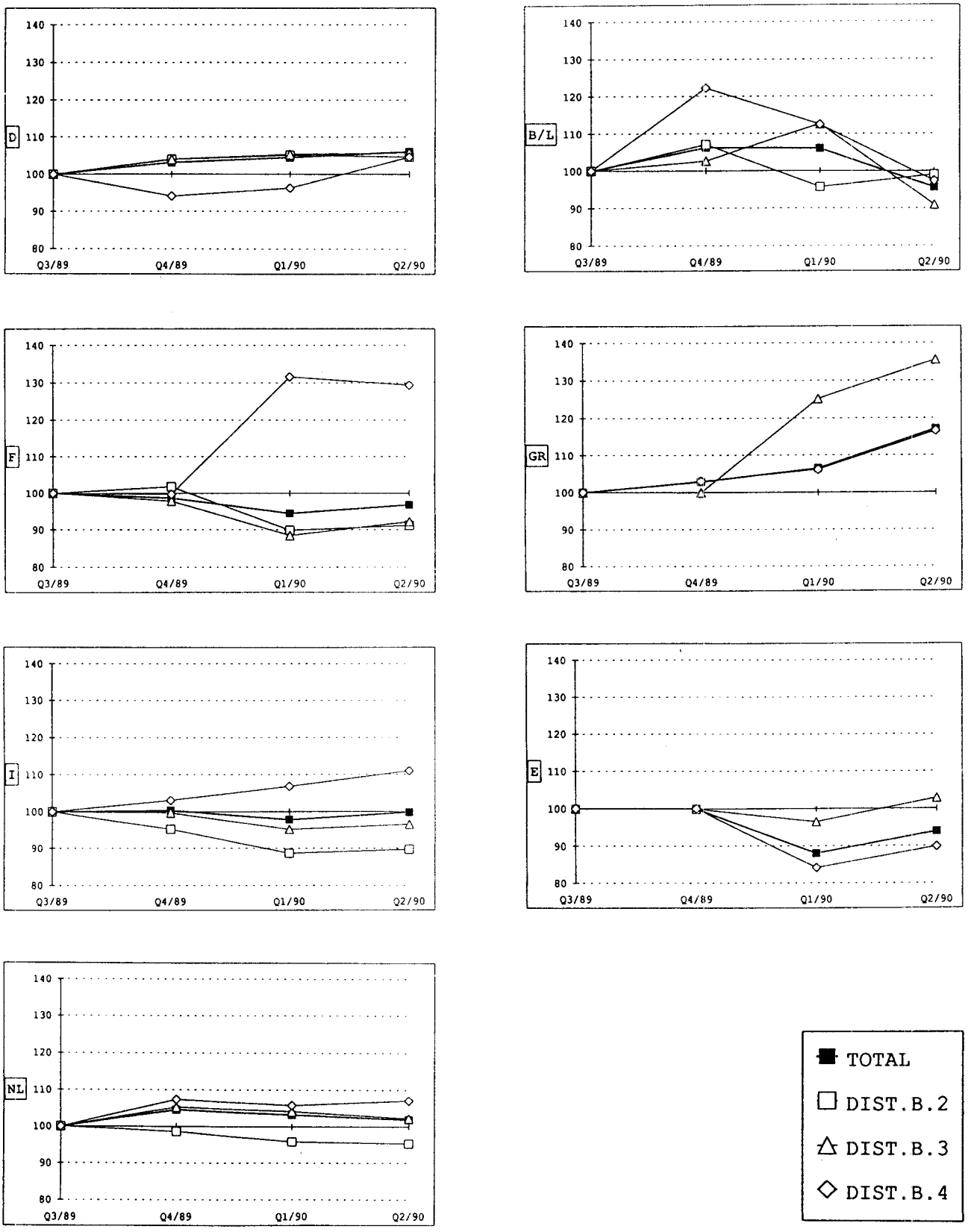


Fig. 2.7
COMPARISON OF THE AVERAGE PRICE/TKM LEVELS (IN NATIONAL CURRENCIES), FOR DIFFERENT NATIONALITIES OF HAULIERS, FOR DISTANCE BANDS NRS. 2, 3 AND 4 (ONLY TRANSPORT TYPE 1)

IN INDICES: 100 = AVG. PRICE/TKM FOR DIST. BAND 2; ALL DATA ARE OVERALL AVERAGES BASED ON QUARTERLY DATA FOR THE PERIOD Q3/1989 - Q2/1990

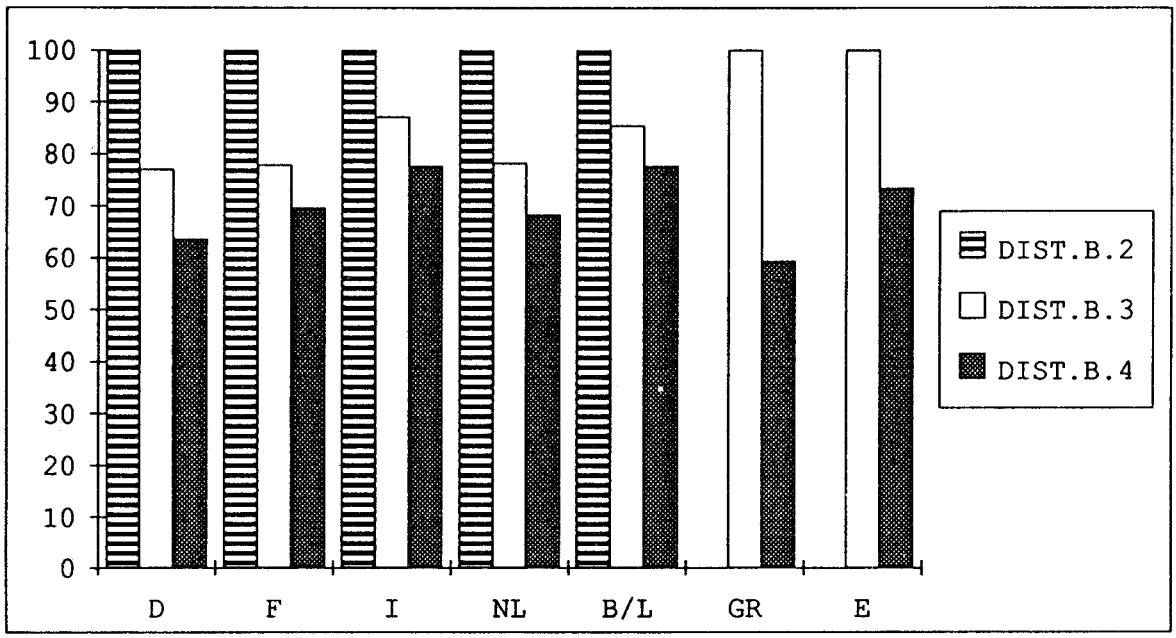
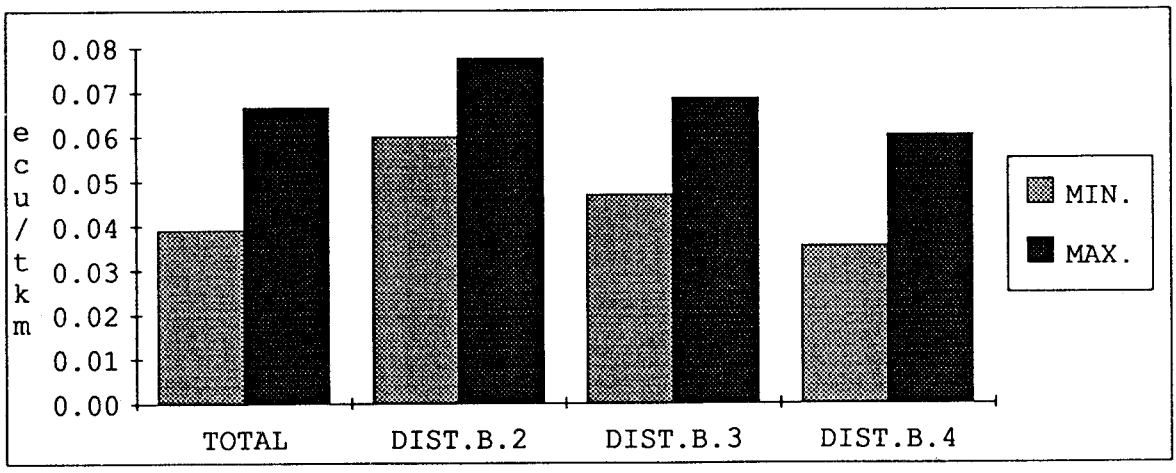


Fig. 2.8
COMPARISON OF THE MINIMUM AND MAXIMUM PRICE/TKM LEVELS (IN ECU), FOR ALL NATIONALITIES OF HAULIERS COMBINED, FOR TOTAL TRANSPORT AND FOR DISTANCE BANDS NRS. 2, 3 AND 4 (ONLY TRANSPORT TYPE 1)

IN ABSOLUTE ECU/TKM VALUES AND IN INDICES; ALL DATA ARE OVERALL AVERAGES BASED ON QUARTERLY DATA FOR THE PERIOD Q3/1989 - Q2/1990



2.5.3. Business Opinion Survey

The Business Opinon Survey contracts were put to tender during 1989; the occasion was taken to modify the questionnaire.
The new contracts to (some) new consultants were awarded by July 89. (Spain was included as from Q4/89). This meant that new time series were started from Q3/89 onwards. Both time series, old and new, are therefore not always comparable. The questionnaire was modified as follows :

NEW	**OLD**
1°. Activity	
*How did the tonnage you carried in international transport during quarter X compare with same quarter of previous year? UP / NO CHANGE / DOWN	*Please indicate whether the loaded journeys made by your company in quarter X as compared with previous quarter were OUTWARDS INWARDS + = - + = -
*How do you expect your tonnage carried in international transport during next quarter to compare with same quarter of previous year? UP / NO CHANGE / DOWN	*Indicate whether you expect them in the next quarter to be + / = / -
2°. Capacity	
*How would you describe the utilisation of your rolling stock for international transport during quarter X? GOOD / NORMAL / POOR	*In your opinion was the utilisation of capacity of your company's vehicles on international journeys during quarter X VERY GOOD/GOOD/SATISFACTORY/BAD
3°. Employment	
*How did your total number of drivers for international transport vary during quarter X? INCREASE / NO CHANGE / DECREASE	*During quarter X did your company recruit or seek to recruit any drivers for international transport? YES(DIFFICULT/NORMAL/EASY) / NO
*How would you describe the present situation for recruiting competent drivers for international transport? GOOD / NORMAL / POOR	

4°. Cash-Flow

*How would you describe your liquidity position during quarter X?
GOOD / NORMAL / POOR

*Did your company experience unusual cash-flow difficulties during quarter X?
YES / NO

5°. Investments

*Have you made an investment in rolling stock during quarter X?

YES(REPLACEMENT/EXPANSION/BOTH)
/NO

*During the quarter X did your company make any investments in
- renewals and replacements to rolling stock
- idem to other assets
- new rolling stock
- other new assets

*Do you foresee an investment in rolling stock during the next quarter?

YES(REPLACEMENT/EXPANSION/BOTH)
/NO

*Is your company planning to make any investments during the next quarter?
- renewals and replacements to rolling stock
- idem to other assets
- new rolling stock
- other new assets

The fact that all data were handled via personal computer made it possible to publish the results within certain time limits (results should be available within the following quarter to the one in which the survey is made).

In general one can say that question 1, where comparison with previous year was made instead of with previous quarter, seems to have smoothened out the curve. (In Figure 2.9, all results available are shown i.e. up to Q4/90). The balance of opinions of hauliers has been well above 0 for the whole period for the average of hauliers. Nevertheless if individual M.S. are considered the balance of opinions is low or negative most of the time for I hauliers and relatively low for B and E hauliers (see fig. 2.15).

It is too soon to assess through the new series whether hauliers' opinions can predict real activity.
Nevertheless for the time being the opinion on actual activity is well within the path predicted in the forecast (see fig.2.10).

The questions related to capacity were simplified. The results are represented in figure 2.11. For the time series up to July 1989 the answers VERY GOOD and GOOD have been taken as positive (+). The average balance of opinions throughout the period is in line with balance of activity.

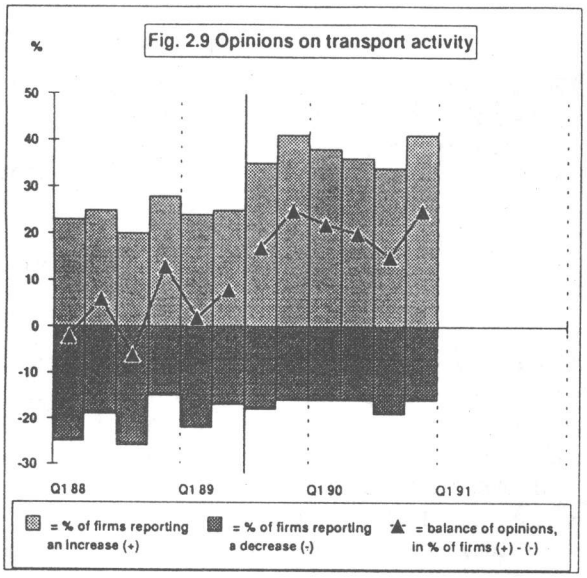


Fig. 2.9 Opinions on transport activity
%
50
40
30
20
10
0
-10
-20
-30
Q1 88
Q1 89
Q1 90
Q1 91
= % of firms reporting an increase (+)
= % of firms reporting a decrease (-)
= balance of opinions, in % of firms (+) - (-)

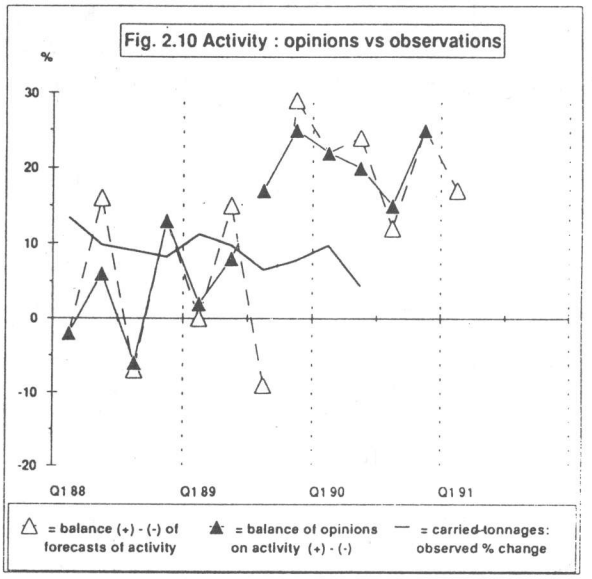


Fig. 2.10 Activity : opinions vs observations
%
30
20
10
0
-10
-20
Q1 88
Q1 89
Q1 90
Q1 91
= balance (+) - (-) of forecasts of activity
= balance of opinions on activity (+) - (-)
= carried-tonnages: observed % change

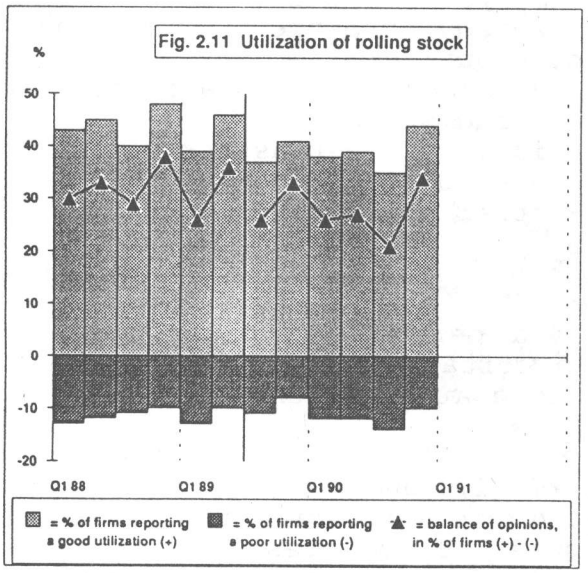


Fig. 2.11 Utilization of rolling stock
%
50
40
30
20
10
0
-10
-20
Q1 88
Q1 89
Q1 90
Q1 91
= % of firms reporting a good utilization (+)
= % of firms reporting a poor utilization (-)
= balance of opinions, in % of firms (+) - (-)

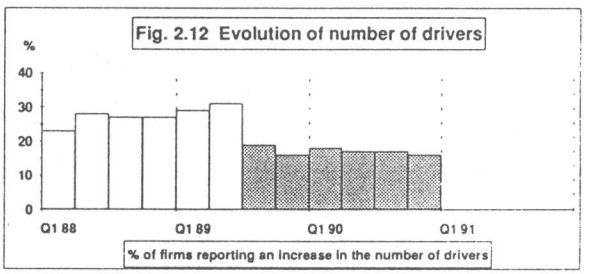


Fig. 2.12 Evolution of number of drivers
%
40
30
20
10
0
Q1 88
Q1 89
Q1 90
Q1 91
% of firms reporting an increase in the number of drivers

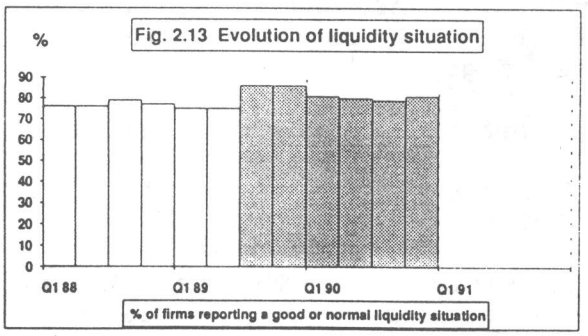


Fig. 2.13 Evolution of liquidity situation
%
90
80
70
60
50
40
30
20
10
0
Q1 88
Q1 89
Q1 90
Q1 91
% of firms reporting a good or normal liquidity situation

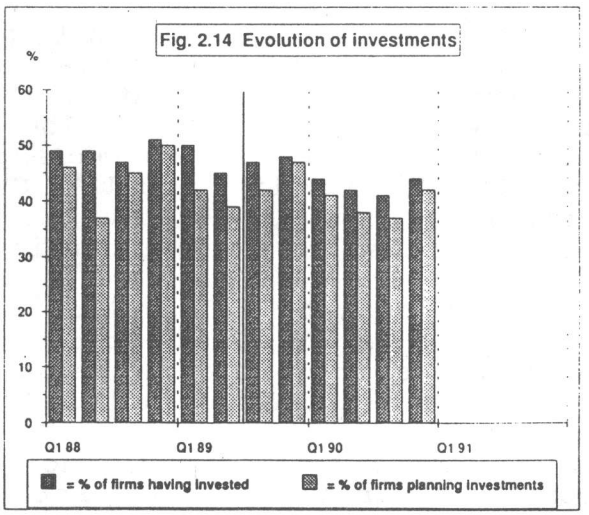


Fig. 2.14 Evolution of investments
%
60
50
40
30
20
10
0
Q1 88
Q1 89
Q1 90
Q1 91
= % of firms having invested
= % of firms planning investments

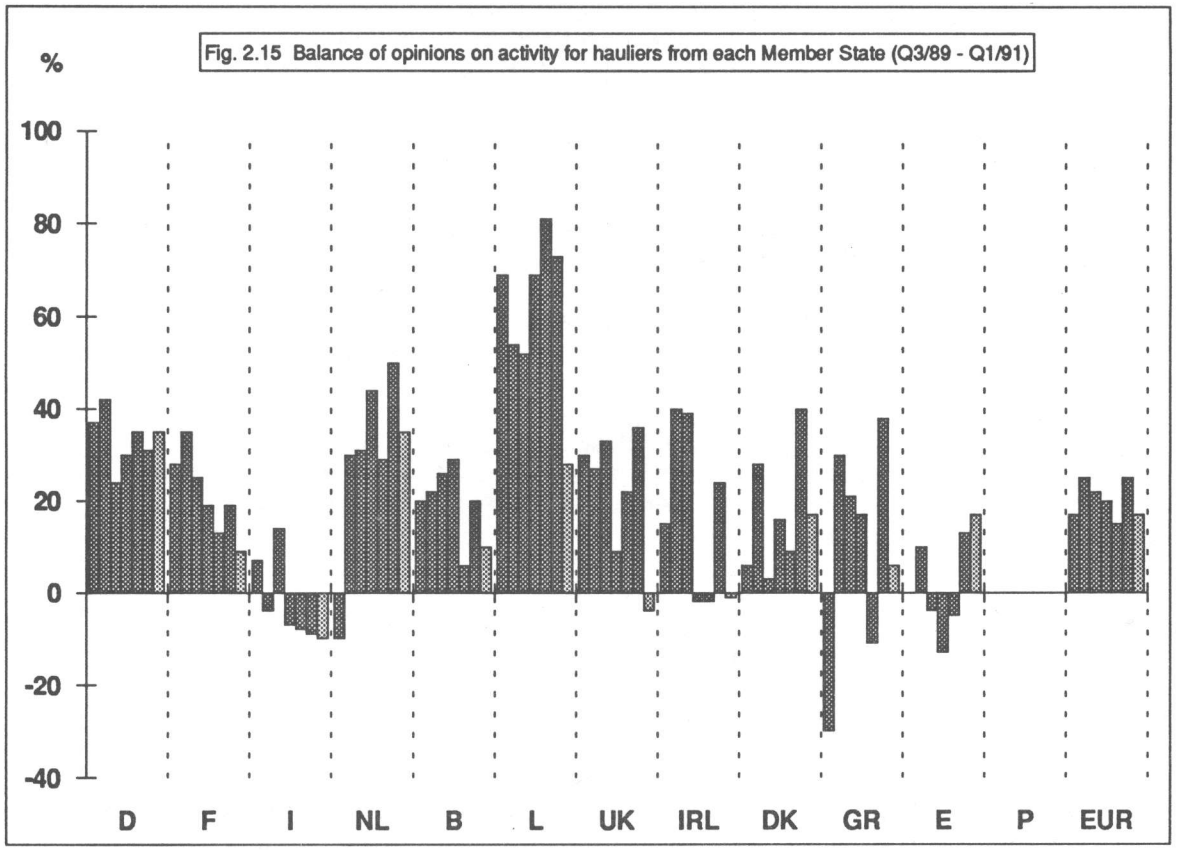


Fig. 2.15 Balance of opinions on activity for hauliers from each Member State (Q3/89 - Q1/91)

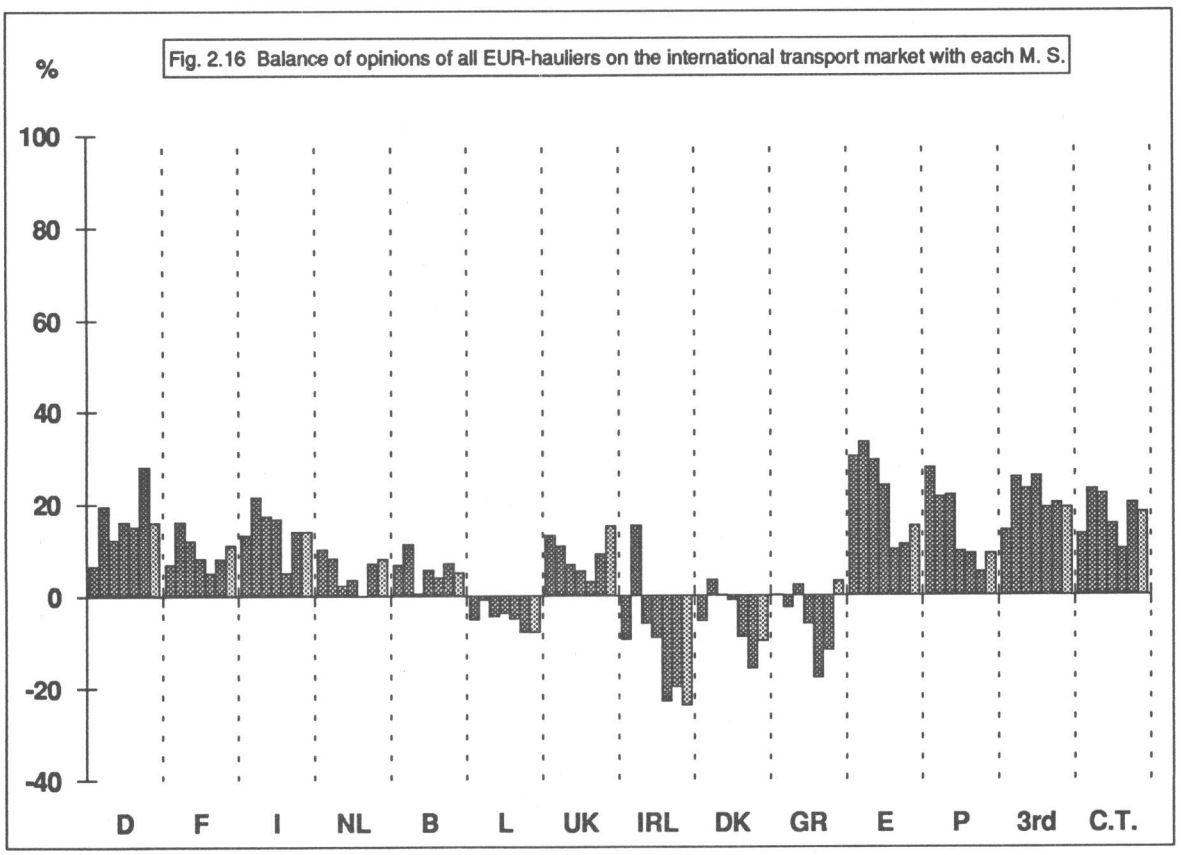


Fig. 2.16 Balance of opinions of all EUR-hauliers on the international transport market with each M. S.

The questions related to employment were changed to assess the change in the employment of drivers and not on recruitment (which could be offset by the simultaneous dismissals). (Figure 2.12).

The total period reflects that there are more firms increasing their number of drivers than not changing or diminishing it.

The difficulties to recruit drivers are established through a separate question not represented in a graph.

For the cash-flow situation the question was aimed at assessing the day to day development and not to extraordinary events. The results in figure 2.13 show a very stable situation.

The questions related to investments have been oriented towards rolling stock exclusively. Figure 2.14 represents the overall results where the tendency seems to show a trend towards higher rates of investments at the beginning and end of every year.

The tables containing information on opinions of hauliers on activity and forecasts by relation are shown as 2.40 and 2.41 respectively. The result given in table 2.40 for total EUR, that is the balance of opinions of Community hauliers in their relation with each particular Member State, third countries or cross-trade, is represented in figure 2.16.

If figures 2.15 and 2.16 are put together, a picture can be drawn of the different appreciations on the market which applies to every Member State. On one side the view from the hauliers from each Member State (figure 2.15) and on the other the view of all the rest of Community hauliers (figure 2.16).

TABLE 2.40 QUARTERLY EVOLUTION OF OPINIONS ON INTERNATIONAL TRANSPORT ACTIVITY
(tonnage carried, compared to the same period of the previous year)

year		88	88	88	88	89	89	89	89	90	90	90	90	91	91	91	91
quarter		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
DEUTSCHLAND	S	-4	0	-13	11	-2	3	37	42	24	30	35	31				
FRANCE	S	-9	0	0	6	1	1	28	35	25	19	13	19				
ITALIA	S	-1	4	2	-3	-8	0	7	-4	14	-7	-8	-9				
NEDERLAND	S	-2	18	-15	26	5	24	-10	30	31	44	29	50				
BELGIQUE-BELGIE	S	3	9	-9	12	4	4	20	22	26	29	6	20				
LUXEMBOURG	S	17	42	4	33	19	36	69	54	52	69	81	73				
UNITED KINGDOM	S	26	12	23	22	27	15	30	27	33	9	22	36				
IRELAND	S	4	3	2	12	4	11	15	40	39	-2	-2	24				
DANMARK	S	-14	5	0	21	3	11	6	28	3	16	9	40				
HELLAS	S	-10	-8	-10	14	14	19	-30	30	21	17	-11	38				
ESPAÑA	S								10	-4	-13	-5	13				
PORTUGAL	S																
TOTAL	+	23	25	20	28	24	25	35	41	38	36	34	41				
	=	52	56	54	57	54	58	47	43	46	48	47	43				
	-	25	19	26	15	22	17	18	16	16	16	19	16				
	S	-2	6	-6	13	2	8	17	25	22	20	15	25				

+ : % of firms reporting an increase
= : % of firms reporting no change
- : % of firms reporting a decrease
S : balance of opinions, in % of firms (+) - (-)

TABLE 2.41 QUARTERLY EVOLUTION OF FORECASTS ON INTERNATIONAL TRANSPORT ACTIVITY
(tonnage carried, compared to the same period of the previous year)

year		88	88	88	88	89	89	89	89	90	90	90	90	91	91	91	91
quarter		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
DEUTSCHLAND	S	4	5	-15	2	0	8	-6	39	37	41	35	40	35			
FRANCE	S	4	-1	0	5	2	4	1	25	39	25	7	17	9			
ITALIA	S	-3	0	16	-6	-12	13	8	0	0	7	-9	11	-10			
NEDERLAND	S	-10	32	-31	38	-4	34	-43	48	20	30	31	38	35			
BELGIQUE-BELGIE	S	-1	20	-8	17	5	13	-10	24	7	22	0	13	10			
LUXEMBOURG	S	-2	50	31	64	16	45	24	54	39	70	46	57	28			
UNITED KINGDOM	S		35	18	17	22	25	17	30	21	39	22	32	-4			
IRELAND	S	-3	9	8	9	2	8	7	22	17	35	28	35	-1			
DANMARK	S	-8	9	-1	15	1	18	5	14	8	18	4	24	17			
HELLAS	S	-18	22	-14	-1	4	0	-36	22	15	30	0	36	6			
ESPAÑA	S									19	-4	-17	8	17			
PORTUGAL	S																
TOTAL	+	16	27	15	25	20	26	14	41	35	35	31	38	32			
	=	66	62	63	63	60	63	63	47	52	54	50	49	53			
	-	18	11	22	12	20	11	23	12	13	11	19	13	15			
	S	-2	16	-7	13	0	15	-9	29	22	24	12	25	17			

+ : % of firms reporting an increase
= : % of firms reporting no change
- : % of firms reporting a decrease
S : balance of opinions, in % of firms (+) - (-)

CHAPTER 3

INLAND WATERWAYS

3.1. Introduction

3.1.1. Sector Description

This sector includes units exclusively or primarily engaged in the transportation of goods on rivers, canals, lakes and within river ports. Units that are exclusively or primarily engaged in the operation of tug and push boats on inland waterways are to be classified under this heading as well.

The sector of inland waterway transport consists of companies that operate ships of various sizes to convey goods throughout Europe on the available inland waterway network. Goods are mainly of the bulk type, but other types of goods such as containers and passenger cars become more and more important.
Passenger transport is only incidental, for instance leisure trips or ferries.

3.1.2. Sources

The data reproduced in this chapter are statistical data from the national statistical offices of Belgium, the Federal Republic of Germany, France and the Netherlands. They correspond to those presented on the basis of the directive relative to the statistical statements on commodity transport by inland waterways supplied by the Statistical Office of the European Communities (Eurostat). The figures concerning fleets on Rhine traffic, including prices, were provided by the Central Rhine Commission. Data on cost and price developments were submitted by the "Institut pour le transport par batellerie" (ITB-Brussels) and by the Netherlands centre for transportation research and consultancy services (NEA- Rijswijk).

3.1.3. Contents

The contents of Chapter 3 are as follows :

3.1. Introduction
- 1 Sector description.
- 2 Sources
- 3 Contents
- 4 Summary of the chapter

3.2. Infrastructure
- 1 General
- 2 Water levels on the Rhine

3.3. Transport activity
- 1 Total activity : demand volumes national/international
- 2 Transport by market
  - a) Regimes and regulations
  - b) Rhine traffic
  - c) North-South traffic

3.4. Transport supply
- 1 Company structures
- 2 Employment
- 3 EUR fleet developments
- 4 Rhine and Danube fleet developments
- 5 Overcapacity and E.C. rehabilitation programme

3.5. Market situation
- 1 Waiting days
- 2 Cost and price indices
- 3 Profitability
- 4 Transport inquiry survey
  - a) Rhine traffic
  - b) North-South traffic

3.6. Outlook

3.1.4. Summary of the Chapter

About 38% of all international EUR 12 transport activity is effected by inland waterway (when measured in tonnes). The economic crisis in the early 1980's brought about a stagnation of demand and even a decline in some years. Recent restructuring of the industry has led to the replacement of a large number of small old boats by large modern units which operate with shorter turn around times.

Thus, even though the loading capacity went down, the total transport capacity has increased in recent years; there is now an excess capacity which is currently estimated at about 20%. To abolish the structural overcapacity a Community scrapping scheme came into force on 1 January 1990 ; moreover, because of improved demand prospects, prices are expected to go up and the sector's profitability is likely to improve. The reunion of the Federal Republic of Germany and the German Democratic Republic, and the opening up of other Eastern European economies will undoubtedly enhance trade with those countries provided their infrastructure is improved.

3.2. Infrastructure

3.2.1. General

The Rhine, which is navigable over a distance of 1000km - from Basel in Switzerland to the North Sea - is clearly the backbone of the EC waterway system. Other rivers like the Meuse, the Schelde and the Elbe are interconnected with the Rhine by means of canals navigable by vessels of at least 1350 tonnes, the so-called Europe Class IV standard vessel.

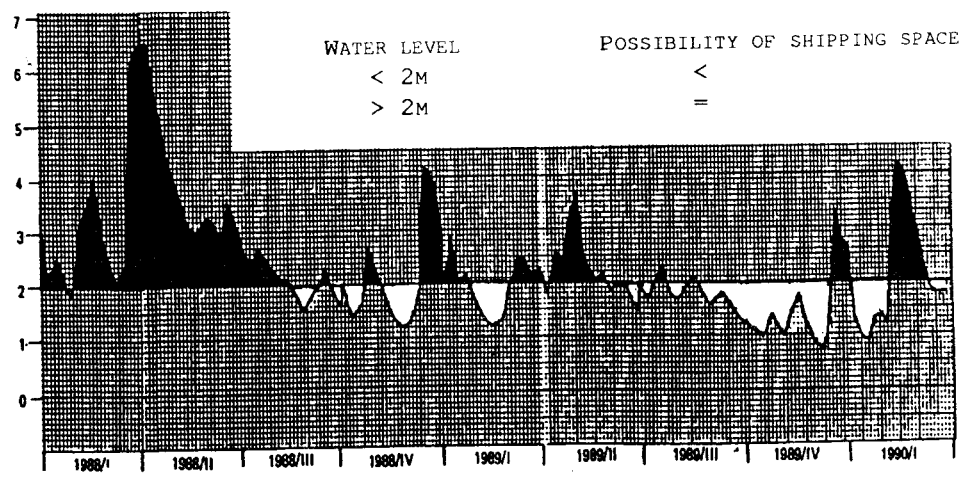
Furthermore, there has been created a interconnected network of waterways navigable for units with a loading capacity from 1350 up to 10 000 tonnes (pushed convoys on the Rhine and certain other sections) which covers most of the Federal Republic of Germany, the Netherlands, Belgium, Luxembourg and the northern and eastern frontier zone of France. This network will be extended to Eastern Europe in 1992 if the capacity of the Rhine-Main-Danube canal also supports the heaviest loaded vessels. Except for this route, a northerly transit to Eastern Europe is also possible through the Mittellandkanal. It is not certain right now whether measures will be taken to improve its capacity.

In the French hinterland, the rivers Seine and Rhône, being navigable for pushed convoys of up to 5000 tonnes, play an important role, However, to date, these rivers are only connected with the main European network by narrow canals.
Apart from local transport operations on certain rivers in the U.K., Italy and Portugal, inland waterway transport does not play a role in any of the other Member States.

3.2.2. Water Levels Rhine

For the Rhine, apart from the influence of the periodic low water level, it must be admitted that the infrastructure poses hardly any major problem. The absence of bottle-necks is due to the natural quality of the river and to the constant efforts to improve navigability.

Figure 3.1. Water levels - Rhine (Kaub)



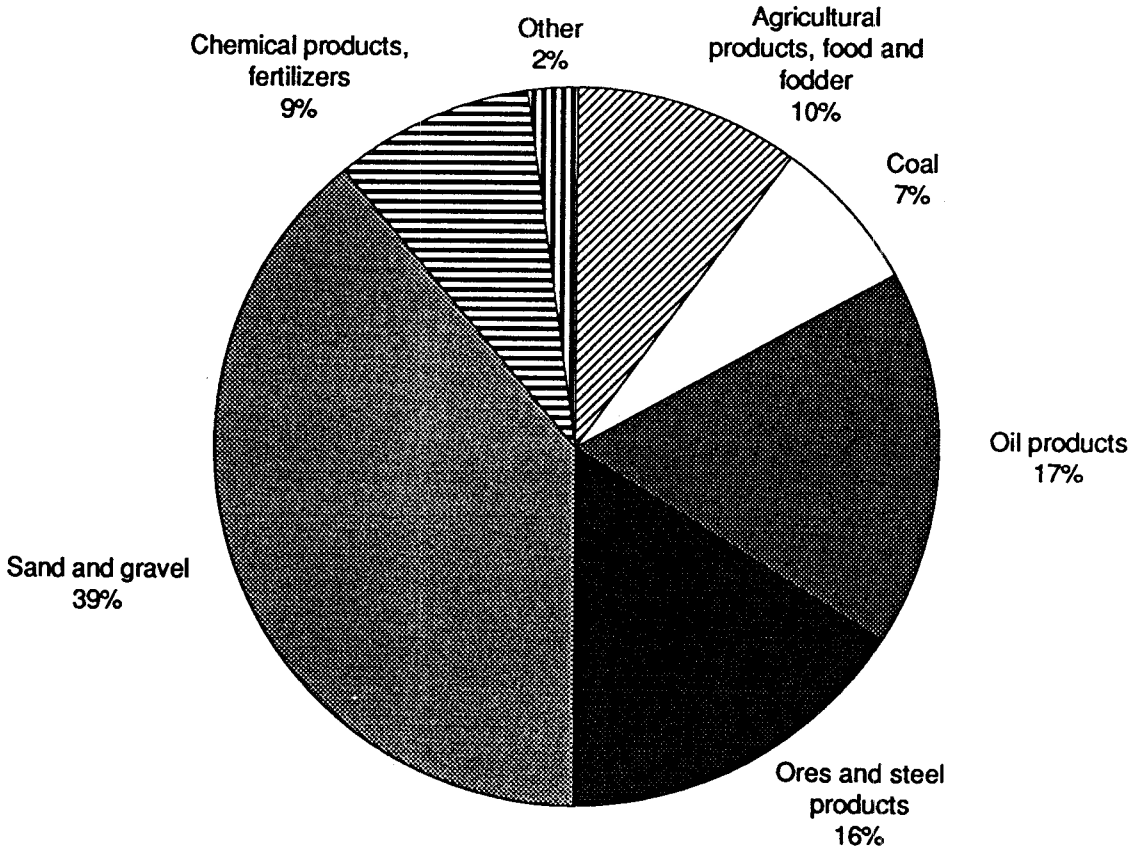
3.3. Transport Activity

3.3.1. Total Activity : Demand Volumes National/International

In 1980 and the following years the effects of the economic crisis hit almost all sectors of the economy and in particular those sectors that generate massive bulk transport, such as the building industry (sand and gravel transports), the steel and chemical industry (ore, coal and chemicals), and the energy sector (oil products and coal). These commodities account for more than 88% of total inland waterway transport.

Since 1983 demand has recovered slightly. After some years of stabilisation around the figure of 395 million tonnes, the total volume transported exceeded 419 million tonnes in 1988 and 413 million tonnes in 1989 for the EUR 5 mentioned in table 3.1.

Fig. 3.2 Share of the different NST categories in total transport on the Community network - 1989



In 1989, the Netherlands was the absolute leader in inland waterway transport, totalling a transported volume of more than 259 million tonnes, while the Federal Republic of Germany ranked second.

In 1989 international transport represented 53% (218 million tonnes) of the total volume carried on inland waterways in the Community. The remainder represents the sum of domestic transport in Belgium, Germany, France and the Netherlands.

TABLE 3.1. TOTAL TRANSPORT ON COMMUNITY NETWORK 1980-1989 (1000t)*

	B	L	D	F	NL	EUR 5	Growth rate %
1980	90943		212900	84864	237599	433899	
1981	87705		202770	76894	222606	406442	-6.3
1982	85837		196831	69249	204548	379518	-6.6
1983	87105	1997	212353	66085	214347	384550	+1.3
1984	94227	2128	223966	63255	221298	396637	+3.1
1985	89439	1761	210401	59353	221479	380443	-4.1
1986	91288	2021	215246	58486	238116	397230	+4.4
1987	90956	1922	207548	56968	240671	395062	-0.5
1988	95398	2173	218564	60340	249532	419293	+6.1
1989	94672	2055	219484	50300	259491	413944	-1.3
Growth rate 1989/80 (%)							
			+3.1	-40.7	+9.2	-4.6	
Growth rate 1989/88 (%)							
	-0.8	-5.4	+0.4	-16.6	+4.0	-1.3	

*For each country, the figures are : import + export + national transport
For EUR 5, the figures are : total domestic transport + total export.

For all EC countries total traffic amounted to nearly 414 million tonnes, a decrease of 1.3% over the previous year, while there was a total tkm result of 101 947 million, an increase of 0.4% over 1988. In France a steady decrease which begun in the early 1980's, is still continuing for it recorded a negative growth of 17% in 1989.

TABLE 3.2. TOTAL TRANSPORT ON COMMUNITY NETWORK 1980-1989 (Mio tkm)*							
	B	L	D	F	NL	EUR 5	Growth rate %
1980	5853		51435	12151	33478	102917	
1981	5442		50010	11068	31792	98312	-4.5
1982	4958		49401	10226	31363	95948	-2.4
1983	4934	272	49085	9447	32227	95965	+0.0
1984	5200	289	51996	8880	33320	99686	+3.9
1985	5015	304	48183	8394	32377	94274	-5.4
1986	5156	290	52185	7767	34438	99836	+5.9
1987	5056	269	49721	7370	33771	96188	-3.7
1988	5366	358	52859	7334	35642	101559	+5.6
1989	5237	360	54041	6088	36221	101947	+0.4
Growth rate 1989/80 (%)							
			+5.1	-49.9	+8.2	-0.9	
Growth rate 1989/88 (%)							
	-2.4	+0.6	+2.2	-17.0	+1.6	+0.4	
* activity : import + export + domestic + transit ; distances as far as covered within the Member States.							

When measured in tonnes transported, 38% of all international transport between EC Member states is carried by inland waterways. The figures for road and rail are 49% and 13% respectively (EUR 12) (See chapter 1).

TABLE 3.3. TRANSPORTED TONNAGE IN 1000t AND TONNAGE EVOLUTION IN % 1989/1988 BY RELATION						
to / from	D	F	NL	B/L	Total internat	Total national
D 1989		2780	34144	11905	48829	60861
D 1988		2686	29878	12805	45369	62903
D 89/88		+3.5	+14.3	-7.0	+7.6	-3.2
F 1989	8679		3963	2842	15484	28655
F 1988	10039		4222	2867	17128	29604
F 89/88	-13.6	-6.1	-0.9	-9.6	-3.2	
NL 1989	74672	5613		32365	112650	86769
NL 1988	73608	4886		30313	108807	89737
NL 89/88	+1.4	+14.9		+6.8	+3.5	-3.3
B/L 1989	10029	3383	16329		29741	20471
B/L 1988	9853	3632	14928		28413	22208
B/L 89/88	+1.8	-6.9	+9.4		+4.7	-7.8
Total 1989	93380	11776	54436	47112	206704	196756
Total 1988	93500	11204	49028	45985	199717	204452
Total89/88	-0.1	+5.1	+11.0	+2.5	+3.5	-3.8

TABLE 3.4. GOODS TRANSPORT BY TYPE OF TRAFFIC 1980, 88, 89 (1000t)									
	TOTAL EUR 5			DRY CARGO			LIQUID CARGO		
	Total	Inter	Nat	Total	Inter	Nat	Total	Inter	Nat
1980	433899	187570	246329	356553			77346		
1988	419293	214067	205226	344579	176020	168559	74714	38047	36667
1989	413944	217897	196047	343922	179799	164123	70022	38098	31924
Growth rate 1989/80 (%)									
	-4.6	+16.2	-20.4	-3.5			-9.5		
Growth rate 1989/88 (%)									
	-1.3	+1.8	-4.5	-0.2	+2.1	-2.6	-6.3	+0.1	-12.9

3.3.2. Transport by Market

a) Regimes and Regulations

The international Rhine market, which covers more than 75% of total international transport, has a completely free market regime. This means : free pricing, free access to the market for all companies registered in Rhine and EC States, no authorisations required.

The domestic markets and part of international transport other than on the Rhine ("North-South" market : i.e. transport by inland waterways undertaken from Belgium, France or the Netherlands to another of these three countries which does not use the Rhine) are subject to obligatory tariff regulations and traffic-sharing systems ("tour de rôle" systems, TdR).

TABLE 3.5. DEMAND PER REGIME FOR DRY CARGO, 1988			
	Total (Mio t)	TdR (Mio t)	TdR (%)
Domestic markets			
B	15.8	10.9	68%
F	25.4	5.1	20%
NL	78.0	15.6	20%
D	44.3	39.9	90%
International markets			
Rhine(D/NL border)	138.4		
North-South	36.0	18.6	51%
Source : NEA and Festfrachtsystem			

FIGURE 3.3 ORGANISATION OF THE WATERWAY TRANSPORT MARKETS FOR DRY CARGO.

From : / To :		Belgium	Germany	France	Luxembourg	Netherlands	Switzerland
B	access	free 1)		limited 7)		free	
	price	fixed 2)	FREE 3)	fixed 2) FREE 3)	FREE 3)	free 8) FREE 3)	FREE 3)
	TdR	yes		no 6)		voluntary	
D	access		limited 5) free	free			
	price	FREE 3)	fixed 4) fixed 4)	free FREE 3)	FREE 3)	FREE 3)	FREE 3)
	TdR		no no	no 6)			
F	access	free		limited 7)		free	
	price	fixed FREE 3)	FREE 3)	fixed	FREE 3)	free 8) FREE 3)	FREE 3)
	TdR	yes		yes		voluntary 8)	
L	access						
	price	FREE 3)	FREE 3)	FREE 3)	FREE 3)	FREE 3)	FREE 3)
	TdR						
NL	access	free		limited 7)		free	
	price	fixed FREE 3)	FREE 3)	fixed FREE 3)	FREE 3)	fixed	FREE 3)
	TdR	affichage		no 6)		yes 9)	
CH	access						
	price	FREE 3)	FREE 3)	FREE 3)	FREE 3)		FREE 3)
	TdR						

1) de facto difficult, due to social pressure
2) based upon agreement between shippers and transporters
3) Convention of Mannheim (the international Rhine market)
4) Festfrachtsystem
5) the non-Convention waters
6) de facto yes
7) only on return trips
8) Tour de Role participation almost obliged due to social pressure, this implies that the prices are de facto fixed
9) except part of sand and gravel and part of coal to the power stations

b) Rhine traffic

Table 3.6. illustrates the importance of the Rhine as a route for inland waterway transport.
Total Rhine traffic, i.e. traditional traffic plus Rhine traffic with the Netherlands, showed an increase in tonnage of some 1.6%, and so in 1989 approached the peak of 300 million tonnes.
International transport accounted for 65% of this volume, with national transports absorbing the remaining 35% share. Of international freight transports 75% took place between the Netherlands and the Federal Republic of Germany excluding transit traffic.

TABLE 3.6. GOODS TRANSPORT ON THE RHINE

	Total goods carried 1000t	Inter-national transport 1000t	Over NL-D border 1000t	Transit through D 1000t	National Trans-port 1000t	Total tkm (Mio)
1980	282721	170251	129894	13948	112470	56873
1981	270018	166166	125819	12244	103852	54962
1982	257335	162845	122005	11675	94490	54391
1983	264153	166880	123661	11599	97273	54824
1984	275018	176668	134572	12502	98050	58303
1985	267893	172005	129639	11992	95888	55167
1986	285728	185058	137114	14081	100670	59847
1987	276430	172993	132445	13266	103437	58038
1988	292942	188047	138482	14582	104895	60375
1989	297523	192235	144950	15186	105288	61446
Growth rate 1989/80 (%)						
	+5.2	+12.9	+11.6	+8.9	-6.4	+8.0
Growth rate 1989/88 (%)						
	+1.6	+2.2	+4.7	+4.1	+0.4	+1.8

Total tkm increased by 1.8% over 1989, equalling a total of 61 446 million. The figures show that growth was considerably faster in 1988 and 1989 than in the years between 1980 and 1987, which clearly indicates the recovery from the crisis of the early 1980's.

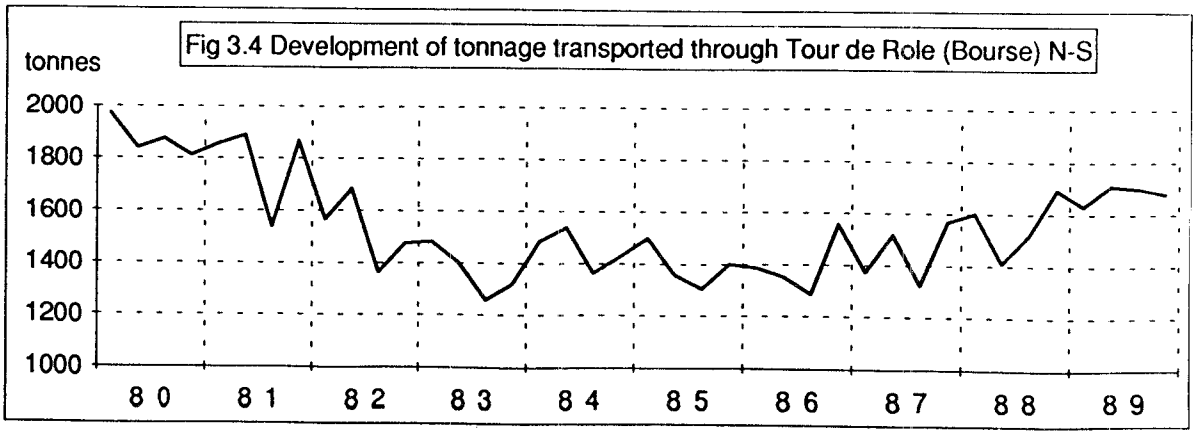
The good results should be attributed in the first place to a substantial increase in upstream flows of iron ore, scrap and steel products, while downstream traffic was stepped up by a surge in agri-food products, coal and construction materials (sand and gravel).

TABLE 3.7. INTERNATIONAL RHINE TRANSPORT PASSING GERMAN-DUTCH BORDER EMERICH/LOBITH UPSTREAM 1988-1989 (1000t)			
Commodity group	1988	1989	Growth (%)
0. Agricultural products	1831	1524	-16.8
1. Articles of food and fodder	5999	5505	-8.2
2. Coal	4336	3845	-11.3
3. Oil products	22427	22528	+0.5
4. Metal ores and scrap	37174	39931	+7.4
5. Steel products	4210	4715	+12.0
6. Sand, gravel	3670	3730	+1.6
7. Fertilizer	2631	2948	+12.0
8. Chemical products	5841	6307	+8.0
9. Machinery, etc.	1122	1153	+2.7
Total	89241	92186	+3.3

TABLE 3.8. INTERNATIONAL RHINE TRANSPORT PASSING GERMAN-DUTCH BORDER EMERICH/LOBITH DOWNSTREAM 1988-1989 (1000t)			
Commodity group	1988	1989	Growth.(%)
0. Agricultural products	3070	3401	+10.8
1. Articles of food and fodder	2096	2215	+5.7
2. Coal	3205	3609	+12.6
3. Oil products	786	838	+6.6
4. Metal ores and scrap	1383	1295	-6.4
5. Steel products	6390	6034	-5.6
6. Sand, gravel	22970	26470	+15.2
7. Fertilizer	1974	1601	-18.9
8. Chemical products	4912	4566	-7.0
9. Machinery, etc.	3121	2735	-12.4
Total	49907	52764	+5.7

c) North-South traffic

(see also 3.5.4. infra)



3.4. Transport Supply

3.4.1. Company Structure

The inland waterway sector is characterised by the existence of a large number of private owners mostly operating one vessel, with the owner's family living on board.

TABLE 3.9. SHARE OF PRIVATE OWNER OPERATORS IN THE NATIONAL FLEETS, 1988.

	Share in number of ships	Share in carrying capacity
B	52	86
D	50	38
F	61	63
NL	71	67

TABLE 3.10. ENTERPRISE STRUCTURE, 1988

	Fleet	1 and 2 ships	3 and more
B	Enterprises	97%	3%
	Ships	86%	14%
	Carrying capacity	71%	29%
D	Enterprises	94%	6%
	Ships	59%	41%
	Carrying capacity	48%	52%
F	Enterprises	93%	7%
	Ships	64%	36%
	Carrying capacity		
NL	Enterprises	96%	4%
	Ships	81%	19%
	Carrying capacity	70%	30%
EUR 4	Enterprises	95%	5%
	Ships	73%	27%

Large shipowner companies exploiting fleets of 20 to 100 vessels mainly operate on the Rhine and its branches. On this market there are also co-operatives of private owner operators working together to compete with the shipowner companies for large-scale contracts.

3.4.2. Employment

In 1987, 14090 people were employed in inland waterway transport in the Netherlands. In 1988, the number of wage and salary earners in this sector amounted to 11707 in the Federal Republic of Germany.

3.4.3. EUR Fleet Developments

The Community inland waterway fleet has a capacity of 13.5 million tonnes. The Dutch fleet accounts for 49.5% of the total capacity, while the German fleet holds the second position with 24.5%. The Netherlands and the Federal Republic of Germany were the only countries that recorded an increase in fleet capacity.

In the recent past a large number of small boats has been replaced with large modern units. This trend still continues. Between January 1979 and January 1990 the total number of vessels went down by 46.3%, whilst the carrying capacity was reduced by 11.3%. Modern vessels are more productive in the sense that they operate at shorter turn around times, which has boosted the total transport capacity of the fleet though the loading capacity went down.

TABLE 3.11 EUR FLEET IN NUMBERS OF SHIPS AND CARRYING CAPACITY (1000t)

TOTAL FLEET		1/1/79	1/1/89	1/1/90	Growth rate % 90/79	Growth rate % 90/89	Fleet Share 1990 %
B	Ships	3321	2168	2151	-35.2	-0.08	13.0
	Carrying capacity	1955	1649	1680	-14.1	+1.9	12.4
D	Ships	4230	2989	2990	-29.3	0	18.0
	Carrying capacity	3859	3194	3268	-15.3	+2.3	24.5
F	Ships	5525	3845	3673	-33.5	-4.5	22.1
	Carrying capacity	2618	1915	1844	-29.6	-3.7	13.6
NL	Ships	17880	7504	7802	-56.4	+4.0	46.9
	Carrying capacity	6768	6376	6684	-1.2	+4.8	49.5
EUR 4	Ships	30956	16506	16616	-46.3	+0.7	100.0
	Carrying capacity	15200	13134	13476	-11.3	+2.6	100.0
	Average tonnage	491	795	811	+65.2	+1.9	
DRY CARGO FLEET							
EUR 4	Carrying capacity	12972	11084	11389	-12.2	+2.8	84.5
TANKER FLEET							
EUR 4	Carrying capacity	2228	2050	2087	-6.3	+1.8	15.5

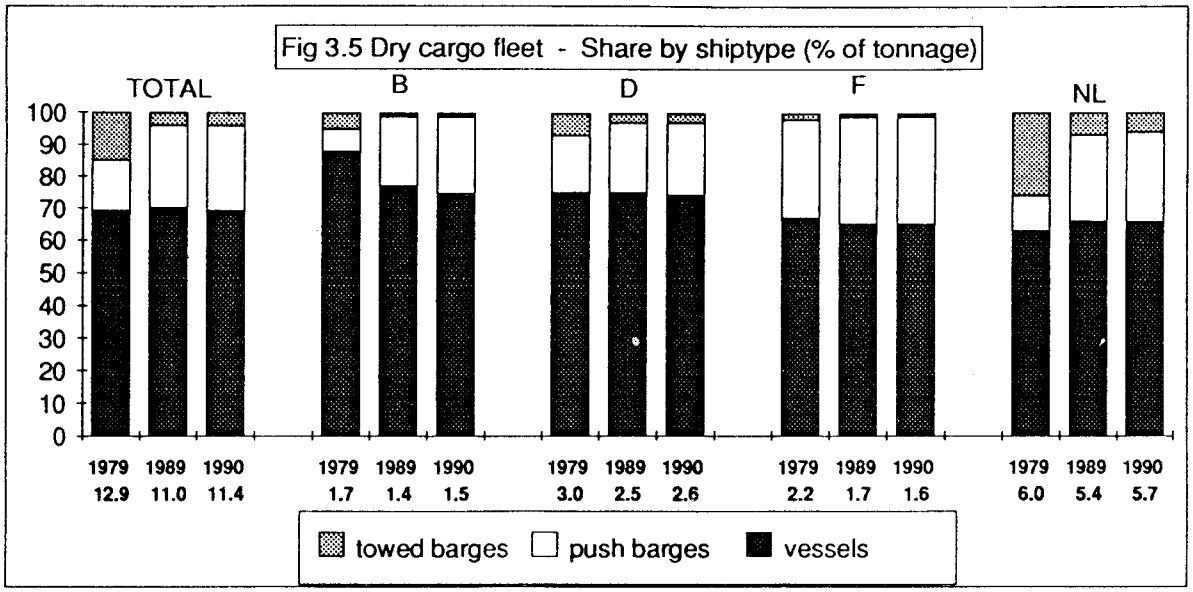


Fig 3.5 Dry cargo fleet - Share by shiptype (% of tonnage)
TOTAL
B
D
F
NL
100
90
80
70
60
50
40
30
20
10
0
1979 1989 1990
12.9 11.0 11.4
1979 1989 1990
1.7 1.4 1.5
1979 1989 1990
3.0 2.5 2.6
1979 1989 1990
2.2 1.7 1.6
1979 1989 1990
6.0 5.4 5.7
towed barges
push barges
vessels

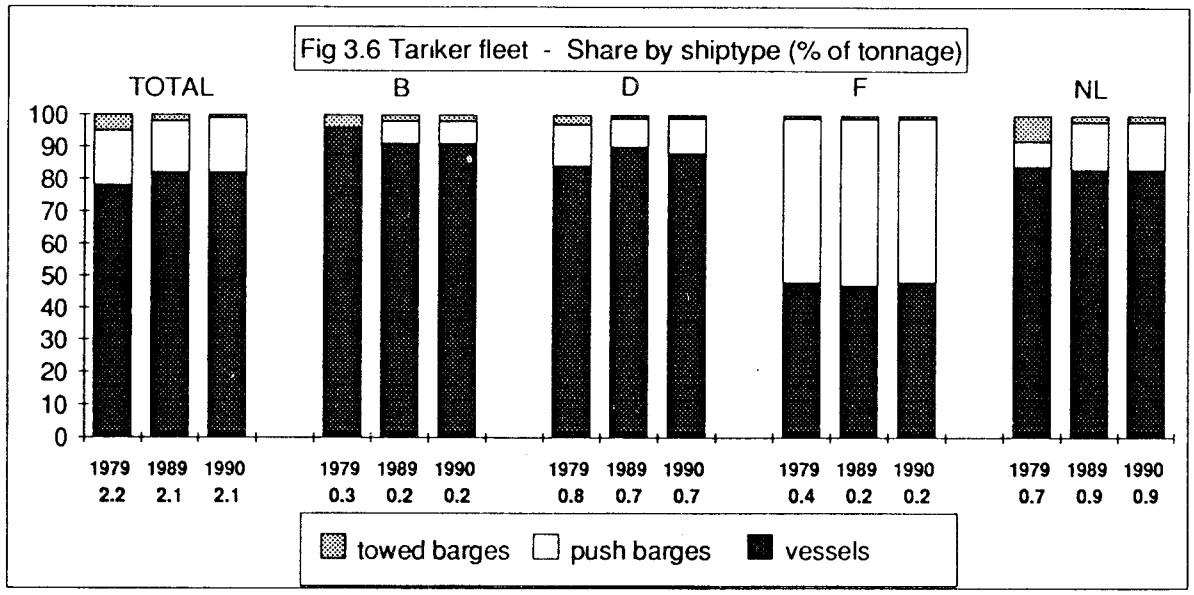


Fig 3.6 Tanker fleet - Share by shiptype (% of tonnage)
TOTAL
B
D
F
NL
100
90
80
70
60
50
40
30
20
10
0
1979 1989 1990
2.2 2.1 2.1
1979 1989 1990
0.3 0.2 0.2
1979 1989 1990
0.8 0.7 0.7
1979 1989 1990
0.4 0.2 0.2
1979 1989 1990
0.7 0.9 0.9
towed barges
push barges
vessels

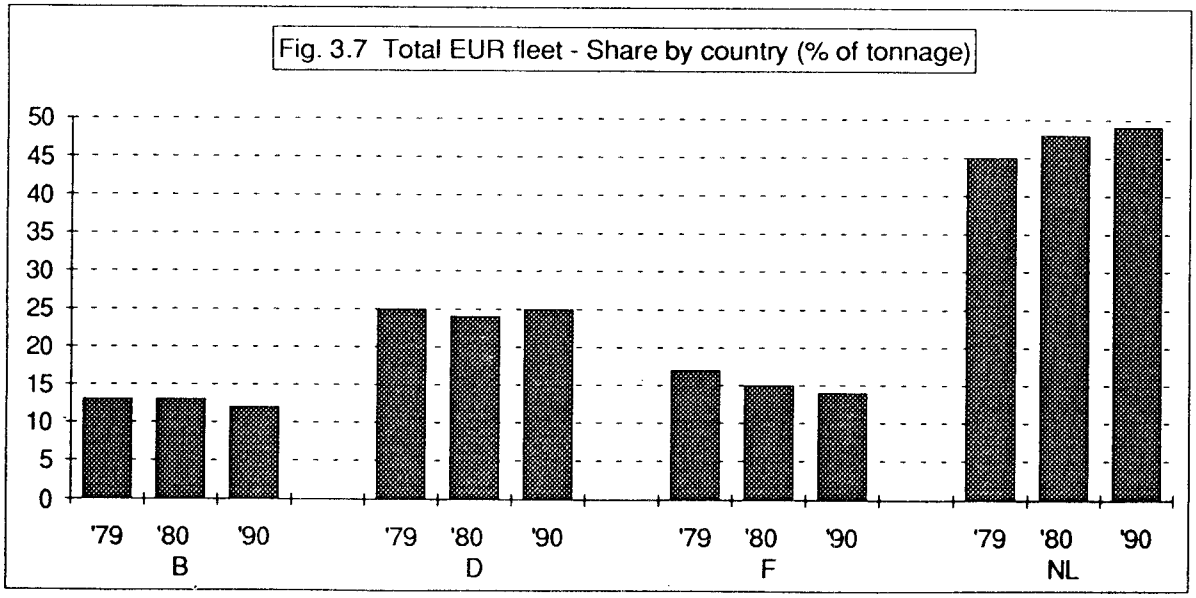


Fig. 3.7 Total EUR fleet - Share by country (% of tonnage)
50
45
40
35
30
25
20
15
10
5
0
'79 '80 '90
B
'79 '80 '90
D
'79 '80 '90
F
'79 '80 '90
NL

3.4.4. Rhine and Danube Fleets Developments

The total dead weight capacity of the Rhine fleet (Rhine fleets of the Netherlands, the Federal Republic of Germany, France, Belgium and Switzerland) is over 10 million tonnes and is accounted for by over 10 000 vessels.

TABLE 3.12 RHINE FLEET IN NUMBERS OF SHIPS AND CARRYING CAPACITY (1000t)

FLEET		1/1/79	1/1/89	1/1/90	Growth rate 90/79%	Growth rate 90/89%	Fleet share 90,%
B	Ships	1727	1625	1637	-5.2	+0.7	15.8
Carrying	capacity	1304	1389	1417	+8.7	+2.0	13.5
D	Ships	3156	2570	2576	-18.4	+0.2	24.9
Carrying	capacity	3245	2943	3016	-7.1	+2.5	28.8
F	Ships	823	863	774	-6.0	-10.3	7.5
Carrying	capacity	480	449	406	-15.4	-9.6	3.9
NL	Ships	5575	5221	5146	-7.7	-1.4	49.8
Carrying	capacity	3879	5166	5240	+35.1	+1.4	50.0
CH	Ships	391	234	204	-47.8	-12.8	2.0
Carrying	capacity	567	440	383	-32.5	-13.0	3.7
TOTAL	Ships	11672	10513	10337	-11.4	-1.7	100.0
Carrying	capacity	9475	10387	10462	+10.4	+0.7	100.0

TABLE 3.13. DANUBE VERSUS EUR FLEET (1/1/89), (1000t)

	Danube	EC
Total tonnage	4936	13134
% push and tow barges	90%	28%

3.4.5. Overcapacity and EC Rehabilitation Programme

Since 1980 a structural imbalance between supply and demand has been causing serious problems in the inland waterway sector. The most important causes of this phenomenon are the downward trend in demand over the period 1980-83, and the ongoing productivity increases due to modernisation of the fleet.

The surplus capacity is now generally estimated at about 20% of the Community fleet. The overcapacity has a negative effect on the evolution of prices on the free market. For example : for dry cargo, Rhine transport prices in 1989 were still on the level of 1979, whilst cost has increased in the same period by more than 50%.

To remedy the situation, the Council following a proposal of the Commission, established in May 1989 an EC capacity regulation system entailing :

-measures to set up and coordinate the functioning of national scrapping schemes by harmonising the basic principle and procedures throughout the Community.

-provisions to prevent the impact of a coordinated scrapping action from being cancelled out by limitations on the bringing into service of new vessels from 28 April 1989 until 28 April 1994.

Switzerland has simultaneously introduced similar measures for its fleet. The scheme intended to eliminate 10% of the dry cargo fleets and 15% of the tanker fleet.

3.5. Market Situation

3.5.1. Waiting Days

Waiting time on the bourses is considered to be one of the economic indicators on the North-South markets for dry bulk cargo.
In that regulated part of the North-South market where there is a fixed price, the balance or imbalance between demand of transport and the capacity available is reflected by the length of waiting time on the bourses, in contrast with the free market where the price is the result of the balance between demand and supply.

Table 3.14. shows the evolution of waiting days in international North-South traffic by relation.

TABLE 3.14 QUARTERLY AVERAGE OF WAITING DAYS IN INTERNATIONAL N/S TRAFFIC BY TRAFFIC RELATION.

Traffic relation		Q1	Q2	Q3	Q4	Yearly average
1) NL--F	1985	14.2	19.3	18.0	13.9	16.3
	1986	17.1	14.2	17.3	8.5	14.3
	1987	11.6	14.7	23.3	13.0	15.7
	1988	23.6	22.7	22.2	15.7	21.1
	1989	18.0	21.5	22.9	16.1	19.3
2) NL--B	1985	13.5	12.9	13.6	8.7	12.2
	1986	10.9	9.7	12.7	8.5	10.4
	1987	8.4	12.3	16.4	10.1	11.8
	1988	13.3	12.1	11.8	10.3	11.9
	1989	12.5	12.0	13.9	9.4	11.9
3) B--B+F	1985	10.1	7.8	9.9	7.9	8.9
	1986	10.9	7.8	11.2	8.1	9.5
	1987	10.4	8.4	11.4	8.3	9.6
	1988	9.9	8.9	8.9	7.2	8.7
	1989	8.7	7.6	6.5	8.4	7.8
4) B--NL	1985	10.7	10.6	11.3	8.5	10.3
	1986	8.8	7.9	10.5	7.3	8.6
	1987	9.3	7.6	10.0	6.5	8.4
	1988	8.5	6.6	7.9	6.2	7.3
	1989	9.0	7.6	9.6	6.4	8.1
5) F--B+NL	1985	18.7	19.1	26.6	10.3	18.7
	1986	18.3	25.1	30.5	29.2	25.8
	1987	30.8	28.7	31.7	19.9	27.8
	1988	20.2	23.3	29.2	21.0	23.4
	1989	20.3	24.6	26.8	27.2	24.7

3.5.2. Cost and Price Indices

Methodology
Cost and price developments are represented by means of indices and value per tkm.

The cost developments are shown for the following cost categories
* wages
* capital cost
* fuel cost
* other cost

Cost calculations are performed for the transportation of goods with different ship types on transport relation within the EC area which are relevant for the ship type in question.
The calculations per transport relation are carried out separately for a ship of each nationality, as long as the ship forms a substantial part of that nation's fleet.

The cost indices will be shown on the basis of 01.01.1989 = 100.

The price developments are represented by indices and price values per 1000 tkm. The indices are presented for two markets in which following distinctions were made :

1) Rhine	* upstream
	* downstream
2) North-South	* free
	* tour de rôle

In the representation of the price developments the same ship types and relations were taken into consideration as used in the monitoring of the cost developments. The basis of the price indices will be the first quarter of 1989 (= 100).

Finally cost price comparisons are presented for the Rhine and the North-South market for the following types of ships :
* dry cargo ships
* push convoy
* liquid cargo ships

Results
By weighing the cost developments for the separate ship moves in international inland waterway transportation between the selected member states, and by adjusting them for productivity developments on an annual base, the following summarizing indices for inland navigation costs in ECU can be derived (see table 3.15.).

TABLE 3.15 COST DEVELOPMENT IN ECU.

Date	Rhine up		Rhine down		North-South free		North-South bourse
	dry cargo	liquid cargo	dry cargo	liquid cargo	dry cargo	liquid cargo	dry cargo
1/1/89	100	100	100	100	100	100	100
7/1/89	102	102	101	102	102	102	101
1/1/90	110	110	109	109	110	108	108

Table 3.16. shows the resulting price indices. The prices are adjusted for diminished carrying capacity in case of low water levels on the Rhine.

TABLE 3.16 PRICE DEVELOPMENT IN ECU.							
Date	Rhine up		Rhine down		North-South free		North-South bourse
	dry cargo	liquid cargo	dry cargo	liquid cargo	dry cargo	liquid cargo	dry cargo
1/1/89	100	100	100	100	100	100	100
7/1/89	114	172	105	147	101	110	101
1/1/90	108	283	89	169	105	125	105

The cost-price comparison measured in values, which is presented in table 3.17., shows that despite the increasing prices, for most ships the average dry cargo cost level is still approximately 25% higher than the price level.
The developments in 1989 showed an improvement for prices in liquid cargo shipping. This resulted in a price level which exceeded the cost level for Rhine-up shipping and remained approximately 10% lower than the cost level for Rhine-down and North-South free shipping.

TABLE 3.17. COST PRICE COMPARISON				
Costs in ECU per 1000 tkm, per 1/1/1990				
	shipping area			
Vessel type	Rhine up	Rhine down	N/S free	N/S bourse
dry cargo	17.35	19.43	22.98	33.68
push convoy	10.83	11.4		
liquid cargo	25.42	21.59	46.12	
Price in ECU per 1000 tkm, per 1/1/1990				
	shipping area			
Vessel type	Rhine up	Rhine down	N/S free	N/S bourse
dry cargo	10.64	12.59	14.44	32.76
push convoy	8.89	8.47		
liquid cargo	29.27	20.19	40.3	

Fig. 3.8 Development of total cost indices - 1979 = 100

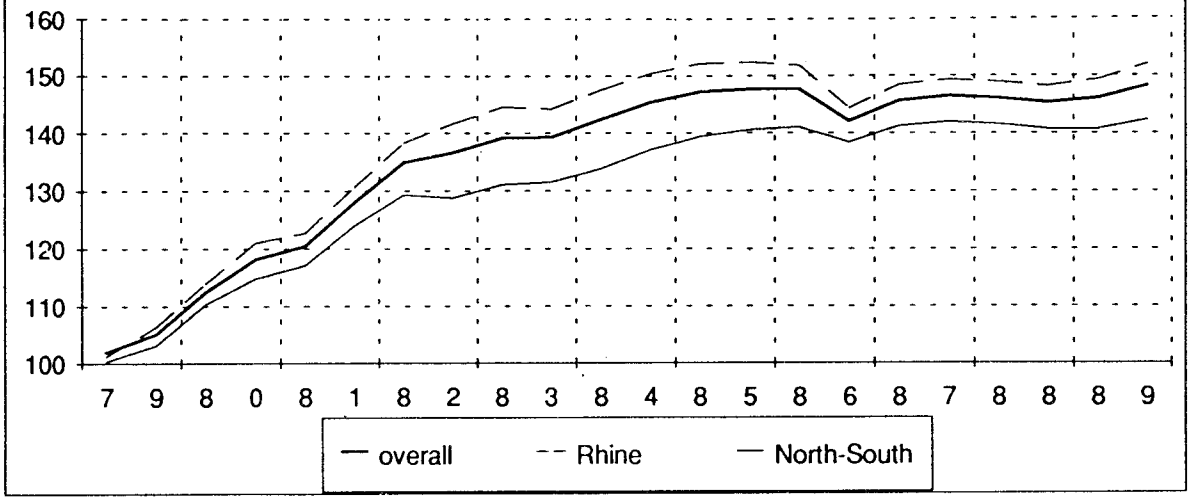


Fig. 3.9 Development of cost element indices - 1979 = 100

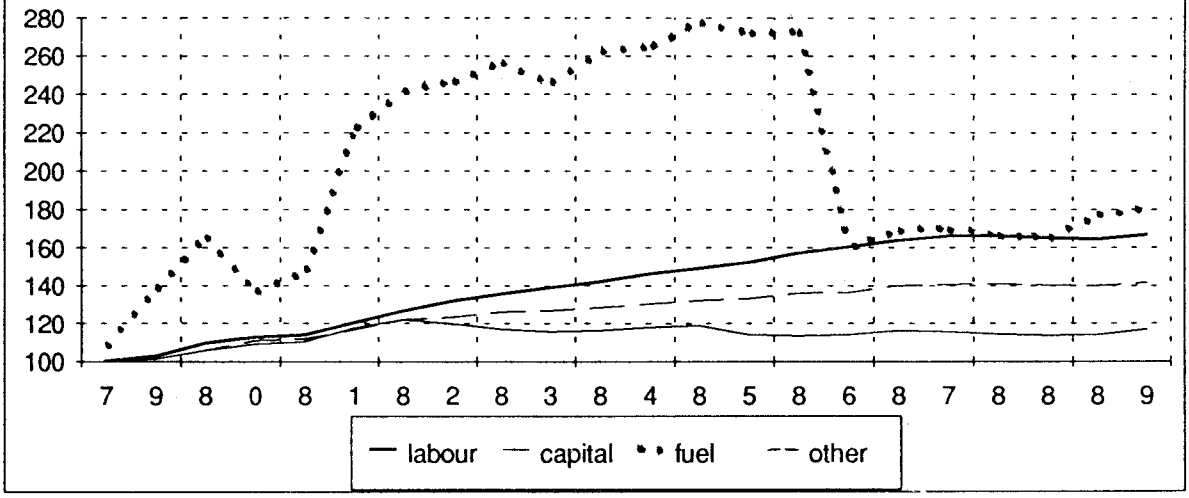
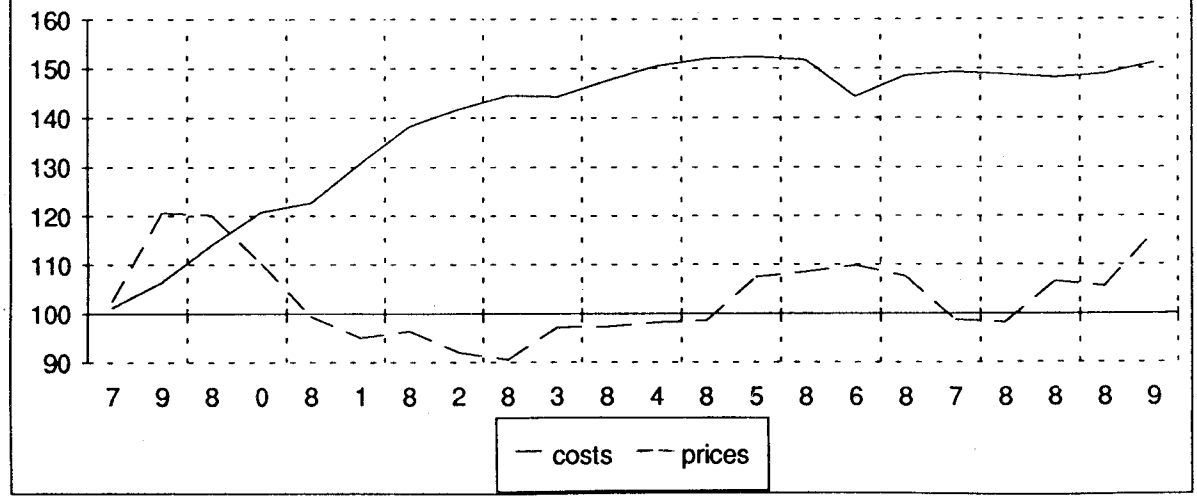


Fig. 3.10 Rhine dry cargo cost and price indices

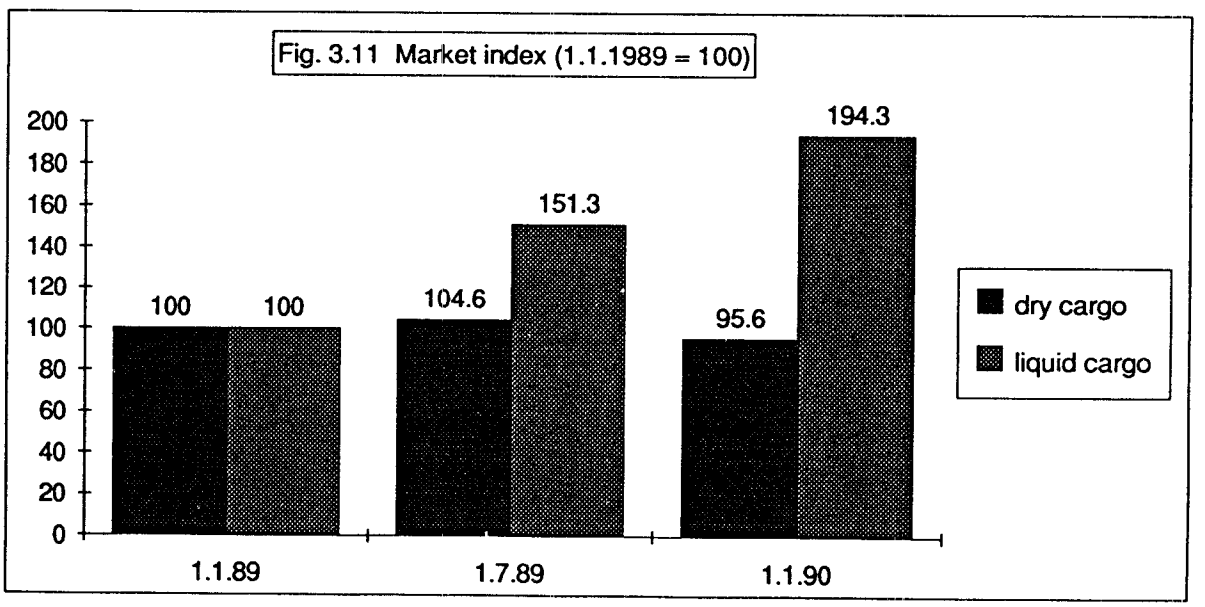


3.5.3. Profitability

On the basis of information supplied by French, German, Belgian and Dutch sources a so-called inland navigation market index was computed.
The market index measures relative changes in the revenue/cost relationship in inland navigation in Europe. As such the index can be seen as an indicator of developments in profitability in this branch of transport. The base of the index is January 1st, 1989.

The graph shows that on the liquid cargo market the market index increased significantly in 1989. Compared to the beginning of 1989 the index was almost twice as high on January 1st, 1990. This rather large increase was due to a combination of factors : a high demand for liquid cargo products in Germany, low water levels on the river Rhine, and infrastructure problems causing delay in the normal supply of liquid cargo in Southern Germany.

On the market of dry cargo transport, developments were less spectacular : an increase of the market index in the first part of the year followed by a decrease in the last part of 1989. The fall of the index can mainly be attributed to sharply rising fuel costs and capital costs.



3.5.4. Transport Inquiry Survey

a) Rhine traffic.

TABLE 3.18. BALANCE OF OPINIONS ON DEMAND.			
Q1 89		-37	
Q2 89		0	
Q3 89	+41 (dry cargo)		+82 (liquid cargo)
Q4 89	+79 (dry cargo)		+100 (liquid cargo)

b) North-South traffic.

TABLE 3.19 BALANCE OF OPINIONS ON DEMAND BY TRAFFIC RELATION				
Q1 89	To	B	F	NL
	From			
	B	-38	-39	-62
	F	-69		-72
	NL	-51	-46	-61
Q2 89	To	B	F	NL
	From			
	B	-16	-22	-38
	F	-77		-42
	NL	-36	-33	-32
Q3 89	To	B	F	NL
	From			
	B	-15	-20	-45
	F	-86		-68
	NL	-27	-48	-27
Q4 89	To	B	F	NL
	From			
	B	-4	-8	-15
	F	-83		-39
	NL	-12	-19	-4

TABLE 3.20 BALANCE OF OPINIONS ON DEMAND BY TONNAGE CLASS.

Q1 89	Tonnage Class	B	F	B+NL
	200-450	-53	-22	-43
	451-750	-43	-42	-42
	751-1150	-28	-61	-42
	1151-1550	-47	-56	-52
	1551+	-30	-85	-70
Q2 89	Tonnage Class	B	F	B+NL
	200-450	-20	-32	-24
	451-750	0	-36	-30
	751-1150	+4	-45	-17
	1151-1550	-33	-71	-55
	1551+	-27	-90	-68
Q3 89	Tonnage Class	B	F	B+NL
	200-450	-23	+33	-1
	451-750	-30	+54	+15
	751-1150	0	+79	+37
	1151-1550	-43	+45	-11
	1551+	-27	+40	-3
Q4 89	Tonnage Class	B	F	B+NL
	200-450	-7	-22	-14
	451-750	-11	-44	-30
	751-1150	-14	-31	-21
	1151-1550	+24	-60	-7
	1551+	+6	-33	-5

3.6. Outlook

Under the influence of the improved economic situation, demand for inland waterway transport has shown an upward trend since 1988, in particular in international traffic. As the economy is expected to continue growing in the EC for some years to come, the growth of total traffic will also hold.

A positive injection for inland waterway transport can be expected from the European integration in 1992, when borders disappear and trade among Member States is further intensified. The developments in Eastern Europe will affect traffic in two ways. Firstly, positive developments are to be expected from the reunion of both German Republics, and secondly, the economic and political developments of Eastern Europe in general also promise market opportunities and hence intensifying trade. Inland waterway transport can take advantage of these developments, in particular if the infrastructure can accommodate the largest vessels.

However the evolution of demand so far appears to have had no significant influence on the price level and hence on the profitability of the sector. The general expectation is that the EC scrapping system in combination with the present trend in demand will produce a new equilibrium between supply and demand in the near future. This would lead to a better utilisation of the vessels that will stay on the market and also to a higher revenue level per tonne.

CHAPTER 4

RAIL

4.1. Introduction

4.1.1. Railway Policy in the Community

In December 1990, the Transport Council adopted a resolution concerning the development of the European network for the high-speed trains (TGV). The resolution contains the main outline of the European network in the form of a map indicating the new lines to be built, existing lines to be adapted to high speeds, lines whose routes have yet to be determined and the key links to be studied. The map also covers the EFTA countries. By the resolution itself, the Council invites the Commission, in consultation with representatives of the Member States, to study among others the socio-economic impact of the TGV network on the internal transport market and on the development of the Community, the impact on the environment, the commercial aspects of the key links, the effects on the relations between the Community, the EFTA countries and the other Central and Eastern European countries.

In January 1991 the Group 2000 Plus published its report. In the recommendations made in this report, the upgrading of European railway systems is a problem calling for EC action without delay. A harmonised, standardised and integrated European railway system without old state-bound monopolies is still a long way off.

The European Commissioner for Transport Mr Van Miert has said on several occasions that in the context of the common policy on transport in the EEC, 1991 has to be the year of the railways, after progress the previous years in air and road transport. In March 1991 the Transport Council examined several fundamental questions on Community railway policy and called on the Commission to propose measures for the technical harmonisation in the field of rail transport. A directive on the development of railroads and the Community rail policy is expected to be adopted in June 1991.

4.1.2. Sources

The statistical data on transport activity by rail have been supplied to the Statistical Office of the European Communities under Directive 80/1177 by the Statistical Offices of the Member States.

Data on rail tariffs have been supplied by the railway companies though data on capacity have been taken from the International Railway Statistics publication of the International Union of Railways.

Slight inconsistencies in some totals for different tables are possible due to rounding off of figures. Some inconsistencies may also be detected in data for 1988 compared to respective data from the Annual Report 1988 because some of last year's data were based on forecasts.

4.2. Rail Transport Activity in Tonnes

4.2.1. International intra-EUR 12 Rail Transport Activity

Table 4.1. shows the international intra-EUR 12 rail transport activity for 1989 and 1988. The data in each cell of table 4.1 represent inward transport to the Member State in the column, from the Member State in the respective row. The row at the bottom therefore shows total inward transport activity in tonnes to each Member State.

The countries for which the inward transport has increased well above the Community average of 3.5% are GR (+20%), E (+16.5%), L (+12.8%), I (+11.3%) and DK (+10.5%). However, D and B which account for 20% and 16% respectively of the intra-EUR 12 market have shown decreases of 3.7% and 3.4%. France inward transport activity increase (+4%) is close to the Community average while Italy with a share of 24% in the intra-EUR 12 market has shown a remarkable increase in transport activity of 11.3%. The most significant positive relations between Member States have been :

TO	FROM
D	I
F	NL
I	D, F, NL, B
B	I

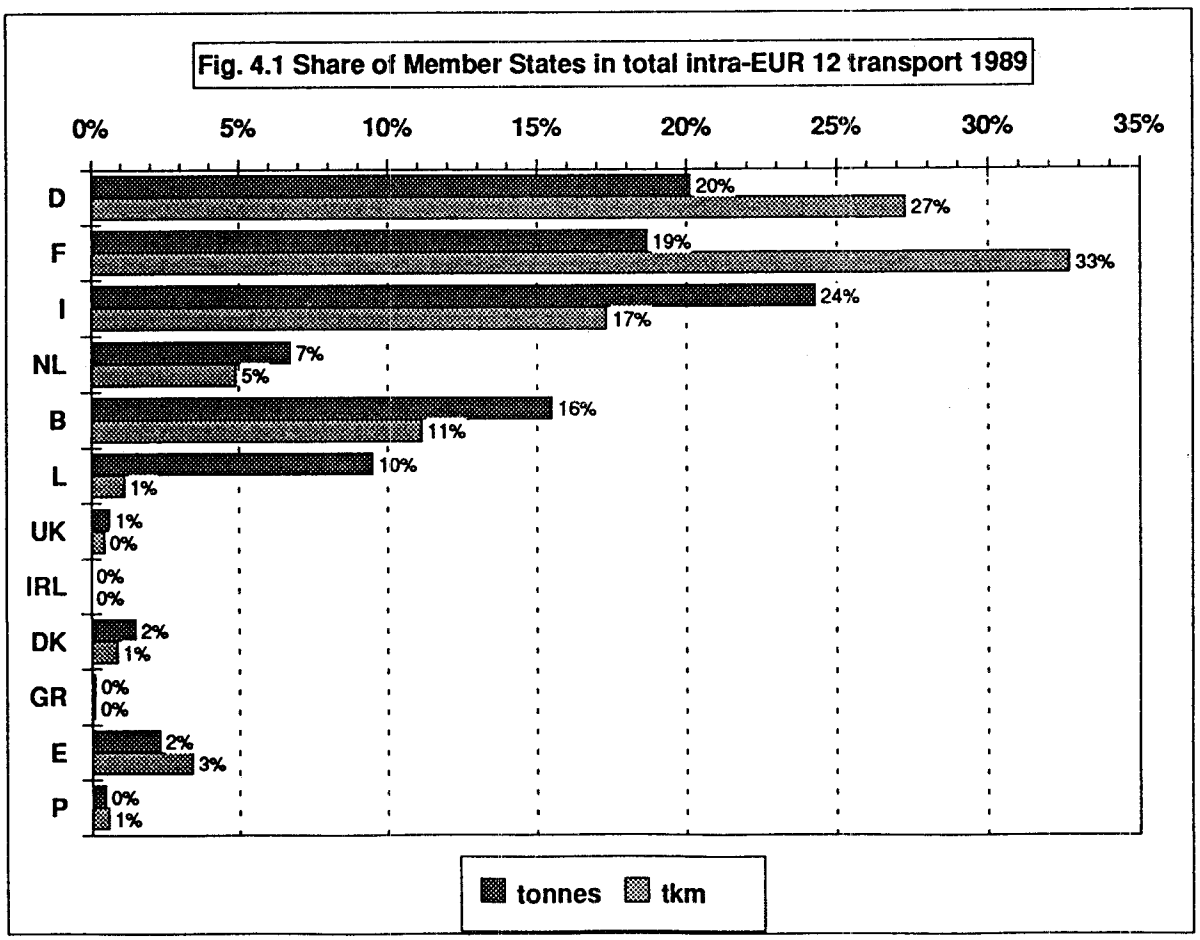


TABLE 4.1 INTERNATIONAL INTRA-EUR 12 RAIL TRANSPORT ACTIVITY (1000 T)

from	to	D	F	I	NL	B	L	UK	IRL	DK	GR	E	P	EUR 12
	89		**4525**	**7610**	**1388**	**3468**	**1762**	**74**	**0**	**656**	**70**	**533**	**16**	**20102**
D	88		4293	6697	1346	3805	1716	102	0	589	59	514	23	19144
	89/88		*+5%*	*+14%*	*+3%*	*-9%*	*+3%*	*-27%*		*+11%*	*+19%*	*+4%*	*-30%*	*+5.0%*
	89	**2960**		**6680**	**546**	**4078**	**395**	**277**	**0**	**99**	**7**	**678**	**36**	**15756**
F	88	3304		6017	655	4237	378	213	0	115	7	554	56	15536
	89/88	*-10%*		*+11%*	*-17%*	*-4%*	*+4%*	*+30%*		*-14%*	*+0%*	*+22%*	*-36%*	*+1.4%*
	89	**2705**	**2079**		**538**	**1097**	**1**	**44**	**0**	**236**	**22**	**54**	**15**	**6791**
I	88	2361	2047		420	969	2	50	0	178	16	27	17	6087
	89/88	*+15%*	*+2%*		*+28%*	*+13%*	*-50%*	*-12%*		*+33%*	*+38%*	*+100%*	*-12%*	*+11.6%*
	89	**4150**	**1729**	**658**		**920**	**14**	**39**	**0**	**6**	**1**	**12**	**0**	**7529**
NL	88	4653	1353	570		932	16	37	0	8	2	4	1	7576
	89/88	*-11%*	*+28%*	*+15%*		*-1%*	*-13%*	*+5%*		*-25%*	*-50%*	*+200%*	*-100%*	*-0.6%*
	89	**3096**	**4104**	**1771**	**2168**		**4542**	**9**	**0**	**40**	**2**	**39**	**0**	**15771**
B	88	2928	4273	1611	2193		3833	2	0	43	1	29	0	14913
	89/88	*+6%*	*-4%*	*+10%*	*-1%*		*+18%*	*+350%*		*-7%*	*+100%*	*+34%*		*+5.8%*
	89	**554**	**536**	**55**	**96**	**1334**		**0**	**0**	**23**	**0**	**15**	**0**	**2613**
L	88	747	502	99	109	1330		0	0	21	0	11	0	2819
	89/88	*-26%*	*+7%*	*-44%*	*-12%*	*+0%*				*+10%*		*+36%*		*-7.3%*
	89	**94**	**55**	**223**	**6**	**0**	**0**		**0**	**0**	**0**	**3**	**0**	**381**
UK	88	86	51	227	1	0	6		0	0	0	21	12	404
	89/88	*+9%*	*+8%*	*-2%*	*+500%*		*-100%*					*-86%*	*-100%*	*-5.7%*
	89	**0**	**0**	**0**	**0**	**0**	**0**	**0**		**0**	**0**	**0**	**0**	**0**
IRL	88	0	0	0	0	0	0	0		0	0	0	0	0
	89/88													
	89	**441**	**37**	**132**	**7**	**5**	**0**	**1**	**0**		**0**	**5**	**0**	**628**
DK	88	417	39	198	10	19	0	1	0		0	2	0	686
	89/88	*+6%*	*-5%*	*-33%*	*-30%*	*-74%*		*+0%*				*+150%*		*-8.5%*
	89	**19**	**7**	**2**	**9**	**17**	**2**	**0**	**0**	**0**		**0**	**0**	**56**
GR	88	25	5	1	3	12	1	1	0	0		0	0	48
	89/88	*-24%*	*+40%*	*+100%*	*+200%*	*+42%*	*+100%*	*-100%*						*+16.7%*
	89	**221**	**139**	**67**	**14**	**59**	**0**	**0**	**0**	**2**	**0**		**268**	**770**
E	88	259	142	33	18	66	1	22	0	7	0		327	875
	89/88	*-15%*	*-2%*	*+103%*	*-22%*	*-11%*	*-100%*	*-100%*		*-71%*			*-18%*	*-12.0%*
	89	**2**	**18**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**311**		**332**
P	88	4	21	1	0	0	0	0	0	0	0	254		280
	89/88	*-50%*	*-14%*	*-100%*								*+22%*		*+18.6%*
	89	**14242**	**13229**	**17198**	**4772**	**10978**	**6716**	**445**	**0**	**1062**	**102**	**1650**	**335**	**70729**
EUR 12	88	14784	12726	15454	4755	11370	5953	428	0	961	85	1416	436	68368
	89/88	*-3.7%*	*+4.0%*	*+11.3%*	*+0.4%*	*-3.4%*	*+12.8%*	*+4.0%*		*+10.5%*	*+20.0%*	*+16.5%*	*-23.2%*	*+3.5%*

Table 4.2 shows the evolution of international intra-EUR 12 transport activity since 1985 (1000t). The figures for 1989 although higher than 1988 are still below the 1985 level.

TABLE 4.2 EVOLUTION OF INTERNATIONAL INTRA-EUR 12 RAIL TRANSPORT ACTIVITY (1000 t)

	1985	1986	1987	1988	1989	89/88	89/85
D	14616	13804	13953	14784	14242	-3.7%	-2.6%
F	15247	13361	12219	12726	13229	+4.0%	-13.2%
I	15501	13863	14626	15454	17198	+11.3%	+10.9%
NL	4813	4373	3963	4755	4772	+0.4%	-0.9%
B	13694	10937	11016	11370	10978	-3.4%	-19.8%
L	6067	5800	5212	5953	6716	+12.8%	+10.7%
UK	642	540	449	428	445	+4.0%	-30.7%
IRL	0	0	0	0	0	0	0.0%
DK	1167	1145	1006	961	1062	+10.5%	-9.0%
GR	148	101	73	85	102	+20.0%	-31.1%
E	803	1043	1215	1416	1650	+16.5%	+105.5%
P	178	286	353	436	335	-23.2%	+88.2%
EUR 12	72876	65253	64085	68368	70729	+3.5%	-2.9%

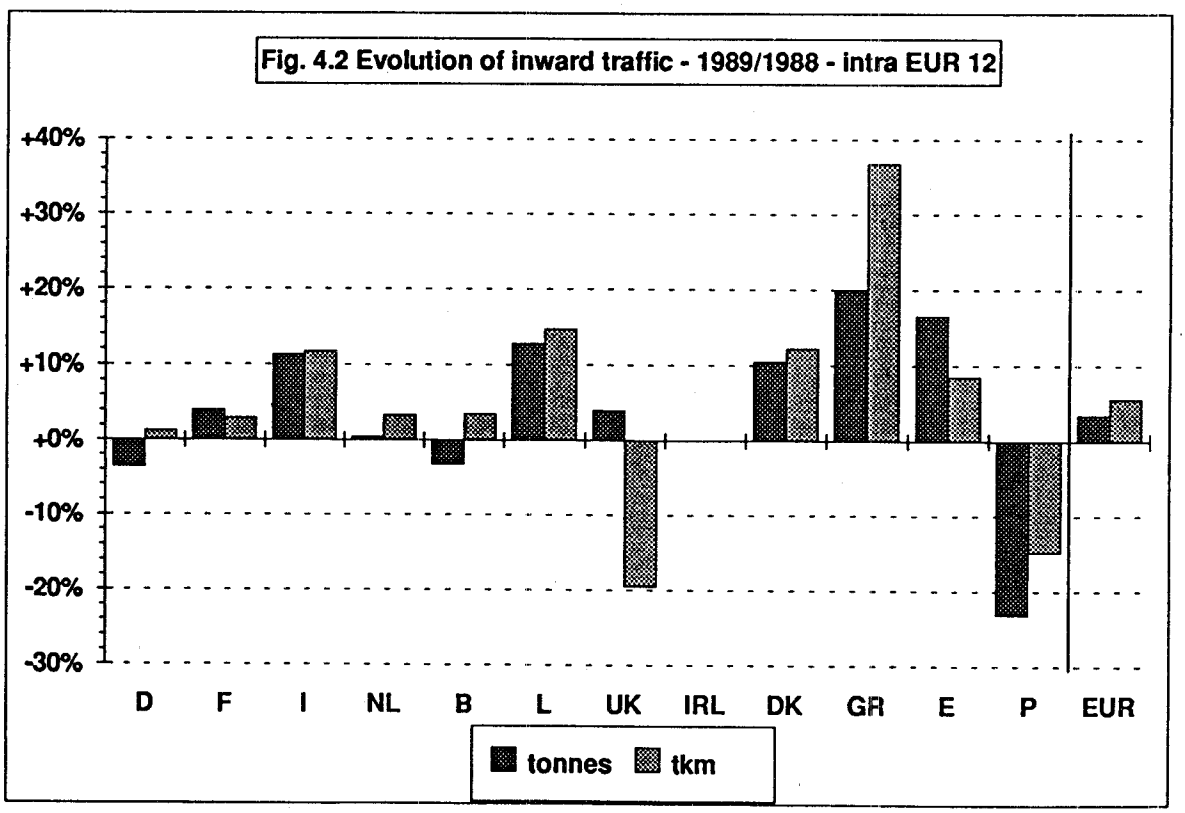
Table 4.3 shows the international intra-EUR 12 rail transport activity by NST chapter and destination in 1000 t. When the total increase of tonnes transported in international intra-EUR 12 rail transport (+3.5%) is split in the different NST chapters it can be observed that chapters 3 (crude petroleum and its products) and chapter 9 (transport equipment, manufacture of metal...) gained well above the average increase and at the same time they increased their part in the distribution of the international intra-EUR 12 rail transport. Chapter 0 showed a remarkable decrease.

The trends shown in table 4.4 indicate that chapters 3 and 9 have positive developments in the period 1985-1989, while chapters 0 (cereals, fruits and vegetables, animals...), 2 (solid mineral fuels) and 7 (natural and chemical fertilizers) have decreased over the years.

TABLE 4.3 INTERNATIONAL INTRA-EUR 12 RAIL TRANSPORT ACTIVITY BY NST CHAPTER AND DESTINATION (1000 t)

NST	M.S.	D	F	I	NL	B	L	UK	IRL	DK	GR	E	P	EUR 12	89/88	Share in total 1989	Share in total 1988
0	**89**	**833**	**275**	**2128**	**119**	**624**	**23**	**12**		**95**	**3**	**281**	**46**	**4439**	-4.5%	6.3%	6.8%
	88	855	397	1914	261	508	18	38		66	3	473	115	4648			
1	**89**	**497**	**261**	**163**	**339**	**1266**	**0**	**193**		**102**	**1**	**104**	**32**	**2958**	+2.2%	4.2%	4.2%
	88	490	213	149	258	1502	0	141		84	16	18	24	2895			
2	**89**	**373**	**1661**	**293**	**426**	**1164**	**1514**	**0**		**1**	**0**	**0**	**0**	**5432**	-3.0%	7.7%	8.2%
	88	452	1623	340	414	1303	1459	0		10	0	1	0	5602			
3	**89**	**241**	**376**	**420**	**67**	**8**	**992**	**0**		**7**	**0**	**0**	**0**	**2111**	+18.9%	3.0%	2.6%
	88	218	221	357	80	9	884	1		6	0	0	0	1776			
4	**89**	**3054**	**310**	**2333**	**398**	**366**	**2736**	**0**		**2**	**0**	**0**	**0**	**9199**	+2.5%	13.0%	13.1%
	88	3795	308	1946	393	365	2162	0		1	0	0	1	8971			
5	**89**	**3240**	**4273**	**2494**	**224**	**3754**	**954**	**93**		**130**	**1**	**158**	**54**	**15375**	-2.1%	21.7%	23.0%
	88	3331	4352	2394	249	4001	909	96		129	0	186	56	15703			
6	**89**	**668**	**289**	**2219**	**1464**	**141**	**394**	**42**		**103**	**0**	**6**	**18**	**5344**	+3.4%	7.6%	7.6%
	88	669	255	1938	1596	134	407	52		89	0	7	22	5169			
7	**89**	**360**	**1633**	**88**	**0**	**109**	**38**	**1**		**37**	**0**	**0**	**1**	**2267**	+5.3%	3.2%	3.1%
	88	463	1408	64	1	137	40	2		34	0	0	3	2152			
8	**89**	**1623**	**1136**	**732**	**465**	**738**	**5**	**41**		**106**	**5**	**9**	**11**	**4871**	-1.5%	6.9%	7.2%
	88	1567	1156	732	444	834	4	35		97	5	52	21	4947			
9	**89**	**3353**	**3015**	**6328**	**1270**	**2808**	**60**	**63**		**479**	**92**	**1092**	**173**	**18733**	+13.5%	26.5%	24.1%
	88	2944	2793	5620	1059	2577	70	63		445	61	679	194	16505			
TOTAL	**89**	**14242**	**13229**	**17198**	**4772**	**10978**	**6716**	**445**	**0**	**1062**	**102**	**1650**	**335**	**70729**	+3.5%	100%	100%
	88	14784	12726	15454	4755	11370	5953	428	0	961	85	1416	436	68368			

TABLE 4.4 EVOLUTION OF INTERNATIONAL INTRA-EUR 12 RAIL TRANSPORT ACTIVITY BY NST CHAPTER (1000 t)							
Year NST	1985	1986	1987	1988	1989	89/88 (%)	89/85 (%)
0	5250	4487	4460	4648	4439	-4.50%	-15.45%
1	3006	2962	3139	2895	2958	+2.18%	-1.60%
2	8567	6901	5702	5602	5432	-3.03%	-36.59%
3	1895	1791	1936	1776	2111	18.86%	+11.40%
4	10169	8153	7933	8971	9199	+2.54%	-9.54%
5	15355	14207	13912	15703	15375	-2.09%	+0.13%
6	5187	4669	4881	5169	5344	+3.39%	+3.03%
7	2722	2298	1943	2152	2267	+5.34%	-16.72%
8	4753	4702	4949	4947	4871	-1.54%	+2.48%
9	13884	15083	15227	16505	18733	13.50%	+34.93%
TOTAL	70788	65253	64082	68368	70729	+3.45%	-0.08%



4.2.2. National Transport Activity

The total national transport activity for 1989 in tonnes is 1.0% lower than that for the previous year. National transport activity increased more in L, I and P while a surprising decrease is observed for E. In the long term the trend is negative except for I, L and UK.

TABLE 4.5 EVOLUTION OF NATIONAL RAIL TRANSPORT ACTIVITY (1000t)

Year	1985	1986	1987	1988	1989	89/88	89/85
D	238935	228267	219976	222927	224500	+0.7%	-6.0%
F	114292	104027	100638	102109	102346	+0.2%	-10.5%
I	17221	16695	18618	19417	20618	+6.2%	+19.7%
NL	5529	5274	5178	5223	5029	-3.7%	-9.0%
B	34426	29750	31359	30713	30812	+0.3%	-10.5%
L	2539	2521	2567	2621	2809	+7.2%	+10.6%
UK	139322	137089	143667	148812	142456	-4.3%	+2.2%
IRL	3379	3126	3014	3012	3066	+1.8%	-9.3%
DK	2351	2398	2091	2237	2206	-1.4%	-6.2%
GR	1205	1235	918	1188	1206	+1.5%	+0.1%
E		25028	24318	23852	20933	-12.2%	
P		4690	4980	5178	5439	+5.0%	
EUR 12	559199	560100	557324	567289	561420	-1.0%	

Table 4.6 shows the national transport activity in tonnes by NST chapter for all Member States. The percentage changes between 1989 and 1988 refer to the EUR 12 level. With the exception of NST chapters 5 (metal products) and 4 (iron ore, iron and steel waste,...) all the other NST chapters have decreased. The shares of each NST chapter in total have remained stable for the years 1989 and 1988. Table 4.7 shows the evolution of national transport activity by NST chapter (EUR 10 figures for 1985).

TABLE 4.6 NATIONAL RAIL TRANSPORT ACTIVITY BY NST CHAPTER (1000 t)

NST	M S	D	F	I	NL	B	L	UK	IRL	DK	GR	E	P	EUR 12	89/88	Share in total 1989	Share in total 1988
0	**89**	**5179**	**9591**	**1215**	**374**	**359**	**49**	**294**	**142**	**157**	**350**	**1744**	**661**	**20115**	-7.0%	3.6%	3.8%
	88	5574	10027	1219	371	605	44	354	150	153	280	2092	757	21626			
1	**89**	**2264**	**10396**	**1298**	**186**	**297**	**10**	**805**	**210**	**667**	**61**	**472**	**212**	**16878**	-2.5%	3.0%	3.1%
	88	2471	10536	1349	152	201	12	788	211	709	57	589	229	17304			
2	**89**	**68106**	**9058**	**257**	**88**	**8146**	**20**	**74714**	**0**	**157**	**334**	**2139**	**333**	**163352**	-0.7%	29.1%	29.0%
	88	66625	8538	258	72	8225	28	77733	0	160	431	2101	312	164483			
3	**89**	**16042**	**8937**	**603**	**598**	**389**	**82**	**10336**	**82**	**37**	**216**	**2023**	**51**	**39396**	-4.3%	7.0%	7.3%
	88	17086	9183	481	731	447	65	10757	72	41	169	2034	113	41179			
4	**89**	**31687**	**7582**	**1787**	**23**	**10457**	**124**	**11009**	**500**	**41**	**0**	**3807**	**567**	**67584**	+0.6%	12.0%	11.8%
	88	31684	7358	1932	17	10001	136	11852	518	46	0	3308	304	67156			
5	**89**	**44260**	**13751**	**6735**	**35**	**8289**	**1213**	**7094**	**14**	**7**	**6**	**2594**	**74**	**84072**	+2.6%	15.0%	14.4%
	88	42780	13126	6136	46	8464	1025	7846	13	13	2	2347	110	81908			
6	**89**	**21493**	**19915**	**1973**	**459**	**849**	**1232**	**25709**	**894**	**117**	**3**	**3888**	**2257**	**78789**	+0.0%	14.0%	13.9%
	88	21293	19809	1937	504	718	1213	26557	819	114	4	3670	2188	78826			
7	**89**	**5710**	**4448**	**359**	**1116**	**134**	**32**	**1122**	**205**	**167**	**117**	**517**	**318**	**14245**	-5.6%	2.5%	2.7%
	88	5920	4706	388	1286	180	49	1132	236	190	128	582	294	15091			
8	**89**	**11659**	**7671**	**746**	**923**	**358**	**0**	**1532**	**248**	**206**	**41**	**1593**	**140**	**25117**	-0.5%	4.5%	4.4%
	88	11695	7604	749	949	466		1648	215	204	31	1525	153	25239			
9	**89**	**18100**	**10997**	**5645**	**1227**	**1534**	**47**	**9841**	**771**	**650**	**78**	**2156**	**826**	**51872**	-4.8%	9.2%	9.6%
	88	17799	11222	4968	1095	1406	49	10145	778	607	86	5604	718	54477			
TOTAL	**89**	**224500**	**102346**	**20618**	**5029**	**30812**	**2809**	**142456**	**3066**	**2206**	**1206**	**20933**	**5439**	**561420**	-1.0%	100%	100%
	88	222927	102109	19417	5223	30713	2621	148812	3012	2237	1188	23852	5178	567289			

TABLE 4.7 EVOLUTION OF NATIONAL RAIL TRANSPORT ACTIVITY BY NST CHAPTER (1000 t)							
year	1985	1986	1987	1988	1989	89/88	89/85
NST	EUR 10	EUR 12	EUR 12	EUR 12	EUR 12		
0	21817	25016	22548	21626	20115	-7.0%	-7.8%
1	16119	17437	17561	17304	16878	-2.5%	+4.7%
2	174438	167440	167396	164483	163352	-0.7%	-6.4%
3	42703	44791	42553	41179	39396	-4.3%	-7.7%
4	67921	66381	66336	67156	67584	+0.6%	-0.5%
5	78476	73985	73251	81908	84072	+2.6%	+7.1%
6	66490	72935	72757	78826	78789	+0.0%	+18.5%
7	17081	16691	16565	15091	14245	-5.6%	-16.6%
8	24460	25408	25309	25239	25117	-0.5%	+2.7%
9	49692	52203	53043	54477	51872	-4.8%	+4.4%
TOTAL	559197	562287	557319	567289	561420	-1.0%	+0.4%

4.2.3. Rail Transport Activity with Third Countries

Table 4.8 shows the EUR 12 rail transport activity in tonnes with third countries. Totals are given for all other countries and for EFTA countries. There is a remarkable increase in outward transport, 9% for all third countries and 8.8% for EFTA countries. Inward transport shows a small decrease for all third countries and for EFTA countries.

TABLE 4.8 TRANSPORT ACTIVITY WITH THIRD COUNTRIES (1000 t)

from EUR 12		to | from	to EUR 12	
1989	1988		1989	1988
122	140	N	55	54
2228	1997	S	2528	2771
24	25	SF	23	38
8622	7579	CH	4605	4348
6224	6082	A	5669	5835
2682	2599	YU	2429	2202
7	12	TR	0	0
1	0	SU	0	0
4094	3602	DDR	9944	10245
653	585	PL	919	908
1187	903	CS	4837	4706
650	717	H	1214	1301
127	109	R	356	413
285	318	BG	242	228
15	4	others	8	17
26921	24672	TOTAL	32829	33066
+9.1%		%(89/88)	-0.7%	
17220	15823	EFTA	12880	13046
+8.8%		%(89/88)	-1.3%	

4.3. Use of Community Rail Network in Mio tkm

Table 4.9 shows the picture of the use of the Community rail network in tkm for the years 1989 and 1988.

For each Member State a subdivision is made for National, International and Transit transport in Mio tkm. A distinction is made between inward or outward transport as well as if Member or non-Member States are involved. The total use can be broken down as follows (Mio tkm) :

	National	International	Transit	Total
1989	108403	53376	10210	171989
	63%	31%	6%	100%
1988	111443	50744	9342	171529
	65%	30%	5%	100%

If we combine the figures which refer to the transport activity of the Member States only, the use of the Community rail network becomes (Mio tkm) :

INTRA-EUR 12

	National	International	Transit	Total
1987	109299	32471	4284	146054
1988	111443	34786	4549	150778
1989	108403	36728	4244	149375

Compared with 1988, figures in 1989 show a slight decrease in Mio tkm due mainly to the decrease of national transport activity in Mio tkm.

Table 4.10 gives for 1989 and 1988 the international intra-EUR 12 transport activity in Mio tkm including transit. The total EUR 12 figure for 1989 (41256) shows an increase of 5.7% compared to 1988 (39020).

TABLE 4.9 TOTAL RAIL TRANSPORT ACTIVITY (Mio tkm)

1989 Member State	NATIONAL	INTERNATIONAL				TRANSIT				TOTAL 1989 (Mio tkm)
		Inward from M.S.	from non M.S.	Outward to M.S.	to non M.S.	M.S. to M.S.	M.S. to non M.S.	non M.S. to M.S.	non M.S. to non M.S	
D	34383	4265	4288	5758	6060	1541	1777	2036	506	60614
F	34642	4939	747	7070	1016	2188	719	147	0	51468
I	9216	4152	1774	2219	1080	1	47	60	11	18560
NL	1022	788	85	1021	177	12	2	0	0	3107
B	2601	1634	138	2464	501	686	19	6	0	8049
L	116	279	0	137	3	121	25	23	0	704
UK	16843	83	28	85	11					17050
IRL	556									556
DK	586	173	179	151	66	0	145	123	15	1438
GR	265	42	135	2	177					621
E	6827	710	34	546	147					8264
P	1346	115	1	95	1					1558
EUR 12	108403	17180	7409	19548	9239	4549	2734	2395	532	171989

1988 Member State	NATIONAL	INTERNATIONAL				TRANSIT				TOTAL 1988 (Mio tkm)
		Inward from M.S.	from non M.S.	Outward to M.S.	to non M.S.	M.S. to M.S.	M.S. to non M.S.	non M.S. to M.S.	non M.S. to non M.S	
D	34607	4049	4103	5165	5743	1189	1673	1572	417	58518
F	34464	4591	703	6727	954	2247	781	107	0	50574
I	8642	3836	1926	2108	1107	3	38	56	17	17733
NL	1049	804	88	1060	184	10	2			3197
B	2429	1626	136	2519	272	684	20	8	0	7694
L	107	229	0	143	3	111	23	22	0	638
UK	18202	85	31	115	11					18444
IRL	545									545
DK	588	165	198	146	62	0	178	166	18	1521
GR	250	28	122	4	174					578
E	9234	607	11	534	127					10513
P	1326	152	2	93	1					1574
EUR 12	111443	16172	7320	18614	8638	4244	2715	1931	452	171529

TABLE 4.10 INTERNATIONAL INTRA-EUR 12 TRANSPORT ACTIVITY (Mio tkm)

1989	D	F	I	NL	B	L	UK	IRL	DK	GR	E	P	EUR 12
D	0	2699	4791	485	1376	513	52		402	75	490	28	10911
F	1947	4	5471	302	1849	42	272		147	13	569	33	10649
I	2090	1963		467	1042	5	227		306	19	57	22	6198
NL	1792	914	618	8	158	1235	13		6	36	13	1	4794
B	1439	1624	1723	597	0		3		38	48	42	6	5520
L	248	173	45	22	343				23	0	10		864
UK	55	51	161	2	13	0	0		0		5	4	291
IRL													0
DK	317	53	299	7	6	0	0			6	7	0	695
GR	9	7	1	8	22	0			0		0		47
E	365	225	124	26	28	0	9		8	0	1	226	1012
P	3	18	0	0	0						254		275
EUR 12	8265	7731	13233	1924	4837	1795	576	0	930	197	1448	320	41256

1988	D	F	I	NL	B	L	UK	IRL	DK	GR	E	P	EUR 12
D	0	2406	4117	462	1457	497	69		360	61	507	35	9971
F	1995	3	5039	395	1778	40	222		164	11	512	47	10206
I	1880	1962		334	834	3	368		216	12	44	21	5674
NL	1833	716	544	0	166	5	14		8	23	5	1	3315
B	1351	1896	1588	613		1019	0		43	32	16	0	6558
L	310	156	66	11	341		0		22	0	4	0	910
UK	66	63	225	15	12	2			0	0	28	22	433
IRL													0
DK	315	55	224	9	17	0	1			5	3	0	629
GR	10	6	1	2	14	0	0		0		0	0	33
E	397	224	41	21	52	0	39		16	0		250	1040
P	7	25	1	0	0	0	3		0	0	215		251
EUR 12	8164	7512	11846	1862	4671	1566	716	0	829	144	1334	376	39020

If we compare the tkm in each Member State with the length of its own network (as it is recorded in the Report "International Railway Statistics for 1989" of the International Union of Railways), we receive the Index "average yearly number of tonnes supported by the network" or in other words a measure of the average intensity of the use of the network. Table 4.11 gives these indices for the years 1989 and 1988. L, B and D show the highest indices. The general index for EUR 12 for 1989 shows a small increase as compared to 1988.

TABLE 4.11 AVERAGE USE OF EUR 12 RAIL NETWORK

Member State	Total Transport (Mio tkm) 1989	Length of Network (1989-km)	Index of Use 1989	Total Transport (Mio tkm) 1988	Length of Network (1988-km)	Index of Use 1988
D	60614	27045	2.24	58518	27284	2.14
F	51468	34322	1.50	50574	34563	1.46
I	18560	16030	1.16	17733	16015	1.11
NL	3107	2828	1.10	3197	2828	1.13
B	8049	3513	2.29	7694	3554	2.16
L	704	272	2.59	638	272	2.35
UK	17050	16588	1.03	18444	16599	1.11
IRL	556	1944	0.29	545	1944	0.28
DK	1438	2344	0.61	1521	2476	0.61
GR	621	2479	0.25	578	2479	0.23
E	8264	12565	0.66	10513	12550	0.84
P	1558	3064	0.51	1574	3608	0.44
EUR 12	171989	122994	1.40	171529	124172	1.38

4.4. Carrying Capacity of Rolling Stock

Data on the number of wagons and total capacity for the transport of goods are assembled for all Member States for 1986, 1987, 1988 and 1989. A distinction is made between national company-owned and privately-owned cars. The data come from the statistics of the International Union of Railways. All national companies except GR and P have diminished their capacities expressed in tonnes, some of them quite significantly (NL, UK, B, D). On Community level there is a 3.3% decrease in capacity of national companies while there is a small increase to the capacity of private companies. In NL however there is a significant decrease in the capacity of private companies as well (7.5%). L shows the highest increase in the capacity of private companies.

TABLE 4.12 CARRYING CAPACITY OF ROLLING STOCK (NUMBER OF WAGONS AND TOTAL CAPACITY IN TONNES)

Member State	company	1986 number	1986 capacity	1987 number	1987 capacity	87/86	1988 number	1988 capacity	88/87	1989 number	1989 capacity	89/88
D	national	248876	8547117	233142	8106615	-5.2%	220357	7708089	-4.9%	208924	7360007	-4.5%
	private	50122	2195085	50580	2258453	2.9%	50917	2292037	1.5%	51478	2349535	2.5%
F	national	126646	5269620	108654	4583486	-13.0%	100655	4312741	-5.9%	96397	4211471	-2.3%
	private	73369	3229254	71547	3182564	-1.4%	73081	3208099	0.8%	71490	3177807	-0.9%
I	national	97998	3301878	95051	3224316	-2.3%	89161	3175897	-1.5%	87777	3165551	-0.3%
	private	12833	362691	12366	376388	3.8%	12192	345033	-8.3%	11898	339315	-1.7%
NL	national	6832	210726	6531	202790	-3.8%	6629	214550	5.8%	5262	167065	-22.1%
	private	1401	62959	1490	75829	20.4%	1481	75077	-1.0%	1441	69460	-7.5%
B	national	34791	1411110	33383	1375075	-2.6%	31972	1335217	-2.9%	29752	1271243	-4.8%
	private	2854	134401	3005	151236	12.5%	3137	175527	16.1%	3298	180082	2.6%
L	national	2555	100777	2543	100199	-0.6%	2539	100088	-0.1%	2539	99958	-0.1%
	private	113	6613	120	7317	10.6%	121	7344	0.4%	132	8186	11.5%
UK	national	33659	1061866	28884	959851	-9.6%	24972	881533	-8.2%	22013	803865	-8.8%
	private	14071	559529	14072	569157	1.7%	14341	570615	0.3%	13995	595918	4.4%
IRL	national	1912	49304	1898	48575	-1.5%	1889	48783	0.4%	1887	48743	-0.1%
	private	47	948	47	903	-4.7%	47	903	0.0%	47	903	0.0%
DK	national	4881	149048	4571	139925	-6.1%	4303	133688	-4.5%	4257	132653	-0.8%
	private	532	12861	343	9518	-26.0%	370	10485	10.2%	341	9894	-5.6%
GR	national	8901	230988	8898	230913	0.0%	9005	234088	1.4%	9148	236872	1.2%
	private									0	0	
E	national	31828	1051708	31009	1041370	-1.0%	30381	1031493	-0.9%	29818	1030293	-0.1%
	private	9397	378848	8787	354846	-6.3%	8549	345230	-2.7%	8505	343644	-0.5%
P	national	4933	136218	4991	142120	4.3%	4939	145117	2.1%	4931	146921	1.2%
	private	132	5463	114	5040	-7.7%	97	4754	-5.7%	96	4736	-0.4%
EUR 12	national	603812	21520360	559555	20155235	-6.3%	526802	19321284	-4.1%	502705	18674642	-3.3%
	private	164871	6948652	162471	6991251	0.6%	164333	7035104	0.6%	162721	7079480	0.6%

4.5. Railway Tariff Evolution

Tariff indices are computed by five railway companies (D, F, I, NL and B) based on a basket tariff for the most significant type of goods. These indices are calculated for the transport relationships among those Member States. Table 4.13 shows the change of the indices for the fourth quarter of 1989 compared to the respective quarter of 88. The higher increases are those for the relations I to D and from NL to I.

TABLE 4.13 TARIFF INDICES - VARIATION Q489 / Q488

to / from		D	F	I	NL	B
D	89		132.27	134.83	117.22	128.92
	88		130.81	148.67	117.22	128.45
	89-88		1.46	-13.84	0	0.47
F	89	136.60		181.51	140.11	152.37
	88	134.19		179.24	137.41	149.68
	89-88	2.41		2.27	2.70	2.69
I	89	133.81				
	88	128.52				
	89-88	5.29				
NL	89	119.31	126.67	147.53		145.65
	88	118.36	124.41	142.23		145.65
	89-88	0.95	2.26	5.30		0
B	89	126.90	151.94	170.01	140.46	
	88	124.58	148.48	166.00	140.07	
	89-88	2.32	3.46	4.01	0.39	

CHAPTER 5

COMBINED TRANSPORT

5.1. Sources

Data on rail container transport have been established with the assistance of Intercontainer (Société Internationale pour le transport par transcontainers), an enterprise owned by 25 European railway companies for the international carriage of containers. These data cover container movements by rail in Europe, i.e. an area wider than EUR 12.

Data on piggyback transport (combined rail/road) come from UIRR (Union Internationale des Sociétés de Transport Combiné Rail/Route).

5.2. Rail Container Transport

In 1989 Intercontainer forwarded 1120929 TEU which corresponded to a 15.1% growth over the previous year. With this upward trend for 1989, the annual container traffic broke the one million barrier for the first time since the company was founded. Loaded movements went up by 13.9% and empty runs by 18.9%. The proportion of loaded to empty movements remained stable in the ratio of 75.2 : 24.8.

The total gross weight of loaded containers shipped by Intercontainer in 1989 was 12.03 million tonnes, a figure 13.6% higher than 1988. With an average length of haul of 934 km/TEU, loaded movements rose to 10.62 billion tkm (+14.4%).

TABLE 5.1 EVOLUTION OF TOTAL CONTAINER TRAFFIC BY RAIL (in TEU)*

Year	Traffic	Increase/Decrease	Growth
1984	824750	+64000	+8.40%
1985	904803	+80000	+9.71%
1986	887083	-17720	-1.96%
1987	924798	+37715	+4.25%
1988	974066	+49268	+5.33%
1989	1120929	+146863	+15.08%

* : TEU : Twenty feet equivalent unit.

TABLE 5.2 EVOLUTION OF TOTAL CONTAINER TRANSPORT ACTIVITY BY RAIL (in '000 000 TEU-km)			
Year	Transport activity	Increase/Decrease	Growth
1984	662.9	+56.2	+9.30%
1985	749.1	+86.2	+13.00%
1986	755.6	+6.5	+0.87%
1987	794.3	+38.7	+5.12%
1988	867.2	+72.9	+9.18%
1989	1000.8	+133.6	+15.41%

TABLE 5.3 CONTAINER TRAFFIC BROKEN DOWN BY MARKET SECTOR (TEU and %)								
	Maritime traffic		Continental traffic		UK + Ireland		USSR	
Year	TEU	%	TEU	%	TEU	%	TEU	%
1984	478500	58.0	293000	35.5	32000	3.9	22000	2.7
1985	513000	56.7	330000	36.5	37500	4.2	24000	2.6
1986	492000	55.5	339750	38.3	33500	3.8	22000	2.4
1987	495750	53.6	380250	41.1	31250	3.4	17500	1.9
1988	493950	50.7	429250	44.1	35550	3.6	15300	1.6
1989	611050	54.5	463389	41.3	31677	2.8	14813	1.3

Intercontainer's two largest markets are maritime traffic (to and from seaports) and continental traffic (between two European centres). Through traffic with Great Britain and Trans-Siberian traffic constitute more marginal sectors.

Maritime traffic

Intercontainer's main growth market in 1989 was the maritime traffic. With a total of 611050 TEU traffic increased by 23.7% over the previous year, followed by a market share increase.

Continental traffic

A total of 463389 TEU were forwarded in 1989 (+8% compared to 1988), 335396 of which were loaded movements (+7.9%) and 127993 empty movements (+8%). Loaded movements at 72.4% remain at the same level with 1988. These figures also include Pool traffic, which amounts to 37514 TEU (+2.6%).

TABLE 5.4 RAIL CONTAINER TRANSPORT IN TEU

from	to	D	F	I	NL	B	L	UK	IRL	DK	GR	E	P	EUR 12	THIRD	TOTAL
	89	**48707**	**9884**	**46103**	**13844**	**14655**	**218**	**58**	**0**	**24768**	**2736**	**1414**	**101**	**162387**	**71840**	**234227**
D	88	25523	8146	36555	13428	9392	250	93	0	22508	2304	933	52	119132	73300	192432
	89/88	*+91%*	*+21%*	*+26%*	*+3%*	*+56%*	*-13%*	*-38%*		*+10%*	*+19%*	*+52%*	*+94%*	*+36%*	*-2%*	*+22%*
	89	**11568**	**13861**	**36453**	**3769**	**19038**	**1**	**430**	**0**	**2916**	**205**	**1692**	**51**	**89933**	**12422**	**102355**
F	88	7791	13584	23989	5545	17863	2	271	0	3910	282	1885	69	75122	11180	86302
	89/88	*+48%*	*+2%*	*+52%*	*-32%*	*+7%*	*-50%*	*+59%*		*-25%*	*-27%*	*-10%*	*-26%*	*+20%*	*+11%*	*+19%*
	89	**53121**	**43566**		**26452**	**34364**	**37**	**18849**	**0**	**11116**	**24**	**548**	**2**	**188077**	**31590**	**219667**
I	88	44344	31959	0	20994	24662	9	20714	3	7701	23	499	0	150908	29947	180855
	89/88	*+20%*	*+36%*		*+26%*	*+39%*	*+311%*	*-9%*	*-100%*	*+44%*	*+4%*	*+10%*		*+25%*	*+5%*	*+21%*
	89	**25807**	**4815**	**22237**	**4**	**30695**	**107**	**69**	**0**	**531**	**2065**	**779**	**0**	**87109**	**23493**	**110602**
NL	88	26233	3359	20392	4	22420	367	1	0	591	1735	554	0	75656	22855	98511
	89/88	*-2%*	*+43%*	*+9%*	*+0%*	*+37%*	*-71%*	*+6800%*		*-10%*	*+19%*	*+41%*		*+15%*	*+3%*	*+12%*
	89	**22666**	**19696**	**39565**	**32814**	**0**	**25**	**0**	**0**	**275**	**3245**	**773**	**0**	**119059**	**19812**	**138871**
B	88	19070	16775	35327	22785	0	4	0	0	799	2461	809	3	98030	18403	116433
	89/88	*+19%*	*+17%*	*+12%*	*+44%*		*+525%*			*-66%*	*+32%*	*-4%*	*-100%*	*+21%*	*+8%*	*+19%*
	89	**115**	**5**	**0**	**1558**	**1327**	**0**	**0**	**0**	**0**	**0**	**33**	**0**	**3038**	**9**	**3047**
L	88	205	6	30	2128	228	0	0	0	0	0		0	2963	14	2977
	89/88	*-44%*	*-17%*	*-100%*	*-27%*	*+482%*						*-91%*		*+3%*	*-36%*	*+2%*
	89	**84**	**314**	**11295**	**6**	**11**	**0**	**0**	**0**	**14**	**50**	**8**	**0**	**11782**	**244**	**12026**
UK	88	103	380	13619	8	3	0	2	0	0	0	0	0	14115	238	14353
	89/88	*-18%*	*-17%*	*-17%*	*-25%*	*+267%*		*-100%*						*-17%*	*+3%*	*-16%*
	89		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
IRL	88	6	0	0	0	0	0	0	0	0	0	0	0	6	0	6
	89/88													*-100%*		*-100%*
	89	**21928**	**1496**	**11628**	**390**	**488**	**0**	**15**	**0**	**0**	**0**	**278**	**1**	**36223**	**4141**	**40364**
DK	88	20002	2234	7780	350	736	0	0	0	0	2	283	0	31387	3721	35108
	89/88	*+10%*	*-33%*	*+49%*	*+11%*	*-34%*					*-100%*	*-2%*		*+15%*	*+11%*	*+15%*
	89	**739**	**339**	**45**	**594**	**1673**	**114**	**41**	**0**	**0**	**0**	**0**	**0**	**3545**	**774**	**4319**
GR	88	579	249	46	391	957	76	0	0	0	0	0	0	2298	568	2866
	89/88	*+28%*	*+36%*	*-2%*	*+52%*	*+75%*	*+50%*							*+54%*	*+36%*	*+51%*
	89	**885**	**3518**	**337**	**1162**	**1365**	**15**	**21**	**0**	**109**	**0**	**34**	**3661**	**7446**	**1137**	**8583**
E	88	753	3933	298	743	854	55	5	0	107	0	3	1215	6751	1597	8348
	89/88	*+18%*	*-11%*	*+13%*	*+56%*	*+60%*	*-73%*	*+320%*		*+2%*		*+1033%*	*+201%*	*+10%*	*-29%*	*+3%*
	89	**1**	**2**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2660**	**0**	**2665**	**34**	**2699**
P	88	0	14	0	0	0	0	0	0	0	0	1177	0	1191	20	1211
	89/88		*-86%*									*+126%*		*+124%*	*+70%*	*+123%*
	89	**185621**	**97496**	**167665**	**80593**	**103616**	**517**	**19483**	**0**	**39729**	**8325**	**8219**	**3816**	**711264**	**165496**	**876760**
EUR 12	88	144609	80639	138036	66376	77115	763	21086	3	35616	6807	6509	1339	577559	161843	739402
	89/88	*+28%*	*+21%*	*+21%*	*+21%*	*+34%*	*-32%*	*-8%*	*-100%*	*+12%*	*+22%*	*+26%*	*+185%*	*+23%*	*+2%*	*+19%*
	89	**69959**	**13525**	**40459**	**18896**	**19626**	**74**	**399**	**0**	**2635**	**247**	**1258**	**102**	**167180**	**76989**	**244169**
THIRD	88	68652	10414	36168	19715	17878	154	228	0	3109	195	897	216	157626	77038	234664
	89/88	*+2%*	*+30%*	*+12%*	*-4%*	*+10%*	*-52%*	*+75%*		*-15%*	*+27%*	*+40%*	*-53%*	*+6%*	*+0%*	*+4%*
	89	**255580**	**111021**	**208124**	**99489**	**123242**	**591**	**19882**	**0**	**42364**	**8572**	**9477**	**3918**	**878444**	**242485**	**1120929**
TOTAL	88	213261	91053	174204	86091	94993	917	21314	3	38725	7002	7406	1555	735185	238881	974066
	89/88	*+20%*	*+22%*	*+19%*	*+16%*	*+30%*	*-36%*	*-7%*	*-100%*	*+9%*	*+22%*	*+28%*	*+152%*	*+19%*	*+2%*	*+15%*

Others

Through traffic with Great Britain fell by 10.9% to 31677 TEU. This can be ascribed, according to Intercontainer, to the depressed British economy and to operating difficulties with ferry transit between the British Isles and the Continent. Trans-Siberian traffic also decreased slightly by 3.2%. However the effects of this trend are minimal since Trans-Siberian traffic only accounts for 1.3% of the total Intercontainer traffic. The company intends to explore all possible ways for developing this market. In table 5.4. the total amount of 1120929 TEU for 1989 and the total amount of 974066 TEU for 1988 are divided over EUR 12 and third countries with growth rates in %.

5.3. Road/rail Piggyback Transport

Piggyback (combined rail/road traffic) is the transport of lorries or their loading units (Swap-bodies or semi-trailers) by rail.

In combined rail/road traffic we distinguish the transport of :

1. Swap bodies with vertical loading
2. Semi-trailers with vertical and horizontal loading
3. Whole road trains with horizontal loading, accompanied by drivers in sleeping cars (rolling motorway)

Table 5.5. shows the evolution of the above techniques during the years 1984-1989. During 1989 the transport of swap bodies covered 64% of the piggyback transport in Europe. The second most frequent technique, especially in international traffic is the transport of semi-trailers in the special pocket wagons (20%). The relative decline in the number of semi-trailers carried became even more apparent in 1989 with the departure of the Swedes, who realised up to 80% of their transport by this means. While the use of swap bodies is growing in all countries, the "rolling motorway" is increasingly used above all for trans-alpine traffic.

TABLE 5.5 PROPORTION OF PIGGYBACK SYSTEMS AS PERCENTAGE OF TOTAL TRAFFIC

Year	Semi-trailers	Swap Bodies	Rolling Motorway
1984	29	61	10
1985	26	63	11
1986	27	62	11
1987	27	61	12
1988	27	60	13
1989	20	64	16

TABLE 5.6 NUMBER OF DISPATCHES IN INTERNATIONAL PIGGYBACK TRANSPORT BY COUNTRY AND COMPANY OF DISPATCH								
Country		Dispatches						Growth rate
	Company	1984	1985	1986	1987	1988	1989	89/88
D	Kombi verkehr	77600	87500	106000	116700	143200	162800	+13.69%
F	Nova trans	35045	39803	43482	52800	56900	57600	+1.23%
I	Cemat	11723	11989	15089	20100	25900	30700	+18.53%
NL	Trail star	4887	5588	6187	6500	7100	9700	+36.62%
B	T.R.W.	13810	15161	17193	17500	24900	31800	+27.71%
DK	Kombi-Dan			1024	2500	4700	6300	+34.04%
Third countries								
A	Oekombi	11244	16623	23033	29100	40800	55000	+34.80%
CH	Hupac	30783	36907	39650	42100	51700	68100	+31.72%
S	S-Combi			2700	1200	1800		
Total		185092	213571	254358	288500	357000	422000	+18.21%

The rapid increase in international traffic continued undiminished in 1990. International traffic for all the UIRR companies has doubled during the last five years.

Table 5.7. shows the national traffic figures. While national traffic continues to grow in the alpine countries of Switzerland and Austria as well as in Italy, the large volumes of national traffic in Germany and France remain static. The figures show a drop over the previous year caused by the fact that S-Combi left the UIRR.

TABLE 5.7 NATIONAL TRAFFIC CONSIGNMENT			
Company	CONSIGNMENTS 88	CONSIGNMENTS 89	1989/1988
Kombiverkehr	336500	328200	-2.47%
Novatrans	150100	152000	+1.27%
S-Combi	79800		
Cemat	52900	59500	+12.48%
Oekombi	21600	24600	+13.89%
Hupac	10700	12000	+12.15%
Kombi-Dan	2200	1500	-31.82%
T.R.W.	200	200	0.00%
Total	654000	578000	-11.62%

Table 5.8. shows the distribution of the national and international transport activity for the years 1984-1989 in thousand mio tkm. Because of the longer distances (850km) and higher weights involved, the volume of international piggyback transport in tkm in 1989 was already 50% higher than the total of all national transport, although the latter constitutes 58% of all UIRR shipments.

TABLE 5.8 TOTAL TRANSPORT ACTIVITY IN THOUSAND MIO TKM			
Year	International	National	Total
1984	4.6	5.6	10.2
1985	5.2	5.8	11.0
1986	5.8	6.7	12.5
1987	6.6	6.8	13.4
1988	7.8	7.6	15.4
1989	9.3	6.2	15.5

REPORTS OF UIRR COMPANIES

This year the UIRR celebrates its 20th anniversary. The combined transport companies which founded the UIRR twenty years ago laid the foundation, with the railways, for the development of combined transport in Europe. The UIRR expects the real breakthrough for combined transport in Europe to take place in the 90's. In recent years the UIRR has worked successfully to improve the service offered by combined transport. This form of transport became a real alternative to pure road transport in most Western European countries. As a result of growing European integration, international shipments now represent over 50% of all combined transport activity (in tkm). The international market has become more important than national markets.

FEDERAL REPUBLIC OF GERMANY

Kombiverkehr is faced with new tasks as a result of German unification. Piggyback transport gets underway in the autumn of 1990 in the former GDR. In 1989 the increase in capacity could no longer keep pace with the rising interest in combined transport. Shortages of wagons, waiting lists and train delays were the result. The company responded by ordering new wagons and is in the process of setting up a centralised control system for all combined transport wagons.

FRANCE

Novatrans saw a continuation of growth in international traffic in 1989. Falling prices in the road haulage market put a brake on the growth of domestic traffic. Involvement in the tank container and chemicals sector began to bear fruit and resulted in an 11% share of the total traffic.

ITALY

Cemat again achieved high growth in 1989. Customer interest in combined transport was increased through the opening of new terminals in Bologna and Prato as well as in Desio in cooperation with Hupac.

THE NETHERLANDS

Trailstar attracted considerable new traffic following the opening of the piggyback terminal in Ede the previous year. The search for a location for a further terminal in North Brabant, in the south-east of the Netherlands, is already underway.

BELGIUM

T.R.W. which celebrates its 25th birthday in 1990, has developed so well in recent years that mere extensions of terminals are no longer sufficient. Planning for a further terminal in the Antwerp region has already started.

DENMARK

Kombi-Dan was also again able to demonstrate excellent growth during its fourth year of business in 1989. Great emphasis is placed on service : the first implementation stage of the new computerised system, which is intended to make access to piggyback transport as unbureaucratic as possible, allows orders to be paid automatically by direct debit.

SWITZERLAND

Hupac was able to increase its traffic by over 20% in 1989. This was achieved by putting into use the terminal of Desio which relieved the heavily loaded terminal at Busto Arsizio to the north of Milan. Hupac has introduced strategic measures so as to make the Swiss Government's plans for a rail corridor effective.

AUSTRIA

OeKombi consistently introduced block trains on major national and international routes. These improvements led to sizeable increases in unaccompanied traffic. There were also high growth rates on the "rolling motorway", enabling OeKombi to achieve its biggest increase in traffic since it was set up.

SWEDEN

Swe-Kombi was founded in 1989 on the initiative of Swedish road hauliers. Swedish railways, SJ, has a 10% stake in the company. This meant the end of the direct marketing of piggyback transport which had been introduced in 1988 with takeover of the predecessor company S-Kombi by SJ. Swe-Kombi began operating in March 1990 and is initially going to develop connections with Denmark and Germany.

5.4. Other Relevant Studies

A study on the combined transport between the Nordic countries and the Continent was awarded by the Commission of the European Communities in December 1988. The analysis was conducted by COWI consult in partnership with a steering committee representing the Scandinavian Link Consortium and the managements of the four national railway authorities. In 1989, the railways transported via combined transport 2 million tonnes of goods between the Nordic countries and the Continent. In 1995 the corresponding volume is foreseen to be 5 million tonnes, which will be spread as follows :

France	486000 tonnes
Germany	2139000 tonnes
Italy	1270000 tonnes
Austria	268000 tonnes
Switzerland	466000 tonnes
Spain	293000 tonnes
Benelux	298000 tonnes

The study is subdivided in three parts :

1. Combined traffic today
2. Analyses of alternative combined transport systems
3. Economic appraisal of the combined transport system proposal by the Scandinavian Link Consortium.

In the summary report of the analysis of the combined transport systems three phases are presented. Phase I provides for the establishing of block trains in Denmark for goods from all Nordic countries to the Continent. The establishing of block trains in Denmark will take place on two turn-tables. One located in Jutland (Taulov) and the other to be built in Copenhagen (Hoje Taastrup). Danish State Railways (DSB) is planning the turn-table in Copenhagen as a part of the new terminal for combined goods. In phase II a turn-table will be established in the southern part of Sweden. Finally phase III will investigate the need to establish a turn-table in the northern part of Germany in order to facilitate the transport of goods to and from Finland.

The internal transport committee of the United Nations Economic Commission for Europe (ECE) has adopted a European agreement on the main lines of international combined transport and connected installations. The agreement creates a legal framework for international combined transport services, in particular road/rail transport. The agreement gives all the major European railway lines used for international combined transport, it identifies terminals, the frontier cross points and ferry connections. It establishes the internationally recognised infrastructure norms and fixes the efficiency parameters internationally recognised for trains and installations.

In the summer of 1988 the Commission of the European Communities awarded a study on the prospects for international combined transport (ICT). The objective of the study was to draw up a development plan for combined transport up to the year 2000. The results of the study were presented to the public at the Euromodal Exhibition in Brussels at the beginning of 1990. The study was the combined product of research carried out by the Community of European Railways, the UIRR, Intercontainer and the consultant A.T. Kearney. According to the study, it is considered possible that the volume of ICT could be trebled by the year 2005 if a series of conditions are met.

SOURCES

Road

* tonnages
  SOEC (Luxembourg) Directive 78/546
  Community Quota Statistics
* infrastructure and transport supply
  United Nations
  ECMT
  IRF
* cost survey
  Centro Studi sui Sistemi di Trasporto
* price survey
  D : BAG (Bundesanstalt für den Güterfernverkehr)
  F : Observatoire Economique et Statistique des Transports
  I : ISTEV
  NL : NIWO
  B/L : Institut du Transport Routier
  GR : Metrix
  E : Consultrans
* opinion survey
  D : Sample Institut - Mölln
  F : Observatoire Economique et Statistique des Transports - Paris
  I : ISTEV - Roma
  NL : Stichting NEA - Rijswijk
  B & L : Institut du Transport Routier - Bruxelles
  UK : Halcrow Fox & Associates / Accent Marketing & Research - Bristol
  IRL : The Economic and Social Research Institute - Dublin
  DK : Danmarks Statistik - Kobenhavn
  GR : National Statistical Service of Greece - Athinai
  E : Consultrans - Madrid

Inland Waterways

* tonnages
  SOEC (Luxembourg) Directive 80/1119
  CCR (Commission Centrale pour la Navigation du Rhin)
* market situation
  NL : Stichting NEA - Rijswijk
  D : Bundesverband der Deutschen Binnenschiffahrt
  F : ONN (Office National de la Navigation)
  B : ITB (Institut pour le Transport par Batellerie)
* opinion survey
  Rhine : CCR (Commission Centrale pour la Navigation du Rhin)
  North/South : NL : Stichting NEA - Rijswijk
  B : ITB (Institut pour le Transport par Batellerie)

Railways

* tonnages
  SOEC (Luxembourg) Directive 80/1177
* network and carrying capacity
  International Union of Railways
* tariff indices
  D : DB (Deutsche Bundesbahn)
  F : SNCF (Société Nationale des Chemins de fer Français)
  NL : NS (Nederlandsche Spoorwegen)
  B : NMBS - SNCB (Société Nationale des Chemins de fer Belges)

Combined Transport

* container traffic
  Intercontainer - Basel
* Piggy-back
  UIRR - Bruxelles

European Communities — Commission

Annual report - 1989

Luxembourg: Office for Official Publications of the European Communities

1992 — 114 p — 21.0 X 29.7 cm

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Price (excluding VAT) in Luxembourg ECU 9.00

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