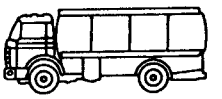
EUROPEAN COMMUNITIES

EUROPA TRANSPORT





OBSERVATION OF TRANSPORT MARKETS

ANNUAL REPORT
1985

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PRESENTATION OF THE 1985 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 1985" are as follows :

Chapter 1 : General Assessment and Prospects
All 3 modes.

Chapter 2 : Road

2.1. Intra EUR-10 international road activity in 1985
2.2. Detailed analysis of the intra EUR-10 international road haulage market in 1984
2.3. Cross-trades, an analysis of the multilateral intra EUR-10 international road haulage market in 1984 and 1985
2.4. Traffic with Spain and Portugal (tonnages)
2.5. Transport Inquiry Surveys
2.6. Cost indices
2.7. Price indices.

Chapter 3 : Inland Waterways

3.1. and 3.2. :
Inland Waterways transport activity (1985)
3.3. Inland Waterways transport by commodity groups
3.4. Inland Waterways transport by transport market
3.5. Fleet developments
3.6. Inland Waterways transport by flag
3.7. Transport inquiry survey
3.8. Cost and price indices.

Chapter 4 : Rail

4.1 and 4.2. :
Intra EUR-10 international activity in 1985
4.3. Spain and Portugal
4.4. Railway Tariff Indices

Chapter 5 : Combined Transport

5.1. Container transport (1985)
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Chapter 6 : 3 Modes
Intra Eur-10 tonnages (1984) by 24 commodities

Chapter 7 : 3 Modes
Intra EUR-10 tonnages international (1984)
modal share by relation

CHAPTER 1

General market assessment and prospects - All modes

1.1 Volumes of International transport within the Community

In 1985 total intra-Community transport went up by 1.1%. This outcome is a little disappointing after the strong growth (+6.4%) in the previous year, particularly taking into account the general economic situation being slightly better than in 1984: GDP growth at EUR-10 level went up from +2.2 to +2.3%.

The evolution by mode was very different. International road traffic developed in line with the expectations: +4.9% compared to +4.7% in 1984. Rail and inland waterways, however, could not maintain the growth rates recorded in the previous year.

In the case of rail the growth was only 2.4%, but this must be regarded as still fairly satisfying after the exceptional strong growth (+15%) in 1984. Rail activity is closely linked to the development of basic industries like steel, coal and chemicals. The figures reflect that the strong recovery of these industries in 1984 has been followed by a less expansive period.

The inland waterway sector depends, just like rail, strongly on the evolution in certain basic sectors of the economy. Nevertheless, the evolution of water traffic has been quite different from rail, which is mainly caused by the exceptional unfavourable weather conditions for this mode. The strong frost in the first quarter of 1985 made navigation impossible for some time on a part of the network. Secondly, the extremely low water levels on the Rhine in the last quarter caused an additional loss of traffic. The final outcome of these effects is a decrease in international traffic by 3.2% compared to 1984.

Table 1.1 Annual EUR-10 tonnage flows by mode of transport (mio tonnes)

Mode \ Year	1980	1981	1982	1983	1984	1985 (provisional)
Road	168.1	169.7	174.7	180.5	189.0R	198.3
Rail	78.6	70.2	61.3	60.4	69.5	71.2
I.W.	190.5	183.6	176.9	182.5	192.0	185.8
Total	437.2	423.5	412.9	423.4	450.5R	455.3

Table 1.2 Annual growth rates - EUR-10 tonnage flows (%)

Mode \ Year	1980/79	1981/80	1982/81	1983/82	1984/83	1985/84 (provisional)
Road	+ 3.3	+ 0.9	+ 2.9	+ 3.3	+ 4.7 R	+ 4.9
Rail	- 5.7	- 10.7	- 12.7	- 1.4	+ 15.0	+ 2.4
I.W.	- 2.0	- 3.6	- 3.6	+ 3.2	+ 5.2	- 3.2
Total	- 0.7	- 3.1	- 2.5	+ 2.5	+ 6.4 R	+ 1.1

Table 1.3 Differential growth rates (Modal growth rate minus Total growth rate)

Mode \ Year	1980/79	1981/80	1982/81	1983/82	1984/83	1985/84 (provisional)
Road	+ 4.0	+ 4.0	+ 5.4	+ 0.8	- 1.7 R	+ 3.8
Rail	- 5.0	- 7.6	-10.2	- 3.9	+ 8.6 R	+ 1.3
I.W.	- 1.3	- 0.5	- 1.1	+ 0.7	- 1.2 R	- 4.3

R = Revised figures.

1.2 Modal split

Table 1.4, which gives the annual modal split development, shows the increasing market share of road - mostly at the expense of rail - in the period 1979 till 1983. In this respect, 1984 was an exceptional year, but in 1985 the trend picked up again - now at the expense of inland navigation. For the first time in history inland waterways lost its first position in the competition between modes in EUR-10 international traffic. Taking into account that inland waterways only exists in traffic between 5 of the 10 Member States (D, F, NL, B, L), it must be noted that this mode is still leading in the part of Europe where a waterway infrastructure is available (see chapter 7).

Table 1.4 Modal split evolution (EUR-10)

Year	Road %	Rail %	I.W. %	Total %
1980	38.4	18.6	43.6	100
1981	40.1	16.6	43.3	100
1982	42.3	14.9	42.8	100
1983	42.6	14.3	43.1	100
1984	42.0	15.4	42.6	100
1985 (provis.)	43.6	15.6	40.8	100

1.3 Forecast for 1986 (EUR-10 international transport)

Mode	Tonnage 1985 (mio tonnes)	Forecasted growth rate (%)	Expected volumes 1986 (mio tonnes)
Road	198.3	+ 7.1	212.4
Rail	71.2	+ 2.5	73.0
I.W.	185.8	+ 4.1	193.4
Total	455.3	+ 5.2	478.8

The trend in road traffic with ever increasing growth rates since 1982 (see table 1.2) is expected to continue. The growth in rail traffic is expected to be the same as in 1985 while for inland waterways a recovery is foreseen after the drop in activity of last year. Growth of total activity is expected to be 5.2%, which is fairly close to the +6.4% registered in 1984.

CHAPTER 2

ROAD

Contents

The contents of Chapter 2 can be summarized as follows :

§ 2.1 : Intra EUR-10 international road activity in 1985
§ 2.2 : Detailed analysis of the intra EUR-10 international road haulage market in 1984
§ 2.3 : Cross-trades, an analysis of the multilateral intra EUR-10 international road haulage market in 1984 and 1985.
§ 2.4 : Traffic with Spain and Portugal - tonnages.
§ 2.5 : Transport Inquiry Surveys
§ 2.6 : Cost Indices Road
§ 2.7 : Price Indices Road.

2.1 Intra EUR-10 international road activity in 1985

2.1.1 Introduction

International road transport between the Member States continued to grow strongly in 1985 and the increase is provisionally estimated to have been 4.9%. This increase is almost identical to the previous year (+4.7%) and follows from similar increases in industrial production (+3.2% in 1985 against 2.7% in 1984). Road transport resumed its traditional position as being the mode with the highest growth rate.

The growth of traffic between the Member States was fairly uniform and the usual higher growth for the peripheral Member States only occurred for outward Irish traffic; indeed both inward and outward Greek traffic actually fell in 1985. Outward traffic from Germany continued to grow more strongly than inward traffic but France, Netherlands and Denmark all had faster growth of inward traffic in 1985.

Annual data for 1985 at Community level from the Road Directive is only available several months after the completion of this Report. However, pending an extension of the Directive to supply simple quarterly data more quickly, comments on 1985 continue therefore to be based on national sources.

2.1.2 Analysis by country of hauliers

German hauliers

German hauliers performance in 1985 continued to be reasonably successful. Overall traffic to and from Germany rose by 5.4% (7.9% outwards, 2.9% inwards) and the German hauliers share of this traffic was more or less maintained (slight drop in the outward direction). Consequently German hauliers carryings overall were up 5.0%, almost exactly the Community average.

German outward traffic to all Member States grew by more than 6% except for Greece (5% down) and UK (only 3% up); the largest increase was to Denmark (up 13%). The German share of outward traffic however fell slightly on all relations except Denmark and UK; tonnage carried by German hauliers to Denmark rose over 21%.

German hauliers share of inward traffic from France and Italy fell so that tonnage carried was virtually unchanged despite 2% and 3.5% increases in total tonnage respectively. In the case of inward traffic from Belgium and Netherlands, total tonnage increased by 3.5% in each case, and with an increasing German share, tonnages carried by German hauliers rose about 5%.

French hauliers

Accordingly to French Customs sources traffic to and from France grew more than the Community average (8.4% inwards, 5.2% outwards). However as the French share of this traffic fell by almost 1% (inwards) and by almost 2% (outwards), the growth of tonnage carried by French hauliers was less than the Community average.

The growth of inward traffic from Germany was up more that 11% and on this relation French hauliers increased tonnage by 14%, however on the relation with Netherlands and Belgium/Luxembourg growth of tonnage by French hauliers was 5-6% less than the growth of total tonnage.

For outward traffic the share of French hauliers fell on the German, Dutch and Belgian/Netherlands relations and on the German relation tonnage carried by French hauliers actually fell 2% despite a 4% increase in total tonnage carried.

Italian hauliers

According to Italian foreign trade data, 1985 was a very bad year for Italian hauliers. Whereas total inward and outward tonnage increased by over 4%, tonnages carried by Italian hauliers fell (down 3% inwards, down 9% outwards). Consequently the Italian share fell from 34% to 31.5% in the inward direction, and even faster from 48% to 42% in the outward direction. The fall in the outward direction is even more dramatic when one recalls that the Italian share was 56% in 1983.

For inward traffic, Italian hauliers increased their tonnage and share the traffic with Germany and Denmark, but on the important French relation, Italian hauliers share fell from 35% to 32%. Italian hauliers were particularly struck by the sharp fall in the Greek market.

For outward traffic, Italian hauliers saw their share reduced on all relations and only on the Dutch relation did Italian hauliers manage to increase their tonnage.

Dutch hauliers

The data analysed here are from the Centraal Bureau voor de Statistiek (CBS) which cover both Dutch and other hauliers; the results however have to be treated with some caution because of the high proportion of "nationality unknown". Improved coverage has also been given to the relation with Belgium/Luxembourg in 1985, but comparable 1984 figures are not available.

Ignoring the Belgium/Luxembourg relation, Dutch hauliers had a very positive year in tonnage terms (not necessarily in profits (see Chapter X). Not only did total traffic increase by 9.2% inwards and 6.1% outwards, but the Dutch hauliers increased their market share on all relations. The improved Dutch share was particularly noticeable on the relations with France (up 3% in each direction) and with UK (up 3% inwards, up 6% outwards); indeed on the UK relation there has been a steady and substantial increase in the Dutch share since 1982.

According to the Belgian/Luxembourg sources, there was a 17% drop in total tonnage from the Netherlands (a figure to be treated with some reserve) and a 10% increase in total tonnage to the Netherlands. In 1985, the Dutch had 76% of the outward traffic and 65% of the inward traffic according to Dutch sources, comparable figures for 1984 are not available.

Belgian and Luxembourg hauliers

The Belgian/Luxembourg foreign trade data contains no subdivision by nationality of hauliers (subdivision expected as from 1988). Information on Belgian and Luxembourg hauliers is thus only available for 1985 from the partner countries concerned.

In the case of the German market it is possible to distinguish between the traffic with Belgium and with Luxembourg. The market between Belgium and Germany grew by just over 5%, but with a slight fall in market share, tonnage carried by Belgian hauliers grew by 5%. The market between Luxembourg and Germany grew by 9% and with the Luxembourg share increasing by 2%, the Luxembourg hauliers had a very good year, tonnage carried increasing by over 13%.

The French market grew by 7.5% and with an increasing share, Belgian and Luxembourg hauliers increased their tonnage carried by over 11%.
On the Italian market, Belgian and Luxembourg hauliers obtained most of the small extra tonnage avaiblable on outward traffic and recorded a substantial improvement on inward traffic (+23%).
Data for the Dutch market are only available for 1985, this showed that Belgian and Luxembourg hauliers had 24% of the inward tonnage and 35% of the outward tonnage.
From this information, it appears that 1985 was again quite a successful year for Belgian and Luxembourg hauliers.

United Kingdom hauliers

The analysis here relates to the Road Goods Vehicle survey on Ro-Ro ferries to mainland Europe, this however only relates to vehicle movements and not tonnages.

The total number of vehicle movements rose by 11%, the largest increase since 1982. The main increase however was in unaccompanied trailers (up 16%) for which the nationality is not recorded. For powered vehicles, the overall increase was 5% but UK registered vehicles fell 2% and foreign registered vehicles rose 11%. UK registered vehicles only had 40% of the market in 1985.

Data from this survey gives country of port of destination of the ferry service but not of the goods vehicles. On this basis, the small traffic to Denmark/Germany ports showed the largest increase (up over 60%) and among the major destinations traffic to Belgian ports (up early 10%) increased faster than that to French ports (up 7.5%) and Dutch ports (up 3%). Although this data is available for powered vehicles and unaccompanied trailers separately, the powered vehicle data is not published split by UK/other registered vehicles and ports of destination.

Irish hauliers

Information is taken from Irish sources on total outward Ro-Ro traffic (i.e. excluding traffic with or via Northern Ireland) and also excluding company owned trailer traffic. Recent experience shows that the ratio of inward/outward traffic is particularly volatile for the Irish market and care must be therefore exercised in interpreting these results for the whole Irish market.

Outward Ro-Ro traffic showed a substantial fall of 22% in 1985 completely offsetting the substantial advance made in 1984,. Weak results were obtained on all relations especially on the Italian (down 32%), Benelux (down 25%) and the important UK market (down 27%). The importance of UK as a destination continued to decline to 40% of all tonnage.

Danish hauliers

Information from Danish foreign trade sources shows the growth of inward traffic by road continuing to increase by almost 10% in 1985, however outward traffic continued to fall slightly, by almost 2%.

Traffic with Germany continued to account for 60% of Danish intra-Community road transport, and the changes in 1985 were similar to the total traffic, i.e. up 12% for inward traffic from Germany and down 3% for outward traffic to Germany. According to German sources, however, the Danish hauliers lost about 3.5% of the total market in each direction so that tonnage carried by Danish hauliers was virtually unchanged.

Danish hauliers also had poor performance on the French market, but a 10% increase in Danish powered vehicles was observed on the Ro-Ro ferries with UK.

Altogether it would seem a rather disappointing year for Danish hauliers.

Greek hauliers

According to Greek sources, traffic with other Member States fell by 2% in 1985.

Traffic between Greece and Germany, which accounts for just over half of total Greek traffic with the Community, fell by 1% according to Greek sources (by almost 6% according to German sources), and carryings by Greek hauliers fell by over 10% due to a substantial increase in cross-trading (essentially Jugoslavian and Austrian vehicles) according to German sources.

Traffic with Italy declined (outward traffic by 21%, inward by 4%) so that the exceptional growth of the previous year was not held. According to Italian sources, Greek hauliers did even worse.

Traffic with Netherlands (the third largest market) advanced 2%.

1985 was thus a rather disappointing year for Greek hauliers.

2.2 Detailed analysis of the intra EUR-10 international road haulage market in 1984

2.2.1 Introduction

As explained earlier, the data currently available for 1985 are taken from many different sources and do not permit a detailed structural analysis to be carried out with sufficient consistency and reliability.

The most extensive comparable data currently available relate to those collected for the Road Statistical Directive for 1984.

Note that:

a) bilateral traffic is covered by the Directive but that cross-trade traffic is not (= traffic by haulier from Member State A between Member State B and Member State C).

b) Tonnages for Italian hauliers relate to foreign trade statistics; the tonne-kilometres have been estimated assuming that the average distance to each Member State is the same as that of the hauliers from the partner country.

c) Tonnages for Luxembourg hauliers relate to 1982 since the 1983 and 1984 figures from the Directive have not yet been delivered to the SOEC.

   Tkm for Luxembourg hauliers are estimates based on 1982 Statec statistics.

d) 1981 and 1982 datas for French hauliers (for both national and international traffic) have been revised on basis of correcting factors supplied by the French Ministry of Transport.

e) The figures for the UK are particularly sensitive to the problem of unaccompanied semi-trailers which are not recorded in the road Directive statistics and should consequently be treated with some reserve. Further UK-traffic across the Northern Ireland/Republic of Ireland land boundary is excluded, this exaggerates the apparent share of Irish hauliers both to UK and EUR-10 total (table 2.5).

2.2.2 Intra EUR-10 international road traffic - Tonnages

Table 2.1 Total international bilateral traffic by relation: year 1984 and % evolution on 1983

'000 TONNES

From \ To	D	F	I	NL	B	L	UK	IRL	DK	GR	EUR 10
D		9 193 - 2.5%	4 887 3.6%	17 100 7.4%	7 932 11.0%	797 3.1%	712 11.6%	44 -10.2%	2 181 8.3%	327 4.5%	43 173 5.3%
F	11 818 8.5%		5 637 9.4%	2 506 4.8%	10 156 10.9%	415 - 8.8%	1 734 4.5%	55 -17.9%	281 8.5%	93 43.1%	32 695 8.6%
I	6 116 - 7.9%	4 988 - 3.2%		968 - 3.2%	1 069 - 3.5%	15	1 171 - 5.0%	62 - 4.6%	231 6.0%	303 - 0.3%	14 923 - 5.2%
NL	16 329 3.7%	3 794 1.9%	1 689 26.4%		9 749 7.2%	160 -10.6%	697 15.0%	31 138.5%	556 12.3%	109 7.9%	33 114 5.8%
B	8 155 2.0%	13 822 9.2%	1 254 19.0%	12 508 0.6%		1 087 6.0%	399 23.9%	6 -57.1%	195 - 2.0%	34 - 5.6%	37 460 4.8%
L	1 352 0.3%	525 -19.4%	15	177 - 8.3%	902 12.2%		6 100.0%	-	-	1	2 978 - 1.2%
UK	532 0.4%	1 047 0.2%	825 27.1%	354 4.1%	248 15.9%	10 150.0%		635 -21.0%	135 15.4%	28 33.3%	3 814 2.4%
IRL	27 -34.1%	101 20.2%	35 25.0%	13 8.3%	8 -11.1%	-	575 25.0%		3 -40.0%	1 -85.7%	763 18.1%
DK	2 641 - 4.0%	242 - 4.7%	239 - 0.8%	351 4.2%	123 30.9%	-	496 - 1.6%	18 28.6%		31 - 3.1%	4 141 - 2.1%
GR	381 10.4%	66 10.0%	520 38.3%	70 12.9%	19 0%	-	22 46.7%	-	13 - 7.1%		1 091 22.3%
EUR-10	47 351 2.3%	33 778 2.2%	15 101 11.3%	34 047 4.2%	30 206 9.3%	2 484 1.3%	5 812 6.9%	851 -17.1%	3 595 8.3%	927 5.3%	174 152 4.7%

Table 2.2

International traffic per relation by hauliers registered in the country of unloading: Year 1984 and % evolution on 1983

'000 TONNES

From \ To	D	F	I	NL	B	L	UK	IRL	DK	GR	EUR 10
D		4258	2193	11771	3890	402	422	30	1240	280	24486
		-6.9%	1.0%	6.4%	16.8%		1.7%	-21.1%	4.4%	2.2%	4.4%
F	6597		2541	1732	6250	153	594	48	202	32	18149
	-1.7%		10.8%	5.9%	13.6%		-4.8%	-21.3%	1.0%	-11.1%	5.4%
I	2901	2496		630	614	15	418	31	141	117	7363
	-1.7%	3.2%		11.7%	12.7%		6.4%	14.8%	10.2%	24.5%	3.2%
NL	4018	1199	732		2419	25	291	26	207	94	9011
	2.4%	0.1%	33.1%		11.3%		0.7%	160.0%	10.7%	5.6%	6.7%
B	3412	4979	477	8045		559	355	6	143	34	18010
	0.4%	10.6%	15.5%	1.9%			17.2%	-45.5%	-3.4%	-5.6%	4.3%
L	975	350		102	491		6	-		1	1925
	0.4%	-26.5%		-13.6%	24.9%		100.0%				-1.9%
UK	172	531	425	159	8	-		516	131	11	1953
	28.4%	6.8%	52.3%	35.9%	60.0%			-24.0%	17.0%	10.0%	6.5%
IRL	9	3	20	4		-	55		3	-	94
	28.6%	-76.9%	81.8%	100.0%			1.9%		0%		4.4%
DK	741	41	58	226	50	-	2	-		6	1124
	8.2%	28.1%	3.6%	1.8%	92.3%		-50.0%			-40.0%	8.4%
GR	29	21	385	5	0	-	3	-	8		451
	-6.5%	40.0%	32.3%	-16.7%	0%		200.0%		-11.1%		27.8%
EUR-10	18854	13878	6831	22674	13722	1154	2146	657	2075	575	82566
	0.2%	1.1%	12.6%	4.9%	14.6%		2.9%	-20.7%	5.1%	4.5%	4.8%

Table 2.3

International traffic per relation by hauliers registered in the country of loading: Year 1984 and % evolution on 1983

'000 TONNES

From \ To	D	F	I	NL	B	L	UK	IRL	DK	GR	EUR 10
D		4935	2694	5329	4042	395	290	14	941	47	18687
		1.7%	5.8%	9.8%	5.9%	6.5%	30.0%	27.3%	13.9%	20.5%	6.5%
F	5221		3096	774	3905	262	1140	7	78	61	14544
	24.7%		8.2%	2.2%	6.8%	-13.2%	10.1%	16.7%	32.2%	103.3%	12.8%
I	3215	2492		338	455		753	31	90	186	7560
	-12.8%	-8.9%		-22.5%	-19.2%		-10.3%	-18.4%	0%	-11.4%	-12.1%
NL	12311	2595	957		7330	135	406	5	349	15	24103
	4.2%	2.8%	21.8%		5.9%	-12.3%	28.1%	66.7%	13.3%	25.0%	5.5%
B	4743	8843	777	4464		528	44	-	52	0	19451
	3.2%	8.4%	21.2%	-1.6%		13.3%	131.6%		2.0%	0%	5.3%
L	377	175	15	75	411		-	-	-	-	1053
UK	360	516	400	196	240	10		119	4	17	1862
	-9.1%	-5.8%	8.1%	-12.1%	14.8%	150.0%		-4.8%	-20.0%	54.5%	-1.5%
IRL	18	98	15	9	8	-	520			1	669
	-47.1%	38.0%	-11.8%	-10.0%	-11.1%		28.1%			-85.7%	20.3%
DK	1900	201	181	125	73		494	18		25	3017
	-8.1%	-9.5%	-2.2%	8.7%	7.4%		-1.0%	50.0%		13.6%	-5.4%
GR	352	45	135	64	19	-	18	-	4		637
	12.1%		58.8%	14.3%	0%		28.6%		-20.0%		18.2%
EUR-10	28497	19900	8270	11374	16483	1330	3665	194	1518	352	91583
	3.7%	3.0%	10.2%	2.8%	5.2%	2.5%	9.3%	-2.0%	12.8%	6.3%	4.6%

Table 2.4 Shares of the market held by hauliers from EUR-10 on intra EUR-10 international journeys

Tonnages

Member State	IN + OUT = Total	% change 1984/1983	Share % 1982	1983	1984
D	18 854 + 18 687 = 37 541	+ 3.3	22.1	21.9	21.6
F	13 878 + 14 544 = 28 422	+ 6.8	16.7	16.0	16.3
I	6 831 + 7 560 = 14 391	- 1.9	8.2	8.8	8.3
NL	22 674 + 24 103 = 46 777	+ 5.2	26.9	26.7	26.9
B	13 722 + 19 451 = 33 173	+ 9.0	18.2	18.3	19.0
L('82)	1 154 + 1 053 = 2 207	NA	1.4	(1.3)	(1.3)
UK	2 146 + 1 862 = 4 008	+ 0.8	2.2	2.4	2.3
IRL	657 + 669 = 1 326	- 4.2	0.7	0.8	0.8
DK	2 075 + 3 017 = 5 092	- 1.4	2.9	3.1	2.9
GR	575 + 637 = 1 212	+11.3	0.6	0.7	0.7
EUR-10	82 566 + 91 583 = 174 149	+ 4.7	100	100	100

Table 2.1 shows an overall increase of +4.7% of the tonnage moved in 1984, compared with 1983.

Significant increases were noted for traffic to Belgium, from France and from Greece; flows concerning following Member States contrasted strongly by direction, namely:

traffic	to	I	+11.3%
	from	I	- 5.2%
	to	DK	+ 8.3%
	from	DK	- 2.1%
	to	IRL	-17.1%
	from	IRL	+18.1%

Tables 2.2 and 2.3 lead to the results of table 2.4 where the market share, per Member State of haulier, is expressed for 3 consecutive years.

For 1984, Irish, Danish, Italian and British hauliers lost market share. Greek, Belgian and French hauliers improved their market share.

The detail, by transport relation, is given in table 2.5.

Table 2.5 Percentage share of traffic (in tonnes) held by hauliers from "origin" Member States (1) (2)

From \ To	Year	D	F	I	NL	B	L	UK	IRL	DK	GR	Total EUR - 10
D	82		58	55	30	54	51	34	50	41	14	44
	83	-	52	54	31	53	-	35	22	41	13	43
	84		54	55	31	51	-	41	32	43	14	43
F	82	39		61	30	38	55	61	6	27	56	43
	83	38	-	56	32	40	-	62	9	23	46	43
	84	44		55	31	38	-	66	13	28	66	44
I	82	56	53		49	49		73	47	44	63	55
	83	56	53	-	44	50		68	59	41	69	55
	84	53	50		35	42		64	50	39	61	51
NL	82	75	68	64		78	78	46	8	61	17	74
	83	75	68	59	-	76	-	52	23	62	12	73
	84	75	68	57		75	-	58	16	63	14	73
B	82	57	59	64	35		47	8	0	21	0	50
	83	58	64	61	37	-	-	6	21	26	0	52
	84	58	64	62	36		-	11	0	27	0	52
L	82	28	21		59	62		0	0			36
	83	-	-		-	-	-	-	-			-
	84	-	-		-	-		-	-			-
UK	82	78	55	56	71	94	100		17	4	44	53
	83	75	52	57	66	98	-	-	16	4	52	51
	84	68	49	48	55	97	-		19	3	61	49
IRL	82	71	94	57	100	100	-	89		0	-	88
	83	83	85	61	83	100	-	88	-	40	100	86
	84	67	97	43	69	100	-	90		0	100	88
DK	82	75	80	73	33	76		99	100		70	75
	83	75	87	77	34	72		99	86	-	69	76
	84	72	83	76	36	59		99	100		81	73
GR	82	89	59	60	85	100		87	-	40		78
	83	91	75	23	90	100		93	-	36	-	60
	84	92	68	26	93	100		86	-	33		59
EUR-10	82	59	58	59	33	57	51	61	20	40	35	53
	83	59	59	55	34	57	-	62	19	41	38	53
	84	60	59	55	33	55	-	63	23	42	38	53

Since table 2.5 only relates to "bilateral" traffic, the sum of the shares of traffic held by hauliers from the "origin" and "destination" country is necessarily 100%; hence the shares of traffic by hauliers from "the destination" country can be obtained by subtracting the share held by the "origin" country in table 2.5 from 100%. Example D hauliers have 56% of the traffic from F to D and 40% of the EUR-10 traffic to D (in 1984).

(1) Italian, Danish and Greek data give no breakdown between Belgium and Luxembourg; in compiling the marginal EUR-10 totals, the traffic for these 3 Member States is assumed to be with Belgium.

(2) This table includes revised French figures for 82.

Table 2.6. Outward/Inward tonnage ratios by country of haulier

Member State of haulier	Ratio OUT/IN 1982	1983	1984
D	.95	.93	.99
F	.90	.94	1.05
I	1.66	1.42	1.11
NL	1.09	1.06	1.06
B	1.48	1.54	1.42
(L)	.91	(.91)	(.91)
UK	.87	.91	.87
IRL	.75	.67	1.02
DK	1.58	1.62	1.45
GR	1.01	.98	1.11
EUR-10	1.12	1.11	1.11

Table 2.6 shows the ratio of outward/inward tonnages by country of haulier. A high ratio indicates difficulties in obtaining backhauls, a ratio close to 1.0 indicates well-balanced traffic and a low ratio that hauliers have to make empty journeys outwards to obtain return loads. It should be noted that this is a rather "simple" indicator which ignores both the fact that specialized vehicles may not find suitable backhauls and the fact that the volume/weight ratios may be different in the two directions.

The results of Table 2.6 show that the overall outward/inward ratio remains very stable at 1.11 but that the spread of ratios around this average has been much reduced (unweighted standard deviation is 0.19 compared to 0.33 in 1982 and 0.32 in 1983), i.e. the very high ratios of Italy, Belgian and Denmark have been reduced (especially Italy) in 1984 and the very low ratio of Ireland has increased.

Compared with 1983, the main changes of the OUT/IN-ratios were as follows:

Member State	Change 84/83	Explanation
F	+0.11	+ 12.8% outwards
I	-0.31	+ 12.6% inwards - 12.1% outwards
B	-0.12	+ 14.6% inwards
IRL	+0.35	- 20.7% inwards + 20.3% outwards
DK	-0.17	+ 5.1% inwards - 5.4% outwards
GR	+0.13	+ 18.2% outwards

Shares of the road haulage market held by own account operators

The results from the Road Statistical Directive give a breakdown between "hire and reward" and "own-account" operators.
Table 2.7. gives the share, in tonnes, for own-account hauliers.
The Italian foreign trade data does not contain such a breakdown.

Table 2.7. Share of market held by own-account operators on intra-community journeys (x '000 tonnes).

Member State	Inwards from EUR-10 1984	Outwards to EUR-10 1984	Total 1984	Share in % of own account			
				1981	1982	1983	1984
D	3 806	3 205	7 011	19.6	18.9	18.7	18.7
F	3 333	3 768	7 101	18.4	20.0	18.4	25.0
I	NA	NA	NA	NA	NA	NA	NA
NL	3 196	4 004	7 200	17.6	16.5	15.0	15.4
B	4 814	6 520	11 334	34.4	33.9	30.8	34.2
L	NA	NA	NA	NA	-	NA	NA
UK	355	197	552	12.9	15.1	12.6	13.8
IRL	270	171	441	35.3	43.8	40.1	33.3
DK	156	336	492	11.8	12.1	10.1	9.7
GR	0	0	0	0	0	0	0
EUR-10	15 930	18 201	34 131	21.3	21.2	19.6	21.7

This table shows a recovery of the own-account share (after the 1983 deep point) mainly due to the French and Belgian operators. A decline of own-account share for Irish operators can also be seen.

2.2.3 Intra EUR-10 international road traffic - Tonnes kilometers

The analysis carried out in section 2.2.2 can be repeated for tonnes-kilometers (e.g. table 2.8 corresponds to table 2.1).

Table 2.8. International bilateral intra EUR-10 traffic in tonnes-kilometers. Year 1984 and % evolution on 1983 (x mio tkm)

From \ To	D	F	I	NL	B	L	UK	IRL	DK	GR	EUR-10
D		4473	4603	5065	2502	152	550	52	1204	760	19361
		6.4%	4.2%	7.9%	11.5%	4.1%	7.0%	-13.3%	9.5%	2.6%	6.8%
F	5098		5233	1497	3193	114	1210	45	350	201	16941
	8.7%		15.1%	2.2%	10.8%	42.5%	10.9%	-25.0%	8.0%	21.8%	10.7%
I	5952	4529		1373	1389	16	1888	102	393	195	15837
	-7.0%	3.3%		-1.8%	-0.6%		-8.1%	-5.6%	+5.9%	-52.9%	-4.3%
NL	5572	2202	2513		1575	49	347	27	408	293	12986
	2.8%	0.7%	26.9%		10.8%	-9.3%	17.2%	145.5%	13.3%	-10.1%	7.7%
B	2812	3595	1603	1855		211	177	5	179	89	10526
	4.0%	11.2%	20.1%	13.4%		5.5%	31.1%	-64.3%	0.6%	-10.1%	10.4%
L	239	84	20	52	137		4	0	0	3	539
	1.7%	1.2%		-3.7%	16.1%		100.0%			-25.0%	4.5%
UK	414	703	1401	180	118	7		135	148	91	3197
	-0.5%	5.6%	31.4%	7.8%	13.5%	250.0%		-12.9%	15.6%	21.3%	15.0%
IRL	35	73	56	10	6	0	136		5	3	324
	-18.6%	-17.0%	0	0	-14.3%		7.9%		-28.6%	-70.0%	-6.6%
DK	1143	291	407	251	112	0	545	30		90	2869
	-3.3%	-4.6%	0.2%	4.1%	36.6%		-1.3%	30.4		-6.2%	-0.6%
GR	880	167	335	185	50	1	67	0	35		1720
	0.6%	-1.8%	-39.0%	-12.3%	-9.1%	-50.0%	39.6%		-16.7%		-11.9%
EUR-10	22145	16117	16171	10468	9082	550	4924	396	2722	1725	84300
	0.8%	5.2%	12.5%	6.0%	9.3%	10.0%	2.2%	-8.1%	+8.4%	-10.6%	5.3%

Table 2.9. International traffic per relation by hauliers registered in the country of unloading. Year 1984 and % evolution on 1983 (x mio tkm).

From \ To	D	F	I	NL	B	L	UK	IRL	DK	GR	EUR-10
D		1997 14.8%	2066 1.6%	3707 7.1%	1275 17.7%	59	354 -1.7%	36 -23.4%	744 4.3%	646 -0.3%	10884 7.3%
F	2654 2.6%		2358 16.6%	1012 5.7%	1800 16.2%	32	420 -8.3%	43 -24.6%	243 1.3%	92 -14.0%	8654 8.0%
I	2824 -0.7%	2266 10.1%		894 13.3%	798 16.0%	16	674 2.9%	51 13.3%	240 10.1%	75 -41.4%	7838 5.3%
NL	1077 2.0%	743 -1.7%	1089 33.6%		334 25.6%	8	160 2.6%	23 155.6%	145 10.7%	249 -15.0%	3828 9.7%
B	1127 -0.5%	1383 15.3%	610 16.6%	1197 10.7%		105	158 24.4%	5 -54.5%	129 -3.7%	89 -10.1%	4803 8.8%
L	166 2.5%	42 2.4%		31 -6.1%	74 34.5%		4 100.0%	0	0	3 -25.0%	320 7.7%
UK	118 38.8%	303 17.9%	722 57.3%	74 45.1%	3 50.0%	-		90 -12.6%	144 17.1%	34 3.0%	1488 33.7%
IRL	10 25.0%	4 -75.0%	32 45.5%	5 150.0%	0	-	21 -4.5%		5 -16.7%	1	78 2.6%
DK	258 11.7%	50 31.6%	99 7.6%	164 2.5%	46 119.0%	-	2 -33.3%	-		14 -51.7%	633 9.7%
GR	69 -8.0%	39 30.0%	248 -41.6%	14 -12.5%	0	-	11 266.7%	0	25 -7.4%		406 -29.5%
EUR-10	8303 1.5%	6827 11.3%	7224 13.0%	7098 8.4%	4330 18.2%	220	1804 1.0%	248 -9.8%	1675 5.2%	1203 -10.3%	38932 7.7%

Table 2.10 International traffic per relation by hauliers registered in the country of loading. Year 1984 and % evolution on 1983 (x mio tkm).

From \ To	D	F	I	NL	B	L	UK	IRL	DK	GR	EUR-10
D		2476	2537	1358	1227	93	196	16	460	114	8477
		0.4%	6.4%	10.0%	5.7%	6.9%	28.1%	23.1%	18.9%	21.3%	6.2%
F	2444		2875	485	1393	82	790	2	108	109	8288
	16.3%		14.0%	-4.5%	4.4%	70.8%	24.8%	-33.3%	28.6%	87.9%	13.7%
I	3128	2263		479	591		1214	51	153	120	7999
	-12.0%	-2.8%		-21.3%	-16.6%		-13.2%	-19.0%	0%	-58.0%	-12.1%
NL	4495	1459	1424		1241	41	187	4	263	43	9157
	3.0%	2.0%	22.2%		7.4%	-10.9%	33.6%	100.0%	14.8%	26.5%	6.9%
B	1685	2212	993	658		106	19	-	50	-	5723
	7.4%	8.8%	22.3%	18.3%		11.6%	137.5%		11.1%		11.8%
L	73	42	20	21	63		-	-	-	-	219
UK	296	399	679	105	115	7		45	4	57	1707
	-10.3%	-2.4%	11.9%	-8.7%	12.7%	250.0%		-13.5%	0%	35.7%	2.6%
IRL	25	69	24	5	6	-	115		-	2	246
	-28.6%	-4.2%	-29.4%	-37.5%	-14.3%		10.6%			-80.0%	-9.2%
DK	885	241	308	87	66		544	30		76	2237
	-6.9%	-9.7%	-1.9%	7.4%	8.2%		-0.9%	50.0%		13.4%	-3.2%
GR	811	128	87	170	50	1	56	-	10		1313
	1.4%	-8.6%	-29.8%	-12.8%	-9.1%	-50.0%	21.7%		-33.3%		-4.6%
EUR-10	13842	9289	8947	3368	4752	330	3121	148	1048	521	45366
	0.5%	1.1%	12.1%	1.2%	2.3%	17.9%	2.9%	-5.1%	+14.2%	-11.8%	3.3%

Table 2.11. Tonne-kilometres achieved by country of haulier on international intra EUR-10 traffic (x mio tkm).

Member States	Inward + Outward 1983	1984	% change 84/83	Share % 1983	1984
D	16162	16780	+3.8	20.2	19.9
F	13428	15115	+12.6	16.8	17.9
I	15491	15223	-1.7	19.4	18.1
NL	15115	16255	+7.5	18.9	19.3
B	8785	10053	+14.4	11.0	11.9
L(82)	439	439	NA	0.5	0.5
UK	3449	3511	+1.8	4.3	4.2
IRL	546	494	-9.5	0.7	0.6
DK	3902	3912	+0.3	4.9	4.6
GR	2718	2516	-7.4	3.4	3.0
EUR-10	80035	84300	+5.3	100	100

Table 2.12. % share of own account operators of traffic expressed in tonnes-kilometres (x mio tkm).

Member States	Inwards	Outwards	IMP. + EXP. Own account	% share Own Ac. 1983	1984
D	1073	919	1992	11.9	11.9
F	905	1286	2191	11.5	14.5
I	NA	NA	NA	NA	NA
NL	533	1204	1737	11.6	10.7
B	1318	1799	3117	27.1	31.0
L	NA	NA	NA	NA	NA
UK	225	118	343	8.6	9.8
IRL	20	23	43	16.1	8.7
DK	123	261	384	10.5	9.8
GR	0	0	0	0	0
EUR-10	4197	5610	9807	13.1	14.3

The same pattern as for the tonnes (see table 2.7) can be noted. The decline of own-account share for Irish operators is even sharper in tonnes-kilometres than in tonnes.

2.3 Cross-trades, an analysis of the multilateral intra EUR-10 international road haulage market in 1984 and 1985

2.3.1 Introduction

As explained in note a) of Section 2.2.1, the Directive only relates to bilateral journeys between Member States. Multilateral journeys are allowed under Community Quota authorizations (which then are valid for the whole of EUR-10) or in other specific cases.

The Commission has extensive data on the Community Quota Statistics (a brief analysis was published in the 1983 Annual Report) and is seeking comprehensive information on other types of multilateral journeys through an extension to the Directive.

The rapid increase in the number of Community Quota authorization since 1984 and the further substantial increase during the transitional phase in preparation for a market without quantitative restrictions by 1992, prompts a wider examination of these statistics in the context of the whole road haulage market.

2.3.2 Importance of cross-trades carried under Community Quota authorizations

The number of Community Quota authorizations which only grew slowly during the early 1980's jumped from 4038 in 1984 to 5268 in 1985 and 7437 in 1986. These increases stemmed from the Council decision of December 1984 to increase the number of authorizations by 30% in 1985 and 15% for each of the following 4 years; an additional boost occured in 1986 due to the adhesion of Spain and Portugal to the Community.

As the criteria for the allocation of authorizations between Member States depends, particularly, on tonne-kilometres, the analysis presented here relates principally to tonne-kilometres and not to tonnes as was published in the 1983 Annual Report. Further it is more appropriate to examine the share of Community Quota authorizations in all "hire and reward" movements in terms of tonne-kilometres as the average distance under a Community Quota authorization is about twice that of all movements. Table 2.13 shows the main results for tonne-kilometres for 1984 together with estimated results for 1985.

Table 2.13 Intra EUR-10 international road traffic
Breakdown by type of traffic (tonne-kilometres)

	1984 (mio)	1985 (estimate) ('000 mio)
Total bilaterals	84 300	89
of which own account	-12 098	-13
Hire and Reward bilaterals	72 202	76
Cross-trades (under Community Quota)	+ 1 642	+ 2
Total Hire and Reward	73 844	78
of which		
Total under Community Quota	7 720	10
% of Total Hire and Reward		
Total under Community Quota	10.5%	13%
Cross-trades under Community Quota	2.2%	N.A.
% of Total under Community Quota		
Cross-trades	21.3%	N.A.

2.3.3 Cross-trades under Community Quota authorizations by Member State of haulier

Table 2.14 shows the breakdown of the various tonne-kilometre figures for hire and reward movements in 1984 by nationality of haulier.

Table 2.14

1984 TONNE-KILOMETRES INTERNATIONAL INTRA-COMMUNITY
(Hire and Reward only - million tonne-kilometres)

Member State of haulier	T-km achieved			
	All movements			Using Comm. Quota authorizat.
	Bilateral	Cross-trade	Total	
D	14792	63	14855	1640
F	12922	158	13080	854
I	13047	2	13049	1165
NL	14518	726	15244	1194
B	6936	439	7375	810
L	323 p	112	435	176
UK	3168	60	3228	637
IRL	451	31	482	121
DK	3529	51	3580	1022
GR	2516	0	2516	101
EUR 10	72202	1642	73844	7720

Notes: Luxembourg p = provisional, 1982 data

The following table 2.15 expresses the results in percentage terms.

Table 2.15 Percentage of movements by type 1984

Member State of haulier	Cross-trades as % of all Comm. Quota movements	Comm. Quota movements as % of all H. & R. movements	Cross-trades as % of all Hire and Reward movements
D	3.8%	11.0%	0.4%
F	18.5%	6.5%	1.2%
I	0.2%	8.9%	< 0.1%
NL	60.8%	7.8%	4.8%
B	54.3%	11.0%	6.0%
L	63.4%	40.5%	25.7%
UK	9.4%	19.7%	1.9%
IRL	25.8%	25.1%	6.4%
DK	5.0%	28.5%	1.4%
GR	0%	4.0%	0%
EUR-10	21.3%	10.5%	2.2%

The results show that Member States fall into 4 groups.

i) L: over 25%
ii) NL, B, IRL: about 5%
iii) F, UK, DK: about 1,5%
iv) D, I, GR: less than 0.5%

The exceptionally high figure for Luxembourg is due to the small geographical size of the country which makes some cross-trading essential. The high figures for NL, B and IRL are due to the relatively small geographical size and position of NL and B and, in the case of IRL, the ease of picking up loads for the UK while returning from the Continent. The results for D, I and GR shows that the hauliers are not really interested in cross-trading.

Finally in Table 2.16 the stability of this criteria in recent years is examined.

Table 2.16

PERCENTAGE OF CROSS-TRADE MOVEMENTS BY MEMBER STATE OF HAULIERS

Member State of haulier	Tonnes			T-km	
	1982	1983	1984	1983	1984
D	3.4	2.9	3.1	3.5	3.8
F	14.0	13.9	14.6	16.7	18.5
I	0.5	0.4	0.3	0.3	0.2
NL	53.5	55.7	57.3	58.4	60.8
B	50.1	48.6	54.4	48.7	54.3
L	38.4	45.3	50.1	59.9	63.4
UK	11.9	12.6	11.7	10.2	9.4
IRL	22.2	20.3	25.0	22.8	25.8
DK	6.5	5.4	6.2	5.1	5.0
GR	0	0	0	0	0
EUR 10	22.1	22.0	23.2	20.3	21.3

The results show that the proportion of cross-trading has been very stable in recent years, admittedly a period in which the number of authorizations was stable. It will be very interesting to see whether this percentage and the percentages for individual Member States change when the full results for 1985 become available, i.e. will the 30% general increase in authorizations in 1985 have been used to promote cross-trading.

2.3.4 Cross-trades under Community Quota authorizations by Member State of loading

The figures in Table 2.13 for hire and reward hauliers can also be broken down by Member States of loading (or unloading). The breakdown by Member States of loading is given in Table 2.17 and a table in percentage terms, similar to Table 2.15, is given in Table 2.18. In both Tables 2.17 and 2.18 the figures for EUR-10 are, of necessity, the same as Table 2.14 and respectively.

Table 2.17 1984 Tonne-kilometres international intra-Community (Hire and reward only - million tonne-kilometres)

Member State of loading	All movements Hauliers from Member State of				Using Community Quota Authorizat.
	loading	unload.	cross-trades	total	
D	7560	9651	328	17539	1818
F	7001	7315	272	14588	1101
I	6855	6961	477	14293	2244
NL	7953	3094	149	11196	693
B	3924	4091	288	8303	720
L	179	239	7	425	54
UK	1589	1307	63	2959	382
IRL	223	61	8	292	57
DK	1976	556	43	2575	584
GR	1313	354	7	1674	67
EUR-10	38573	33629	1642	73844	7720

Table 2.18 Percentage of movements by Member State of loading by type 1984 (tonne-kilometres)

Member State of loading	Cross-trades as % of all Comm. Quota movements	Comm. Quota movements as % of all H&R movements	Cross-trades as % of all Hire and Reward movements
D	18.0%	10.4%	1.9%
F	24.7%	7.5%	1.9%
I	20.9%	15.7%	3.3%
NL	21.5%	6.2%	1.3%
B	40.0%	8.7%	3.5%
L	13.0%	12.7%	1.6%
UK	16.5%	12.9%	2.1%
IRL	14.0%	19.5%	2.7%
DK	7.4%	22.7%	1.7%
GR	10.4%	4.0%	0.4%
EUR-10	21.3%	10.5%	2.2%

There is much more variation between Member States in the percentages shown in Table 2.15 than in Table 2.18; this applies to all three colums of percentages. This implies that whereas there is a wide variation in the propensity of hauliers of different nationalities to carry out cross-trades, the geographical spread of the cross-trade movements is more even.

2.4. Traffic with Spain and Portugal - Tonnages

As in the previous section, the analysis is restricted to bilateral traffic, i.e. cross-trade traffic is excluded.

2.4.1. Traffic with Spain (E)

Table 2.19 Tonnages carried by EUR-10 and Spanish hauliers to and from Spain (000's tonnes)

Bilateral relation	1982		1983		1984		1985	
	Hauliers from		Hauliers from		Hauliers from		Hauliers from	
	EUR-10 [1]	E	EUR-10 [1]	E	EUR-10 [1]	E	EUR-10 [1]	E
D -E	604	506R	738	575	782	695	N.A.	805
F -E	1291	2737R	1535	3501	1563	3552	N.A.	3785
I -E	331	251R	406	252	462	287	N.A.	298
NL -E	120	259R	121	333	158	389	N.A.	438
B -E	341	218R	336	276	398	293	N.A.	314
L -E	-	45R	-	34	-	37	N.A.	24
UK -E	104	277R	112	349	105	439	N.A.	490
IRL-E	-	20R	21	28	11	23	N.A.	20
DK -E	48	9R	42	15	46	16	N.A.	14
GR -E	1	1R	1	1	2	1	N.A.	3
Total Growth rates	2840	4323R	3312 +17%	5364R +24%	3527 +6%	5732 +7%	N.A. N.A.	6191 +8%
Total all hauliers	7163R		8676R		9259		N.A.	
Growth rates			+ 21%		+ 7%		N.A.	

[1] Haulier of the partner country.

Total traffic between EUR-10 and Spain is thus estimated to have increased by 7% from 1983 to 1984, a little higher than the intra-EUR-10 growth rate (up 4.7%); this is in considerable contrast to the previous year where the growth of traffic between EUR-10 and Spain (up 21%) was much higher than the intra-EUR-10 growth rate (up 3.5%). The share of EUR-10 hauliers in the market with Spain has remained stable at 38%. If, however, one excludes the substantial traffic with F, then the share of EUR-10 hauliers in the market with Spain has fallen from 49% (in 1982 and 1983) to 47% (in 1984).

2.4.2. Traffic with Portugal (P)

Table 2.20 Tonnage carried by EUR-10 and Portuguese hauliers to and from Portugal (000's tonnes)

Bilateral relation	1983		1984	
	Hauliers from		Hauliers from	
	EUR-10	Portugal	EUR-10	Portugal
D -P	66	110	67	133
F -P	252	176	296	214
I -P	80	76	91	74
NL -P	28	19	32	23
B -P	0	31	0	35
L -P	-	1	-	1
UK -P	11	24	5	36
IRL-P	0	-	0	-
DK -P	12	2	7	3
GR -P	0	-	0	-
Total	449	439	498	519
of which to Portugal	266	221	289	265
from Portugal	183	218	209	254
Growth rates 84/83	Total		+11%	+18%
	to Portugal		+ 9%	+20%
	from Portugal		+14%	+17%

Total traffic between EUR-10 and Portugal rose from 888.000 tonnes to 1.017.000 tonnes (up 15%) from 1983 to 1984. While this was smaller than the growth from 1982 to 1983 (up 24%),it was still well ahead of the intra-EUR-10 growth rate (up 4.7%) and that between EUR-10 and Spain (up 7%).

2.4.3. Traffic between Spain and Portugal

Table 2.21 Tonnage carried by Spanish and Portuguese hauliers in traffic between Spain and Portugal (000's tonnes)

Bilateral relation	1982		1983		1984		1985	
	Hauliers from		Hauliers from		Hauliers from		Hauliers from	
	E	P	E	P	E	P	E	P
E to P	206R	124	172	73	196	110	226	N.A.
P to E	76R	128	64	132	72	134	83	N.A.
Total	282R	252	236	205	268	244	309	N.A.
Total E & P hauliers	534R		441		512		N.A.	

In contrast to the steady growth of traffic between Spain/Portugal and EUR-10, the traffic between Spain and Portugal was less dynamic, the sharp fall in 1983 only being partially restored in 1984.

2.5 Transport Inquiry Surveys - Road

2.5.1 Introduction

The main aim of the quarterly surveys with road hauliers is to collect within the shortest time possible information about the changes that are at work in road transport (border-crossing transport EC-10).

The survey does not only reflect changes in the level of road transport activity during the previous quarter, but also looks forward into the next quarter. Also, a series of key-indicators are published, which reflect the working conditions in road transport firms.

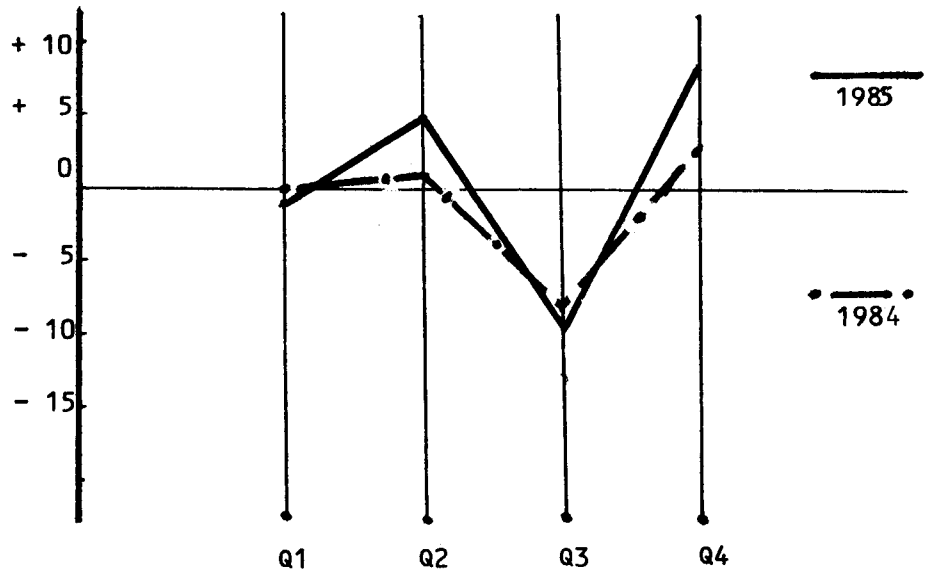
Unlike real statistical figures, the ones published in the chapter merely reflect opinions and only indicate a trend.

2.5.2 Transport activity

In 1985, with the exception of the first and third quarter, the balance-of-opinions figure indicates an increase in activity compared to the previous year (EC-10 level).

At the level of individual countries, exceptions are France, United Kingdom and Greece, where the volumes carried in 1985, were lower than in 1984.

Graph 2.1. Activity level of firms, expressed as the balance-of-opinions (% difference between + and - answers)



2.5.3. Economic indicators

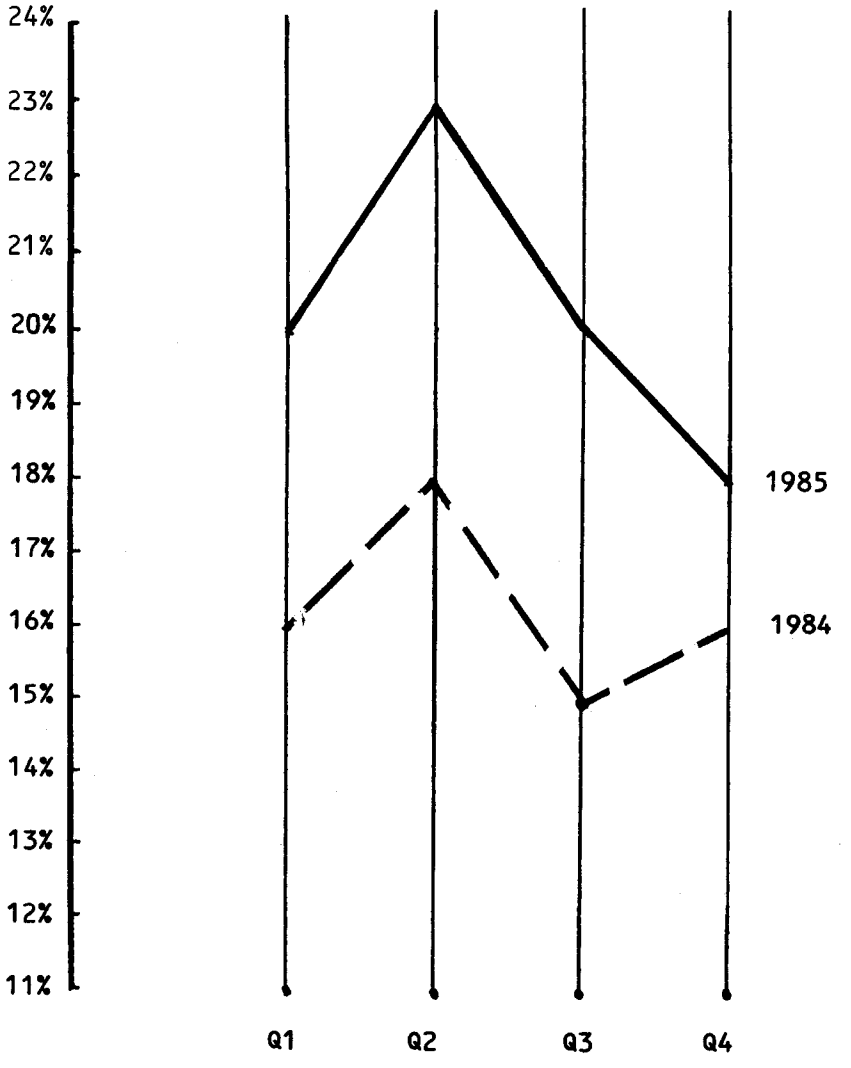
Three economic indicators are part of the survey :

- recruitment,
- cash-flow,
- investment.

a) Recruitment

In comparison to 1984, the 1985 recruitment of drivers has increased.

Graph 2.2. Number of firms declaring to have recruited drivers



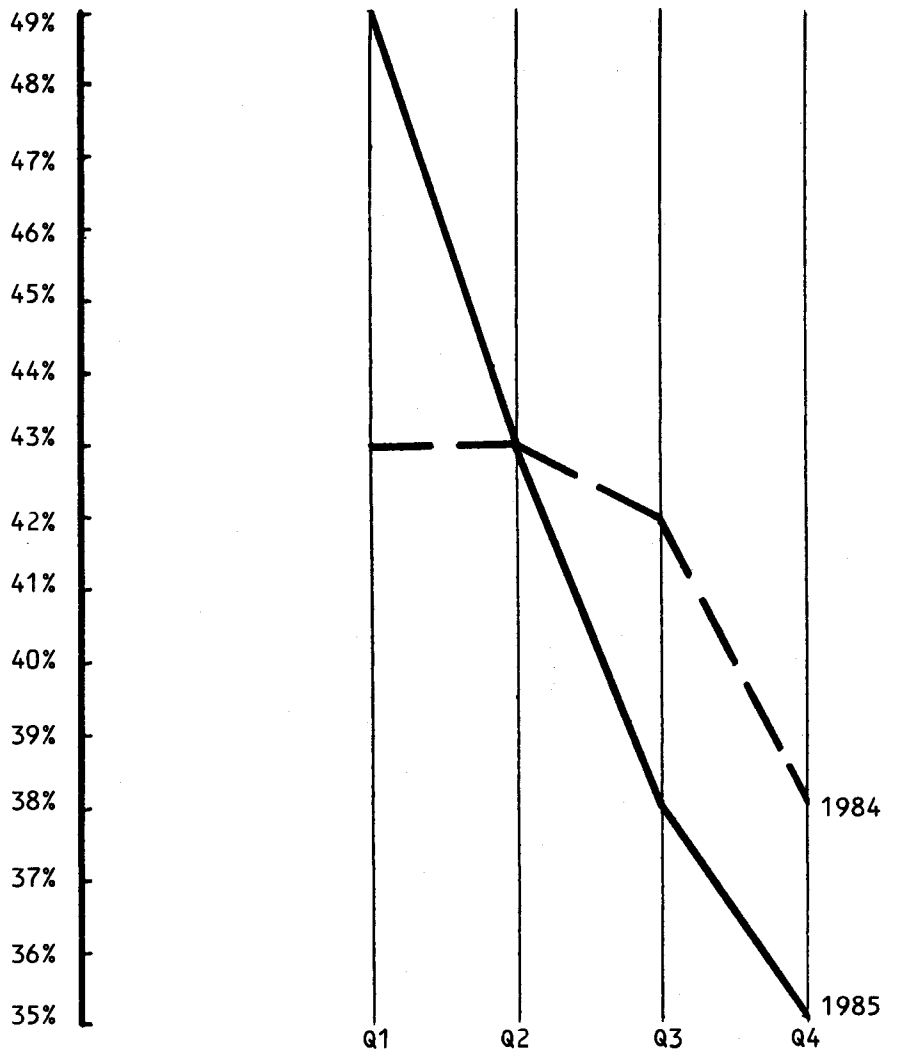
Analysis of the quarterly figures for 1985 reveals :

- in comparison with the previous year, and for each of the four quarters, the number of firms having recruited drivers has been higher (at EC-10 level),
- the number of firms, reporting an important increase in the recruitment of drivers are those from the Netherlands, Belgium, Luxemburg and Denmark,

b) Cash-flow problems

During the whole of 1985 the number of firms having reported cash-flow problems was the same as the year before. However, during the last semester of 1985 this number had improved to be lower than the year before.

Graph 2.3 % of firms declaring cash-flow problems

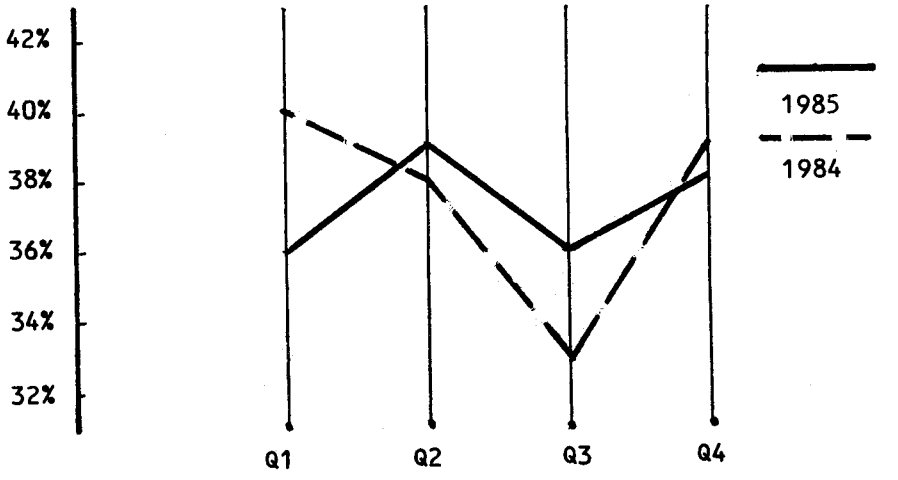


These overall figures result from divergent movements in the different Member-States. In 5 Member States the cash-flow position has improved (Germany, Italy, United-Kingdom, Denmark, Greece), while French hauliers reported an increase in cash-flow problems during the first semester of 1985.

c) Investment

For the year 1985 the % of firms reporting investment activity is about the same as the year before (on average 37.5%). Only in Italy (28.5%), Belgium (42.5%), Luxemburg (48.3%) and Denmark (55.8%) more firms have invested than it was the case the year before.

Graph 2.4. % of firms having invested



2.6. Cost Indices Road

In 1985 detailed data were gathered from 7 Member States, Greece, Ireland and Italy are not included. Fuel cost and total cost have been examined separately in the quarterly reports. Some more key cost categories are examined in 1985 annual report, such as wage, repairs, depreciation, taxes and interest.

The table below (table 2.22.) gives the percentage cost changes for the last years.

Table 2.22.

	Inflation in NC	Wages in NC	Repairs in NC	Depreciation in NC	Taxes in NC	Interest in NC	Fuel in NC	Total costs in NC	Total costs in ECU
D 83	2.5	3.2	2.9	2.2	0.0	- 6.7	- 4.4	1.1	2.9
84	2.6	2.7	2.2	3.4	0.0	-11.9	5.9	1.9	2.9
85	1.8	2.7	2.2	2.9	0.0	- 2.8	- 6.5	0.5	3.0
NL 83	2.9	0.6	3.0	2.1	0.8	- 4.0	- 1.7	0.7	0.5
84	2.4	2.3	1.8	5.5	0.2	- 4.9	- 4.4	1.3	2.0
85	1.7	6.4	2.8	2.7	0.1	7.2	- 3.7	3.4	6.0
B/ 83	7.1	4.7	4.3	9.3	0.5	- 1.7	8.6	6.1	1.9
L 84	5.4	6.5	5.6	2.6	4.5	- 1.0	0.0	3.6	8.1
85	4.0	2.1	3.4	9.3	0.0	- 3.1	- 4.0	1.6	2.5
F 83	9.2	11.8	6.7	11.4	8.4	- 1.3	1.1	8.7	2.6
84	6.8	5.4	8.0	10.0	0.7	1.7	10.2	7.0	7.9
85	4.7	7.3	8.7	9.3	1.5	- 4.5	- 6.1	1.0	3.4
UK 83	5.3	4.5	5.2	2.7	22.9	0.0	- 0.7	4.3	3.3
84	4.5	5.0	5.8	4.5	8.1	0.0	11.2	6.0	0.2
85	5.7	5.6	5.4	5.2	7.0	43.3	9.4	5.3	2.0
DK 83	6.0	0.0	5.9	6.3	0.7	- 6.9	- 9.7	-0.8	-1.8
84	5.6	7.1	8.7	8.2	0.0	10.0	4.8	7.1	9.4
85	3.6	0.7	2.4	3.9	-0.8	-16.6	- 8.7	- 1.4	-1.1

NC = national currency

2.6.1. Development of the different costs in national currency in 1985 by Member State

Wages in NC
Because of the economic crisis, wages have only shown an insignificant rise in Denmark with rather small increases in Belgium and Germany. Against this there were significant rises in the United Kingdom, although below the rate of inflation, but above all in Netherlands and France.

Repairs in NC
In 1985 repair costs grew slightly in Germany, Denmark and Netherlands. In comparison to 1 January 1982 (100), the cost of repairs has shown the greatest increase in France (143.1 at 1 January 1986) compared to the other Member States.

Depreciation in NC
Depreciation costs have shown a significant increase in France and Belgium and to a lesser extent, although substantial, in the United Kingdom. Against 1 January 1982 (100) France and Belgium have shown the strongest increase, being + 46.5% and + 48.2% respectively.

Taxes in NC
The United Kingdom registered a significant increase in taxes (+ 7%) with a slight increase in France (+ 1.5%). Denmark is the only country which showed a slight fall (- 0.8%). In all the other Member States, taxes remained unchanged or showed a slight variation upwards.

Interest in NC
In the United Kingdom interest costs showed a strong increase (+ 43.3%) (*) but this was the first major rise since 1982. In the Netherlands the rise was + 7.2%. Overall, however, all the Member States showed a fall in interest charges varying from - 16.6% (Denmark) to - 2.8% (Germany).

Fuel in NC
The fall in the dollar resulted in a fall in fuel costs varying from - 8.7% to - 3.7% in nearly all Member States. The United Kingdom was the only country which showed a rise in fuel costs of + 9.4%.

Total Costs in NC
Total costs rose most strongly in the United Kingdom (+ 5.3%) and to a lesser extent in the Netherlands (+ 3.4%).
With the exception of Denmark where costs fell by 1.4%, all other Member States showed only a slight rise.

Total costs in ECU
In 1985 total costs in ECU rose most strongly in the Netherlands (+ 6%) with the other countries showing rises of between 3.4% and 2%. Only in Denmark did total costs fall (- 1.1%) in ECU.

(*) The cost evolution presented here is based on a comparison between the situation dates 1.1.'85 and 1.1.'86. As the interest rates in the United Kingdom showed great fluctuations over short periods, it can happen that a peak-value is compared with a dip. The annual average varies much less.

2.7 Price indices Road

The analysis of the quarterly price indices is done each quarter in the "Market Developments" report.

2.7.1 Analysis of the annual increase of price in ECU by Member State in 1985

Table 2.23

Price indice 1985 / Price indice 1984	by relation	by direction outward	by direction backhaul	Average for haulier from Member State	
DDF (1)	+ 1.8%	+ 2.4%	+ 1.5%		
DDI	+ 2.2%	+ 2.5%	+ 2.1%	+ 2.2%	D
DDNL	+ 1.8%	+ 2.0%	+ 1.5%		
DDBL	+ 2.9%	+ 1.5%	+ 4.5%		
FFD	+ 4.9%	+ 4.5%	+ 5.8%		
FFI	+ 4.0%	+ 3.9%	+ 4.2%	+ 4.7%	F
FFNL	+ 3.9%	+ 3.3%	+ 4.6%		
FFBL	+ 5.2%	+ 6.1%	+ 4.7%		
IID	- 0.5%	- 1.7%	+ 0.3%		
IIF	+ 0.5%	+ 3.2%	- 2.4%	+ 0.1%	I
IINL	+ 1.0%	- 1.4%	+ 2.0%		
IIBL	+ 1.2%	0.0%	+ 2.1%		
NLNLD	+ 0.8%	+ 0.5%	+ 1.0%		
NLNLF	+ 0.7%	- 0.2%	+ 1.3%	+ 1.0%	NL
NLNLI	+ 1.8%	- 0.2%	+ 4.0%		
NLNLBL	+ 0.3%	+ 1.3%	- 0.9%		
BLBLD	- 3.6%	- 2.1%	- 8.8%		
BLBLF	+ 3.1%	+ 2.0%	+ 5.7%	+ 1.2%	BL
BLBLI	+ 6.5%	+ 5.8%	+ 7.2%		
BLBLNL	+ 4.0%	+ 0.9%	+ 9.9%		
GRGRD	+ 7.9%	+ 7.4%	+ 7.7%		
GRGRF	+ 5.4%	+ 4.3%	+ 3.4%		
GRGRI	- 2.1%	- 6.3%	+ 2.6%	+ 6.0%	GR
GRGRNL	+ 6.7%	+ 7.8%	+ 6.0%		
GRGRBL	+ 5.6%	+ 4.3%	+ 6.5%		

(1) DDF means a German haulier on the relation Germany-France and France-Germany.

Germany

Price indices in ECU in 1985 increased on all the relations and on all the directions. The increase is lower than in 1984.

France

Price indices in ECU in 1985 increased faster than in any other Member State except Greece. Prices increased more in 1985 than in 1984. Prices did not decrease on any relation.

Italy

The lowest increase of the overall average price indices in ECU of all the Member States has been recorded in Italy (+0.1%). It should be remembered, however, that there was a particularly large increase in 1984 of 8.8%. Prices decreased slightly on the relation with Germany, due to the outward price decrease of 1.7%.

Netherlands

Price indices in ECU are very stable. The largest increase relates to the NL NL I outward direction, and amounts only to 2.1%.

Belgium/Luxembourg

Price indices in ECU decreased very much in relation with Germany; especially the backhaul relation (-8.8%). For the other relations, the increase is rather high. Due to the decrease of the price index on the German relation, the overall average price increase is still low.

Greece

Overall average prices increased more in Greece than in the other Member States. However, in 1984, Greece was the only Member State to record an overall decline. Prices decreased only on one relation, Greece with Italy. The biggest increase of all the relation of all Member States has been recorded in the relation Greece-Germany.

2.7.2 Comparison between the level of the backhaul price and the tonnages transported.

Table 2.24

Relation	Haul.	Price backh. / Price outw. 1984	Tonnages by haulier from origin country (M°.TONNES) in 1984 outward	backhaul	backhaul / outward	Share of total market
DF	D	90.6	4935	6597	1,34	54,89%
	F	94.1	5221	4258	0,82	45,11%
DI	D	95.1	2694	2901	1,08	50,85%
	I	90.8	3215	2193	0,68	49,15%
DNL	D	97.9	5329	4018	0,75	27,96%
	NL	87.5	12311	11771	0,96	72,04%
DBL	D	94.4	4437	4387	0,99	48,39%
	BL	94.3	5120	4292	0,84	51,61%
FI	F	93.8	3096	2496	0,81	52,63%
	I	93.3	2492	2541	1,02	47,37%
FNL	F	104.5	774	1199	1,55	31,32%
	NL	71.3	2595	1732	0,67	68,68%
FBL	F	96.0	4167	5329	1,28	38,11%
	BL	99.5	9018	6403	0,71	61,89%
INL	I	100.0	338	732	2,17	40,27%
	NL	80.8	957	630	0,66	59,73%
IBL	I	92.0	457	477	1,05	39,61%
	BL	86.5	792	629	0,79	60,39%
NLBL	NL	90.8	7465	8147	1,09	69,09%
	BL	102.2	4539	2444	0,54	30,91%
GRD	GR	169.7	352	280	0,80	
GRF	GR	145.8	45	32	0,71	
GRI	GR	175.9	135	117	0,87	
GRNL	GR	162.8	64	94	1,47	
GRBL	GR	175.8	19	35	1,84	

2.7.3 Evolution in 1985 of cost and price indices in ECU in D, F, NL and B/L

The table below gives, by Member State, the comparison of the average levels for 1985 with 1984, and for 1984 with 1983 of both cost and price indices in ECU.

Table 2.25

	D		F		NL		B/L	
	84/83	85/84	84/83	85/84	84/83	85/84	84/83	85/84
price	+ 3.3%	+ 2.2%	+ 3.9%	+ 4.7%	+ 1.0%	+ 1.0%	+ 3.8%	+ 1.2%
cost	+ 3.2%	+ 3.0%	+ 5.4%	+ 3.4%	+ 1.7%	+ 6.0%	+ 4.2%	+ 2.5%
difference	+ 0.1%	- 0.8%	- 1.5%	+ 1.3%	- 0.7%	- 5.0%	- 0.4%	- 1.3%

France is the only Member State where costs increased less than prices during 1985, but was also the only Member State where costs increased less than prices during the two previous years.

Only in the Netherlands costs increased much more than prices. In the other Member States, prices and costs evolutions are very close.

2.7.4 Comparison of the evolution of the level of the backhaul price in ECU with the outward price

Table 2.26

Relation	Haul.	1982	1983	1984	1985
DF	D	86.7	88.3	90,6	89,7
	F	94.6	96.0	94.1	96,6
DI	D	94.9	95.7	95,1	94,7
	I	88.4	88.8	90.8	92,7
DNL	D	98.6	98.1	97,9	97,3
	NL	87.1	86.9	87.5	88,3
DBL	D	98.2	97.4	97,4	97,9
	BL	91.6	93.7	94.3	90,8
FI	F	94.4	93.4	93.8	96,2
	I	85.7	89.5	93.3	88,3
FNL	F	107.7	106.7	104.5	105,3
	NL	72.3	71.5	71.3	72,5
FBL	F	94.1	97.3	96.0	93,9
	BL	93.4	107.6	99.5	103,1
INL	I	100.6	115.2	100.0	103,6
	NL	81.5	82.1	80.8	83,3
IBL	I	84.2	98.7	92.0	94,0
	BL	88.0	88.6	86.5	87,6
NLBL	NL	99.2	93.5	90.7	89,6
	BL	86.9	95.6	102.2	111,4
GRD	GR	-	153.6	169.7	170,3
GRF	GR	-	139.5	145.8	142,6
GRI	GR	-	181.8	175.9	192,7
GRNL	GR	-	134.8	162.8	160,2
GRBL	GR	-	156.4	175.8	179,4

Only on the Italy-Germany relation, the average increased during three consecutive years. On the opposite, the average decreased during three consecutive years only on the Germany-Netherlands relation.

CHAPTER 3

Inland waterways

3.1. Introduction

3.1.1. The data and the summary of the contents

Statistical data reproduced in this issue were provided by the statistical offices of France, Belgium, the Federal Republic of Germany and the Netherlands. The data coincide with those presented on the basis of the Statistical Directives for inland transport to the Statistical Office of the European Community (Eurostat). Figures on Rhine traffic, including prices, were provided by the Central Rhine Commission. Data on cost and price developments are submitted by the Economic Bureau for Road and Waterway transport (E.B.W. - Ryswyk - NL) and by the Institut pour le Transport par Batellerie (I.T.B.- Brussels). Additional information for France was obtained from the Office National de la Navigation in Paris.

The analysis contains a comparison between 1985 and 1984 and between 1985 and 1979. This is done in order to provide an insight in the developments since the start of the present crisis in the inland waterway sector.

The tables and graphs give rather detailed information. The analysis concentrates on the most relevant items only.

The contents of chapter 3 can be summarized as follows:

§ 3.1. : overall developments of the traffic
§ 3.2 : developments on a country by country basis
§ 3.3 : developments by commodities
§ 3.4 : developments by transport market (Rhine and North/South)
§ 3.5 : fleet developments and (over)capacity
§ 3.6 : flag shares
§ 3.7 : transport inquiry survey
§ 3.8 : developments in costs and prices.

3.1.2 Overall developments

After the upturn in activity in 1984, it was expected that the upward trend would continue in 1985. This hope has not become true. The exceptional weather conditions in the first and the last quarter of 1985 were responsible for a final decrease in activity of - 3.8 %, measured in transported tonnes.

Table 3.1. National and international transport activity by country ('000 tonnes)

	* B/L	* D	* F	* NL	** Total	Growth rate
1979	91,191	221,170	85,536	236,825	438,799	
1980	90,943	212,900	84,864	237,599	433,899	-1.1%
1981	87,705	202,770	76,894	222,606	406,442	-6.3%
1982	85,837	196,831	69,249	204,548	379,518	-6.6%
1983	88,148	199,568	64,941	210,062	380,177	+0.2%
1984	91,140	208,709	61,857	221,725	391,444	+3.0%
1985	88,010	195,016	56,732	222,530	376,462	-3.8%
1985-1979 difference	-3,181	-26,154	-28,804	-14,295	-62,337	
growth rate.	-3.5%	-11.8%	-33.7%	-6.0%	-14.2%	
1985-1984 difference	-3,130	-13,693	-5,125	+805	-14,982	
growth rate.	-3.4%	-6.6%	-8.3%	+0.4%	-3.8%	

* EUR 5 : import + export + national.
** EUR 5 : total national transport + total export (see also table 3.4.).

In the first quarter of 1985 most inland waterways were frozen for several weeks. This caused, compared to Q1 1984 when most waterways remained open, a drop in inland navigation activity of - 12 % in international and - 26 % in national traffic. In the second and third quarter the '85-level of activity was above the level of 1984, but then the weather conditions in the fourth quarter blocked the upward trend again. In the months October and November the water levels on the Rhine were extremely low, which caused a drop in Rhine activity - monitored at the NL/D border - by about 14 %.

Over the years 1979-1985 total activity went down by 14 %. The evolution by Member State shows great differences. The French market was reduced by a third. The evolution in the other Member States was less dramatic, although the loss of activity in Germany (-11.8%) is also important. In 1985 only the Netherlands noted a slight positive growth (+0.4%).

Developments in tonne/kilometers show a slightly different picture, see table 3.2. In tkm the total EUR-5 transport activity in '85 was only 7.8% below the '79 level.

Table 3.2. National and international activity (*) by country ('000,000 tkm)

	B/L	D	F	NL	Total	Growth rate
1979	5,908	50,987	11,898	33,472	102,265	
1980	5,853	51,435	12,151	33,478	102,917	+0.6%
1981	5,442	50,010	11,068	31,792	98,312	-4.5%
1982	4,958	49,401	10,226	31,363	95,948	-2.4%
1983	4,934	49,100	9,447	32,281	95,762	-0.2%
1984	5,201	51,996	8,880	33,593	99,670	+4.1%
1985	5,015	48,183	8,394	32,736	94,328	-5.3%
1985-1979 difference	-893	-2,804	-3,504	-736	-7,937	
growth rate	-15.1%	-5.5%	-29.4%	-2.2%	-7.8%	
1985-1984 difference	-186	-3,813	-486	-857	-5,342	
growth rate	-3.6%	-7.3%	-5.5%	-2.6%	-5.4%	

(*) activity = import + export + national + transit;
distances as far as convered within the mentioned Member State.

N.B.: As the national statistics used in table 3.2 take into account only the distances as far as covered in the Member State, one must be careful with the interpretation by country. For instance, a major port like Antwerp is very close to the Dutch border therefore an increase of exports from Antwerp to NL + D will contribute very little to the Belgium transport statistics but much more to the Dutch.

3.1.3 Development by market

By market, national transport and international transport, which is split in international Rhine traffic and North/South traffic, the developments can be summarized as in table 3.3.

Table 3.3. National and international transport by market ('000 tonnes), 1985

	National	International	
		Rhine (NL/D border)	North/ South
part of total i.w. transport	51.8%	35.5%	12.7%
1985-1984 tonnes gained or lost growth rate	-8,821 -4.4%	-6,648 -4.8%	-243 -0.5%
1985-1979 tonnes lost growth rate	-52,231 -21.5%	-2,983 -2.2%	-4,502 -8.8%

This table shows clearly that the loss of transport since '79 is concentrated in the national markets (- 21.5%). The lower activity in the building industry is to a large extent responsible for this downward trend in national traffic.

Rhine traffic monitored at the NL/D border was significantly down in '85 (-4.8%), mainly as a result of the extremely low water levels during the last quarter.

It must be noted that the so-called "traditional Rhine traffic" as recorded by the CCR on an observation of total Rhine activity between Antwerp and Basel, decreased even more (-5.5%, see table 3.11). Also over the period 1979-1985 the decrease in traditional Rhine traffic is stronger (-8.6%) than measured at the NL/D border (-2.2%). The conclusion is that traffic on the relation Rotterdam - Ruhr area, which dominates traffic at the NL/D border, developed relatively better than the rest of the Rhine market.

North-South traffic was about stable in 1985 (-0.5%). Comparing the evolution of the North-South market over the period 1979-1985 with traditional Rhine traffic, we find roughly the same growth rates -8.8% and -8.6% respectively.

3.2 Inland waterway transport on a country-by-country basis

Table 3.4 presents: tonnage figures for 1984 and 1985, the tonnage gained or lost and growth rates for each bilateral relation and for national traffic.

Table 3.4. Inland waterways: tonnes carried, national and international intra-community traffic ('000 tonnes)

FROM \ TO		B/L	D	F	NL	Total out-going	Total outg. & nation.
B/L	1984	22,013	11,238	3,735	14,157	29,130	51,143
	1985	21,471	9,433	3,455	14,647	27,535	49,006
	difference	-542	-1,805	-280	+490	-1,595	-2,137
	growth rate	-2.5%	-16.1%	-7.5%	+3.5%	-5.5%	-4.2%
D	1984	11,726	70,234	3,100	29,595	44,421	114,655
	1985	10,125	63,715	3,095	25,554	38,774	102,489
	difference	-1,601	-6,519	-5	-4,041	-5,647	-12,168
	growth rate	-13.6%	-9.3%	-0.2%	-13.6%	-12.7%	-10.6%
F	1984	3,478	10,432	33,763	3,859	17,769	51,532
	1985	3,189	8,994	30,455	3,863	16,046	46,501
	difference	-289	-1,438	-3,308	+4	-1,723	-5,031
	growth rate	-8.3%	-13.8%	-9.8%	+0.1%	-9.7%	-9.7%
NL	1984	24,793	72,384	3,490	73,447	100,667	174,114
	1985	25,690	74,100	3,681	74,995	103,471	178,468
	difference	+897	+1,716	+191	+1,548	+2,804	+4,352
	growth rate	+3.6%	+2.4%	+5.5%	+2.1%	+2.8%	+2.5%
Total ingoing	1984	39,997	94,054	10,325	47,611	191,987	
	1985	39,004	92,527	10,231	44,064	185,826	
	difference	-993	-1,527	-94	-3,547	-6,161	
	growth rate	-2.5%	-1.6%	-0.9%	-7.4%	-3.2%	
Total ingoing & national	1984	62,010	164,288	44,088	121,058		391,444
	1985	60,475	156,242	40,686	119,059		376,462
	difference	+1,535	-8,046	3,402	-1,999		-14,982
	growth rate	-2.5%	-4.9%	-7.7%	-1.6%		-3.8%

Total international intracommunity traffic was down by 3.2%. All totals of outgoing and ingoing traffic of the Member States showed a decrease, with exception of the exports from the Netherlands (+2.8%). The biggest decrease was noted in German exports (-5.6 mio t; -12.7%). Further analyses will show that this very important fall in activity was concentrated in building materials and coal (see tables 3.7, 3.10 and 3.13).

Domestic transport

The big markets in national transport are the Dutch and the German: both 70 mio tonnes in 1985. Since then the evolution has been different. In the following years national traffic in the Netherlands was up by 5.0% and 2.1% respectively, to arrive at 75 mio t. in 1985. The German market went sharply down in '85: -9.3% or -6.5 mio ton, which brought the total at 64 mio t. This divergency is remarkable because the German economy as a whole did quite well compared to the Dutch. A further analysis will be given in the next paragraphs.

The small Belgian market showed a limited decrease (-2.5%) in '85. Taking into account the upswing that was noted in 1984 (+9.7%), the total outcome for this market is still quite good.

The evolution of the French national market for inland waterway transport can only be described as dramatic. Year after year losses of about 10 % p.a. are noted. The time series of annual decreases (1986 -9.7%, '82 -11.8%, '83 - 9.6%,'84 -8.0%, '85 -9.3%) gives no reason to believe that the upturn in the trend is near.

3.3 Inland waterway transport by commodities

3.3.1 Major commodities

The four commodities most relevant to inland water transport are:

- building materials (NST 6)
- ores and metal waste (NST 4)
- petroleum products (NST 3)
- and coal (NST 2)

) These four NST groups cover 3/4 of total inland waterway transport.

A fifth sector of the economy with major importance for this mode of transport is the agricultural sector: NST 0+1.

On request of the European organisations of inland waterway transporters is the agricultural sector from now on included in the analysis by commodity, see table 3.10.A. The commodities mentioned above, including NST 0+1, cover 85% of total national and international inland waterway transport.

Table 3.5. Inland Waterways : tonnes of NST 6, 4, 3 and 2 carried in international and national traffic ('000 tonnes)

	NST				
	6 (sand, gravel)	4 (ore)	3 (oil)	2 (coal)	Total
1979	176,105	45,928	81,836	32,379	336,248
1980	174,097	43,105	76,923	37,064	331,189
1981	157,651	40,308	69,960	37,905	305,824
1982	139,358	39,809	68,735	38,307	286,209
1983	137,484	37,834	71,205	34,940	281,463
1984	139,597	44,227	67,062	38,179	289,065
1985	129,704	45,174	68,464	33,187	276,529
1985-1979 difference	-46,401	-754	-13,372	+808	-59,719
growth rate	-26.3%	-1.6%	-16.3%	+2.5%	-17.8%
1985-1984 difference	-9,893	+947	+1,402	-4,992	-12,536
growth rate	-7.1%	+2.1%	+2.1%	-13.1%	-4.3%

Table 3.6. Share of NST 6, 4, 3 and 2 in total national and international inland waterway transport

	NST				
	6 (sand, gravel)	4 (ore)	3 (oil)	2 (coal)	Total
1979	40.1%	10.5%	18.7%	7.4%	76.6%
1980	40.1%	9.9%	17.7%	8.5%	76.3%
1981	38.8%	9.9%	17.2%	9.3%	75.2%
1982	36.7%	10.5%	18.1%	10.1%	75.4%
1983	36.2%	10.0%	18.7%	9.2%	74.0%
1984	35.7%	11.3%	17.1%	9.6%	73.8%
1985	34.5%	12.0%	18.2%	8.8%	73.4%

Despite the declining activity in the building industry, the group building materials (most of it being sand and gravel) is still by far the most important (34.5%) followed by oil products (18.2%).

The groups ores and agricultural products share the third position. With a total tonnage of 45.2 and 45.4 mio t respectively, these groups represent each 12 % of the total market.

Comparing total transport by commodity 1985-1979 we see that coal and ore remained stable, oil went down proportionally with the total market, but sand and gravel went down more than proportionally. So it is mainly the recession in the building industry that caused the decline in inland navigation activity.

3.3.2 NST 6: Building materials

After the decrease in transport of building materials in the period 1979-1982, the market seemed to have stabilised in the years 1982-1984 (table 3.5). However, in 1985 a new decrease can be noted.

The decline in international transport manifested itself on all the main relations (table 3.7), with an exception for NL to B. (+13.3% or +1.1 mio t). Total international NST 6 traffic went down by 8.6% (-4.2 mio t).

As sand and gravel transport is mainly short distance traffic, the national markets are more important than the international. Roughly 2/3 of this commodity is moved as national traffic. The national markets of B, F and NL were all slightly down, with an average decrease in the order of 2%. Only in Germany a real drop in national activity (- 15.1%) was noted and also exports from and imports to Germany were considerably down. At this moment it is not clear to what extent this considerable loss of traffic has been caused by a decreasing activity in the German building industry, or by a shift in the modal split. Road traffic has probably taken over a part of the activity, but another possible explanatory factor could be that in the last quarter of '85 (low water) some movements of sand and gravel were postponed till beginning of '86.

Table 3.7. Inland waterways: tonnes of NST 6 (Sand, gravel, etc.) carried in national traffic and on bilateral relations ('000 tonnes).

FROM \ TO		B/L	D	F	NL	Total outgoing
B/L	1984	4,479	1,123	753	7,057	8,933
	1985	4,414	734	810	6,626	8,170
	difference	-65	-389	+57	-431	-763
	growth rate	-1.5%	-34.6%	+7.6%	-6.1%	-8.5%
D	1984	1,809	27,316	418	17,002	19,229
	1985	1,526	23,179	356	14,418	16,300
	difference	-283	-4,137	-62	-2,584	-2,929
	growth rate	-15.6%	-15.1%	-14.8%	-15.2%	-15.2%
F	1984	196	7,438	16,022	1,321	9,320
	1985	100	6,198	15,552	1,301	7,599
	difference	-96	-1,240	-470	-20	-1,721
	growth rate	-49.0%	-16.7%	-2.9%	-1.5%	-18.5%
NL	1984	8,606	2,299	202	43,191	11,107
	1985	9,752	2,424	158	42,156	12,334
	difference	+1,146	+125	-44	-1,035	+1,227
	growth rate	+13.3%	+5.4%	-21.8%	-2.4%	+11.0%
Total ingoing	1984	10,976	10,800	1,373	25,380	48,589
	1985	11,378	9,356	1,324	22,345	44,403
	difference	+402	-1,504	-49	-3,035	-4,186
	growth rate	+3.7%	-13.8%	-3.6%	-12.0%	-8.6%

3.3.3 NST 4: Ores and metal waste

After four years of continuing decrease total transport of NST 4 swung up in 1984 by 16.9%, together with an additional growth of 2.1% in 1985 the level of activity is now back on the level of 1979.

Table 3.8. Inland waterways: tonnes of NST 4 (ores, etc.) carried in national traffic and on bilateral relations ('000 tonnes).

FROM \ TO		B/L	D	F	NL	Total outgoing
B/L	1984	1,671	704	760	193	1,657
	1985	1,688	686	615	216	1,517
	difference	+17	-18	-145	+23	-140
	growth rate	+1.0%	-2.6%	-19.1%	+11.9%	-8.4%
D	1984	289	2,403	424	350	1,063
	1985	172	2,405	415	358	945
	difference	-117	+2	-9	+8	-118
	growth rate	-40.5%	+0.1%	-2.1%	+2.3%	-11.1%
F	1984	19	11	125	2	32
	1985	7	4	78	17	28
	difference	-12	-7	-47	+15	-4
	growth rate	-63.1%	-63.6%	-37.6%	+750%	-12.5%
NL	1984	2,003	33,714	1,030	529	36,747
	1985	1,817	34,945	1,207	544	37,969
	difference	-186	+1,231	+177	+15	+1,222
	growth rate	-9.3%	+3.7%	+17.2%	+2.8%	+3.3%
Total ingoing	1984	2,311	34,429	2,214	545	39,499
	1985	1,996	35,635	2,237	591	40,459
	difference	-315	+1,206	+23	+46	+960
	growth rate	-13.6%	+3.5%	+1.0%	+8.4%	+2.4%

Table 3.8 shows that there is only one traffic relation of real importance: NL- D., which covers 77% of total NST 4 transport. It was again this relation that was mainly responsible for the rather positive outcome in 1985.

3.3.4 NST 3: Petroleum products

Total activity on the tanker market did not change much (+2.1%) in 1985: international traffic was slightly down (-0.7%) and the sum of national transport was 4.5% up. However, a more detailed examination of table 3.9 shows striking differences by Member State. For instance in outgoing traffic Belgium recorded a drop of 2.3 mio t (-34.8%), while the Netherlands recorded a similar growth: + 2.3 mio t (+10.2%).

The most surprising evolution in national traffic is the jump in tanker activity in the Netherlands: + 3.2 mio t (+46.3%). This sharp increase is probably caused by a combination of two effects: (a) an increase of oil consumption in NL and
(b) substitution of imports by domestic production.
Consumption can go up suddenly if for instance power stations decide to switch from natural gaz to oil. (A number of power stations in NL is equipped for both types of fuel). Secondly, it seems that production in the NL refineries went up on behalf of the Belgian refineries, which is reflected in the export figures of the 2 countries, see also § 3.4.3.

Table 3.9. Inland waterways: tonnes of NST 3 (oil prod., etc.) carried in national traffic and on bilateral relations ('000 tonnes).

FROM \ TO		B/L	D	F	NL	Total outgoing
B/L	1984	5,603	4,224	161	2,297	6,682
	1985	6,124	2,571	181	1,607	4,359
	difference	+521	-1,653	+20	-690	-2,323
	growth rate	+9.3%	-39.1%	+12.4%	-30.0%	-34.8%
D	1984	420	16,672	343	741	1,504
	1985	404	15,643	377	546	1,327
	difference	-16	-1,029	+34	-195	-177
	growth rate	-3.8%	-6.2%	+9.9%	-26.3%	-11.8%
F	1984	7	953	6,534	33	993
	1985	52	959	5,421	22	1,033
	difference	+45	+6	-1,113	-11	+40
	growth rate	+643%	+0.6%	-17.0%	-33.3%	+4.0%
NL	1984	5,538	16,207	352	6,977	22,097
	1985	6,810	17,160	382	10,205	24,352
	difference	+1,272	+953	+30	+3,228	+2,255
	growth rate	+23.0%	+5.9%	+8.5%	+46.3%	+10.2%
Total ingoing	1984	5,965	21,384	856	3,071	31,276
	1985	7,266	20,690	940	2,175	31,071
	difference	+1,301	-694	+84	-896	-205
	growth rate	+21.8%	-3.2%	+9.8%	-29.2%	-0.7%

3.3.5 NST 2: Solid mineral fuels

All taken together, 1985 was a bad year for the carriers of coal. Total activity dropped by 13.1%. The decrease occurred both in national and in international traffic (-11.7%).

The evolution by relation indicates that coal imported from overseas is gaining market share at the expense of coal production in the community. German coal exports (community production) dropped by 28.0%, while German imports via Benelux ports went up by 12.3%.

Table 3.10. Inland waterways: tonnes of NST 2 (coal, etc.) carried in national traffic and on bilateral relations ('000 tonnes).

FROM \ TO		B/L	D	F	NL	Total outgoing
B/L	1984	3,037	608	91	237	936
	1985	2,749	938	181	260	1,379
	difference	-288	+330	+90	+23	+443
	growth rate	-9.5%	+54.3%	+99.0%	+9.7%	+47.3%
D	1984	1,261	12,206	1,438	3,811	6,510
	1985	702	11,237	1,450	2,537	4,689
	difference	-559	-969	+12	-1,274	-1,821
	growth rate	-44.3%	-7.9%	+0.8%	-33.4%	-28.0%
F	1984	10	97	5,521	19	126
	1985	10	61	3,252	7	78
	difference	0	-36	-2,269	+11	-48
	growth rate	0%	-37.1%	-41.1%	+57.9%	-38.1%
NL	1984	973	3,159	453	5,258	4,585
	1985	737	3,341	510	5,215	4,588
	difference	-236	+182	+57	+43	+3
	growth rate	-24.3%	+5.8%	+12.6%	-0.8%	+0.1%
Total ingoing	1984	2,244	3,864	1,982	4,067	12,157
	1985	1,449	4,340	2,141	2,804	10,734
	difference	-795	+476	+159	-1,263	-1,423
	growth rate	-35.4%	+12.3%	+8.0%	-31.0%	-11.7%

As far as national transport is concerned, the collapse of the French market is the most striking event: -41.1%(!) or -2.3 mio t. The fall in coal traffic explains 2/3 of the total loss of activity in French inland waterway transport in 1985. It is not clear to what extent the increased competition of the railways or the continuing switch to nuclear power are responsible for this phenomenon.

3.3.6 NST 0+1: Agricultural products

Agricultural products like cereals and animal foods are important commodities for inland navigation. The agricultural sector generates 12% of total inland waterway traffic.

Table 3.10A Inland waterways: tonnes of NST 0+1 (agricultural products) carried in national traffic and on bilateral relations. ('000 tonnes).

FROM \ TO		B/L	D	F	NL	Total outgoing
B/L	1984	2,563	1,109	673	1,424	3,206
	1985	2,540	1,143	448	1,886	3,477
	difference	-23	+34	-225	+462	+271
	growth rate	-0.9%	+3.1%	-33.4%	+32.4%	+8.5%
D	1984	1,580	3,332	76	1,418	3,074
	1985	869	3,264	78	1,553	2,500
	difference	-711	-68	+2	+135	-574
	growth rate	-45.0%	-2.0%	+2.6%	+9.5%	-18.7%
F	1984	1,978	1,639	4,089	1,703	5,320
	1985	2,168	2,241	4,573	2,232	6,641
	difference	+190	+602	+484	+529	+1,321
	growth rate	+9.6%	+36.7%	+11.8%	+31.1%	+24.8%
NL	1984	2,438	8,514	399	12,896	11,351
	1985	2,406	7,828	377	11,801	10,611
	difference	-32	-686	-22	-1,095	-740
	growth rate	-1.3%	-8.1%	-5.5%	-8.5%	-6.5%
Total ingoing	1984	5,996	11,262	1,140	4,545	22,951
	1985	5,443	11,212	903	5,671	23,229
	difference	-553	-50	-245	+1,126	+278
	growth rate	-9.2%	-0.4%	-21.3%	+24.8%	+1.2%

Total transported volumes of these commodities remained about stable in 1985, but looking at the different relations it appears that there is an evolution to substitute grain and animal fodder imported from overseas by community production. This follows from the fact that French exports (=French production) were up (+1.3 mio t), while Dutch exports (=imports from overseas) were down (-0.7 mio t) and also domestic transport in NL, which is mainly traffic from the ports to consumers in the hinterland, was down by 1.1 mio t. Given the new trend in European agricultural policy this change is likely to be of a structural nature.

3.4 Inland waterway transport by market

3.4.1 International Community inland waterway transport can be basically divided into two separate geographical and organizational markets: the Rhine and the North/South (i.e. traffic between the Netherlands, Belgium and France west of the Rhine.

3.4.2 Rhine

About 75% of all international intra-Community traffic by inland waterways is Rhine traffic. On top of this the Rhine plays an important role in domestic transport in NL and D and to lesser degree in F. The development in tonnes and tonne/kilometres of traditional Rhine traffic (i.e. all international Rhine traffic, including traffic to and from Switzerland, plus national traffic on the Rhine stretches in NL, D and F is shown below:

Table 3.11. Traditional Rhine traffic ('000 tonnes and '000 000 tkm).

	'000 tonnes	difference	growth rate	'000 000 tkm	difference	growth rate
1979	205,473			36,772		
1980	198,166	- 7,307	- 3.4%	36,326	- 446	-1.2%
1981	189,731	- 8,435	- 4.3%	35,486	- 840	-2.3%
1982	184,253	- 5,478	- 2.9%	35,143	- 343	-1.0%
1983	187,691	+ 3,438	+ 1.9%	35,095	- 48	-0.1%
1984	198,576	+10,885	+ 5.8%	37,307	+2,212	+6.3%
1985	187,731	-10,845	- 5.5%	34,564	-2,743	-7.4%
1985-1979		-17,742	- 8.6%		-2,208	-6.0%

As explained already in paragraph 3.1.2 it were mainly the unfavourable weather and water conditions that caused the decrease in Rhine activity in 1985. In the second and third quarter, when conditions for navigation were normal, the level of activity was slightly higher than in the same period of the previous year.

Table 3.11 shows that in the period 1979-1982 the loss of traffic measured in tonnekilometers was smaller than in tonnes, which indicates that in particular short distance traffic suffered from the recession. In the decrease of 1985 it was mainly long distance traffic that was lost (tkm = -7.4%, tonnes = -5.5%). This is understandable because the downstream stretch of the Rhine, where short distance traffic is concentrated, was less affected by the low water period than the upstream part.

The traffic registered at the German/Dutch border is a good indicator for the international Rhine market. A commodity breakdown by direction is given in tables 3.12 and 3.13.

Table 3.12. International Rhine traffic passing Emmerich/Lobith upstream ('000 t)

	1984	1985	Difference	growth
Total	89,808	89,018	-790	+ 7.9%
NST Chapters				
0) agricultural	2,196	2,099	- 97	- 4.4%
1) products	6,795	6,494	- 301	- 4.4%
2 coal	4,432	4,978	+ 546	+12.3%
3 oil products	23,565	22,181	-1,384	- 5.9%
4 ore	35,938	37,164	+1,226	+ 3.4%
5 steel products	4,137	4,048	- 89	- 2.1%
6 sand, gravel	3,105	2,960	- 145	- 4.7%
7 fertilizer	2,894	2,834	- 60	- 1.9%
8 chem. products	5,691	5,242	- 449	-14.5%
9 machinery,etc.	1,055	1,018	- 37	- 3.5%

Table 3.13. International Rhine traffic passing Emmerich/Lobith downstream ('000 t)

	1984	1985	Difference	growth rate
Total	47,166	41,308	-5,858	+ 9.6%
NST Chapters				
0) agricultural	1,940	1,638	- 302	-15.6%
1) products	1,441	1,515	+ 74	+ 5.1%
2 coal	5,924	3,712	-2,212	-37.3%
3 oil products	1,191	1,027	- 164	-13.8%
4 ore	620	673	+ 53	+ 8.5%
5 steel products	6,432	6,437	+ 5	+ 0.1%
6 sand, gravel	20,786	18,212	-2,574	-12.4%
7 fertilizer	2,118	1,773	- 345	-16.3%
8 chem. products	3,967	3,678	- 289	- 7.3%
9 machinery,etc.	2,747	2,643	- 104	- 3.8%

Comparing the results for upstream and downstream traffic striking differences emerge. Upstream traffic, which represents roughly 2/3 of total traffic, remained stable, but downstream traffic was sharply down: -12.4% or - 5.8 mio t. This loss was concentrated in 2 commodities: coal (-2.2 mio t) and sand and gravel (-2.6 mio t). A probable explanation for the drop in coal is the ongoing substitution of German coal by cheaper coal imported from overseas (§ 3.3.5). In line with this hypothesis we see that upstream traffic of imported coal, NL-D, was up by 12.3%.

NST 6 is the major commodity in downstream Rhine traffic. Large quantities of these goods are produced both on the upstream stretch of the Rhine around the F/D border and on the lower part just upstream from the NL/D border. Large quantities of Rhine gravel are shipped to the building industries in NL and B. However, these industries can also be supplied by alternative sources: production from the Meuse or in some cases from the North sea. When water levels on the Rhine go down and transportation costs go up accordingly, the consumers of Rhine gravel tend to switch temporarily to the cheapest alternative source. So, the drop in downstream sand and gravel transport is felt to be mainly of an incidental nature, caused by the low water levels in the last quarter of 1985.

3.4.3. North-South

North-South consists of the network of rivers and canals west of the Rhine between the Netherlands, Belgium and France. By commodity group the market situation changed between 1984 and 1985 as follows :

Table 3.14. North-South traffic ('000 tonnes)

	1984	1985	Difference	growth rate
Total	46,886	46,643	- 243	- 0.5%
NST Chapters				
0) agricultural	5,258	4,956	- 302	- 5.7%
1) products	3,768	3,746	- 22	- 0.6%
2 coal	1,246	1,360	+ 114	+ 9.1%
3 oil products	7,924	6,653	-1,271	-16.0%
4 ore	2,554	3,050	+ 496	+19.4%
5 steel products	1,917	1,753	- 164	- 8.6%
6 sand, gravel	16,517	15,290	-1,227	- 7.4%
7 fertilizer	1,887	2,124	+ 237	+12.6%
8 chem. products	4,326	5,744	+1,418	+32.8%
9 machinery, etc..	1,489	1,967	+ 478	+32.1%

North-South traffic as a whole remained about stable in 1985. (-0.5%). Important losses of traffic in oil products (-16.0%) and sand and gravel (-7.4%) were compensated by increases in chemical products, ores and machinery.

In trying to explain why North-South traffic of oil products was so sharply down, one must take into account also the evolution of the domestic markets in NL and B. (table 3.9), because commercially these 3 markets are closely linked. When for instance an oil company with refineries both in Antwerp and Rotterdam, decides to reallocate parts of production from one refinery to another, or when important consumers switch from one supplier to another, this can cause directly a switch from international to domestic transport or vice versa. In other words, domestic transport in B and NL and North-South traffic are 3 components of the same market; changes from one component to another can take place irrespective of the evolution of demand for oil products in the Benelux.

Benelux Transport of oil products ('000 tonnes)			
market components	1984	1985	growth rate
Belgium domestic	5,603	6,124	+ 9.3%
Netherlands domestic	6,977	10,205	+ 46.3%
North-South (1)	7,924	6,653	- 16.0%
Total Benelux market	20,504	22,982	+ 12.1%

As the table indicates, demand for oil products by inland waterways in the Benelux was 12.1% up.

(1) North-South tankers traffic between France and the Benelux is negligible.

3.5 Fleet developments

The evolution of demand has been highlighted in the previous paragraphs.
In this paragraph the development of the supply side, i.e. the fleet is given.
As a reference it is recalled that total demand in 1985 was - 14.2% below the level of 1979 measured in tonnes and - 7.8% in tkm.

3.5.1 Total fleet

Table 3.15 shows the size of the total fleet and by Member State - in number of vessels and carrying capacity - at various dates.

Table 3.15. Fleet developments: total fleet in number of vessels and carrying capacity ('000 tonnes)

		1.1. 1979	1.1. 1985	1.1. 1986	1986-1979	Growth 86-79	1986-1985	Growth 86-85
Total:	vessels	19,397	16,982	16,696	-2,701	-13.9%	-286	-1.7%
	carrying capacity	13,171	12,839	12,804	-367	-2.8%	-35	-0.3%
B :	vessels	3,321	2,603	2,513	-808	-24.3%	-90	-3.5%
	carrying capacity	1,955	1,756	1,729	-226	-11.6%	-27	-1.5%
L :	vessels	20	17	18	-2	-10.0%	+1	+5.9%
	carrying capacity	12	12	11	-1	-8.3%	-1	-8.3%
D :	vessels	4,230	3,222	3,143	-1,087	-25.7%	-79	-2.5%
	carrying capacity	3,859	3,295	3,277	-582	-15.1%	-18	-0.5%
F :	vessels	5,525	4,769	4,729	-796	-14.4%	-40*	-0.8%
	carrying capacity	2,618	2,329	2,308	-310	-11.8%	-21	-0.9%
NL :	vessels	6,301	6,371	6,293	-8	-0.1%	-78	-2.4%
	carrying capacity	4,727	5,447	5,479	+752	+15.9%	+32	+1.0%

*) The French authorities report that in addition to this the licences of 410 vessels, which did not take part in cargo transport in 1985, were suspended. These licences will only be renewed if the national Survey Committee provides a new certificate to prove that the vessels are still fit for navigation.

In 1985 the capacity of the fleet went slightly down (- 0.3%), which brought the capacity on the level of - 2.8% compared to 1979. This figure is the result of two opposite tendencies: on the one hand the fleets of Belgium, Luxembourg, Germany and France decreased by 13.2%, on the other hand the capacity of the Dutch fleet increased by 15.9%.

Consequently, the relative shares of the national fleets in the total fleet changed considerably over the years, as is shown in table 3.16.

Table 3.16. National shares in total fleet capacity

	1.1.1979	1.1.1986	difference
B	14.8%	13.5%	-1.3%
L	0.1%	0.1%	0.0%
D	29.3%	25.6%	-3.7%
F	19.9%	18.0%	-1.9%
NL	35.9%	42.8%	+6.9%

3.5.2 Dutch and German fleets

The remarkable difference between the development of the two biggest fleets (NL and D) has been investigated in more detail, see table 3.17.

Table 3.17. Breakdown of fleet developments, 1979-1986.

period 1979-1986	Netherlands capacity x '000 t	Germany capacity x '000 t
total fleet, 1.1.1979	4,727	3,859
1. scrappings	- 356 (1) (- 8%)	- 556 (-14%)
2. new buildings	+ 592 (2) (+13%)	+ 285 (+ 7%)
balance (2-1)	+ 236 (+ 5%)	- 271 (- 7%)
4. exports	- 395 (- 8%)	- 514 (-13%)
5. imports	+ 901 (+19%)	+ 212 (+ 6%)
balance (5-4)	+ 506 (+11%)	- 302 (- 8%)
Total development	+ 742 (+16%)	- 573 (-15%)

(1) including 62,000 tonnes having been reported as "taken out of service" in 1985.
(2) including 14,000 tonnes reported as "brought back into service" in 1985.

The "scrap and build balance" for the two fleets reflects the influence of the German scrapping scheme at one hand and the Dutch investment premiums on new buildings at the other hand. However, the balance of imports and exports turns out to be even more important. More than 50% of the capacity-reduction of the German fleet is caused by export of (over)capacity. Although there are no precise figures available, it is known that most of these ships were exported to the Netherlands. On a smaller scale ships were also sold from Belgium and France to the Netherlands. So, about 2/3 of the Dutch fleet expansion results from a change of flag.

3.5.3 Overcapacity

In the two previous issues of the Annual Report an estimate was made of the overcapacity in the inland navigation sector. The calculations were based on the assumption that 1979 was a year with a reasonable equilibrium between supply and demand and, secondly, that the average productivity increase could be set at 1% per annum. As expressed in the previous Annual Report it was felt that the annual productivity increase could possibly be higher.

On request of the European Commission, EBW in Rijswijk carried out, recently, a global study to get a better insight in the evolution of productivity. On the basis of a great number of detailed trip reports of Dutch dry cargo vessels operating on both national and international markets, it was possible to analyse the evolution of trip components e.g. loading time, sailing time, unloading time, load factors, daily working hours, etc. The preliminary conclusion is that the average increase of productivity over the period 1980-1985 was in the order of 3% per annum ! If this figure is adopted as an average for the European fleet, it is found that the overcapacity, starting from 1979 as a base year, is now more than 20%.

Table 3.18. Estimated overcapacity of the total fleet

development since 1979	1.1.1986
demand (t/km)	-7.8%
supply (t. carrying capacity)	-2.8%
balance	-5.0%
prod. incr. (3%/year)	+18.0%
estimated overcapacity	+23.0%

This outcome coincides reasonably well with the results of more detailed calculations carried out by the Central Rhine Commission in the past.

3.6 Inland waterway transport by flag

Not all the 1984 and 1985 data on the share of the fleet of each of the Member States in inland waterway transport is as yet available. Therefore, data from 1983[1]), based on tonnes carried, are presented here in order to give an insight in traffic on each of the inland waterway transport markets.

3.6.1 Flag shares on national and international markets

In table 3.19 flag shares are given for national transport, international transports, ingoing and outgoing traffic and total transport, including transit traffic of Belgium/Luxembourg, Germany, France and the Netherlands. In addition to the traffic shares of each country, the share is given for other carriers ("0"). Under this heading, vessels of Swiss and East bloc nationalities are the most important.

Table 3.19. Inland waterways: national and international traffic in tonnes; share by nationality of the vessel, 1982 (%)

	nationality of the vessel	national traffic %	international traffic %	outgoing traffic %	ingoing traffic %	total traffic (incl. transit) %
B/L	B/L	89.4	33.4	34.9	32.1	45.9
	D	0.4	6.9	9.8	4.7	5.3
	F	0.5	5.3	4.8	5.6	5.4
	NL	7.7	49.6	44.2	53.9	39.4
	O	2.0	4.8	6.3	3.7	4.0
D	B/L	1.1	5.9	7.5	5.2	4.5
	D	88.2	32.5	21.0	38.5	49.0
	F	0.1	1.9	2.1	1.7	1.9
	NL	7.0	46.5	54.4	42.3	33.4
	O	3.6	13.2	15.0	12.3	11.2
F	B/L	0.1	25.8	12.1	34.9	8.4
	D	0.2	31.4	43.0	16.4	15.8
	F	99.1	17.9	15.8	25.9	58.7
	NL	0.1	15.0	15.0	18.4	8.4
	O	0.5	9.9	14.1	4.4	8.7
NL	B/L	1.3	13.7	12.7	15.8	11.8
	D	0.3	21.8	26.5	11.8	15.5
	F	0.1	2.4	2.1	3.1	2.0
	NL	98.0	54.3	50.2	63.0	64.8
	O	0.3	7.8	8.5	6.3	5.9

[1]) Source: Eurostat.

As becomes clear from the table, national traffic is in the hands of transporters of that same country. In France and the Netherlands national transporters carry out almost 100% of domestic transport. In Belgium and Germany this flagshare is close to 90%. The Dutch are the only foreign transporters with an appreciable share in domestic markets of other Member States (7 to 8% in B and D).

In international transport the Dutch fleet holds a very strong position. Not only do Dutch vessels carry 54.3% of Dutch international traffic, they also are the main transporter in Belgium (49.6%) and German (46.5%) international traffic. This important market share is held in ingoing as well as in outgoing traffic.

In German and Belgian international traffic national carriers hold important marketshares of about a third of the tonnage transported.

On the - relatively small - French international inland waterway transport market German carriers hold the biggest share (31.4%), this represents, in particular, outgoing Rhine traffic.

Figures on market shares in total international traffic, based on tonnes carried, as well as in international Rhine shipping, are presented in table 3.20. Compared to the previous year the Dutch market share in total transport increased from 45.0% to 47.4%.

Table 3.20. Flag shares in total international transport and international transport by market, 1983 (%)

Flag	Total international traffic [1] (tonnes)	Rhine traffic [2] (tonnes)	North/South traffic [3] (tonnes) *
B/L	15.3%	7.4%	38.6%
D	23.9%	29.2%	2.9%
F	4.0%	2.1%	8.2%
NL	47.4%	51.1%	45.6%
O	9.4%	10.2%	4.7%

1) Source: Eurostat.
2) Monitored at NL/D border. Source: CBS.
3) Based on national statistics of NL and F.

3.7 Transport Inquiry Survey

The results of opinion surveys carried out among waterway operators on the Rhine and the North/South network give a quick insight into effects of the economic depression on the inland waterway sector.

On the Rhine, these surveys are conducted by the Central Rhine Commission among 22 shipowner companies and cooperatives of private operators.

On the North/South, the Economic Bureau for road and waterway transport (E.B.W., Netherlands), and the Institut pour le Transport par Batellerie (I.T.B., Belgium) collect information among a panel of owner/operators and shipowners on behalf of the Commission. The Office National de la Navigation (O.N.N., France) also supplies important information.

3.7.1 Rhine

The downgoing trend in Rhine traffic, which started in 1980, reversed in the second half of 1983. All quarters of 1984 recorded a positive growth. The severe frost in the first quarter of 1985 caused a dip in the upward trend, which seemed to be of an incidental nature given the growth in the subsequent quarters. But then again (Q4 85) the weather conditions caused a fall in Rhine activity.

Table 3.21. Traditional Rhine traffic ('000 tonnes and '000,000 tkm)

	'000 tonnes 1984	'000 tonnes 1985	Change*	'000,000 tkm 1984	'000,000 tkm 1985	Change*
Quarter						
1	47,704	40,985	-14.1%	8,728	7,498	-14.1%
2	52,109	52,520	+0.8%	9,913	10,001	+ 0.9%
3	50,154	52,334	+4.4%	9,677	10,092	+ 4.3%
4	48,609	41,892	-13.8%	8,989	6,973	-22.4%
Total	198,576	187,731	-5.5%	37,307	34,564	- 7.4%

* compared to the same quarter of the previous year.

The water levels in the last quarter of 1985 were so low that traffic on the upstream stretch of the Rhine came even to a stand still during a certain period. Long distance traffic was more affected than short distance, which is reflected in a loss of -22.4% in tkm compared to -13.8% in tonnes.
Despite the decrease in Rhine traffic in 1985 (-5.5% in tonnes) it is felt that the underlying economic trend is still slightly positive.

3.7.2 North/South

Waiting time on the bourses is one of the best indicators of activity on the North/South market for dry bulk cargo. Transport of oil products is free from bourse-intervention. The same applies for sand and gravel transport originating in the Netherlands and for a number of large bulk transports on the relation NL-B.

The following table shows the evolution of waiting days by traffic relation. For the total of North/South traffic the level of waiting time for the year 1985 showed not much difference compared to the previous year. Only in the last quarter a sharp reduction of waiting times was noted on all relations, which seems surprising considering that the level of demand in North/South traffic did not change. The extra demand for ships in Rhine traffic in Q4 '85 (low water levels cause a reduction of the average loading factor, which is compensated by using more ships) is seen as the explanatory variable in this case. In particular bigger ships were diverted from North/South to the Rhine market.

Table 3.22. Quarterly average of waiting days in international North-South traffic by traffic relation.

Traffic relation		Q1	Q2	Q3	Q4	Yearly average
1) NL — F	1982	10.1	16.6	20.0	15.0	15.4
	1983	11.5	18.8	17.6	8.9	14.2
	1984	14.3	20.1	16.2	11.4	19.1
	1985	14.2	19.3	18.0	13.9	16.3
	1986	17.1	-	-	-	-
2) NL — B	1982	8.7	10.9	14.7	13.3	11.9
	1983	12.7	13.3	12.9	8.4	11.8
	1984	12.5	12.2	14.0	10.7	12.3
	1985	13.5	12.9	13.6	8.7	12.2
	1986	10.9	-	-	-	-
3) B — F	1982	5.8	6.0	8.2	6.1	6.5
	1983	7.5	7.7	8.4	4.7	7.1
	1984	7.7	7.5	8.1	7.0	7.6
	1985	10.1	7.8	9.9	7.9	8.9
	1986	10.9	-	-	-	-
4) B — NL	1982	-	-	-	9.5	-
	1983	8.1	8.6	9.5	6.9	8.3
	1984	8.9	8.7	8.7	8.5	8.7
	1985	10.7	10.6	11.3	8.5	10.3
	1986	8.8	-	-	-	-
5) F — B+NL	1982	9.2	18.0	16.1	12.5	14.0
	1983	20.9	17.0	21.0	16.2	18.8
	1984	19.0	19.6	22.8	18.6	20.0
	1985	18.7	19.1	26.6	10.3	18.7
	1986	18.3	-	-	-	-

The general feeling of the transporters about the market situation (balance of opinions on demand, utilisation of capacity and forecast of activity) changed gradually over the year 1985. From very negative (1984) the balance of opinions changed to less negative or even slightly positive towards the end of 1985.

3.8. Cost and price indices

Cost and price indices were presented for the first time in the Annual Report 1983. In 1984 the system was further developed. In 1985 minor improvements have been made.

All indices are on the basis 1.1.1979 = 100. This year had been chosen by the CCR as a base year for Rhine market observation, because it is considered to be the latest year with equilibrium between supply and demand.

Some of the tables and graphs that are summarized and commented here, have already been presented in the quarterly reports No. 18 and 20.

3.8.1. Methodology

Cost indices are calculated for four shiptypes :

- ships having a carrying capacity of 350 tonnes;
- ships having a carrying capacity of 600 tonnes;
- ships having a carrying capacity of 1200 tonnes;
- pusher units.

When the previous reports were presented, cost information for pusher units was not yet available. These cost indices were therefore based on the costs of big motorvessels (2200 tonnes). The results of a detailed study on costs of pusher units became available in 1985. The corrected results over the period 1979-1985 are included in the graphs and tables presented in this report. As a consequence, total costs for Rhine traffic had to be revised slightly upwards.

The cost indices are calculated following a given cost structure in the base year (1.1.1982). The following cost elements are taken into account :

- wages,
- capital,
- fuel,
- other costs.

On waiting days the following assumptions were made :

Rhine : 1 day,
N/S : 10 days.

The calculations are based on the actual cost developments on 47 international traffic relations representing total international waterway transport in the Community. By weighting the various relations and cost elements, cost indices are found for each of the bilateral traffic relations between Member States and for the North-South and Rhine inland waterway transport markets.

The information is collected twice a year, on 1 January and 1 July.

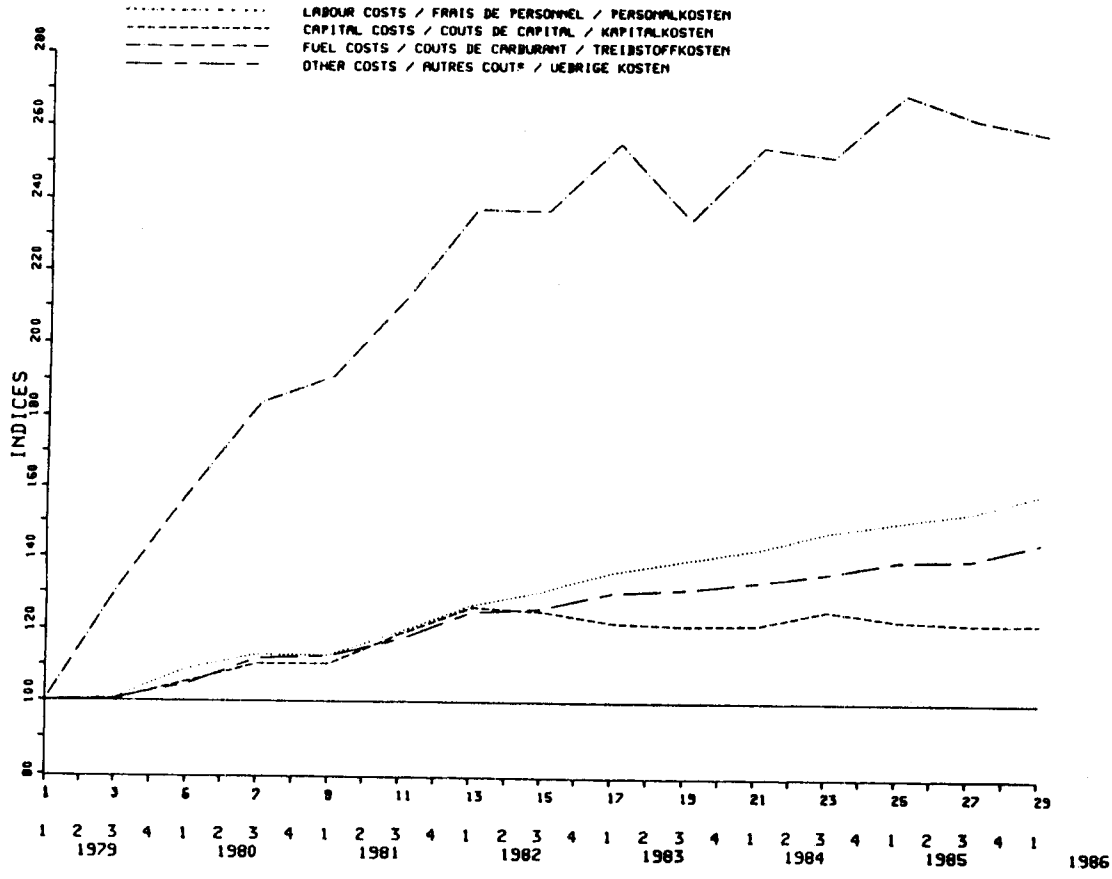
Price indices for the Rhine are collected by the CCR in cooperation with the Arbeitsgemeinschaft. The data are provided by 22 transport organizations, that means: most of the big ship owner companies and some cooperatives of small operators. These organizations are responsible for 50 to 60% of the total tonnage moved.

Price indices for international North-South traffic are collected by EBW (Rijswijk) and ITB (Brussels). The information is obtained from both shippers and transporters. Some 200 mainly small transport firms provide information for this part of the market observation system.

3.8.2. Overall cost development and by market (in ECU)

Over the last years the cost development in inland navigation has been dominated by the evolution of fuel costs. The highest level for these costs was recorded on 1.1.1985. Since then fuel costs started to decrease gradually. A real fall of oil prices emerged shortly after 1.1.1986 (not yet shown in fig. 3.1).

Figure 3.1. : Overall cost indices by element (Rhine + North-South) in ECU.



After an increase of overall cost of 4.3% in 1984, costs increased by 2.9% in 1985. The slight decrease in fuel costs was more than compensated by increasing labour costs and other costs.

These "other costs" represent mainly services provided to the transporter, such as: repairs, maintenance, port fees, insurance, etc. This is now the fastest growing cost component.

Table 3.23.: Cost indices by elements and by market 1.1.1985, 1.7.1985, 1.1.1986 in ECU (1.1.1979 = 100).

Market	Cost elements	1.1.1985	1.7.1985	1.1.1986
Overall	wages	150	153	158
	capital	122	122	122
	fuel	268	261	258
	other costs	139	140	145
	total costs	152	152	155
Rhine	wages	152	154	160
	capital	125	126	126
	fuel	271	263	263
	other costs	143	143	148
	total costs	157	157	160
North/South	wages	148	151	156
	capital	118	116	115
	fuel	264	259	250
	other costs	135	135	139
	total costs	143	144	147

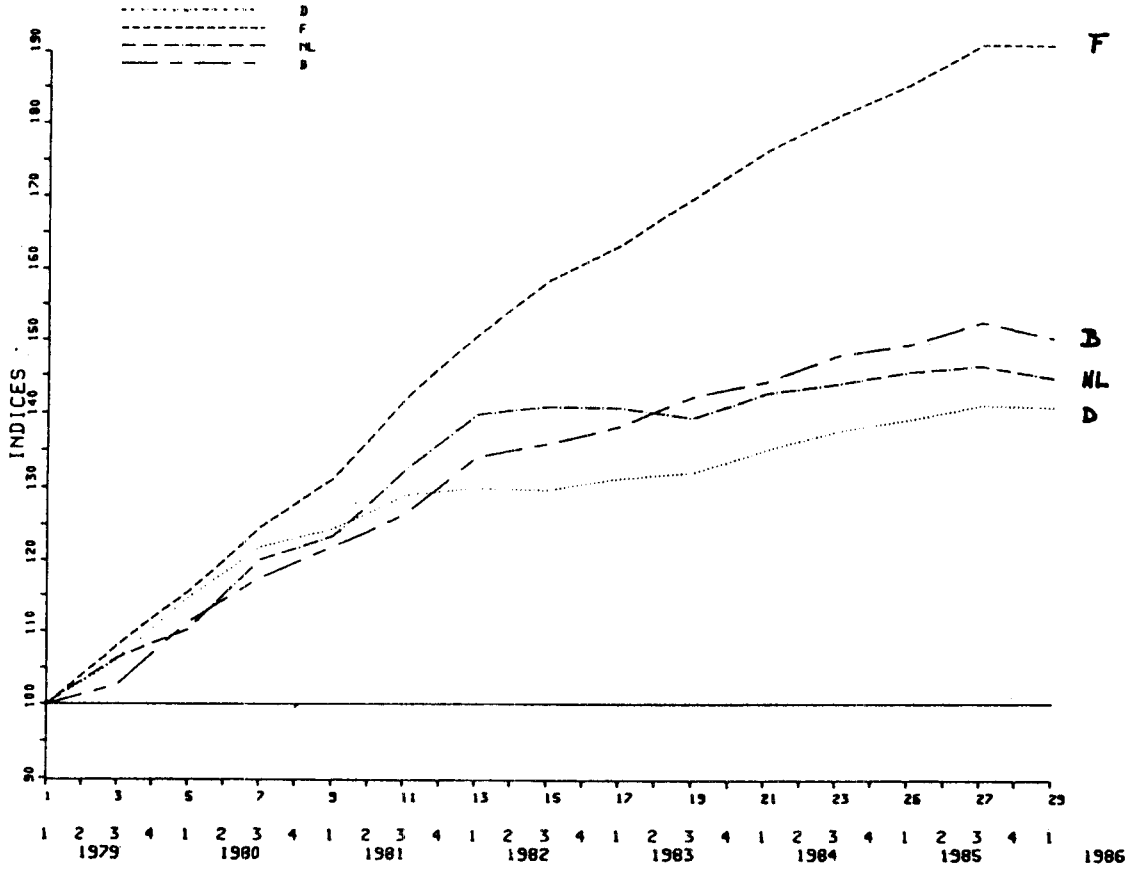
Capital costs tended to go down, in particular in North-South traffic. The decreasing interest rates and the low investment level in the sector are the explanatory factors for this phenomenon.

Since 1979 total costs increased slightly more in Rhine traffic (+60) than in North-South (+47), mainly because the boom in oil prices had a greater impact on Rhine costs (Rhine traffic is in general more fuel consuming per tkm). Now that oil prices are going down it is to be expected that the difference in cost level will become less.

3.8.3. Total cost development by nationality of the carrier (in national currency)

If costs are monitored in national currency, big differences appear between cost developments by flag, mainly due to differences in inflation rates in the period 1979-1984. However in 1985 the evolution was in all Member States concerned about the same, namely a stabilisation of total costs.

Figure 3.2.: Overall cost indices in national currency



In the following table cost increases in 1985 are broken down by nationality of the carrier.

Table 3.24.: Total cost indices by nationality of the carrier in national currency (1.1.1979 = 100).

	B (BF)	D (DM)	F (FF)	NL (HFL)
1.1.1985	149	139	185	145
1.7.1985	152	141	191	146
1.1.1986	150	140	190	144
Increase 1985	+0.5%	+1.1%	+2.9%	-0.5%

A registration of costs and prices in national currency includes so many monetary effects that it is not possible to get a clear and separate view of the developments in the European transport market. Therefore the rest of the analyses will be based on ECU.

3.8.4. Cost developments by shiptype (in ECU)

Table 3.25.: Cost indices (total costs) by shiptype in ECU

Year	350 tons	600 tons	1200 tons	pushed units
1.1.1979	100	100	100	100
1.1.1980	110	108	112	111
1.1.1981	118	113	119	135
1.1.1982	131	128	135	159
1.1.1983	134	130	142	171
1.1.1984	137	132	144	173
1.1.1985	146	139	150	182
1.7.1985	148	139	150	180
1.1.1986	151	142	153	183

The incidence of the fuel cost increase since 1979 was most strongly felt for pushed units. For the other ship types the differences in cost developments over the years were relatively small. During the last year, 1985, costs increased more for small vessels than for big ones, respectively: + 3.6%, + 2.1%, + 2.1% and + 1.0%.

3.8.5. Comparison between cost and price developments by market

a) Rhine market

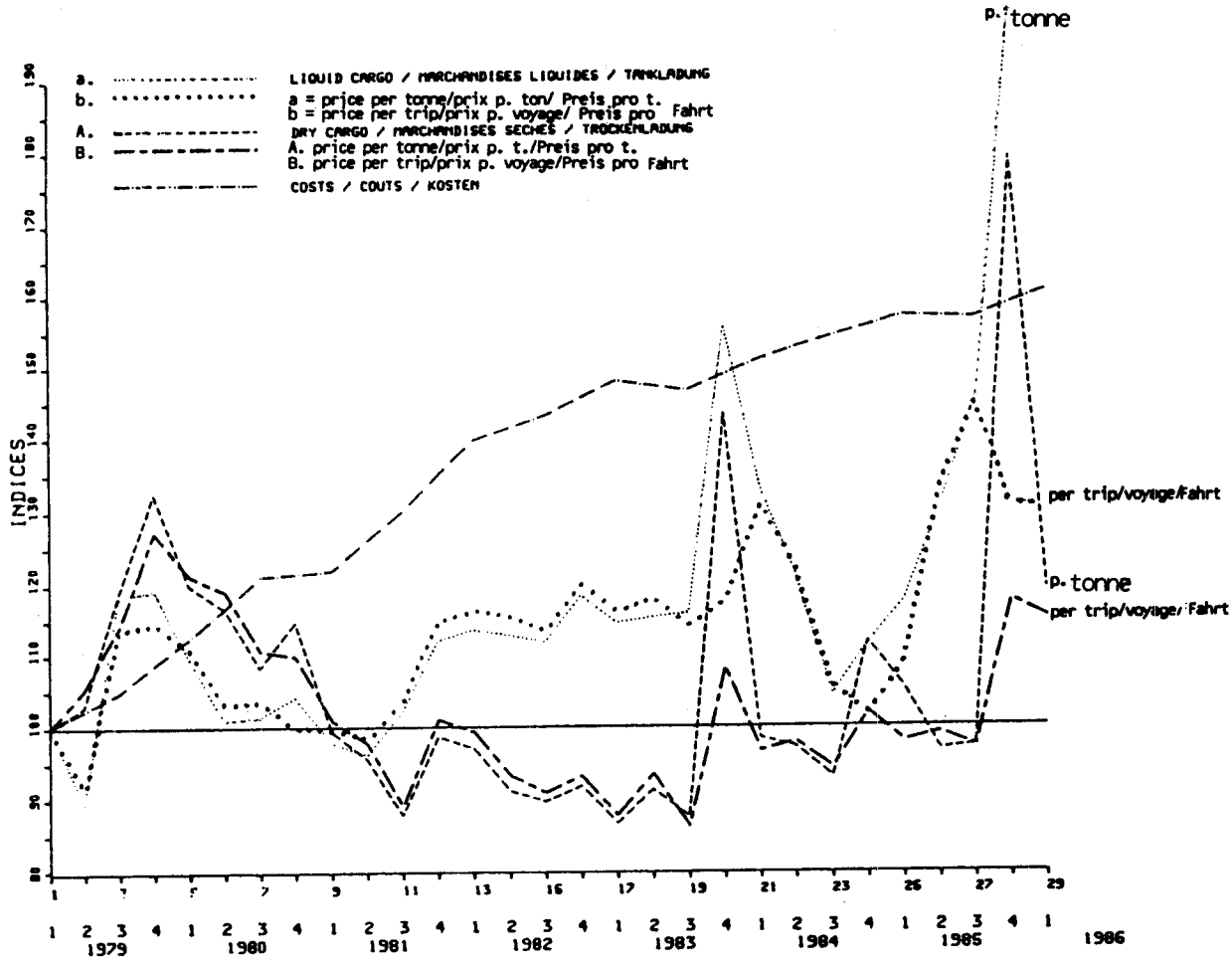
The comparison of cost and price indices for Rhine traffic may require some explanation.

Cost indices are calculated on the basis of costs per trip. Price indices can either be based on prices per tonne or revenues (prices) per trip. For a clean comparison costs per trip should be compared with revenues per trip. As long as the average loading factor of the ships does not change the pattern of price indices per tonne or per trip will be the same (price per tonne x tonnes carried = revenue per trip). However, in Rhine traffic the average loading factors are far from constant. In periods of low water levels the loading factors can go down sharply (up to 50% of the normal level). In these circumstances transporters receive in general a "low water allowance" per ton, which is a compensation to keep the revenues per trip on the agreed level. So prices per tonne will show an upswing in this situation while prices per trip will remain the same.

But there is a second effect that has to be taken into account. Reduced load factors imply that more ships are needed to keep the normal cargo flow going. So an increase in demand is felt in the market which causes a further upward pressure on prices. Consequently, not only prices per tonne, but also revenues per trip will go up - although to a much lesser degree - in such periods.

In figure 3.3 price indices per trip and per tonne are presented for dry and liquid cargo and compared to the evolution of costs in Rhine traffic as a whole.

Figure 3.3.: Cost and price developments for Rhine traffic in ECU



The above-presented graph shows clearly the strong low-water-effect in the last quarter of 1985. Something similar occured in Q4 83.

The cost/price ratio of 1979 has been chosen as the reference level, because this year is considered as a year with equilibrium between demand and supply on the Rhine market. The downgoing demand in 1980, and the overcapacity that resulted thereof, caused a sharp fall in prices both in dry and liquid cargo.

In dry cargo the situation deteriorated further in the period 1981-1983. In 1983 profitability reached its lowest point, with prices down to 90 while costs had gone up to 150. Since then the situation has improved slightly and gradually. Prices in liquid cargo had recovered partly already towards the end of 1981. Since then the evolution of prices runs more or less parallel with the evolution of costs.

General remarks

The cost indices are based on a detailed study - carried out in 1982 - concerning the cost structure and the productivity of different types of inland navigation enterprises. Since then the periodical changes in cost elements (fuel, wages, etc.) have been applied on the costs per trip calculated for the base year, but possible changes in the productivity were not taken into account so far. In 1985 the EBW on behalf of the Commission carried out a global study on the productivity-evolution for motorvessels in dry cargo. The outcome indicates an average productivity increase (more trips as a result of shorter turn around times longer working hours and other factors) of about 3% per annum. It is intended to introduce in the future a correction factor for productivity changes in the calculation of cost indices.

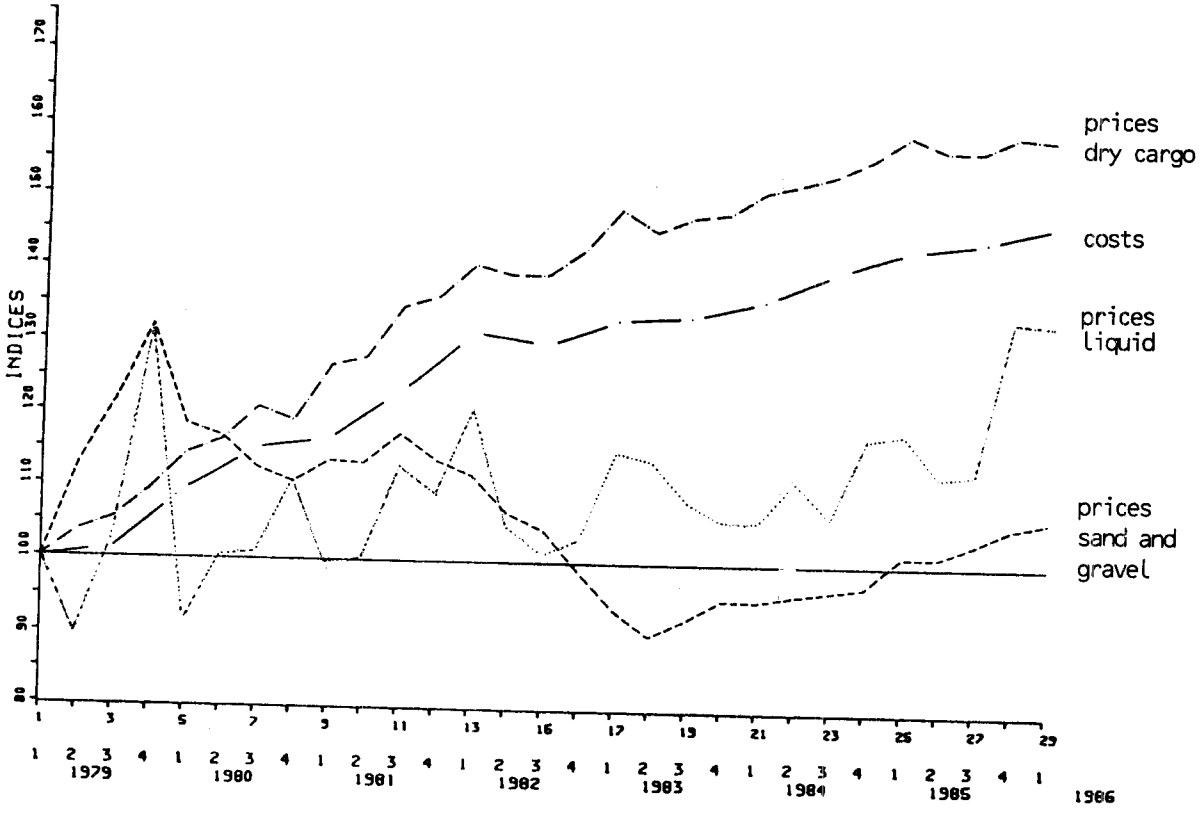
b) North-South market

In international North-South traffic there are different market regimes, which results in different price developments.

* The market for liquid cargo is free, as it is on the Rhine. The same applies for most of the sand and gravel transports.

* The rest of dry cargo is in principle subject to a tour de rôle system, although there are exceptions for certain transports between NL and B. Prices in this regulated market are fixed after negotiations between representatives of transporters and shippers in the tariff committees, or by transporters unilaterally.

Figure 3.4.: Cost and price developments for international North-South traffic, in ECU.



Prices in the free segment of the North-South market show roughly the same pattern as on the Rhine. The lowest point in prices compared to costs was reached at the end of 1983. Since then prices developed parallel with costs or tended to rise slightly more.

Prices in liquid cargo showed an upswing at the end of 1985. The extra demand for tankers in Rhine traffic in this period (low water) will have played a role. So, probably the upswing will turn out to be of a temporarily nature.

As the prices in the regulated market are currently more attractive for the transporters than on the free market, the overcapacity in dry cargo vessels tends to concentrate on the waiting lists of the tour de rôle-systems (including the tour de rôle systems for domestic transport in NL and B). This leads to an increase of waiting times, see § 3.7.2., which has a similar negative effect on the profitability as the low prices on the free markets.

CHAPTER 4

RAIL

4.1 Introduction

After the reversal of the downgoing trend in 1984 (+15% or 9 million tonnes), 1985 showed a further small increase of 2.4% or 1 700 000 tonnes. The increase expected for 1986 is +2.5%.

4.2 Intra EUR-10 international rail activity

Table 4.1 gives the EUR-10 matrix of tonnages moved by rail.

Ingoing data have been chosen for all countries except for the UK where exporting figures of the partner country have been used (due to a lack of split of the UK ingoing data).

In the table Belgium and Luxembourg have been taken together for the sake of conformity with what has been done in the chapters on road and inland waterways.

As far as Ireland is concerned, the only international rail traffic is between Ireland and Northern Ireland. On this relation no information has been communicated.

The main traffic flows run between Germany, France, Italy and Belgium/Luxemburg, followed by the Netherlands. Of these flows, international traffic to and from Germany (+1.46 mio tonnes; +4.4%), Belgium/Luxemburg (+2.52 mio tonnes ; +7.1%) the Netherlands (0.92 mio tonnes; +69%) increased, while French (-1.50 mio tonnes; -4.3%) and Italian (-0.36 mio tonnes; -1.7%) international traffic decreased.

Table 4.1: Intra EUR-10 international rail traffic '000 tonnes and % growth rate

From \ To		D	F	I	NL	B/L	UK	IRL	DK	GR	TOTAL
D	84		6 403	5 451	1 966	5 235	112		687	84	19 938
	85	---	6 069	6 018	1 781	5 440	106	---	893	85	20 392
	%		- 5.0	+ 10.0	- 9.0	+ 4.0	- 5.0		+30.0	+ 1.0	+ 2.3
F	84	3 726		8 057	478	6 525	245		84	27	19 142
	85	3 466	---	7 163	564	6 606	232	---	89	22	18 142
	%	- 7.0		- 11.0	+ 18.0	+ 1.0	- 5.0		+ 6.0	-19.0	- 5.2
I	84	2 257	1 723		494	1 010	441		65	29	6 019
	85	2 345	1 548	---	440	1 075	462	---	67	26	5 963
	%	+ 4.0	- 10.0		- 11.0	+ 6.0	+ 5.0		+ 3.0	-10.0	- 0.9
NL	84	3 639	1 356	515		895	24		12	4	6 445
	85	4 457	1 456	567	---	956	20	---	14	5	7 475
	%	+ 22.0	+ 7.0	+ 10.0		+ 7.0	- 17.0		+17.0	+25.0	+ 16.0
B/L	84	3 137	5 982	1 357	1 916	4 509 *	66		48	8	17 023
	85	3 337	5 864	1 373	1 974	5 476 *	47	---	83	10	18 164
	%	+ 6.0	- 2.0	+ 1.0	+ 3.0	+ 21.0	- 29.0		+73.0	+25.0	+ 6.7
UK	84	95	37	218	10	36			0	0	396
	85	128	58	160	2	43	---	---	0	0	391
	%	+ 35.0	+ 56.0	+ 27.0	+ 81.0	+ 17.0					- 1.3
IRL	84										
	85	---	---	---	---	---	---	---	---	---	---
	%										
DK	84	342	19	51	10	39	0			1	462
	85	466	22	62	7	28	3	---	---	1	589
	%	+ 36.0	+ 16.0	+ 22.0	- 30.0	- 27.0	+350.0			+ 9.0	+ 27.5
GR	84	51	3	3	6	0	0		0		63
	85	58	1	3	6	3	0	---	0	---	71
	%	+ 14.0	- 47.0	+ 2.0	+ 1.5	+840.0	- 63.0		- 100		+ 12.6
EUR 10	84	13 247	15 523	15 652	4 880	18 249	888		896	153	69 488
	85	14 257	15 018	15 346	4 774	19 627	870	---	1 146	149	71 187
	%	+ 7.6	- 3.3	- 2.0	+ 2.2	+ 7.6	- 2.0		+ 279	- 2.6	+ 2.4

* 1985: B ⟶ L: 3 911 (+16%)
L ⟶ B: 1 505 (+37%)
5 476 (+21%)

1984: B ⟶ L: 3 367
L ⟶ B: 1 142
4 509

Taking ingoing and outgoing traffic separately, the following relations showed a change of more than 1 mio tonnes:

to	B/L	+ 1.378 Mio tonnes;	+ 16.0%
from	B/L	+ 1.141 Mio " ;	+ 7.6%
from	NL	+ 1.030 Mio " ;	+ 16.0%
to	D	+ 1.010 Mio " ;	+ 14.0%
from	F	- 1.000 Mio " ;	- 5.2%

Also in 1984 ingoing and outgoing Belgian/Luxembourg traffic showed an important increase, while in 1985 France lost a part of the important increase gained in 1984 (+2.80 mio tonnes).

Important changes ($\geqslant$ 500.000 tonnes) could be noted on the following individual relations

F to	I	- 0.894 Mio tonnes;	- 11.0%
NL to	D	+ 0.818 Mio " ;	+ 22.0%
D to	I	+ 0.567 Mio " ;	+ 10.0%
B to	L	+ 0.544 Mio " ;	+ 16.0%

On B to L and D to I also last year an important increase has been reported, while on the relation F to I the loss of about 0.9 mio tonnes follows an increase of 1.9 mio tonnes in 1984.

The overall developments during the year, excluding B ⟷ L, were as follows

quarter	I	II	III	IV
growth rate 85/84	-1.5	+3.7	-2.7	+4.6

The improvements on the relation NL ⟶ D, but also on the relation B ⟶ D, were realized during the fourth quarter in particular (+48% and +15% respectively), following low water levels on the Rhine, which made inland waterway transport on that link more difficult and more expensive. On these two relations rail transported 600,000 tonnes more during that quarter than the previous year, while inland navigation lost 1.2 Mio tonnes during the same period.

4.3 Spain and Portugal

In this issue of the annual report, data on rail traffic between the EUR-10 and Spain and Portugal are published for the first time. In the following table data on ingoing and outgoing traffic between the EUR-10 and Spain and Portugal are given.

Table 4.2 Rail traffic between the EUR-10 and Spain and Portugal, in 1985, (in '000 tonnes)

to / from	E	P	from / to	E	P	TOTAL E	TOTAL P
D	406	14	D	348	11	754	25
F	79	8	F	207	21	286	29
I	27	17	I	87	13	144	30
NL	6	0	NL	39	0	45	0
B/L	40	1	B/L	132	1	138	2
UK	N.A.	N.A.	UK	N.A.	N.A.	N.A.	N.A.
IRL	-	-	IRL	-	-	-	-
DK	1	0	DK	15	-	15	0
GR	-	-	GR	0	-	1	-
Total	559	40	Total	828	46	1383	86

Total rail traffic between the Iberian peninsula and the Ten is very small; only between Greece and the other nine Member States is less traffic carried by rail. 94% of this traffic is with Spain and only 6% with Portugal. Outgoing traffic is 40% of total traffic and ingoing 60%. About half of total traffic is going to and coming from Germany, followed by France (20%), Belgium/Luxemburg (10%) and Italy (8%).

4.4 Railway Tariff Indices

4.4.1 Coverage

Tariff surveys are being carried out in Germany, France, Italy, Belgium and the Netherlands. The four railways agreed on the method of a "basket" of representative commodities defined for each directed relation from actual traffic data for the reference period (1981). The indices are based on the official tariffs, expressed in railway francs. The, sometimes important, rebates on the official tariff given in practice are therefore not reflected in the indices.

4.4.2 Price developments by relation

The quarterly data are now being published in the Market Development reports taking 31 December 1981 as 100. For 1984 the following price developments could be noted:

traffic relation	index		increase (%) in 1985
	31.12.1984	31.12.1985	
D to F	121	126	4.1
D to I	116	125	7.8
D to NL	114	115	0.9
D to B/L	117	125	6.4
F to D	121	130	7.4
F to I	144	155	7.6
F to NL	128	133	3.9
F to B/L	134	143	6.7
I to D	-	116	-
I to F	140	151	7.9
I to NL	134	141	5.2
I to B/L	145	146	0.7
NL to D	112	-	-
NL to F	117	121	3.4
NL to I	122	128	4.9
NL to B/L	128	136	6.3
B/L to D	122	-	-
B/L to F	133	142	6.8
B/L to I	136	145	6.6
B/L to NL	124	130	4.8

Important price increase of more than 7% could be noted on the relations Italy to and from France and Germany to Italy and France to Germany. On some relations to and from Belgium/Luxembourg price increases of more than 6% could be noted: to and from France, to Italy and to the Netherlands.

In general these increases could be explained by inflation rates in the two countries in the relation and in, if any, transit countries. However, on certain relations freight price increase seem higher than average inflation, for instance NL to B/L and F to D, while on other links increases are clearly lower than average inflation in the countries concerned, like in I to B/L.

CHAPTER 5

COMBINED TRANSPORT

5.1 Container transport 1985

The data in paragraph 5.1.1 to 5.1.3 have been established with the assistance of Intercontainer (Société internationale pour le transport par transcontainers); an enterprise owned by 25 European railways companies for the international carriage of containers.
These data cover container movements by rail in Europe which is a wider area than the Community.
From paragraph 5.1.4 onwards, data are reproduced on intracommunity transports of containers by rail as they are collected through the Statistical Directive Rail.
In both cases it is unknown which share of total container traffic is combined road/rail traffic as distinct from pure rail transport.

5.1.1. After dropping for two years and a recovery in 1983, 1984 and 1985 are years of sustained growth for Intercontainer traffic. The details of this development are shown in the following table.

Table 5.1 Development of total container traffic by rail (in TEU)(*)

year	traffic	in/decrease	growth rate
1980	811,500		
1981	783,750	- 27,750	- 3.4%
1982	718,500	- 65,250	- 8.3%
1983	760,750	+ 42,000	+ 5.8%
1984	824,750	+ 64,000	+ 8.4%
1985	904,750	+ 80,000	+ 9.7%

In TEU-km the development in 1985 was even better, as is shown in the following table.

Table 5.2 Development of total container traffic by rail (in '000 000 TEU-km)

year	traffic	in/decrease	growth rate
1980	623.7		+ 6.1%
1981	605.9	- 17.8	- 2.9%
1982	556.2	- 49.7	- 8.2%
1983	606.7	+ 50.5	+ 9.1%
1984	662.9	+ 56.2	+ 9.3%
1985	749.1	+ 86.2	+11.3%

(*) TEU: Twenty feet equivalent unit.

Traffic to and from the ports remains by far the most important container traffic. In the following table the development of the various types of container traffic are shown.

Table 5.3 Container traffic broken down by sector, in TEU and share of each sector

year	container traffic to and from the ports		continental traffic		UK + Ireland		USSR	
	number	%	number	%	number	%	number	%
1981	467 000	59.6	250 750	32.0	41 500	5.3	24 500	3.1
1982	424 500	59.1	245 000	34.1	33 750	4.7	15 000	2.1
1983	444 500	58.4	264 500	34.8	31 500	4.1	20 000	2.6
1984	478 000	58.0	293 000	35.5	32 000	3.9	22 000	2.7
1985	513 000	56.7	330 000	36.5	37 500	4.2	24 000	2.6

However, the maritime container traffic is slowly decreasing in share, while continental traffic is increasing in importance every year.

5.1.2. The following table shows the Intercontainer traffic by relation.

Table 5.4 Intercontainer EUR-10 traffic by relation (number of TEU's loaded and empty)

From \ To	D	F	I	NL	B/L	UK	IRL	DK	GR	TOTAL
84		7 414	38 465	15 719	7 678	273	0	20 256	1 472	91 287
D 85	-	13 107	36 393	15 565	7 743	233		24 515	1 744	99 300
85/84		+76.9%	- 5.4%	- 1.0%	+ 0.8	-14.7%		+21.0%	+18.5%	+ 8.8%
84	6 559	-	21 016	3 104	1 670	159	0	282	153	42 943
F 85	9 095		24 169	8 125	16 °85	551	16	638	116	58 795
85/84	+38.7%		+15.0%	+162.0%	+37.8%	+246.5%		+126.2%	+24.2%	+36.9%
84	36 719	18 495	-	25 646	25 038	20 654		1 537	99	128 188
I 85	43 182	23 904		22 797	26 450	24 089		3 123	138	143 683
85/84	+61.6%	+29.2%		+11.1%	+ 5.6%	+16.6%		+61.2%	+39.4%	+12.1%
84	18 326	2 901	24 515	-	33 442	3		785	119	79 091
NL 85	30 805	5 688	26 226		33 978	1		1 067	154	97 919
85/84	+68.1%	+96.1%	+ 7.0%		+ 1.6%	-66.6%		+35.9%	+29.4%	+23.8%
84	10 938	13 886	28 352	38 179	-	2		1 520	55	92 932
B/L 85	12 844	16 721	26 075	33 677		-		1 661	582	91 560
85/84	-17.4%	+20.4%	- 8.0%	-11.8%				+ 4.3%	+958.2	- 1.5%
84	206	143	10 005	40	0	-			0	10 394
UK 85	190	1 370	10 294	1	2					11 857
85/84	- 7.8%	+858.0%	+ 2.9%	+97.5%						+14.1%
84			13							13
IRL 85			7				-			7
85/84			-46.2%							-46.2%
84	18 123	110	1 433	291	1 763	0		-		21 720
DK 85	22 948	612	3 510	496	1 376					28 942
85/84	+26.6%	+456.4%	+144.9%	+70.7%	-23.3%					+33.3%
84	686	139	90	26	17	7			-	965
GR 85	816	53	39	213	257	0				1 378
85/84	+19.0%	-61.9%	-56.7%	+719.2%	+1411.8%	-100%				+42.8%
TOTAL										
84	91 557	43 088	123 889	83 005	79 618	21 098	0	24 380	1 898	468 533
85	119 880	61 455	126 713	80 874	85 891	27 874	16	31 004	2 734	533 442
85/84	+30.9%	+42.6%	+ 2.3%	- 2.6%	+ 7.9%	+17.9%		+27.1%	+44.0%	+13.9%

Italy is by far the most important Member State as far as rail container traffic is concerned: 26.9% of all outgoing and 23.8% of ingoing traffic touches Italian territory. Germany, the Netherlands and Belgium are also important partners in this network of container traffic relations. Of total ingoing and outgoing traffic, only outgoing traffic of Belgium/Luxembourg and ingoing traffic of the Netherlands showed a small decrease (-1.5% and -2.0% respectively); all other relations were up.

In the order of the number of TEU's carried, the following relations are highly important (over 25000 units):

Italy	to Germany	43 182
Germany	to Italy	36 393
Netherlands	to Belgium/Luxembourg	33 978
Belgium/Luxembourg	to Netherland	33 677
Netherlands	to Germany	30 805
Italy	to Belgium/Luxembourg	26 450
Netherlands	to Italy	26 226
Belgium/Luxembourg	to Italy	26 075

On these eight relations 48% of all intracommunity container traffic is carried. Also here the importance of Italy is clearly shown; in 5 of these 8 relations Italy is involved.

5.1.3 As in the case of rail traffic, container traffic between the Community and Spain and Portugal is very small, as table 5.5 shows.

Table 5.5 Container traffic between Spain and Portugal and the EUR-10, 1985 (in number TEU's)

from \ to	E	P
D	963	14
F	5 799	296
I	366	40
NL	425	
B/L	300	2
UK		
IRL		
DK		
GR		
Total	7 853	752
P/E	653	1 248

to \ from	E	P
D	1 148	9
F	6 551	561
I	730	10
NL	420	2
B/L	479	
UK	6	
IRL		
DK	9	
GR		
Total	9 393	582
P/E	1 248	653

93% of the container traffic between the Community and the Iberian peninsular is with Spain; only 7% with Portugal. 46% is ingoing in, 54% outgoing traffic of Spain and Portugal. Container shipments to and from France are the predominant relation.

Also between Spain and Portugal the number of containers transported is very small.

5.1.4 Figures are also available from the Council statistical Directive Rail. The figures relate to national and international container traffic in number of containers, full and empty, and in tonnage by Member State. Because not all the figures for 1985 are available, tables 5.6 and 5.7 show the information for 1983 and 1984 starting with the number of containers transported.

Table 5.6 Number of containers (loaded + empty) transported by rail (x 1 000), 1983, 1984.

Country	National traffic			International traffic (loading + transit)		
	1983	1984	growth %	1983	1984	growth %
F.R.G.	453	499	9.8	208	223	7.2
France	449	438	- 2.5	104	116	11.5
Italy	121	264	118.2	84	128	52.4
Netherlands	61	87	29.9	63	69	9.5
Belgium	93	103	10.8	108	112	3.7
Luxembourg	2	2	0.0	0	0	0.0
United Kingdom	904	820	- 9.3	1	-	-
Ireland	104	108	3.8	-	-	-
Danmark	34	37	8.8	33	34	3.3
Greece	-	-	-	1	1	0.0
EUR-10	2 221	2 359	6.2	419 *	495 *	15.4

(*) To avoid double countings in the case of transit only the total number of containers loaded is given. Because of the difference in source these figures are not comparable with the figure for total in/outgoing intercontainer traffic in table 5.4.

For 1985, the following data are available:

Table 5.7 Number of containers (loaded + empty) transported by rail (x 1 000), 1985.

Country	National traffic	Growth rate	International traffic	Growth rate
Germany	528	+ 0.6%	241	+ 0.8%
France	436	- 0.5%	122	+ 17.3%
Belgium	109	+ 5.8%	112	0.0%
Luxembourg	3	+ 50.0%	0	0.0%
Danmark	39	+ 5.4%	29	- 14.7%
Greece	-	-	2	+ 50.0%
Sub-total	1115	+ 3.2%	318 (*)	+ 6.9%

The tonnage transported in these containers is shown in the following tables.

Table 5.8 Tonnage transported with containers by rail ('000 tonnes), 1983, 1984.

Country	National traffic			International traffic (loading + transit)		
	1983	1984	growth %	1983	1984	growth %
F.R.G.	3 143	3 613	15.0	2 325	2 502	7.6
France	3 340	3 532	5.7	1 697	1 899	11.9
Italy	1 884	2 029	7.7	1 497	1 715	14.5
Netherlands	575	897	56.0	783	882	12.6
Belgium	862	949	10.1	1 529	1 495	- 2.2
Luxembourg	19	27	42.1	1	1	0.0
United Kingdom	10 399	9 921	- 4.6	12	-	-
Ireland	1 113	1 246	11.9	-	-	-
Danmark	350	381	8.9	379	337	- 11.2
Greece	-	-	-	11	13	18.2
EUR-10	21 684	22 594	4.2	5 632*	6 232*	10.7

(*) See table 5.3.

For 1985, the following data are available:

Table 5.9 Tonnage transported with containers by rail ('000 tonnes), 1985

Country	National traffic	Growth rate	International traffic	Growth rate
Germany	2 827	+ 5.9%	2 730	+ 9.1%
France	3 589	+ 1.6%	1 928	+ 1.5%
Belgium	1 014	+ 6.8%	1 458	- 4.9%
Luxembourg	37	+ 37.0%	2	+ 50.0%
Danmark	409	+ 7.3%	359	- 5.2%
Greece	-	-	22	+ 50.0%
Sub total	8 876	+ 4.4%	3 819 (*)	+ 5.4%

On the broad lines, these figures show a less positive picture for 1985 than the information obtained from Intercontainer. This could imply that Intercontainer has increased its market share of the total number of container movements by rail which was, in 1984, 94.7%.

(*) See table 5.3.

5.2 Piggy-back transport

The data in paragraph 5.2.1 have been established with assistance of U.I.R.R. (Union internationale des Sociétés de transport combiné rail/route). Paragraph 5.2.2 presents data obtained through the Statistical Directive Rail.

5.2.1 The data are based on the number of units despatched by the "organizing" company, i.e. the number of semi-trailers, swap-bodies or road trains etc. carried by rail wagons.

The increase in piggy-back which started in the fourth quarter 1983 after a slump period of one year and a half, and which continued in 1984 further improved in 1985, except during the first quarter. The quarterly growth figures related to the same quarter of last year were as follows:

Q 1: - 2%; Q 2: + 5%; Q 3: + 8%; Q 4: + 17%.

Over the year, the number of despatches increased by 7% as is shown in the following table.

Table 5.10 Number of despatches in international piggy-back transport by country of despatch

Country of despatch	Units despatched		Growth rate	
	1984	1985	UNITS	(%)
D (Kombiverkehr)	68 940	74 308	5 368	7.8
F (Novatrans)	9 222	8 883	- 339	-3.7
I (Novatrans + Ferpac + Hupac + Cemat)	57 041	61 857	4 816	8.4
NL (Trailstar)	5 814	5 078	- 736	-14.5
B (TRW)	14 913	15 890	977	6.6
UK (Novatrans)	5 874	7 094	1 220	20.8
Total	161 804	173 110	11 306	7.0

With the exception of a part of Novatrans business and Trailstar all companies show impressive growth figures. 1985 figures on intra-Community relations are shown in the following table.

Table 5.11 EUR-10 piggyback traffic, 1985, (number of despatches)

To / From	D	F	I	NL	B/L	UK	TOTAL
D	-	379	33 575	679	1 017		35 650
F	3 087	-	5 244	3	881	47	9 262
I	32 999	5 662	-	3 727	11 153	7 154	60 695
NL	585		3 506	-			4 091
B/L	1 151	480	11 097		-		12 728
UK		64	6 725			-	6 789
EUR-10	37 822	6 585	60 147	4 409	13 051	7 201	123 215

As the table shows, Italy is by far the most important partner in intracommunity piggyback transport; about half of all intracommunity traffic goes to or comes from Italy (60 000 and 61 000 despatches respectively). Of total Italian ingoing and outgoing traffic, more than 50% has its origin or destination in Germany which makes the relation Italy-Germany by far the most important: 54% of all intracommunity piggyback transport is carried out on that relation. If we add the relation Italy-France, about 11 000 shipments, then we observe that 62% of all piggyback traffic is transalpine traffic, or more than 200 shipments per day

5.2.2. Also the Statistical Directive Rail presents data on piggyback transport, but a complete data set is only available for 1984 and earlier. For 1985, the relevant information is only available for Germany, France and Belgium.

Therefore, in table 5.12 and 5.13 the developments in 1984 and 1983 will be shown,which will put the 1985 results, presented in the preceding paragraph in perspective. Detailed comparison is not possible because the sources are different.

Tables 5.12 and 5.13 show the number of railway wagons loaded with road goods vehicles (lorries, trailers, semi-trailers, swap bodies) in national and international traffic by Member States and the tonnage transported.

Table 5.12 Units transported by piggyback (number of railway wagons loaded with road goods vehicles), 1983 and 1984.

Country	National traffic			International traffic (loading + transit)		
	1983	1984	growth rate	1983	1984	growth rate
F.R.G.	281 411	298 843	6.2%	70 491	85 667	21.5%
France	120 820	118 344	- 2.0%	35 625	40 447	13.5%
Italy	10 273	22 419	118.2%	45 279	82 733	82.7%
Netherlands	0	0		7 719	10 900	41.3%
Belgium	171	42	- 75.4%	11 549	13 099	13.4%
EUR-10	412 675	439 648	6.1%	143 473	200 208	39.5%

Table 5.13 Tonnage transported by piggyback ('000 tonnes), 1983 and 1984.

Country	National traffic			International traffic (loading + transit)		
	1983	1984	growth rate	1983	1984	growth rate
F.R.G.	3 985	4 279	7.4%	1 471	1 879	27.8%
France	1 939	1 891	2.5%	845	978	15.7%
Italy	258	213	-17.3%	1 027	1 179	14.8%
Netherlands	0	0	-	198	263	32.5%
Belgium	1	0	-	314	372	18.5%
EUR-10	6 183	6 383	3.2%	3 180	3 847	21.0%

Data from the rail statistical Directive for 1985 are available for some countries: France, Germany and Belgium. As far as units transported are concerned the following figures are available:

Table 5.14 Units transported by piggyback (number of railway wagons loaded with road goods vehicles), 1985.

Country	National traffic		International traffic	
	1985	Growth rate	1985	Growth rate
F.R.G.	308 143	+ 3.1%	94 075	+ 9.8%
France	128 592	+ 8.7%	43 243	+ 6.9%
Belgium	786		13 259	+ 1.2%
Sub-total	437 521	+ 4.9%	121 453	+ 8.6%

In tonnage terms the picture is as follows:

Table 5.15 Tonnage transported by piggyback ('000 tonnes), 1985.

Country	National traffic		International traffic	
	1985	Growth rate	1985	Growth rate
F.R.G.	4 395	+ 2.7%	2 172	+ 15.6%
France	2 059	+ 8.9%	1 095	+ 10.9%
Belgium	35		407	+ 9.4%
Sub-total	6 489	+ 5.2%	2 877	+ 14.6%

Also here there is a certain difference to be noted between the figures from the statistical directive, which concern intra-community traffic, and the U.I.R.R. figures which relate also to traffic to and from third countries.

In 1984, 3.8 million tonnes were shipped by combined road/rail transport. Given total international rail transport in that year (69.5 mio tonnes), combined transport has a market share of 5.6%.
Compared to international road transport (189.0 mio tonnes in 1984), the market share of combined road/rail transport is about 2.0%.

On specific markets, this share is higher, in particular on the relations to and from Italy through the Alps. In 1984, 4.3 mio tonnes were shipped to and from Italy in combined transport. Compared to rail (22.7 mio tonnes) the market share is about 20%, while compared to road (30.0 mio tonnes), the market share reaches 14.6%. For the calculation of total road transport to and from Italy, cross-traders were not taken into consideration.

CHAPTER 6

INTRA EUR-10 TONNAGES (1984) BY 24 COMMODITY GROUPS

6.1 Introduction

Whereas the analysis of commodity flows at Community level has almost exclusively been at the level of the 10 NST chapters, the availability of results from the statistical directives at the level of the 24 NST groups now permits a more detailed analysis. It is unlikely that the M.O.S. system will move directly to the 24 NST group for analysis and forecasting purposes, but since the 10 NST Chapters are somewhat broad, the examination presented here may give some insight into a suitable intermediate level between 10 NST chapters and 24 NST Groups for analytical work.

Note that a) Road. Tonnage relate to bilateral movements only. Tonnages for Luxembourg hauliers relate to 1982 and the split of the 10 NST chapters for Italian hauliers (which are based on foreign trade data) into the 24 NST has been made pro-rata to those of the from all other Member States.

b) Rail. Tonnages reported in the inward direction are used for all Member States except UK where partner Member State outward tonnage is used.

c) Tonnages reported in the inward direction are used.

6.2 Analysis by 24 NST Groups

Table 6.1

The principal results are shown in Table 6.1 which give the tonnages and percentage of each of the 24 NST commodity groups for each mode of transport and for all 3 modes together.

In intra-Community traffic only 2 of the 24 NST groups have more than 10% of the total namely Group 15 (crude and manufactured minerals) with 16.2% and Group 11 (iron ore, iron and steel waste and blast furnace dust) with 10.6%. There are however 4 other groups with more than 8%, Group 6 (foodstuffs and animal fodder), Group 10 (petroleum products), Group 13 (metal products) and Group 18 (chemicals other than coal chemicals and tar). 6 groups have less than 1%, namely Groups 3, 5, 9, 17, 19 and 21 and should thus be considered for combination in any future realignment of the NST.

Considering the separate modes,then quite different commodity groups emerge as the most important, i.e.:

Road	14.0%	Group 6	(foodstuffs and animal fodder)
	12.7%	Group 18	(chemicals other than coal chemicals and tar)
	11.3%	Group 15	(crude and manufactured minerals)
Rail	20.9%	Group 13	(metal products)
	13.9%	Group 8	(solid mineral fuels)
	13.8%	Group 11	(iron ore, iron and steel waste and blast furnace dust)
	13.6%	Group 24	(miscellanous articles)
Inland Waterways	24.4%	Group 6	(foodstuffs and animal fodder)
	18.1%	Group 11	(iron ore, iron and steel waste and blast furnace dust)
	16.5%	Group 10	(petroleum products)

It may also be seen that rail and inland waterways are concentrated in just a few commodity groups whereas road is much more diverse. This can be quantified as follows:

	Road	Rail	Inland waterways	Total
4 largest commodity groups	47.9%	62.2%	65.4%	44.7%
10 smallest commodity groups	8.6%	3.6%	2.0%	8.6%

6.3 Dominance of different modes for 24 NST Groups

Using the tonnages in Table 6.1, the percentage carried by each mode for each of the 24 NST commodity groups can be evaluated. These results are shown in Table 6.2. From Table 6.2 one can see the the highest dominance occurs as follows:

Road	96%	Group 23	(leather, textile, clothing, other manufactured articles)
Rail	40%	Group 24	(miscellanous articles)
Inland Waterways	98%	Group 9	(crude petroleum) *
	87%	Group 10	(petroleum products)

* the volume of crude petroleum moved by the 3 modes is very small, so this is why a second "highest dominance" has been given.

More generally, we can group the 24 NST commodity groups into a number of categories.

Road > 60%: NST groups 2,3,4,5,6,14,18,20,21,22,23

Rail > 60%: NST groups nil

Inland Waterways > 60%: NST groups 1,7,9,10,11,12,15,17

High competition: NST groups 8,13,16,19,24

It is also interesting to summarize the tonnages involved in these 4 categories, figures are in 000's tonnes.

	Road	Rail	Inland Waterway	Total
Road > 60%	109745	13238	23172	146155
Rail > 60%	-	-	-	-
Inland Waterway > 60%	30182	19622	132953	182757
High Competition	34209	36627	34875	105711
Total	174136	69487	191000	434623

Thus 63% of the road tonnage and about 70% of the inland waterway tonnage occurs for those commodity groups where the mode concerned has at least 60% of the market. 53% of the rail tonnage occurs for those commodity groups for which there is "high competition", whereas only 20% of road and 18% of inland waterway tonnage falls in this "high competition" category.

The results show that rail operates in markets which are highly competitive whereas road and inland waterways have large "captive" markets.

Table 6.1

1984 INTRA EUR-10 TONNAGES ('000 tonnes)

Groups of goods	Road	%	Rail	%	I.W.	%	3 Modes	Share
1	2 015	1.2	3 845	5.5	9 019	4.7	14 879	3.4
2	8 122	4.7	823	1.2	118	0.1	9 063	2.1
3	840	0.5	392	0.6	0	0.0	1 232	0.3
4	6 138	3.5	687	1.0	321	0.2	7 146	1.6
5	3 833	2.2	137	0.2	61	0.0	4 031	0.9
6	24 411	14.0	2 131	3.1	8 190	4.3	34 732	8.0
7	2 186	1.3	309	0.4	4 457	2.3	6 952	1.6
8	3 502	2.0	9 646	13.9	12 261	6.4	25 409	5.8
9	3	0.0	16	0.0	743	0.4	762	0.2
10	3 147	1.8	1 632	2.3	31 513	16.5	36 292	8.4
11	1 868	1.1	9 570	13.8	34 526	18.1	45 964	10.6
12	840	0.5	251	0.4	5 095	2.7	6 186	1.4
13	15 279	8.8	14 517	20.9	11 654	6.1	41 450	9.5
14	10 630	6.1	1 221	1.8	2 612	1.4	14 463	3.3
15	19 725	11.3	3 888	5.6	46 602	24 4	70 215	16.2
16	2 393	1.4	2 756	4.0	6 963	3.6	12 112	2.8
17	398	0.2	111	0.2	998	0.5	1 507	0.3
18	22 153	12.7	3 930	5.7	10 240	5.4	36 323	8.4
19	1 730	1.0	284	0.4	1 142	0.6	3 156	0.7
20	9 726	5.6	3 010	4.3	1 163	0.6	13 899	3.2
21	2 432	1.4	109	0.2	183	0.1	2 724	0.6
22	4 205	2.4	201	0.3	49	0.0	4 455	1.0
23	17 255	9.9	597	0.9	235	0.1	18 087	4.2
24	11 305	6.5	9 424	13.6	2 855	1.5	23 584	5.4
Total	174 136	100	69 487	100	191 000	100	434 623	100

Table 6.2

1984 INTRA EUR-10 TONNAGES
broken down by 24 commodity groups
Share (%) by mode per commodity

Groups of goods	Road	Rail	I.W.
1	13	26	61
2	90	9	1
3	68	32	0
4	86	10	4
5	95	3	2
6	70	6	24
7	31	5	64
8	14	38	48
9	0	2	98
10	9	4	87
11	4	21	75
12	14	4	82
13	37	35	28
14	73	9	18
15	28	6	66
16	20	23	57
17	26	8	66
18	61	11	28
19	55	9	36
20	79	22	8
21	89	4	7
22	94	5	1
23	96	3	1
24	48	40	12
Total	40	16	44

6.4 Suggestions for an intermediate breakdown between the 10 NST chapters and the 24 NST Groups

Combining the results of the earlier sections which show the relative importance of each of the 24 groups in tonnage terms and the differing modal splits for each of the 24 groups, suggestions can be made for future analytical work and forecasting of intra-community goods flows.

The proposed 15 groupings in terms of the 24 groups are:

NST0	1	Cereals
	2-5	Other agricultural products and live animals
NST1	6	Foodstuffs and animal fodder
	7	Oil seeds and oleaginous fruits and fats
NST2	8	Solid mineral fuels
NST3	9-10	Petroleum products
NST4	11	Iron ore, iron and steel waste and blast furnace dust
	12	Non ferrous ores and waste
NST5	13	Metal products
NST6	14	Cement, line, manufactured building materials
	15	Crude and manufactured minerals
NST7	16	Natural and chemical fertilizers
NST8	17-19	Chemicals articles
NST9	20-23	Machinery, transport equipment and manufactured articles
	24	Miscellanous articles

and the summary statistics for these 15 categories are as shown below:

1984 INTRA EUR-10 TONNAGES ('000 tonnes)

category	NST group(s)	Road	Rail	Inland Waterways	Total	%
1	1	2 015 (13%)	3 845 (26%)	9 019 (61%)	14 879 (100%)	3.4
2	2 - 5	18 933 (88%)	2 039 (10%)	500 (2%)	21 472 (100%)	4.9
3	6	24 411 (70%)	2 131 (6%)	8 190 (24%)	34 732 (100%)	8.0
4	7	2 186 (31%)	309 (5%)	4 457 (64%)	6 952 (100%)	1.6
5	8	3 502 (14%)	9 646 (39%)	12 262 (48%)	25 409 (100%)	5.8
6	9 - 10	3 150 (9%)	1 648 (4%)	32 256 (87%)	37 054 (100%)	8.5
7	11	1 868 (4%)	9 570 (21%)	34 526 (75%)	45 964 (100%)	10.6
8	12	840 (14%)	251 (4%)	5 095 (82%)	6 186 (100%)	1 4
9	13	15 279 (37%)	14 517 (35%)	11 654 (28%)	41 450 (100%)	9.5
10	14	10 630 (73%)	1 221 (9%)	2 612 (18%)	14 463 (100%)	3.3
11	15	19 725 (28%)	3 888 (6%)	46 602 (66%)	70 215 (100%)	16.2
12	16	2 393 (20%)	2 756 (23%)	6 963 (57%)	12 112 (100%)	2.8
13	17 - 19	24 281 (59%)	4 325 (11%)	12 380 (30%)	40 786 (100%)	9.4
14	20 - 23	33 618 (86%)	3 917 (10%)	1 630 (4%)	39 165 (100%)	9.0
15	24	11 305 (48%)	9 424 (40%)	2 855 (12%)	23 584 (100%)	5.4
Total		174 136 (40%)	69 487 (16%)	191 000 (44%)	434 623 (100%)	100

Groups of goods

Groups of goods	NST/R[1] Chapter	NST/R[1] groups	Description
1	0	01	Cereals
2		02, 03	Potatoes, other fresh or frozen fruit and vegetables
3		00, 06	Live animals, sugar beet
4		05	Wood and cork
5		04, 09	Textiles, textile articles and man-made fibres, other raw animal and vegetable materials
6	1	11, 12, 13, 14, 16, 17	Foodstuffs and animal fodder
7		18	Oil seeds and oleaginous fruits and fats
8	2	21, 22, 23	Solid mineral fuels
9	3	31	Crude petroleum
10		32, 33, 34	Petroleum products
11	4	41, 46	Iron ore, iron and steel waste and blast furnace dust
12		45	Non-ferrous ores and waste
13	5	51, 52, 53, 54, 55, 56	Metal products
14	6	64, 69	Cement, lime, manufactured building materials
15		61, 62, 63, 65	Crude and manufactured minerals
16	7	71, 72	Natural and chemical fertilizers
17	8	83	Coal chemicals, tar
18		81, 82, 89	Chemicals other than coal chemicals and tar
19		84	Paper pulp and waste paper
20	9	91, 92, 93	Transport equipment, machinery, apparatus, engines, whether or not assembled, and parts thereof
21		94	Manufactures of metal
22		95	Glass, glassware, ceramic products
23		96, 97	Leather, textile, clothing, other manufactured articles
24		99	Miscellaneous articles

[1] Published by the Statistical Office of the European Communities (French version 1968).

CHAPTER 7

International Intra EUR-10 tonnages

3 Modes Road+Rail+Inland Waterways Year 1984

7.1 Introduction

1. Road contains the bilateral trafic as described in introduction 2.2.1 (points a) b) c) e)) and point (1) of table 2.5.
   1984 is the latest year available.

2. Rail as developped in chapter 4, ingoing data have been retained for all Member States except for the UK where reporting figures of the partner country have been used. Tonnages to and from Belgium and Luxembourg have been splitted.

3. I.W. ingoing data have been retained.

7.2 Total international traffic by relation: 3 modes

The figures for 1984 for each relation and the evolution on 1983 are given in Table 7.1. The total differs from that given in Chapter 1 and the modal chapters since the road covers bilateral only (as Section 2.2) and a slightly different basis is used for inland waterways. The effect of these differences is to understate the percentages by road (these are given in Table 7.2) and to overestimate those for rail and inland waterways.

A summary table, Table 7.3, has also been prepared grouping relations into 3 groups:

A) Intra D,F,NL,B and L
B) Relations with I
C) Other relations.

Table 7.1
Total tonnage moved for all 3 modes - Year 1984 and evolution on 1983 (in %)

'000 TONNES

	D	F	I	NL	B	L	UK	IRL	DK	GR	EUR 10
D		18696 4.1%	10338 12.1%	48661 5.2%	22969 17.6%	3211 10.1%	2328 49.5%	44 -10.2%	2868 5.1%	412 5.4%	109527 8.9%
F	24830 2.3%		13694 21.1%	6284 -4.7%	19628 11.2%	946 8.5%	1979 5.6%	55 -17.9%	357 8.5%	119 40.0%	67892 7.7%
I	8373 -5.2%	6711 -4.8%		1462 -5.6%	2078 12.6%	16 -5.9%	1612 -0.1%	62 -4.6%	296 6.5%	332 0.9%	20942 -2.9%
NL	91539 9.5%	8701 3.1%	2204 20.8%		36389 6.1%	475 5.8%	720 13.6%	31 138.5%	568 11.8%	113 7.6%	140740 8.3%
B	21016 -0.1%	23005 7.0%	2552 22.8%	27165 -2.6%		4492 39.1%	470 21.8%	6 -57.1%	242 3.9%	42 -2.3%	78990 3.4%
L	3087 -0.6%	975 -2.5%	73 23.7%	355 -3.3%	2109 37.8%		12		1	1	6613 8.9%
UK	896 5.7%	1092 1.4%	1043 26.1%	364 5.2%	289 18.4%	10 150.0%		635 -21.0%	135 15.4%	28 33.3%	4492 4.8%
IRL	42 -17.6%	101 20.2%	35 25.0%	13 8.3%	8 -11.1%		575 25.0%		3 -40.0%	1 -85.7%	778 18.6%
DK	3152 -5.0%	261 -6.5%	290 8.2%	361 5.2%	218 25.3%		496 -2.0%	18 28.6%		32 13.6%	4828 -2.1%
GR	432 11.1%	68 9.7%	523 37.6%	75 5.6%	19		22 46.7%		13 -13.3%		1152 21.0%
EUR-10	153367 5.4%	59610 3.8%	30752 18.3%	84740 1.6%	83707 11.1%	9150 22.2%	8214 16.4%	851 -17.1%	4483 6.4%	1080 6.5%	435954 6.7%

Table 7.2

Modal share (in %), by relation, on international EUR-10 tonnage - year 1984

	D	F	I	NL	B	L	UK	IRL	DK	GR	EUR 10	
D		49.2	47.3	35.1	34.5	24.8	30.6	100	76.0	79.4	39.4	Road
		34.2	52.7	4.0	14.4	59.9	4.8	0	24.0	20.6	18.2	Rail
		16.6	0	60.9	51.1	15.3	64.6	0	0	0	42.4	I.W.
F	47.6		41.2	39.9	51.7	43.9	87.6	100	78.7	78.2	48.2	
	15.0		58.8	7.6	32.1	23.8	12.4	0	21.3	21.8	28.2	
	37.4		0	52.5	16.2	32.3	0	0	0	0	23.6	
I	73.0	74.3		66.2	51.4	93.8	72.6	100	78.0	91.3	71.3	
	27.0	25.7		33.8	48.6	6.2	27.4	0	22.0	8.7	28.7	
	0	0		0	0	0	0	0	0	0	0	
NL	17.8	43.6	76.6		26.8	33.7	96.8	100	97.9	96.5	23.5	
	4.0	15.6	23.4		2.4	4.4	3.2	0	2.1	3.5	4.6	
	78.2	40.8	0		70.8	61.9	0	0	0	0	71.9	
B	38.8	60.1	49.1	46.0		24.2	84.9	100	80.6	81.0	47.4	
	10.5	24.1	50.9	6.8		75.0	12.8	0	19.4	19.0	18.2	
	50.7	15.8	0	47.2		0.8	2.3	0	0	0	34.4	
L	43.8	53.8	20.5	49.9	42.8		50.0	0	0	100	45.0	
	29.9	44.5	79.5	22.3	54.1		50.0	0	100	0	40.0	
	26.3	1.7	0	27.8	3.1		0	0	0	0	15.0	
UK	59.4	95.9	79.1	97.3	85.8	100		100	100	100	84.9	
	10.6	3.4	20.9	2.7	12.5	0		0	0	0	8.8	
	30.0	0.7	0	0	1.7	0		0	0	0	6.3	
IRL	64.3	100	100	100	100	0	100		100	100	98.1	
	0	0	0	0	0	0	0		0	0	0	
	35.7	0	0	0	0	0	0		0	0	1.9	
DK	83.8	92.7	82.4	97.2	56.4		100	100		96.9	85.8	
	10.9	7.3	17.6	2.8	17.9		0	0		3.1	9.6	
	5.3	0	0	0	25.7		0	0		0	4.6	
GR	88.2	97.1	99.4	93.3	100	0	100	0	100		94.7	
	11.8	2.9	0.6	6.7	0	0	0	0	0		5.3	
	0	0	0	0	0	0	0	0	0		0	
EUR 10	30.9	56.7	49.1	40.2	36.1	27.1	70.8	100	80.2	85.8	39.9	
	8.6	26.0	50.9	5.8	15.2	60.5	10.8	0	19.8	14.2	15.9	
	60.5	17.3	0	54.0	48.7	12.3	18.4	0	0	0	44.2	

Table 7.3

Tonnages (000's) and modal share of groups of relations, 1984

	Tonnages (000's)			TOTAL	
	Road	Rail	I.W.		
Intra D/F/NL/B/L	128477 (35.2%)	45768 (12.6%)	190285 (52.2%)	364530 (100%)	(83.6%)
Relations with I	30024 (58.1%)	21671 (41.9%)	0 (0%)	51695 (100%)	(11.9%)
Other relations	15651 (79.3%)	2041 (10.4%)	2039 (10.3%)	19731 (100%)	(4.5%)
Total Intra-EUR-10	174152 (39.9%)	69480 (15.9%)	192324 (44.2%)	435956 (100%)	(100%)

Table 7.3 clearly shows a number of results.

i) 5 out of 6 intra-EUR-10 tonnage movements occur between the "5" N.W. continental Europe bloc (D/F/NL/B/L) (Group A)

ii) 5 out of 7 of the remaining intra EUR-10 tonnage movements occur in relations with Italy (Group B)

iii) only 1 of 20 intra-EUR-10 tonnage movements involves UK, IRL, DK and GR (Group C) (road excludes unaccompanied trailers)

iv) Inland waterways (52.2%) dominates Group A

v) Road and Rail are equally represented in Group B

vi) Road (79.3%) dominates Group C (in reality it is greater than this since the figures in this group relating to I.W. are either "strange" (e.g. D/UK, barges carried on larger vessels across the North Sea) or "very strange" (e.g. D/IRL).

Annex

SOURCES

(a) Road Opinion Survey - Enquête de Conjoncture Route - Konjunkturerhebung Straßenverkehr

B	Institut du Transport routier
DK	Danmarks Statistik
D	IFO (Institut für Wirtschaftsforschung)
F	Centre de Productivité des Transports
GR	Ethniki Statistiki Ypiresia (National Statistical Office)
IRL	University College, Dublin
I	Centro Studi sui Sistemi di Trasporto
L	Service central de la Statistique et des Etudes économiques
NL	Economisch Bureau voor het Weg- en Watervervoer
UK	Department of Transport

(b) Road Cost Survey - Indices de coût Route - Kostenerhebung Straßenverkehr

D	Bundesverband des Deutschen Güterfernverkehrs (BDF) e.V.
F	Comité national routier
NL	Economisch Bureau voor het Weg- en Watervervoer
B	Instituut voor Wegtransport
L	Fédération des Commerçants du Grand-Duché
UK	Road Haulage Association Ltd.
DK	Landsforeningen Danske Vongmaend

(c) Road Price Survey - Indices des prix Route - Preiserhebung Straßenverkehr

B	Institut du Transport routier
D	BÄG (Bündesanstalt für den Güterfernverkehr)
F	Ministère des Transports
I	Centro Studi sui Sistemi di Trasporto
L	Ministère des Transports
NL	NIWO (Nederlandsche Internationale Wegvervoer Organisatie)
	CBS (Centraal Bureau voor de Statistiek)

(d) Inland Waterway Opinion Survey - Enquête de Conjoncture Voies Navigables Intérieures - Konjonkturerhebung Binnenschiffahrt

Rhine	Central Rhine Commission
North-South	B Institut pour le Transport par Batellerie
	NL Economisch Bureau voor het Weg- en Watervervoer

(e) I.W. Cost Survey - Indices de coûts V.N. - Kostenerhebung Binnenschiffahrt

NL	Economisch Bureau voor het Weg- en Watervervoer in collaboration with :
F	Office national de la navigation
B	Institut pour le transport par Batellerie
D	Bundesverband der deutschen Binnenschiffahrt

(f) Rail Tariff Indices - Indices des tarifs du Rail - Tarifindizes für den Eisenbahnverkehr

D	DB (Deutsche Bundesbahn)
F	SNCF (Société nationale des chemins de fer français)
I	FS (Azienda autonoma delle Ferrovie dello Stato)
NL	NS (Nederlandse Spoorwegen)
B	NMBS/SNCB (Société Nationale des Chemins de fer belges)

(g) Combined Transport - Transports Combinés - Kombinierter Verkehr

Intercontainer (container traffic - trafic conteneurisé - Containerverkehr)
Interunit (Piggy-back - Ferroutage - Huckepack)

(h) Road Tonnages - Tonnage de la Route - Straßengüterverkehr

D	KBA-BAG Kraftfahrt-Bundesamtes und der Bundesanstalt für den Güterfernverkehr
F	Ministère des Transports - Service des Transports routiers R-2
I	Ministerio dei Trasporti - Dir. generale POC
NL	CBS - Centraal Bureau voor de Statistiek
B/L	INS - Institut national de Statistiques
UK	GSS - Department of Transport
IRL	University College, Dublin
DK	Danmarks Statistik
GR	Ethniki Statistiki Ypiresia

(i) I.W. Tonnages - Tonnages des Voies Navigables - Binnenschiffahrtgüterverkehr

ONI Office national de Navigation
CCR Commission Centrale pour la Navigation du Rhin
SOEC/OSCE/SAEG (Luxembourg) - Directive/Richtlinie 80/1119

Rail Tonnages - Tonnages Rail - Eisenbahngüterverkehr

SOEC/OSCE/SAEG (Luxembourg) - Directive/Richtlinie 80/1177

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