

Statistics in focus

TRANSPORT

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Road freight transport: EU and central European countries compared

John Allen

New statistics available at Eurostat make it possible, for the first time, to compare key features of road freight transport in central European countries (CEC) and the EU. Ten of the central European countries covered by these data are candidates for membership of the EU. These structural comparisons contribute to understanding the issues which may arise as the integration of the candidate countries into EU transport policies is discussed.

The distribution of the two groups of countries by type of traffic is rather different - **international traffic** measured in tonne-kilometres accounted for 20% in EU Member States and the figure is twice as large in central European countries – 41% of the total amount of transport performance. **Cross-trade** accounted for a much larger proportion of total transport in the central European countries (6% of total transport) than in EU Member States (see Figure 1).

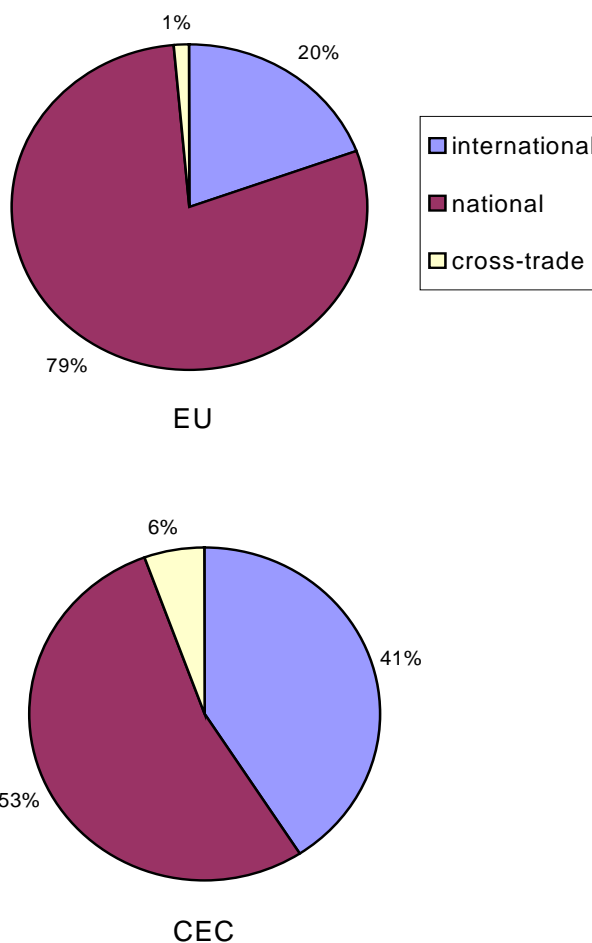


Figure 1: National, international and cross-trade traffic (tonne-km)

'Own account' compared to 'hire or reward'

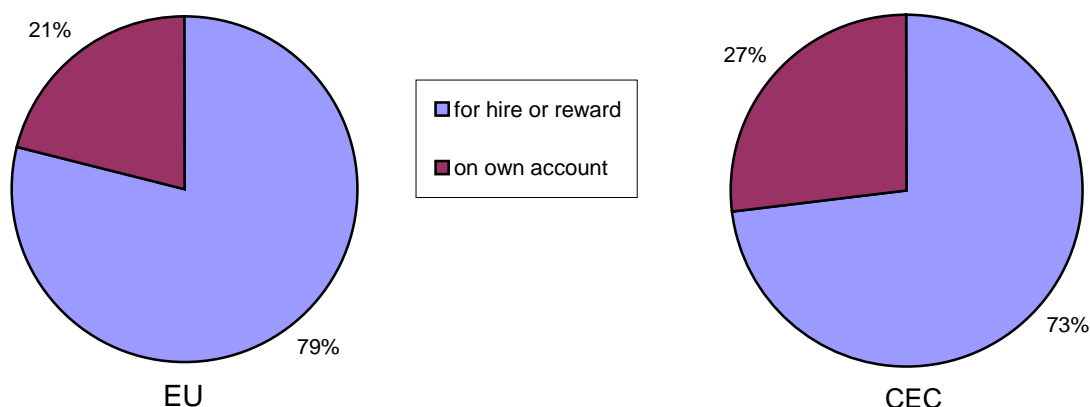


Figure 2: 'Hire or reward' and 'own account' (tonne-km)

The proportion of road freight transport (measured in tonne-km) carried out as hire and reward operations, typically by companies specializing in road freight transport, is slightly higher in the EU (79%) than in the CEC (73%) (see Figure 2).

In both areas there are large differences between countries and

between national and international transport. In the EU, the proportion of hire and reward transport varies from 57% in Portugal to as much as 93% in Finland. In the CEC, this proportion varies from 44% in Romania to 86% in Slovak Republic.

When national transport only is considered, the difference between the EU and the CEC is more evident, with hire and reward operations accounting for 75% of national transport in the EU against only 56% in the CEC. As would be expected, international road freight transport is dominated by hire and reward operations in both areas.

National traffic by distance travelled

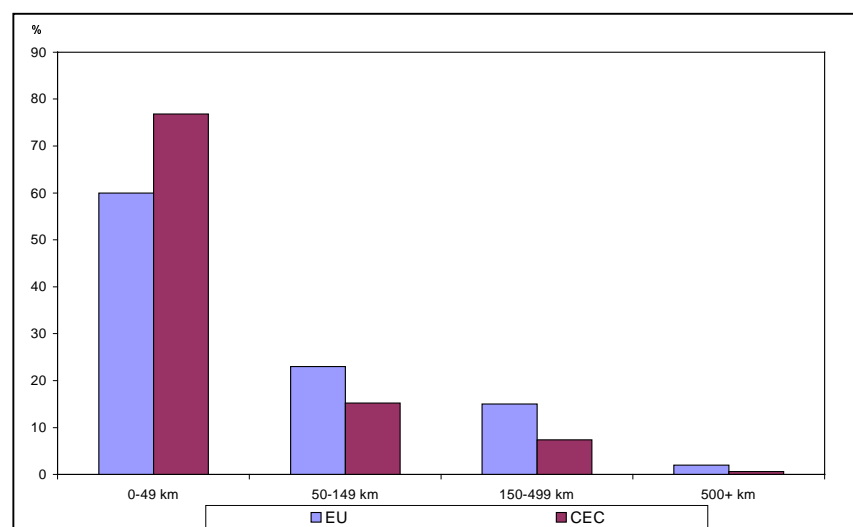
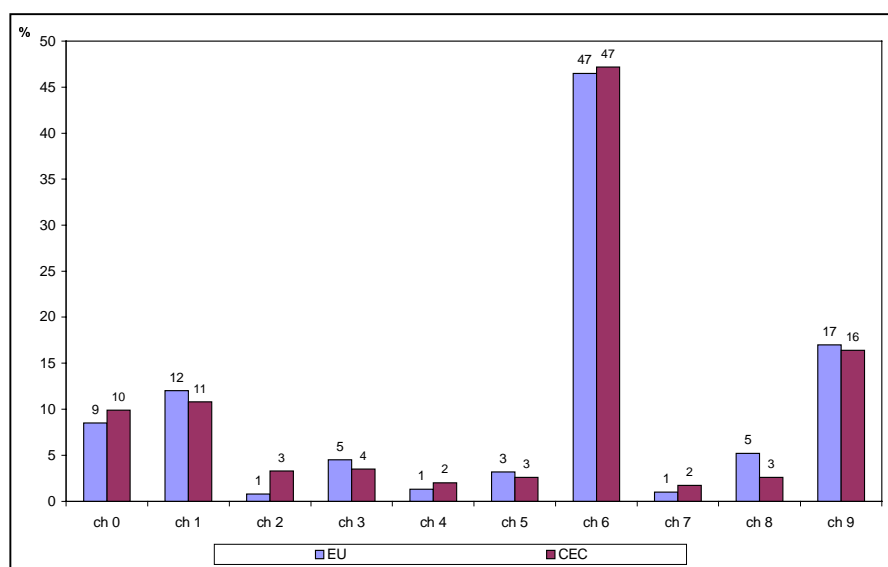


Figure 3: National goods transport by distance travelled (tonnes)

The breakdown by distance travelled on national transport in EU Member States and central European countries are quite similar (see Figure 3). Measured in tonnes, it is accounted for 60% goods transported over the distance of less than 49 km in EU Member States and the share is 77% in central European countries. The distance of more than 150 km accounted for 17% of goods in EU Member States and 8% of goods in central European countries.

Type of goods



The interesting fact is that the type of goods carried (broken down by NST/R chapters) is almost the same within EU Member States and central European countries (see Figure 4).

Minerals and building materials accounted for almost half (47%) of all goods transported measured in tonnes (without cross-trade), in both groups of countries.

Figure 4: Type of goods by NST/R chapters (tonnes)

NST/R chapter	Description
0	Agricultural products
1	Foodstuff and animal fodder, etc.
2	Solid mineral fuels
3	Petroleum and petroleum products
4	Iron ore, steel waste, non-ferrous ores and waste, etc.
5	Metal products
6	Crude and manufactured minerals, building materials, etc.
7	Natural and chemical fertilizers
8	Coal chemicals, other chemicals, paper pulp, etc.
9	Machinery, manufactured articles, transport equipment etc.

Table 1: NST/R chapters

Country of loading	Country of unloading											B	DK	
	AL	BG	CZ	EE	HU	LV	LT	PL	RO	SK	SI			
Albania	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bulgaria	48	-	2	13	-	-	-	143	45	3	-	-	-	6
Czech Republic	-	28	-	6	330	26	2	1718	22	1618	146	443	162	
Estonia	-	-	5	-	-	283	60	24	-	-	-	14	5	
Hungary	-	-	292	3	-	8	-	300	169	403	258	57	23	
Latvia	-	-	19	173	-	-	119	101	12	-	-	16	1	
Lithuania	-	-	29	14	26	162	-	76	-	0	-	42	-	
Poland	-	-	1157	69	223	61	304	-	9	83	36	393	326	
Romania	-	125	9	-	102	-	-	7	-	13	16	23	7	
Slovak Republic	-	11	1608	-	591	13	4	1072	51	-	65	52	7	
Slovenia	-	0	124	-	125	-	-	49	2	50	-	8	14	
Belgium	-	-	631	2	56	11	-	451	13	51	14	-	408	
Denmark	-	-	99	6	22	-	26	248	13	1	7	150	-	
Germany	-	29	6373	53	819	122	150	4258	339	336	350	12147	3733	
Greece	221	197	58	0	50	1	2	75	48	12	2	1	11	
Spain	-	-	249	11	61	-	-	267	29	31	13	678	197	
France	-	6	873	-	135	13	-	375	60	44	81	18982	606	
Ireland	-	-	-	-	-	-	-	-	-	-	-	25	12	
Italy	2	37	813	20	435	36	5	793	198	169	638	1230	324	
Luxembourg	-	-	-	-	3	-	-	-	-	-	-	1601	17	
Netherlands	0	7	779	19	140	27	65	1113	90	51	97	19974	1097	
Austria	-	2	1900	1	263	2	9	262	28	317	460	320	94	
Portugal	-	-	33	-	-	-	-	-	-	-	6	16	25	
Finland	-	-	76	100	13	8	4	13	-	0	7	22	129	
Sweden	-	0	166	4	41	7	2	406	4	8	3	63	1905	
United Kingdom	-	3	400	-	64	-	-	76	38	10	27	971	101	
TOTAL	271	446	15694	495	3499	779	752	11827	1170	3200	2226	57229	9210	

Table 2: Origin – destination matrix

(1000 Tonnes)

	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK	Total
-	17	-	-	-	-	-	-	0	-	-	-	-	-	17
44	687	-	5	-	83	-	3	2	-	-	-	-	4	1088
11052	24	128	853	-	1048	-	748	2886	31	88	138	519	22016	
99	0	4	13	-	8	-	27	0	-	73	1	-	615	
1210	18	25	173	7	645	4	193	612	-	29	57	115	4601	
111	-	-	27	-	9	-	4	6	-	7	11	-	615	
309	0	-	37	-	19	-	71	0	-	-	0	22	807	
6358	6	95	546	-	828	-	910	226	-	-	381	221	12231	
413	10	-	30	-	246	-	59	14	-	-	2	26	1102	
676	4	25	70	-	264	-	65	279	2	1	9	17	4886	
372	1	15	71	-	532	-	56	314	3	-	4	28	1768	
14679	3	1033	25494	28	1627	2437	21714	415	74	19	121	1434	70716	
5129	25	183	663	11	369	13	694	104	24	89	1492	142	9509	
	202	2069	15293	32	7205	2099	31170	8573	324	90	709	1931	98406	
444		0	0	-	5	0	4	12	0	0	11	39	1193	
2905	9		8724	3	2172	30	1124	158	3854	44	74	1376	22008	
19276	15	10906		63	9008	1565	5221	484	705	29	177	3786	72410	
53	-	18	109		28	-	21	1	-	1	-	824	1092	
9050	38	1914	7354	46		89	1189	3332	428	49	43	1370	29603	
2612	0	50	1138	-	115		218	52	6	-	8	100	5920	
30400	20	1138	6829	61	1806	253		731	107	76	663	1677	67220	
6788	35	83	496	2	4222	50	456		29	4	72	198	16092	
344	1526	1945	273	259	32	30	27	1		7	36	78	4638	
135	-	23	39	-	37	1	36	20	5		1367	2	2037	
982	14	62	205	-	44	-	562	82	27	1094		13	5693	
1878	63	821	2956	970	1054	43	1099	182	184	2	21		10963	
115318	2718	20537	71399	1482	31406	6614	65670	18485	5803	1701	5397	13921	467247	

Origin – destination matrix for 26 countries

Eurostat presents here a complete origin-destination matrix for 26 countries, measured by tonnes loaded/unloaded. (see Table 2: cross-trade data are not included in this table). It can be seen that certain relations are particularly important, such as links between Germany and Netherlands, Belgium and France, Belgium and Netherlands etc. (see Table 3). Together, these relations account for 45% of the total transport among these 26 countries.

Loading country	Unloading country	1000 Tonnes
Germany	Netherlands	31 170
Netherlands	Germany	30 400
Belgium	France	25 494
Belgium	Netherlands	21 714
Netherlands	Belgium	19 974
France	Germany	19 276
France	Belgium	18 982
Germany	France	15 293
Belgium	Germany	14 679
Germany	Belgium	12 147

Table 3: 10 most important relations

Loading country	Unloading country	1000 Tonnes
Czech Republic	Germany	11 052
Germany	Czech Republic	6 373
Poland	Germany	6 358
Germany	Poland	4 258
Czech Republic	Austria	2 886
Austria	Czech Republic	1 900
Czech Republic	Poland	1 718
Slovak Republic	Czech Republic	1 608
Poland	Czech Republic	1 157
Netherlands	Poland	1 113

Table 4: 10 most important relations with CEC

Country	International traffic - tkm	Own account traffic - tkm	National transport (tonnes) Distance classes – as %				All traffic 1000 mio tkm	All traffic mio tonnes
	as % all traffic	as % all traffic	< 50 km	50 - 149 km	150 - 499 km	> 500 km		
<i>Central European countries</i>								
Albania	14	35	78	17	5	-	0,8	19,1
Bulgaria	53	42	90	6	3	0	6,3	144,2
Czech Republic	52	24	78	18	4	0	40,6	521,5
Estonia	52	16	49	35	16	0	2,2	13,1
Hungary	35	25	73	18	9	0	18,5	268,5
Latvia	52	31	67	22	11	0	3,4	25,2
Lithuania	49	25	80	14	6	-	4,7	39,4
Poland	31	26	70	17	12	2	63,5	678,2
Romania	30	56	88	8	4	0	9,2	246,3
Slovak Republic	56	14	88	9	3	0	7,3	81,5
Slovenia	55	14	76	17	6	0	5,0	54,4
<i>EU Member States</i>								
Belgium	51	21	57	31	12	1	43,3	389,0
Denmark	52	11	50	33	17	1	21,4	201,6
Germany	11	32	72	17	10	2	227,2	3016,7
Greece	7	23	70	15	13	3	14,2	204,1
Spain	26	10	50	25	18	7	109,5	628,6
France	23	23	61	20	15	4	179,1	1728,9
Ireland	17	33	69	23	8	0	5,2	80,7
Italy	11	15	42	29	24	5	173,6	1153,5
Luxembourg	7	23	56	37	6	-	2,3	33,6
Netherlands	52	10	56	30	14	0	69,9	498,7
Austria	23	37	72	18	9	0	15,3	256,4
Portugal	37	43	76	18	6	0	18,4	285,8
Finland	8	7	59	23	17	2	25,8	322,9
Sweden	8	10	53	26	18	3	33,1	305,8
United Kingdom	9	24	53	27	19	1	166,1	1673,5

Table 5: Summary data on road goods transport

➤ ESSENTIAL INFORMATION – METHODOLOGICAL NOTES

Data used as a base for the analysis in this issue of "Statistics in focus" are collected from two different sources of information. Data on freight road transport of EU Member States are transmitted to Eurostat according to the regular practice and requirements laid down in Council Directive 78/546/EEC on statistical returns in respect of the carriage of goods by road and its amendment (89/462/EEC). Data concerning CEC have been collected in pilot surveys in 1997-1998, supported by the EU PHARE programme.

Data from Member States used as a base for analysis refer to 1997 except as follows: Luxembourg, Austria, Sweden, United Kingdom: 1996; Germany – national traffic data refer to 1995, the others – 1993; Greece – cross-trade data refer to 1991, national data by distance – to 1995; France - data refer to 1996 with the exception of cross-trade data which refer to 1997; Ireland – data refer to 1993 mainly, cross-trade data – to 1991; Italy – data on national traffic by NST/R chapters refer to 1996 and cross-trade data – to 1996; Portugal – data refer to 1994 mainly, cross-trade – to 1995; Finland – cross-trade data – to 1996. Cross-trade data are based on quarterly information.

The CEC surveys covered Albania, Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovak Republic and Slovenia. Data refer to 1997 with the exception of data received from Hungary, Slovak Republic and Slovenia which data refer to quarters 3 and 4 of 1997 and quarters 1 and 2 of 1998. The statistics collected during these pilot surveys conform to the requirements laid down in Council Directives on statistical returns in respect of the carriage of goods by road 78/546/EEC and 89/462/EEC.

The classification of goods is according to the NST/R chapters (see Table 1).

In general, data are reported by the country in which the vehicle is registered ('reporting country').

'National transport' means transport between two places located in the reporting country.

'International transport' means journeys between the reporting country and another country.

'Cross-trade' means the transport of goods by road between two countries other than the reporting country.

'Cabotage' means transport within a country other than the reporting country. Data on cabotage operations are not included in this publication.

'Hire or reward transport' is defined as carriage for remuneration on behalf of third party and it means transport carried out by specialized transport companies.

'Own account transport' is defined as transport which is not for hire or reward and usually means transport by companies whose main business is something other than road freight transport.

In Table 2, '-' means zero and '0' means a value less than 0.5. For statistical reasons, these values are not to be considered as precise.

This publication was prepared by Boriana Miloucheva (National Statistical Institute, Bulgaria), on secondment to Eurostat within the PHARE programme.

Further information:

➤ Reference publications

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