Transport

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Competitiveness in EU road freight transport – 2006

Highlights

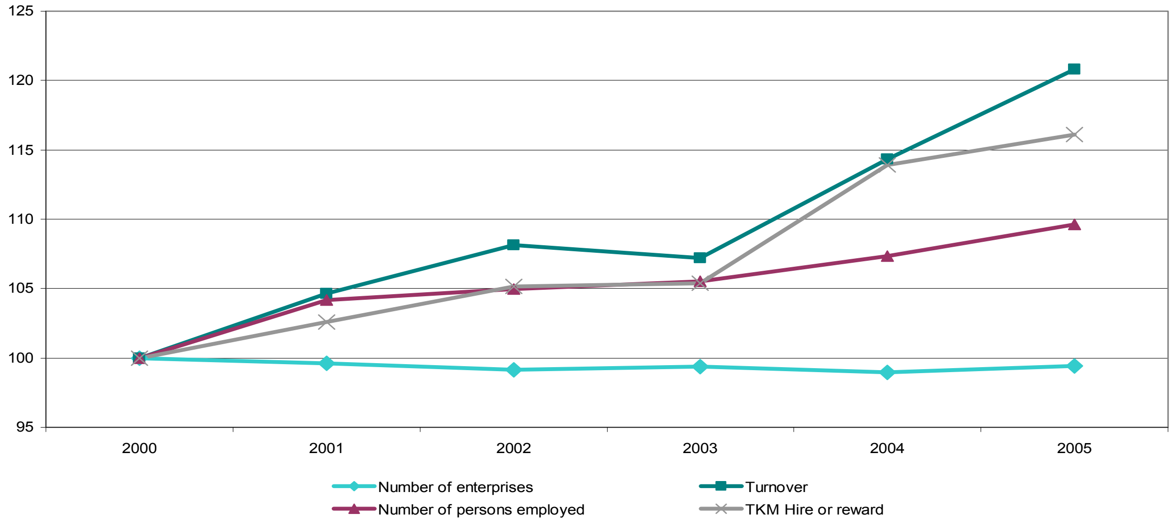
The European road freight hire or reward industry accounted for 80% of Europe's road freight traffic in 2006 (90% for journeys with an international element). The industry's turnover, employment and tonne-kilometres have shown strong growth from 2000 to 2005 while the number of road freight enterprises was little changed over the same period.

However, the entry of 12 Member States in 2004 and 2007 has created a strongly competitive environment. Annual average personnel costs for the EU-15 ranged from €16 000 to €43 000 in 2005. Except for Cyprus, none of the Member States that joined the European Union in 2004 and 2007 reached €10 000. As to the age of the vehicles, vehicles 5 years old or less accounted for more than 60% of vehicle-kilometres recorded by hauliers in the EU-15, with the exceptions of Belgium, Greece and Portugal, while in the Members that joined the EU in 2004 and 2007 new vehicles were not so common. The outcome of this has been the emergence of new highly effective competitors in European road freight transport.

In 2006, Poland was the major actor in cross-trading, taking 17% of the total tonnes lifted, ahead of the Netherlands and Germany. The Czech Republic was in fourth place. In cabotage, similar trends are emerging but more slowly. While Germany retains its lead in this field, followed closely by the Netherlands and Luxembourg, it seems likely that Poland will have displaced Italy in fifth place, with its tonne-kilometres nearly doubling between 2005 and 2006.

Another indicator of competitive pressure is the cabotage penetration rate. In 2006, the small open economies of Belgium and Luxembourg recorded penetration rates of over 3% in their national markets, followed by France, Austria and Denmark with around 2%. In none of the 12 Members that joined the EU in 2004 and 2007 did cabotage penetration reach 0.5%.

Graph 1: Evolution of number of enterprises, turnover, number of persons employed and tkm for hire or reward in the EU-15* (except EL) for freight transport by road (NACE I6024), base index 2000=100



* In order to harmonise coverage over years, time series were completed with estimates in case of missing or confidential data.

Note: In this publication, 2005 data have been used for Italy (data for 2006 have not been reported yet).

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Road freight transport by type of transport

Table 1: Share of hire or reward transport for each type of operation, 2006 - % in tkm

	National	International	Cross-trade	Cabotage	Total
BE	71.2	88.3	91.6	88.0	80.7
BG	52.0	97.1	99.6	100.0	78.4
CZ	75.6	96.0	96.4	94.2	89.5
DK	83.5	97.2	100.0	97.9	89.9
DE	75.9	93.6	97.7	94.9	80.3
EE	87.9	97.7	100.0	99.0	94.5
IE	66.2	90.0	98.4	94.2	71.5
EL	75.6	98.8	100.0	56.2	80.9
ES	89.1	99.1	100.0	99.5	91.9
FR	82.5	95.8	93.6	97.3	84.3
IT	88.2	98.1	95.9	99.7	90.1
CY	53.6	100.0	-	-	54.4
LV	63.6	97.0	99.8	100.0	89.2
LT	55.3	94.3	99.9	100.0	91.6
LU	33.6	90.0	94.0	88.5	87.8
HU	74.8	96.0	95.4	95.0	87.2
NL	75.5	91.5	96.3	92.5	86.1
AT	64.6	89.7	93.0	89.8	80.9
PL	71.1	94.0	98.5	97.1	84.0
PT	59.9	93.6	96.9	95.0	80.7
RO	45.7	84.8	:	:	69.3
SI	68.9	96.2	99.0	99.6	91.7
SK	70.8	94.9	99.1	95.2	90.5
FI	91.8	100.0	100.0	100.0	92.9
SE	92.4	96.1	93.8	96.3	92.8
UK	71.6	90.7	94.1	93.0	73.1
EU-27	79.1	94.2	97.0	93.6	84.1
LI	:	95.0	100.0	:	98.8
NO	80.9	94.9	100.0	63.2	80.9

Road goods transport is operated either by companies transporting their own goods with no financial transaction involved or by a specialist transport company operating a road freight service for financial reward. The first type of transport is known as "Own account transport" while the second is "Transport for hire or reward".

At the EU-27 level, hire or reward transport accounts for 84% of the total but there are substantial variations between countries. At one extreme is Estonia with nearly 95% of its transport being hire or reward while in Cyprus the share is 54%. Among the major economies, there are also marked variations. Spain and Italy have a hire or reward share over 90% while for the UK it is 73%. France and Germany have shares of 84% and 80% respectively.

Evaluated in terms of tonnes carried, all countries recorded hire and reward shares lower than for tonne-kilometres (Graph 2). The differences between countries were very high: 90% of Swedish transport was hire or reward on the basis of tonnes, while the share for Romania was less than 40% with Bulgaria not far above this mark. Among the major economies, France, Germany and the UK all recorded shares of around 60%, as did Poland.

Not far from the EU-27 average, Spain and Italy, in contrast, had shares of 70% or more. The reasons for the differences between the two series probably relate to the transport of heavier goods. These generally travel shorter distances and may be more likely to be carried in lorries owned by the companies producing them, ready mixed concrete being a good example.

Graph 2: Share of hire or reward transport in each country, 2006 - % in tonnes and tkm

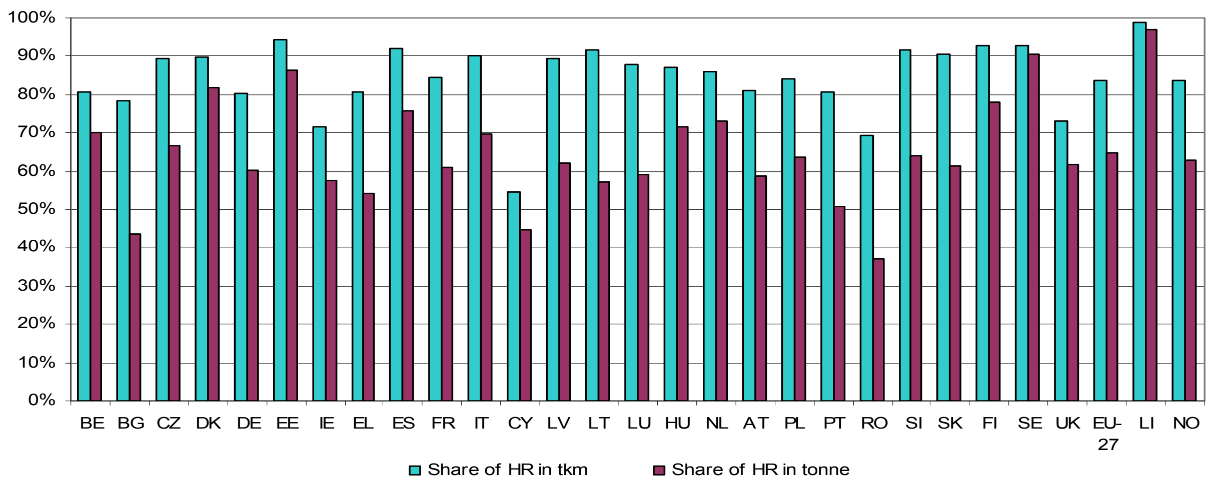


Table 1 shows the share of hire and reward for each class of operation, national, international, cross-trade and cabotage. Each class involving international movements had markedly higher hire or reward shares than national transport. For the EU-27 as a whole, hire or reward accounted for a little less than 80% of the total national traffic but well over 90% for the other classes, compared with the overall figure of 84%. Possible explanations are that companies engaged in hire or reward traffic have a much greater incentive to engage in international movements and are better organised in ensuring that their vehicles are not travelling empty once they are operating internationally. This applied particularly to cross-trade where 97% of transport was hire or reward and where the organisational demands are the greatest. All this applies equally to all Member States. At individual country level, eight countries recorded hire or reward shares greater than 90%: Estonia, Spain, Italy, Lithuania, Slovenia, Slovakia, Finland and Sweden. In Romania, in contrast, less than 70% was hire or reward. For international traffic, the international movements of Cyprus and Finland were 100% hire or reward while the Romanian figure was 85%. In cross-trade, Denmark, Estonia, Greece, Spain and Finland all recorded 100% hire or reward against 92% in Belgium. In cabotage, Latvia, Lithuania and Finland reached 100% hire or reward compared with Greece at 56%.

Business statistics on road freight

Table 2: Structural business statistics for enterprises of freight transport by road (NACE I6024), 2005

	Number of enterprises	Turnover- million euro	Personnel costs - million euro	Number of persons employed	Gross investment in tangible goods - million euro	Number of persons employed per enterprise	Turnover (thousand euro) per person employed	Average personnel costs (personnel costs per employee) (thousand euro)
BE	7 602	9 886	2 235	63 191	553	8	156	40
BG	c	1 435	84	48 681	c	c	30	3
CZ*	26 538	4 330	543	102 569	c	4	42	7
DK	7 140	5 405	1 326	40 397	385	6	134	38
DE	33 472	26 871	6 819	289 918	1 953	9	93	27
EE	1 763	695	75	13 218	47	7	53	6
IE	c	c	c	c	c	c	c	c
EL	c	c	c	c	c	c	c	c
ES	135 549	33 009	6 380	390 000	2 068	3	85	25
FR	42 643	35 433	10 881	341 268	1 505	8	104	33
IT	101 813	40 553	6 455	339 770	1 605	3	119	32
CY	1 481	85	40	2 415	6	2	35	33
LV	1 895	557	38	16 220	147	9	34	2
LT	3 111	1 266	139	31 441	85	10	40	5
LU	443	980	269	7 613	51	17	129	36
HU	19 646	3 521	404	68 370	249	3	52	8
NL	9 140	15 933	4 543	114 843	680	13	139	43
AT	6 706	7 566	1 718	57 576	568	9	131	33
PL	70 276	8 770	601	195 361	453	3	45	5
PT	12 237	4 315	985	62 214	488	5	69	16
RO	13 555	2 215	148	68 050	452	5	33	2
SI	6 143	1 378	194	c	:	c	c	c
SK	824	449	56	10 021	79	12	45	6
FI	10 935	4 727	1 206	39 569	586	4	120	36
SE	14 779	7 580	2 107	67 730	1 016	5	112	38
UK	34 734	34 018	8 537	308 938	2 464	9	110	31
EU-27	595 698	255 975	56 495	2 752 700	16 369	5	93	26
NO	9 693	3 814	891	27 227	384	3	140	43

* CZ: 2004 data

Hire or reward elements account for 80% of the road freight activity in the EU. Table 2 shows some characteristics of this sector. In 2005, much of the activity was concentrated in the larger Member States. Spain had the greatest number of enterprises and number of persons employed. Italy had the largest turnover, while France had the highest personnel costs. The UK was investing at a greater rate than any other Member State.

Luxembourg had the highest number of persons employed per enterprise (17 persons) and the Netherlands had the highest personnel costs per employee. Belgium recorded the highest turnover per person employed. Among the Member States that joined the EU in 2004 and 2007, Poland stood out in aggregate terms, reflecting the size of its economy.

The average personnel costs are a key factor affecting competitiveness between Member States. In the EU-15, such costs for 2005 ranged from €16 000 for Portugal to €43 000 for the Netherlands. In contrast, except for Cyprus, in none of the 12 Member States that entered EU in 2004 and 2007 did this figure approach €10 000. Hungary at €8 000 was the highest and Latvia and Romania at €2 000 the lowest.

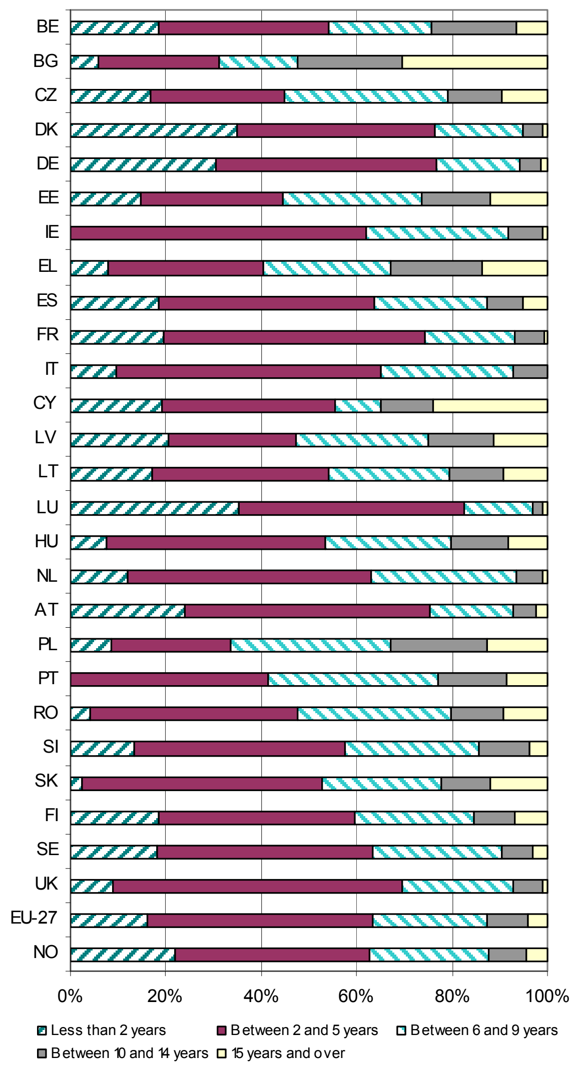
Age of vehicles

Younger road freight vehicles dominated the market in Europe in 2006. Vehicles 5 years old or less accounted for over 60% of the total vehicle-kilometres with those over 10 years old performing 12% of vehicle-kilometres (Graph 3). Graph 4 shows the share of total tonne-kilometres for each age group for the years 2000, 2004, 2005 and 2006. It is clear that there has been a strong growth in the share of vehicles two years old or less since 2004 but it has still not returned to the level recorded in 2000, before the recent enlargements of the EU. As Graph 3 shows, this is in part a reflection of the older age profile of the vehicle fleets of the Member States that joined the EU in 2004 and 2007. While vehicles 5 years old or less accounted for more than 60% of vehicle kilometres in the EU-15, with the exception of Belgium, Greece and Portugal, none of the Member States that entered EU in 2004 and 2007 had yet reached this threshold.

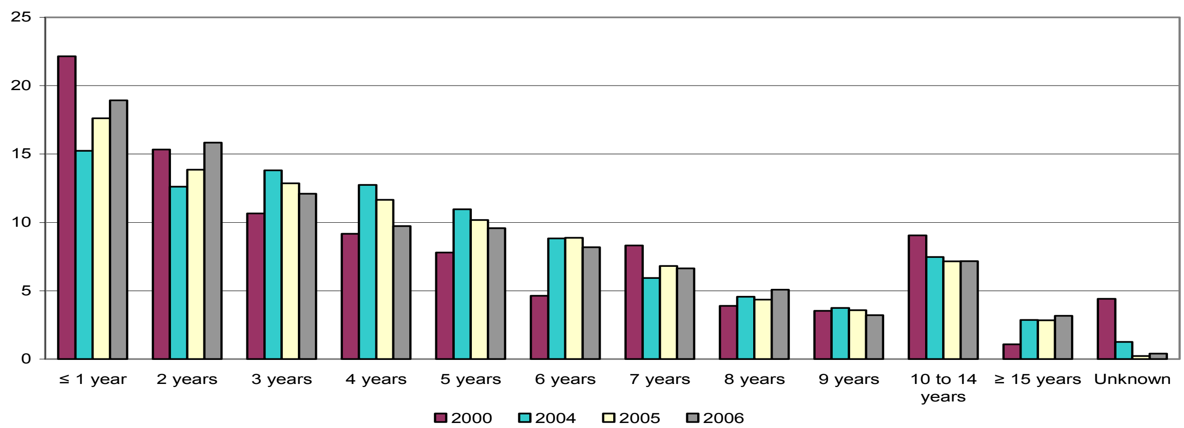
This trend is reflected in the declining share of older vehicles in total tonne-kilometres except for the 7 to 8 year range and those over 15 years old. The graph also shows the decline in the numbers of vehicles where the age is not known from around 4% in 2000 to less than 1% in 2006. This is a substantial improvement in statistical quality.

One factor affecting the age of vehicles may be the timing of the introduction of the European emission standards for large goods vehicles. Euro III standard came into force in October 2000 and Euro IV in October 2005. There tend to be large purchases of vehicles just before the introduction of the new and more expensive vehicles. This might explain why the figures for vehicles less than one year old were so high in 2000. However, a similar effect would have been expected in 2005 but perhaps it was masked by the influence of the enlargement.

Graph 3: Share of age categories in road goods transport, 2006 - % in vkm



Graph 4: Road goods transport in the EU* and Norway by age of vehicle - % in tkm



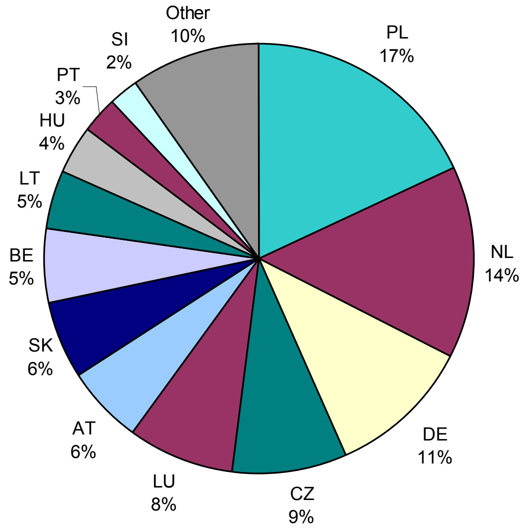
* Data availability: see methodological notes; EU data for 2000 cover CZ and EU-15 without EL.

Cross-trade and cabotage transport

Table 3: Main countries of loading for cross-trade performed for hire or reward transport by each reporting country, 2006 - % in tonnes

	First country of loading		Second country of loading		Third country of loading		Total cross-trade
BE	NL	36%	FR	28%	DE	22%	5 068
BG	TR	42%	DE	28%	FI	5%	631
CZ	DE	28%	AT	13%	FR	10%	8 141
DK	DE	27%	SE	21%	FR	11%	494
DE	FR	20%	AT	12%	BE	12%	10 133
EE	FI	19%	DE	13%	SE	9%	503
IE	FR	24%	UK	22%	DE	19%	619
EL	IT	33%	BG	25%	IL	22%	64
ES	FR	37%	BE	16%	DE	14%	1 653
FR	BE	30%	DE	19%	IT	13%	939
IT	DE	23%	FR	22%	BE	13%	1 604
LV	DE	28%	ES	11%	RU	9%	1 199
LT	DE	19%	PL	13%	FR	11%	4 232
LU	FR	28%	DE	27%	BE	25%	7 431
HU	DE	22%	IT	14%	AT	14%	3 352
NL	BE	32%	DE	30%	FR	18%	13 457
AT	DE	37%	IT	33%	FR	4%	5 561
PL	DE	28%	FR	18%	BE	10%	16 922
PT	ES	43%	FR	31%	DE	9%	2 507
RO	-	-	-	-	-	-	c
SI	IT	27%	DE	20%	AT	16%	2 215
SK	DE	22%	IT	15%	FR	12%	5 480
FI	SE	39%	NO	36%	DE	11%	157
SE	DE	30%	ES	11%	NO	11%	403
UK	DE	19%	FR	19%	BE	17%	309
LI	DE	36%	CH	23%	AT	20%	383
NO	SE	63%	DE	16%	FR	7%	43

Graph 5: Cross-trade performed for hire or reward transport by hauliers from reporting countries, 2006 - % in tonnes



Cabotage and cross-trade are the key fields in which the competition between hauliers is strongest. Cross-trade is the movement of goods by one country's haulier from an origin in a second country to a destination in a third. Table 3 and Graph 5 show the cross-trade performance of individual countries in terms of tonnes lifted. Poland emerges as the largest performer of cross trade accounting for 17% of the total, followed by the Netherlands (14%), Germany (11%) the Czech Republic (9%) and Luxembourg (8%). Of the top 12 "cross traders", exactly half were Member States that entered the EU in 2004. That Polish and Czech hauliers have so quickly established themselves as leaders in this area is a sign of the open and competitive nature of the European road freight market.

Table 3 shows in more detail the main "loading" partners for each country. Geographical neighbours are clearly important partners with 42% of Bulgaria's loads originating in Turkey and 43% of Portugal's in Spain as examples. The Nordic countries are also important partners for each other. However, two countries stand out as cross trade origins, Germany and France, as befits their status as Europe's major economies. Germany was the most popular, not figuring as a top 3 partner only in the cases of Greece and Romania.

Table 4: Cabotage performed by hauliers from reporting countries - million tkm

	2004	2005	2006	% change 2005-2006
BE	1 816	1 597	1 552	-2.8
BG	:	:	204	:
CZ	5	33	86	159.7
DK	254	129	239	84.4
DE	1 944	2 257	2 273	0.7
EE	57	138	102	-26.1
IE	505	462	434	-6.0
EL	17	5	89	1 781.1
ES	1 031	1 059	854	-19.4
FR	624	421	523	24.4
IT	847	1 098	:	:
LV	10	36	30	-16.2
LT	28	50	66	31.3
LU	2 262	2 141	2 133	-0.4
HU	92	100	80	-20.3
NL	2 871	2 733	2 172	-20.6
AT	390	573	717	25.2
PL	506	653	1 273	94.8
PT	708	747	714	-4.4
RO	:	:	14	:
SI	132	149	264	77.0
SK	89	87	125	43.8
FI	70	54	88	62.8
SE	170	186	164	-11.6
UK	203	207	242	16.8
EU-27	14 631	14 916	:	:
NO	12	14	19	34.9

Even if judged on the basis of incomplete data because the 2006 figures for Italy are missing, it is likely that cabotage will have continued its recent growth (Table 4). Cabotage enables hauliers that operate outside their own country to pick up loads to avoid "empty running" before they return to base. This improves efficiency and increases competition. Hauliers in Germany, the Netherlands and Luxembourg are the main actors of this type of transport, all accounting for a substantial proportion of the total. However, while the Netherlands' cabotage activity fell by over 20% between 2005 and 2006, that of Germany and Luxembourg, along with Belgium, was little changed. Spain also saw a fall of around 20% in cabotage, while France recorded a rise of 24%. Polish hauliers showed a substantial 95% growth in their cabotage activity as they continued their adjustment to the new market opportunities. Substantial increases were also recorded in Slovenia (77%), Austria (25%) and Slovakia (44% although from a low base).

Table 5: Cabotage transport by country in which cabotage takes place - million tkm

	2004	2005	2006
BE	574	588	701
BG	11	0	15
CZ	27	34	68
DK	184	214	203
DE	3 794	3 659	3 237
EE	0	1	2
IE	122	148	177
EL	60	73	136
ES	929	1 162	1 032
FR	4 586	4 648	4 264
IT	1 001	879	1 037
CY	0	:	:
LV	20	1	2
LT	5	6	4
LU	11	27	18
HU	29	28	34
NL	257	278	391
AT	245	245	284
PL	42	36	22
PT	69	56	23
RO	22	53	26
SI	2	9	0
SK	7	39	22
FI	14	22	26
SE	356	517	520
UK	1 855	1 875	1 729
EU-27	14 221	14 599	13 973
LI	0	:	:
NO	197	71	152
CH	51	67	65
HR	1	5	2
MK	:	:	16
TR	6	25	25

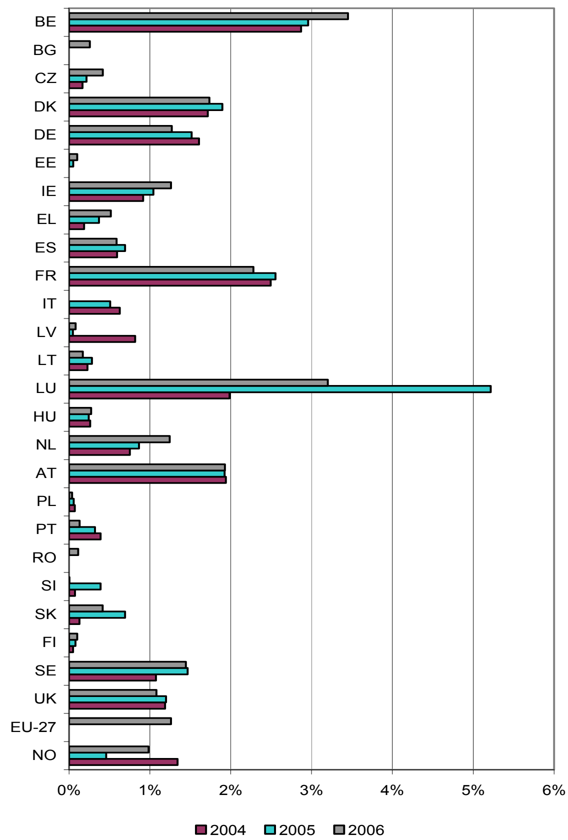
Table 5 shows where the cabotage takes place. France incurred the greatest amount of cabotage, followed by Germany, the UK, Italy and Spain. Among the Member States that joined the EU in 2004 and 2007, the Czech Republic stood out as incurring the greatest level of cabotage.

It is difficult to analyse trends over time because of the lack of Italian data for 2006 and great variability in the data. However, a number of middle ranking economies have seen a growth in cabotage taking place in their countries, including Belgium, the Netherlands, Austria and Sweden. In contrast, cabotage in Germany has recorded a fall, while the figures for France, showing a fall in 2006, have to be interpreted with caution since Italy is one of its major trading partners in road freight.

A different picture emerges when the level of cabotage is compared to each country's national transport. On this basis, Belgium and Luxembourg recorded cabotage penetration rates of over 3% in 2006, followed by France, Austria and Denmark with around 2%. Germany was close to the EU-27 average at a little over 1%. All the Member States that joined the EU in 2004 and 2007, as well as Portugal and Finland recorded figures under 0.5%.

The absence of the Italian figures as well as the small sample size on which the figures are based makes it difficult to comment on the trends in the data, particularly between 2005 and 2006. Even so, there was a growth in cabotage penetration between 2005 and 2006 in Belgium, the Netherlands and Ireland. Austria, Denmark, Sweden and the UK showed little change between these two years.

Graph 6: Cabotage penetration rate - % in tkm



METHODOLOGICAL NOTES

The data presented in this publication were collected in the frame of Council Regulation (EC) 1172/98 on statistical returns in respect of the carriage of goods by road. These data are based on sample surveys carried out in the reporting countries, i.e. EU Member States and Norway and record the road goods transport undertaken by vehicles registered in these countries. Data in Graph 1 and Table 2 come from Structural Business Statistics.

Cabotage

Definition and history: Cabotage is declared by Member States for hauliers registered in their country that performed transport on the national territory of another country. From the point of view of the reporting country, it is considered as international transport, from the point of view of the movements of goods, it could be considered as national transport.

With the aim of increasing transport efficiency and reducing the number of empty journeys, cabotage transport was gradually introduced in 1990 through authorization quotas (quantitative restrictions) and completely liberalized in 1998 in the EU-15. The cabotage regime was extended to the EFTA states (except Switzerland) following the creation of the EEA (European Economic Area). Cabotage between EU-15 and the new Member States, in general, will be liberalized at the latest after 5 years from accession, but cabotage is already allowed for Cyprus, Malta and Slovenia and in case of bilateral agreements between two States.

Cabotage penetration rate: Share of cabotage transport in total national transport, where total national transport is the sum of national transport and cabotage transport (by country in which cabotage takes place).

Data reliability: As road cabotage transport represents only a small percentage of total road transport and the data are collected on the basis of sample surveys, the importance of cabotage could sometimes either be over- or underestimated. Percentage standard error (PSE, 95% confidence interval) of cabotage transport is typically 10-40% in the surveys of large economies and can be more than 70% in countries where this kind of activity is rare or sample sizes are small. Furthermore, variability in cabotage transport performance often occurs due to 'haulage contracts' that have a limited validity. A haulier might thus perform cabotage transport operations in one year and lose this market to a transport operator registered in a different country the next year.

Age of vehicle

Length of time after the first registration of the goods road vehicle, irrespective of the registering country. If the year of first registration is not known, the year of manufacture is used as a proxy.

Type of transport

Transport for **hire or reward**: the carriage for remuneration of persons or goods on behalf of third parties.
Transport on **own account**: transport that is not for hire or reward.

The term **'hauliers'** used in this publication refers to transport operators that perform road transport for 'hire or reward' as well as those that perform transport for 'own account'.

Structural Business Statistics

Data for Graph 1 and Table 2 have been extracted from Eurostat dissemination database, Domain 'Industry, trade and services', table 'Annual detailed enterprise statistics on services (Annex 1) - (Nace: H, I, J and K)'.

Number of enterprises is a count of the number of enterprises registered to the population concerned in the business register corrected for errors, in particular frame errors. Dormant units are excluded. This statistic should include all units active during at least a part of the reference period.

Number of persons employed is defined as the total number of persons who work in the observation unit (inclusive of working proprietors, partners working regularly in the unit and unpaid family workers), as well as persons who work outside the unit who belong to it and are paid by it (e.g. sales representatives, delivery personnel, repair and maintenance teams).

Turnover comprises the totals invoiced by the observation unit during the reference period, and this corresponds to market sales of goods or services supplied to third parties.

Average personnel costs represent personnel costs per employees. The number of employees is defined as those persons who work for an employer and who have a contract of employment and receive compensation in the form of wages, salaries, fees, gratuities, piecework pay or remuneration in kind (it is part of the Number of persons employed).

Italy: Data for 2006 have not been reported yet, therefore 2005 data have been used.

Malta: Since 2004, Malta has not reported any road transport data.

The Netherlands: The share of vehicles less than 1 year old is underestimated since 2000.

Bulgaria and Romania had no obligation to report for years prior to their accession in 2007 and started to report data for the reference year 2006.

Liechtenstein: Liechtenstein reports only international road freight transport.

Graph 4

The reporting countries included in the EU-27 aggregate vary over the years. 2000: CZ and EU-15 except EL; 2004: EU-25 except MT; 2005: EU-25 except MT; 2006: EU-27 except IT and MT.

Data availability

The figures presented in this publication have been extracted from Eurostat's free dissemination database and reflect the state of data availability on the 16th June 2008.

In this publication

1 billion = 1 000 000 000

-	not applicable
:	not available
c	confidential

This publication was prepared with the assistance of Richard Butchart and Marie-Noëlle Dietsch.

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