

Extra EU-25 trade in goods by mode of transport

Maritime transport continues to predominate with significant increases in exports by road

Statistics in focus

EXTERNAL TRADE

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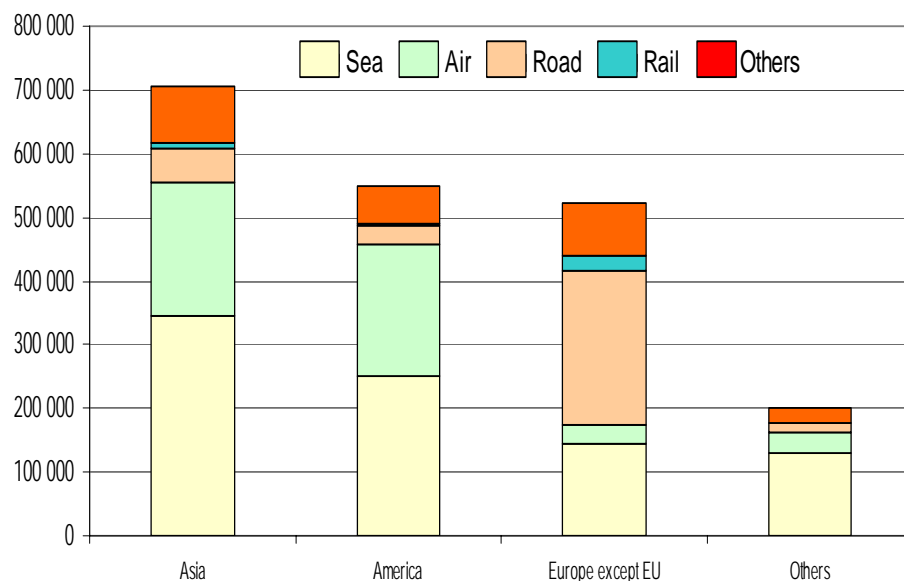
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Highlights

Graph 1: Trade between the EU-25 and the main world regions by mode of transport in 2004, in values – million euro



- **Asia is the main partner world region of the EU-25, with trade of more than 700 billion euro in 2004. The second main partner is America, with almost 550 billion euro. Sea is the main mode of transport for trade between the EU-25 and Asia and America. Air transport accounts for an important share of the total trade with these two regions: 37% for America and 30% for Asia.**
- **Road transport was the main mode of transport used for trade with European countries other than EU. In 2004, this mode accounted for 46% out of the 522 billion euro of total trade with this partner region registered for all modes.**
- **While usage of all modes of transport increased over the period, maritime transport continued to be predominant, accounting for 45% by volume of all goods traded in 2004.**
- **Exports of goods by road increased significantly between 1999 and 2004 (38% by volume and 39% by value); European countries other than EU-25 were, not surprisingly, by far the main trading partner in terms of road transport.**
- **Petroleum products were the largest group of goods traded between the EU-25 and the rest of the world in terms of volume. When considering value and volume for these products, trade by sea alone accounted for almost three quarters of the total trade for all modes in 2004 while fixed mechanism represented slightly less than a fifth.**

All data source: Eurostat, Comext.

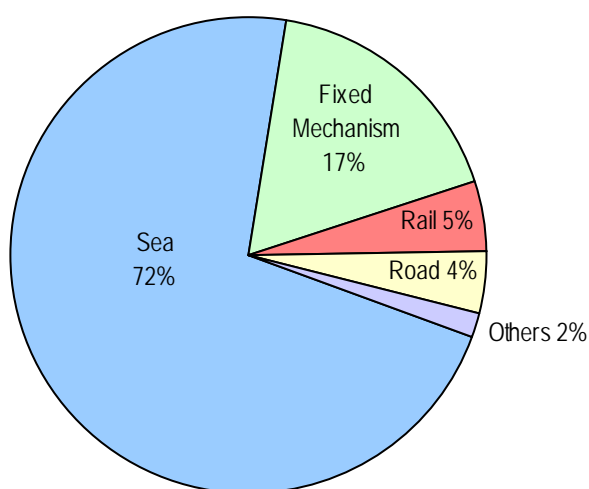
Imports to the European Union

Maritime transport dominates...

In 2004, imports represented 79% of the total volume of goods traded by the EU-25 with the rest of the world, but their value represented only 52% of total trade.

The analysis of imports shows that maritime transport was by far the most used mode of transport for imports into the EU-25 during 2004, with 72% by volume. But in terms of value, this accounted for only 51%. Also showing a higher percentage in terms of volume than value, rail transport accounted for 5% by volume and 1% by value and fixed mechanism accounted for 17% by volume and 6% by value.

Graph 2: Modal split in extra-EU-25 trade in terms of volume (tonnes), imports



...but air and road carry smaller, more valuable goods.

By contrast, imports realized by air and road transport, generally smaller but more valuable goods, differed in respect of ratios of volume to value, inasmuch as the percentage values of goods were higher than their

share in volume terms. This was particularly the case for air transport, where a negligible volume of imports accounted for 23% of all EU-25 imports in values.

Effect of main products traded

During 2004, the total volume of all imports into the EU-25 was about 1666 million tonnes, of which 1140 million tonnes moved by sea.

This largely reflects the volume of imported petroleum products which travelled by sea. In 2004, there were imports of 689 million tonnes of which 529 million tonnes moved by sea. The next largest share of 146 million tonnes used fixed mechanism.

In terms of value, another group of goods, Machinery, Transport Equipment, Manufactured Articles and Miscellaneous Articles had the largest share (50%) of the total value of EU-25 imports, but the weight of this category of goods should not be over evaluated, due to the inclusion of 'Miscellaneous Articles' in this chapter.

Graph 3: Modal split in extra-EU-25 trade in terms of value (euro), imports

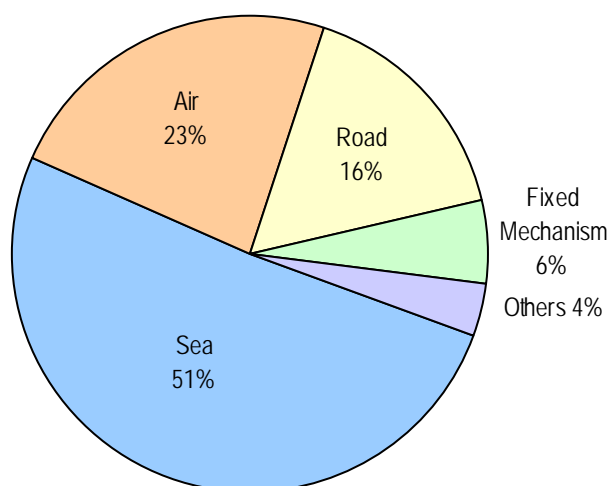


Table 1: Modal split in extra-EU-25 imports by products (based on NST/R chapters) for the main modes of transport, 2004 – volume and values

	Sea		Air		Road		Rail		Fixed Mechanism	
	Volume	Value	Volume	Value	Volume	Value	Volume	Value	Volume	Value
Agricultural products and live animals	61%	73%	0.6%	6.3%	18.9%	16.5%	17.8%	3.2%	0.0%	0.0%
Foodstuffs and animal fodder	89%	82%	0.3%	2.9%	5.0%	13.2%	1.1%	0.9%	3.7%	0.0%
Solid mineral fuels	92%	93%	0.4%	0.4%	0.4%	0.4%	2.6%	2.4%	0.0%	0.0%
Petroleum products	77%	78%	0.1%	0.1%	0.5%	0.5%	1.3%	1.4%	21.3%	20.3%
Ores and metal waste	81%	73%	0.4%	5.0%	0.9%	9.6%	16.3%	10.9%	0.3%	0.8%
Metal products	78%	66%	0.1%	7.9%	10.6%	16.6%	8.2%	6.2%	0.0%	0.0%
Crude and manufactured minerals, building materials	80%	29%	0.1%	65.5%	7.2%	3.3%	11.6%	1.3%	0.0%	0.0%
Fertilizers	80%	80%	0.0%	0.1%	3.9%	4.5%	12.3%	13.5%	0.0%	0.0%
Chemicals	74%	38%	0.4%	28.6%	13.8%	31.3%	8.4%	2.0%	0.7%	0.0%
Machinery, transport equipment, manufactured articles and misc. articles	52%	41%	1.9%	34.3%	14.1%	19.9%	3.7%	0.8%	26.3%	0.8%
Total	72%	51%	0.3%	23.5%	4.0%	16.2%	4.9%	1.5%	17.5%	5.6%

Table 2: Trade in goods by sea and air between the EU-25 and the main partner world regions and between EU-25 and the world, 1999 and 2004 for imports - 1000 tonnes and million euro

Imports	Sea			Air			All modes		
	1999	2004	Average annual growth	1999	2004	Average annual growth	1999	2004	Average annual growth
1000 tonnes									
Total extra-EU	915 018	1 140 162	4%	2 612	4 693	12%	1 360 800	1 665 743	4%
Of which:									
Europe except EU	214 526	367 454	11%	102	675	46%	508 909	734 144	8%
Africa	199 598	237 671	4%	284	296	1%	261 942	293 183	2%
America	229 441	254 173	2%	1 144	1 862	10%	263 721	292 785	2%
Asia	207 784	234 748	2%	1 052	1 696	10%	250 253	290 064	3%
million euro									
Total extra-EU	314 447	472 943	9%	186 249	217 868	3%	756 972	1 034 828	6%
Of which:									
Europe except EU	44 266	98 880	17%	11 899	11 136	-1%	155 229	269 388	12%
Africa	34 566	57 997	11%	7 843	10 183	5%	58 020	86 861	8%
America	82 435	95 133	3%	91 254	91 758	0%	222 236	237 150	1%
Asia	143 054	212 084	8%	72 287	102 235	7%	290 277	417 298	8%

Usage of all modes of transport for imports increased...

Between 1999 and 2004, imports into the EU-25 from the rest of the world increased by 22% in terms of volume and 37% in terms of value.

By comparison, the volume of goods moving by sea increased by 25% in terms of volume and 50% in terms of value. In terms of volume, the main trading partner was European countries other than EU-25, but in terms of value, the main trading partner was Asia, with 45% of all EU-25 imports by sea.

The volume of imports by air increased by 80%, mainly on account of an increase in the volume of goods traveling by air from European countries other than EU-25, but because of the small volume of this trade, the increase is not as significant as it appears. By contrast, when value is taken as the basis, imports by air increased by 17% over the five years period, with America and Asia as the main trading partners.

...in particular transport by road

The volume of imports transported by road showed an increase of 44% (29% value) over the five years.

The main trading partners during 2004 were European countries except the EU, with 80% of the volume and 62% of the value of all imports by road into the EU-25 in 2004. This is clearly a result of the proximity of this region to the EU, allowing more road transport to be used.

The main non EU-25 European trading block for imports by road were the TACIS countries, with the Russian Federation having by far the lion's share. This situation changes if value is used as the basis, when imports from the EFTA countries have the highest value, with by far the largest share from Switzerland.

The volume of imports by rail increased by 25% (37% value) over the period, with the volume of imports from European countries other than EU-25 rising by 28% (61% value). The TACIS countries were again the main trading block, with the Russian Federation having easily the largest share of trade.

Table 3: Trade in goods by road and rail between the EU-25 and the main other European countries, 1999 and 2004 for imports - 1000 tonnes and million euro

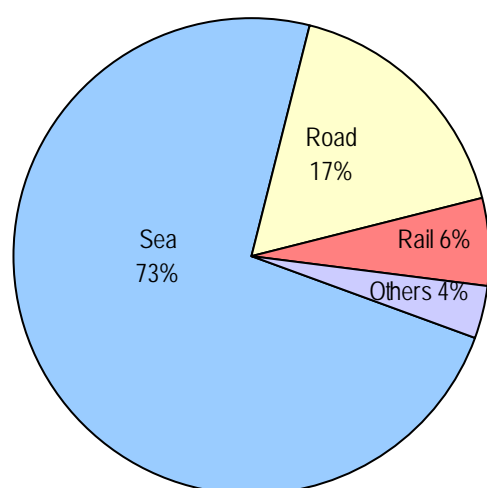
Imports	Road			Rail			All modes		
	1999	2004	Average annual growth	1999	2004	Average annual growth	1999	2004	Average annual growth
1000 tonnes									
Extra-EU trade	44 106	63 444	8%	61 866	77 269	5%	1 360 800	1 665 743	4%
of which Europe except EU	30 558	50 815	11%	53 897	69 154	5%	508 909	734 144	8%
Candidate countries	7 054	10 372	8%	2 964	3 136	1%	30 072	48 296	10%
EFTA	12 699	13 878	2%	3 246	3 554	2%	180 501	237 283	6%
CARDS	991	2 301	18%	153	842	41%	1 939	5 000	21%
TACIS	9 278	22 914	20%	47 533	61 619	5%	295 660	441 972	8%
million euro									
Extra-EU trade	117 093	150 641	5%	10 466	14 364	7%	756 972	1 034 828	6%
of which Europe except EU	63 346	93 497	8%	6 650	10 937	10%	155 229	269 388	12%
Candidate countries	15 598	29 017	13%	857	1 503	12%	26 731	53 565	15%
EFTA	41 504	52 461	5%	2 145	2 262	1%	87 453	120 325	7%
CARDS	1 263	2 599	16%	33	214	45%	1 957	3 888	15%
TACIS	4 883	9 229	14%	3 615	6 957	14%	38 473	90 856	19%

Exports from the European Union

Balance between imports and exports

The volume of exports from the EU-25 in 2004 amounted to about 455 million tonnes and represented 21% of total EU-25 trade. Based on value however, exports represented 48% of total EU-25 trade and so were comparable with imports. This can be explained by the fact that Member States export goods with a higher value per tonne than they import.

Graph 4: Modal split in extra-EU-25 trade in terms of volume (tonnes), exports



Sea largely dominant

The picture of the modes of transport used for exports during 2004 is relatively different from imports. Although sea transport is still dominant by far for exports in terms of value and volume, differences can be observed for the other modes.

When considering the volume of goods traded, road transport comes in second position with a share in total modes of 17% (against 4% for imports). In terms of value, its share is also higher compared to imports

(21% against 16% respectively), but to a lesser degree.

The same trend prevails for air transport for the value of goods exported, with a share of 29% of total modes (against 23% for imports). Fixed mechanism does not appear as an important mode in terms of exports.

Main products exported

As for imports, the largest products group for exports in terms of volume during 2004 were petroleum products amounting to 95 million tonnes, of which about 85 million tonnes travelled by sea.

The picture changes if value is used as a basis, with Machinery, Transport Equipment, Manufactured Articles and Miscellaneous Articles accounting for almost 70% in value of all goods exported with 62% travelling by sea and 26% by road.

Graph 5: Modal split in extra-EU-25 trade in terms of value (euro), exports

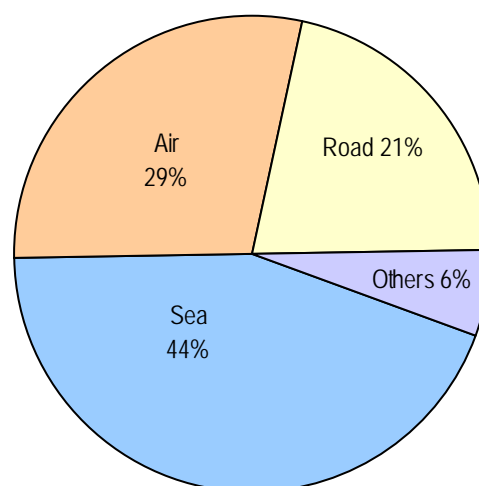


Table 4: Modal split in extra-EU-25 exports by products (based on NST/R chapters) for the main modes of transport, 2004 – volume and values

	Sea		Air		Road		Rail		Fixed Mechanism	
	Volume	Value	Volume	Value	Volume	Value	Volume	Value	Volume	Value
Agricultural products and live animals	70%	53%	0.5%	11.8%	24.0%	32.8%	4.8%	1.9%	0.0%	0.0%
Foodstuffs and animal fodder	71%	72%	0.4%	2.3%	20.5%	22.4%	5.6%	2.7%	2.1%	0.0%
Solid mineral fuels	83%	82%	0.0%	0.0%	8.9%	6.3%	7.5%	10.4%	0.0%	0.0%
Petroleum products	88%	85%	0.3%	0.5%	3.2%	5.5%	5.1%	5.2%	1.1%	1.4%
Ores and metal waste	94%	90%	0.0%	1.9%	1.9%	5.7%	3.2%	1.6%	0.0%	0.0%
Metal products	68%	61%	0.2%	8.0%	14.8%	21.8%	11.6%	6.4%	0.0%	0.0%
Crude and manufactured minerals, building materials	64%	32%	0.1%	55.8%	28.1%	9.4%	5.7%	2.3%	0.3%	0.0%
Fertilizers	85%	84%	0.0%	0.3%	7.3%	9.0%	3.5%	3.3%	0.0%	0.0%
Chemicals	72%	38%	0.8%	40.6%	22.5%	20.1%	3.9%	1.2%	0.0%	0.0%
Machinery, transport equipment, manufactured articles and misc. articles	62%	41%	2.2%	30.0%	26.5%	22.4%	6.1%	2.1%	1.0%	0.2%
Total	73%	44%	0.8%	28.6%	17.3%	21.3%	5.6%	2.2%	0.9%	0.2%

Table 5: Trade in goods by sea and air between the EU-25 and the main partner world regions and between EU-25 and the world, 1999 and 2004 for exports - 1000 tonnes and million euro

Exports	Sea			Air			All modes		
	1999	2004	Average annual growth	1999	2004	Average annual growth	1999	2004	Average annual growth
1000 tonnes									
Total extra-EU	276 302	318 755	3%	6 832	8 289	4%	377 592	455 193	4%
Of which:									
Europe except EU	38 661	47 518	4%	175	315	12%	107 871	139 615	5%
Africa	47 518	52 288	2%	213	263	4%	51 289	56 951	2%
America	98 063	114 717	3%	1 318	1 226	-1%	106 329	126 744	4%
Asia	72 870	80 913	2%	1 003	1 222	4%	82 784	94 921	3%
million euro									
Total extra-EU	301 895	402 970	6%	201 363	260 617	5%	696 561	974 464	7%
Of which:									
Europe except EU	28 706	45 407	10%	13 357	17 647	6%	155 235	253 024	10%
Africa	38 329	50 551	6%	10 063	12 920	5%	57 792	76 128	6%
America	127 885	156 156	4%	95 064	113 736	4%	256 124	311 842	4%
Asia	93 117	133 011	7%	76 289	107 053	7%	193 759	288 542	8%

Exports increased for each of the main modes...

Between 1999 and 2004, the total volume of exports from the EU-25 to the rest of the world increased by 20% and by 40% in terms of value.

The volume of exports by sea increased by 15% during the same period and by 33% in value. In terms of volume and value, the main trading partner for exports travelling by sea from the EU-25 during 2004 was America.

The volume of exports by air also showed an increase of 21% (32% in value).

The volume of goods exported from the EU-25 by rail between 1999 and 2004 increased by 16% (49% value) over the period and represented 6% of all exports during 2004.

The largest trading partner for exports by rail was European countries other than EU-25, for whom the volume increased by 10% (41% value). The EFTA

countries were the main trading block, with Switzerland having the largest share.

...but the largest increase was in road transport.

Between 1999 and 2004, the volume of goods exported by road from the EU-25 to the rest of the world showed a significant increase of 33% (49% value) and in 2004 represented 17% by volume and 21% by value of total EU-25 exports.

As for imports, the geography of the countries made European countries other than EU-25 the main trading partner for goods exported by road, with 80% by volume and 77% by value.

Within the European countries except the EU, the main trading block for exports by road in terms of both volume and value were the EFTA countries, with Switzerland having by far the lion's share.

Table 6: Trade in goods by road and rail between the EU-25 and the main other European countries, 1999 and 2004 for exports - 1000 tonnes and million euro

Exports	Road			Rail			All modes		
	1999	2004	Average annual growth	1999	2004	Average annual growth	1999	2004	Average annual growth
1000 tonnes									
Extra-EU trade	54 924	73 156	6%	19 838	23 098	3%	377 592	455 193	4%
of which Europe except EU	43 399	58 223	6%	15 792	17 432	2%	107 871	139 615	5%
Candidate countries	7 145	12 831	12%	2 409	4 330	12%	23 823	39 024	10%
EFTA	24 431	27 245	2%	7 362	7 678	1%	56 357	62 835	2%
CARDS	3 955	5 044	5%	1 803	935	-12%	7 766	8 679	2%
TACIS	6 278	11 242	12%	4 206	4 465	1%	15 174	22 392	8%
million euro									
Extra-EU trade	129 728	193 246	8%	13 449	20 078	8%	696 561	974 464	7%
of which Europe except EU	93 820	149 309	10%	8 744	12 306	7%	155 235	253 024	10%
Candidate countries	21 001	39 768	14%	1 454	2 703	13%	36 095	71 926	15%
EFTA	53 673	64 018	4%	5 071	6 454	5%	89 609	108 808	4%
CARDS	3 631	7 012	14%	298	392	6%	5 201	9 741	13%
TACIS	14 517	37 055	21%	1 879	2 671	7%	22 309	59 514	22%

Main partners

Table 7: Geographic structure of EU-25 trade for the main modes of transport by main partner, 2004 – 1000 tonnes and million euro

Top-5 partner - Transport by sea				
1000 Tonnes	Imports	Avg annual growth 2000-2004	Exports	Avg annual growth 2000-2004
Russian Federation	181 606	16%	4 383	2%
Norway	135 497	7%	14 556	1%
United States	54 229	-2%	85 850	4%
Brazil	92 079	8%	5 876	-1%
Saudi Arabia	58 133	2%	6 259	-6%

Top-5 partner - Transport by sea				
Million Euro	Imports	Avg annual growth 2000-2004	Exports	Avg annual growth 2000-2004
United States	44 882	-1%	111 987	5%
China	73 416	17%	27 015	20%
Japan	32 811	0%	20 557	3%
Norway	33 589	14%	11 053	3%
Russian Federation	37 579	25%	6 967	18%

United States are the main EU-25 partner in value of goods traded by sea

In terms of volume travelling by sea, the Russian Federation was the EU's main trading partner, with 13% of all EU-25 trade travelling by sea during 2004. Exchanges with Russian Federation were mainly made up of imports, which represented almost 98% of the total trade with this country.

The situation changes when value is used as the basis, with the United States by far the largest trading partner in terms of maritime transport. It is however noteworthy that China and the Russian Federation showed impressive annual growth figures for the period for both imports and exports.

Top-5 partner - Transport by air				
1000 Tonnes	Imports	Avg annual growth 2000-2004	Exports	Avg annual growth 2000-2004
United States	908	3%	903	-2%
China	535	20%	154	12%
Russian Federation	350	123%	86	21%
Brazil	325	57%	65	-1%
Japan	172	-1%	196	2%

Top-5 partner - Transport by air				
Million Euro	Imports	Avg annual growth 2000-2004	Exports	Avg annual growth 2000-2004
United States	78 004	-1%	93 257	4%
China	24 351	28%	11 718	14%
Japan	17 437	-2%	17 689	3%
Singapore	10 448	6%	7 856	6%
Korea	10 410	14%	6 792	7%

United States are the main EU-25 partner for trade by air

The United States was the largest trading partner for EU-25 imports and exports travelling by air in 2004, with shares of 14% by volume and 36% by value of all EU-25 trade travelling by air.

Top-5 partner - Transport by road				
1000 Tonnes	Imports	Avg annual growth 2000-2004	Exports	Avg annual growth 2000-2004
Switzerland	9 950	3%	20 326	2%
Russian Federation	18 752	21%	8 022	12%
Norway	3 773	0%	6 569	1%
Croatia	2 948	4%	4 282	11%
Romania	3 023	13%	3 722	19%

Top-5 partner - Transport by road				
Million Euro	Imports	Avg annual growth 2000-2004	Exports	Avg annual growth 2000-2004
Switzerland	46 367	5%	48 526	3%
Russian Federation	6 130	14%	27 857	21%
Turkey	12 781	11%	15 359	10%
Romania	10 547	18%	13 057	19%
United States	11 577	-1%	10 408	0%

Switzerland is the main EU-25 partner in trade by road

The main trading partner for transport by road was Switzerland, with 22% in terms of volume and 28% by value of all EU-25 trade travelling by road during 2004. The Russian Federation was not far behind, and also showed high average annual growth levels.

Top-5 partner - Transport by rail				
1000 Tonnes	Imports	Avg annual growth 2000-2004	Exports	Avg annual growth 2000-2004
Russian Federation	34 268	3%	2 113	3%
Ukraine	20 479	6%	1 650	0%
Switzerland	2 469	2%	7 028	3%
Belarus	6 740	16%	586	-6%
Romania	1 589	0%	2 182	19%

Top-5 partner - Transport by rail				
Million Euro	Imports	Avg annual growth 2000-2004	Exports	Avg annual growth 2000-2004
Switzerland	1 670	0%	5 597	5%
Russian Federation	4 019	8%	1 584	4%
United States	374	-5%	2 516	12%
Ukraine	1 882	25%	871	24%
Romania	470	6%	1 004	22%

Russian Federation is the main EU-25 partner in volume of goods traded by rail

In terms of volume of imports and exports moving by rail, the Russian Federation was by far the main trading partner followed by the Ukraine. Between them, they accounted for 58% of all EU-25 trade moving by rail during 2004. When value is used as a basis, Switzerland becomes the main trading partner, followed by the Russian Federation.

➤ ESSENTIAL INFORMATION – METHODOLOGICAL NOTES

Data sources:

The content of this "Statistics in Focus" is based on data available in Eurostat's Comext database.

The data have been extracted from the following domains: Monthly transport since 1998 (for the EU-15 Member States before May 2004 and for the EU-25 Member States since May 2004) and EEC Special Trade domain (for the 10 New Member States before May 2004).

Mode of transport

In the methodology for the statistics on the trading of goods, the mode of transport in the case of extra EU-25 trade is defined as the active means of transport by which:

- for outwards flows (exports), goods are presumed to leave the statistical territory of the Community;
- for inwards flows (imports), goods are presumed to have entered the statistical territory of the Community.

'Active means of transport' is the means of transport that provides the motive power. If there are several means of transport, the active means of transport is the one which provides the motive power for the whole combination.

The modes of transport considered in the methodology for the statistics on the trading of goods are the following:

- Air
- Fixed installation (including pipelines)
- Inland waterways
- Post
- Rail
- Road
- Sea
- Self propulsion
- Unknown

Goods in transit

In the methodology applied to statistics on the trading of goods, extra EU-25 trade (trade between Member States and non-member countries) statistics do not record exchanges involving goods in transit, placed in

a customs warehouse or given temporary admission (for trade fairs, temporary exhibitions, tests, etc.).

This is known as "special trade" and the partner is the country of final destination of the goods.

Total Extra-EU-25 trade

The miscellaneous destinations have been included in the total extra EU-25 trade. Thus, the sum of the different world regions may not match the total extra EU trade.

Table 1 and Table 4

Only the five main modes are displayed in the tables, but the shares are calculated on the total trade for all modes.

Table 3 and Table 6

The different European regions represented (Candidate countries, EFTA, CARDS and TACIS) do not cover all European countries other than the EU.

Thus, the totals for these regions do not match the figures presented for Europe except the EU.

Table 7

The top 5 partners have been defined by taking into account the total trade between the relevant country and the EU.

Symbols used:

- Not applicable

Abbreviations:

EU European Union.
CC Candidate Countries.
EFTA European Free Trade Association
NST/R Standard goods classification for transport statistics / Revised.

This publication was prepared with the assistance of Penny Smith and Mathieu Erzar.

Further information:

Data: [EUROSTAT Website/Home page/External trade/Data](#)

External Trade

 External trade aggregated data

 External trade detailed data

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