



# The Gross Added Value of Transportation Enterprises in the Poland and Other Central and Eastern European Countries

## KEYWORDS

Central and Eastern European countries, transportation, enterprises, gross added value, suggestions.

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**ABSTRACT** *The objective of this article is to analyse the gross added value of transportation companies in the Poland and other Central and Eastern Europe, or of new European Union (EU) states before and after the economic crisis, and to compare them on the EU level, incl. the Baltic States. How did new European Union companies survive the economic crisis? What are the lessons learned? Based on this and previous publications, we will offer a number of generalized recommendations. Based on this and previous publications, we will offer a number of generalized recommendations.*

## Introduction

The four major sectors of the economy with the highest GDP and the largest number of employees are: industry, construction, trade and transportation. We will currently only analyse transportation. The situations before the crisis, during the crisis and after the crisis will be viewed.

Gross added value in eight CEE countries (Bulgaria, Croatia, the Czech Republic, Hungary, Poland, Romania, Slovenia and Slovakia) has been analysed. New EU member states, Malta and Cyprus, have been excluded. Let us attempt to draw comparisons with the Baltic States.

The growth of the entire economy, measured using GDP, will be viewed as the background. However, the main emphasis is on the analyses of the indicators of transport companies in CEE countries, and in particular, on gross added value.

The techniques and labour market survey definitions used by the authors have been specified in ILO (Sources and Methods) [1] and Eurostat (Methodological Notes. EU-LFS) [2].

The theoretical bases have been brought in more detail in the authors' earlier works [3-8].

## 2. ANALYSES

### 2. 1 Gross domestic product (GDP)

Based on this background, we will look at global future, with emphasis on Europe, but also on the economic development and demographic situation of developed industrial states, such as the USA, Japan, etc., in comparison to the developing countries in Asia, primarily China, India, etc.

The economy of the USA (GDP) has generally developed quicker than that of the EU; the pre-crisis years from 2006 to 2008 are the only exception. The decline in the EU was significantly higher in 2009 than in the USA. While the EU economy was negative in 2012, increment in the USA was 2.2%. According to the Eurostat prognosis, the EU economy (GDP) will also experience a small decline in 2013, the USA will experience normal growth for a highly developed industrial country.

Real GDP growth rate in 2012: EU-27 = -0.3% and the euro area (17) = -0.6%.[9]

Before the crisis, all CEE-8 countries experienced large increases. All of the states experienced a great GDP decline in 2009, except Poland, which was the only EU country, where the economy did not decline. While in 2010, Croatia (-2.3%)

and Romania (-1.1%) were still experiencing GDP declines, in the following year, none of the countries no longer had negative GDP. However, in 2012, half of the countries under observation here, once again experienced an economic decline. According to the Eurostat prognosis, the Czech Republic, Croatia and Slovenia will also experience a decline in 2013. In 2014, the only country to still be in decline, will be Slovenia (-0.1%).

The GDP increase in Poland was already relatively large before 2009 (+1.9%). As the only EU country, Poland did not even experience an economic decline compared to the previous year during the most difficult time; of course, the tempo of the increase varied.

On the other hand, it must be highlighted that Poland does have the largest economy and population of all 13 new EU member states. If we want to provide an overall evaluation of the 13 new member states, it must be kept in mind that Poland's level has the most influence. [9]

### 2. 2 Gross added value of transportation and storage

We will first observe the main total quantitative indicators (NACE\_R2), as well as the changes in the number of transportation companies, etc. What are the lessons learned from the economic crisis?

**Table 1. Gross added value, EUR. [10, 11]**

	Per employee				Total, million
	2005	2008	2009	2010	2010
EU-27	:	48.46	46.38	50.23	471661
Bulgaria	:	9.9	9.1	10.5	1 493
Czech R.	:	25.3	23.5	24.6	5 872
Hungary	15.7	17.9	16.5	18.3	3 623
Poland	16.0	22.2	17.6	20.6	11 839
Romania	6.8	12.5	10.2	12.3	3 835
Slovenia	27.6	32.4	29.1	38.7	1 731
Slovakia	:	15.4	14.8	20.7	2 082
Croatia	:	28.5	23.9	24.8	1 709

Norway and Denmark had the highest gross added value per employee in transportation and storage, while Bulgaria and Romania had the lowest. The different was tenfold.

**Table 2. Share of gross operating surplus in value added. [12]**

	2005	2007	2008	2009	2010
EU-27	:	:	34.8	31.6	35.8
Bulgaria	:	:	49.7	44.0	49.8

Estonia	52.9	41.5	40.3	47.6	53.6
Latvia	:	:	50.3	49.3	50.5
Lithuania	50.9	52.0	42.4	36.2	44.0
Czech R.	:	:	39.3	37.6	38.2
Hungary	30.8	35.6	24.4	24.6	30.1
Poland	48.3	52.5	48.3	45.1	48.2
Romania	40.1	39.6	44.3	37.8	46.2
Slovenia	33.1	32.9	36.4	29.5	45.3
Slovakia	:	:	24.3	15.3	41.3
Croatia	:	:	39.9	36.6	37.3

Share of gross operating surplus in added value is one of the most important indicators of effectiveness of these ratios – it enables comparing richer and poorer countries.

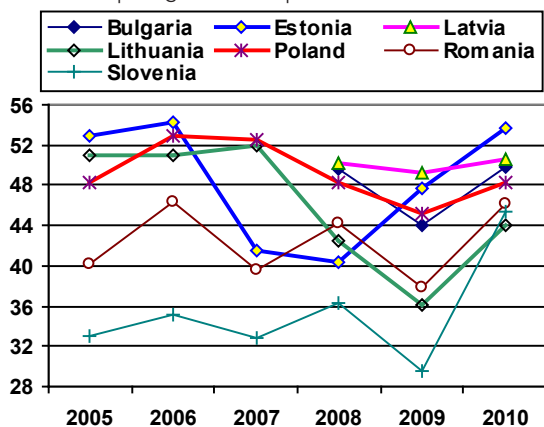


Figure 1. Share of gross operating surplus in added value in CEE and the Baltic countries of the EU. [12]

This indicator was higher for the Baltic and Eastern European countries. All countries, except for Estonia experienced a decline during the crisis year. However, in 2010 the 2008 level was restored. The decline in Estonia took place earlier, in 2007 and 2008, while a significant increase took place from the crisis year onward.

This indicator was also high for Turkey. The level of rich Western European countries remained below the levels of the Baltic and Eastern European states mentioned above.

**Conclusions**

1. In 2010, the total number of enterprises in the EU-27 barely exceeded the 2008 level, while the number of persons employed remained below.
2. In 2010, turnover and added value in the EU-27 remained below the 2008 level, while gross operating surplus was higher.
3. Norway and Denmark had the highest gross added value per person employed in transportation and storage, while Bulgaria and Romania had the lowest levels; the difference was tenfold.
4. In Eastern European countries (CEE-8), average sized companies were most effective.

5. Considering the extremely different economic levels of countries, especially during the crisis, and the sizes of companies, it is clear that the changes in the numbers of transportation companies alone are not enough to make generalisations on how transportation companies survived the economic crisis. In order to provide a definite evaluation, the interconnectedness of these key factors must be evaluated as a set.
6. The CEE-8 countries with the largest economy is without a doubt Poland.
7. As a rule, the number of enterprises in CEE-8 countries grew in 2008, declined in 2009 and increased again the following year, though remained below the 2008 levels. The number of single person firms increased during the crisis, since the number of employed person in micro and average sized companies decreased.
8. In CEE-8 countries, large companies had the largest share of added value. The Czech Republic and Romania had the largest shares (61.3% and 61.2% respectively).
9. Share of gross operating surplus in added value was higher in the Baltic and Eastern European countries, than in the EU-15 countries.
10. In principle, the transportation companies of the CEE-8 countries as a whole exited the economic crisis successfully. On the other hand, the crisis meant the death of thousands of companies and a rise in unemployment.
11. The key indicators did not act similarly for all countries during the economic crisis and as a result, the crisis took different paths in different countries. The consequences and reasons of the crisis varied greatly.

In order to provide a definite evaluation, other key indicators must also be viewed as an interconnected set.

12. The key indicators of transportation companies are strongly influenced by the situations of other areas of the economy, especially industry, construction and trade.
13. It must be taken into account that the economy (GDP) of four of the CEE-8 countries was negative in 2012, which means that the economy was in decline.
14. Significantly decreasing the number of incompetent managers and hiring a large amount of specialists also helped exit the economic crisis successfully and thus saved the economy of the state.
15. On the other hand, it is an objective inevitability that the market economy develops cyclically, with highs and lows. Those managers, who were more knowledgeable of the laws of the economy and managed to use them to their advantage, were better at exiting the crisis.
16. In the current conditions of increasing globalization, the economic situation of partner states has more and more influence, especially on smaller states. Success depends on whether companies have been able to find business partners, especially abroad. But at times also on how quickly they have been able to find new, solvent partners.
17. The economic crisis cleansed the business market of weak companies, also in the field of transportation, thus creating grounds for new development.

**REFERENCE**

[1] ILO (Sources and Methods) International Standard Classification of Occupations (ISCO 08). ILO <http://www.ilo.org/public/english/bureau/stat/isco/index.htm> | [2] Methodology and classifications. Structural business statistics (SBS). Eurostat. [http://epp.eurostat.ec.europa.eu/portal/page/portal/european\\_business/methodology\\_classifications](http://epp.eurostat.ec.europa.eu/portal/page/portal/european_business/methodology_classifications) | [3] Tanning, T.; Tanning, L. (2013). The analysis of labour productivity in East European countries. Journal of Technology, Education, Management, Informatics, 2(2), 136-141. | [4] Tanning, T.; Tanning, L. (2013). An Analysis of Working Efficiency in Central and East European Countries. American Journal of Economics /The Scientific & Academic Publishing, 3(3), 171-184. | [5] Tanning, L.; Tanning, T. (2013). Estonian, Latvian, and Lithuanian companies' working efficiency before and after the Economic Crisis. International Journal of Business and Social Science, 4, 130-136. | [6] Tanning, L.; Tanning, T. (2013). Companies working efficiency before and after the economic crisis of the Latvia example. Global Advanced Research Journal of Management and Business Studies, 2(3), 126-136. | [7] Tanning, L.; Tanning, T. (2013). The Baltic States companies working efficiency before and after the economic crisis. International Journal of Social Sciences and Entrepreneurship, 1(2), 484-495. | [8] Tanning, L.; Tanning, T. (2013). Working efficiency before and after the economic crisis in the Baltic states. Global Business and Economics Research Journal, 2(5), 92-101. | [9] Code: tec00115. Real GDP growth rate – volume. Percentage change on previous year. Eurostat. 10.07.2013. | <http://epp.eurostat.ec.europa.eu/tgm/table.do?tab=table&init=1&plugin=1&language=en&pcode=tec00115> | [10] Code: sbs\_na\_1a\_se\_r2. Gross value added per employee. Transportation and storage. Annual detailed enterprise statistics for services. SBS – services. Eurostat. 04.07.2013 | [http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=sbs\\_na\\_1a\\_se\\_r2&lang=en](http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=sbs_na_1a_se_r2&lang=en) | [11] Code: (sbs\_sc\_1b\_se\_r). Value added by enterprise size class, transportation and storage (NACE Section H), Table 6b. 2010. Eurostat | [http://epp.eurostat.ec.europa.eu/statistics\\_explained/images/b/b7/Value\\_added\\_by\\_enterprise\\_size\\_class%2C\\_transportation\\_and\\_storage\\_%28NACE\\_Section\\_H%29%2C\\_2010\\_B.png](http://epp.eurostat.ec.europa.eu/statistics_explained/images/b/b7/Value_added_by_enterprise_size_class%2C_transportation_and_storage_%28NACE_Section_H%29%2C_2010_B.png) | [12] Code: sbs\_na\_1a\_se\_r2. Share of gross operating surplus in value added. Transportation and storage. Annual detailed enterprise statistics for services. SBS – services. Eurostat. 04.07.2013 | [http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=sbs\\_na\\_1a\\_se\\_r2&lang=en](http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=sbs_na_1a_se_r2&lang=en) |