



# Transport Companies of Estonian Before and After the Economic Crisis

**KEYWORDS**

transport companies, working efficiency, economic crisis, Estonia

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**ABSTRACT**

The objective of this article is to analyse the efficiency of companies, working efficiency of Estonian transport companies before, during and after the economic crisis. How did Estonian transport companies survive the economic crisis? What are the lessons learned?

**Introduction**

The analysis focuses on the main branches of the Estonian national economy in connection to the economic crisis. The situations before, during and after the crisis will be viewed. Four major sectors of the economy with the greatest gross domestic product and the largest number of employees will be observed: industry, construction, trade and transportation. [1,2]

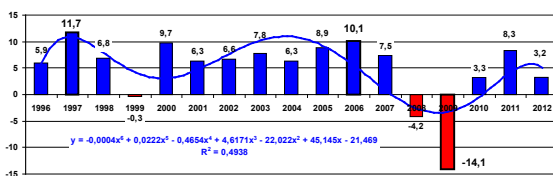
How has the economic crisis affected business and specific sectors of the economy, and what are the lessons learned? This is discussed in the following analysis on the basis of Estonian companies. [3,4,5,6,7]

Out of these four sectors of the economy, transportation was best at exiting the crisis. Freight transport depends mainly on the success of industry and construction. This analysis will focus on transport along with warehousing.

The efficiency of the work performed by companies in connection to the crisis period, has been discussed in other articles, which provide the according methodological and theoretical foundations. [3,5] The techniques and labour market survey definitions used by the authors have been specified in Eurostat [8].

Estonia can be viewed as a small economic model that not only allows making generalizations about the new EU Member States in Eastern European, but also for other states. [3,4,5,6,7]

**2. Estonian economy growth**



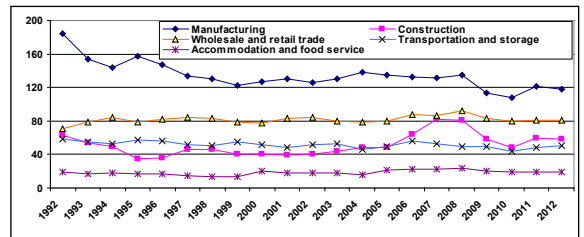
**Figure 1. Real GDP growth rate in Estonia. Percentage change during the previous year, 1996 – 2012 [9] Source: the authors' illustration**

In addition to the economic decline during the years 2008 – 2009, there was also a decline in 1999. If an annual real GDP increment of more than 10% can be considered excellent, then the result of the GDP growth rate in 2003 – 2007 was among the largest in the world. Then the result in 2009 (-14.1%) was one of the largest recessions in the world. In the following years economy grew. Thus, the country covered two extremes. On the other hand, it also shows that the reforms carried out in the past were successful and established a base that enabled exiting the crisis successfully. In particular, this meant cre-

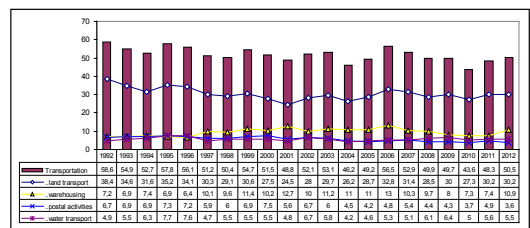
ating favourable conditions for business. Again, GDP growths in 2011 and also 2012 are among the highest in the EU. [9]

**3. Employment in Estonia**

Total employed persons in Estonia was before crisis (2008.) 656.5 thousands, in crisis (2010.) 570.9 thousands, and after the crisis (2012.) 624.4 thousands persons. [10]

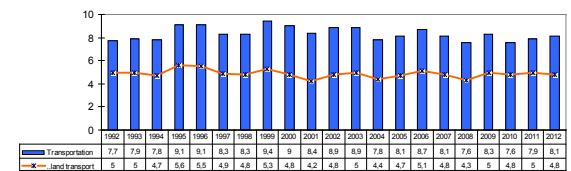


**Figure 2. Employed persons of Estonia, thousands, branches, 1992 – 2012 [10] Source: the authors' illustration**



**Figure 3. Employed persons in Estonia – transportation, thousand, 1992 – 2012 [10] Source: the authors' illustration**

Land transport (trend line) forms the main part of the transport total (bars). Therefore, their changes also run almost parallel. Warehousing, postal services and water transport all had a similar number of employed workers, but from the mid-1990s, the importance of warehousing grew.



**Figure 4. Employed persons, share in %. Transportation, incl. land transport [10] Source: the authors' illustration**

The number of employed persons in transport was relatively stable before the economic crisis, slightly more so during summer months and less at the end of the year. In connection to the growth of the economy as a whole, there was an increase in both the demand for freight and passenger transport. This caused an increase in work volumes and the number of employees of transport companies. If the increase in 2006 was still relatively small, then in 2007 and 2008 it was very high. In the summer of 2007, the sector already employed more than 42,000 people. The number of employed persons decreased significantly from the last quarter of 2008, although in part due to the season. From 2010, when unemployment was greatest in Estonia as a whole, the number of employed persons slowly began to grow again. 2011 and 2012 had a stable number of employees by quarters, but significantly smaller compared to the time before the crisis.

Since the economy of the state had significantly grown during those years, and the number, total profit and added value of transport companies had greatly increased, it may be concluded that transport companies began to organize themselves better after the crisis and reached normal (good) economic results with a smaller number of employees.

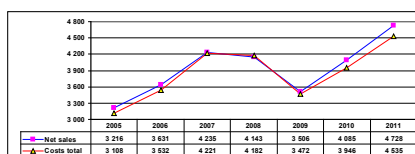
The number of transport companies has been continuously increasing, even during the crisis. At the same time, the number of employed persons has been sharply decreasing since 2009. If 42,147 people worked in transport before the crisis in 2007, then the number was 12.4% less in 2010, the year with the greatest unemployment levels.

Production value was at its highest in 2007, remaining almost the same during the following year, but dropping by 15.7% in 2009 compared to two years earlier. At the same time, added value was continuously growing; there was only a small decline (-2.6%) in 2009. The fact that transport companies managed to reach former levels during the crisis and significantly increase them in 2010, was one of the main factors contributing to why this sector of the economy survived the crisis better than other sectors of the Estonian economy.

Although labour productivity per employed person on the basis of sales revenue dropped in 2009, it already reached record levels during the following year, when Estonia experienced record levels of unemployment, and in 2011 it experienced growth. In 2011, labour productivity was 34.8% (!) higher than two years ago. On the one hand, this shows that the managers of the companies were able to make the employees work better, and on the other, that record levels of unemployment made people work better and more effectively. As an objective factor, it may be added that as the economy as a whole recovered, transport companies also received better orders (?).

The above is also confirmed by hourly productivity based on sales revenue. Hourly productivity in 2011 was 31.4% (!) higher than two year earlier.

Labour productivity per employed person and hourly productivity based on added value were in a slump already in 2007, thus already before the crisis. However, a continuous increase in these parameters has followed. This is proof of the skilful analysis of the main indicators and the effectiveness of the measures implemented based on that analysis. They managed to make people work better and people were also motivated



to work better, even if only out of a fear of losing their jobs. [11]

Figure 5. Sales revenue and total costs (million Euros) [12]

Source: the authors' illustration

More than half of the sales revenue (2011) was composed of sales to non-residents (51.7%); followed by other revenue (3.9%); subsidiaries (2.2%), etc.

Total costs (2011) were composed of other purchased services (53.0%), purchased fuel and power (11.8%), labour costs (10.1%) (incl. wages 7.5%), payments to agency workers (10.8%), depreciation (5.5%), etc.

Personnel costs accounted for 12.4% of the total costs in 2008 and 10.9% in 2010. These costs, including wages, continued to increase until 2008. The economic crisis also forced companies to cut back on these costs. Thus, the wages of transport workers were 17.4% smaller in 2010 than two years earlier. It should be taken into account that the decrease in salaries was primarily influenced by the decrease in the number of employed persons.

Labour productivity per employed person based on sales revenue grew to 130.1 thousand Euros for transport companies in 2011. It was largest for SME (1-9), reaching 193.0 thousand Euros, and smaller (80.7 Euros) for companies with 50-99 employees. The latter was the only group that fell significantly short of the 2008 level.

Hourly productivity based on sales revenue grew for these companies to 75.90 Euros in 2011. The largest and smallest results for the same company groups were respectively 123.50 and 44.70 Euros – a 2.76 time difference (!).

Labour productivity per employed person on the basis of added value also increased until 2011, reaching 28.2 thousand Euros. They were the largest for the company groups 100-249 and 250 or more, 41.6 and 36.7 thousand Euros respectively. However, it was smallest for the 1- 9 group - 15.9 thousand Euros. The level of the 50-99 group remained below the values of the previous three years. The 100-249 group also experienced a small decrease, despite the fact that the pre-crisis level was exceeded by nearly one and a half times. In 2009 and 2010, labour productivity per employed person based on added value for the 100-249 group was 42.8 and 54.3 thousand Euros respectively.

Hourly productivity based on added value rose to 16.50 Euros in 2011. All groups, except the 50-99 group that remained below the levels of the previous three years, experienced increases. Thus, the decrease in the number of employees was compensated by an increase in labour productivity and productivity. The 50-99 group was an exception, as it experienced both a significant drop in the number of employees, as well as labour productivity.

To conclude, we will look at the changes based on added value. The biggest added value was provided by the 250 or more group that had an added value of 373.8 million Euros. Compared to 2005, the added value of all transport companies was 1.53 times higher in 2011. The 50-99 group, whose level remained below the values of the three previous years, was an exception. [12]

The majority of goods were transported by railways (57.2% in 2012) and road transport (40.6% in 2012). International transport of goods accounted for the 42.9% in 2012. Both the increase in quantity in 2011, as well as the decrease in 2012 occurred mainly at the expense of international shipments. Compared to 2010, transport was slightly higher in 2011, and somewhat smaller in 2012. However, the quantity of goods carried by road transport increased. If the volume of railway freight in 2011 increased compared to the previous year, there was a significant regression (-7.5%) in 2012. Sea transport was much lower in 2012, than in the previous two years. The share of air transport was very small. [13]

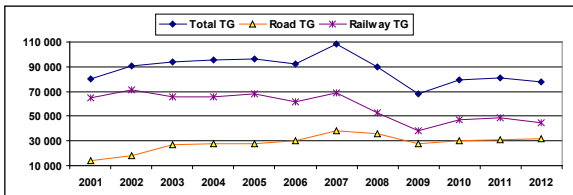


Figure 6. Transport of goods (TG) [13]

Source: the authors' illustration

From 2001 to 2006, total turnover grew steadily; it remained almost the same in the following year, but was then followed by two years of sharp decrease. The increase in turnover in 2010 and 2011 was small, while in 2012, turnover again fell sharply. Thus, total turnover in 2009 and 2012 formed 2/3 of the results in 2006 and 2007.

Interstate transport constitutes the majority of passenger transport. On the other hand, international lines were dominant in sea and air transport. In 2012, passenger transport on international lines constituted only 4.4% of the total. The main mode of transport was land transport and within that, urban lines were dominant. Thus, in 2012, railway transport constituted 2.0%, sea transport 4.3% and air transport 0.5% of all passenger transport. The number of passenger grew in all quarters of 2012 compared to the previous year, except in railway transport. The largest increase took place in air transport – 229 thousand or 29.0%. Despite the growth in 2012, passenger transport remained at a lower level than during pre-crisis years, except in sea transport.

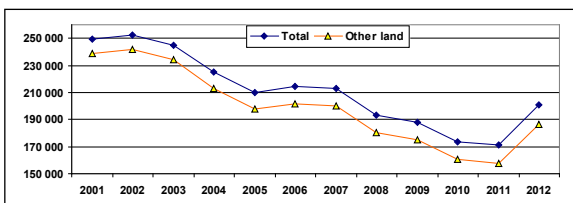


Figure 7. Passenger transport: total transport, and other passenger land transport types (bus, trolley bus and tram) [14]

Source: the authors' illustration

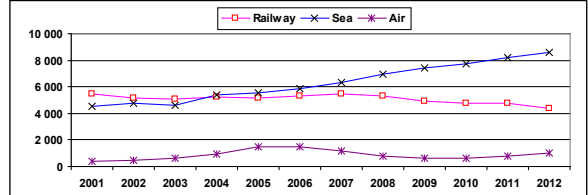


Figure 8. Passenger transport, by type of transport: railway, sea and air transport [14]

Source: the authors' illustration

Conclusions

1. This analysis proves once again that transport companies were better at organising their work skilfully during the crisis and thus also at exiting the crisis better than other branches of the economy.
2. Companies, whose management was unable to perform an economic analysis (little knowledge of the economy and experience), that lacked in communication skills with customers, had partner companies that fell into financial difficulty, had an outdated car park and related problems, were unable to pay the lease of machinery, etc. fell into difficulty or were forced to cease their activities.
3. Companies exited the economic crisis by hiring professionals, engineers and customer service clerks in surges.
4. Companies exited the economic crisis through an increase in labour productivity, while paying competitive wages.
5. The share of large companies, especially those with 250 and more employees, was decisive – their work was more effective.
6. The new (supplemented) Employment Contracts Act of Estonia that enabled companies to operate more flexibly and effectively in the labour market also had a positive effect.

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