

# Business Activity in Freight Road Transport in Poland

Iwona Balke

*Motor Transport Institute, Poland*

Sławomir Dorosiewicz

*Warsaw School of Economics, Motor Transport Institute, Poland*

Business survey analysis is the group of essential methods of systematic monitoring and analysing the state of the economy or its branches. One of their main objectives is anticipating the short and long term future changes in the economy. This paper shortly describes the methodology of testing business activity of freight road transport in Poland. Such testing has been conducted quarterly at the Motor Transport Institute in Warsaw for almost 16 years now. The article also contains evaluation of the economic condition of the selected transport companies, conducting domestic and international haulage of goods.

**Keywords:** transport, monitoring, indicators.

## 1. INTRODUCTION

The state of the economy depends on many factors, especially on the business activity on the transport market. One of the methods to obtain information about the situation in transport is to conduct a testing on the level of a business activity in transport. By drawing conclusions from this testing, decision making authorities can create the appropriate transport policy. The results of testing the business activity in the road transport may also be useful in preventing negative occurrences on the transport market.

One of the basic methods of systematic monitoring and analysing situation in the economy, particularly in transport market, is business activity testing. It allows detecting changes of situation on the transport market, processing them and analysing, particularly with respect to the level and degree of their occurrence, which allows to determine causes and course of the business activity fluctuation. Business activity in transport sector is influenced by economic conditions and situations both domestically and worldwide as well as by various factors determining condition of the transport firms [5]. The level of business activity in transport is shaped by demand and supply in transport services, costs of conducting haulage operations, including fuel prices, employment

situation, competition amongst carriers, legislative and fiscal system, etc. One of the main objectives of those methods is creating short term forecasts of main characteristics of transport market and predicting the directions of their changes with respect to the nearest future.

## 2. THE METHOD OF TESTING THE BUSINESS ACTIVITY IN THE ROAD TRANSPORT

Testing of business activity in road transport in Poland has been conducted at the Motor Transport Institute in Warsaw since the beginning of 1997. The research method is based on analysis of the responses to the questionnaire sent out four times a year to road transport companies [8, 9].

The main topics analysed are: changes in both general as well as financial situation of the enterprises conducting haulage work, changes in the volume of freight carried by road transport domestically and internationally, as well as changes in the numbers of lorries involved in carrying freight, changes in the haulage prices, delays in payments, firms' debts, changes in the level of readiness to purchase the freight rolling stock, and the level of competition in transport market. The additional information obtained from each of the surveyed companies includes:

geographical location, form of ownership, employment, number of the lorries, directions of international haulage conducted etc.

The surveyed transport companies make a qualitative assessment of changes in the current quarter compared to the previous one. They also provide information about the expected changes in the next quarter. Each respondent indicates improvements, deterioration or no changes in the matter of each main question. The general assessment of situation in transport market is based on the balances computed for all main questions of the survey. Each balance is computed as the difference of percentage shares of replies which indicate improvement and worsening. Balances are weighed with the size of the companies (measured by the number of vehicles used in the transport of goods). Qualitative data are the basis for the definition of a few leading indicators. Practice proves that the entrepreneurs usually know in advance about the directions of changes, and about their intensity, which allows faster and more effectively obtain the information necessary to conduct the analysis of the business activity.

Testing business activity is an often used tool for studying activity, both in whole economy and in its individual branches. Unfortunately this method has also shortcomings: the uncertainty of drawing conclusions is relatively high, due to the fact that not all the questionnaires are returned. There are also many kinds of other non-random factors which are the serious obstacles in constructing medium- or long term forecasts [3, 7, 12].

The analysis of business activity has been taken on a large scale after 1990. Since 1992 business survey has been undertaken by the Central Statistical Office (GUS), first in the industry, and in the following years - in construction (since 1993.), trade (since 1993.), the household survey (since 1997.), transportation and storage (see [4]). Systematic research is run by Poznań Economics University, The Gdańsk Institute for Market Economics and Warsaw School of Economics (SGH) and its Research Institute of Economic Development (IRG). The IRG's spectrum of research includes: industry (since 1986.) construction (since 1993.), trade and services (since 1993.), agriculture (since 1992.), banking (since 1997.), see for example [1, 2].

### 3. INDICATORS OF TESTING BUSINESS ACTIVITY IN THE ROAD TRANSPORT

The results of testing business activity in the freight road transport are presented in the concise form using indicators. The basic indicator expresses the existing and anticipated trends regarding the quantity of freight cargo.

Indicator of the business activity in transport [6] is calculated separately for the domestic and international haulage. Its value represents average of the weighted balances of the answers to the question about the volume of the freight carried in the current quarter of a year and the forecast of this value in the forthcoming quarter. The indicators' values range from -100 to +100. Minimal value of -100 could be attained if all questioned enterprises indicated decreasing volume of the freight carried in the current and the next period, while the maximum value of +100 could be attained, if all the respondents reported increase in haulage volume in both mentioned periods. Generally speaking, positive value indicates the increasing trend in the freight haulage or optimistic expectations for growth in the next period, while negative value means that there is a slumping tendency in the current or the next quarter.

The condition of the transport market in Poland has varied over the last years. They were different periods and it developed on a bigger and smaller rate.

The results of studying business activity for the year 2006 and the beginning of 2007 appeared optimistic. In the middle of 2007 there was a decreasing tendency observed for the road transport business activity indicator. This however did not cause any worries, as the indicator remained positive. The economy was growing and so was production, export was increasing. The increase in GNP was larger than it was expected. There was however some information about the crisis in the U.S. economy, which was reflected in the slumping value of the dollar. The Polish "zloty" grew stronger, which slowed the export of goods and caused some troubles in many international transport companies, because there was a slow but steady decrease in export of goods.

In the 4th quarter of 2007 there was a sudden slump in the haulage volume, both domestic and international. We have been dealing with unfavourable level of business activity since the end of 2007 which is the result of an influence on transport companies changing economic situation domestically and abroad. During the year 2008 the

values of business activity in transport gradually decreased. Last quarter of 2008 brought exceptionally low value of a business activity indicator both in the domestic transport (-60.5) as well as international (-71.7). For comparison, in the third quarter of 2008, the business activity indicator in the domestic haulage was -27.9, while in the international ones -32.2. It means that the share of the transport firms declaring in the questionnaire a decrease in the freight volume carried in the last quarter of 2008 grew radically.

First quarter of 2009 did not bring an improvement in the business activity indicator, but at least its fall has not turned out to be as violent as in the past quarters. In the second quarter of 2009 the results of studying business activity in transport indicated slight improvement of the situation, expressed moderate optimism. With respect to the first quarter of 2009 the indicator of the business activity in the freight haulage by the domestic road transport improved by 17.1 percentage points, and in the international – by 11.6 percentage points.

In the first half of 2009 the business activity indicator assumed negative values, as in some previous quarters. However, in the second quarter of 2009 fewer enterprises indicated decrease in the quantity of carried goods than in the previous quarter, while the increase in haulage was noted by more enterprises than at the beginning of 2009, what meant a gradual improvement in the situation on the transport market.

The drop of the business activity indicator in the discussed quarters of the year was caused first of all by a slowdown in the economic growth, thus the lack of demand for the haulage services was strongly felt by the surveyed firms. Economic situation of the enterprises conducting domestic and international haulage has deteriorated. It has been caused by, among others, ever higher costs of conducting transport activities, particularly increases in the prices of fuels and road charges as well as the necessity to increase wages. Unfavourable were also relationships between the value of Polish zloty, dollar and euro, at least from the point of view of the transport firms' owners.

The effects of the global economic crisis of 2008 are still strongly felt by transport companies. During the years 2009-2011 Polish road transport tried to gradually recover the lost balance. Despite the fact that certain transport companies are still teetering on the verge of profitability, and there are those which have been forced to close down, it seems that the condition of the transport sector, very slowly, but is still improving. In 2012, the

situation did not shape up too well, but it was quite stable. Stagnation and awaiting the improvement in the situation was dominant, even though the reality was as below expectations.

In the four consecutive quarters of 2012, the value of the business situation indicator in the road transport was continuously negative and stood at -26.2 in the first quarter, -23.4 in the second quarter, -24.8 and -29.8 in the in the third and fourth quarters respectively. In 2013 the overall situation did not change significantly.

Reported values indicated deterioration when compared with 2011. In the same periods of the previous year, the business situation indicator value was higher.

The other useful measures of testing functioning conditions of transport companies are also such indicators as: economic condition and haulage capability. The properties of those indicators are similar to those of the business activity indicator and their interpretation is similar, too.

The first one is calculated based on answers to questions about general and financial situation of the surveyed companies. The haulage capability indicator reflects the changes in the truck fleet employed in the freight haulage.

The haulage capability has a close connection with the volume of transport operations that can potentially be made. This characteristics is determined by, among others, the age and condition of a rolling stock transport enterprises are equipped with. Road transport enterprises operating the domestic and international freight haulage have at their disposal sufficiently high haulage capability to meet possible increase in transport tasks. This positive thing means that transport will not be a factor slowing down the development of the country's economy.

In 2012, the values of the economic condition index were in the consecutive quarters: (-32.9) (-26.0) (-29.0) and (-40.6) and were lower than in the previous year, which means that in 2012 more transport companies felt the deterioration of both the general and financial situation. Similarly, the haulage capability indicator was in the subsequent quarters of 2012 slightly less favourable than in the previous year, at the level of: (+0.1), (+0.1), (+0.8) and (-1.5). This means that in 2012 compared to 2011, the number of companies that reported an improvement in the use of vehicles to transport cargo and increase in purchases of truck was reduced.

In the first quarter of 2013, the value of the business situation indicator in the road transport was -28.0 and in second quarter -18.6, which represents an increase of 11.2 percentage points compared to the fourth quarter of last year. Compared with the last quarter of 2012, the value of economic condition indicator, which was (-29.0) in first quarter of 2013 and (-24.5) in the second quarter of 2013, also increased. The favourable change in its value is due to the increase in the number of transport companies that recorded improvement in both the general and financial situation, in the first and second quarter of 2013.

The haulage capability indicator at -0.1 level in the first quarter of 2013 and -4.0 in the second quarter of 2013 (decrease of 2.5 percentage points compared to the fourth quarter of the 2012) indicates an decrease the percentage share of companies that reported an improvement in the use of vehicles to transport cargo and increased purchases of trucks.

The dynamics of the three basic indicators: business activity indicator, economic condition indicator and haulage capability indicator in the road transport enterprises in Poland for the period from the first quarter of 1997 till the middle of 2013 are presented on the Fig. 1.

- competition in the domestic and international freight haulage.

The process of deteriorating economic condition of domestic and international carriers was accompanied as of 2007 by the process of falling in debt of transport enterprises. There were more and more loans taken, which was anticipated by those enterprises but, the real state of being in debt was higher than expected. The balance of a question about the changes of debt in the second quarter of 2009 was at the level of -24.6 which was a favourable tendency in comparison to the first quarter of 2009 when it was even -38.0. In the first quarter of 2013 it grew up to (-14.9) and in the second quarter to (-7.8). Positive are also forecasts in this matter for the next quarter of a year. The process of falling in debt was also often accompanied by a loss of financial liquidity, which as a result, led to the fall in conducting business activities by transport enterprises. One of the factors contributing to transport enterprises falling in debt was significant stretching of the periods of repayment of the amounts due for the haulage services by the transport clients.

In the second quarter of 2009, the worst in the

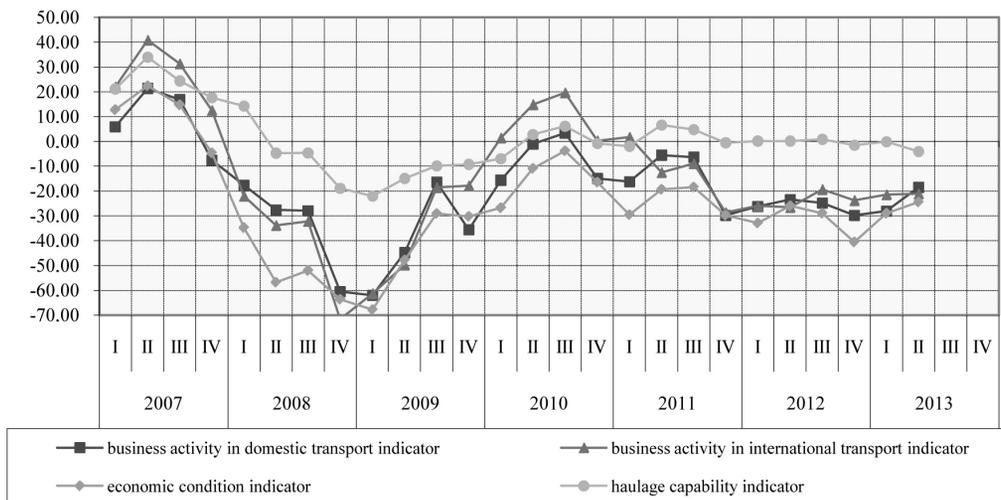


Fig. 1. Business activity indicator, economic condition indicator and haulage capability indicator in the road transport enterprises in Poland for the period from the beginning of 2007 till the second quarter of 2013 (source [6]).

From the remaining answers to the questions contained in the questionnaire, the following problems deserve special attention and commentary:

- debt of the transport enterprises,
- delays in meeting due payments by the clients,
- investment activity,

history, the weight balance of the answers to the question about the delays in meeting payment deadlines for the haulage services by the clients was even -60.0. For comparison in the same first quarter of 2008 it was -44.9% and at present, in the second quarter of 2013 -28.7. Stretching of the periods of repayment of the amounts due for the

beginning with 2007, is a source of cheap credit for the non-transport firms.

Also with respect to the investment activities of the transport enterprises the situation is rather unfavourable especially since 2007. The weighted balance of the answer to the question on the investment activity conducted in the second quarter of 2009 amounted to -13.2% (5% of the questioned transport enterprises noted the improvement, 27% signalled no changes in this aspect – activity conducted at the same intensity or lack of it, 19% signalled the deterioration in the investment activities, and 49% of the questioned enterprises, concluded that such an activity has not taken place).

In the second quarter of 2013 this parameter amounted to -1.2% and among the companies participating in the study 55% answered that they were not conducting any investments, 34%, that conducted them at the level of the previous quarter, 6% reported the investment reduction and the remaining 5% their increase.

The investment activity means mainly purchasing car rolling stock, adapted to the structure of the freight carried as well as modernising car depots. Increasing the size of a new car rolling stock, thus growing haulage capability of the transport, represents a positive forecast for the economy. The important question is the scale of utilising transport means possessed, as low degree of use means there are haulage reserves, which at the same time does not encourage making new investments, while the high degree of utilisation of the transport means the necessity to increase investment, especially in a rolling stock.

In terms of purchasing truck fleet in the second quarter of 2013, 51% of respondents did not make them at all, 33% reported maintaining their size at the level of the previous quarter, 7% reported improvement, and 9% of companies reported a decrease in the level of rolling stock purchases.

Competition in the road transport still remains at the high level both domestically and internationally. This competition is not always an honest one. In the second quarter of 2009 the competition indicator was -38.0. That means that over 1/3 firms questioned complained about dishonest competition and an increased expansion of foreign carriers. In the second quarter of 2013 this parameter amounted to -32.8%.

The respondents report the occurrence of barriers limiting the development of their firms. Among the barriers hampering the development

and effective functioning of the road transport enterprises the questioned firms mention first of all:

- high costs of conducting haulage services,
- insufficient demand for the haulage services,
- difficulties in obtaining bank loans,
- very large competition among carriers,
- over expanded domestic legislative system.

The high costs of running transport activities in the second quarter of 2013 were the most frequently mentioned barrier, which was confirmed by 80.3% of respondents. Of the remaining barriers, the enterprises mentioned insufficient demand for transport services (49.7% of respondents), difficulty in obtaining loans (13.6%) and problems with insufficient number of drivers (16.3%).

#### 4. SUMMARY

The advantage of the long term test of the business activity is the possibility to observe trends and various kinds of fluctuations of economy state. Analysing three main indicators of testing business activity allows to determine a situation in the transport market and also in the almost all other sectors of economy.

Unstable economic situation causes respondents to feel some kind of uncertainty. Hence the recent forecasts for freight transport branch are not very optimistic. They are dominated by concerns about the future mainly due to the uncertainty. The prevailing opinions are that the boom experienced in 2006-2007 by the road transport sector will not happen soon, or perhaps will never be repeated again.

#### BIBLIOGRAPHY

- [1] Adamowicz E., Koniunktura gospodarcza - 20 lat doświadczeń Instytutu Rozwoju Gospodarczego SGH. Prace i Materiały Instytutu Rozwoju Gospodarczego, nr 80, SGH, Warszawa 2008.
- [2] Adamowicz E., Klimkowska J., Business survey research in the Research Institute of Economic Development. In: Matkowski (ed.) Composite Indicators of Business Activity for Macroeconomic Analysis. Prace i Materiały Instytutu Rozwoju Gospodarczego, nr 74, SGH, Warszawa 2004.
- [3] Groves R.M., Survey Errors and Survey Costs, John Wiley & Sons, New York, 1989.
- [4] Badanie koniunktury gospodarczej. Główny Urząd Statystyczny, Warszawa, 2009.

- [5] Dorosiewicz S., Business activity in transport. Testing and analysis of the results, Motor Transport Institute, Warsaw, December 2006. Next edition, 2013.
- [6] Dorosiewicz S., Dorosiewicz T., Balke I., Bulletins: Business activity in transport (Quarterly studies), No 1-66, Motor Transport Institute, Warsaw, 1997-2013.
- [7] Ostasiewicz S., Prognozy zjawisk dyskretnych. W: Cieślak M. (red.) Nieklasyczne metody prognozowania, PWN, Warszawa, 1983 i nast.
- [8] Szreder M., Metody i techniki sondażowych badań opinii, PWE, Warszawa, 2010.
- [9] Sztumski J., Wstęp do metod i technik badań społecznych. Wyd. Śląski, Katowice, 1999.
- [10] Tomczyk E., Oczekiwania w ekonomii, SGH, Warszawa 2011.
- [11] Tyszka T. Psychologia zachowań ekonomicznych, PWN, Warszawa 1997.
- [12] Zarnovitz V., Business Cycles: Theory, History, Indicators and Forecasting. The University of Chicago Press, 1996.

---

**Iwona Balke**  
Motor Transport Institute, Poland  
iwona.balke@its.waw.pl

**Sławomir Dorosiewicz**  
Warsaw School of Economics,  
Motor Transport Institute, Poland  
doro@sgh.waw.pl