

## Prospects of Development of the Transit Function of Georgia under the Conditions of Globalization

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### Abstract

*The purpose of our research is to analyze the effectiveness of transit potential of Georgia for the sustainable development of the country's economy in terms of globalization and to evaluate the role of transport infrastructure in the field of transport. The object of the research is a transit function, transport infrastructure and an added value in transport system. The main method of the research is correlation-regressive analysis, assessment of value added in transport system and its share determining in GDP. The conclusion of the research indicates that the development of the transport industry will cause synergistic effect to accelerate development of other prospective sectors.*

**Key words:** Transit potential, transport infrastructure, an added value

**J.E.L. Classification:** F61, F63, H54

### 1. Introduction

Georgia is not distinguished by the diversity of the strategic natural resources, though it has favorable transportation geographical location, granting it the transit function of strategic importance. Growth of the transit potential serves as one of the directions for the strategic development of the country, which supports trans-economic activities in the future. Our county represents a natural hub for the Caucasus and Central Asia. Though, still developing infrastructure and low competitiveness of transportation system does not enable it to fully apply the aforementioned potential.

One of the main problems of existing transportation infrastructure lies within the fact that it is devoid of the networking effect. Due to deficiency of the infrastructure related to various transportation means the energies are not fully utilized in transportation and logistics. Hence, it is necessary to ensure systemic development of transportation and logistical infrastructure, making transportation corridor passing through Georgia more competitive and acquiring the image of effective transit corridor for the country.

### 2. Transit potential in Georgia

A particular focus is made on the role of the railway transportation in the development of the transit function and the potential of transporting the oil from Turkmenistan in the work, which is of significant importance for raising competitiveness of Georgia. As the result of analyzing statistical data of the railway transportation it was clarified that the share portion of the transit cargos in the total volume of the cargo transportation (38% liquid and 18,2 % dry cargos) significantly exceeds the analogous indicator of the local cargos (2,2 % liquid and 14.7% dry cargos).

Despite the fact that during 2015-2011 total volume of the railway transportation was characterized by the tendency for decrease (with almost 30%), 56% of the total volume comes on the transit cargos. The above-mentioned type of high indicator in strengthening the transit function indicates at the importance of the railway transportation. It is also noteworthy that JSC "Georgian Railway" represents one of the largest corporate employers in the country, currently employing 12.966 people, an average salary of which comprises 955 Gel; besides this, the salary is basically fixed and is not dependent on the volume of the transportations.

Table no. 1 Freight transportation volume by destination

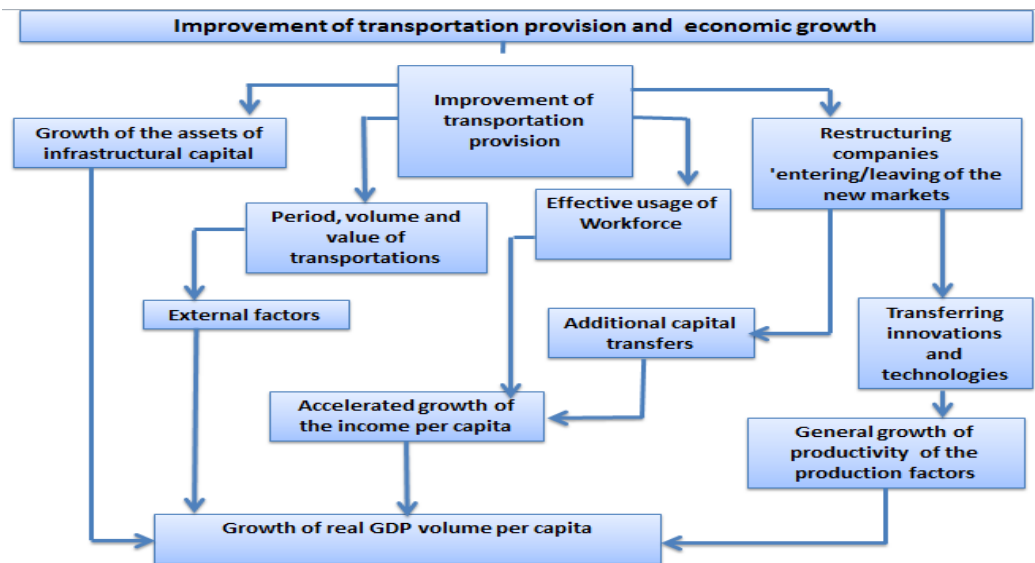
	Million tons					Percent				
	2015	2014	2013	2012	2011	2015	2014	2013	2012	2011
<b>Liquid cargoes</b>	<b>6.7</b>	<b>7.5</b>	<b>9.1</b>	<b>9.5</b>	<b>10.5</b>	<b>47.7%</b>	<b>45.1%</b>	<b>50.0%</b>	<b>47.2%</b>	<b>52.0%</b>
Transit	5.4	6.3	7.9	8.2	9.2	38.0%	37.7%	43.5%	41.1%	45.5%
Export	0.0	0.0	0.1	0.0	0.0	0.2%	0.3%	0.3%	0.2%	0.2%
Import	1.0	1.0	0.9	0.9	0.9	7.3%	5.7%	4.9%	4.4%	4.4%
Local	0.3	0.2	0.2	0.3	0.4	2.2%	1.4%	1.3%	1.5%	1.8%
<b>Dry cargoes</b>	<b>7.4</b>	<b>9.2</b>	<b>9.1</b>	<b>10.6</b>	<b>9.7</b>	<b>52.3%</b>	<b>54.9%</b>	<b>50.0%</b>	<b>52.8%</b>	<b>48.0%</b>
Transit	2.6	3.2	3.3	3.9	3.4	18.2%	19.3%	18.0%	19.3%	17.0%
Export	1.1	1.6	1.7	1.7	1.5	7.6%	9.5%	9.2%	8.3%	7.7%
Import	1.7	2.0	1.9	2.4	2.0	11.8%	12.1%	10.2%	11.9%	10.2%
Local	2.1	2.3	2.3	2.7	2.6	14.7%	14.0%	12.6%	13.3%	13.1%
<b>Total</b>	<b>14.1</b>	<b>16.7</b>	<b>18.2</b>	<b>20.1</b>	<b>20.1</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

Source: [http://www.railway.ge/files/q12012/annual\\_report\\_2015.pdf](http://www.railway.ge/files/q12012/annual_report_2015.pdf)

Mastering mineral fossils in the Middle Asia and the process of increasing economic growth in the region will further increase total cargo turnover in the countries of Middle Asia and Transcaucasia, relevantly the number of the cargo to be transported via Georgia will be increased. As under the condition of fierce competition it is not difficult to search alternative routes of transportation, hence it is desirable for the Government of Georgia to offer competitive tariffs for transportation of the cargo to the abovementioned countries, as well as increased speed, high level of trust and simplicity of transportation service, which will be ensured by the Railway, Automobile and Maritime transport of Georgia in a complex way. Developed transportation system serves as a necessary pre-condition for social-economic development of the country; whereas the link and interrelation between transportation field and economic growth is rather close.

There are diversified approaches in relation to which is the primary: economy (represented with the structure of economic system and proportions), which has an impact on the transportation field or the transportation field which stimulates the economy. To say in another way, is economic growth generated by the investment in the transportation sector or economic growth results in growth of the investment in the transportation infrastructure? Some authors pay a particular attention on the number of the employees while investing in the infrastructure of separate regions, whereas for other authors it would be more interesting to receive benefit through development of the transportation field. In any case it is clear that well-developed economy correspondingly requires well-developed transportation system.

Figure no. 1. Multiple links existing between transportation and economic growth



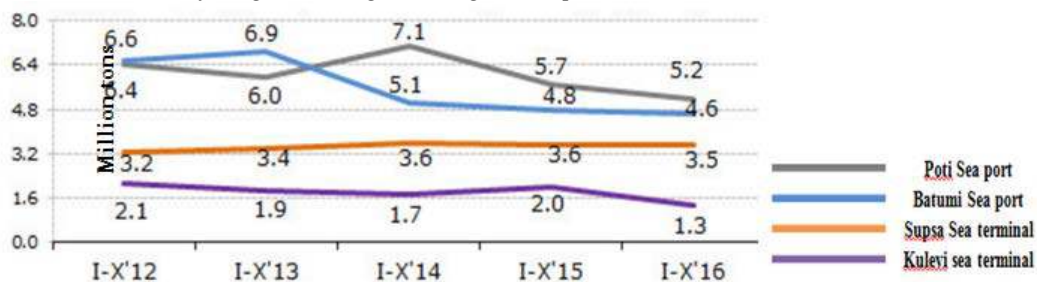
Source (adopted from Sherbanin I. 2011)

Multiple links existing between transportation and economic growth is reflected on the scheme. Development of the transportation network contributes to generating consecutive positive effects. In particular, improvement of the transportation provision on the one hand supports growth of the infrastructural capital, companies' entering/abandoning of bigger markets, more effective application of the workforce, which on its way will be positively reflected on the real volume of the Gross Domestic Product, growth of the employed population, reduction of producing the products and value of distribution, etc. Development of the transportation serves as a pre-condition for expansion of the commerce and intensification of the competitiveness of the economic regions. Similar development is observed in parallel to the economic growth, whereas growth of transportation sector influences on the number of the employed and their income growth.

The investments in the transportation infrastructure is actually always considered to be as a forerunner of the economic growth, as a stimulus for forming a demand, which to certain extent contributes to the development of the economic development. The investments result in reduction of the final price of the goods though reducing the expenses on the transportation meters and play a significant role in reducing the level of economic disproportions between the regions, increasing competitiveness for accessing new markets, having influence on migration of the workforce, specialization and cooperation, as well as on reduction of the value for registering the cargos in internal and external logistic systems of the country.

Georgian transportation infrastructure cannot be imagined without development of the sea ports.. Access to the Black Sea enables Sea Ports of Georgia to perform the function of regional transit center and increase their portion in the transit cargos. This serves as one of the priority of the country, though the above-mentioned strong side is not effectively applied, being indicated by the dynamics of the cargo transportation in the Sea Ports of Georgia.

Table no. 2 The volume of cargo handling at Georgian sea ports and terminals



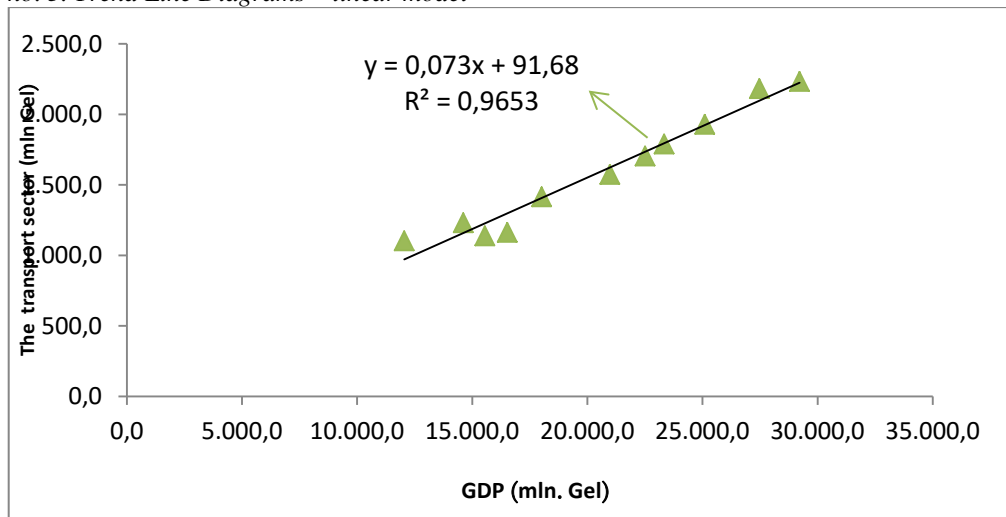
Source: <http://www.economy.ge/ge/economic-data/transport>

As we see, the number of the cargos processed in sea ports and terminals are characterized by the reducing tendency. E.g. by the data of I-X months of 2016 the volume of the processed cargo at Batumi Sea Port was decreased with 33% in comparison with 2013. Currently, lack of cargos is observed at Batumi Sea Port, which could be resulting from already-changed and ineffective management of strategically important enterprise for the country. It is recommended that the development of the ports to be proportionally relevant with other transportation infrastructure of Georgia.

In view of this, we think that it is possible to creating maritime logistic clusters in Georgia in the future. Sea Port as a generator of cargo stream will connect the circles constituting transportation-logistical chain of the supply with each other. In this form it represents the cluster, the port –being its core. The aim of forming a port cluster is to increase competitiveness of the transportation knot.

Forecasting indicators for increasing oil extraction in the Caspian Sea region are rather impressive. The data provided that oil extraction forecast is considerably increased and for 2030 it will reach 5.7 barrel per day. Passing the above-mentioned volume of oil is only possible through currently existing pipeline, whereas a part of it can be passed though the railway, from Georgia Sea Ports. Unless maritime infrastructure of Georgia is unprepared for the above-mentioned process, the cargos shall be distributed on other alternative directions.

Figure no. 3. Trend Line Diagrams – linear model



According to the size of correlation coefficient we can debate about linear dependence of added value indicators for the field of transportation with result indicator of Gross Domestic Product.

As seen from the Figure no. 3, added value formed in the field of transportation ( $R^2=0,9653$ ), it is noteworthy that closer is the correlation coefficient with 1, it further indicates on leaner correlation of this statistically received two indicators.

As shown by the mode, growth of the added value in transportation with 96,53% will further lead to growth of Gross Domestic Products in the forecasting period or vice versa.

For forecasting expected outcomes in the economy a model of exponential regress is often used, being described with the following equation  $y = be^{mx}$ . The meaning of exponential trend can be forecasted with the help of the **GROWTH function**. Forecasting of the expected results can be made in the transporting for the years of 2017, 2018 and 2019.

The results received though applying the function GROWTH is provided in the table no. 2. In 2014-2016 transport sector is not distinctive by rising of the rate and is marked by unstable data of the noted indicators. According to the proposed developed model in the forecast period of 2017, 2018, 2019 rate of increase of added value, transport sector is also distinctive by rapidly rising dynamics.

Table no.2. The results received though applying the function GROWTH

YEARS	Transportation (Million GEL)
2006	1 102,8
2007	1 231,2
2008	1 162,5
2009	1 138,0
2010	1 415,1
2011	1 573,4
2012	1 703,9
2013	1 789,2
2014	1 928,9
2015	2 181,7
2016	2 233,2
2017	2 436,7
2018	2 630,7
2019	2 840,1

Therefore, development of the transportation infrastructure represents a main objective for the Georgian economy, on which all other economic measures and achieved successes are to be based on. The transportation infrastructure represents a basis which will result in raising economic attractiveness of the country, better regional and international integration of Georgia, as well as improvement of the investment environment within the country. It is necessary to take complex measures for removing the factors (undeveloped infrastructure, low service quality and high prices), preventing from transportation development.

### 3. Conclusions

The role of transit corridor gives Georgia the function of international importance and enriches it with far more opportunities for sustainable development. That's why utilize of this chance is so important. The specific sectorial challenges for integration of Georgian regional and global economy are:

- the following: to use strategic location of Georgia as a transit corridor between central Asia and Europe to create additional values in economic.;
- To develop logistic sector according to the western standards
- To contribute participation of private sector in transport infrastructure for the improvement of effectiveness, service quality, access of distance zones, communications and long-term financial state with the reform of regulation spheres.

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