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## **PROVIDENCES AND PROJECTIONS REGARDING THE PROGNOSTICATION OF RAILWAY TRANSPORT VOLUMES FROM A LONG - TERM PERSPECTIVE**

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Seeking to produce long-term forecasts of rail freight volumes, it is necessary to carry out an analysis of the process of freight activity and to form projections on perspectives of the internal market and external effects. Since the economic crisis is still having an influence on the economical context of whole of Lithuania, neither a national long-term economic development strategy nor assumptions about the prospective development of the social sphere have been prepared. The Gross Domestic Product (GDP) is one of the most important macroeconomic measures used in assessing the level of national development. This indicator is also used in forecasting freight flow volumes on Lithuanian railway transport.

The conditions for the economic recovery of Lithuania and the other Baltic States are linked with global and international economical indicators. The recovery of the national economy is possible only in the context of a global economic upturn which will include the recovery of Lithuania's basic export partners; the EU countries, Russia, Belarus and other international trade partners. Another necessary condition is the recovery of national economic competitiveness.

The Lithuanian Railway Company has sufficient potential to develop transport freight flows on the main European transport corridors through the territory of Lithuania. Major rail freight transportation links are connected to the cargo loading activities of Klaipeda State Seaport and Kaliningrad commercial seaport, which are often used to export and import materials and the main production of Lithuanian industrial enterprises. Therefore the local contribution to internal transportation is becoming more important: local industries are exporting larger amounts of production to foreign countries.

***Keywords:** rail freight volume, transport flows, DGP projections, providences concerning economic development, influence of internal and external factors, forecast of macroeconomic indicators*

### **1. Introduction**

Research was conducted to predict the further development of Lithuanian Railways and the development of passenger and freight volumes over the prospective period of 30 years. The main aim of this research was to perform an analysis of the current economic situation and of the railway transport system of the Republic of Lithuania. This analysis was the basis for forecasts of passenger and freight transportation on Lithuanian railways up to the year 2040. The main tasks were as follows:

- to analyse the current crisis situation in the national economy, the transport sector and railway transport;
- to critically review the key former strategies for economic development, the transport sector and the railway system, with a view to defining positive strategies for future development;
- to assess the influence of external on the further development of Lithuanian Railways, to analyse markets in neighbouring countries and other countries, and to assess the potential for rail freight transportation in the territory of Lithuania;
- On the basis of this analysis to forecast probable freight flows on the main Trans-European rail corridors and regional lines up to the year 2040;
- to forecast probable passenger flows for local and international railways up to the year 2040.

In order to realise this, data regarding the economic situation, the market, possible economic relationships and interests, the prospective rail freight transportation situation of Lithuania, the EU, Asia and other countries, and planned economic development changes in separate countries were collected.

In order to conduct long-term forecasts of railway transportation volumes, it is necessary to carry out an analysis of transportation development and to form projections regarding the influence of the internal market and of external factors. Since the national economy is still affected by the global economic crisis, neither a national economic development strategy nor assumptions about prospective socio-economic development have been prepared. Therefore we refer to official macroeconomic indexes and projections of the present year for our economic analysis. One of the prime measures of the overall official economic output of a country is Gross Domestic Product (GDP). This is the market value of all goods and services officially made within the borders of a country in a year. This measure was used in the forecasting of freight flows on Lithuanian railway [1, 4].

The conditions for the economic recovery of Lithuania and the other Baltic States are linked with global and international economical indicators. The recovery of the national economy is possible only in the context of a global economic upturn which will include the recovery of Lithuania's basic export partners; the EU countries, Russia, Belarus, Ukraine, Kazakhstan and other international trade partners. Another necessary condition is the recovery of national economic competitiveness. For this purpose the decrease in production costs and output prices is necessary. Unfortunately, this is connected with a decrease in wages and a reduction in per capita income.

Since GDP includes consumption, investment, national expenditure and exports and imports, it is important to instigate changes in the national economy and the social economy, to promote an attractive business environment, to offer investment guarantees and to implement policies to reduce taxation. The effects of the national economic recession have had the greatest impact on the labour market and on wages and also resulted in a decrease in purchasing power and consumption. Therefore, the passenger market is likely to need a longer period to recover.

Growth in the storage, transport, industry and retail sectors can be regarded optimistically as indicators of economic recovery. In fact, industrial and transport sector indicators have a positive influence on annual variations in GDP.

The analysis of key macroeconomic indexes, projections and assumptions carried out by official institutions and their analysts anticipates the probable recovery of the national economy and the end of the economic crisis during the period of 2010-2011. However, positive changes in social-economic indexes will be slower, and their results are expected to appear later. Factual indexes produced by the Central Statistical Office and the Ministry of Finance were the basis for forecasting the transport indexes.

The major rail freight transportation services are connected to the cargo loading activities of Klaipeda State Seaport and Kaliningrad commercial seaport. These are which often used to export and import materials and the main production of Lithuanian industrial enterprises. Therefore the local contribution to internal transportation is becoming more important: local industries are exporting larger amounts of production to foreign countries.

The basic assumptions and conditions for the growth of freight flows including internal transportation, exports and imports, freight transit and composite transport through Lithuania and other countries, were defined through analysing internal and external factors. The Lithuanian Railway Company has sufficient potential to transport growing freight flows on the main European transport corridors and also to transport local and international passenger within the territory of Lithuania [4, 5].

## **2. Analysis and Audit of National Economy, Transport and Railway Sector**

### **Main Strategies**

Seeking to assess railway strategy and development trends, a review and analysis of existing long-term strategies was performed. With the help of an audit, the most important strategies with relevant and realistically applicable propositions were selected. For this purpose basic long-term economic, transport and railway strategies, including important proposals and projections, are presented in this chapter.

***A Complex Assessment of the Economic Situation of the Republic of Lithuania.*** The strengths of the national economy are related to: 1) successfully accomplished processes of economic transformation; 2) Lithuanian membership of the EU; 3) the process of economic internationalization; 4) the geographical location of Lithuania; 5) the potential for technological progress; 6) developed physical infrastructure which is continually being modernized; 7) developed financial infrastructure which is continually being modernized; 8) restructured industrial sector which is continually being modernized; 9) favourable conditions for the development of agriculture; 10) geographically balanced distribution of large cities and smaller towns; 11) attractive environment and landscape, rich cultural heritage and abundant recreational resources; 12) large potential for development of higher education.

The weaknesses of the national economy are influenced by: 1) the economic situations of western EU countries; 2) limitations on the main factors of economic growth and competitiveness; 3) not exploiting fully opportunities for foreign economic relations; 4) the shortage of physical infrastructure limiting economic growth and competitiveness; 5) the shortage of financial infrastructure limiting economic growth and competitiveness; 6) factors limiting industrial growth and competitiveness; 7) factors limiting agriculture growth and competitiveness; 8) factors limiting regional economic growth and competitiveness; 9) the lack of experience of economic development strategic management.

The opportunities of further development of national economy are related to: 1) wider opportunities for Lithuanian economic growth and competitiveness decided by the integration to the EU; 2) opportunities for Lithuanian economic growth and competitiveness decided by globalization; 3) opportunities for Lithuanian economic growth and competitiveness decided by the science and technical progress; 4) opportunities for the development of physical infrastructure; 5) opportunities for the development of financial infrastructure; 6) opportunities for the increase of industrial development and competitiveness; 7) opportunities for the increase of agriculture and food industry development and competitiveness; 8) opportunities for regional economic growth; 9) opportunities for sustainable development assurance.

The threats to the national economy can include: 1) threats to Lithuanian economic growth and competitiveness decided by globalization; 2) threats to Lithuanian economic growth and competitiveness decided by demographic situation; 3) threats to Lithuanian economic growth and competitiveness decided by the science and technical progress; 4) threats to the development of physical infrastructure; 5) threats to the development of financial infrastructure; 6) threats to industrial development and competitiveness; 7) threats to agriculture and food industry development and competitiveness; 8) threats to regional economic growth; 9) threats to sustainable development assurance [7, 8].

Key trends and measures of strategies used for the development of the national economy and transport directly depend on general national economic forecasts predicated on such important factors as the geopolitical and demographical situation of a country; social progress, environmental protection; the knowledge society; the level of economic development; the key factors of economic growth; the most important factors of economic competitiveness; singularities of the economic structure and regional economic development.

Conducting an audit of basic strategies allows the development of a plan for national economic development: 1) organize strategic processes of economic development; 2) pursue employment and social policy to stimulate national progress; 3) ensure further national integration and convergence with the EU; 4) stimulate competitiveness and improve other market mechanisms; 5) guarantee the stability of the national macroeconomic situation; 6) guarantee the development of human capital; 7) support scientific research, technological development and innovation; 8) improve the physical infrastructure; 9) create a business friendly environment; 10) create favourable conditions for foreign economic relations; 11) improve the national administrative capability.

The strategic objectives of Lithuanian economic development are as follows:

1. Develop and effectively exploit factors which would ensure fast and steady growth of economic and national competitiveness. This would help to create a knowledge economy in the country;
2. Promote the development of the national economy and its separate sectors. Structural economic reforms and national economic policy could allow faster improvements which could provide the necessary and sufficient economic conditions for social development, higher employment and environmental protection.

***Key assumptions, strategic trends and suggested means for the development of transport sector.***

The role of Lithuanian transport systems is to ensure sustained mobility in society and the movement of goods, supporting the dynamic development of the national economy and to increasing the competitive potential of Lithuania and the expanded EU in international markets.

Existing economic analysis of the transport sector allows the following important objectives of the long-term development of the Lithuanian transport system to be defined

- achieve the transport service quality and technical parameter level of the old EU member countries;
- interact effectively with transport systems of neighbouring countries; become part of an integrated and important transport system link the Baltic Sea region (west-east);
- enable Lithuanian inhabitants to reach important cultural, tourist and commercial centres in Europe comfortably and fast;

- effectively meet the interests of Lithuania and the expanded EU, increase its competitive potential in international markets.

From a long-term perspective, the Lithuanian transport system has to be developed considering national interests and the general tendencies of European transport development, and the needs of expanding markets. The conversion from modal (one transport mode) to intermodal (effective interaction of separate transport modes) transportation of both freight and passengers is one of the most modern trends in European transport development. The concept of intermodal freight transport can be practically realized by the development of transport nodes such as sea and river ports and inland logistic centres [9].

**The key objectives of long-term development of railway and intermodal transport** are as follows:

- modernize infrastructure, allowing effective integration into the EU transport system;
- create a substantial and effective traffic safety control system;
- accomplish reforms of the railway sector;
- resolve issues of community service obligation performance;
- create a common environmental protection system, covering all possible pollution sources (air, water, soil).

In order to successfully integrate into the structures of the European and Trans-European railway network, to realize high traffic speeds, to achieve maximum traffic safety, to meet EU requirements on environmental pollution, to ensure effective freight and passenger rail transport links between West and East, it is necessary to implement plans.

The Lithuanian Railway Strategic Trends and Methods up to the year 2030 is a realistic strategy which has already begun to be implemented. The adoption and realisation of this strategy was interrupted by the economic crisis. Specific factors must be reviewed and adjusted on the basis of forecasts up to the year 2040. The objective of the adjusted strategy is to ensure the competitiveness of Lithuanian Railways as the administrator of public railway infrastructure and logistic centres, and as the national rail transporter in the freight and passenger markets, and to ensure the financial stability of the company while maintaining high levels of traffic safety and environmental protection. For this purpose tasks are defined as follows:

- external factors and their influence on activity and development of the company;
- tasks and means to develop the company, relating to long-term investment programmes, funding requirements and obtaining financial resources;
- restructuring of the company, reforming the personnel policy, improving personnel capabilities, labour productively and efficiency.

Lithuanian Railways is the most important participant in the Lithuanian rail transport sector. It administers the public infrastructure: the existing rail network infrastructure, the new Rail Baltic infrastructure and the public logistics centres which are planned for construction in Vilnius and Kaunas railway stations. Lithuania Railways also manages freight and passenger transportation on railways and related economic-commercial activity [7, 8]. It is predicted that Lithuanian Railways will be responsible for integrated national rail company activity and development as the administrator of public infrastructure and the rail freight and passenger operator during the prospective period up to the year of 2030.

### 3. Providences and Projections of Key Macroeconomic Development Indicators

**Conditions for economic development.** The forecast for Lithuanian economic development is informed by current trends and assumptions regarding positive economic development: a sustainable fiscal policy, a stable monetary policy, an active labour market policy, and an investment and business motivation policy. After integration into the EU, Lithuanian economic progress was mostly linked with financial and other support from EU funds. The consolidation and acceptance of market relations accelerated the growth of economic development and also allowed improvements in social living conditions and the strengthening of the activities of key structures. The period of positive economic development up to the year 2008 can be characterized by new expectations of a higher quality of life for the country and for its inhabitants.

Key macroeconomic indicators, including GDP, were characterized by positive trends during the period of Lithuanian economic growth. The annual growth of GDP was positive also during the crisis period (Table 1).

**Table 1.** Key macroeconomic indicators of the Republic of Lithuania during the period of 2003-2009\*

Indicators	2003	2004	2005	2006	2007	2008	2009
Real GDP growth, %	10,2	7,4	7,8	7,8	8,9	3,0	-14,8
Inflation (average annual), %	-1,1	1,2	2,7	3,8	5,8	11,1	4,2
Inflation (annual), %	-1,3	2,9	3,0	4,5	8,2	8,5	1,0
Balance of current account, % share of GDP	-6,8	-7,7	-7,1	-10,6	-14,6	-11,6	3,8
Unemployment rate, %	12,4	11,4	8,3	5,6	4,3	5,8	13,7
Growth of export of goods, %	11,2	21,4	26,9	18,7	11,1	28,4	26,6
Growth of import of goods, %	7,1	16,8	25,5	23,5	15,4	18,0	38,2

\*Source: Lithuanian Statistics Department

**Tendencies and forecasts of prospective development.** Further tendencies of social-economic development are related primarily to negotiating the next period of crisis (2010-2013). The projections made by the Ministry of Finance are progressively related to the recovery of economic activity related aspects of social life. This should require a longer period (Table 2).

**Table 2.** Key macroeconomic indicators \*

Indicators	Projections (2010-05-07)				
	2009	2010	2011	2012	2013
GDP growth/chain-linked volume growth, %	-14,8	1,6	2,8	1,2	2,4
HCPI (average annual)/ Consumer price index, %	4,2	-0,1	1,5	2,0	2,5
HCPI (monthly annual inflation)/ Consumer price index, %	1,2	0,6	1,7	2,5	3,0
Growth of average monthly gross earnings, previous period = 100	95,4	94,7	100,6	100,9	101,9
Average monthly gross earnings, LTL	2052,4	1944,6	1957,1	1974,8	2011,5
Unemployment rate, % (according to labour force survey)	13,7	16,7	15,5	13,9	12,3
Balance of goods and services, % share of GDP	-1,1	2,8	1,7	0,2	-1,7
Growth of consumption / chain-linked volume growth, %	-13,3	-5,3	1,0	2,4	3,7
Growth of gross fixed capital formation / chain-linked volume growth, %	-39,1	15,1	14,1	2,0	5,0
GDP at current prices growth, %	-17,2	1,9	3,7	2,9	5,7

\*Source: Statistics Lithuania

Three prospective scenarios are prepared: optimistic, basic (realistic) and pessimistic. The optimistic scenario – *fast economic growth till the year 2040* – forecasts fast and balanced growth of the Lithuanian economy, anticipating that the Lithuanian business, industry, agriculture and service sectors will climb out of economic stagnation, develop their activities without reducing production and produce better results in the international market. The general economic environment will eventually recover and it will be possible to produce an active development policy, whose implementation will result in hoped-for investment in the modernization of the economy, the application of new technologies and the development of manpower productivity. Economic growth will happen in a more balanced way, as a result of existing experience. Therefore economic overheat will be avoided and the business environment and social activity will be harmonized in the country and general market. More effective financial and market protectors are likely to be introduced.

The pessimistic scenario – *slow economic growth till the year 2040* – forecasts slower, but balanced growth of the Lithuanian economy, anticipating that a low average annual increase in GDP will be determined by low internal and foreign investment, extensive economic restructuring, and insufficient economic and political conditions for business development in the country. It is probable that a new economic crisis could have a critical effect on socio-economic development in this period. The experience

of global economic development shows that the economic problems of separate countries or groups of countries, international market stagnation, and problems with financial settlements can re-occur every 12-20 years even in periods of an active global economic market [10].

It is expected that an improved geopolitical situation, favourable financial conditions, flexible macroeconomic policy and the implementation of structural reforms will allow faster economic development of both Lithuania and the EU.

The realistic - basic GDP - scenario forecasts that GDP development should vary between the optimistic and pessimistic scenarios of economic development (Table 3).

**Table 3.** Basic GDP forecast, bill. LTL\*

<b>Growth of Gross Domestic Product, billion LTL</b>										
<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2020</b>	<b>2025</b>	<b>2030</b>	<b>2035</b>	<b>2040</b>
92,37	94,77	96,48	98,89	101,57	104,67	124,00	153,09	186,14	224,94	264,15

\*Source: Lithuanian Statistics Department

*The Socio-economic situation and its development* are apparently showing a negative trend. The social economy created long-term difficulties for society, affecting the personal and financial situations of many people. Job losses, reductions in wages and increases prices are prime reasons for the growth of emigration. Reduced social assistance, health care and education systems, a depleted cultural environment and even degraded physical infrastructure are unattractive, especially to the young. Being unable to support a family, and increases in the cost of housing, essential goods and services has resulted in social hardship and a reduction in the quality of life, leading to a distrust of government policy.

The majority of the population consists of households which are experiencing robust levels of economic growth. Average monetary expenditure per household member was 198,9 LTL in 2007 and 229,7 LTL in 2008, although domestic consumption decreased and prices increased.

Average monetary expenditure per household member on transport was 75,8 LTL in 2007 and 76,5 LTL in 2008. Since the cost of transport services also went up, it is clear that inhabitants reduced their transport needs, and therefore the level of transport mobility decreased. In cities monetary expenditure per household member was higher – 89,8 LTL in 2007 and 79,9 LTL in 2008. Spending on food products was 218,6 LTL in 2007 and 246,6 LTL in 2008.

Research into transport possibilities must take into account user needs and market share. Factors were selected for the analysis and development of rail passenger transportation possibilities. According to these factors, indicators were selected to allow the better evaluation of the economic situation and development of the passenger market.

The demand for rail passenger transportation is influenced by: 1) the ease of accessibility of rail lines and railway stations, and the possibility to choose a different mode of transport; 2) the attractiveness and suitability of the infrastructure and assurance of traffic safety; 3) the financial ability of passengers to choose railway transport services (and also the possibility to reach the railway using a different transport mode); 4) level of passenger transport mobility in relation to work, leisure and tourist journeys and their financial ability pay for these journeys; 5) level of automobilization and daily car usage. These key factors are complicated and can be expressed by many indicators. It is usually difficult to assess their interdependence. Based on existing research into passenger market demand, and an analysis of Lithuanian Railways' passenger transportation, key indicators were selected for determining the progress of passenger transportation development and forming long-term forecasts [2, 3].

#### **4. Assumptions and Projections of Freight Transportation Volume**

*Key aspects of freight flows* are as follows: 1) local freight transportation; 2) freight export; 3) freight import; 4) freight transit; 5) composite transportation; 6) freight terminals.

*Assumptions for the growth of railway potential* are as follows:

1. Technical improvement and modernization of railway infrastructure meeting AGC and AGTC requirements in regard to assuring occupational safety and environmental protection.
2. Integration into the Trans-European networks; implementing necessary junctions and avoiding narrow sites on the main I and IX railway corridors through the territory of Lithuania.
3. Renovation, modernization and development of rolling-stock and vehicle fleet; increasing their capacity and competitiveness.
4. Implementation of railway sector restructuring and personnel training to enable new activities of the company.

5. Implementation of the EU directives on railway activity and other legislation seeking to liberalize railways and enter into the European transport sector market.

**Factors enabling the growth of rail freight flows** are as follows:

1. The progress, potential and competitiveness of the Lithuanian economy, its ability to climb out of the current economic crisis and its continuing development.
2. The capability of separate economic sectors and big organisations to perform in market economic conditions despite the economic reforms, company restructuring, changes in the lifestyle and variations in the international market affecting results.
3. Consolidation of human capital in the context of socio-economic challenges.
4. Liberalization of the business, industrial and service sectors, consolidation of social structures, harmonization of business activity and social indicators, implementing the Lisbon Strategy and policy objectives.
5. Opening of industrial and consumer markets, opportunities for qualitative and quantitative development in the EU countries, opportunities to develop international trade and to integrate into the global economy.
6. Implementation of new lifestyle models and new conceptions of social values, promoting good practice in the social sphere while meeting the new demands and expectations of the modern population, which are the result of integration into the western market economic system.
7. Promote new economic relations with redeveloping countries (Russia, Ukraine, Moldavia, Kazakhstan, Uzbekistan, and other Caucasus and CIS countries), whose goods and freight flows are often transported through the territory of Lithuania. This could be the basis for further development.
8. Integration of eastern neighbouring countries into the World Trade Organization must be the starting point for international cooperation in the railway sector. This will include agreements about tariffs. A recovery in consumer demand and purchasing power is likely to stimulate Lithuanian exports.
9. Governmental targets and efforts to initiate economic cooperation, participate in joint projects with remote Asian countries and unite markets create the economic situation in which the prospects for international trade and transportation can be viewed.

It is forecast that freight transportation activity will expand in due to the developing activities of local companies [5, 10]. The scale of production will expand due to new wider markets and the influence global processes and international transportation; exporting, importing and transiting freight. Table 4 shows the forecast for common freight flows on Trans-European railway corridors up to the year 2040 [11].

**Table 4.** Forecast of common freight flows on Trans-European railway corridors till the year 2040, thsd. LTL

Forecast	2010	2015	2020	2025	2030	2035	2040
IX railway corridor	28244	34974	42398	48030	55402	62699	66728
I railway corridor	2322	3139	6138	7389	8821	10234	11023

Passenger transportation activity is related to Lithuanian transport policy and assurances of the necessary finance. Insufficient finances for passenger transportation activity during first 20 years after the recovery of Independence; lack of finance for renovation of the passenger rolling-stock fleet and other vehicles, and for improving passenger service quality, the cancellation of passenger train routes or trips due to a lack of vehicles or the heavy losses made on certain routes, the lack of finance for marketing – re reasons for the very complicated current state of passenger transportation activity [2, 3].

It is expected, that the number of passengers on local routes will increase to approximately 6.13 m. by the year 2040, due to strategic and tactical measures which have been adopted or are still being implemented, such as the renovation and implementation of new routes, increased density of routes, renovation of the rolling-stock fleet and the modernization of the railway infrastructure. Traffic speed acceleration, the development of service variety and improvements in journey comfort are urgent strategic objectives for passenger transportation development. Due to targeted efforts and investment it is expected that a balance between passenger demand and Railway Company supply will be reached in the medium-term period.

An increase in passenger flows on international trains is expected in the medium-term (up to 2020-2025). The rate of increase could be approximately 2-3 % per year, although optimistic estimates of the increase in passenger flows predicts about 4-6 % annually, due to the rate of the recovery of the economy and better social conditions in surrounding countries. Passenger flows rate may achieve only 1-2 % annual growth according to predictions based on the pessimistic scenario.

An increase in passenger flows in the long-term is expected due to the modernization of international communications and increases in traffic speed, as well as improved economic relations with neighbouring countries and other remote countries. Table 5 shows the forecasts for transport passenger flows on Lithuanian railways up to the year 2040, thsd. LTL.

**Table 5.** Forecasts of transporting passenger flows on Lithuanian railways till the year 2040, thsd. LTL

Forecast	2010	2015	2020	2025	2030	2035	2040
Basic (realistic)	4067,9	4763,2	5958,9	6531,9	7227,8	7770,0	7966,2

Moderate forecasts of passenger flow increases are sufficiently realistic and pro would allow the progressive improvement of passenger transportation conditions, the opening of new routes, the maintenance of the present network and the development of opportunities to increase the number of passengers and increase the company's income. Large passenger transportation increases are expected in this period due to new passenger trains on Rail Baltica lines to the EU countries and the Baltic States and Finland, also on IX corridor lines to the East; Minsk and other capital cities or resort cities in remote countries.

## 5. Conclusions

1. The analysis of the development of Lithuanian Railway freight and passenger transportation activities, the development and management of its infrastructure and other aspects shows that the company is in a position to develop its potential during the period of restructuring.
2. Proceeding with the key modernization programmes and investment projects of the Company are priorities of national significance, and form a part of the development of the EU transport system. The implementation and modernization of infrastructure, the renovation and modernization of the traction and rolling-stock fleet, improvements in traffic control and assurances of traffic safety, and the installation of new technologies in the area of property and management are important steps which receive strategic investment.
3. In order to analyse long-term development strategies for the national economy and in the social sphere, long-term development strategies for the transport sector, strategies and forecasts of railway transport development including strategic objectives and providences are applied. However, forecasts must be adjusted due to the economic crisis and its effects, which must be considered in new projections of macroeconomic indicators.
4. Since the economic crisis is global, embracing neighbouring and remote countries, and its effects on transporting freight and passengers within the territory of Lithuania are not known, it is necessary to adjust existing forecasts of railway transport activity for the prospective period after 5 years.
5. The usual EU methodology was used to forecast macroeconomic indicators and rail freight and passenger volumes up to the year 2040. Optimistic (successful), basic (realistic) and pessimistic (minimalistic due to failures in the progress) scenarios were presented. The realistic scenario is expected to show variations between the extremes of the optimistic and pessimistic scenarios of economic development.
6. Assumptions of key internal factors are as follows: 1) the readiness of the company to develop its activity potential ; 2) positive and developing activity of local consumer market, increases in exports; 3) increases in international freight volumes during the period of economic growth; 4) the recovery of economic relations with foreign countries; 5) focusing on recovery and the stimulation of passenger transportation activity.
7. Assumptions of key external factors are as follows: 1) global climb out of of the economic crisis; 2) recovery of former routes and volumes of freight transportation; 3) qualitative changes in separate countries' economies and in the economies of groups of countries , changes in the structure of goods and freight; 4) reforms of influence zones, penetration into new markets on a regional, continental and global scale; 5) increase in the competitiveness of Asian, European and American countries and groups of countries; 6) a positive balance in the development of the global business environment (information technologies, financial systems, business relations and organization) and coordination opportunities with countries that are members of separate economic unions.
8. Forecasts of freight transportation on Lithuanian railways up to the year 2040 have been made for lines of I and IX corridors, including freight volumes for separate countries and groups groups of countries which transport export and import freight and transit transit freight on the territory of

Lithuania. These forecasts have been made in relation to local market, international and regional rail freight transportation, and detailed for separate sectors (hubs) and opposite directions of movement.

9. Forecasts for passenger transportation on Lithuanian railways are have been made for local and international transport using routes and trains of the Lithuanian Railway Company. Due to estimations that it may take the social sphere longer to recover from the economic crisis, the forecasts of passengers volumes are more moderate but, still optimistic.

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