

THE NEED AND CONTRIBUTION OF TRANSPORT IN DEVELOPMENT OF THE MOLDAVIAN ECONOMY

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The essential purpose of any state is to ensure growth and prosperity of the material welfare of people. Therefore, the basis of any economy of any state is the production of material goods and services directed to their needs according to their requirements and economic resources available in the community at every moment of time.

And one of the branches of national economy of the Republic of Moldova contributing to this achievement is the branch of Transport and the essential mission, *core of this branch is to ensure the needs of freight and passenger transport, both members of the society and community as a whole.*

So, transportation is one of the branches of material sphere and is given as a link of a social structure of the Republic of Moldova. Transport as a sector of material production, field of services, creator of national income – is to ensure public transportation and consumer goods and inputs

required during shipment at the destination destined both within a state and after its boundaries. This branch plays by the firms of transport, the operational economic activities of transport, which carrying out transport and provides other services based on contracts and orders for the transport of passengers and goods. Manifested as a branch of the national economy of RM, it contributes to increase national wealth, to increase performance of the economy, economic growth, the creation of GDP (see table 1).

As you can see from the information in table 1, the role of the transport in the RM economy, as the development of the community acquires a more comprehensive development. This argument is the weight that creates a record in the GDP, which as shown is increasing. For the reporting years 1995-2010 it is between 5.8%-12.3% limits and the highest level is the analysis of the current year 2009.

Table 1. Transport contribution in the creation of the RM's GDP during 1995-2010.

Indicators	Years						
	1995	2000	2006	2007	2008	2009	2010
Gross domestic product, total:	100	100	100	100	100	100	100
Gross value added, total:	89,0	87,5	83,4	83,0	82,3	84,0	83,4
✓ <i>material sphere:</i>							
◆ Transport and communications	5,8	9,6	11,8	12,1	12,2	12,3	11,4
- Other activities for comparison:							
◆ <i>Agriculture</i>	29	25,4	14,5	9,9	8,9	8,4	11,9
◆ <i>Industry</i>	25	16,3	14,7	14,8	14,5	13	13,4
◆ <i>Construction</i>	4,0	2,7	4,0	4,8	5,0	3,4	3,2
✓ <i>unproductive sphere - commerce</i>	8,0	12,5	11,5	12,0	13,1	13,0	12,9

Note: Dates of 2010 are preliminary.

Source: Processed by author based on the information of the National Bureau of Statistics of the Republic of Moldova.

In spite of the fact of the share's reduction in the creation of GDP in 2010, however the essence of transports can not be modified, and its significance every day of the contemporary world can not be doubted. As we can see from 1995, of one of the years of beginning a new lifestyle, role and contribution of transports increased essential. And it should be mentioned, that the essence and significance of transport in people's life, is manifested in two aspects, economic and social aspects of transport.

⇒ *Economic aspect of transportation* – is the contribution of transport to economic development of a country or worldwide, by

providing uninterrupted and continuous deployment of production in various sectors of the economy; by ensuring the circulation of material goods, people, information, depending on the connection.

⇒ *Social aspect* – for this type of activity is that it is an element of a state department of infrastructure, seeking the welfare of a people, depending on the existence, diversity, progressivity means of transport and communications that characterize them.

But it should be mentioned that transport should be pursued in the context or socio-economic terms, because of the issues pursued shown that they

contribute to development of socio-economic complex of the country.

From the above and according to the object transportation, the transport sector is two types of activities namely (1) *freight transport* and (2) *passenger transport*. But transportation mode is different and during the evolution of human necessities in freight and passenger transport, both in time and in space, it became possible and can be exercised through various *modes of transport*. Thus, transport in any country, plays by its own structure of transport modes, which are based on division largely physical and geographical factors, in addition to operating and economic factors. And all modes of transport and communications channels used by them, is unique transport system of the country and according to the Law on transport of Moldova, no. 1194-XIII of 21.05.97, it has six modes of transportation: rail, auto, air, water, electric urban, transport via pipelines. However, only the first five are within the competence of branch transport, pipeline transport is the exception. This mode of transport can not be subject to the contract of carriage, where it transported goods by it are missing material and substantial form of the object of transport.

So, the basic contribution of transport sector is transporting various types of goods necessary for the development of national economy and individuals and that, transporting people to various places of destination.

Transport record of the quantity transported goes directly to each type of transport (transport of goods and passenger), but not part ways. Because, depending on the subject transportation (goods, people) these results can not be summarized in ways, are not comparable, depending on the unit of homogeneous services, (tones of goods transported or number of passengers).

For example,

(1) *how they would make a tabulation of the current activity of the railways, if we know that he transported „x1” freight tonnage and „y1” number of passengers and*

(2) *how they would make a tabulation of the whole area, if this year and automobile transport „x2” freight tonnage and „y2” number of passengers.*

1. When referring to the first question, then in no case (of course in natural expression) „x1” can not be summarized with „y1”. Aggregation activity is only possible by attaching these quantities for each type, depending on the modes that comprise it and stands as follows:

✓ *transporting goods by rail is „x1” tonnage of goods:*

✓ *transporting passengers by rail is „y1” number of passengers and*

Transport activity	Mode of transport
	railway
Transportation of goods, tons	x1
Transportation of passengers, people	y1
TOTAL	– (or in one case)

2. When referring to this second question, the aggregation is as follows:

Transport activity	Mode of transport		
	railway	auto	TOTAL
Transportation of goods, tons	x1	x2	$x1 + x2$
Transportation of passengers, people	y1	y2	$y1 + y2$

or

Transport activity	Current Year Activity
Transportation of goods, tons, total:	$x1 + x2$
➤ <i>railway</i>	x1
➤ <i>auto</i>	x2
Transportation of passengers, people, total:	$y1 + y2$
➤ <i>railway</i>	y1
➤ <i>auto</i>	y2

Thus, we followed how and why record is in natural expression of services provided by specific branches (air, water, road, and rail) of transport domain. But it is known that for a generalization of the results of activities which provide heterogeneous/unusual production in a specialized field, applies value assessment, but for the transport industry monetary evaluation of the results of economic activities is not respond to various changes taking place in the types of activity.

So, in the conduct of the transport activity, workload, namely the amount (*tonnage*) of freight transported or the number of passengers, is according to the type of transport, including output from production volume provided by each mode separately, because only in this mood it can evaluate final physical result of work carried out within a year of activity, so is made comparing static and dynamic analysis (chain or base) of the results obtained from transport.

In the economic essence, we know that the workload of any enterprises, branches, sector of the economy should be growing chain, because only so can be achieved to enhance the country's economic growth, to enhance national wealth. So in the transport industry, volume of each type of activity should not reduce the previous or the base period, but internal changes in its course between modes can be manifested. Special these changes determine the

usefulness of each mode in each current year activity, which are given by their share in all it's specific type of transport only so can follow the

most essential mode and the most interested mode of transport of every country, including of RM (see table 2; 3 and figures 1-10).

Table 2. RM freight transport in the period 2000...2010.

Indicators	Volume indicators in dynamic											
	Years											
	2000		2006		2007		2008		2009		2010	
	absolute size	share %	absolute size	share %	absolute size	share %	absolute size	share %	absolute size	share %	absolute size	share %
Transported goods, total, tons:	28917,7	100,0	38250,1	100,0	40794,2	100,0	39793,6	100,0	25988,5	100,0	27781,2	100,0
- Chain growth, %	*		100,0		106,7		97,5		65,3		106,9	
- Basic growth, %	100,0		132,3		141,1		137,6		89,9		96,1	
1. railway	8213,8	28,4	11092,5	29,0	11846,8	29,0	11006,2	27,7	4414,9	17,0	3852,1	13,9
- Chain growth, %	*		100,0		106,8		92,9		40,1		87,3	
- Basic growth, %	100,0		135,0		144,2		134,0		53,7		46,9	
2. auto	20671,7	71,5	27015,1	70,6	28779,9	70,5	28584,6	71,8	21390,8	82,3	23800,6	85,7
- Chain growth, %	*		100,0		106,5		99,3		74,8		111,3	
- Basic growth, %	100,0		130,7		139,2		105,8		74,3		83,3	
3. fluvial	30,8	0,107	141,5	0,370	166,5	0,408	202	0,508	182	0,700	127,2	0,458
- Chain growth, %	*		100,0		117,7		121,3		90,1		69,9	
- Basic growth, %	100,0		459,4		540,6		655,8		590,9		413,0	
4. air	1,36	0,005	0,97	0,003	1,00	0,002	0,83	0,002	0,83	0,003	1,3	0,005
- Chain growth,, %	*		100,0		103,1		83,0		100,0		156,6	
- Basic growth, %	100,0		71,3		73,5		61,0		61,0		95,6	

Source: Processed by author based on information by the National Bureau of Statistics of Moldova.

As you can see, the information presented in table 2 and figures 1, 2, 2005-2008 registered higher levels relative to the year 2000, respectively in 2006 – 1.32 times, in 2007 – 1.41 times and in 2008 – 1.37 times; while 2009 and 2010 record low levels of production volumes compared to 2000, respectively, in 2009 an average of 11.1%, and in 2010 an average of 3.9%. The volume of transported goods decreased in 2009 and 2010, however, the reduce of the amount of transported goods begun in 2008. But, of course as we see value in 2008 is still higher than the volume of 2000, but still compared to 2007 it was reduced by 2.5% (97.5% - 100%). And if

compared to 2007 reduction was insignificant, was only 2.5%, then 2009 is characterized by a reduction in the chain compared to 2008 is quite obvious and is 34.7%. This shows us about reducing production volumes of material industries, as a result of the crisis, which manifests itself both nationally and globally.

However, the 2010 comes with a 6.9% increase in the chain, which differs from the year 2000 only 3.9% in the negative trend. Accordingly, we admit that the transported goods in 2010 are below the value of the base year (year 2000 to 28.9 million tons → year 2010 to 27.8 million tons).

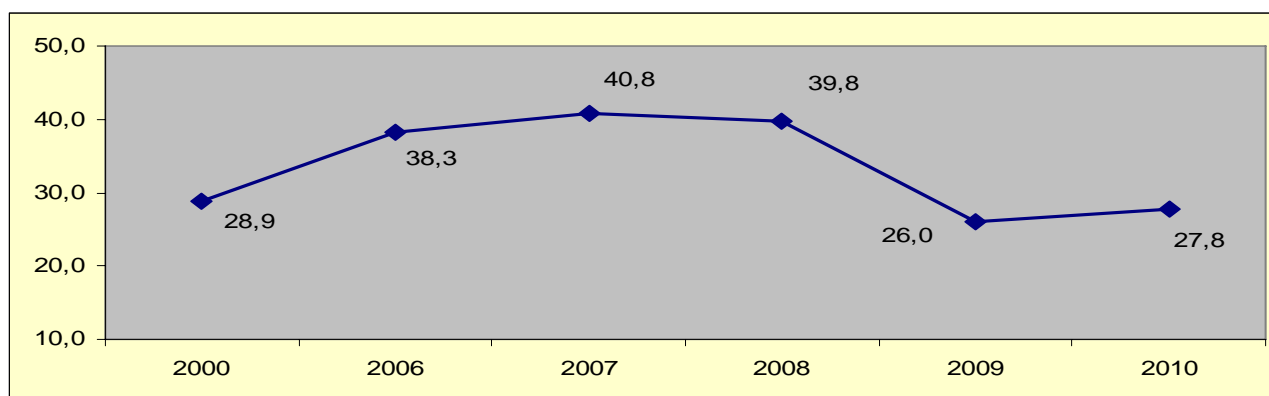


Figure 1. Dynamic quantity of transported goods between 2000...2010.

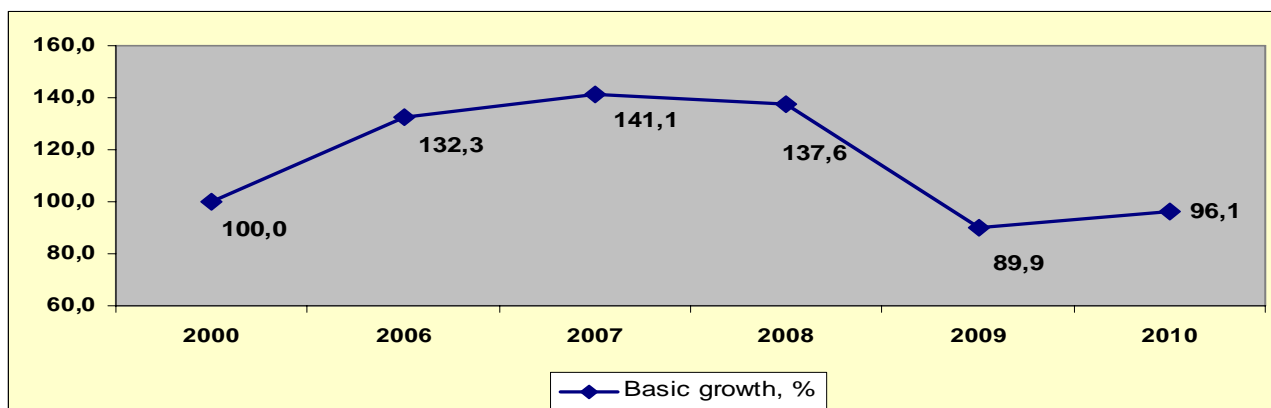


Figure 2. Dynamic of basic growth of transported goods between 2000...2010.

Following and analyzing statistical data in table 2, we see that for Moldova, in particular, the main mode of transportation of goods is *auto transport*. And share which characterizes it is between the limits respectively – 71,5%-85,7%, where the upper limit returns to 2010, what shows that transportation

of goods is still preferred in this mode, and should to follow that the deviation from base year is a 17,0 p. (87,5-70,5) and respectively, with 3,4 p. compared to 2009. In total disadvantage is rail, if in 2000 it included a share of 28,4%, then in 2010 this indicator is 13,9% (see Figures 3, 4).

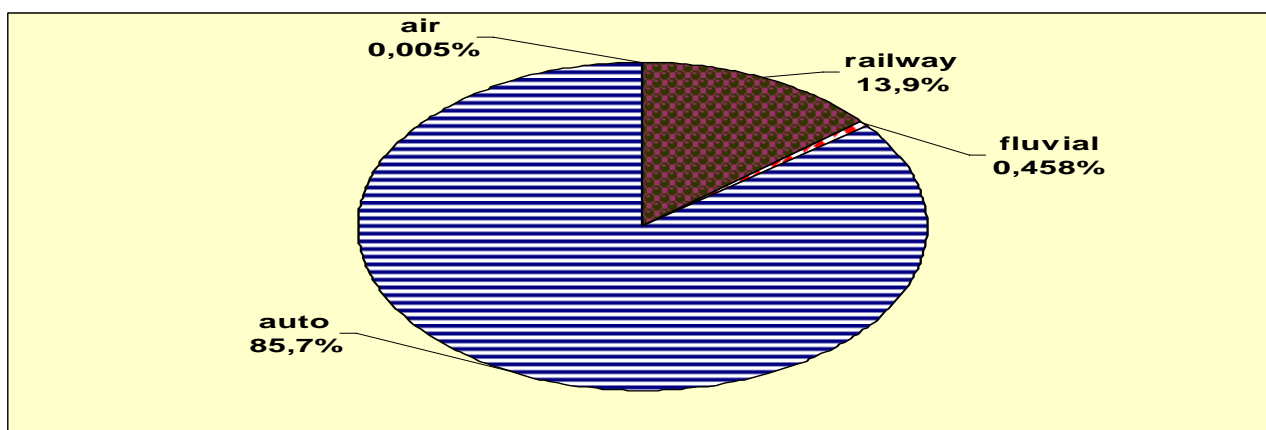


Figure 3. Structure of transported goods on modes of transport of 2010.

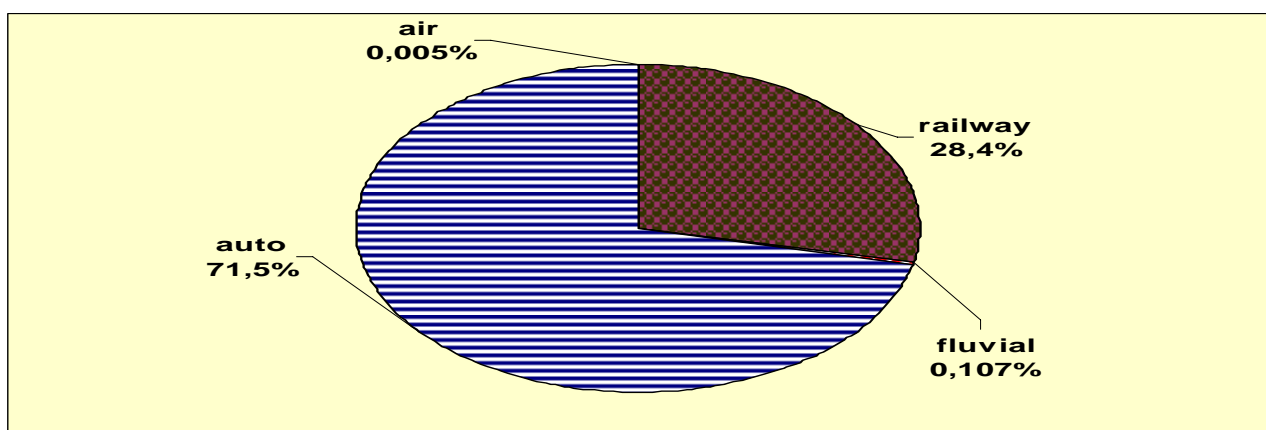


Figure 4. Structure of transported goods on modes of transport of 2000.

But how we mentioned we divide two types of transport, in addition to the transportation of goods, this area contributes to economic growth and development and passenger transportation. Therefore, further will decline, we will show the

contribution of this type, of the second type of transport, namely passenger transport, by production volumes, namely the number of passengers transport (see table 3).

Table 3. Passenger transport in RM on the transport modes between 2000...2010.

Indicators	Volume indicators in dynamic											
	Years											
	2000		2006		2007		2008		2009		2010	
	absolute size	share %	absolute size	share %	absolute size	share %	absolute size	share %	absolute size	share %	absolute size	share %
Passengers carried, total, thousand passengers:	326657	100	318140,6	100	319060,6	100	326059,5	100	291843,3	100	232259,8	100
- chain growth, %	*		100,0		100,3		102,2		89,5		79,6	
- basic growth, %	100,0		97,4		97,7		99,8		89,3		71,1	
1. railway	4798,2	1,5	5283,9	1,7	5590,5	1,8	5762,9	1,8	5186,7	1,8	4963,7	2,1
- chain growth, %	*		100,0		105,8		103,1		90,0		95,7	
- basic growth, %	100,0		110,1		116,5		120,1		108,1		103,4	
2. auto	321604,9	98,5	312357,4	98,2	312935,7	98,1	319717,7	98,1	286078,3	98,0	226528,1	97,5
- chain growth, %	*		100,0		100,2		102,2		88,9		79,7	
- basic growth, %	100,0		97,1		97,3		99,4		88,4		70,4	
3. fluvial	32,1	0,010	102,7	0,032	119,2	0,037	105,0	0,032	118,7	0,041	118,8	0,051
- chain growth, %	*		100,0		116,1		88,1		113,0		100,1	
- basic growth, %	100,0		319,9		371,3		327,1		369,8		370,1	
4. air	220,9	0,068	396,6	0,125	415,2	0,130	473,9	0,145	459,6	0,158	649,2	0,280
- chain growth, %	*		100,0		104,7		114,1		97,0		141,3	
- basic growth, %	100,0		179,5		188,0		214,5		208,1		293,9	

Source: Processed by the authors based on the information of the National Bureau of Statistics of the Republic of Moldova.

However, as we see from the information exposed, in table 3, year 2010 record a level below and to the base year value 2000, and for the years 2006-2009 of economic dynamics analyzed, critical low level, that requiring that aims a decrease of passenger

transport value in RM if in 2000 the number of transported passengers was 326700 passengers, then in 2010 the level of transported passengers is with 94400 passengers smaller ($\Rightarrow 232,3 - 326,7$) (see figure 5).

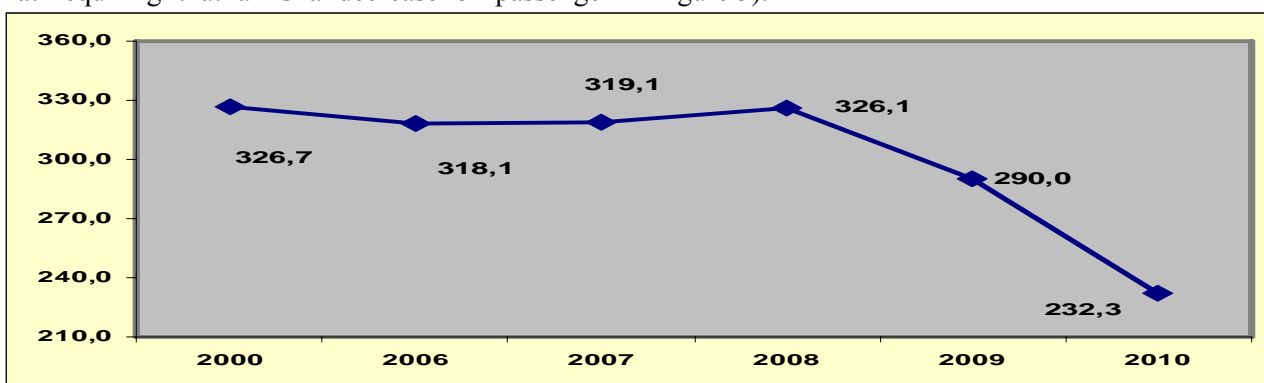


Figure 5. Dynamic of number of transported passengers.

Reduction compared to 2000 is essential and is 28.9%, due to the decrease in chain of two consecutive years, 2010 and 2009, which compared

to 2009 by 9.9% and compared with 2008 - 10.5 % (see Figure 6).

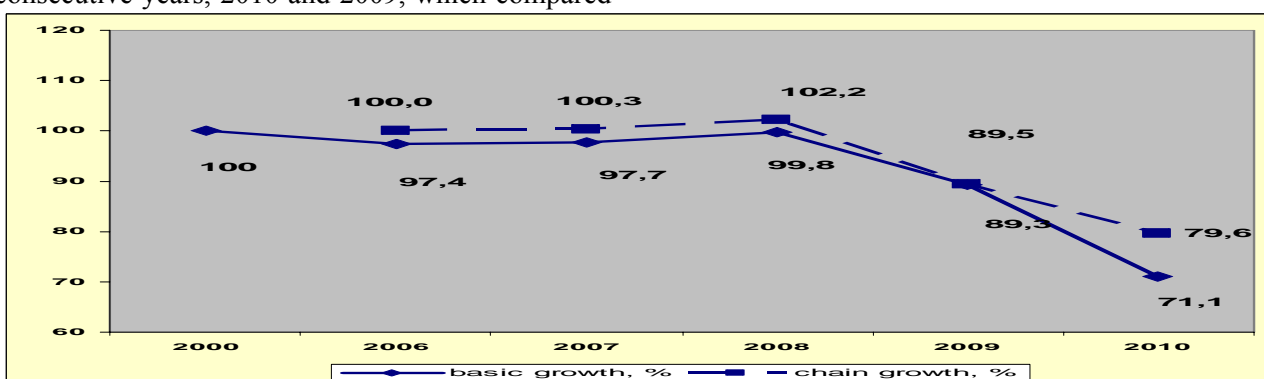


Figure 6. Dynamic of basic and chain growth of passenger transport.

Following and analyzing statistical data in Table 3, we note that for Republic of Moldova, in

special, the main mode of passenger transportation is auto transport (see figure 7, 8).

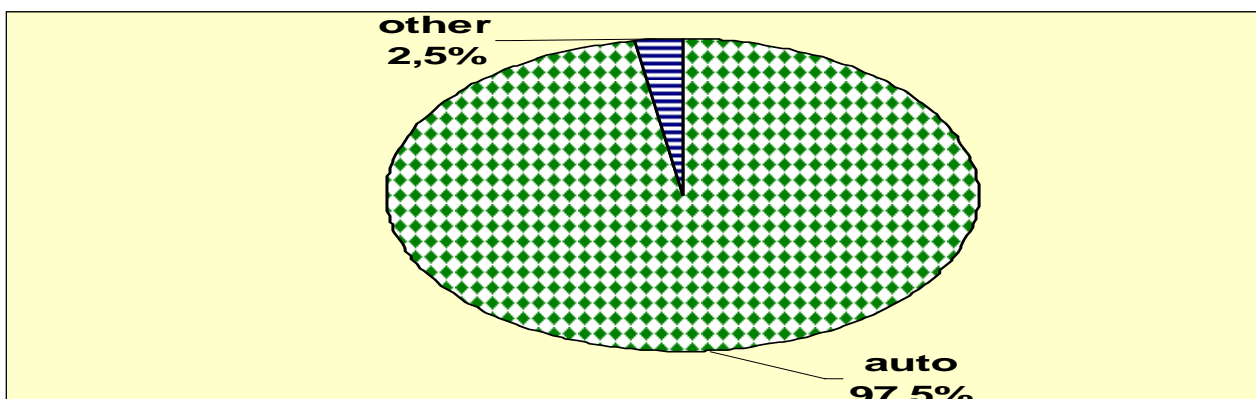


Figure 7. Structure of transported passengers on the modes of 2010.

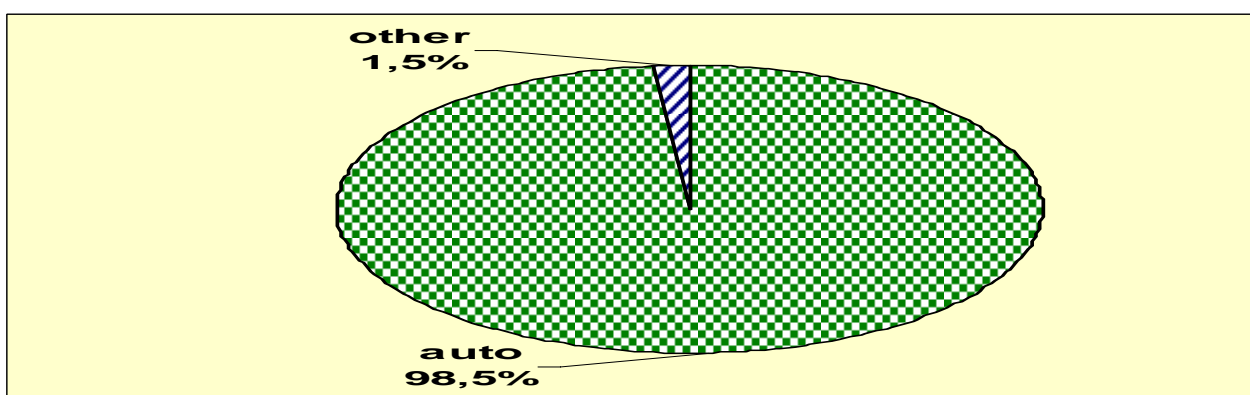


Figure 8. Structure of transported passengers on the modes of 2000.

So, auto transport is the priority, both for the freight and passengers transport. And share that characterizes it is between the limits respectively:

⇒ *transported passengers* - 97.0%-98.0%, priority given to passengers transport with buses - 51,4%-77,3%, but still on the analyzed period seeks a continuous reduction of the value of this mode and continued growth of taxis and buses, increased from 22.2% in the base year to 45.6% in 2010, more than two times, and

the taxi, respectively, from an insignificant share of only 0.2% to 1.8% in 2010, 1.6 p. or 9 times (see table 4 and Fig. 9-10)

⇒ *transported goods* - 71.5% -85.7%, where the upper limit returns of 2010, which shows that still preferred in transporting goods is this mode, and which is followed by rail with a share of 13,9-28,4%, but the negative moment is that the lower limit returns of 2010 (see table 2 and fig. 3-4).

Table 4. The number of passengers transported on auto modes in RM between 2000 ... 2010.

Indicators	Volume indicators in dynamic											
	Years											
	2000		2006		2007		2008		2009		2010	
	absolute size	share, %	absolute size	share, %	absolute size	share, %	absolute size	share, %	absolute size	share, %	absolute size	share, %
<i>Transported passengers with autotransport, total, thousands passengers:</i>	321604,9	100	312357,4	100	312935,7	100	319717,7	100	286078,3	100	226528,1	100
<i>including:</i>												
1. buses	72440	22,5	109404,6	35,0	103183,6	33,0	110286,2	34,5	105805,8	37,0	105965,3	46,8
2. taxi	722,9	0,2	1097,8	0,4	3413,8	1,1	4259,1	1,3	3836,4	1,3	4086,2	1,8
3. trolley	248442	77,3	201855	64,6	206338,3	65,9	205172,4	64,2	176436,1	61,7	116476,6	51,4

Source: Processed by the author based on the information of the National Bureau of Statistics of the RM.

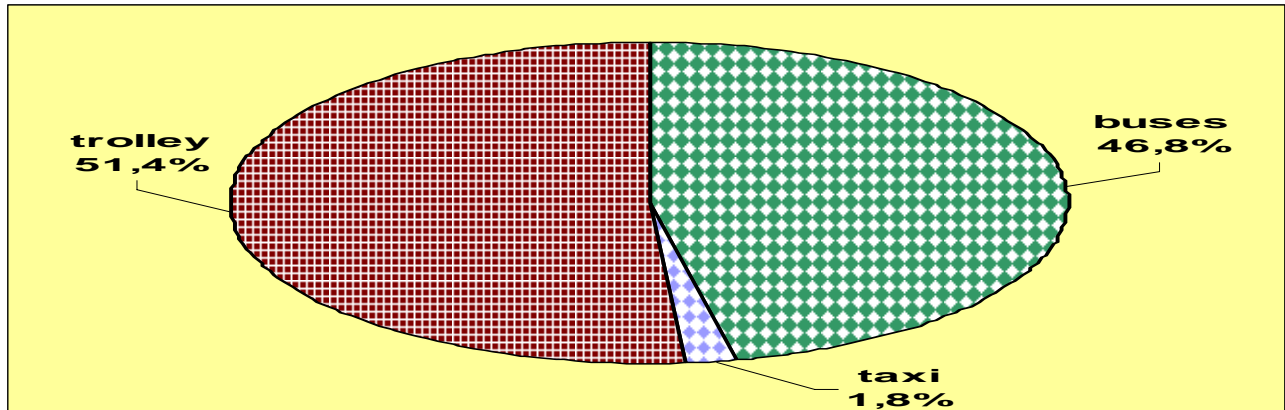


Figure 9. Structure of auto transported passengers on the modes of 2010.

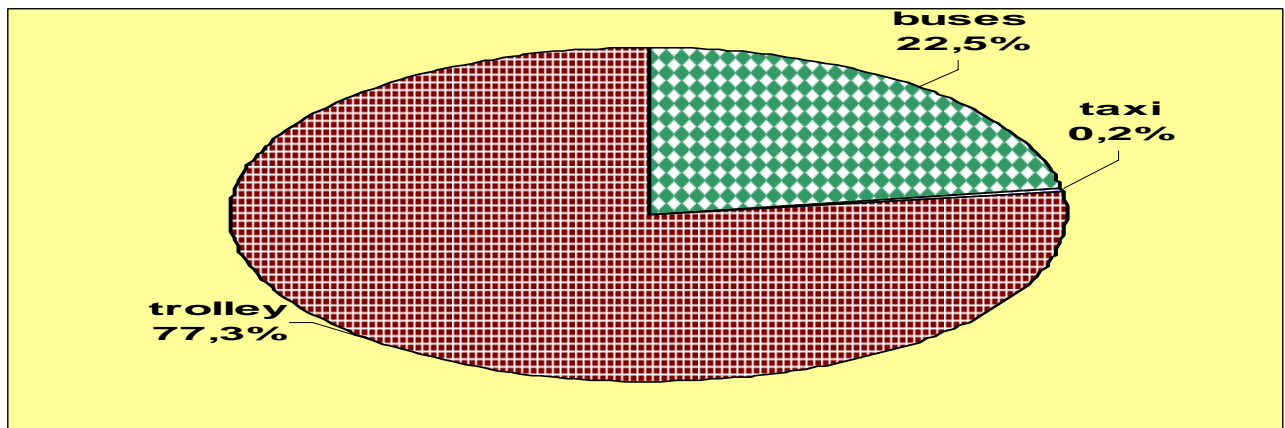


Figure 10. Structure of auto transported passengers on the modes of 2000.

It should be mentioned that, the second mode for each type of transport is the railway, but priority in this mode has transporting goods, from that of passengers. But it is obvious a reduction of value of this mode in 2008 and 2009.

As we know, the national economy is a set of economic relations that appear between economic agents in the conduct of economic activities. Development of national economy is currently, depending on the intensity of developed relations with other countries.

With the transition to market economy in Moldova, external economic relations have been liberalized, because liberalization of foreign economic relations is one of the principal means of stimulating the competitiveness of domestic production and its output on world market. The principal place of business in foreign economic activity of companies is the exchange of goods (goods and services) to companies in other countries, which leads to the formation of international economic flows (connections), which is manifested by export and import activities of enterprises, which as a whole contribute to world economic circuit.

Accordingly, an important place in the formation of this circuit has transports, those

comings as provision flows of transportation services for goods that is exchanged and contribute to enhancing relations between states, to achieve international economic exchanges.

Respectively, an important place in the formation of this circuit has transports, that coming as flows of provision of services of transportation of goods, which is subject of exchange and which contributes to enhance relations between states, to achieve international economic exchanges.

Thus, transports involved in this circuit are international transports and by their development is intended increase in gross domestic product, gross national product, economic growth; increasing the competitiveness of enterprises, of state (table 5).

As you can see, the international transport in the total of auto transports is insignificantly related to the transportation of goods, following share that record it (5.81%-7,24%), and negative moment is that the global crisis negatively contribute to its development, as we see, the quantity of goods is lower in 2010 than all previous years of dynamic analysis of 2006-2010 because the distance is greater than previous periods where the quantity of goods is less.

Table 5. Dynamic of international transport in RM by destination, in 2006-2009 (auto transport of goods)

Indicators	Volume indicators in dynamic							
	2006		2007		2008		2009	
	absolute size	share, %	absolute size	share, %	absolute size	share, %	absolute size	share, %
Transported goods, total, thousands tons:	27015,1	100,0	28779,9	100,0	28584,6	100,0	21390,8	100,0
1. National transport	25423,4	94,11	27107,6	94,19	26913,9	94,16	19842,7	92,76
2. International transport	1591,7	5,89	1672,3	5,81	1670,7	5,84	1548,1	7,24
- chain growth, %	100		105,1		99,3		73,7	
- basic growth, %	100		105,1		105,0		97,3	
Turnover of goods, total, mil. tons-km:	2567,1	100,0	2742,5	100,0	2965,9	100,0	2713,7	100,0
3. National transport	812,2	31,64	852,4	31,08	902,1	30,42	829,8	30,58
4. International transport	1754,9	68,36	1890,1	68,92	2063,8	69,58	1883,9	69,42
- chain growth, %	100		107,7		105,8		92,0	
- basic growth, %	100		107,7		117,6		107,4	

Source: Processed by the author based on the information of the National Bureau of Statistics of the RM.

However, we believe that with the liberalization of foreign economic relations, international transports will get a wider spread and with the development and community interests they will be characterized by higher levels.

So, as we followed from the above, we can admit:

- ♦ transport is a human activity in the national economy, society needed for means of production and transportation of people;

- ♦ the transport's significance in people's life increased and is manifested in two aspects, economic aspect and social aspect of transports;

- ♦ transports should be pursued in the context or socio-economic terms, because of the issues pursued shown that they contribute to the development of socio-economic complex of the country;

- ♦ transports, in terms of production, are indirect activities, but they depend heavily on the development of other sectors of national economy, socio-economic development of the country;

- ♦ transports contribute to the economy's development, by its types and modes, which were formed and manifested in society as they progress;

- ♦ transport through its modes must be received as a complex unit that complements each other (the advantages are the disadvantages of one another);

- ♦ as the evolution of society occurs a change in the transport structure and in spite auto transport takes priority, both in transporting goods and passengers;

- ♦ in spite to structural changes in the transport sector generally, however their contribution increases and share what they hold in GDP is 12.3%, which is approx. 2 times higher than 1995 and 1.3 times higher - compared to 2000;

- ♦ development of international transport is welcome to any country, including RM, because

this activity has two directions, lead to social and economic development of the country and the development of international economic relations;

- ♦ today transport activity in the economy of RM deals, in contributing to economic growth, among the top three places, in addition to industry, branch of material sphere, and *commerce*, the branch of nonproductive sphere;

- ♦ but in spite in last period, the situation of transport domain is not one of the best, the level of production decreased, therefore we consider that by applying technical and economic measures, thought managerial, situation of field can be revitalized, respectively and of national transport, and international transport;

- ♦ so, finally, by the correct orientation of transport activity, it will allow a satisfaction as wide of needs in transportation of goods and passengers, that will allow economic development, competitiveness and stability both at company level and state level.

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Recommended for publication: 09.06.2011