
ANALYSIS OF THE EVOLUTION TRANSPORT PERSPECTIVE IN THE EUROPEAN UNION STATES MEMBERS

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Abstract

The general transport network in the European Union is of particular importance, especially under the conditions of the two Directives on the free movement of goods and services in the European Community. Freight and goods transport is carried out by road, rail, ship and air. Each of these modes of transport has particularities which, depending on the group of goods, lend themselves to the movement of goods. The European Union has adopted an own strategy aimed at developing and harmonizing the transport network in each Member State so as to achieve a unitary transport network at Union level. In this context, using the data provided by Eurostat, the authors carry out a detailed analysis of the evolution of transport in the European Union. The emphasis is also on the situation presented by Romania, underlining the need for urgent action to bring the quality of the infrastructure in the other EU countries closer.

Keywords: *transport, passenger, freight, transport network, infrastructure*

JEL Classification: *H54, O18, R41*

Introduction

The European Union pays particular attention to the infrastructure in the member countries, focusing on the development of a railroad network and of course, in this context, issue 1 is the development of a uniform, high-quality infrastructure in all EU countries. As early as March 2011, the European Commission adopted the White Paper, entitled Roadmap to ensure a united Europe in terms of transport, context in which the issue of efficient transport resources is synthesized in a European system. In this perspective, the European Union has focused on establishing a financial support strategy by allocating substantial funds to Eastern and even Central European countries, which still

have a long way to reach the level of Western European Road Infrastructure. In this strategy, which has been established since 2011, entitled Roadmap for Transport, 40 initiatives are foreseen to build and build a unitary and competitive transport system to ensure mobility, the removal of barriers and the stimulation of a valuable transport network. At the same time, it was intended that the development of this network would ensure the attraction of labor force, which is unfortunately found in high quantities in the European countries, especially in terms of the level of registered unemployment. The next year, in October 2012, the European Commission is backed by a second set of actions and activities for the further development of a European single market entitled Towards a new unitary market that will ensure an impetuous growth of the EU Member States. These directives and guidelines of the European Union are geared towards increasing the role of infrastructure investments to provide three important things. On the one hand, the economic growth through the results achieved in this field, then the realization of benefits as well as the provision of an efficient and high quality transport system throughout the European Union. Such a view is more than necessary in the context of the existence of sufficient resources that the European Union allocates, but with only one condition, that Member States, those which are concerned and need to develop infrastructure, have their share of co. In terms of the situation of some countries, including Romania, we find that the answer to this European Union initiative is quite slow or delayed. For the European Union, it is no longer possible for a new Marshall Plan to ensure the unitary development of infrastructure and transport in general. Romania does not have the necessary financial resources to involve itself in such a program. But with more thought, there might be a theoretical perspective for the moment, but that can become certain with little effort. In this direction it would be possible to organize internal tenders for the development of national infrastructure on sections of at least 3000 kilometers and for these tenders to take place from across Europe to provide co-financing under negotiated financial conditions and to finally ensure The rapid realization of our part in developing the infrastructure of the European Union. Transport in the European Union is important both to ensure the movement of goods from one country to another or to the same country, but also to achieve efficient and appropriate passenger transport to the current situation of the European Union.

Literature review

Glaeser, Kahn, and Rappaport (2008) emphasize the role of public transportation on urban poverty indicators. Sheard (2014) develops on airports and urban sectoral employment. Dray, Schäfer and Moshe (2012) analyze the technological limitation associated with the reduction of CO2 emissions

in the European Unions' transport sector. Anghel (2014), Anghelache et al. (2016, 2014a, 2014b) have evaluated the up-to-date evolution and status for the Romanian transport field. Islam et al. (2015) evaluate the rail freight demand forecast for the next three decades and the impact of the European Union Transport White Paper. Adamopoulos (2011) measures the cost of transportation in correlation with cross-country income differences. Papa (2013) compares the strategies regarding maritime transport security at the level of the United States and European Union. Cadarso et.al. (2010) analyze the ecological impact of international freight transport and offshoring through the indicators associated with CO₂ emissions. Gössling and Cohen (2014) discuss the reasons for the failure of sustainable transport policies will fail, from the viewpoint of European Union climate policy. Rothengatter, Hayashi, and Schade (2011) evaluate the new approaches in managing the transport impact on the climate, following the effects of the recent economic crisis. Ajanovic and Haas (2010) analyze the economic challenges corresponding to the prospective use of biofuels in European Union transportation activities. Duranton and Turner (2012) develop on the correlation between urban growth and transportation. Kos-Labędowicz (2014) comments on the perspectives of introducing E-ticketing in the European Union. Alesina and Giavazzi (2006) analyze the future of the European zone, from the viewpoints of possible reform or decline. Pitfield (2009) evaluates the EU–US Open Skies Agreement, emphasizing some difficulties in its implementation. Köhler, Jin, and Barker (2008) develop on the integrated modeling of European Union transport policy. Camagni (2009) proposes a methodology regarding the evaluation of territorial impact for European regions. Kalotay (2008) has analyzed the level of foreign direct investments in the two neighboring countries that gained EU membership in 2007, Romania and Bulgaria. Tsamboulas, Vrenken and Lekka (2007) evaluate the potential of the transport policy for intermodal mode shift on a European scale. Grzelakowski (2011) analyzes the role of external costs' internalization in the EU transport sector in the rationalization of the logistics supply chains. Anger (2010) comments on the effects of including aviation in the trading scheme for the European emissions, on industry, carbon dioxide emissions and the effects at the macroeconomic level. Angel Garcia-Lopez (2012) develops on the urban development in Barcelona, he considers the spatial structure, suburbanization and transportation. Geurs, Nijland, and van Ruijven (2011) discuss on the perspectives of lower carbon emissions in the European Union transport. Quak (2012) presents a collection of best practices drawn from European experiences, dedicated to improvement in the urban freight transport sustainability by carriers.

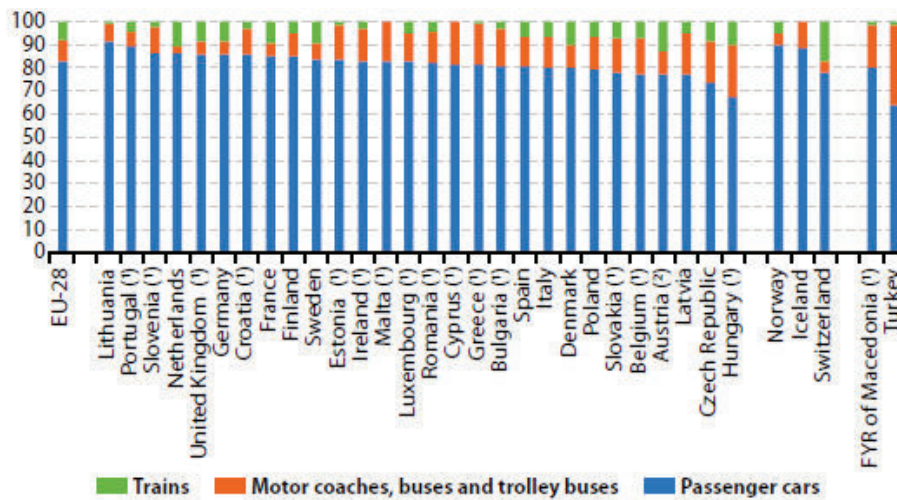
Research methodology, data, results and discussions

• Passenger transport

At present, passengers use cars for the movement in the European area in the proportion of 82.3% of total passenger transport registered annually by 2016 in the European Union. There is, of course, also a segment of public transport by coach, 9.2%, but also rail transport which is 7.6% at present and which, in terms of passenger / km is in a certain drop because it has become very efficient transport by coaches and especially with individual cars. In terms of data recorded in 2014, 2015 and even 2016, there are 383 billion passengers / km traveling on the national rail system. This is a very high figure compared with 22 billion passengers / km traveling to international tourism, and the difference is the movement of people in the interest of jobs so as to ensure the effective presence and use of indifferent jobs. Of the distances to be covered. Approximately 880 million passengers transported in 2014 have traveled using air transport. Some examples of particularly intensive airports, such as Heathrow in London, Charles de Gaulle in Paris, which provide 73 million passengers transported to the British airport, respectively 64 million for the airport in the capital, can be given. Here we can also mention other airports such as Frankfurt - 59 million passengers transported or Amsterdam airport carrying 55 million passengers annually. We can estimate from the data available that about 89% of passengers traveling in Europe or from Europe to the other destinations (United States, Japan, Asia, Africa) mainly use the four airports mentioned above. Another interesting element in passenger transport is the port system in Europe for travelers inside Europe as well as for journeys going to other parts of the world. In European Union ports in the maritime area, in 2013, 2014, 2015 and even in 2016 the average number of passengers transported annually was over 400 million people. European Union Member States have used the means of shipping very often to support the fleets of Germany, Sweden, Great Britain, France, Croatia and Spain, with between 23 and 31 million passengers each year.

Structure of passenger transport by land for each country in 2013

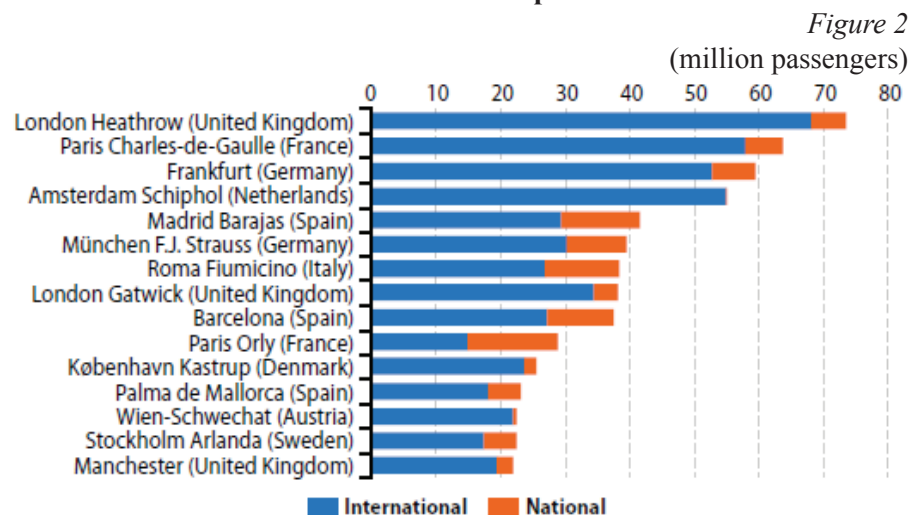
Figure 1
(% of total passenger / km)



Source: Eurostat - Key figures on Europe 2016, pag. 189

Figure 1 shows the performance of passenger transport, expressed in percentage terms, expressed in passenger / km in the EU Member States. This figure shows the figures for rail transport, coach transport, buses and trolley buses, and especially passenger transport by car. It is noted that in all countries, with no exception, car transport means the highest share, in some countries being over 90%, as is the case with Portugal, Sweden, the Netherlands, Great Britain and others. From the point of view of the transportation with these means I mentioned in our country we find that in the case of Romania the transport by means of automobiles represents about 80%, the ones with buses, trolleybuses and so on. Represents about 15% and the train transport about 6%. An analysis can be deepened but we find that in the context of the fact that road transport is the one that has a huge share of passenger transport in the European Union, it is a matter of great urgency to improve the infrastructure in each country and consequently the European Union . We referred to passenger transport at the main airports in Europe. Figure 2 gives data on passengers transported, boarded and disembarked from the main 15 airports in the Member States of the European Union.

Number of passengers transported, external and domestic destinations, for the main 15 EU-28 airports in 2014



Source: Eurostat - Key figures on Europe 2016, pag. 189

• We will find that the top Heathrow airport in the UK is carrying 68 million passengers internationally and about 15 million internally. There is Charles de Gaulle airport in Paris, France, which carries about 60 million passengers internationally and about 15 million internally. Frankfurt is the third, which provides about 53 million passengers internationally and 18 million passengers internally. Amsterdam Airport can be called an international airport connecting with the American, Southern and Northern continents, as well as African and Asian countries. Approximately 75 million passengers travel internationally from Amsterdam airport. Major airports in Europe are those in Madrid, Munich, Rome, Gatwick (in the UK), Barcelona, Orly in Paris, the Group of 15 being closed by Manchester airport in the UK that provides about 25 million passengers transported to destinations International and 5 million in the domestic profile of this country. We presented the figures that seemed to us to make sense of the passenger transport network in the EU member states, concomitant with suggesting the need to develop these transport networks, whether they are roads, railways, maritime or international airports.

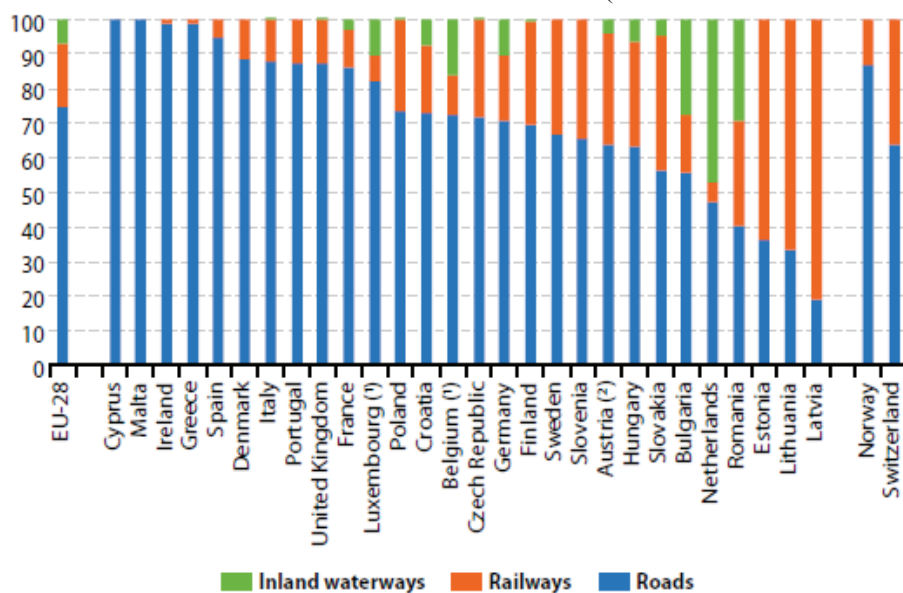
• Freight transport

Apart from passenger transport, the European Union's transport network is designed to provide massive transport across all usable means of transport. In the European Union as a whole, it is estimated that 2200 billion tons / km are transported on all transport routes, of which three quarters are carried out through

the road system. There is then a high percentage of goods transport within national countries as well as in the European Union railways system. Of course, comparing the data found that the two transport, road and railway systems account for over 74.9% of total freight transport. During the economic and financial crisis of 2007-2009 there was a recurrence of freight transport in the total system, but especially by the use of road or rail means, there were quite interesting decreases in this field. Some of the freight transport that is achievable in the trade links of the Member States of the European Union with Member States from other continents, about 6.9%, was made by sea transport. It fell somewhat in 2008-2009, but in recent years there has been a recovery in freight transport across all road, rail, maritime transport systems. About 14.4 million goods have been transported by air, both within the EU Member States and especially internationally. Air freight transport refers to quality goods, of small volume and outstanding value. After 2010, when the transports were affected by the economic and financial crisis, there is a new re-launch of the transport within the European Union, but also in the connections that the EU countries have with the other states. Figure 3 presents the volume of road, rail and maritime transport in the European Union.

Structure of land transport for each country within the European Union in 2013

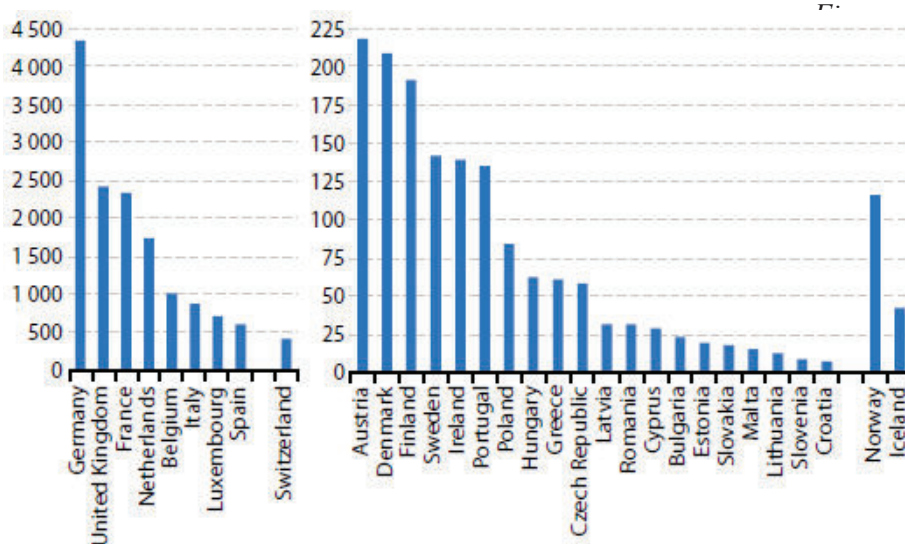
Figure 3
(% of total in tonnes / km)



Source: Eurostat - Key figures on Europe 2016, pag. 190

It is noted that some countries, such as Cyprus, Malta, Ireland or Greece, provide almost 100% domestic transport by road. In many countries, such as Hungary, Sweden, Bulgaria, rail transport has a weight of up to 50%. In only a few countries, shipping is more developed, as is the case in the Netherlands, Bulgaria and even Belgium. In the case of Romania, the structured transport on the three roads, road, rail and river, the situation is somewhat different from the other states. Thus, about 35-40% of the transports are ensured by road transport, about 36-40% of rail and 25% on the river and sea routes through the ports of Romania. A particular case is represented by the Baltic countries, Latvia, Estonia and Lithuania, which provide 70-80% domestic transport on the railways. These data are easily detached from the study of the structured chart we talked about. Concerning air transport, we find that a number of countries, including Austria, Denmark, Finland, Sweden, Ireland, Portugal, provide transport using their ports. The data highlight an increase in these shipments, both in passenger and freight transport. Romania provides the air transport of about 35 million passengers annually, most of them being in the international system for connections with other European airports. And freight transport by air is developed, most often using the air routes of Germany, Great Britain, France and the Netherlands. In this respect, about 4 billion tons of freight is transported annually to German airports. A number of other countries, such as Croatia, Malta, Estonia, Latvia, Bulgaria, have low airfares.

Air transport of goods in 2014, EU-28 (thousand tons)



Source: Eurostat - Key figures on Europe 2016, pag. 191

Figure 4 shows the data showing the structure and intensity of air transport in the EU Member States.

Conclusion

From the authors' analysis, some theoretical and practical conclusions are drawn in this study. In this context, it is noted that joint efforts should be made between member countries, but especially by some Member States, especially those that are lagging behind, in order to ensure a high quality Community network. The development of trade in goods and services requires such an evolution. The strategy adopted at the European Union level by 2020 and in the future aims precisely at achieving such a transport network. The free movement of people at home and in the community requires investment efforts in this area. The analysis of the data provided by the authors revealed the value increase in the physical units of the indicators computed in the transport field. We take into account the tonne / Km and passenger / km indicators that have recorded substantial growth rates over the past six years (2011-2016).

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