

Investments characteristics in infrastructure industry

Particularitățile investițiilor în industria infrastructurii

Răzvan Cătălin DOBREA

The Bucharest Academy of Economic Studies, Romania
e-mail: razvan.dobrea@man.ase.ro

Nadia CIOCOIU

The Bucharest Academy of Economic Studies, Romania
e-mail: nadia.ciocoiu@man.ase.ro

Stelian TIPA

e-mail: stelian.tipa@intesasanpaolo.ro

Abstract

The development of the infrastructure has always represented a major priority at the level of all actors implied in the economic-social activity, from public authorities to private organizations and even civil population. The particularities of the investment projects in the infrastructure attract a more and wider private organizations category which analyses the infrastructure differences as potential business opportunities. The present paper presents a series of particularities specific for the investments in the infrastructure sphere as well as the main attraction factor for the private companies.

Keywords: *investments, efficiency, infrastructure*

Rezumat

Dezvoltarea infrastructurii a constituit dintotdeauna o prioritate majoră la nivelul tuturor actorilor implicați în activitatea economico-socială, de la autorități publice la organizații private și chiar populația civilă. Particularitățile proiectelor de investiții în infrastructură atrag și o categorie, din ce în ce mai largă de organizații private care analizează decalajele de infrastructură ca potențiale oportunități de afaceri. Lucrarea de față prezintă o serie de particularități specifice investițiilor din sfera infrastructurii precum și principalii factori de atractivitate pentru companiile private.

Cuvinte-cheie: *investitii, eficiență, infrastructură*

JEL Classification: E22, H21, H54

Introduction

The development of the infrastructure from the complex, quantitative and qualitative perspective represented one of the major problems of the social-human evolution in the last existence century. Being approached in parallel from an empirical perception but also from a scientific one, the infrastructure represents for many states another major difficulty with direct consequences in the international competitively plan as well as in the foreign investments fluxes attraction one. Nevertheless, there exist in the same time economic systems which understood the importance, respectively the domain's contribution and especially they acted consequently, being now remarked on favorable positions in worldwide raise and economic development classifications.

The term of infrastructure, as an integrant part of the European Union's programs and regulations, is used in official documents in a restricted sense, respectively it reduces to transports. There is no agreement for using the term of infrastructure, but approached from a wide point of view it includes the physical endowments, organizational institutions and structures or social and economic associations realized in order to satisfy the society's operational needs (DEF'2007) The term is most often differentiated in two distinct directions, namely: social infrastructure, which includes domains like health, education etc. and economic infrastructure, with orientation towards the different types and forms of transport, energy, communications etc.

The particularities of the infrastructure and the specific transformations in the economic globalization context

Irrespective of the approach manner, the economic theory and practice recognise the major role of infrastructure domain for the social and economic development of the nations. A well-known term in the specialty literature and important for the present paper refers to notion of infrastructure industry, here being included all domain activities, including the realisation, organization, functioning and maintenance of all components included in the general concept of infrastructure. The economic context proved the fact that there exists a strong relation between the infrastructure industries and other activities like the ones in the provision sphere, in the construction one but also in the industries which use it, like the air, the road or the maritime transport services. Two different connection types can be identified in the ensemble of these complex relations, like this: we can talk about a direct dependency between the infrastructure industry and domains like transport services etc, meaning that a developed infrastructure ensures a corresponding raise of the transport domain, but also an indirect dependency with other domains, meaning that a corresponding infrastructure can negatively influence the authorities interest for extending through new constructions, in the detriment of other priority domains. In order to realise a concrete delimitation of all

components included in the infrastructure industry ensemble, we presented in table nr.1 the integrated domains and the specific activities associated according to the UNCTAD regulations.

The infrastructure industry and the associated activities

Table 1

Infrastructure		Supplier industries and activities	Infrastructure sectors	
			Infrastructure industries	
			Facility operation and on infrastructure maintenance	Infrastructure services
Transport	Seaports		Marine cargo handling	Towing and tugboat services
	Railroads	Railway track equipment	Railroads, line-haul operating	Railroad switching and terminal establishments
	Roads and highways	Heavy construction other than building	Terminal and joint terminal maintenance	Terminal and service facilities for motor vehicle
	Airports		Airports, flying fields, and airport terminals	
	Other	Parts of heavy construction, not elsewhere classified		Parts of miscellaneous services incidental to transportation
Telecommunications		Telephone and telegraph apparatus	Telephone communications	
		Telephone interconnect systems	Telegraph and other message communications	
Water	Water, sewer, pipeline, and communications and power line construction	Water supply		
Power		Sanitary services		
		Electric services: generation and transmission	Electric services: distribution	
		Natural gas transmission and distribution, gas production	Natural gas transmission and distribution	
		Combination electric and gas, and other utility		
	Steam and air-conditioning supply			

Source: (WIR 2008 - *World Investment Report 2008 – Transnational Corporations and the Infrastructure Challenge*, 2009)

The fundamental role of the infrastructure has been highlighted during the last years, as a higher and higher number of states in the entire world have been attracted in an economic raise cycle and participation to the global economy, these ones being conditioned by the quantity and quality of the detained infrastructure.

The incapacity of supplying the necessary infrastructure and the afferent services represents one of the major obstacles in accelerating or maintaining the development rhythm, as well as in reaching the raise and performance objectives, imposed by the Millennium's Development Objectives (ODM2003), established by the Organization of the United Nations. Moreover, the investments necessary for the countries that are developing in infrastructure do not pass much over the sums assigned by the authorities, the private sector and other interested parts, a fact which leads to the appearance of a significant financing deficit. In average, according to the World's Bank estimations, the developing countries invest, at present, annually 3 – 4% from their GDP infrastructure in comparison with the approximate necessary of 7 – 9%, which permits a wider economic raise and the reaching the objectives of lowering the poorness in a corresponding time. (WIR2008) The direct consequence of this situation, determined by the investments insufficiency necessary in the infrastructure determined a fundamental change of the state's role in the entire world.

Based on the realized researches we have highlighted a series of distinct characteristics of the infrastructure industry, among which the most important take into account the following aspects:

➤ The infrastructure industries include complex and intensive activities from the point of view of the capital. The exploitation of the infrastructure is realized on a long period of time, it implies huge investments costs and it is strictly specific for the emplacements;

➤ Because the infrastructure most often implies (from the physical point of view) the construction and exploitation of the networks, these are frequently found in an oligopoly form (or monopoly). Consequently, the control or the access to such networks could be a competitive key advantage that has to be distinctly analyzed;

➤ Numerous public and private organizations consider the access to infrastructure services as a social and politic problem. Such services can be considered to be public goods, meaning that they should be available to all users, and some of them, like the supplying with water, should be human rights. Other infrastructure services or industries, like the port or aeronautic industries, are considered to have a strategic importance (WIR2008);

➤ The infrastructure industries play a determinant in the competition evaluation of an economy, as an integrant system. The essential role in matter of the contribution in the development of other industries highlights the fact that the integration and performance of the companies in the infrastructure activities must be evaluated not only from the point of view of the services' efficiency and competition in cause (on cost, price, quality) but also from the point of view of their impact on the industrial and individual users;

➤ The infrastructure is a key element of the economic development that can ensure the integration in the world-wide system. The good transport and telecommunications infrastructures can contribute to the national competition of

some economies and to the reduction of poorness. The actual period, characterized by ample transformations in economic and social plan, at the level of all activity domains, significantly influence the infrastructure industry too. The impact on this sector is more relevant because it manifests to contradictory tendencies. On the one hand, a first direct tendency is that of restricting in investment funds assigned for the development respectively for the maintenance of the infrastructure, but on the other hand, the infrastructure projects represent a safe, recognized way for sustaining some economic activities like constructions, raw material production, for maintaining the unemployment in controllable limits. The positive result of the two manifested tendencies is influenced by the authorities' capacity to correspondingly divide the resources on the most relevant projects, with a corresponding social and economic potential and which are able to generate ulterior incomes.

The implying of the private companies in the infrastructure industry

From the historical point of view, approximately around the 1980's the infrastructure industries were strictly in public authorities' competence, sometimes through corporative forms, like the state enterprises. After the '80's these ones were gradually liberalized, differentiated by the industrialization rhythm and degree of the respective state. The direct result was that the relation between the state and the private sector evaluated, meaning that the state assumes more and more the regulation role of the activities developed by the private in the infrastructure area. These new relation continues to change, as a response on the one hand to the technological progress and on the other hand to the experience accumulated by the implication of the private sector and the change of the politic priorities. A way of facing these gaps could be the one regarding the mobilization of the direct foreign investments and of other participation forms of the companies in order to add and complete the activities in the internal infrastructure organizations, both public and private.

The transnational companies specialized in the infrastructure industry immediately offered the solution to compensate the investments, experience and competence gap, but in most cases both the positive and the negative consequences didn't appear lately. In this context, a high number of players, others than the companies strictly orientated on infrastructure extended their presence in the field, here being included even the funds of private capital. This new dimension of the collaboration between the state and the private sector has been facilitated and outlined by means of innovation and of the technological research's results. From this perspective, there could be mentioned sectors like the telecommunications or the electric energy industry, where the multinational companies played an important role in supplying and ensuring infrastructure services. We have presented in Figure 1 the main causes that limit the integration of the private

companies in the infrastructure industry but also the potential improvement solutions of the existing situation, identified on the basis of the theoretical and practical researches.

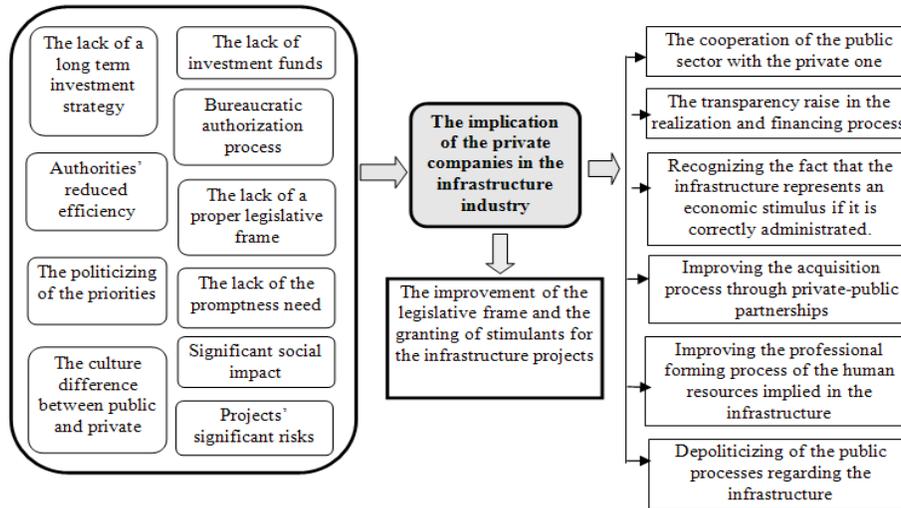


Figure 1. Inhibitor factors and solutions for the implication of the private companies in the infrastructure industry

Even if in certain situations the infrastructure's externalization was benefic from the point of view of the reduction of the costs and of the terms in short and medium term, but the costs were much higher on long term, and they even passed beyond the authorities' reimbursement possibilities. The direct consequences were bound to the significant raise of the debts degree and even a risky exposure of the authorities in the financial markets areas.

In a retrospective analysis of the realized investments in the infrastructure projects, both from the quantitative and from the qualitative point of view, it can be affirmed that the good results have been registered in states that understood the necessity of the public – private partnership, they have correspondingly valued the advantages and they have limited as much as possible the negative impact of such a contract. The experience of the public-private collaborations in the infrastructure's domain proved the fact that the higher the contestability degree of an infrastructure industry is, the more probable is the implication of the private companies, which will have as effect an efficiency raise due to the high competition. This will be felt both in the price/quality report optimization, and in the initiatives plan of extending and covering new service areas.

Conclusions

In a medium and long time horizon the capital and infrastructure investment capital will be very high, which implies the adopting of some corresponding strategies from the financial point of view, but which take into account the respecting of the used criteria, effectiveness, sustainability and durability. In conclusion it must be mentioned that the host countries, especially the ones in course of development, have to decide when it is most proper to attract the private companies in development and the infrastructure management. If we take into account the fact that the politic priorities and options change sometimes too often, the optimum mixture of private and public investment becomes a real complex provocation. The projecting and politics implementation proper for using the potential role of the private companies in the infrastructure requires adequate capabilities, coherence on medium and long term respectively a proper legislative frame. The public authorities have to decide on their priorities among the different projects' solicitations, to establish clear and realist objectives for the chosen projects and to integrate them in wider development strategies. The mobilization and orientation of the higher and higher financial fluxes from the countries in course of development still remains a problem of the international community, which has to find solutions on short and medium term.

References

- Auriol, E., Picard, P.M., (2006). "Infrastructure and public utilities privatization in developing countries", *World Bank Policy Research Working Paper*, No. 3950. Washington, D.C.: World Bank.
- DEF (2007). *Dicționar economic și financiar*. S.C. Ditec Profit S.R.L, available online at: http://www.contabilizat.ro/dictionar_economic_si_financiar.html
- EBRD (2007). *Transition Report 2007: People in Transition*. London: European Bank for Reconstruction and Development
- Ernst & Young (2008). *European Attractiveness Survey 2008*, June; available at: www.ey.com/Global.
- Esty, B., Aldo, S., (2007). "An overview of project finance and infrastructure finance – 2006 update", *HBS Publishing Case*, No. 207-107. Boston,
- Harris, C. (2003). "Private participation in infrastructure in developing countries: trends, impacts, and policy lessons", *World Bank Working Paper*, No.5. Washington, D.C.: World Bank.
- Kessides, I. N. (2005). "The challenge of infrastructure privatisation", *CESifo DICE Report*, 1/2005: 19–25.
- Romanian Government. (ODM2003). *Obiectivele de Dezvoltare ale Mileniului (ODM)*, București, article available from: <http://www.onuinfo.ro/odm/>
- UNCTAD, (WIR 2008) - *World Investment Report 2008 – Transnational Corporations and the Infrastructure Challenge*, 2009, from: <http://www.unctad.org/Templates/WebFlyer.asp?intItemID=4629&lang=1>
 UNCTAD/WEB/ITE/IIA/2007/4 - *World Investment Prospects Survey 2007-2009* from http://www.unctad.org/en/docs/wips2007_en.pdf