Full Length Research Paper

The presence of public-private partnerships in the financing of infrastructure of Balkan countries

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Use of the concept of public-private partnerships as a financing modality, has in recent decades become an attractive method of financing, construction and maintenance of public sector infrastructure, as well as the construction of industrial facilities. The organizational structure of such a partnership represents a formal system of accountability which defines the individual positions of entities and their mutual obligations. This leads to the distribution of responsibilities related to the provision of necessary resources, the allocation of risk between the entities, and finally, the realization of the project intended for satisfying the needs of the public sector. During the structuring of the project, a special role is played by financial institutions which come forth as investors, who not only invest financial resources, but also provide legal and consulting services to the project sponsors. The aim of this paper is to indicate the state of the public-private partnership concept in the financing of infrastructure projects in Balkan countries, during the period between 1990 and 2008. At the same time, the paper intended to point out the limitations that accompany the implementation of this financing modality in the infrastructure projects of Balkan countries, as well as all of the benefits of this concept of infrastructure financing that are expected in the future.

Key words: Public-private partnerships, infrastructure projects, infrastructure financing, financial institutions, Balkan countries.

INTRODUCTION

Financing of infrastructure projects is characterized by determination of the required level and dynamics of financial resource flows, as well as the fact that it is not a simple task to define an adequate financial structure of resources, necessary for the realization of a project. The goal of financing infrastructure projects is to create an optimal capital structure.

Observing the state’s participation in the financing of infrastructure projects in the past, we can see a high share of state capital in the financing of public property, a long period for a return on invested capital, high risks of business operation, low profitability and an undoubtedly great economic and social importance of the investment itself.

However, the need for financing infrastructure projects in many countries around the world is increasing faster than the source of the financial resources (Gil and Beckman, 2009), or the source of capital from which such projects could be financed. Merna and Njiru (2002) came to a conclusion in their study that developed countries set aside 200 billion dollars, which is 4% of their national output, a fifth of the total number of investments and 40 to 60% of public investments, for infrastructure.

With the development of large corporations, the previously mentioned method of financing infrastructure began to lose its importance. Certain multinational corporations, investment funds and other financial institutions possess larger budgets and investment potentials than most countries of the world. The focus of corporations, referring to financial institutions in particular, is shifted from short-term to long-term optimizations, while
trends related to social responsibility are developing as well, which include a whole set of economic, social and ecological activities. Public funds and lending capacities of countries are becoming insufficient to meet the growing demand for infrastructure (Smit and Trigeorgis, 2009). This is the reason why many countries have approached the harmonization and design of legislation that encourages private sector participation in the development, financing, implementation and co-ownership of infrastructure projects. The idea of involving private investors in the implementation of traditionally public (government) infrastructure projects caused the emergence of public-private partnerships (The World Bank, 1992).

The principle of introduction of private capital has several dimensions. The most obvious occurs in the pure public-private partnership, where the facilities and services are provided at a minimum price for the public sector. The second dimension is the exploitation of the private sector’s capabilities to design and manage infrastructure more efficiently than the public sector. The public sector is known for very poor performance in the integration of design, construction and operationalization of the resources used to provide public services. A public-private partnership creates a platform for the study, creation, financing and construction of new infrastructure projects that would otherwise be decades away from construction, or would never be built at all.

More precisely, the idea behind such an approach can be defined as an attempt to improve efficiency and innovation of infrastructure project realization, through the engagement of the private sector which is willing to support the improvement of public services at far lower costs (De Bettignies and Ross, 2009). Project arrangements arising from the investment of public and private capital vary from the exclusive participation of private capital, but with government approval and guarantees, to investments in which the partners from the private sector are recognized as the financial support to the state in the sponsoring of the projects. Pursuant to the aforementioned, involvement of the private sector is becoming increasingly common, especially in the area of infrastructure projects, where the area of transportation projects may be the most obvious example of such forms of partnership. Toll gates, bridges, airports and railways, by the nature of things accumulate enough income from fees paid by the users that they are attractive enough to the private sector, while they are of crucial importance for the development of a socio-economic community.

The subject of this paper refers to the state of the public-private partnership concept in the financing of infrastructure projects in Balkan countries. The aim of the paper is to provide insight into the facts based on which it is possible to undertake certain socio-economic measures to improve the financing of infrastructure in the Balkan countries, through application of the concept of public-private partnership. At the same time, the paper also intended to point out the limitations that accompany the implementation of this type of financing of infrastructure projects in the countries of the Balkans.

The hypotheses which were the starting point of the research were:

(1) That the expediency of a public-private partnership is not an exclusively financial character (closing of the public sector’s financial gap between the needs and possibilities for financing infrastructure), and that the complexity of the concept potentially provides multiple benefits to the public sector,

(2) That the financial techniques and complex procedures that characterize public-private partnerships in developing countries could successfully be applied in Balkan countries as well,

(3) That the Balkans possesses a satisfactory level of market maturity for implementation of the public-private partnership concept.

The paper identifies and analyzes the current and future infrastructure projects whose implementation is realized through the concept of public-private partnerships, in ten countries of the Balkans: Slovenia, Croatia, Bosnia and Herzegovina, Serbia, Montenegro, Macedonia, Albania, Romania, Bulgaria and Greece. The contribution of the paper is reflected in the creation of criteria and models for the assessment of the market maturity of countries in the Balkan region, for the implementation of the public-private partnership concept.

Application of the public-private partnership concept in the financing of infrastructure

A public-private partnership does not represent a novelty in practice, nor does it in technical literature. In certain countries, it is even marked as one of the key strategies for the development and improvement of infrastructure. Only a small fraction of the total demand for investments is financed through public investment and international agencies, which opens the way for private investments. According to Miller and Lessard (2003), the private share in the total investments in infrastructure at the end of the last millennium has varied from a low of 9 and 13% in Germany and France, up to an exceptional high of 47 and 71% in the United States and Britain, respectively.

However, in spite of it being widespread, it is hard to find a single definition for the partnership of the public and private sectors. Broader definitions view the public-private partnership as a contract in which the private sector performs the construction of the infrastructure facilities and the provision of infrastructure services, which were traditionally provided by the state (Hemming, 2006). Somewhat more specific definitions include essential characteristics, and define the public-private partnership as a partnership between the public and...
private sectors which work cooperatively to achieve common or compatible goals (such as the provision of infrastructure services), accompanied by a distribution of risk and responsibilities and their allocation onto the public and private sectors (Kwak et al., 2009).

International institutions and organizations do not have a uniform interpretation of the public-private partnership either. Thus the World Bank (2003), although it has no single definition, gives quite a broad meaning to the concept of public-private partnership. It emphasizes the notion of partnership style in the provision of infrastructure services as an antipode to the “arm’s length” style, which implies action or behavior of the parties in the business as if they were financially and otherwise unrelated. Acceptance of responsibility is of a broad spectrum, and it ranges from individual accountability for each entrusted segment of the work, to joint accountability for the individual elements of a job, or the entire job. In addition to these elements, we also define the acceptance of risk, rewards for the completion of work and other.

All definitions of public-private partnerships have certain common characteristics, such as: (1) public-private partnership always refers to the cooperation of two or more entities (of which at least one entity is of public character), (2) each entity is principal, (3) the relationship is long-term, stable and based on mutual or complementary benefits, (4) each entity transfers its tangible or intangible resources onto the partnership and (5) the risk and responsibility are distributed onto all of the stakeholders in the partnership (Akintoye et al., 2003). Therefore, partners, relations, resources, allocation and continuity are the most important elements of a public-private partnership.

Private capital is already significantly involved in the financing, realization, as well as appropriation of the benefits of infrastructure projects, due to historical reasons (such as railways and production of electrical energy in the US) as well as the wave of privatization which has in the last 25 years spread across countries of the developed part of the world. Only in the Organisation for Economic Co-operation and Development (OECD) countries (2006), state resources amounting to a value of around one trillion US dollars were sold to the private sector during the last few decades. Out of the total number of privatizations during the 90’s of the past century, more than 550 billion, or 63%, relates to infrastructure. During the same period, privatized state property in developing countries was worth $ 400 billion, half of which relates to infrastructure.

The presence of financial institutions in infrastructure project financing

The financing of projects that are realized as public-private partnerships implies the application of the most advanced financial techniques and products, which can in most cases be provided only by internationally credible financial institutions and companies. The key financial institutions involved in the financing of projects are international organizations for the financing of development, banks, investment funds, pension funds, etc.

The largest creditors in public-private partnership projects are commercial and investment banks, which emerge as consultants in public-private partnership projects and provide financial, legal, technical and other advisory services to project sponsors, during the structuring of the projects. Financial advice is particularly important to sponsors who lack sufficient knowledge and relevant experience in project finance, and it is very important to make an attractive contract for a project that will interest potential investors. The public sector in developing countries most often uses loans of multilateral financial institutions, that is, development banks of which the European Investment Bank (EIB) is the largest creditor by capacity and at the same time the most relevant by expertise.

Financing of public-private partnerships is also performed through bond issues. Financial institutions that are the largest investors in bonds are investment funds, pension funds and insurance companies, that is, institutional investors which play a major role in the structuring of the bond issue, as well as the placement of the bonds on the market. This method of financing infrastructure projects is particularly developed in the USA, Great Britain, Australia and South America.

Investment into infrastructure makes up a significant part of the institutional portfolios of infrastructure assets that are well structured, and have an estimated high value. The majority of infrastructure investments are based on long-term assets and long-term cash flows. These characteristics are very attractive to pension funds that are in need of assets which bring yield within time frames that allow them to meet their obligations. In addition, infrastructure assets are relatively inelastic to demand and prices. As such, these assets have good performance during a decrease in economic activity, seeing as how they have low volatility, and generate strong, predictable and growing cash flows. Well-structured infrastructure investments contribute to the diversification of the portfolio, due to a low correlation between the yield from bonds, stocks and real estate, and offer good protection against inflation since the operating cash flow also includes inflation changes (Chambers, 2007).

Due to the complexity and importance of financing infrastructure projects, which there will be more and more in the future, the OECD has conducted a two-year research and discussion on the subject of the future of infrastructure projects. Two recommendations have resulted from this research (OECD, 2007). The first recommendation encourages partnerships between the public and private sectors as a method of financing
infrastructure investments, while the second relates to the encouragement of investments of pension funds and other large institutional investors into infrastructure.

Innovative methods of financing in this area are particularly important to large players in financial markets, such as institutional investors, since they represent a relatively new and very promising source of fresh capital for the financing of infrastructure projects. They are attracted to stable and long-term incomes generated by certain types of infrastructure projects. This is why an increasing number of pension funds are withdrawing from the volatile stock market, and are increasingly invested into more secure infrastructure projects. One of the reasons for such a strategy is the fact that, pension funds are in this manner able to diversify their portfolios, and thus reduce risk. Pension fund portfolio managers see a place for infrastructure investments somewhere between stocks and bonds because they have a certain growing potential, and carry a good current yield. The downside of these investments is somewhat increased risk.

The main dilemma facing institutional investors is whether to invest directly into the project company or through an infrastructure fund. Direct investment offers an advantage in the form of direct control over the investment and the deepening of expertise, but at the same time comes with high costs of a specialist team, which may limit the positive effects of the diversification. The second option involves less control over the assets, higher insolvency, and probably higher costs related to performance. Institutional investors currently invest more through funds, rather than directly. Yet according to certain forecasts (Tal, 2009), with 5% of the pension fund assets being allocated into infrastructure investments globally in the year 2009, a further increase of this indicator from 10 to 15% is expected by the year 2017, which would bring some 200 billion US dollars of fresh money into this capital-intensive sector. The total global investments into infrastructure are expected to reach 35 trillion dollars in the next 20 years, starting from the year 2009 (Tal, 2009).

Another important fact which certainly supports the fact that an increased role of institutional investors is expected in the financing of infrastructure projects is that, during the period between 1994 and 2007, infrastructure generated an average annual rate of return of 7.81%, compared to 4.04% from bonds and 6.64% from stocks (Chambers, 2007).

Analysis of public-private partnership projects that have reached the phase of closed financial construction

Analysis of the existing infrastructure projects financed through the concept of public-private partnerships for the observed period which reached the phase of closed financial construction, from the aspect of countries and infrastructure sectors, was conducted on a sample taken from the database of the European Investment Bank on public-private partnership projects. Since there are certain discrepancies between the sources of the data, it was very important to establish precise criteria for the analysis with definitions of the engagement of the private sector and public-private partnerships, in order to avoid certain variations in the conclusions of the performed analysis.

During the observed period, there have been 25 projects that were realized through the concept of public-private partnerships in Balkan countries. In the fall of 2007 came the period of the global economic crisis, whose consequences reflected on the Balkan countries as well. In their report to the EIB, Kappeler and Nemoz (2010) stated that the number of projects in Europe realized through the concept of public-private partnerships, had during the year 2009 reduced by 50% compared to the year 2007. Certainly, the situation is even more drastic in the countries belonging to the Balkan region. Research for the period after the onset of the global economic crisis has not been performed, due to the complexity of data collection, and the difficult economic situation that is still present in most countries of the Balkans.

Most of the projects in the Balkans have the form of concessions. Table 1 presents all of the data relevant for further analysis: the number of projects by countries, and the sectors to which the projects belong.

During the observed period, the countries of the Western Balkans (apart from Albania) did not have a single public-private partnership project that had reached the phase of closed financial construction. The explanation lies in the fact that the institutional, organizational and coordination capacities for the successful implementation of public-private partnerships are still in the process of establishment. Likewise, the historical and economic development of the countries in the Western Balkans shows that the role of the government and public finances in the design, construction, financing and operation of infrastructure, was very dominant for a long period of time, measured in decades. In conditions of integration of financial and capital markets within the European Union, it can be considered that the lack of initiative in the application of the concept of public-private partnerships in the countries of the Western Balkans, among other things, is also a consequence of this region’s isolation in relation to the European market and its economic flows. Since these countries are now on the road to a market economy with Euro-Atlantic integrations as a strategic goal, it can be expected that the role of the private sector will become the main pillar and driving force of economic development.

The project schedule across sectors is similar in all of the countries that are implementing the concept of public-private partnership, especially in the early stages of its implementation. Infrastructure of the transport sector has traditionally been the main sector that generates the majority of the projects of public-private partnerships in any country in the world. Research shows that mostly all countries (both developed and developing countries) that
are beginning to apply the concept of public-private partnerships, as systematic or ad hoc solutions for the provision of infrastructure, are in the initial stages of implementation represented precisely by projects in the sector of transport. This means that after the experience gained with projects of the so-called economic infrastructure, projects of the so-called social infrastructure become included as well. From this point of view, the structure of public-private partnerships in the Balkans, and their representation, is very typical and similar to the structures that exist in other regions or countries.

Analysis of projects in the realization plan that are financed through the concept of public-private partnerships

In the countries of the Balkan region in the year 2008, 42 projects were planned for realization, which were in the database of the European Investment Bank defined as public-private partnerships. The number of projects that had been planned is much higher than the number of public-private partnerships which had, at that moment, reached the phase of closed financial construction (25 projects). Therefore, it can be concluded that a growing trend existed which indicated the readiness of the Governments of these countries, international financial institutions and investors, to realize projects of public-private partnerships. The criteria used in practice to define public-private partnerships are very broad. However, most of the projects in the realization plan in Balkan countries during the period between 1990 and 2008 had the form of concessions and public-private partnerships. Table 2 provides data on the number of projects by countries and sectors which were the basis for further analysis.

A great number of public-private partnerships that were planned, shows obvious strengthening of the public sector’s capability to deliver a large number of these projects. The most developed countries in the region had the highest number of planned projects. Transport is the sector in which the greatest number of projects was planned to be financed through public-private partnerships. The experience of countries that successfully implement public-private partnership projects, also confirms that the early stages of development of this concept begin mainly with the sectors of economic hard infrastructure (the transport sector, primarily roads), while after the strengthening of capacity of the public sector (legislative, institutional, organizational) it becomes increasingly capable for cooperation with the private sector on more sophisticated projects, so that projects begin to emerge for social hard infrastructure. The planned projects for social hard infrastructure in the countries of the Balkans indicate a greater readiness and capacity of the public sector to perform public-private partnership projects in comparison to the previous period.

From the aspect of criteria of hard and soft infrastructure, it is obvious that among the projects of public-private partnerships that have reached the phase of closed financial construction, and even among the projects that were planned, there were no soft infrastructure projects during the observed period. Regarding the sectoral share in infrastructure projects, the dominant sector is transport which has a tendency of growth. Projects in the telecommunications sector are decreasing. The reason lies in the fact that most projects of public-private partnerships, which were in the phase of closed financial structure in the field of telecommunications, had privatization as their main driving force, and the closer it came to its end, so did the interest decline in the realization of projects in this sector through the application of the public private partnership concept.

The trend of growing interest of the public and private sectors in investment into the energy sector is expected, bearing in mind the growing demand for alternative energy sources and an energy efficiency policy. It can be expected that this sector will be increasingly attractive to the private sector in the future, because the relevant regulations in the field of energy are affirming its presence. The capacity and experience of the public sector in Balkan countries has clearly reached a level where it is capable to, in a satisfactorily manner, negotiate and oversee projects, for not only economic but social infrastructure as well, that are implemented through the concept of public-private partnerships. Considering that both the economic and social infrastructure can only be found in the hard form, there is no information on which we could assume whether, and when, their soft forms will emerge, which would be financed by this concept.

Table 1. Projects of public-private partnerships in the Balkans which had reached the phase of closed financial construction during the period of 1990 to 2008.

<table>
<thead>
<tr>
<th>Country</th>
<th>Transport</th>
<th>Telecommunications</th>
<th>Water supply</th>
<th>Energetics</th>
<th>Natural resources</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Slovenia</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Croatia</td>
<td>4</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>Bosnia and Herzegovina</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>Serbia</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>Montenegro</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>Macedonia</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>Albania</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>Greece</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>Romania</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>Total</td>
<td>14</td>
<td>6</td>
<td>4</td>
<td>4</td>
<td>1</td>
<td>25</td>
</tr>
</tbody>
</table>

Source: (EIB, 2008).

Characteristics of financing projects through public-private partnerships in the Balkans

Through analysis of public-private partnership projects in the Balkans that have reached the phase of closed financial structure during the period between 1990 and 2008, it was found that the financing of these projects was performed through debt and equity capital, that is sponsor capital, a syndicated loan and/or credit

Table 2.
Table 2. Projects of public-private partnerships in the Balkans which were planned for the year 2008.

<table>
<thead>
<tr>
<th></th>
<th>Transport</th>
<th>Telecommunications</th>
<th>Water supply</th>
<th>Energetics</th>
<th>Natural resources</th>
<th>State buildings</th>
<th>Hospitals</th>
<th>Schools</th>
<th>Prisons</th>
<th>Police</th>
<th>Other infrastructure</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Slovenia</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>Croatia</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Bosnia and Herzegovina</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Serbia</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Montenegro</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>Macedonia</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>Albania</td>
<td></td>
<td></td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>5</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td></td>
<td>21</td>
</tr>
<tr>
<td>Greece</td>
<td>5</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>5</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td></td>
<td>21</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>Romania</td>
<td>5</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Total</td>
<td>18</td>
<td>0</td>
<td>2</td>
<td>4</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>5</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>42</td>
</tr>
</tbody>
</table>

Source: (EIB, 2008).

approved by a multilateral agency. The financier role in the projects of public-private partnerships in the Balkans is most often played by commercial banks and international financial institutions, therefore the bearers of the financial structure of these projects in the Balkans do not differ from other projects of public-private partnerships in the regions of Europe, or the world.

That which is characteristic for the application of the public-private partnership concept in Balkan countries, and what sets it apart from the practices of developed countries, stems from the fact that bonds of an investment rating are not issued, which would raise the necessary capital. Precisely this aspect of the possibilities and capabilities of a project company to secure financing for the project and guarantee its profitability by issuing securities with the highest ratings, represents the essential determinant of the quality of the financial structure of public-private partnership projects in developed markets.

The reason why projects of public-private partnerships in the Balkans do not possess debt with an AAA rating in their financial structure, which is mobilized by issuing bonds can be found in the lack of mature capital markets, liquid financial markets, as well as the lack of sophisticated and long-term financial instruments in most countries of the Balkan region. This factor plays an important role in stimulation of the development of a public-private partnership market. Namely, countries with developed local capital markets that are able to provide long-term financing for infrastructure projects, have several advantages in attracting the potential of the private sector:

1. Financing is denominated in the local currency;
2. Local financial institutions and investors most often have better understanding of the economic policy and social context in which the project is implemented;
3. For most hard and soft forms of infrastructure, the raw materials and equipment necessary for the construction of the project can in most cases be provided on the local market.

In addition to the given reasons, another fact especially related to Serbia, contributes to the fact that there is currently no possibility of issuing bonds for the purpose of financing infrastructure projects in municipalities. Namely, the problem lies in the fact that there is no law on public property, and therefore the municipalities are not the legal owners of the capital which they manage through public enterprises.

As for the sponsors who are the holders of the equity capital, it has been determined through the analysis of projects of public-private partnerships in the Balkans that their structure does not differ from the structure of sponsors on the mature markets of public-private partnerships. Therefore, the sponsors are usually the Government at the national or local government level, a public enterprise, a private sector company with headquarters abroad, or a private sector company based in the country. In almost all projects of public-private partnerships in the Balkans, an international or domestic company emerges as a sponsor. The significance of an international sponsor is the fact that there is a transfer of technology and know-how into the country where the project is implemented, which directly secures added value. The expediency of public-private partnerships is not only of a financial character, considering that the presence of a sponsor of foreign origin often provides multiple benefits to the public sector.

The leading active international financial institutions that contribute to the development and implementation of the concept and projects of public-private partnerships in the Balkans are the International Finance Corporation (IFC) and the European Bank for Reconstruction and Development (EBRD). The presence of international financial institutions in the financial arrangements in the Balkans is not limited only to sources of finance.

One of the basic programs of the IFC which is intended
for the countries of the Western Balkans is of an advisory character, and related to services of investment into infrastructure, that is, advisory services for the structuring and implementation of the concept of public-private partnerships in all sectors and subsectors of the infrastructure. This program helps the development, promotion and realization of infrastructure projects with the help of the private sector, through project preparation, financial structuring, bidding and mobilization of financial resources. Users of the IFC program benefit from first-class expertise in technical, legal and regulatory issues, as well as the brokerage role. The most frequent users of this program are Governments, local governments, utility companies, state-owned enterprises and commercial entities.

The EBRD helps in many projects of public-private partnerships in the Balkans, where its support is emphasized for projects of water supply and waste water management. Sponsors of public-private partnership projects in the Balkans often see the EBRD as a shock absorber of political risk. Through its investments, the EBRD promotes activity of the private sector, strengthens the financial institutions and legal system, and helps in the development of infrastructure that is necessary for further development of the economy. The EBRD expects that infrastructure development in the Balkans, especially the Western Balkans, will in the period to come experience an upward trend through application of the concept of public-private partnerships, and accordingly plans to provide appropriate assistance (EBRD, 2009). The transport sector in particular is the sector with the greatest opportunities for this form of financing, although the EBRD plans to continue to support the development of the energy sector, through commercialization of the energy utility benefits.

RESULTS OF MARKET ANALYSIS OF PUBLIC-PRIVATE PARTNERSHIPS IN THE BALKANS

The research carried out during the period between 1990 and 2008, which is presented in this paper, aims to show the degree of market maturity in the countries of the Balkan region for the application of the concept of public-private partnership. Accordingly, this part of the paper presents a market maturity model of the public-private partnership in the countries of the Balkans. The model is intended to provide an answer to the issue raised as a third hypothesis of the paper, which refers to the readiness of the Balkans market to apply this concept of financing for infrastructure projects. While creating the model, it was necessary to define the basic elements of the model.

(1) The first element refers to the basic characteristics that determine the public-private partnership market. These are:

i. Existing projects that are realized through the concept of public-private partnerships,
ii. Potential projects to be realized through the concept of public-private partnerships,
iii. The existence of a public-private partnership policy,
iv. A legal framework for the implementation of a public-private partnership,
v. The degree of the country’s involvement in international capital flows - measured by the status of the country in relation to EU membership.

(2) The second element refers to assigning a value to individual characteristics – for measurement needs, a value of each characteristic is determined in a range of 0, 5 and 10;

(3) The third element introduces a system of measuring the degree of fulfillment of individual characteristics. For each of the characteristics given in the first element, descriptive categories are introduced (“has”, “does not have”, “high compliance”, “medium compliance”, “low compliance”) as well as numeric (0, 5 and 10) parameters. In this way, a system for measuring the degree of fulfillment of individual characteristics is determined for each individual characteristic:

i. Existing projects realized through the concept of public-private partnerships: has = 10, does not have = 0;
ii. Potential projects to be realized through the concept of public-private partnerships: has = 10, does not have = 0;
iii. The existence of a public-private partnership policy: has = 10, does not have = 0;
iv. Compliance of the law on concessions with international standards: high compliance = 10, medium compliance = 5, low compliance = 0 (based on findings of an EBRD study on the existence of a public-private partnership policy);
v. The degree of the country’s involvement in international capital flows and EU membership. Thus, for members of the EU = 10, membership candidate = 5, potential candidate for EU membership = 0;

(4) The fourth element sets reference values for measuring the degree of market maturity for the implementation of the public-private partnership concept in the countries and region of the Balkans in relation to the EU. Great Britain was used as a reference value from the aspect of country, (Kappeler and Nemoz, 2010), thus from the aspect of value it was assigned the maximum value of characteristics (10), for each of the five given characteristics;

(5) The fifth element involves determination of the total score for each country and/or region of the Balkans. The total score for each country represents the sum of values of all of the individual characteristics, so that the maximum value of the score by country is 50. The score of the Balkans represents the arithmetic mean of the sum of scores of all of the individual countries;

(6) The sixth element is the measurement of the degree of market maturity for the implementation of the public-private partnership concept in the countries and region of the Balkans, in relation to EU countries. By dividing the score obtained for individual countries and/or regions of the Balkans with the score of Great Britain (50), we come to a certain value which is expressed in percentages. Furthermore, the total percentage scale is divided into defined ranges and each range was assigned with a descriptive value of the degree of market maturity of...
Table 3. Model of the degree of market maturity for implementation of the concept of public-private partnerships - by countries and at the Balkan region level, up to the year 2008.

<table>
<thead>
<tr>
<th></th>
<th>Existing projects (1)</th>
<th>Potential projects (2)</th>
<th>Existence of policy (3)</th>
<th>Legal framework (4)</th>
<th>Degree of the country's involvement in international capital flows (the country's status in relation to the EU) (5)</th>
<th>Degree of market maturity for implementation of the concept of public-private partnership</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1+2+3+4+5=(6)</td>
<td>(6) / 50 Descriptively</td>
</tr>
<tr>
<td>Great Britain</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>50 100% Very High</td>
</tr>
<tr>
<td>Albania</td>
<td>10</td>
<td>10</td>
<td>5</td>
<td>10</td>
<td>0</td>
<td>35 70% High</td>
</tr>
<tr>
<td>Slovenia</td>
<td>10</td>
<td>0</td>
<td>10</td>
<td>10</td>
<td>0</td>
<td>40 80% High</td>
</tr>
<tr>
<td>Croatia</td>
<td>10</td>
<td>10</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>35 70% High</td>
</tr>
<tr>
<td>Bosnia and Herzegovina</td>
<td>0</td>
<td>10</td>
<td>10</td>
<td>5</td>
<td>0</td>
<td>25 50% Satisfactory</td>
</tr>
<tr>
<td>Serbia</td>
<td>0</td>
<td>10</td>
<td>5</td>
<td>0</td>
<td>0</td>
<td>15 30% Low</td>
</tr>
<tr>
<td>Macedonia</td>
<td>0</td>
<td>0</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>15 30% Low</td>
</tr>
<tr>
<td>Montenegro</td>
<td>0</td>
<td>0</td>
<td>10</td>
<td>5</td>
<td>0</td>
<td>15 30% Low</td>
</tr>
<tr>
<td>Romania</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>5</td>
<td>10</td>
<td>45 90% Very High</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>5</td>
<td>10</td>
<td>45 90% Very High</td>
</tr>
<tr>
<td>Greece</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>50 100% Very High</td>
</tr>
<tr>
<td>Balkans</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>6</td>
<td>5</td>
<td>32 64% Satisfactory</td>
</tr>
</tbody>
</table>

In this manner, the degree of market maturity for the implementation of the public-private partnership concept is defined for each country, individually and in the Balkan region, in relation to the European Union. The results obtained as the sum of the first five elements, as well as the quotient of the previously obtained result and the score of Great Britain (50), make up the model shown in Table 3.

We shall now briefly review the five categories of public-private partnerships that make up the backbone of the formed market maturity model. Analysis of a sample of public-private partnership projects that have reached the phase of a closed financial structure provides a clear conclusion that most countries in the Balkans are active in the implementation of the public-private partnership concept (Croatia, Bulgaria, Greece with the greatest number of represented projects), but also that during the observed period, the countries of the Western Balkans (apart from Albania) did not have a single public-private partnership project with a closed financial structure. The analysis also shows that the greatest number of projects is represented in the transport sector (50%), roads in particular, as well as the fact that the sectoral representation of public-private partnership projects fully matches a typical sector structure in any other country or region that implements the concept of public-private partnerships.

Analysis of a sample of public-private partnership projects that were in the phase of planning during the observed period, points to a conclusion that Balkan countries are very active in their intent to implement the concept of public-private partnerships, which is confirmed by the number of projects that are planned, most of which are in the sector of transport (18 projects). A comparative analysis of the obtained sample results was performed as well, in order to obtain an evaluation of the current and future trends. Comparative analysis has shown that there is a change in the trend of financing according to the criteria of economic and social or hard and soft infrastructure into the following: in future, a significant and dominant number of economic infrastructure projects will remain present, an increase will appear in the participation of social infrastructure projects,
except that both of these types of infrastructure (economic and social) will appear only in the hard form.

Analysis of the legal framework for implementation of public-private partnerships points out the necessity for adaptation of national legislations in the application of good legal solutions. Adaptation is necessary mainly for the reason that Balkan countries, in which a continental legal system is present, in application of the public-private partnership concept tend to utilize good legal solutions of the countries with developed public-private partnerships markets, and they in most cases have an Anglo-Saxon legal system.

Observing the countries of the Balkans in terms of the achieved degree of market maturity for the implementation of the public-private partnership concept, it is evident that the country’s level of involvement in international capital flows dominates as a characteristic. The country’s status in relation to EU membership represents the most important foreign-policy and economic factor that decisively influences the degree of attractiveness of a country to foreign investors who are interested in public-private partnerships, in a sense where, the “closer” a country is to the EU, the more secure are interested investors from international markets in their investments, and the more willing they are to participate in these projects in the Balkan region. Countries that have a low degree of financial market maturity are the countries belonging to the Western Balkan region. These are the countries which are almost at the very beginning in terms of the process of European Union membership, and are therefore far from the standards necessary for the implementation of the concept of public-private partnerships.

**RESEARCH FINDINGS**

The aim of this paper, through analysis of the concept of public-private partnerships, is to show and explain the possibilities of application of this concept in infrastructure financing in the Balkans. A special contribution arises from the proposed model and criteria for the assessment of market maturity for the implementation of the public-private partnership concept in the countries and region of the Balkans. The obtained score has shown that there are possibilities of implementation of this concept in the countries of the Balkan region in the form of know-how methodologies and modern technologies.

The basic characteristics and contribution of the very concept of public-private partnership, which we obtained through research, are reflected in the following:

a. This concept encourages such legislative solutions that affirm the development of the private sector;
b. The development of this concept encourages participation and motivates further development of domestic and foreign private sector companies in their effort to support infrastructure development in the country through their technological innovations, know-how, principles of management and financial capacity;
c. Application of the public-private partnership concept allows for closure of the financial gap between the needs for infrastructure development and the capabilities of the public sector;
d. The concept of public-private partnership contributes to the development of financial markets and financial education, encouraging the presence of many participants and instruments;
e. The role of the Government in the affirmation of the public-private partnership concept can result in a higher inflow of direct foreign investments into the country, as these projects are one of its occurring forms.

The given statements verify and confirm the first hypothesis. The techniques of project finance in the Balkan countries were applied mainly in the sectors of transport and energy. These projects rely on financing in foreign currency and use the technique of project financing, because their outputs are intended for the global market and bring income in foreign currency. Considering the fact that market risks significantly affect the potential outcome for most projects, project financing is readily applied in sectors where income can be defined, and to a significant extent secured. Although many techniques are available to reduce and enable the management of risk, the perception of high risk in the technique of project financing in many regions of the Balkans is very high, and hard to overcome. By definition, risk consists of several components that may be covered by international financial institutions, or the “take and pay” arrangement. This brought us to the answer to the second hypothesis.

When it comes to countries of the Balkans, the credit risk of the country has special significance, because commercial banks are not willing to enter markets that have weaknesses in terms of the legal and regulatory framework, which are characteristic of all growing markets. In most of these countries, there are limitations of in public sector in terms of debt at the state, regional or local government level, which limits or even prevents the entering into a long-term arrangement with the private sector with a goal of realizing these projects. Purely private financing of infrastructure is not yet a feasible option when it comes to projects in certain sectors, but that does not mean that participation of the private sector is impossible to a certain degree. Bonds that are issued on the basis of a project, are as a rule attractive to institutional investors (especially pension funds), particularly if they are covered (wrapped bonds) and can be traded further. Considering that financing of the majority of high-quality infrastructure projects is structured precisely in this manner, it is possible that investors develop a tendency towards riskier infrastructure projects in the portfolio, thus solving the problem that exists on the market due to the unwillingness of banks to extend credit.
The developed model showed that there is a satisfactory degree of market maturity on the level of the Balkans, for implementation of the concept of public-private partnerships in the financing of infrastructure projects, which brought us to a conclusion relating to the third hypothesis.

CONCLUDING REMARKS

A public-private partnership represents an already established systematic approach of many Governments around the world to the financing of infrastructure. One of the most important reasons for using public-private financing in the provision of infrastructure, that is, the public good lies in the fact that the private sector is more efficient than the public, regarding the construction, operation and maintenance of a project. This results in lower overall costs, despite the fact that debt generated by the private sector for project financing has a higher price than the price of engagement of public sector debt.

Analysis of the projects financed through the concept of public-private partnerships that have reached the stage of closed financial construction in the Balkans during the period between 1990 and 2008, led us to the conclusion that the structure of projects of public-private partnerships is in certain aspects incongruent with the structure of these projects in countries which have longer experience and tradition. This is especially the case when it comes to the financial structure of the public-private partnership arrangement, because it can be noted that no project financed through the concept of public-private partnership in the Balkans contains such a financial structure that includes the emission of securities by the project company. It is precisely this aspect of the project company, of issuing securities with the highest rating to provide financing and guarantee the profitability of the project, that represents the essential determinant of the quality of the financial structure of projects financed through the concept of public-private partnerships in the developed markets.

We conclude that a proactive public policy of application of the public-private partnership concept is necessary in the countries of the Balkans. It implies the necessity for maintenance of professional and organizational capacities of public administration, accumulation and exchange of experience, which would create solutions and projects that would best suit the goals and constraints of the public sector, but also the demands of the local environment and public opinion. With such an approach, adequate quality would be achieved in the implementation and improvement of the concept of public-private partnership in the countries of the Balkans. The consequences of the global economic crisis are still present in most Balkan countries, so research related to the consequences it has left behind during the period from 2008 onwards, will represent one of the challenges in the period to come.

REFERENCES