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## Public-Private Partnership in Shaping the Investment Risk of the Gmina

**Summary:** The subject of the article is the gmina's<sup>1</sup> risk related to the implementation of technical infrastructure investments. In particular, its attention was focused on the issues of risk in the context of investments through public-private partnerships. The aim of the paper is to understand the risk associated with the implementation of the gmina's investment in technical infrastructure on the principles of public-private partnership. The existence of risk in investments in technical infrastructure results from general premises of investment risk but also from the specific nature of technical infrastructure investments. In the case of investments in technical infrastructure carried out jointly by a gmina and a private partner, a risk arises in the same way as it is in an independently implemented investment project. In addition, public-private partnership affects the gmina's risk in two ways. First of all, public-private partnership contributes to the reduction of the gmina's risk and serves to transfer its part to a private entity. Secondly, however, the cooperation opens up new areas of risk that are not present when a gmina shall be independent in the investment process.

**Keywords:** gmina's risk, public-private partnership, technical infrastructure investments.

### Introduction

Gminas as territorial self-government units are obliged by law [13] to undertake investment activities in order to improve conditions and expand technical infrastructure on their area. The role of infrastructure, as a factor conditioning the development and functioning of the socio-economic space, increases with the level of economic development. Implementing an investment project requires awareness of threats. Without it, it is not possible to take an appropriate attitude towards the risks arising in the course of the investment.

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<sup>1</sup> The gmina is the lowest level of territorial self-government units in Poland.

The aim of the article is to understand the risk associated with the gmina's implementation of the investment in technical infrastructure area on the principles of public-private partnership.

The risk in investment activities in the field of technical infrastructure plays a significant role in the development of areas. Understanding the sources of this risk brings tangible beneficial effects to various entities, directly and indirectly connected with the implemented investment, including gminas. Proper risk assessment is the basis for the adoption of attitudes towards risk and enables an appropriate reaction in critical situations. Knowing the sources of risk allows for more effective project management and faster and more complete achievement of the intended goal.

## **1. Infrastructure investments as a gmina's own task**

Investments are connected with economic outlays that aims at creation and increase fixed assets. This type of economic activity is a basic condition for the development of the economy, as it leads to the increase of fixed assets, its modernization and reconstruction. Appropriate infrastructure development is a condition for proper functioning, effective use, development and spatial integration of individual elements of the socio-economic system. The task of economic (technical) infrastructure is to create conditions for the proper functioning of various sectors of the national economy.

Investments in technical infrastructure have the character of construction investments. Their special feature, in addition to the features common with other types of investment, is, in particular, that they require large one-off costs. In addition, they have long periods of use and amortization. A characteristic feature of infrastructure investments is the fact that they are passive means deprived of production power, involved in production more or less indirectly. Besides, it should be pointed out that these are real estates, and thus are connected with the surface of the earth in a permanent manner. It follows that changes in their location are very expensive or completely uneconomical. In addition, it should be noted that to a certain extent the benefits of this type of investment are non-financial. Benefits are based on the creation of facilities for the smooth functioning of economic entities (local companies and households). While the energy grid, gas, or telephone wire can be treated as a tool of profit investor, but in relation to environmental infrastructure or transport infrastructure (road network) fundamental premise is the benefit in terms of improving the quality of life and health of citizens and creating favorable conditions for business.

Due to the mentioned features of technical infrastructure investments, it often happens that their value exceeds the value of the investor's equity,

which limits the possibilities of self-financing of implemented projects. The necessity of including a loan to finance an investment project requires adherence to further efficiency requirements. In the event of difficulties in the implementation of the investment, the entity's ability to pay may be jeopardized. Problems with maintaining financial liquidity result in the fact that local government units give up on facultative tasks that play a significant role in satisfying public needs, limiting themselves only to obligatory tasks. Liabilities incurred for their implementation are not covered, resulting in the initiation of proceedings for breach of public finance discipline.

The possibilities of implementation of investment projects are related to the size and structure of the gmina's income. Most of gmina's expenses are absorbed by performing current tasks, characterized by relative constancy of costs. Only after completing the basic current tasks the gmina can freely dispose of the funds remaining in the budget. It limits the investment potential of local government units in relation to the needs. Often the only way to avoid recourse in investment activity is to invite private sector entities to cooperate. This way of implementation of public tasks contributes to obtaining funds by the gmina without the necessity of incurring additional obligations, and thus increases its financial liquidity. Also, by shifting part of the risk from a public entity to a private one, it may result in an improvement in the financial condition of the gmina.

Public-private partnership is a form of long-term cooperation between a public entity and a private partner in the subject of joint implementation of the undertaking and in the provision of services. Public-private partnership is defined as a "common public-private arrangement that joins – stronger than simple contracting by a public party – different strengths of both sectors to provide public services and meet the needs of the population" (quot. [5], p. 47). The legal basis for cooperation within the public-private partnership are created by the provisions of the Act on public-private partnership [11]. The project may be covered by the partnership and, especially, it may have the nature of the investment or may relate to the current provision of services. Its essence is the implementation of a project or service traditionally provided by the public sector ([7], p. 19). The aim of the cooperation is to achieve mutual benefits, and the key feature is its focusing on the implementation of both commercial and social objectives of the undertaking [6]. In the case of a local government unit, the implementation of the partnership aims to privatize the public sector to the extent that specific public tasks can be performed by private sector entities, for example: construction, management and maintenance of roads and bridges, rail networks, schools, social housing, sewage treatment plants, technical infrastructure as well as specialized infrastructure (e.g. tourist, sports, recreation or others).

Public-private partnership can be defined as a partnership in which the administration (governmental or self-governmental) and the private sector implement joint ventures, sharing both profit and risk and responsibility for undertaken activities. Participation in a broad sense is the basis of a civil society whose members voluntarily take part in public activities. In a narrower sense, it is a public-private partnership of local government and residents for taking action in favor of local development. In this sense, public-private partnership results from legal, social and financial-technical considerations. Legal prerequisites result from the fact that self-government means not only the right but also the obligation to influence many local and regional socio-economic structures for the good of the community. The social premises indicate that local and regional development can not take place without the active participation of residents. On the other hand, financial and technical premises emphasize that the effectiveness of development activities requires the entering into a public-private partnership also from the financial side ([9], pp. 57–58).

## **2. Gmina's risk in public-private partnership projects**

In the literature, investment risk is a type of economic risk, which is referred as the probability of failure to obtain the expected financial results related to the business or the project. The risk, including the investment risk, is determined by two types of factors: internal factors inherent in the economic entity itself and factors that are external in relation to this entity [10]. Thus, the features of the environment, as well as the nature of the investments themselves and their management constitute sources of uncertainty and risk in the investments in technical infrastructure.

In the investment project, the risk, in general considered from the contractor's point of view, includes three categories of risk, i.e. the risk of project cost overruns, the risk of lengthening the project implementation time, and the risk of not implementing the investment according to the client's requirements. These three categories can occur in the pre-investment phase as well as in the construction and operation phase. The scale of risk in the investment process depends on such factors as:

- the size of investment outlays,
- application of new, unproven technologies,
- the degree of complexity of the project,
- rush in planning and implementation,
- competences and skills of the manager and team members,
- organization and priorities of the entity undertaking the investment,
- availability of appropriate resources,

- threats in the environment (competitive, economic, legal, political, social, technological, environmental, executive) [3].

In accordance with the approach characteristic for economic thought, on the basis of insurance theory, the multi-faceted investment risk consists of the following elements that determine its stage: the appearance of a threat, the occurrence of danger, the implementation of danger, and finally the consequences of the implementation of the danger. The threat occurs in this sequence as a source of risk. The source of investment risk may be contacts with contractors, the use of external financing sources and others. The second element creating the risk profile is the occurrence of danger. Danger means a specific cause of risk. The reason for the investment risk is, for example, the possibility of failure to meet the delivery dates by the contractors without achieving the intended result, etc. In order to be able to speak about the occurrence of risk, a danger must occur, i.e. a random event. It is possible to divide random events by taking the uncertainty as a starting point. From this point of view, it is necessary to distinguish events that are uncertain about: the fact of their occurrence, or their consequences, or the date of their occurrence. The first group includes events for which it is impossible to predict whether they will occur or not (e.g. landslides after the facility has been put into operation). In the second case, these are events whose occurrence may be certain, and the uncertainty concerns the extent of the consequences (e.g. interruptions in the implementation of the project caused by adverse weather conditions). Also events that are certain about the occurrence and their effects can be considered as random events, but the uncertainty concerns the date of their occurrence (e.g. the efficiency of any device is not unlimited). The last element of the risk profile is the effect of a random event (materialization of danger). The result of the materialization of investment risk is the damage suffered by the investor.

In addition to the general premises of investment risk, attention should be drawn to the special nature of technical infrastructure investments. In that case, risk categories are shaped by many risk components related in particular to: the quality of the construction site, specific requirements for foundations, construction, external building materials, installations, finishing materials, technical design, obtaining opinions, permits, cooperation with contractors, technical base and personnel, operation of natural forces, etc. [2]. The specificity of economic risk with respect to investments in technical infrastructure is also the fact that the investment effect is often not the same as obtained financial results.

The implementation of gmina's investments in the sphere of technical infrastructure with the cooperation of a private partner affects the gmina's risk in two ways. First, the public-private partnership permits to transfer part of the gmina's risk to a private entity in exchange for compensation for

it. Secondly, cooperation creates new areas of risk that are not present in the absence of such cooperation.

According to the literature, three basic types of projects may be implemented under public-private partnership: services provided to the public sector as a buyer and user, self-financing projects, and joint ventures as a mixed financing method based on capital and material contributions of both sectors ([1], pp. 24–25, [4]). By means of public-private partnership, the gmina cooperates in the implementation of tasks, maintaining control over the current course of the process within the limits provided for in the contract. In this way, the private partner is not responsible for carrying out the tasks of the gmina.

In order to create a public-private partnership, the public entity develops its concept and announces the relevant information. In the next stage, a private partner is selected. The selection can be done in the mode provided for by the Act on concessions for construction works or services [14], the Public Procurement Law [12] or the Act on public-private partnership [11]. The choice of the appropriate mode depends on the assumed private partner remuneration model. A public-private partnership agreement may provide that for the purpose of its implementation, the public entity and private partner will bind a capital company, or a limited partnership, or limited joint-stock partnership. At the same time, a public entity may not be a general partner, and the purpose and subject of the company's activity may not go beyond the scope specified in the public-private partnership agreement.

From the point of view of a public entity establishing cooperation with a private partner, the form of the cooperation is important. To a large extent, this is what decides how to share the risk. The greater the private party's participation in the project is envisaged for a given form of cooperation within a public-private partnership, the greater the extent of the transferred risk. Gmina's risk is transferred to the smallest extent to a private entity in the case of contracts between the parties. A characteristic feature of this type of partnership is the fact that the private party's responsibility for certain elements of the service provision process (e.g. designing and building a sewerage network) is established without required changes in the ownership of used infrastructure (the investment is financed by the public sector). Thus, in the case of contracts, the risk transferred to a private partner is the risk related to the design and construction processes. More integrated variants of cooperation such as public-private partnership, involve a change in the proportion of participation in the project to the private party, and consequently – also with a change in the scope of risk of the public entity. As part of the BOT (Build – Operate – Transfer) cooperation, the private partner undertakes to design an infrastructure element, carries out investment works and then operates it for a specified period of time. Also in

this case, there is no change of ownership – the infrastructure is only operated by the private partner. The scope of transferred risk is extended in relation to the first of the discussed variants of public-private partnership with the risk related to the use of infrastructure. The form of public-private partnership, ensuring the transfer of risk to the largest extent, is referred as DBFO (Design – Build – Finance – Operate). The essence of this type of cooperation is the involvement of investment capital in private sector resources for public needs, and the transfer of risk to the private sector related to the design, construction and operation of infrastructure. All variations of this form of public-private partnership assume maximum concentration of responsibility for the implementation of the project on the private partner. To sum up, depending on the form of cooperation, the risk transferred by a public entity within the framework of cooperation established with the private sector in the form of public-private partnership includes risks related to carrying out design and construction works, as well as ongoing operation and maintenance of technical infrastructure equipment and acquisition of sources of financing.

A different aspect of the risk associated with cooperation under public-private partnership is the risk arising on the part of the local government unit (i.e. gmina), and not occurring in the absence of such cooperation. In particular, several areas of this risk can be identified ([8], pp. 26–35]. An important risk of the gmina associated with public-private partnership is the weakening and even loss of public control over the enterprise. Such situation may result from unclear decisions of the contract in the scope of equipping the private partner with the power to decide how the services will be provided and valued.

In cases where the self-government authority deals directly with the provision of public services, it does not always take into account the actual and full costs of its activities, as private companies do. This may apply to the costs of day-to-day administration or depreciation of equipment that are not taken into account by a public entrepreneur in the price of services. The failure to take into account all the actual costs affecting the final price of services called by a private entity may, in the event of a sudden realignment of these charges, bring the risk of social criticism of both partners, as well as exclude certain social groups of consumers unable to pay increased fees.

The risk associated with the choice of a reliable partner should lead the authorities to carefully prepare and conduct the tender process, as local governments might become potential victims of dishonest pseudo-investors, ready to take advantage of the favor and sometimes naivety of local politicians. Most often, unreliable investors are about obtaining attractive areas for investments with purposes not quite consistent with previous declarations. For example under the guise of building a recreational and cultural park they want to run a large-area store.

An important benefit of public-private partnership is the possibility of introducing competition in sectors that have been covered by public monopoly so far. The competition enforces innovation, efficiency and customer care. The local community may not experience the above benefits of marketable public services if there is no competition on the market – in other words, the public monopoly can be replaced by a private monopoly. Trade preferences or public aid within a public-private partnership are an important problem, because relatively often the authorities, looking for a partner willing to take over a lot of responsibility for a given activity, are inclined to give visions to potential investors of their exceptional status, sometimes incompatible with competition law (e.g. the incentive to invest in infrastructure is contracting services for students or even special exemptions from public burdens).

The risk of lowering the quality of services provided, limiting their availability or lack of proper infrastructure maintenance (which is used to provide them) may be caused by improper arrangement of mutual relations within the contractual provisions of cooperation with a private partner. Too modest investment returns may induce the private partner to not always justified costs cuts resulting in a decrease in the quality of services provided or excessive use of infrastructure lacking, for example, proper maintenance.

The danger connected with the acquisition of the current sphere of public services by a private entity is the possibility of losing existing jobs by employees of gmina's organizational units, but also deteriorating the financial conditions of their employees. This can lead to tensions within the organization, moral dilemmas among the others when hiring new employees, or even strikes and other social problems arising from violation of labor law.

If a significant capital commitment is expected from a private partner, public authorities must take into account that the investor will need a long-term ability to dispose of the infrastructure, which will enable him to amortize the investments made and achieve the assumed rate of return. At the same time, it should be emphasized that the longer the period for which a public-private partnership contract is signed, the greater the risk of legal problems (disputes), or interruption of supply continuity. There is also an increased risk of obsolete and loss by the gmina of its own staff and its ability to independently operate in the area of services entrusted to a private partner.

If the adopted model of public-private partnership provides for the return or acquisition of ownership used in the transfer of infrastructure to the public sector after the end of their cooperation, the private partner may (especially when the date of re-transfer is approaching) not be interested in spending to maintain its proper condition or increase its value, which is another important source of risk.



### 3. Conclusions

The risk in the investment process is its immanent element. It appears within each of the phases of the life cycle of the investment project, while it may have internal and external character resulting from the given factor causing it. The same applies to the gmina's risk in investments in technical infrastructure. Its existence results from the general premises of investment risk but also from the specific nature of technical infrastructure investments. The implementation of technical infrastructure investments as a joint venture of a gmina and a private partner raises the risk analogically as it happens in an independently implemented investment project. However, the fact of establishing a public-private partnership affects the gmina's risk in this respect basically in two ways. First of all, public-private partnership contributes to the reduction of gmina's risk and serves to transfer its parts to a private entity. In return, the private entity receives compensation. The scope of risk transferred from a gmina to a private entity depends on the form of cooperation undertaken. The greater the private party's participation in the project under a given form of cooperation within the public-private partnership, the greater the extent of the risk transferred. Secondly, cooperation creates new risk's areas that do not occur when the gmina undertakes independent investment implementation.

The issue of risk in investment projects in technical infrastructure has great importance in the economic and social aspect, both on the scale of a single entity that undertakes the investment, as well as entities managing a specified area covered by the functioning of a given technical infrastructure device (local government units). The possibility of avoiding the adverse effects of random events that may occur during particular stages of investment implementation, allows achieving the investment objective. However, it is impossible to completely eliminate these adverse effects, so proper management of the emerging risk is an indispensable condition for the success of the project.

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## **Partnerstwo publiczno-prywatne w kształtowaniu ryzyka inwestycyjnego gminy**

**Synopsis:** Przedmiotem artykułu jest ryzyko ponoszone przez gminę w związku z realizacją inwestycji infrastruktury technicznej. W szczególności skupiono uwagę na problematyce ryzyka w kontekście realizacji inwestycji w drodze partnerstwa publiczno-prywatnego. Celem artykułu jest poznanie ryzyka towarzyszącego realizacji przez gminę inwestycji infrastruktury technicznej na zasadach partnerstwa publiczno-prywatnego. Istnienie ryzyka w inwestycjach infrastruktury technicznej wynika z ogólnych przesłanek ryzyka inwestycyjnego, ale także ze specyficznego charakteru inwestycji infrastruktury technicznej. W przypadku inwestycji infrastruktury technicznej realizowanych wspólnie przez gminę i partnera prywatnego powstaje ryzyko w zakresie analogicznym, jak ma to miejsce w samodzielnie realizowanym projekcie inwestycyjnym. Dodatkowo jednak partnerstwo publiczno-prywatne wpływa na ryzyko gminy w dwojaki sposób. Po pierwsze, partnerstwo przyczynia się do ograniczenia ryzyka gminy i służy przeniesieniu jego części na podmiot prywatny. Po drugie natomiast, współpraca stwarza nowe obszary ryzyka, które nie występują, gdy gmina podejmuje się samodzielnej realizacji inwestycji.

**Słowa kluczowe:** ryzyko gminy, partnerstwo publiczno-prywatne, inwestycje infrastruktury technicznej.