

Petrov Dancho ¹

DETERMINANTS OF CHOOSING SOURCES OF FINANCING FOR MUNICIPAL PROJECTS

Abstract:

The paper discusses various alternatives for financing socially significant projects of municipalities. Having in mind the opportunities and limitations of municipal budgets and the example of the municipality of Burgas, the paper analyzes positive and negative sides of financing with own resources, bank loans, bond issues, pooling and revolving schemes.

The focus of the research are the factors that influence the choice of a financing alternative - costs of funding, level of financial infrastructure, regulative conditions, debt risk, level of decentralization and opportunities for generating revenues. By use of selected diagnostic indicators there are outlined the challenges to successful realization of socially significant municipal projects.

Keywords:

municipal budget, own resources, socially significant projects, financial market, bond issue

Author's data:

¹ Petrov, Dancho, Assoc. Prof., Ph.D., Varna University of Economics, Finance Department, Bulgaria, e-mail: danchoPETROV@abv.bg.

Introduction

Meeting the rising demand for local public services requires the application of innovative schemes and instruments for their financing from municipal budgets. In Bulgaria, local budgets are financed mainly with subsidies from the central Republican budget and the municipalities' own revenues. The subsidies provided from the state budget to the municipalities are targeted according to the activities delegated in the sphere of health care, education, maintenance of the road network, etc. The trend evident in Bulgaria of constantly exacerbating budget deficit and deteriorating values of the fiscal reserve have limited the possibility of subsidizing basic local activities and services from the state budget over the last decade. The implementation of local projects with high social value is among the activities that favor the development of municipalities in the long term and has a positive impact on future opportunities to generate their own income. However, usually no target subsidies are planned to finance this type of activity. The importance of local governments' ability to generate own income from municipal activities is growing under these circumstances. The municipalities' own revenues become a major "driver" of the sustainable development of the regions [1,2]. The investment of the resources coming from the municipal revenues in local projects contributes, on one hand, to the opening of new jobs and decrease of unemployment among the local population [3]. On the other hand, the implementation of local projects in socially significant spheres is a precondition not only for sustainable growth of the expected future municipal revenues but also for improving the welfare of the municipal population [1,4]. Undoubtedly the best option to provide financing is when the municipality applies for funds under the programs of the European Development Funds. This

option does not guarantee the safe realization either, especially in the cases of finding inconsistencies in the areas of financing, the deadlines for implementation or the focus of the social project with the officially adopted financial support policies of the European Union. Furthermore the active utilization of resources from European funds requires the relevant financial potential to ensure availability of the necessary co-financing from local budgets. An obvious possible outcome of this situation for the municipal authorities is to ensure the financial implementation of social projects that are important for the development of the municipality with its own resources and/or with borrowed funds from the financial market. The goal of this article is to reveal the opportunities for an adequate choice of sources for financing municipal projects with high social significance, based on a structural analysis of the capacity of the municipal budget and an analysis of selected diagnostic indicators which have an impact on the choice of a way of financing. The subject of the study has been narrowed to the most often practiced forms of financing - municipalities' own resources and borrowed resources from the financial market - bank loans and bonds, revolving and pooling financing. Diagnostic indicators have been selected that have a major influence on choosing the form of financing - market interest rates, maturity of financial instruments and the degree of development of the financial structure. Thus, the presented methodological restrictions of the study cannot encompass completely all possible alternatives for financing, as well as a number of factors that are able to impact the choice of a way of financing such as economic environment, cycles, sovereign risk, lawful environment, changes in the social and demographic structure of the population and others.

Structural analysis of municipal budget

The approval and implementation of municipal budgets is subject to certain legal limitations related to the economic appropriateness and the cost efficiency requirements. For example, according to the Public Finance Act, the growth rate of the annual municipal expenditures may not exceed their average annual growth rate over the last four years. Another limitation concerns the undertaking and payment of municipal debt. The annual disbursements under the debt may not exceed 15% of the amount of own revenues. These conditions aim to ensure, first of all, compliance with the public interest and binding the annual amount of municipal expenditure with the planned revenues to the municipal budget. Another important aspect is the minimization of the risk of sharp increase in the indebtedness of municipalities and the occurrence of problems with the proper payment of the municipal debt. Under these expenditure restricting conditions the investments drawing on the municipalities' own resources must focus on the implementation of long-term objectives and lead to sustainable growth of the future municipal revenues.

The city of Burgas has a number of comparative advantages in terms of geographic location, developed industry, cultural and historical heritage. The city has won three times the "The best city to live in Bulgaria" Prize over the past four years. Best developed here are tourism and the oil refining industry. The macro frame of the budget of the municipality of Burgas for 2014 envisages spending a total of 165 million BGN of which nearly 100 million BGN comes from the municipalities' own revenues (fig. 1).

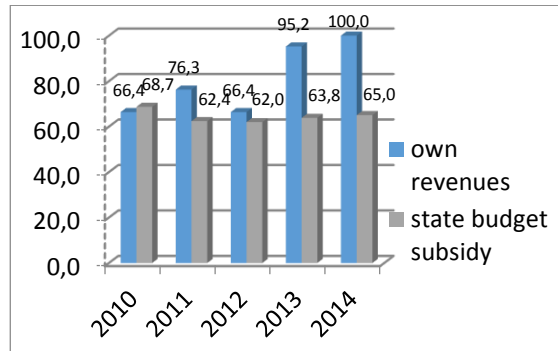


Figure 1.: Dynamics in the changes of the own revenues of the municipality of Burgas and the state subsidies provided for the period 2010 - 2014 (million BGN), source: Annual reports on the implementation of the budget of the municipality of Burgas; Budget 2014 of the municipality of Burgas.

The growing importance of municipal own revenues became clearly visible over the last two years when the revenues from own sources sharply increased. Their growth significantly exceeded the subsidies provided from the state budget.

Non-tax revenues (45%) are expected to constitute the largest share in the revenues of the municipal budget for 2014. This "item" expects largest income from municipal waste charges - 17, 2 million BGN and the income from municipal property (income from sale of goods and services, rents, dividends, etc.) - 10,3 million BGN (Fig. 2).

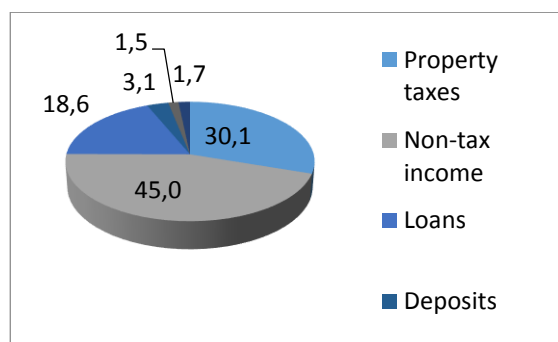


Figure 2.: Structure of municipal revenues in 2014 (%), source: Budget 2014 of the municipality of Burgas.

The statutory local taxes are expected to bring 29.5 million BGN to the municipal treasury. Most significant are the revenues from taxes on real estate (13 million BGN), motor vehicles (8.5 million BGN), legacies, donations and tourist tax.

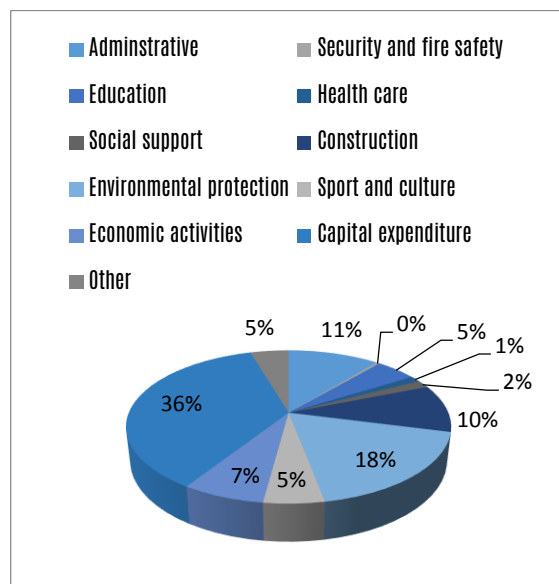


Figure 3.: Structure of municipal expenditure in 2014 (million BGN), source: Budget 2014 of the municipality of Burgas.

Largest share in the structure of the planned expenditure from the municipal budget in 2014 (fig. 3) is attributed to the capital expenditure which was increased by 13% on an annual basis compared to the previous year. The expenditures for environmental protection have decreased by 5% compared to the previous year but are second in terms of largest relative share (18%) in 2014 and include cleaning and landscaping activities. A positive fact in the structure of municipal expenditure of Burgas in 2014 is the envisaged reduction of administrative expenditure by 5% to 10.8 million BGN compared to 2013. The expenditure for cultural and sports activities grows by 11% on an annual basis and the expenditure for education, health care and social activities remain at the same relative levels.

Providing resources from the financial market

Providing adequate resources from the local financial market at relatively good price conditions and risk parameters and their investment in social activities could have a beneficial effect on the economic development of the municipalities and the competitive positioning of their public projects and initiatives. It is known that the cost of financing is determined by its market supply and demand. In most developing and transitional economies, the supply of capital available from the domestic private economy greatly exceeds the opportunity for investment [5]. The current market situation in Bulgaria is characterized by sustained demand for alternative investment instruments with relatively low risk and moderate returns by large institutional investors such as investment funds, pension and insurance companies. This opens up opportunities for a successful issuing of municipal debt in the local financial market.

Bank loans

Bank loans traditionally enjoy the status of the most commonly used source of financing. This is due to the experience that banks have in the field of specialized provision of banking services to municipalities and the possibility of securing loans with movable assets or real estate municipal property. Banks also treat municipalities as borrowers with a favorable risk profile, as they have guaranteed revenues from local taxes and fees.

It is common practice in bank lending to set limits and conditions that do not always meet the interests and abilities of borrowers. For example, banks require securing loans with immovable or liquid movable property of the municipality of a value exceeding by a certain percentage the nominal debt to the bank. Another approach that is troublesome for borrowers is the inclusion of

restrictive clauses in the loan agreement that limit the ability of municipalities to attract additional debt capital.

The dynamics of long-term indebtedness of the municipality of Burgas (table 1) shows that the financing of long-term bank loans has sharply increased over the last two years of the analyzed period. The resources coming from these loans are invested in capital expenditure. The annual amount of the interest due under the utilized bank loans is expected to grow proportionately to the growth rate of the loan facilities. Until 2014 the municipality has duly paid all obligations under its bank loans and has not admitted delays.

Bank loans	Years				
	2010	2011	2012	2013	2014
Utilized loans	6965	10004	1032	22176	24340
Repaid loans	3682	4229	4548	5808	5714
Paid interest	560	791	928	895	820

Table 1.: Dynamics of the long-term debt of the municipality of Burgas (thousand BGN), source: Annual reports on the implementation of the budget of the municipality of Burgas; Budget 2014 of the municipality of Burgas.

Municipal bonds

Municipal bonds are a complex debt instrument that overcomes some of the limitations of bank loans. How to calculate the cost of financing in municipal bonds? A specific feature of the bond loan is that it is distributed with the help of a professional investment intermediary - underwriter of the issue. The cost of financing of bonds must contain first of all the underwriter's compensation, as well as all costs associated with the preparation of the issue. Then the influence of some essential fundamental factors should be taken into account. The impact of these factors is not amenable to control by the issuer. Such factors are, for example, the stage of economic development, inflation and the monetary policy

pursued in the country. Their effects are expressed in the formation of a percentage risk premium, which largely determines the cost of financing in municipal bonds [6]. The "liquidity" factor can also affect investors' interest, and therefore the cost of financing. Most investors prefer investments in liquid assets and other things being equal they will tend to choose lower returns in exchange for greater liquidity of their investment [7].

Bond loans are one of the instruments which have not been used by the municipality of Burgas and which may turn out to be an efficient tool to finance projects with long-term socio-economic benefits. It has been widely discussed that bond loans offer some advantages to bank loans in terms of lower cost of financing when the borrower's investment rating is available [8,9,10]. The investment rating of the municipality of Burgas has been assessed by BCRA Credit Rating Agency (table 2).

Rating	Initial rating 08. 08. 2008	Update 09. 09. 2009	Update 30. 08. 2010	Update 13. 01. 2012	Update 25. 02. 2013
Long-term	BBB	BBB	BBB+	BBB+	A-
Perspective	Stable	Stable	Stable	Positive	Positive
Short-term	A-2	A-2	A-2	A-2	A-1

Table 2.: Credit rating of the municipality of Burgas, source: www.bcra-bg.com

The rating issued to the municipality of Burgas and its updates in a positive direction indicate that the municipality may be financed with a bond loan at a

relative low cost due to its investment rating. A bond loan would have considerably decreased the budget expenditure by optimizing the payments of interest rates [8,11]. Bank loan interests are usually paid in monthly installments while the payments of interest coupons under bonds are made once or twice a year. A possible substitution of some bank loans with bond issues requires preparation of prospectuses to acquaint the investors with the investment intentions of the municipality.

Pooled Finance and Revolving Funds

Pooling is a more complex option than the issue of municipal bonds. It is realized through the establishment of a separate entity, such as a special investment purpose fund. This fund acts as an issuer of securities and mediates between the municipality-borrower and the investors. The idea of pooled finance is to lower the issuance costs. This scheme is successful for the financing of a number of similar projects carried out by various municipalities or a joint project whose financing would be provided simultaneously by several municipalities. The establishment of a common pooling fund in such cases leads to substantial cost savings compared to a scenario where each municipality alone bears the costs of individual debt issues.

Revolving financing is a complex and institutionally more advanced version of pooling schemes. Instead of setting up a special investment purpose fund, the revolving approach offers a principally different vision of financial mediation, consisting of the establishment and operation of an institution with a long-term mission and status, which has its own assets. This institution is not limited only to the implementation of individual projects, and actively supports the provision of financial resources and the implementation of municipal projects. Funds

can be collected from different sources: national and European funds, donors and private investors. The great advantage of revolving financing is that it "produces" financial instruments that meet investors' interest as concerns the size of the investment, liquidity and risk.

Diagnostic indicators for the choice of a financing option

The most important diagnostic indicators that influence the choice of financing sources of socially significant projects are the market interest rates, the maturity of the debt instrument and the degree of development of the local financial infrastructure.

Interest rates are structured according to inflation, the maturity of the investment, the current market conditions (supply and demand) and the borrower's risk rating. All things being equal, interest rates increase with the increase of the duration of investment to compensate for inflation and the investment risk assumed. Negotiating the interest rate is usually done under two basic conditions - variable or fixed rate. In negotiating a "floating" interest rate the latter is based on generally accepted benchmark indices such as Libor or the local index Sofibor. The variable interest rate is sensitive to market conditions and reacts to any change in the underlying index. Thus the lowering of the indices reduces the cost of financing for the issuer, while their increase leads to rising of the cost of the resource.

As for bank loans negotiating the so-called "stop-limits" could be a reliable protective technique for the pricing of municipal debt with variable interest rates. When the indices forming the base interest rate grow at a rapid pace, the risk arises for the borrower to pay higher and higher interest rates. The stop-limit is a maximum fixed interest rate for the borrower as a guarantee that the interest rate of the loan instrument will not

"exceed" the limit previously agreed with the lender. The presence of such a clause in the loan agreement restricts the uncontrolled growth of the interest rate. This provides a solid "insurance" of municipal debt against its sudden appreciation and even impossibility for repayment. At the same time, the limiting of the interest rate allows the municipality to forecast and evaluate the risks and to calculate the maximum interest rate that it can afford to pay even in conditions of extreme uncertainty and instability of the financial markets.

The fixed interest rate on the loan exposure of the municipality provides greater security and predictability of future repayments of the debt. The fixed rate protects the borrower from the uncertainties resulting from rising market interest rates. However, fixed interest rates deprive borrowers of the opportunity to lighten the debt servicing in periods of significant declines in market interest rates.

The maturity structure of the debt is another important factor that influences the choice of sources and tools for financing municipal debt. The successful implementation of projects requires that the period of debt servicing coincides with the period of return on investment. The social municipal projects typically require a long-term investment, which implies the choice of an instrument with adequate maturity - from 5 to 7 or even 10 years. With respect to the relation "maturity of the loan - term of the investment" bank loans are not without some drawbacks. The long-term payback period of social municipal projects can become a major problem in dealing with banks. Banks may express reservations and not be willing to provide the necessary long-term resource, since they are dependent on the maturity structure of their deposit base. If the maturity structure of bank deposits is rather short-term, banks will face the risk of gap between the

maturity of their assets and their liabilities. In this respect, bonds have priority over bank loans because they allow flexible custom "design", which satisfies the requirements concerning maturity, yield, interest payments and other parameters both of the issuer (municipality) and of the most influential investors.

The degree of development of the local financial infrastructure is another important factor. The capital market plays an important role in mobilizing private long-term resources as it provides a "meeting" between investors and investment opportunities. Providing the necessary long-term borrowing for a municipality depends on the degree of development of the institutional infrastructure of the capital market, including investment banks and brokers, regulators and rating agencies. Are there reliable sources to provide long-term resources to local financial markets, necessary for the implementation of social municipal projects? It is an axiomatic rule that long-term financial resources are formed in the availability of long-term savings in the financial system of a country. The activity of private pension funds and insurance companies in the local market is an indicator of the availability of resources with such maturity. Pension funds and insurance companies accumulate long-term investments of their clients and strive to transform them into investments of corresponding maturity. They are interested in the opportunity to diversify their investment portfolio by investing in long-term instruments with predictable risk and return. The issue of long-term municipal bonds with a good investment rating would undoubtedly be of interest to those large institutional investors, as it will provide diversification, and thus mitigate the risk of their portfolio.

The ability to select appropriate sources of funding for municipalities also depends on a number of important conditions relating to the

specificity of the state structure, local government and regulation of the relations between the state budget and local budgets. One major factor is undoubtedly the level of decentralization. Decentralization of power is a global phenomenon that is more pronounced in developed economies. Decentralization gives local authorities more freedom but also greater responsibilities regarding the generation of revenue and incurrence of costs. Decentralized local governments need an adequate legal and regulatory environment. Municipalities should be legally empowered with the right to free access to financial markets. Local authorities should be able to make independent decisions to raise resources from financial intermediaries or by issuing debt instruments, and to dispose of liquid movable and immovable municipal property.

Conclusion

The limited subsidies for local activities from the central budget requires efficient use of the generated own revenues and supplementing the shortage of resources in the financial market. Resources to finance social important projects using the own resources the municipality of Burgas may be obtained by restructuring the expenditures of the municipal budget. It would be appropriate to reallocate more resources to activities related to the rich cultural and historical heritage and the places of special natural interest. This would have a favourable impact on the possibilities to generate more income in the future for the municipality from the increased tourist flow.

Gaining investors' trust is of crucial importance to form an attractive cost of the debt. Investments offering security under conditions of relative profitability draw investors' interest. The municipality of Burgas has all required conditions to attract investors' interest and to achieve

attractive terms under the municipal bond debt. The stable financial situation of the municipality, the sustainable growth rate of its own revenues, the active investment program, the sound financial management and the absence of overdue obligations are indicators favouring a successful municipal bond issue. In view of the proven higher cost efficiency of bond loans when an investment rating has been provided the financing of projects of socio-economic significance could be partially or even fully supported by the issue of municipal bonds. In the future, subject to appropriate conditions and improved financial infrastructure, the municipality could reap the benefits of consolidated schemes to raise financial resources through pooling and revolving financing.

References

- [1] Musgrave, R. (1959). *The Theory of Public Finance*. MacGraw-Hill, New York.
- [2] Alouis, C. & Gideon, Z. (2013). *The Challenges of Self-Financing in Local Authorities. The Case of Zimbabwe*, *International Journal of Humanities and Social Science*, Vol. 3, N 11, June 2013, pp. 233-245.
- [3] Bird, M. (2006). *Local and Regional Revenues: Realities and Prospects*. Washington D.C: World Bank.
- [4] Blagoicheva, H. (2013). *Social Assistance. Science and Economics*, ISBN 978-954-21-0658-6, Varna University of Economics.
- [5] Billand, C. (2005). *Municipal Finance: Increasing Local Government Resources to Fund Multi-sectorial Facilities*, *Proceedings of Supporting Local Governance in the ANE Region: Fostering Multi-sectorial Approaches Workshop*, Jan. 31-Feb. 3, 2005, Cairo, Egypt.
- [6] Ang & Piazzesi (2003). *A no-arbitrage vector autoregression of term structure dynamics with macroeconomic and latent variables*. *Journal of Monetary Economics* 50: 745-787.

[7] Ang & Green (2011). Lowering Borrowing Costs for States and Municipalities Through CommonMuni, The Hamilton Project Discussion Paper 2011-01, February.

[8] Ghinea, A. et al. (2004) Bond Issues and Bank Loans: New Mechanisms to Support Local Development in Romania, In: Local Government Borrowing: Risks and Rewards. A Report on Central and Eastern Europe. Swianiewicz, P. (ed.), pp. 277-319., Local Government and Public Service Reform Initiative, Open Society Institute-Budapest, ISBN: 963 9419 51 6, Budapest.

[9] Farber, G. (2002). "Local Government Borrowing in Germany." In: Local Public Finance in Europe: Balancing the Budget and Controlling Debt, Dafflon, B. (ed.), pp. 135-164. Studies in Fiscal Federalism and State-Local Finance Series, Edward Elgar, Cheltenham- Northampton.

[10] Balás, G. & Hegedüs, J. (2004) Local Government Borrowing in Hungary In: Local Government Borrowing: Risks and Rewards. A Report on Central and Eastern Europe. Swianiewicz, P. (ed.), pp. 79-127. Local Government and Public Service Reform Initiative, Open Society Institute-Budapest, ISBN: 963 9419 51 6, Budapest.

[11] Swianiewicz, P. (2004) Comparing International Experiences: Emerging Markets of Local Borrowing?, In: Local Government Borrowing: Risks and Rewards. A Report on Central and Eastern Europe. Swianiewicz, P. (ed.), pp. 385-423., Local Government and Public Service Reform Initiative, Open Society Institute-Budapest, ISBN: 963 9419 51 6, Budapest.



PHOTO 2.

Ptice | Birds

PHOTO BY: JOSIP MESIĆ