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FINANCIAL ASSUMPTIONS OF SLOVAK MUNICIPALITIES FOR THEIR ACTIVE PARTICIPATION IN REGIONAL DEVELOPMENT*

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Abstract. Local self-government, represented by municipalities, is not only obliged to ensure all competencies set by legislation, whether original or transferred, but also to play an increasingly important role in the economic development of entrusted territory. One of a key challenge of the municipalities is also to act as an activator of development, either independently by using their own financial resources or in cooperation with potential investors who want to start new, whether social or economic activities in the respective area. Based on the published studies, the authors looked for suitable indicators to evaluate the financial conditions of Slovak municipalities to participate actively in the regional development of a particular region. They evaluated financial data of municipalities not only from the perspective of eight Slovak regions, but also in terms of size categories of municipalities, since they want to find out, how individual size categories of municipalities contribute to the healthy and viable financial condition of considered regions. In terms of analysis, a high degree of territorial fragmentation can be observed in Slovakia, which in the case of small size categories of municipalities (up to 3,000 inhabitants) negatively affects their ability to participate in regional development, because they have worse financial and property conditions. The authors evaluate quantitative financial and demographic data on Slovak municipalities for the period between 2014 and 2018, which they obtained from the Slovak DataCentrum and Ineko websites.

Keywords: municipality; regional development; financial conditions; indicators of financial creditworthiness

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1. Introduction

There have been significant socio-economic changes in recent years. All these transformations have a significant impact on the role of territorial units in each country, their importance has increased. This can be seen through the fact that regional development responsibilities and competencies are transferred to local institutions. The question of regional development is not the government's question more.

For local development processes, a significant actor has become a municipality as a self-governing territorial unit possessing its own assets, financial resources, human potential and legislatively defined competencies. Municipalities have gained this position through decentralized and democratization processes, which have resulted in a reinforcement of the self-management of governance. It brings also a growing responsibility and powers of management of the entrusted territory (Žárska, Ferčíková, 2014).

The municipality needs a tax system that provides many opportunities for local governments to generate revenue that supports their plans, goals, and desired development patterns and their ability to adapt to changing local economic conditions (Develop tax policies that strengthen communities and the region). The municipalities have quite large competencies in imposition and administration of the tax (Vartašová, Červená, 2019). Tax policy is an important tool that the municipality can use for its further development, which can be also applied for regional development of whole territory, too (Papcúnová, Hudáková, 2019).

Tax policies have a broad impact on the ability of local jurisdictions to provide services and keep infrastructure in a state of good repair. Individual municipal revenues depend on land use mix, size of the tax base, and state and local tax structure. Tax policies of local governments can be interdependent (Baskaran, 2013).

Municipalities today face demands to increase the efficiency and accuracy of local tax collection. In an environment of financial deficits and the shift of public service securing to the local level, these challenges becoming greater in size. The key challenge for the administration of municipalities in Slovakia is to ensure their ability to meet their obligations and responsibilities (Liptáková, Rigová, 2020).

Local taxes represent one of the important revenues for municipalities. The municipalities increased tax rates in order to strengthen own revenues and the budget structure. Incomes from local taxes serve mostly to cover current expenses (Gál, Tóth, 2015). However, they are usually inadequate, they are not sufficient to cover the development needs of municipalities.

The problem with local taxes is the low tax capacity of a large number of municipalities. Small municipalities cannot make effective use of local taxes. Insufficient tax base and inability to secure additional income lead many municipalities to cover more than half of their budgets in terms of personnel costs. Instead of development activities, self-governing structures are actually financed, which raises the question of whether the primary role of self-government is to take care of the entrusted territory or to take care of oneself (Klimovský, 2014).

The aim of our work is to evaluate the financial conditions of Slovak municipalities by means of suitable indicators that express the basic prerequisite for the participation of the municipality in the process of regional development. The authors assume that the financial preconditions of the considered municipalities are insufficient. This situation is even worse in the case of municipalities of small size categories compared to municipalities of the larger size categories. Analysis and results were processed in MS Excel application.

2. Theoretical framework of the researched topic

Municipalities play an important role in regional development. The municipality is generally the lowest administrative unit with the status of self-government, which is subordinate to national, regional and European legislation.

Municipality is an independent self-governing territorial unit which unifies citizens with permanent residence on its territory (Tej, 2011). Municipalities are defined as the basic units of territorial self-administration and regions have been introduced as higher territorial units. Both regions and municipalities are territorially and administratively independent and are also independent from each other (Slovakia Fiscal Powers, 2019).

In the Slovak Republic, a municipality is a legal entity managing its own assets and financial resources (own revenues as well as state subsidies) under the conditions laid down by the law Act no. 369/1990 Coll. on Municipalities. In our perception is the municipality a city or settlement that has corporate status and local government.

Local authorities in all parts of the world play an increasingly important role in the provision of essential basic public services. The main responsibilities of local governments include maintenance of the local road network and public spaces, public transport, water and sewage systems, public order and safety, basic education and municipal housing policy (Hudec, Urbančíková, 2004). The municipality provides a large number of services: wastewater collection and disposal, waste disposal, electricity and gas supply, municipal health services, municipal communications and rainwater drainage, street lighting, municipal parks and recreation. Municipalities decide their financing (Jenčová, Litavcová, Štefko, Maťovčíková, 2013).

Small municipalities generally have a problem with tax revenues, as they depend to some extent on the balance of solidarity and transfers from central budgets. This is reflected in the low efficiency of local public services and high administrative costs (Šebová, Petriková, 2015). Communities whose incomes are low in relation to their needs seek to finance general operations and infrastructure by raising tax rates, which further discourages commercial and residential development. It can be a significant burden for low-income residents. Greater state investment in these communities is an integral part of improving their fiscal health and overall region prosperity (Develop tax policies that strengthen communities and the region).

The municipal authorities are responsible for providing and financing the original and delegated competencies in Slovakia. The original competencies are financed from internal and transferred competencies (e.g. basic education) from external sources through targeted grants, which reduce the degree of financial autonomy of municipalities. The European Charter of Local Government affects the financial relations between central and local public authorities. It regulates that local communities must be funded by the state in such a way that they are able to effectively meet the public needs of the local population and increase the well-being of society as a whole. The central government in Slovakia does not send sufficient resources to local governments for the transferred competencies, which they exercise on behalf of the state; therefore, their local governments from their own resources subsidize them. This is not in line with the European Charter of Local Self-Government and its basic principles. Despite the comparable scope of competencies with other EU countries, the share of local government expenditures in Slovakia is only at the level of approximately 17.2% of public sector expenditures (the EU average is 23.1%). This is the reason why local taxes in many Slovak cities increased significantly in 2019 (Sloboda, 2019).

The financial autonomy of the territory is one of the important characteristics, including the right to sufficient resources and the responsibility of local authorities in their formation and using. Financial independence is directly linked to the creation and realization of the financial potential of the territory (Boronos, Plikus, 2015).

Local governments have an important level of autonomy in deciding on local finances. Local funding is one of the important factors affecting various aspects of local development.

Slovak municipalities have these main types of revenues (since 1993):

- local tax revenues (real estate tax, share on centrally collected taxes - shared taxes),
- non-tax revenues (administrative fees, other fees, credits, grants from state budget, other non-tax revenues),
- revenues from municipal property and from property of the state in municipal administration (Buček, 1997).

Local taxes are the most important source of local finance.

Local tax is a tax levied by a local authority, such as a county, or municipality in the form of property taxes and is used to finance a wide range of civic services from waste collection to sewerage maintenance. The amount of local taxes may vary greatly between jurisdictions (Kagan, 2018).

Local taxes are one of the special groups of tax revenues collected by municipalities in Slovakia. They are designated by their municipalities and flow directly into their budgets. Taxpayers are residents of the city or citizens who visit it (Gál, Tóth, 2015).

Local taxes according to Act no. 582/2004 Coll. on Local Taxes and Local Fees for Municipal Waste and Small Building Waste as amended include: real estate tax, dog tax, public space tax, accommodation tax, vending tax, gaming machine tax, tax on entry and residence of motor vehicles in historical parts of towns, nuclear installation fees and local development charges. It is up to the municipality whether to introduce a tax or not. Municipalities are free to choose depending on their requirements, size, number of inhabitants and quantity of public goods and services provided. They also have the right to administer these taxes, to set tax rates and the subject of the tax or to decide on exemption from payment. Larger municipalities usually collect all local taxes.

In addition to local taxes, self-government has the right to impose and collect fees for other general municipal services, particularly through imposing user fees to support specific services and infrastructure (Taxes in Slovakia, 2016). The local fee for municipal waste and small construction waste is the only mandatory local tax imposed by the municipality in Slovakia.

Shared taxes (today only personal income tax, formerly corporate income tax) change almost every year in Slovakia, according to the State Budget Act.

Yields from municipal property, profit from municipal enterprises and organizations, yields from financial investments, income from municipal bonds are important sources of municipal revenues (Buček, 1997). Revenues from municipal property are significantly affected by the extent of ownership rights to property and depend on the activity of the municipality (Sedláková, 2012).

Municipality finances the needs of inhabitants mainly from its own revenues, state subsidies and other additional resources as loans from banks. Its tasks may also be funded from the resources associated with other municipalities, autonomies and other legal or personal entities (Jenčová, Litavcová, Štefko, Maťovčíková, 2013). According to Slovak law, own sources of financing of municipalities are the share of the tax on personal income (shared tax), revenue from local taxes and fees, proceeds from disposal of municipal property and budgetary organizations or municipal companies, penalties for violation of financial discipline imposed by the municipality and other non-tax incomes- administrative fees (Kološta, Flaška, Bolcárová, 2014).

Although it is not the task of local government to directly create economic development, it is strongly responsible for creating the right conditions for investment, for business activities. The municipality has the obligation to ensure conditions to meet the needs of the population, but also the right to regulate the development of the territory. Its services have a direct and immediate impact on the quality of life of the people in this community, influencing the attraction of businesses in this area and employment opportunities for the population.

The municipality is an important integration factor for the development of the territory (Žárska, Ferčíková, 2015). It has knowledge of local needs and provides many services with a direct impact on local development, such as infrastructure, education, spatial planning, child and senior care, etc.

Municipalities need to be actively involved in economic development. It can enter the economic development of the region in various ways, e.g. utilization of municipal assets, financial resources at its disposal and management of activities of all economic entities (Belajová, Balážová, 2004).

Several domestic authors, e.g. Kološta, Flaška, Bolcarová (2014); Hájek, Olej (2008); Országhová, Papcunová, Hornyák Gregáňová (2018) dealt with the determinants of the position of local government in regional development and concluded that one of them is the financial potential of the municipality.

The financial potential of municipality greatly limits the expenditure of local governments. Local governments want to minimize spent or endangered money through incentives to develop new economic development activities. At the same time, the local authority wants to maximize the benefits for its inhabitants. It uses local taxes.

Local taxes have the potential to affect the local and regional economy. On the one hand, they are able to attract new citizens as well as entrepreneurs to the territory; on the other hand, they may affect the structure and spatial distribution of existing entities in the area (Papcunová, Hudáková, 2019).

On the other hand, there are also opinions that “in Central and Eastern Europe the importance of typical local taxes as a factor of regional development is relatively limited” (Swianiewicz, Kurniewicz, Kalcheva, 2019).

Successful financial management of a local authority ultimately depends on the ability to plan ahead, and to adjust its revenue and expenditure plans to reflect changes over time in its basic economic, spatial, demographic and physical environment. Any significant change in the economy of the country also affects the financial management of municipalities (Papcunová, Hudáková, 2019). Therefore, it is important to make these changes very carefully and forward to consider possible consequences.

McDonald (2017) summarized responsible financial management into four areas. It is the ability of the community: to accomplish immediate or short-term financial obligations, to meet financial obligations over a budgeted fiscal year, to accomplish long-term financial obligations and to finance the base level programs and services as required by law. The efficiency of financial management expresses the financial condition of the municipality. It is very important an attribute, it shows the ability of municipality to support development activities in the administered territory from its own financial resources. The good financial condition of the municipalities is reflected in the successful and sustainable socio-economic development of the regions.

Different terms are used in the available literature to indicate the good financial condition of municipalities. Some authors speak about financial creditworthiness; financial credibility; financial situation; others talk about financial stability, fiscal health, financial power or financial performance. However, most authors relate them to regional development.

The financial condition of the municipality according to Žárska and Rafaj (2016) consists of financial creditworthiness, property creditworthiness and development creditworthiness. The financial creditworthiness of the village is an evaluation tool for the citizen as it allows us to see the position of his municipality as a result of the quality of the work of his elected representatives (Žárska, Ferčíková, 2014). The financial credibility of a local budget determines the competitiveness of a region and secures the effective implementation of its economic objectives. It shows the feasibility of financial security of regional development and its conformity with the

national policy objectives, regional resources and interests (Liuta, Pihul, Kubakh, 2015). The analysis of Šebová and Petříková (2015) has confirmed that low financial credibility represents a serious problem for municipality connected with lower quality of public services. This has a negative impact overall region. The financial stability and responsible financial management of the municipalities are important starting points for their long-term sustainable regional development (Šebestová, Majerová, Szarowska, 2018).

A number of approaches have been developed within the domestic and foreign literature to understanding fiscal health, e.g. Hájek, Olej (2008); McDonald (2017); Országhová, Papcunová, Hornyák Gregáňová (2018) and other documents (Develop tax policies that strengthen communities and the region).

The financial power of municipalities means the total amount of funds from taxes and subsidies from the state budget, converted to the amount per capita (Šebová, Petříková, 2015).

Országhová, Papcunová, Hornyák Gregáňová (2018) presented the application of selected financial indicators to the assessment of the financial performance of the municipalities in the Slovak Republic in the period 2005-2015. Based on the inclusion of the municipality in the corresponding category concluded that financial performance indicators give to municipalities the opportunity to compare each other.

Building on their knowledge, we add that the basis of the financial analysis of municipality is the creation of suitable indicators. In all European countries, municipal budgeting and financing practices are determined by fiscal rules and regulations set by national governments. Municipal fiscal indicators are an annual compendium of information. The data provides key financial and demographic information on municipalities in every country. Financial indicators are a strategic management tool that provide the stakeholders with a concise and systematic way to organize voluminous data contained in financial statements (e.g. balance sheets, income statements, and statement of cash flows) into meaningful summary (Suarez, 2009).

As we found out, there is no uniform set of indicators to assess the financial condition of municipalities. If it were, international comparisons would also be possible. Ryan, Robinson, Grigg (2000) reported, that research debate on relevant financial performance indicators for local governments is scant and somewhat limited. These indicators need to be diverse, because local government activities cover the spectrum of operations. The indicators of financial situation can greatly assist in the decision making of the council and the mayor of the municipality. They inform on the conditions of the municipal budget. The decisive indicators for calculation should be based on tax revenues.

Šebestová, Majerová, Szarowska (2018) proposed to use the indicators of evaluation of budget management, municipal indebtedness and municipal liquidity in assessing the financial condition of municipalities.

Országhová, Papcunová, Hornyák Gregáňová (2018) suggested three variables for evaluating the financial creditworthiness of a municipality: P1= current incomes of municipalities (tax incomes, non-tax incomes, grants and transfers) to current expenditures, P2= non-tax revenues of municipalities to total revenues, P3= capital expenditures of municipalities to total expenditures.

Papcunová and Hudáková (2019) analysed the following relationships: LT1= incomes from local taxes of municipality to tax incomes, LT2= incomes from the real estate tax to tax incomes, and LT3= incomes from local taxes to current incomes.

Gál (2012) characterizes the concept of financial analysis on the basis indicators that include the tax strength of the municipality, financial strength, debt capacity and the degree of self-sufficiency.

L. Horváthová (2010) considers the degree of financial self-sufficiency of municipalities to be the most important indicator of their financial situation.

In the Slovak Republic, the system of assessment of a financial efficiency in the local self-government is complicated. This is due to the fact, that the local self-government is not primarily supposed to provide the profit, but to guarantee services for inhabitants, which will increase the quality of their lives (Országhová, Papcunová, Hornyák Gregáňová, 2018).

The key topic, whether local taxes in Slovak municipalities generate resources for development, was illustrated by several researches by Slovak authors.

Šebová, Petříková (2015) documented that Slovak municipalities have different approaches to financing development. The largest cities use the most credit resources, medium-sized cities have a prudent investment policy and small towns have the largest share of own resources funding. Žárska and Rafaj (2016) assessed the financial situation of the Slovak Republic's cities and municipalities to ensure their development on the basis of indicators of normal and capital accounts, debt financing, immediate liquidity and net assets for the period 2009-2014, according to the different size categories. Papcunová and Hudáková (2019) evaluated changes in the local tax incomes and their impact on the development activities of municipalities in the conditions of the Slovak Republic in the period 1993-2017. Romanova, Radvan, Schweigl (2019) analysed critically the constitutional backgrounds of the local taxes' legal regulation, assessment, and collection in the Slovak Republic and the Czech Republic. Cívik first analyzed the financial situation of municipal budgets on the example of municipalities in the Ilava district. He used an internationally recognized indicator to express the financial independence of the budgets of Slovak municipalities. In cooperation with Meluš (Cívik, Meluš, 2019) he evaluated the development of the financial system of revenues and expenses of territorial self-government created by the application of fiscal decentralization in the conditions of the Slovak Republic during the period 2009-2018.

Recently, after decentralization of competencies in 2001 and fiscal decentralization in 2004 in Slovakia, the significance and importance of local taxes has grown. Municipalities have become more independent from state government and subjective decisions of state representatives. They receive local taxes. However, they prove to be insufficient.

Total local taxes oscillated in 2015 between 20-25% of all municipality incomes (Klimovský, 2014). Today the number is significantly lower. The analysis of Papcunová and Hudáková (2019) showed that despite the systematic legislative changes, the income from local taxes constitutes the minimum amount of funds within the tax incomes as well as within the current incomes of municipalities. Based on many years of experience, we assume a share of 11-12%. We will further verify it by statistical examination.

It also depends on the size category of the municipality. The small municipalities have insufficient economic capacity and do not produce any real tax incomes. This fact significantly limits their fiscal independence and leads to a shortage of qualified staff for the provision of public services (Sedláková, 2008). In municipalities with a population of less than 1,000 inhabitants, own income from local taxes and fees covers only wages of employees, which represent a large part of expenditures in small municipalities. There are no resources to development activities (Šebová, Petříková, 2015).

3. Research and Results

This research evaluates municipalities in Slovakia in terms of indicators expressing the financial capacity of municipalities focused on its ability to participate in development activities. When assessing the financial situation of municipalities, authors were focusing on selected indicators of financial and property creditworthiness defined by Žárska and Rafaj (2016). The analysis was adjusted to the limitations of the available data.

The research is based on quantitative data provided by Slovak DataCentrum (financial statements on the implementation of the budget of the public administration entity and the balance sheets from years 2014 - 2018) as well as information that is publicly published by the administration of municipalities disclosed on the INEKO website. Analysis and results were processed in MS Excel application.

The local self-government of 2,890 Slovak cities and villages is provided by 2,929 municipalities, since two largest cities, Bratislava and Košice, are divided into 17 and 22 city districts with their own municipal authorities. The 2,916 municipalities were included into our research (we excluded some of Slovak municipalities due to the incomplete data). Based on the number and the structure of data from DataCentrum we grouped municipalities by the total number of inhabitants in a municipality and by the Slovak regions.

Slovakia consists of eight regions: Bratislava, Trnava, Trenčín, Nitra, Žilina, Banská Bystrica, Prešov and Košice (see note beneath all tables). Based on the size of population, we divided municipalities into the following ten size groups: from 0 to 99; 100 to 499; 500 to 999; 1,000 to 2,999; 3,000 to 4,999; 5,000 to 9,999; 10,000 to 19,999; 20,000 to 49,999; 50,000 to 99,999 and the last one over 100,000 inhabitants. Further in this paper, we mention only the upper limit of the intervals, i.e. -99; -499; -999; -2,999 etc. We created 71 groups of the municipalities, hereinafter referred to as region-size groups. It means that each region-size group will be a proxy municipality that represents a certain number of Slovak municipalities belonging to the particular Slovak region and considered size category. The following table 1 shows the number of the municipalities included in the region-size groups in last observed year (in the considered years there were insignificant differences in the number of municipalities caused by an increase or decrease in population).

Table 1. Frequency of municipalities by regions and size categories in year 2018

Region/ Size	-99	-499	-999	-2,999	-4,999	-9,999	-19,999	-49,999	-99,999	100,000	Total
BA	1	5	11	34	10	6	3	1		18	89
TT		44	71	105	14	6	5	4	1		250
TN	5	76	82	82	15	4	5	5	1		275
NT	1	92	102	127	12	8	3	5	1		351
ZA	11	81	71	109	20	13	3	3	2		313
BB	31	244	130	83	7	9	6	4	1		515
PO	79	280	153	115	16	7	6	4	2		662
KE	7	167	139	97	15	9	2	3		22	461
Total	135	989	759	752	109	62	33	29	8	40	2916

Regions: BA – Bratislava, TT – Trnava, TN – Trenčín, NR – Nitra, ZA – Žilina, BB – Banská Bystrica, PO – Prešov, KE – Košice

Source: the authors based on data from DataCentrum

In terms of the size categories of municipalities, up to 90.4% of Slovak municipalities belong to the small size groups (with a population of up to 2,229). In region point of view, the highest number of municipalities is located in the Prešov region, followed by the Banská Bystrica and Košice regions (22.7%, 17.7% and 15.8%, respectively as mentioned) and the lowest number is in the Bratislava, Trnava and Trenčín regions (3.0%, 8.6% and 9.4%, respectively).

The following section states points out a few interesting facts illustrating the financial situation and starting points of our individual proxy municipalities. In the succeeding two tables, we present two indicators per capita, again only for the last evaluated year. For each Slovak region and Total row and column, we highlighted the three smallest values by using grey shading of the cells, as well as the three largest ones by using bold font format. An important instrument for supporting the local development of the municipality is, among other things, their own non-current assets, which can be managed for the benefit of the municipality and be a potential source of its own income. For better comparability, Table 2 shows the values of non-current assets per capita in thousands €.

Table 2. Non-current assets per capita in year 2018 (in thousands €)

Region/ Size	-99	-499	-999	-2,999	-4,999	-9,999	-19,999	-49,999	-99,999	100,000	Total
BA	1.7	2.6	1.9	1.7	4.0	2.6	2.8	2.1		3.9	3.4
TT		2.1	2.3	2.6	2.1	3.2	2.6	2.4	2.5		2.5
TN	4.4	2.0	1.9	2.2	3.2	2.5	2.4	1.8	2.4		2.2
NT	0.9	2.2	2.4	2.5	2.2	2.1	1.8	1.6	2.6		2.2
ZA	1.8	1.8	1.9	1.8	1.7	2.2	1.6	1.9	4.1		2.3
BB	1.7	1.8	2.2	2.4	2.6	3.0	2.4	2.1	3.0		2.4
PO	2.3	2.3	2.1	2.0	3.2	2.6	2.5	1.7	2.5		2.3
KE	1.1	1.9	2.0	2.2	1.9	2.6	2.0	2.0		3.3	2.5
Total	2.1	2.0	2.1	2.2	2.5	2.6	2.3	1.9	3.0	3.7	2.5

Regions: BA – Bratislava, TT – Trnava, TN – Trenčín, NR – Nitra, ZA – Žilina, BB – Banská Bystrica, PO – Prešov, KE – Košice

Source: the authors based on data from DataCentrum and INEKO

The lowest values of non-current assets per capita exhibit two smallest size categories –99 and –499 (with the exception of proxy municipality –99 in the Trenčín region with the value €4,400 per capita) and surprisingly size category –49,999 (with the lowest overall value about €1,900 per capita). The table shows that larger municipalities have larger assets per capita. The highest overall values in term of size categories are reached by over 100,000, –99,999 and –9,999 proxy municipalities (about €3,700, €3,000 and €2,600, respectively), regarding Slovak regions, it is obvious, the richest municipalities are located in the western part of Slovakia, in the Bratislava and Trnava regions (€3,400 and €2,500 per capita) followed by Košice region (also €2,500 per capita, where the overall result is improved by the city of Košice). In terms of the value of non-current assets per capita, the Prešov, Žilina, Trnava and Nitra regions appear to be poorer regions (€2,300 and €2,200 per capita).

The indicator of tax strength is considered to be the basic indicator of the financial analysis of the municipality and expresses the total amount of taxes that go per capita to the municipality. It represents the tax autonomy of the municipality (the volume of tax revenues that the municipality manages and can use for financing its original competencies), measures the tax yield of the municipality and reflects the proportion of local and shared taxes per capita.

Table 3 illustrates the values of tax strength per capita for individual region-size groups, as well as overall results for respective size categories and Slovak regions in € for year 2018.

Table 3. Tax strength per capita in year 2018 (in €)

Region/ Size	-99	-499	-999	-2,999	-4,999	-9,999	-19,999	-49,999	-99,999	100,000	Total
BA	806.7	453.0	426.3	374.7	892.3	583.0	668.0	509.8		802.7	612.9
TT		357.1	417.8	439.3	406.0	470.6	512.5	530.0	543.6		459.6
TN	324.5	332.6	356.5	407.6	459.5	486.2	493.9	464.8	528.8		428.3
NT	571.2	343.6	406.6	393.4	352.3	434.1	459.8	450.0	558.6		441.1
ZA	409.5	375.2	374.5	423.0	396.0	487.2	495.9	511.7	552.0		447.2
BB	384.9	328.3	383.5	407.5	383.3	451.7	443.5	443.2	531.7		417.5
PO	333.2	337.6	371.0	371.0	474.5	471.2	468.1	447.0	510.0		420.4
KE	427.1	320.5	357.5	356.5	395.5	417.4	450.1	437.5		565.6	414.2
Total	465.3	356.0	386.7	396.6	469.9	475.2	499.0	474.2	537.4	684.2	455.1

Regions: BA – Bratislava, TT – Trnava, TN – Trenčín, NR – Nitra, ZA – Žilina, BB – Banská Bystrica, PO – Prešov, KE – Košice

Source: the authors based on data from DataCentrum and INEKO

Tax strength per capita is lower in small size categories of municipalities (with the exception of proxy municipalities of size category -99 in Bratislava and Nitra regions) compared to municipalities from size group -9,999 and higher. The lowest values are reached in the size categories -499 to -2,999 (on average 379.8 € per capita), the highest values are in the two largest size groups -99,999 and 100,000 (on average 610.8 € per capita) followed by municipalities from size category -19,999. These municipalities, with two exceptions (proxy municipalities in Bratislava and Prešov regions) reach one of the three highest values of this indicator in the respective region. The municipalities with the lowest value of this indicator are located more in the central and eastern part of Slovakia (Banská Bystrica, Prešov and Košice regions). The following two figures (Figure 1 and Figure 2) show the development of this indicator also in the examined years 2014 to 2018, but only in terms of overall results for the considered size categories and Slovak regions.

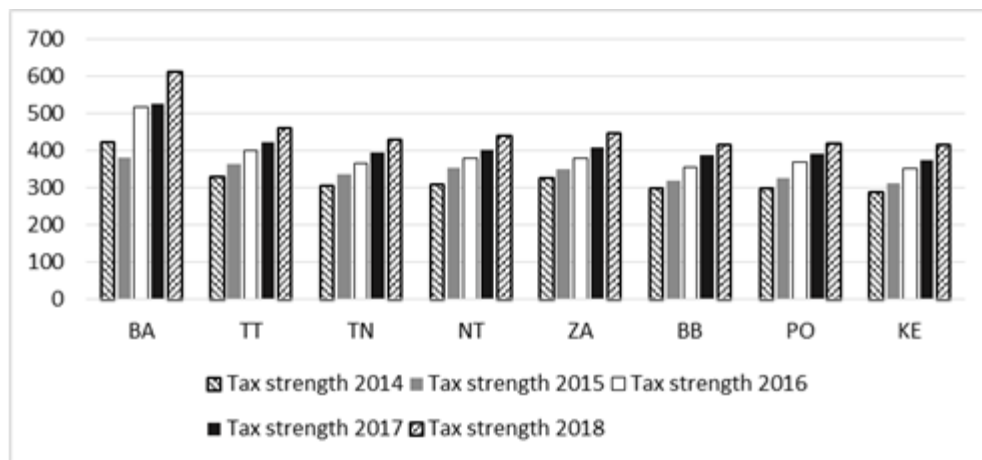


Figure 1. Tax strength per capita by regions in 2014–2018 (in €)

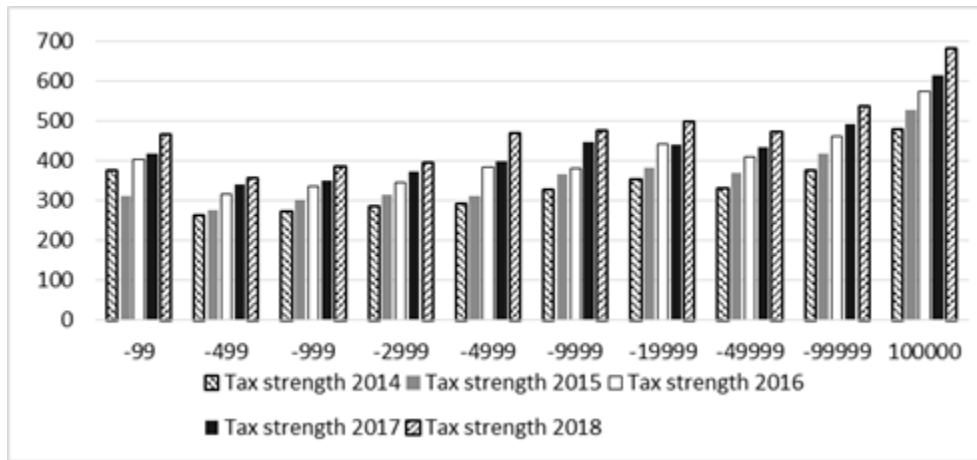


Figure 2. Tax strength per capita by size categories in 2014–2018 (in €)

Source for Figures 1–2: the authors based on data from DataCentrum and Ineko

In terms of development over the considered period, we can observe a positive progress, a slight but not a significant increase in values of this indicator, respectively, preservation of the values of the previous year. The exceptions are the values of overall tax strength in Bratislava region and in the lowest size category of municipalities –99, where the value decreased in 2015 compared to 2014, afterwards surged the following year. From the perspective of regions, we observe the lowest value of tax strength in the Košice region (on average €348.4 in the observed period), the highest one in the Bratislava region (on average €492.1 in the observed period). This indicator is very similar in case of the Košice, Prešov and Banská Bystrica regions, values fluctuate around €355.4 per capita in observed period. The trend indicates an increase towards the western Slovakia. In terms of the size categories, the values of this indicator increase from the smallest to the largest size groups except for the first size categories –99 where the values of tax strength exceeds the values of following three size categories (from –499 to –2,999). The highest values of the tax strength per capita are reported by proxy municipalities of the size category 100,000 (on average €575.6 in the observed period), the lowest ones are in size category –499 (on average €310.2 in the observed period). The trend, the larger size category, the greater the value of the indicator is disrupted only in case of proxy municipalities from size category –19,999 with an average value of € 423.4 in the period under review.

The self-sufficiency rate (SSRate) is an indicator of the financial creditworthiness of a municipality, which illustrates its financial stability, self-sufficiency in generating its own income. It is calculated as the ratio of current own income to total income and it expresses how much of the total income of the municipality is obtained from its own resources (optimally it should be over 50%).

Next two figures (Figure 3 and Figure 4) show the development of this indicator in the terms of overall results determined by regions and size categories (overall results are adjusted for the real number of municipalities in respective proxy municipality) in observed years 2014–2018.

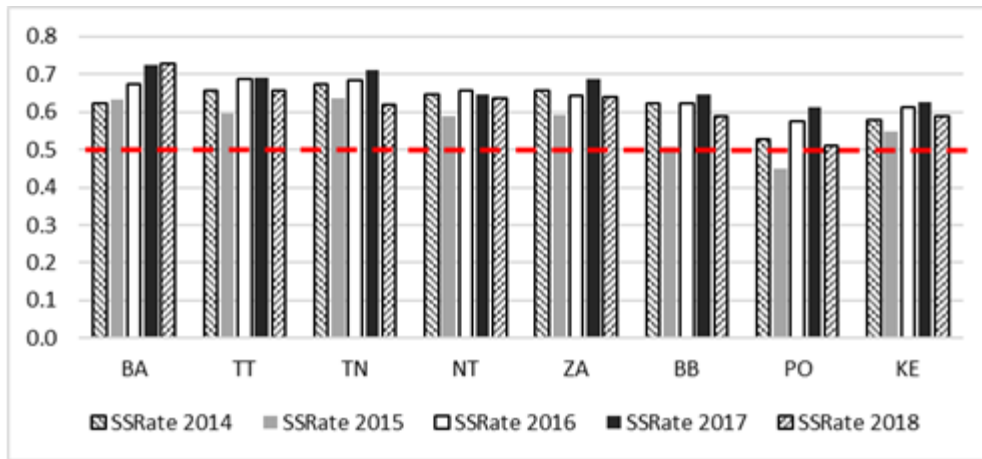


Figure 3. Total self-sufficiency rates by regions in 2014–2018

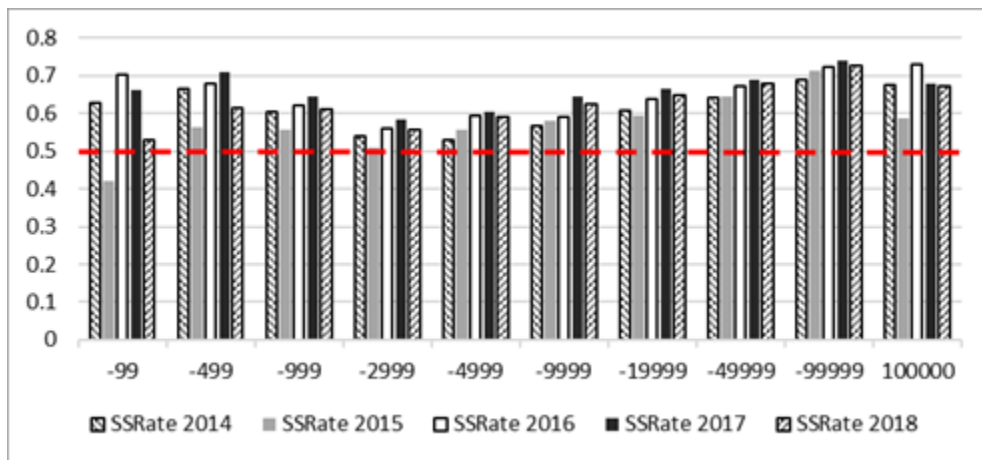


Figure 4. Total self-sufficiency rates by size categories in 2014–2018

Notes: SSRate – Total self-sufficiency rate

Source for Figures 3–4: the authors based on data from DataCentrum and Ineko

The behaviour/development of SSRate in terms of the regions shows slightly better results for municipalities in the west of Slovakia compared to the rest of Slovakia. The municipalities show financial self-sufficiency in creating their own incomes in the range of 45–73% in the observed period. In terms of size categories, the values of this indicator are also quite balanced, larger size categories achieve slightly better values. This trend is disturbed by size categories -2,999 and -4,999, although all values are above 50% with one exception (SSRates in 2015 for size category -99). The values fluctuate around 42–74% in the observed period. The total SSRate for Slovakia is on average 61% per municipality in this period.

Finally, the following figures show two important ratio indicators of the potential own financial sources of municipalities, the self-financing rate (SFRate) and the rate of tax autonomy (RateofTA). We present them again only in the term of overall results by regions and size categories (overall results are also adjusted for the real number of municipalities in relevant proxy municipality) in the evaluated period 2014-2018.

SFRate is calculating as a ratio of current own revenues to the current expenditures and among other things quantifies the space for possible development activities (e.g. for capital expenditure) of the municipality from own financial sources. If the rate is less than 1, municipality needs external financial help/resources for development projects and contrary, the value greater than 1 expresses the ability of municipality to invest using their own resources. RateofTA expresses the ratio of local taxes on total incomes and expresses the ability of the municipality to ensure income from own sources – local taxes.

The Figure 5 and 6 show total SFRates by regions and size categories, respectively. In terms of development of these ratio indicators over the considered period, the magnitude of the increase or decrease in the values of these ratio indicators is minor. This trend varies from case to case, but these positive or negative changes are not so significant for at least the last three observed years.

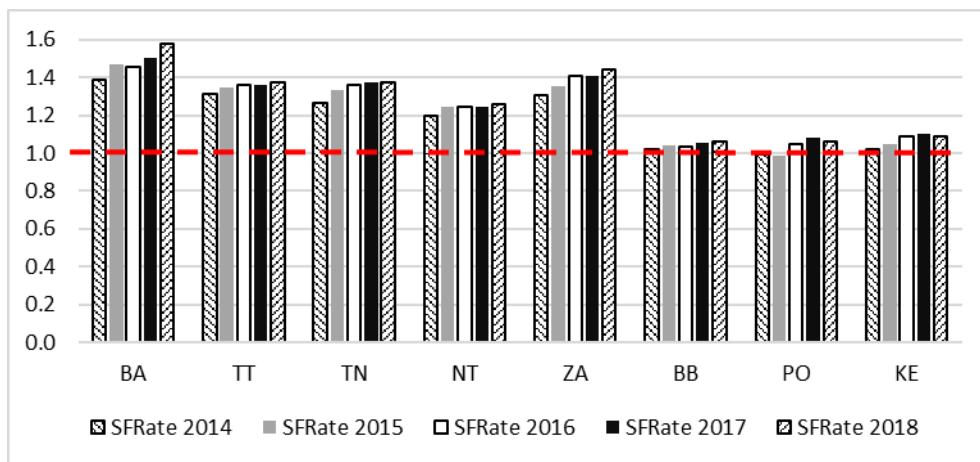


Figure 5. Total self-financing rates by regions in 2014–2018

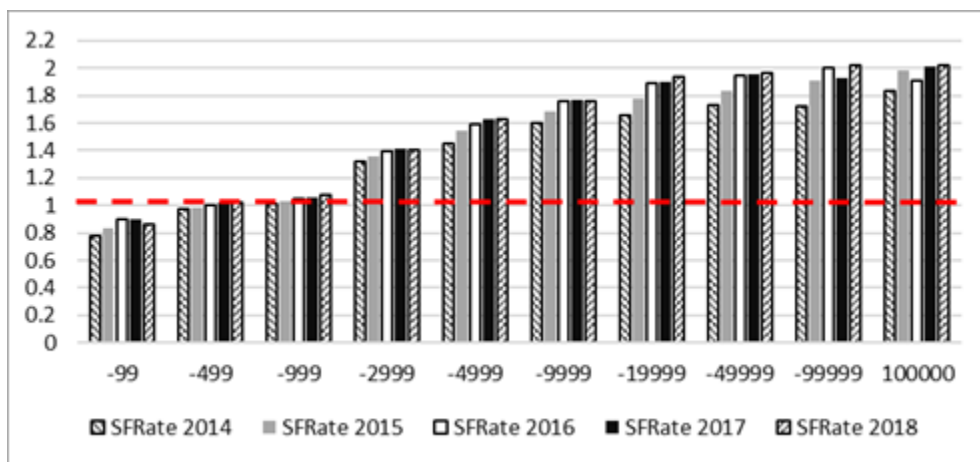


Figure 6. Total self-financing rates by size categories in 2014–2018

Notes: SFRate – Total self-financing rate

Source for Figures 5-6: the authors based on data from DataCentrum

Almost all values of this indicator, with the exception of SFRate of size categories –99 and –499, are above the value 1 (somewhat slightly, but rather significantly). From the perspective of the regions we also observed a

decreasing trend of these values from the western to the eastern part of Slovakia, disrupted by the Žilina region, where the values of this indicator are the second best after the Bratislava region. The lowest values of SFRates were achieved in Banská Bystrica and Prešov regions, followed by Košice region. In case of municipalities in the Banská Bystrica and Prešov regions, we suggest that it is caused by the fact that these two regions have the largest number of municipalities in small size categories (from -99 to -999). The values of the SFRate indicator range from 0.98 to 1.58 in the observed period. From the size categories point of view the trend is unambiguous, smaller size category smaller values of SFRate, with increasing population the value of this indicator also increases. In the case of the first two size categories, the SFRate indicates that current own revenues were not sufficient to cover current expenditure and no longer to finance potential development activities. The values of SFRate range from 0.78 to 2.02. The total SFRate for Slovakia is on average 1.17 per municipality in the observed period. Naturally, the lower values are achieved in case of indicator RateofTA (see Figure 7 and Figure 8).

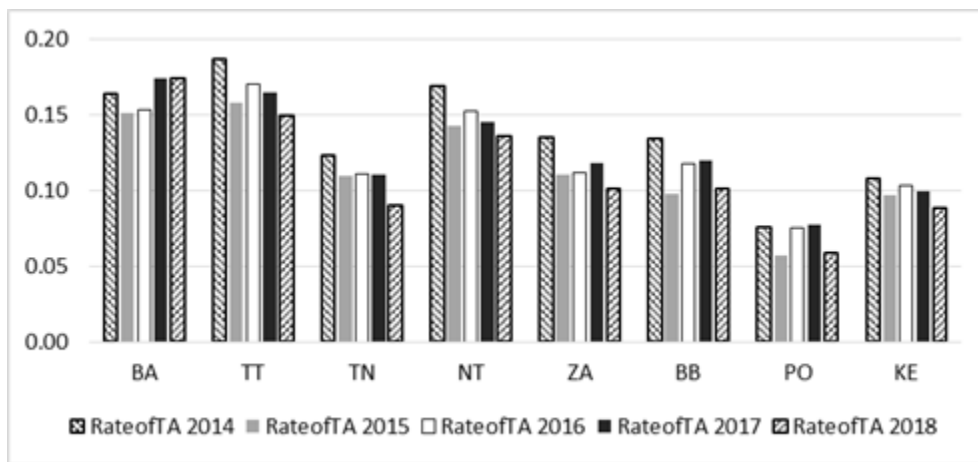


Figure 7. Total rates of tax autonomy by regions in 2014–2018

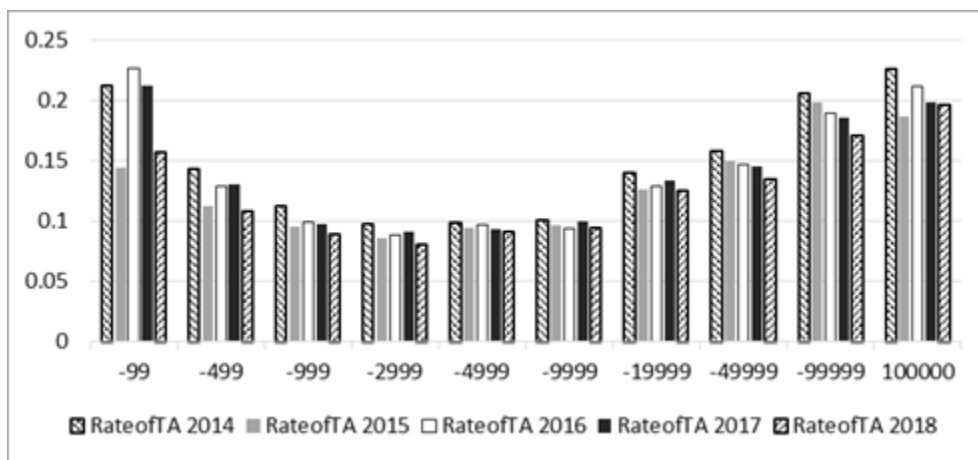


Figure 8. Total rates of tax autonomy by size categories in 2014–2018

Notes: RateofTA – Total rate of tax autonomy

Source for figures 7-8: the authors based on data from DataCentrum.

In case of regions, the lowest value was achieved in Prešov region, where the proportion of local taxes to total revenues in 2015 was only 6%, on average only 7% in the considered period. The highest values are in the

Bratislava and Trnava regions, with the proportion of local taxes on average 16% in considered period. Surprisingly, in terms of size categories the lowest values were not achieved by the smallest size category, but by the size category –2,999 with the proportion of local taxes on average only 9% in the observed period, followed by the groups –4,999, –9,999 and –999 with values range from 9% to 11% in this period. The highest values were reached by the lowest size category –99 with proportion of local taxes 14–23% and by the highest one, with proportion of 19–23% in observed years 2014–2018. Overall result for Slovakia is 11% per municipality in this period. In several cases, we can register a rather slightly declining trend of this indicator within the monitored years, which was caused by a change in the proportion of shared taxes (from 67% to 70%) allocated to municipalities under the State Budget Act. In the years 2016 - 2018, the total volume of collected share taxes intended for municipalities even increased.

4. Discussion

The methodology for solving this problem is challenging due to the varying opinions imposed by researchers. There is not a uniform set of indicators to assess the financial situation of municipalities, as the expert discussion on relevant indicators is not yet complete.

As regards the analysis, a high degree of territorial fragmentation can be observed in Slovakia, since 90% of all municipalities belong to the small size categories up to 3,000 inhabitants, which naturally leads to a negative impact on their ability to participate in regional development since they have worse financial and property conditions. The municipality's property is a potential source of its own income, but according to the results of the analysis, it seems that its size is significantly influenced by the size category of the municipality. The results of non-current assets per capita in 2018 showed a worse starting situation for small municipalities with less than 1,000 inhabitants compared to larger ones. A better starting point was in case of municipalities from 5,000 to 10,000 inhabitants, almost all of them reached one of the three largest values of this indicator. The largest municipalities with a population over 100,000 had the best property assumptions for development (with an average value of up to €3,700 per capita).

In terms of the tax strength of municipalities per capita in Slovakia in year 2018, the lowest values were achieved by smaller size groups (mainly up to 3,000 inhabitants). Regarding to development in period 2014-2018, the total value of this indicator for Slovakia increased on average from €322.2 to €455.1. From the perspective of the regions, the value of the indicator is growing towards the west of Slovakia.

Regarding the level of self-sufficiency in generating their own income, Slovak municipalities, both in terms of regions and size categories, can cover them on average around 63% and 61%, as mentioned. It means that they do not have to use external resources in the form of bank loans and state subsidies to cover their current expenses. The results of the self-financing rate in monitored period showed that from the regional point of view, all municipalities have their own financial reserve, which could be used for regional development, although the amount varies considerably. The municipalities of western Slovakia exhibited significantly better results (on average 1.35) compared to the rest of Slovakia (on average 1.13). In terms of size categories, only municipalities with over 1,000 inhabitants generate a reserve for possible development activities (on average 1.75).

We can conclude that the share of local taxes in the context of total revenues (tax autonomy) in the conditions of the Slovakia is insignificant (overall average value in observed period 11%). Once more, a higher value of the indicator was reported by municipalities in the west of Slovakia (except the Trenčín region) compared to the other regions. In the case of the Prešov region, it was on average only 7% for the whole period under review, which indicates considerable regional differences. Unexpected result occurred in terms of size categories, where the smallest municipalities of up to 99 inhabitants achieved the second highest values (overall average value in

observed period 19%). The size category of municipalities from 1,000 to 3,000 inhabitants reached the lowest values (on average 9% in observed period).

Conclusions

Local social and economic conditions of individual municipalities, their raw material facilities, infrastructure and human resources are naturally different. This significantly determines the circumstances of business and investment, and thus the possibilities of regional development.

The municipality should be an activator of regional development and directly influence local conditions by attracting potential investors in the managed territories. If a municipality is better equipped with business activities, it also generates a higher level of development for the whole region. These business activities generate higher local taxes and better financial condition of municipality.

Not only foreign, but also Slovak authors pay great attention to the evaluation of the good financial condition of municipalities. However, there is no clear definition what this means. We worked with studies in which the authors used various groups of indicators, which they considered an important basis of their evaluation. We think that in the financial analysis of municipalities it is possible to use already existing indicators, but they can be modified by own goals and intentions.

Using selected indicators, we analyzed the financial situation of municipalities in Slovakia to found out whether they are able to create space to support development activities from the perspective of eight Slovak regions and ten size groups of municipalities by population. We wanted to show how the individual size groups of municipalities contribute to the healthy financial condition of the region. We used quantitative financial and demographic data on Slovak municipalities from 2014 to 2018 obtained from the DataCentrum and Ineko websites and processed them in MS Excel application. We presented two financial indicators per capita: non-current assets and tax strengths, as well as three ratio indicators: self-financing, self-sufficiency and tax autonomy rates. The most important results are presented in the discussion, but the key conclusion is that the financial capacity of Slovak municipalities is limited. They do not have own financial resources for other as original competencies, which causes their low active participation in regional development. We realized that while regional development is not only determined by the level of financial resources, financial resources are the main prerequisite for development. As we found out, local taxes in Slovakia are only a marginal, additional financial source for municipalities.

Further research in this area is also necessary and important. Unless clear and universal indicators available to monitor the financial situation of municipalities can be found, it will not be possible to compare them with each other and adequately evaluate the possibilities of their participation in regional development. The comparison between countries is also influenced and complicated by the different local tax systems. However, many attempts to harmonize them are contrary to the basic principles of the European Charter of Local Self-Government, according to which the municipality has the right to own property and own local tax system. It is true that the tax burden on labor in Slovakia is unbearably high compared to other countries, but at the same time it is true that revenues from local taxes are lower in Slovakia than abroad.

The results of municipalities in small size categories suggest that in order to successfully complete the process of fiscal decentralization, it would be necessary to merge small municipalities to create economically larger and more capable units. The better results of municipalities located in western Slovakia are probably also due to the fact, that the self-governing regions of western Slovakia are the regions with the largest share of foreign investment. Therefore, sustaining of friendly economic situation of municipalities is important not only through an active approach on the part of municipalities, but also on the part of the state.

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