

FINANCIAL INDEPENDENCE IN RURAL MUNICIPALITIES IN BULGARIA

Emil MUTAFOV

Trakia University, Students campus 6000, Stara Zagora, Bulgaria, E-mail: mutafov143@gmail.com

Corresponding author: mutafov143@gmail.com

Abstract

Bulgaria is a unitary country and municipalities are the only subnational level of self-governance. It is important to have stability and independence in local finances to provide services of high quality. This research's main goal is to evaluate the level of financial independence in rural municipalities in Bulgaria by monitoring the main revenue flow to the municipal budget - through local taxes. There are a few methods used in the process of evaluation, like mathematical synthesis, comparative analysis, and deduction. The research is using the European NUTS classification, Bulgaria's Law on Regional Development, statistical information from the National Statistical Institute, and the Ministry of Finance. Results are going to show where is the weak point in the municipal local finances to gain more independence and how they can increase their revenue. This will allow them to distribute better their financial flows and invest in activities and services that are necessary for their municipality type.

Key words: rural municipalities, local taxes, decentralization

INTRODUCTION

The independence of local self-government is an important part of the identity of the municipalities and a possibility for their development. To achieve this independence, municipalities need to perform some changes. If we look on this problem from another angle, we can give more power and independence to the local governments but in the same time we have to make sure they are monitored.

Financial independence is particularly important in rural municipalities, as they are taking about 80% of the territory of Bulgaria [5, 14]. The main income in a municipality is from local taxes and fees. This being said, the income can be easily increased by changing the tax rates, which will lead to the revenue increase in rural municipalities.

One of the most important part in the municipal budget, as we speak for revenues, is the share of the local taxes and fees. There are different taxes and fees in Bulgaria and all of them are with different weight to the taxpayers. This is of key importance, because the greater their share is, the more self-sufficient and independent that municipality could be. In municipalities of different sizes,

the share of own revenues in the total revenues is different, and it varies from about 10% to 60-70% in some municipalities. It is of great importance in municipalities with larger own revenues to increase collection and revenue potential [9]. Currently, there is big difference between urban and rural municipalities on their taxes and fees collection. According the law in Bulgaria each municipality is defining its own tax rate, so they can control the expected revenues from taxes and fees in their budgets. With the delegated power to the municipality council to define the tax rates and fees, it is possible each rural municipality to conduct its own tax policy. Such policy in poor regions could be pointed to set lower tax rates and have higher collectability or another approach is to have higher rates in richer regions and follow strictly the low in order to keep the collectability high as well. The rate of real estate tax is determined by ordinance of the municipal council within of 0.1 and 4.5 per thousand on the tax assessment of the real estate [1].

During this century, a huge number of scientists and inventors contributed to the development of human civilization [4, 6]. The COVID-19 pandemic crisis has affected all

sectors of the economy. The achievement of the strategic development goals and the financial provision of the municipalities is possible through the municipal budget [7]. It has an income and expenditure part and without its own budget the municipalities cannot exist separately. Realistically set incomes on an annual basis and expenses according to the possibilities of the municipalities allow optimal use of resources. The revenue part of the municipal budget is subject to careful planning by the relevant directorate in the municipality and has the task of predicting all revenues in the following areas:

- local taxes;
- local fees;
- services and rights provided by the municipality;
- management and disposal of municipal property;
- fines and property sanctions;
- interest, penalties and other non-tax income

The expected revenues from local taxes and fees are calculated and defined by municipality employees according to the active "Law for local taxes and fees" and also the determination and administration of local fees and service prices on the territory of the given municipality [11].

The expenditure part of the municipal budget is balanced, providing budget credits for financing local and state-delegated activities. Their structure could be classified by function as follows:

- Function "General State Services"
- "Defense and Security" function
- Education function
- "Health" function
- "Social security, support and care" function
- Function "Housing construction, BKS and environmental protection"
- Function "Leisure, culture and religious activities"
- "Economic activities and services" function
- "Expenses not classified in other functions" function
- All capital budget
- Reserves for urgent needs

The implementation of the municipal budget is organized by the mayor of the municipality

through the mayors of town halls, districts and through the heads of budget units financed by and through the municipal budget [2].

The adoption of the municipal budget and the determination of the amount of local taxes and fees for the next calendar year takes place according to a certain schedule. Of course, there may be exceptions, since municipal budgets are adopted after the republican budget has been approved in the National Parliament. In this way, it is possible to set correct parameters regarding the expected transfers from the republican to the municipal budget. At the beginning of the month of November of the previous year, a summary of the budget claims, analysis and verification, development of an expenditure plan, preparation of a program for revenues (includes proposals for determining the amount of local fees and service prices) [8]. Both, real estate tax and vehicle tax are regulated by the Law for local taxes and fees [1].

Real estate tax

Real estate tax is levied on buildings and independent objects within buildings located on the territory of the country, as well as on land located within the building boundaries of settlements and settlements, and on land outside them, which according to a detailed development plan have the purpose under Art. 8, item 1 of the Law on Territorial Planning and after changing the purpose of the land, when this is required by the order of a special law.

Vehicle tax

All vehicles registered for movement on the road network in the Republic of Bulgaria and aircraft registered in the state register for civil aircraft are subject to vehicle tax. Taxpayers are the owners of the vehicles (individuals or legal entities).

The purpose of this research is to review the two local taxes with the greatest weight in municipal revenues and to assess whether the size of municipalities has a relationship with tax collection, i.e. in the larger municipalities, whether there is a higher collection or the opposite statement would be proven.

MATERIALS AND METHODS

In the study and analysis of the material, the authors are based on the definition of RA adopted in Bulgaria: "...rural areas - the municipalities of (LAU 1), in which there is no settlement with a population of more than 30,000 people..." [10, 13], refers to the Law on Regional Development of 31.08.2008, Chapter Two - Territorial Basis of Regional Development, Art. 4. (2), (4) and (5), (Supplement - NP № 21 of 2020, in force from 13.03.2020) [3].

The analysis of local taxes and fees covers a period of 5 years (2018-2022) and is focused on two main taxes with the largest share of revenue in municipal budgets, namely Real Estate Tax and Vehicle Tax. The data in the considered period are processed in the following two directions:

- collectability rate
- correlation coefficient

❖ Local tax collection rate

To track tax collections as a nominal value over a 5-year period under consideration and to compare tax collections as a percentage against the possibility of a maximum collection of 100%.

For this purpose, it is possible to use the following formula:

$$T_C = \frac{C_{TC}}{P_{TC}} \times 100\% \dots \dots \dots (1),$$

where:

T_C – tax collection rate

C_{TC} – real tax revenues

P_{TC} – all possible earnings

❖ Correlation coefficient for the collection of MDT in relation to the size of the municipality

With this coefficient we can verify if there is relation between **the collection of local taxes** and the **population of the municipality**.

The following formula is used to calculate the correlation coefficient:

$$r = \frac{n(\sum xy) - (\sum x)(\sum y)}{\sqrt{[n\sum x^2 - (\sum x)^2][n\sum y^2 - (\sum y)^2]}} \dots \dots \dots (2),$$

where:

r = correlation coefficient

n = number of observations

x = 1st variable

y = 2nd variable

In the analysis of the correlation coefficient, the following permissible values are applied (Table 1).

Table 1. Correlation degree values

Degree of correlation	Positive correlation	Negative correlation
weak	$0 \leq r < 0.2$	$-0.2 < r \leq 0$
significant	$0.2 \leq r < 0.5$	$-0.5 < r \leq -0.2$
strong	$0.5 \leq r < 0.8$	$-0.8 < r \leq -0.5$
very strong	$0.8 \leq r$	$r \leq -0.8$

Source: Pearson's interpretation.

RESULTS AND DISCUSSIONS

Taking into account the Program for the development of rural areas in Bulgaria and the set goal of examining the financial autonomy of rural municipalities, the population is divided into rural and urban areas. Visually, this distribution is available in Table 2 together with the exact number and division of municipalities (rural/urban) for the considered period of 5 years.

From the subdivision of municipalities, a decrease in the average number of inhabitants in a municipality is noticeable, both in those of the rural type and in those of the urban type. For the five years of the period under review, there was a population decline of about 8% in rural municipalities and about 6% in urban-type municipalities. The population of the capital is decreasing and the population of the country will also reach 6,447,710 people in 2022, which is a decrease of 8% compared to 2018.

The research is focussed on the rural municipalities which are taking around 80% of all municipalities in Bulgaria. For the period of the study this means between 221 and 224 municipalities in total.

Table 2. Number of municipalities by year and population

Groups		MUN 2018	AVE POP in 1 MUN	MUN 2019	AVE POP in 1 MUN	MUN 2020	AVE POP in 1 MUN	MUN 2021	AVE POP in 1 MUN	MUN 2022	AVE POP in 1 MUN
1	Under 30,000 population-rural municipalities	222	10,374	222	10,275	222	10,364	221	10,088	224	9,569
2	Over 30,000 population - urban municipalities	42	80,214	42	79,563	42	78,748	43	76,792	40	75,600
3	Capital	1	1,328,120	1	1,328,790	1	1,308,412	1	1,307,439	1	1,280,334
All municipalities		265	26 415	265	26 232	265	26 100	265	25 807	265	24,331

Note: MUN = municipalities. AVE POP = average population

Source: Visualization of data from NSI and Ministry of Finance, Bulgaria [8,12].

From the presented data (Fig. 1), we can say that there is a higher collection of real estate tax than on vehicles in rural municipalities. There is an increase in collection during the period under review, with a positive

difference of 5.82% in 2022 for real estate tax in rural areas compared to 2018. The vehicles tax, on the other hand, kept similar values almost throughout the considered period, with the lower results in 2020.

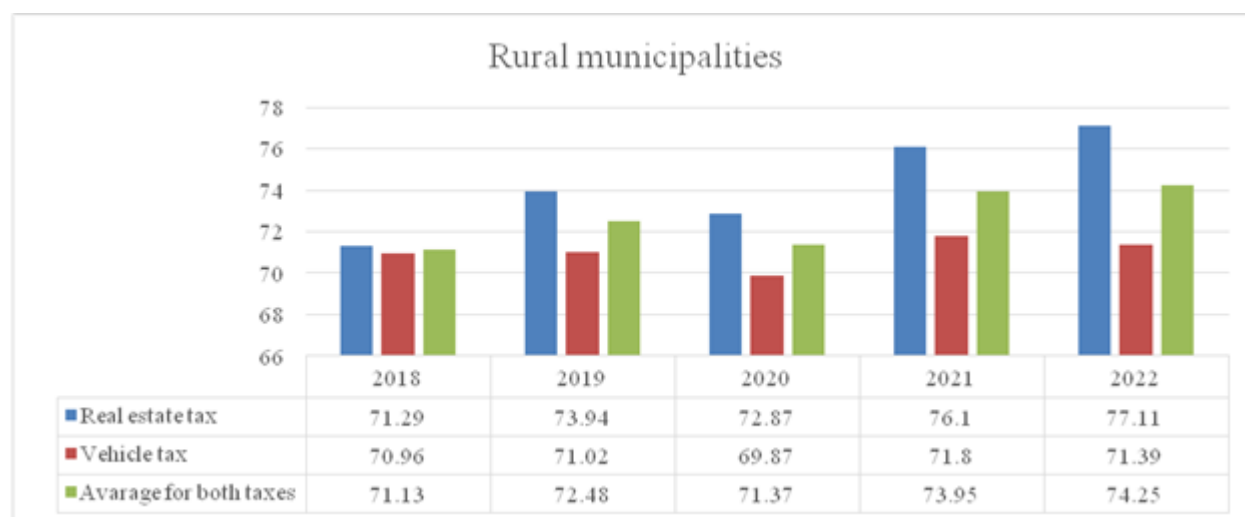


Fig. 1. Average collection of real estate tax and vehicle tax in rural municipalities, %

Source: [8,12].

According the data from Figure 1 and 2 we can conclude that there is higher collectability of real estate tax, which was realized in urban municipalities, and at the end of the period, collectability is higher than the beginning of the period with more than 4%.

Vehicle tax maintained the same trend and remained almost unchanged over the five-year period under review, hovering in the 69-71% range.

Comparing the data on the collection for rural and urban municipalities (Figs. 1 and 2), it can be found that in the urban municipalities

there is a higher collection of the two most significant local taxes.

On average, between 2% - 3% better collection of both taxes is observed in urban municipalities compared to rural ones.

In order to verify the relationship between tax collection and the number of population in rural municipalities, it is necessary to perform calculations according to the formula described in the methodology.

Figure 3 presents the property tax data and the calculated correlation coefficient for the period under consideration by year.

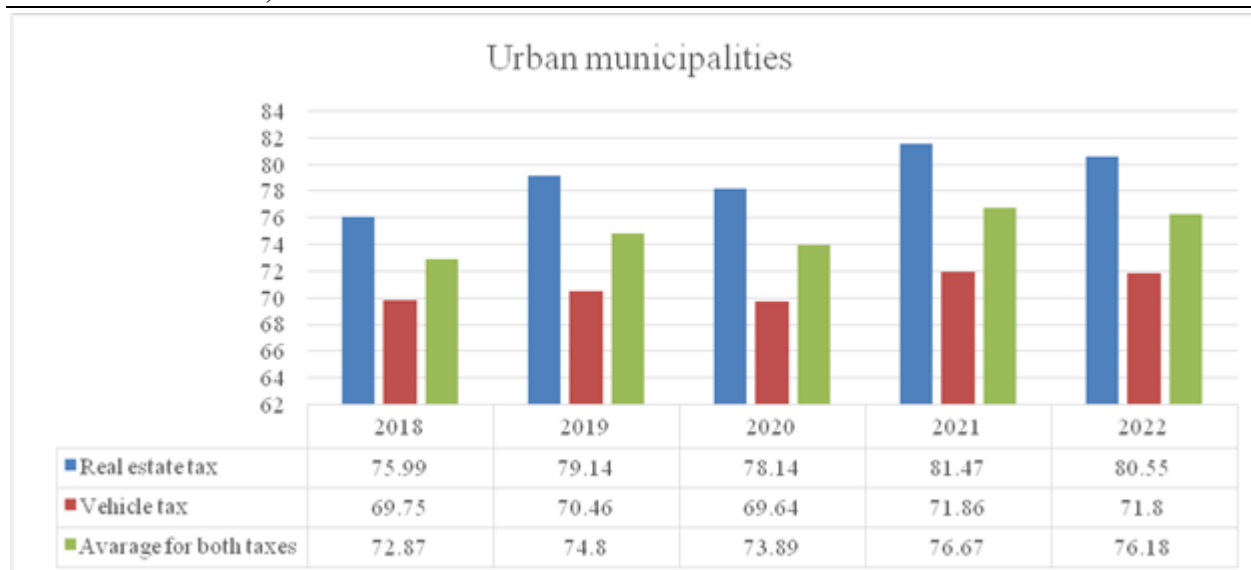


Fig. 2. Average collection of real estate tax and vehicle tax in urban municipalities, %
 Source: Visualization of data from NSI and Ministry of Finance, Bulgaria [8, 12].

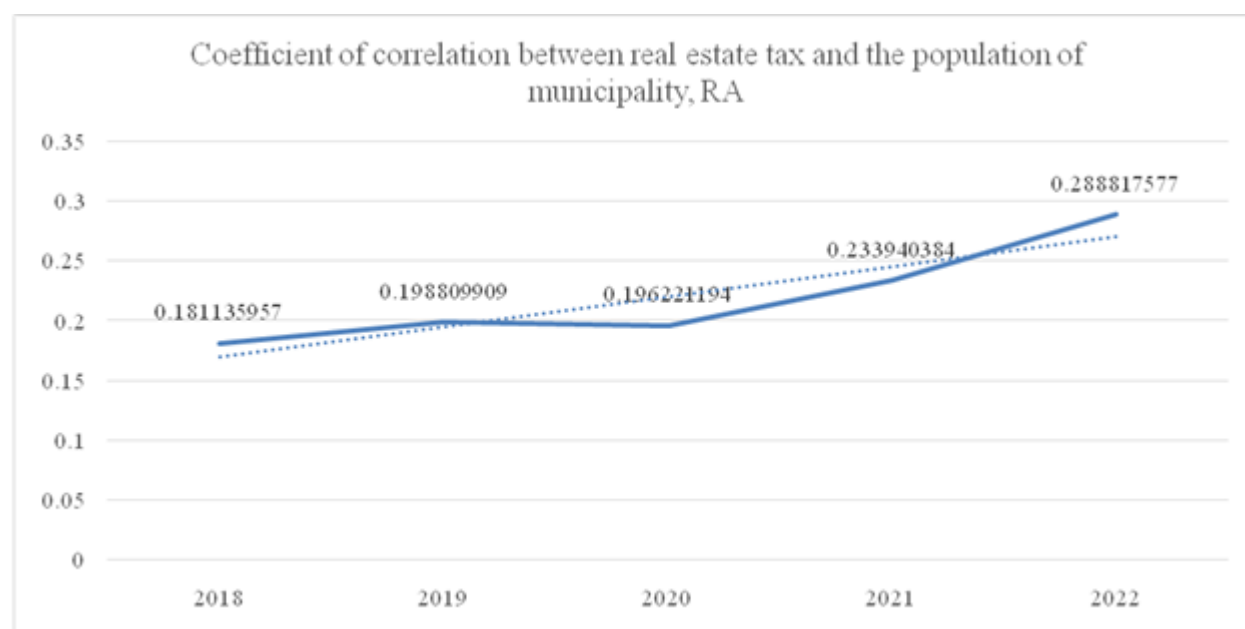


Fig. 3. Coefficient of correlation between real estate tax and municipality population, RA
 Source: Visualization of data from NSI and Ministry of Finance, Bulgaria [8, 12].

The following generalizations could be made from the data presented:

-The relationship between the collection of real estate tax in rural municipalities and the number of inhabitants is positive and weak until the middle of the considered period, and in the last two years of the period, it becomes significant with a coefficient of 0.29, which falls into the second group according to the accepted scale of measurement.

The positive relationship between the two variables means that the larger a municipality is, the more likely it is that the real estate tax

collection will be higher.

Figure 4 presents the results for the correlation coefficient between vehicle tax and population in rural municipalities. The results show that the relationship between the two variables is weak, but still positive. We observe the lowest correlation coefficient in the middle of the period (2020), with a result of 0.10. At the end of the period, the data reports approaching the next "significant" group on the measurement scale with a score of 0.17.

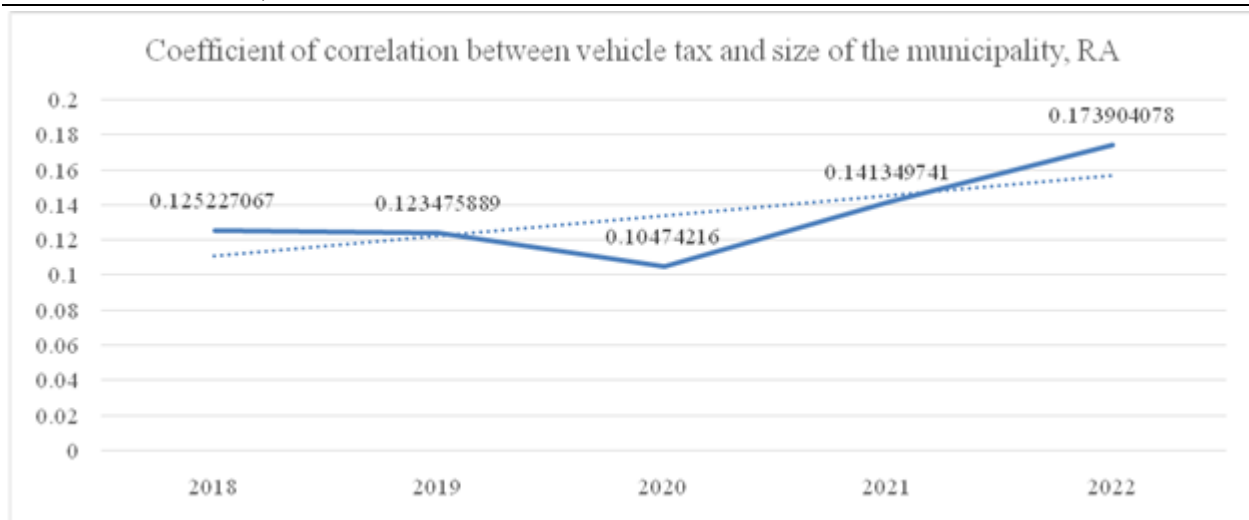


Fig. 4. Coefficient of correlation between vehicle tax and municipality population, RA
 Source: Visualization of data from NSI and Ministry of Finance, Bulgaria [8,12].

We can conclude that there is positive correlation between the population and tax collectability. For the real estate tax, we have significant connection and as higher the population is in one municipality, higher the collectability is. Regarding the vehicle tax, the connection is weaker.

CONCLUSIONS

Given the results of the correlation coefficient and the size of the population in the municipalities where a significant positive relationship has been observed in recent years, it could be considered to merge the smaller municipalities, which by law must have a minimum population of 6,000 people in order to exist as a separate entity. Currently in Bulgaria, about 31% of the municipalities do not meet this condition.

From the data analysis so far, the following conclusions can be drawn:

- Real estate tax collection is as high as 77% in rural areas, which means that local revenue potential is lost and could be increased by about a quarter on average. In comparison, the same tax has a higher collection in urban municipalities with a population of more than 30,000 people.

- Vehicle tax collection rates are similar in rural and urban municipalities. The correlation coefficient shows a weak positive relationship between population size and collection.

Reforms in rural municipalities should be

aimed at consolidating and delegating more powers from the central to local authorities in order to continue the process of decentralization and to give a greater opportunity for rural municipalities to generate their own revenues. This would lead to a more complete utilization of the pledged revenues and provision of better quality services to the citizens living on the territory of the rural municipalities. An appropriate follow-up study could link average gross wages in municipalities and tax collections.

ACKNOWLEDGEMENTS

This is an original research article developed and funded by the author.

REFERENCES

- [1]Law on Local Taxes and Fees, <https://lex.bg/laws/ldoc/2134174720>, Accessed on February 12, 2024.
- [2]Law on Public Finances, Art. 122, Paragraph 1, <https://lex.bg/en/laws/ldoc/2137180669>, Accessed on February 12, 2024.
- [3]Law on Regional Development in force since - 31.08.2008, <https://lex.bg/index.php/mobile/ldoc/2135589285>, Accessed on January 10, 2023.
- [4]Marinov, P., 2020, Formation and implementation of sustainable development in Green infrastructure of urbanized Urban spaces, Jubilee International Science Conference Economic science, Education and Real Economy: Development and Interactions in the digital age, Varna, Vol. II, pp. 739-747, "UPH-Varna".
- [5]Marinov, P., 2023, Index of location of employed

persons and part of nonagricultural activities in the Rural areas of South central Bulgaria (in the context of South-central region), *Scientific Papers Series Management, Economic Engineering in Agriculture and Rural Development*, Vol. 23(2), 455-461.

[6]Marinov, P., 2021, Urbanization - formation, factors and stages of the European continent, 6th IKSAD International Congress on Social Sciences, Szechenyi Istvan University, Hungary, pp.511-517.

[7]Milev, O., 2021, Factor influences in the food industry of the example of dairy processing enterprises in Bulgaria. In *SHS Web of Conferences* (Vol. 120). EDP Sciences, <https://doi.org/10.1051/shsconf/202112003007>

[8]Ministry of Finances, Bulgaria, <https://www.minfin.bg/bg/810>, Accessed on February 12, 2024.

[9]Mutafov, E., 2023, Optimization possibilities in Bulgarian local taxation. *Trakia Journal of Sciences*, 21(1) doi:10.15547/tjs.2023.s.01.007 pp. 36-40.

[10]Mutafov, E., Marinov, P., 2022, Population migration processes and digital coverage in Rural areas of Bulgaria, *Scientific Papers "Series Management, Economic Engineering in Agriculture and Rural Development"*, Vol. 22(2), 515-522.

[11]Mutafov, E., 2021, Responsibilities distribution between different levels of government for public services delivery in EU countries. In *SHS Web of Conferences* (Vol. 120). EDP Sciences, <https://doi.org/10.1051/shsconf/202112001009>

[12]National Statistical Institute, https://infostat.nsi.bg/infostat/pages/module.jsf?x_2=80 Accessed on February 12, 2024.

[13]Rural Development Program (2007-2013). Sofia, CM of RB.

[14]Yarkova, Y., Mutafov, E., 2017, Rural Areas in Bulgaria–Investigation on some Factors for Development. *Eastern European Countryside*, 23(1), 51-70.

