

IMPACT ON VAT AT LOCAL FINANCES IN CORRELATION WITH NEW REFORMS: CASE STUDY - REPUBLIC OF NORTH MACEDONIA

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Abstract

The paper studies the relations of new reforms that have been introduced to support the fiscal capacity of the municipalities in North Macedonia. These reforms involve the transfer of VAT through new formula, offering positive benefits to enhance performance and supporting fiscal equalization to improve local finances.

Fiscal equalization is necessary to address horizontal imbalances. Horizontal imbalances occur when the spatial distribution of local revenue sources does not align with spatial distribution of local government expenditures. National governments attempt to mitigate horizontal imbalances both on the grounds of social solidarity and economic efficiency, aiming to prevent fiscally induced misallocation of economic resources. In relation to expenditure needs, economic efficiency concerns situation where benefits from local services vary across different population strata rather than being uniform for all local residents.

In this case, an efficiency-inducing grant formula should consider the differences in the proportion of entitled population in various localities. In this study we conduct empiric analyses (focused only on the VAT grant) to examine the correlation between higher performance, higher VAT transfers for municipalities in the country, and the implementation of two new funds in the formula linked to higher collected own revenues and better realized budgets compared to planned figures. Additionally, we will use the Pearson Correlation Coefficients to see did increasing the VAT subsidy rate lead to improve the fiscal capacity and increase the revenues of the municipalities.

Keywords: local finances, VAT, budget, performance, fiscal equalization, fiscal decentralization

1. Introduction

Fiscal decentralization is one of the priorities outlined in the Accession Partnership between Republic of North Macedonia and the EU. To achieve this goal, RNM decided on a careful and phased approach in the implementation of the fiscal decentralization process. This process involves strengthening municipalities' own revenues generation, capacity for asset management, administration and collection of local revenues, and the execution of transferred competences and the management of financial assets and other resources necessary for their execution continues to be successful. Since the initiation of decentralization of responsibilities and resources in 2005, municipalities have been implementing competences in various areas of: education, culture, social protection and fire protection. Therefore, the municipalities focused on building capacities for successful implementation of the transferred competences and management of a larger amount of funds. In 2005 and 2006, only dedicated grants (first phase of fiscal decentralization) were transferred to the municipalities to finance the current operational costs of the transferred competences in education, culture, social and child protection and fire protection.

Based on the assessment of the municipalities for fulfilling the conditions for entry into the second phase of fiscal decentralization, in the second half of 2007, the transfer of funds for the regular performance of functions in local public institutions via block grants, including funds for salaries and employee benefits.

The municipalities' own revenues have been strengthened, the administration and collection of their own revenues is successfully carried out, as well as the execution of the transferred competences and management

of the financial assets and other resources needed for their execution. Municipalities carry out administrative and managerial responsibilities in the field of taxes and fees accordingly, manage the transferred funds in a more flexible manner in order to fulfill the transferred responsibilities. Municipalities in the RNM are financed from their revenue sources, from income determined in special laws, income from state taxes and from grants from the Budget of the RNM. Own revenues of the municipalities are the following: real estate tax (0.10% to 0.20%), inheritance and gift tax (2%-3%), real estate turnover tax (2% to 4%) and communal fees. In addition to their own income, the municipalities also receive part of the income from taxes that the state collects, namely income from personal tax in the amount of 3% of the total collected funds is paid into the budget of the municipality for which the payment was made, as well as personal income tax from natural persons who are engaged in craft activity in 100% amount is paid into the budget of the municipality in which the activity is carried out.

With the latest amendments to the Law on Financing of Local Self-Government Units, the percentage of personal income tax increased from 3% to 6% effective from January 1, 2024. Until then the percentage for 2022 will remain at 4%, and it will increase to 5% in 2023. This income is derived from the personal income tax on the salaries of natural persons collected in the municipality where they are registered with permanent residence and residence. Subsidies transferred to municipalities from the Budget of the RNM include revenues from the VAT subsidy (4.5% of the collected VAT in the previous fiscal year), dedicated subsidies, block subsidies and capital subsidies.

2. Literature review

Many studies have shown the importance of fiscal decentralization in understanding the advantages and disadvantages of shifting fiscal responsibilities.

According to Oates (1972), he provides a “decentralization theorem”, which states that local public goods should be provided by local governments. This result based on information asymmetries, the assumption being that local governments have more information on local preferences, compared to higher levels of government. Another seminal contribution is made by Olson (1969), who introduced the term ‘Fiscal Equivalence’ to describe the optimal allocation of responsibilities based on the area which is being affected by the public good. For example, national public goods, like national defense, should be provided by the national level, but local public goods, like policing, should be provided by a local government which its borders match the area being served.

Fiscal decentralization might also exacerbate the ‘soft budget constraint’ – the tendency of local governments to increase debt under the assumption that the central government would bail them out (Kormai 1979, Kornai, Maskin and Roland 2003). Central governments making soft budget constraints a real possibility, have a political incentive to bail out local governments (Goodspeed 2002).

One of the first who is discuss the determinants of fiscal decentralization was Panizza (1999). He provides a model of endogenous fiscal decentralization and tests the model on a crosssection of 57 countries. He finds that country size, income, ethnic fractionalization and the level of democracy are positively correlated with fiscal decentralization. Arzaghi and Henderson (2005) analyze a panel of 47 countries from 1975 to 1995. They use random effects and suggest that income growth and population growth lead to fiscal decentralization. Another important research is research taken by Treisman (2006), which analyzes a panel of 66 countries. For example, he finds that richer countries are more decentralized. This is more pronounced in the decentralization of spending, leading to higher intergovernmental grants in these countries. Federal states are more decentralized and so are democracies. He finds that large territory (but not necessarily large population) countries are more fiscal decentralization. Treisman (2006) is also providing an institutional analysis and finds that former colonies of Spain and Portugal are more centralized, while former Soviet Union countries are more

decentralized. Also, Letelier (2005) is analyzing a panel of 64 countries and finds that urbanization is negatively associated with fiscal decentralization.

In order to better match the preference of the local population the ability of local governments can help contain expenditures. Because local governments possess better access to local preferences and, possesses an information advantage over the central government in deciding which provision of goods and services would best satisfy citizens (Hayek, 1945; Tiebout, 1956; Musgrave, 1969). Local governments are in a better position to prioritize public goods and services to be provided in circumstances where expenditures need to be limited. This informational advantage of local governments can help minimize the adverse impact of expenditure cuts on the population and alleviate social resistance to such a reduction.

3. New changes for improving of fiscal decentralization 2020-2022 in the Country

The RNM, in terms of the level of decentralization according to the data on the realization of expenditures in 2021 (participation of over 5% in GDP), enters the group of countries that are decentralized.

Today, compared to 2005, when the process of transferring responsibilities and fiscal decentralization began, the revenues of the municipalities have increased by more than six times (in 2005 realization of 5.9 billion denars, in 2021 39.9 billion denars). In the same period, the tax revenues on which the municipality has the autonomy to collect increased by more than three times. To promote fiscal decentralization, in the period 2021-2024, several activities and measures are planned, which are grouped into three pillars:

- I. Improving fiscal capacity and increasing municipal revenues will be achieved through several activities that foresee the growth of the funds allocated to the municipalities from the revenues collected in the central budget, the increase of the own revenues of the municipalities and the distribution of means that will support good performance. In this direction, the methodology for the distribution of the assets of the income from the value added tax, which are distributed to the municipalities, will be revised.
- II. Increasing fiscal discipline - reducing debts and household operations, foresees measures for real planning of revenues and expenses of municipalities, rationalization of operations and reduction of unnecessary expenses, regular servicing of obligations, greater financial discipline, declaration of financial instability, issuance of municipal bonds and analysis of existing obligations of municipalities and public enterprises. The increase in control by the state can be ensured through the supervisions carried out by the Financial Inspection regarding the observance of the provisions of the Law on Reporting and Recording of Obligations, the Law on Financing Local Self-Government Units and the Law on Financial Discipline, and
- III. Increasing transparency and accountability in the work of municipalities - will be taken to increase the transparency of municipalities through the publication of financial reports in a transparent and comprehensible manner, and action will also be taken towards greater accountability for use of budget funds. Increased transparency in the operations of municipalities is one of the prerequisites for ensuring the legal, purposeful and expedient use of public funds in the direction of achieving the goals for growth and development of municipalities, as well as efficient provision of services for citizens and improvement of the quality of life in municipalities.

The ultimate goal of this process is to achieve a higher quality of public services, a higher degree of economic development and improvement of the standard of living.

3. Empiric correlation -new methodology

The criteria for the distribution of the basic part remain unchanged and are specified in the Decree on the methodology for the distribution of value added tax revenues by municipalities for the year 2022 ("Official Gazette of the RNM" no. 149/21).

With the Decree amending and supplementing the Decree on the methodology for the distribution of the income from the value added tax by municipalities for the year 2022, the criteria for the distribution of the performance part and the equalization part have been additionally determined. The share of the revenue of the value-added tax for performance for the municipalities in the RNM, excluding the city of Skopje, is distributed as follows: 88% for all municipalities in the RNM, excluding the municipalities in the city of Skopje and the city of Skopje, and 12% for municipalities in the city of Skopje, excluding the city of Skopje. The performance portion is allocated only to municipalities that meet both of the following criteria:

- collected own revenues of the municipality in the previous year were at least 70% of the planned own revenues and
- collected own revenues of the municipality in the previous year are higher than the average own revenues collected in the municipality in the last three years before the previous year.

The share of revenues from the value added tax for unification for municipalities in the RNM, municipalities in the city of Skopje, excluding the city of Skopje is distributed in the amount of 88% for all municipalities in the RNM, excluding the municipalities in the city of Skopje and the city of Skopje and 12 % for municipalities in the city of Skopje, without the city of Skopje. The equalization part is distributed only to the municipalities, which are below the threshold of the average income from personal income tax per inhabitant collected in the previous year. The distribution of funds from the equalization and performance section by municipalities is carried out no later than September 30 of the current year, and the transfer of funds to the municipalities will be carried out in the months of October, November and December 2022. The new methodology for distribution of the revenues from value added tax by municipalities in 2022. The total revenues from the value added tax are distributed as a general-purpose grant and constitute a Fund representing a share of the value added tax collected in the previous fiscal year. The fund is divided in three parts, corresponding to the three parts: main general-purpose VAT grant, part for enhanced equalization and part for performance.

The total fund is represented by the formula:

$$F = EFM + EF + PF \quad (1) \quad DT_i = D_i + DDE_i + DP_i \quad (2)$$

F - represents the total revenues from the value added tax collected in the previous fiscal year

EFM – represents the main general-purpose VAT grant

EF- represents the part for enhanced equalization

PF – represents the part for performance

The share of the value added tax collected in the previous fiscal year as well as the shares for the parts are defined in the annual budget law, one year before the year of implementation. For the year 2022 the share of the value added tax is 5% and the shares for the parts are:

EFM – 4.5% EF- 0.25% PF – 0.25%

The total general-purpose transfer received by each municipality is calculated with the formula (2):

DT_i – total general-purpose grant received by a municipality

D_i - main general-purpose VAT grant received by a municipality

DDE_i - part for enhanced equalization grant received by a municipality

DP_i - part for performance grant received by a municipality

The main general-purpose VAT grant is distributed in a constant part (fixed amount) of 3.000.000 denars for all municipalities in the RNM, the municipalities within City of Skopje and the City of Skopje and a variable part in the amount of 12% for the municipalities within the City of Skopje and the City of Skopje, and in the amount of 88% for all other municipalities in the RNM.

The variable part of the main general-purpose VAT grant for the municipalities in the RNM without the City of Skopje is distributed based on the following criteria:

- 65% based on their share in the total number of inhabitants in the RNM without the City of Skopje, in accordance with the data from the last conducted population census, updated annually and published by the State Statistical Office,
- 27% based on their share in the total area of the territory of the RNM without the City of Skopje, in accordance with the determined borders of the municipalities by the institution in charge of surveying and cadaster, and
- 8% based on their share in the total number of settlements in the RNM without the City of Skopje, in accordance with Article 11 of the Law on territorial organization of the local self-government in the RNM.

The distribution of the funds from item 1 of this article to the municipalities in the RNM is performed by the formula:

$$D_i = \frac{0,65 \cdot EF_n}{BZ_n} \cdot BZ_i + \frac{0,27 \cdot EF_n}{P_n} \cdot P_i + \frac{0,08 \cdot EF_n}{BNM_n} \cdot BNM_i \quad (3)$$

D_i – grant (dotation) that is being distributed to the municipality;

EF_n – total variable amount of funds distributed to municipalities;

$EF_n = (F - 3,000,000 \cdot 81) \cdot 0,88$

BZ_n – number of inhabitants in the RNM without the City of Skopje, in accordance with the data from the last conducted population census, updated annually and published by the State Statistical Office;

BZ_i – number of inhabitants in a particular municipality, for which the distribution of the grant (dotation) is made, in accordance with the data from the last conducted population census, updated annually and published by the State Statistical Office;

P_n – area of the territory of the RNM without the City of Skopje, in accordance with the determined borders of the municipalities by the institution in charge of measurement and cadaster;

P_i – area of territory of the particular municipality for which the distribution of the grant (dotation) is made, in accordance with the determined borders of the municipality by the institution in charge of measurement and cadaster;

BNM_n – number of settlements in the Republic of North Macedonia without the City of Skopje, in accordance with Article 11 of the Law on territorial organization of the local self-government in the RNM;

BNM_i – number of settlements in a particular municipality for which the distribution of the grant is made, in accordance with Article 11 of the Law on territorial organization of the local self-government in the RNM.

The variable part of the funds allocated for distribution to the City of Skopje and the municipalities within Skopje, from Article 2 of this decree, is distributed in proportion 40:60.

The part for enhanced equalization is distributed in the amount of 12% for the municipalities within the City of Skopje and in the amount of 88% for all municipalities in the RNM, outside Skopje. Funds from item 1 of this article to the municipalities outside Skopje are distributed only to municipalities for which:

$$1,20 \cdot \frac{PD_n}{BZ_n} - \frac{PD_i}{BZ_i} > 0 \quad (4) \text{ based on the formula: } DDE_i = \frac{\left(1,20 \cdot \frac{PD_n}{BZ_n} - \frac{PD_i}{BZ_i}\right)}{Z_{R_n}} * 0,88 * EF \quad (5)$$

DDE_i – grant (dotation) for enhanced equalization that is being distributed to the municipality.

PD_n – revenues from personal income tax collected by the Ministry of Finance on the territory of all municipalities, without the City of Skopje, in the previous year;

PD_i – revenues from personal income tax collected by the Ministry of Finance on the territory of the municipality in the previous year

BZ_n – number of inhabitants in the RNM without the City of Skopje, in accordance with the data from the last conducted population census, updated annually and published by the State Statistical Office.

BZi –number of inhabitants in a particular municipality, for which the distribution of the grant (dotation) is made, in accordance with the data from the last conducted population census, updated annually and published by the State Statistical Office.

ZRn –sum of the differentials for all municipalities outside Skopje, for which:

$$1,20 \cdot \frac{PDn}{BZn} - \frac{PDi}{BZi} > 0 \quad (6)$$

and is calculated by the formula:

$$ZRn = \sum_{i=1}^n \left(1,20 \cdot \frac{PDn}{BZn} - \frac{PDi}{BZi} \right) \quad (7)$$

EF –fund part for enhanced equalization.

The part for enhanced equalization allocated for distribution to the municipalities within Skopje are distributed only to municipalities for which:

$$1,20 \cdot \frac{PDsk}{BZsk} - \frac{PDi}{BZi} > 0 \quad (8)$$

based on the formula:

$$DDEi = \frac{\left(1,20 \cdot \frac{PDsk}{BZsk} - \frac{PDi}{BZi} \right)}{ZRsk} * 0,12 * EF \quad (9)$$

$DDEi$ –grant for enhanced equalization that is being distributed to the municipality within Skopje;

$PDsk$ –revenues from personal income tax collected by the Ministry of Finance on the territory of all municipalities within Skopje in the previous year;

PDi –revenues from personal income tax collected by the Ministry of Finance on the territory of the municipality within Skopje in the previous year

$BZsk$ –number of inhabitants in the RNM within the City of Skopje, in accordance with the data from the last conducted population census, updated annually and published by the State Statistical Office;

BZi – represents number of inhabitants in a particular municipality, for which the distribution of the grant (dotation) is made, in accordance with the data from the last conducted population census, updated annually and published by the State Statistical Office;

$ZRsk$ –represents the sum of the differentials for all municipalities within Skopje, for which

$$1,20 \cdot \frac{PDsk}{BZsk} - \frac{PDi}{BZi} > 0 \quad (10)$$

and is calculated by the formula:

$$ZRsk = \sum_{i=1}^n \left(1,20 \cdot \frac{PDsk}{BZsk} - \frac{PDi}{BZi} \right) \quad (11)$$

EF –the fund part for enhanced equalization.

The part for performance is available only for those municipalities who cumulatively satisfy two criteria:

(1) collected own revenues by the municipality in the previous year were at least 70% of the planned own revenue by the municipality; and

(2) collected own revenues by the municipality in the previous year are higher than the average own revenues collected by the municipality in the three years preceding the previous year.

The part for performance is distributed in the amount of 12% for the municipalities within the City of Skopje and in the amount of 88% for all municipalities in the RNM, outside Skopje. The distribution of the funds from item 1 of this article to the municipalities outside Skopje is based on the formula:

$$DPi = IT_i \cdot 0,88 \cdot PF \quad (12)$$

DPi –dotation (grant) for performance that is being distributed to the municipality outside Skopje;

IT_i –the index transfer for the municipality and is calculated

$$IT_i = ZPF_i * \frac{1}{ZPF_n} \quad (13)$$

ZPF_i –revenue effort share for the municipality satisfying the criteria in Article 7, and is calculated

$$ZPF_i = \frac{PI_i}{20} * USP_i \quad (14)$$

If PI_i is smaller than 20%.or

$$ZPF_i = PI_i \cdot USP_i \quad (15)$$

If PI_i is larger than or equal to 20%.

PI_i –the percent increase of own revenues collected by the municipality in the previous year, compared to the average for the three years preceding the previous year, calculated based on the formula:

$$PI_i = \frac{SP_i(t-1)}{(SP_i(t-2)+SP_i(t-3)+SP_i(t-4))/3} * 100 - 100 \quad (16)$$

USP_i –the share of own revenues collected by the municipality in the previous year in the total own revenues collected by all municipalities outside Skopje in the previous year, based on the formula:

$$USP_i = \frac{SP_i}{SP_n} \cdot 100 \quad (17)$$

SP_i –own revenues collected by the municipality in the previous year.

SP_n –own revenues collected by all municipalities outside Skopje in the previous year.

ZPF_n - sum of revenue effort shares of all municipalities outside Skopje in the previous year, and is based on the formula:

$$ZPF_n = \sum_{i=1}^n ZPF_i \quad (18)$$

PF –the fund part for performance.

The distribution of the funds from item 1 of this article to the municipalities within Skopje is based on the formula:

$$DPsk_i = IT_i \cdot 0,12 \cdot PF \quad (19)$$

$DPsk_i$ –dotation (grant) for performance that is being distributed to the municipality within Skopje.

IT_i –the index transfer for the municipality and is calculated

$$IT_i = ZPF_i * \frac{1}{ZPF_n} \quad (20)$$

ZPF_i – revenue effort share for the municipality satisfying the criteria in Article 7, and is calculated

$$ZPF_i = \frac{PI_i}{20} * USP_i \quad (21)$$

if PI_i is smaller than 20%.or

$$ZPF_i = PI_i \cdot USP_i \quad (22)$$

if PI_i is larger than or equal to 20%.

PI_i –percent increase of own revenues collected by the municipality in the previous year, compared to the average for the three years preceding the previous year, calculated based on the formula:

$$PI_i = \frac{SP_i(t-1)}{(SP_i(t-2)+SP_i(t-3)+SP_i(t-4))/3} * 100 - 100 \quad (23)$$

USP_i –the share of own revenues collected by the municipality in the previous year in the total own revenues collected by all municipalities within Skopje in the previous year, based on the formula:

$$USP_i = \frac{SP_i}{SP_{sk}} \cdot 100 \quad (24)$$

SP_i –own revenues collected by the municipality in the previous year;

SP_{sk} –own revenues collected by all municipalities within Skopje in the previous year.

ZPF_{sk} - sum of revenue effort shares of all municipalities within Skopje in the previous year, and is based on the formula:

$$ZPF_{sk} = \sum_{i=1}^n ZPF_i \quad (25)$$

PF –the fund part for performance.

From the data on the realized incomes of the local self-government units for the period from 2015 to 2021, an upward trend is ascertained, so that from 30.1 billion denars in 2015, they have increased to 39.97 billion denars in 2021. If the structure of revenues is analyzed, it is noted that transfers from the Central Government have the largest share in total revenues (donati from the Central Government) which in the period of 2015 - 2022 are over 50%, i.e. they range from 55% in 2019 to 64% in 2020. This indicates a high dependence of the

local government on the transfers granted to them by the Central Government. Tax revenues, which are mostly revenues that the local government administers on its own, account for about 24-28% of total revenues, except in 2020 when the share is reduced to 22% primarily as a result of the COVID-19 pandemic.

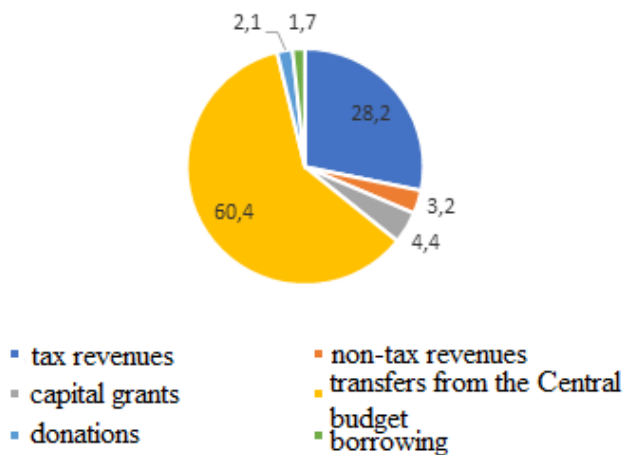


Figure 1. Structure of local revenues

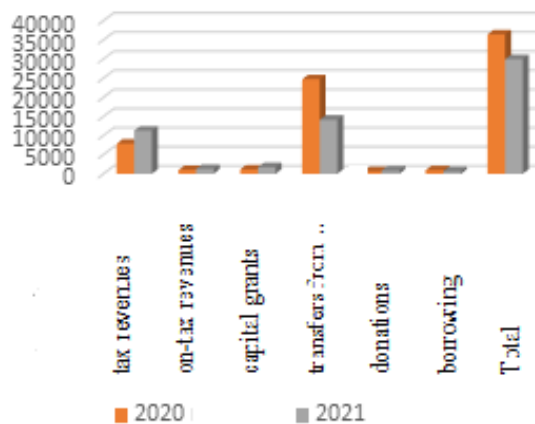


Figure 2. Structure of total local revenues

The total effect of a medium-term period for the municipalities together with PIT is calculated with an amount of up to 5.5 billion denars until 2025.

That is, the total fiscal effect for the whole of 2022 is calculated in the amount of 10 million euros, and with the introduction of the funds in the amount of 4.7 million euros for the last quarter of 2022.

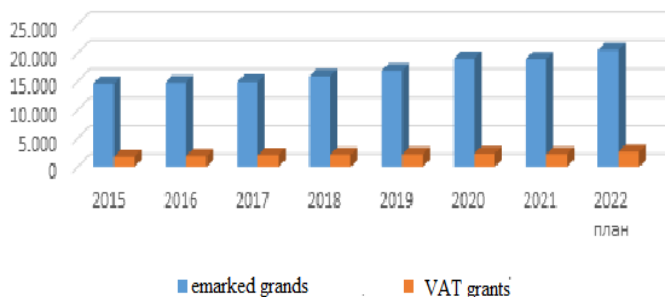


Figure 3. VAT grants and emarked grants

Table 1. VAT calculations

	VAT				
	2021	2022	2023	2024	2025
planned in the Fiscal Strategy	58,194	68,442	72,288	80,600	85,800
4.5% according to permanent law	2,238	2,619	3,080	3,253	3,627
new proposal with dynamics 5%-2022, 5.5-2023 and 6% - 2024 and 2025		2,910	3,764	4,337	4,836
Positive effect of increasing the VAT rate from 4.5% to 6%		+291	+684	+1,084	+1,209
total effect - VAT and personal	0	+517	+1,192	+1,837	+2,010

To determine the relationship between the variables, as well as their strength and direction Pearson Correlation Coefficients (Pearson Correlation Coefficients), is applied using the SPSS software program. The correlation is made for two variable: increasing the VAT subsidy rate and revenues of the municipalities

Table 2. Descriptive Statistics

	Mean	Std. Deviation	N
increasing the VAT subsidy rate	27629629,63	21958481,304	81
revenues of the municipalities	35922222,17	27777925,816	81

Table 3. Correlations

		increasing the VAT subsidy rate	revenues of the municipalities
increasing the VAT subsidy rate	Pearson Correlation	1	,990**
	Sig. (2-tailed)		,000
revenues of the municipalities	Pearson Correlation	,990**	1
	Sig. (2-tailed)	,000	
		N	81

Between the variables is a strong correlation where $r=0,990$, $n=81$ and $p<0,05$. That means that increasing of the VAT subsidy rate lead to increase the revenues of the municipalities.

Based on selected model can be determinate the impact on equalization. It's presented in Table 4 and Table 5.

Table 4. Before equalization

Descriptive Statistics	All municipalities	Outside Skopje	Urban outside Skopje	Rural outside Skopje	Within Skopje
Minimum	3,120	3,120	10,820	3,120	8,625
Maximum	26,583	26,583	25,190	26,583	20,617
Max-min ratio	8.5	8.5	2.3	8.5	2.4
Average	12,927	13,118	14,524	11,864	11,592
Standard deviation	4,234	4,320	3,031	4,917	3,467
Relative standard deviation	0.33	0.33	0.21	0.41	0.30
Lower quintile	9,676	9,798	12,155	8,143	9,411
Upper quintile	15,628	15,656	16,234	13,681	12,523
Interquartile range	4,591	4,200	3,221	4,224	2,779
Gini coefficient	0.171	0.176	0.107	0.211	0.133

Table 5. After equalization

Descriptive Statistics	All municipalities	Outside Skopje	Urban outside Skopje	Rural outside Skopje	Within Skopje
Minimum	7,327	7,327	11,850	7,327	8,977
Maximum	33,404	33,404	26,863	33,404	20,882
Max-min ratio	4.6	4.6	2.3	4.6	2.3
Average	15,131	15,576	16,196	15,023	12,018
Standard deviation	4,596	4,590	3,051	5,606	3,409
Relative standard deviation	0.30	0.29	0.19	0.37	0.28
Lower quintile	11,195	12,620	13,985	10,390	9,925
Upper quintile	18,001	18,147	18,441	17,759	12,863
Interquartile range	4,805	4,508	2,861	6,909	2,547
Gini coefficient	0.164	0.154	0.097	0.195	0.126

Moderate improvements for all municipalities and in all groups of municipalities.

- Max-min ratio reduced from 8.5 to 4.6.
- Relative standard deviation from 0.33 to 0.30
- Lower and upper quintiles higher
- Gini coefficient from 0.171 reduced to 0.164

5. Conclusions

After the economic recovery from the consequences caused by the COVID-19 pandemic, several measures and policies are planned to facilitate accelerated, inclusive and sustainable economic growth. These measures include actions to promote fiscal decentralization, ensure local and balanced regional development, sustainable and healthy living environment, and advance digitization of the economy and public services.

1. In the area of activities related to increasing financial discipline and efficiency, reducing and reprogramming the due and unpaid obligations of the local self-government units, the Ministry of Finance will provide municipalities with three credit instruments to address issues related to due and unpaid obligations. These instruments include the use of conditional credit (standby), issuance of municipal bonds for known buyers, and issuance of structural bonds.
2. determination of indicators will be established to monitor fiscal decentralization, increasing efficiency in the collection of local taxes, improving the effectiveness and profitability of public enterprises in municipalities, as well as increasing the transparency and accountability of municipalities.
3. The Special Program for Sustainable Local Development and Decentralization covers all significant aspects of the decentralization process that contribute to the alignment of the local self-government system with the normative, institutional, political and administrative criteria and standards of the EU and the achievement of the sustainable development goals of the UN .
4. At the same time, access to the capital market became more accessible based on more liberal and transparent conditions for borrowing, which increased the interest of municipalities in financing investment projects through borrowing.

From the statistical results we can conclude that increasing of the VAT subsidy rate lead to increase the revenues of the municipalities.

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