Municipal Fiscal Capacity in North Macedonia

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The topic of fiscal capacity in Macedonian municipalites have become one of the essential aspects of local fiscal policy within the upcoming and curently stalled proces of fiscal decentralziation in N. Macedonia. It procures arguments that could enable independent and effiecent process in collection of own revenues. The size of fiscal capacity would help significantly in creating efficient tax and budget policy in central and local government. It could also help in achieving larger independence from the central government, but also would help to achieve equallization in some financialy endangered municipalities. Therefore, the fiscal capacity sugests that the tax collection is determined from tax capacity and capacity of the administration. Differences that apear in the colected own revenues are the reason for fiscal disparity. Fundamental part of the paper is the intention to determine the main methods of estimating fiscal capaciy and to measure the potenial fiscal disparity between some of the macedonian communities. It considers the potential revenues of the municipality obtained under the curent tax base with average tax effort. It is essential that the municipality controls those sources of revenue, such as the own revenues, common taxes and earmarked conditional transfers. Statistical data sugest that the discrepancies in fiscal capacity or collected real estate tax and development fee are predetermined from the differences arising from municipal tax base and the fiscal effort. Those variations are significant between urban, rural and city of Skopje. General transfers from the central government, especialy VAT subsidies, can achieve to some extent equalization in the revenue discrepancies.

Keywords: Fiscal capacity, intergovernment transfers, fiscal disparity, fiscal equalization, own revenues.

1. Introduction

A lot of developing and transitional economies are embarking or have embarked on fiscal decentralization initiatives that are important for economic growth and rise in nations wealth and welfare. That kind of interest is supported by the widespread notion that fiscal decentralization can lead to efficient usage of public expenditures, even in conflicting situation with other government goals, such as income redistribution and macro-economic stability. That also can be seen as a reaction to the failures over the past decades of large centralized bureaucracies. Therefore, the question in many countires has become not “whether to?” but “how best to” decentralize [1],[2],[3].

The process of fiscal decentralization can significantly surpass the obvious differences in fiscal needs. A good system of transfers should also cover the differences in the income or fiscal capacity of the municipalities. The reasons for the disparity in the fiscal capacity, above all, arise from the differences in the very character of the municipalities. As is known, there are urban (city) and rural (village) municipalities, some are small, but some are large metropolises or so-called economic and financial centers. Some local communities are of flatland character or gravitate towards large centers, while others are more remote and isolated in mountainous areas. All this creates differences in the tax base, but also differences in the fiscal ability to generate own revenues, which can be of a technical, personnel or financial nature [4].

Hence, the *fiscal capacity* expresses the potential of the local community to generate its own revenues from its own tax base as well as to provide administrative support to the collection process. The above general definition suggests that the ability to collect own revenues (fiscal capacity) can be divided into tax capacity (width of the tax base) and administrative capacity (providing technical, logistical and personnel prerequisites for tax collection). Since differences in administrative capacity can be resolved by territorial consolidation or by hiring taxing agencies (in whose role the central government or external entities can be found), fiscal capacity is primarily equated with the breadth of the tax base. The difference in collected own revenues per capita, on the other hand, is called *fiscal disparity* (fiscal or revenue disparity), regardless of the nature of the source of such differences [5].

There are several relevant methods for measuring or estimating the fiscal capacity of local units:

- *The historical method*, which estimates the fiscal capacity based on collected fiscal revenues in the past period. In doing so, it does not consider the effort that each local unit makes to collect its own revenues. For those reasons, it can function as a disincentive for local governments to reduce tax rates in order to receive larger transfers from the central government.
- *Assessment method based on macroeconomic indicators*. By estimating and projecting income and gross domestic product, a more realistic assessment of the fiscal capacity of local communities is obtained, but statistical data on income and gross domestic product at the level of local communities may be lacking.
- *Representative tax system*. It estimates the amount of fiscal revenue that the local community could provide from its tax base, using the standard average (representative) tax rate – this is the most realistic approach to assessing fiscal capacity, only that the tax base of local communities.

Other methods for measuring fiscal capacity can be found in wider literature, such as [6]:

- *The formula-based method*; and
- *The method using proxy variables*. By using variables that approximate the local tax base, and by using the average effective tax rate, the goal of the method is to measure the potential own revenues of local communities. In a way, this approach replicates the representative tax system.

The fiscal disparity between municipalities in Macedonia. The collection of own revenues does not represent a uniform process within the municipalities in our country, and this is perhaps one of the most important reasons for the emergence of the persistent horizontal imbalance [7]. Statistical data confirm the large variations in revenue collection by municipality. Variations in the collection of property tax and development fee (the fee for construction land) indicate enormous differences in the tax base and fiscal effort between local government units. At the same time, the variations within the rural municipalities are greater compared to the variations of the urban municipalities, which means that the collection per capita in the first group of municipalities is lower than the collection per capita in the second group of municipalities [8]. For example, the coefficient of variation of the collection of the development fee in rural municipalities is 2.42 (deviation or variation greater by 242% or 2.42 times in relation to the average). For comparison, the same coefficient in the group of urban municipalities is 1.63.

For comparison, municipalities in Skopje have significantly higher collection rates for all income items. In the case of property tax, only the average of collected revenues per capita is more than four times higher than the adequate average in the group of rural municipalities (1,867 denars per capita vs 429 denars per capita). In the case of the development fee, the disparity is even more pronounced, so that the average of collected income in the group of Skopje municipalities is even 12 times higher than the corresponding average of rural municipalities (2,698 denars per capita vs 229 denars per capita) and as much as 8 times higher in relation to of urban municipalities (2,698 denars per capita vs 349 denars per capita). All these arguments are strong enough to raise *the issue of fiscal capacity equalization* [9].

Those equalization grants are intended to obtain average package of services at roughly the same tax effort. It can be directed compensation for low tax capacity or high service costs. Fiscal equalization can be achieved through horizontal grants between local authorities and additions or subtraction from general purpose grants that are intended for financing [10].

Table 1. Disparity of own income per capita (2010)

A group of municipalities	Property tax	Development fee	Street lighting fee	Other own revenues	Total
Rural municipalities outside Skopje (41 units)					
Average	429	229	419	232	1.309
Minimum	54	0	0	43	161
Maximum	1.901	2.797	863	1.034	5.597
Variation (coeff.)	0,88	2,42	0,50	1,05	0,85
Urban municipalities outside Skopje (33 units)					
Average	664	349	487	384	1.884
Minimum	271	4	0	136	670
Maximum	2.621	3.033	1.204	816	4.669
Variation (coeff.)	0,67	1,53	0,41	0,43	0,43
Skopje (average)	1.867	2.698	527	867	5.968
Country (average)	994	1.025	461	491	2.970

Source: UNDP (2012). „Fiscal Decentralization for Local Development: An Integral Study".

Although formulas for the distribution of general transfers, such as the formula for calculating VAT subsidies, are not explicitly designed to equalize fiscal disparity between municipalities, they do achieve a certain degree of equalization of income differences, at least between groups of municipalities. This happens due to the fact that rural municipalities, which have a small income potential, at the same time have a larger area and more settlements per capita, which, as decisive criteria in the distribution of VAT revenues, attract more than 40% of the total transfer pool [11]. As a result of this, rural municipalities from a state of negative fiscal gap in the amount of 30%, after the transfer end up with a state of positive fiscal gap, in relation to urban municipalities. This means that after the allocation of the transfer, rural municipalities now have slightly higher incomes per capita, at the expense of urban municipalities.

On the other hand, Skopje, with 25% of the total population, draws 12% of the total pool based on VAT, 2/3 of the total pool for capital transfers and 18% of the transfer fund for roads. In 2010, incomes per capita (without transfers) are 2 times higher than the national average, while expenditures per capita from the budget of the city of Skopje are 1.8 times higher than the national average. The latter is mainly the result of the large amount of income from capital transfers and land sales.

And while *formula-based transfers* are somewhat effective in alleviating the fiscal disparity between the three groups of municipalities (rural, urban and Skopje), they have modest power to narrow the gap within the group, between rural and urban municipalities themselves. The coefficient of variation within the group shows that the disparities in own income hardly change after the allocation of various transfers from the central budget to the municipalities (from 0.85 to 0.84 in the group of rural municipalities, that is, from 0.43 to 0, 42 in urban municipalities).

Table 2. The effect of transfers on the disparity of own incomes within the group (per capita, 2010)

A group of municipalities	Own income	VAT transfers	Road transfers	Capital transfers	Total
Rural municipalities outside Skopje (41 units)					
Variation (coeff.)	**0,85**	0,62	0,73	2,71	**0,84**
Urban municipalities outside Skopje (33 units)					
Variation (coeff.)	**0,43**	0,62	0,80	2,28	**0,42**
Skopje (average)	5.968	279	119	837	9.080
Country (average)	2.970	635	160	195	4.929

Source: UNDP (2012). „Fiscal Decentralization for Local Development: An Integral Study ".

The main points in grant design, which are subject to lobby practices, which in return can question the efficiency of grant design, are the following [12]:

- The choice between earmarked and non-earmarked grants;
- The determination of formulas of non-earmarked general purpose grants that should cover basic public services [13];
- The determination of tax capacity of local governments and extent to which differences in tax capacity should be equalized;
- The determination of service capacity of local governments and extent to which differences in service capacity should be equalized; and
- The choice between mandatory and discretionary grants.

2. Measuring fiscal capacity

In the introductory part on fiscal capacity, an introductory definition is presented that points to the essence of the corresponding phenomenon, which is of great knowledge for local public finances. But in terms of the need for measurement, it can be defined from a different angle. In that sense, the *fiscal capacity* can be understood as the amount of potential income that can be obtained from the tax bases under the authority of the local authorities, by applying an average tax rate, that is, an average tax effort. In ideal conditions, the fiscal capacity should be determined by the size of the tax base available to the local government, or by the size of the revenue that the tax base can achieve if the standard (average) tax rate is applied. Using the actual amount of collected revenues as a benchmark for sizing the fiscal capacity should be avoided, in case the tax rate, the tax base or the administration process are under the direct control of the local authorities. In fact, the use of the *historical method* of collected actual revenues from the past period creates perverse or negative incentives, because sooner or

later, the local authorities will "find out" that higher collection means lower transfers at the same time.

A better approach offers the use of an *objective (macroeconomic) indicator in a local variant,* which is widely available as a proxy measure for the fiscal (or revenue) capacity of local authorities. Examples from practice include personal income per capita or the local equivalent of national GDP, which can be called Gross Municipal Product – GMP. The main idea of the described approach is to calculate the amount of income that the local community could achieve at a given level of income or economic activity in its territory, assuming an average level of fiscal effort. As can be seen, the method that relies on macroeconomic indicators is essentially similar to the mentioned method with proxy variables [14].

Some countries, including the USA, Canada and Australia, have used a multidimensional measure of fiscal capacity, known by the name *Representative Revenue System (RRS)*. It consists of the collection of detailed data on the tax bases for each separate tax under the jurisdiction of each separate local community. Furthermore, the collected data on the tax bases of each local jurisdiction, as well as the information on the national / regional average tax rate per separate tax, provide a basis for calculating the revenue that the local jurisdictions would collect by applying an average tax effort, or average tax rate. The main advantage of this model in relation to the approach with macroeconomic (aggregate) indicators is that it uses disaggregated data obtained on the basis of detailed knowledge of the statutory (local) tax bases. However, in some countries there are no detailed disaggregated data at the local level, which makes it impossible to use this method. The only option for those countries is to use some composite proxy measure, such as, for example, the average amount of personal income or the average income per household, as reliable indicators for the derivation of fiscal capacity.

We concluded that fiscal capacity refers to the potential revenue that a local government can collect from its tax base, given an average tax burden. Therefore, to assess the fiscal capacity relevantly, it would be natural to focus on those revenue sources over which the local government has some kind of control, such as modifying the tax base, changing the tax rate or intensifies the administrative collection effort. The type of income that has such characteristics is *own income*. Other sources that provide revenue to the local government, but it has no control over them, are *revenues from common taxes* and *dedicated conditional transfers*. Furthermore, since the equalization grants are not intended for the financing of a specific sector, but are intended for general financial support of all sectors that are not covered by the sectoral (block) transfers, this type of transfer income does not satisfy the criterion for entering the equation of the fiscal capacity. Hence, for the purposes of measurement, it follows that the fiscal capacity represents a sum of the estimated own revenues, revenues from common taxes and all transfer revenues except equalizing grants:

$$FC_i = EOR_i + S_i + OT_i$$

where the symbols indicate:

FC_i – the fiscal capacity of a municipality *i*

EOR_i – estimated own revenues of a municipality *i*

Si – revenues from common taxes of a municipality *i*

OT_i – other transfer revenues (except equalizing transfers) of a municipality *i*

Regardless of the method used to estimate the potential locally-generated revenues, the total fiscal capacity should be obtained by adding the 3 components from the above formula: own revenues, joint taxes (in Macedonia from PIT) and other transfers (except transfers for equalization) [15]. And in the following section, we present the method for estimating the fiscal capacity using proxy variables.

3. Assessment of the fiscal capacity of Macedonian municipalities with proxy variables

The basic idea of this method is to calculate the amount of revenue that the municipality (or its fiscal capacity) would collect, with a given level of income per household or economic activity or any other tax base in its territory, assuming it applies an average level of tax effort (or average tax rate). It has already been mentioned that in ideal conditions, the revenue capacity should be measured according to the size of the available tax bases or according to the size of the revenues that the corresponding bases would achieve using standard (average) tax rates. For the successful application of the method with proxy variables, it is recommended to follow a three-step sequence:

- *Step 1:* Selection of an approximate (proxy) measure that will represent the tax base of the local community - $Base_i$. In fact, this step implies the execution of two procedures: selection of a representative measure for the local jurisdiction's own revenue sources – *ORi*; and choosing a proxy measure or variable for the tax base of the local government - *Basei.*
- *Step 2:* Defining the average effective tax rate (Average Effective Tax Rate – AETR). A common way of defining AETR is as the ratio between the total amount of own revenues and the total amount of tax bases from all local jurisdictions:

$$AETR = \left(\sum_i OR_i\right) / \left(\sum_i Base_i\right)$$

  The value of the coefficient obtained from the formula reflects the average rate of collected revenues from own sources in relation to the aggregate tax base for all jurisdictions. In fact, the average rate of collected income is nothing but the *average effective tax rate*, which should be different from the *statutory tax rate*. Namely, the effective tax rate shows the actual burden on the tax base, that is, it shows the actual occupation of the tax base. Usually, the effective tax rate is lower than the legal tax rate, due to the omissions in tax collection, tax evasion and tax exemption, but also due to weaknesses in the administration of taxes or the lack of an idea of the true size of the tax base.
- *Step 3:* Calculation of fiscal capacity for each community. Thus, the fiscal capacity of the local jurisdiction *i* – $Capacity_i$ is obtained as a product of the AETR and local tax base $Base_i$:

$$Capacity_i = AETR * Base_i$$

- The resulting figure indicates the amount of own revenue that each local jurisdiction would collect on its tax base if it applied an average tax rate, or implemented an average tax effort.

Currently, in Macedonia there is no reliable data on the size of the tax bases of the dominant sources of local taxes. This applies to property tax and business communal fees – the two local duties with the greatest potential to grow into major sources of stable revenue [16].

Precisely for this reason, the best option is to implement proxy variables that are highly correlated with the local capacity to collect revenues from the sources. The *real estate area* (square footage) can be taken as a proxy variable for the property tax base from the census of households and apartments. A proxy variable for the potential revenues from the commercial property tax and business communal fee can be the *revenue from common taxes* that is returned to the local community based on its origin (in this case it is the PIT revenue). In doing so, it is implicitly assumed that the local self-government does not have the possibility or capacity to modify the tax rate or the tax base applied to PIT as a source of common revenues and that during the collection of this tax, the IRS is not subject to any influences or pressures from the local government.

The question arises: Do the joint revenues from PIT and the square footage of the property represent good indicators of the local tax base and the collection of own revenues. The correlation coefficient derived from the statistical data shows a positive relationship, stronger for one indicator and weaker for the other. In particular, total PIT revenues are strongly and positively correlated with property tax revenues, but also with total own revenues. On the other hand, the square footage of household property manifests a rather weak relationship with property tax revenues, but a significantly strong relationship with public street lighting tax revenues. This last finding should not surprise us, given that the fee is charged in an equal fixed amount per household through the electricity bill. For this purpose, in order to capture the strength of the correlative links between the relevant indicators and own revenues, weights are introduced that express the degree of elasticity of revenues from own sources, respectively, of these two factors. For the factor revenues from common taxes, the weight is estimated at 0.72 (a 1% increase in revenues from common taxes per capita results in a 0.72% increase in own revenues per capita), for the factor square footage of property it is estimated at 0.28% (a 1% increase in square footage per capita initiates a 0.28% increase in own income per capita).

Hence, we can design the formula for calculating the fiscal capacity of Macedonian municipalities, which would look like this:

$$Capacity_i = \left(OR_{per\ capita(N)} + 0{,}72 * \frac{PIT_{per\ capita\ (i)} - PIT_{per\ capita(N)}}{PIT_{per\ capita(N)}} * OR_{per\ capita(N)} + 0{,}28 * \frac{Square\ footage_{per\ capita\ (i)} - Square\ footage_{per\ capita(N)}}{Square\ footage_{per\ capita(N)}} * OR_{per\ capita(N)} \right) * POP_i$$

In this formula, the symbols have the following meanings:

- $Capacity_i$ – fiscal capacity of a municipality *i*.
- $OR_{per\ capita(N)}$ – own income per capita (at national level).
- $PIT_{per\ capita(i)}$ – revenues from PIT per capita in a municipality *i*.
- $PIT_{\ per\ capita(N)}$ – revenue from PIT per capita (at national level).
- $Square\ footage_{per\ capita(i)}$ – square footage of property per capita in a municipality *i*.
- $Square\ footage_{per\ capita(N)}$ - property square footage per capita (nationally).
- POP_i – number of inhabitants of a municipality *i*.

If this formula is well analyzed, in fact it gives the deviation of the potential income capacity per capita of the municipality if (estimated through the difference in the proxy variables PIT and square footage per capita at the municipality and state level) in relation to collected own revenues per capita for the entire country – $OR_{per\ capita(N).}$ In order to obtain the absolute amount of the fiscal capacity per municipality, the resulting deviation should be multiplied by the number of inhabitants of the local community, denoted as POP_i. In order to better understand the essence of the relationships in the formula, but also to connect with the general formulas given at the beginning of this point, we can modify the previous formula in such a way that after the bracket, we will extract the common symbol $OR_{per\ capita(N),}$ so the following expression would be obtained:

$$Capacity_i = \left(1 + 0{,}72 * \frac{PIT_{per\ capita\ (i)} - PIT_{per\ capita(N)}}{PIT_{per\ capita(N)}} + 0{,}28 * \frac{Square\ footage_{per\ capita\ (i)} - Square\ footage_{per\ capita(N)}}{Square\ footage_{per\ capita(N)}}\right) * POP_i * OR_{per\ capita(N)}$$

The first part of this formula, which is the expression in parentheses without a unit, is actually *the deviation or fiscal disparity of the municipality* (expressed in %) in relation to the average fiscal capacity at the state level (collected own revenues per capita for the entire state – ORper capita(N)). For example, if a value of 0.48 is obtained, it means that the potential revenues of the municipality are 48% higher than the average own revenues at the state level. The value can also be negative, for example, -0.08, which would mean that the specific municipality has 8% lower potential income compared to the national average. If we add the deviation of the unit, we get the *corrective factor of the municipality's fiscal capacity*. By multiplying the correction factor with the average fiscal capacity at the state level - ORper capita(N), the amount of potential own income per capita of the observed municipality is obtained, which actually indicates the *average fiscal capacity of the municipality*. Finally, the product of this value and the number of local residents *POPi* results in the amount of the *municipality's potential fiscal capacity*, expressed in absolute numbers or $Capacity_i$.

If it is known that the symbol $OR_{per\ capita(N)}$ represents nothing but a measure of the average tax effort, or the average tax strain, it means that in essence, the own income per capita represents a substitute for the so-called average effective tax rate or AETR . Furthermore, if it is assumed that the correction factor multiplied by the number of local residents is a de facto surrogate for the local tax base, then indeed the above formula for fiscal capacity can be reduced to the previous expression from step 3: that is, it is the product of the local tax base and AETR.

In the following, we give examples for calculating the fiscal capacity of the municipalities of Vraneshnica, Shtip, Kochani and Arachinovo. The data from the Ministry of Finance (IRS) for 2010 say that the revenues from PIT *per capita* in denars were: 1.300, 3.736, 2.118 and 847 adequately, while at the state level the average was 2.160. The square footage *per capita*, of course, in square meters, according to the Statistics Office, was: 58, 24, 23 and 15 respectively, and the national average was 25. The number of inhabitants by municipality was: 1.322, 47,796, 38.092 and 11.597 respectively. The collected own income per capita for all municipalities (at the state level) was measured at 1.943 denars *per capita*.

Hence we have:

$$Capacity_{vranesnica} = \left(1 + 0{,}72 * \frac{1.300 - 2.160}{2.160} + 0{,}28 * \frac{58 - 25}{25}\right) * 1.322 * 1.943$$
$$= (1 + 0{,}083) * 1.322 * 1.943 = 2.781.843$$

$$Capacity_{stip} = \left(1 + 0{,}72 * \frac{3.736 - 2.160}{2.160} + 0{,}28 * \frac{24 - 25}{25}\right) * 47.796 * 1.943$$
$$= (1 + 0{,}514) * 47.796 * 1.943 = 140.601.589$$

$$Capacity_{kocani} = \left(1 + 0{,}72 * \frac{2.118 - 2.160}{2.160} + 0{,}28 * \frac{23 - 25}{25}\right) * 38.092 * 1.943$$
$$= (1 - 0{,}036) * 38.092 * 1.943 = 71.348.296$$

$$Capacity_{aracinovo} = \left(1 + 0{,}72 * \frac{847 - 2.160}{2.160} + 0{,}28 * \frac{15 - 25}{25}\right) * 11.597 * 1.943$$
$$= (1 - 0{,}549) * 11.597 * 1.943 = 10.162.370$$

The examples show that Shtip and Vraneshnica had a positive fiscal disparity, while Kočani and Aračinovo had a negative one. These formulas are quite practical because the calculated coefficient of fiscal disparity can be used as a corrective factor for the allocation of an additional transfer for equalization based on the fiscal capacity, within the total transfer pool of VAT revenues that legally belong to the municipalities.

Allocation of additional transfers to equalize the fiscal disparity [17-20]. From the above example of fiscal capacity calculation, we saw that certain municipalities (such as Shtip and Vraneshnica) have a positive fiscal disparity, which means that their income capacity per capita is higher than the national average per capita *(*$Capacity_{per\ capita(i)} > OR_{per\ capita(N)}$*).*These municipalities do not need transfers to equalize the fiscal capacity to the national average, because de facto they manage to collect more of their own income per capita than the national average. For that reason, all municipalities that satisfy the above condition marked in the parenthesis, do not have the right to an additional equalization grant. On the other hand, there are municipalities with a negative fiscal disparity (in the example of Kočani and Aračinovo), whose revenue capacity *per capita* is lower than the national capacity *per capita (*$Capacity_{per\ capita(i)} < OR_{per\ capita(N)}$*).* Therefore, in order to equalize their fiscal capacity to the level of the national average, all municipalities that meet the condition of the second bracket, receive an equalization grant on that basis.

Considering the above prerequisites, we can define the rules for allocating transfers to equalize fiscal capacity*:*

Rule 1: If $Capacity_{per\ capita(i)} > OR_{per\ capita(N)}$*, then the municipality (i) is not entitled to an equalization grant.*

Rule 2: If $Capacity_{per\ capita(i)} < OR_{per\ capita(N)}$*, then the municipality* ***(****i) is entitled to an equalization grant.*

The question arises: if the municipality *has the right* to receive an equalizing transfer for the purpose of mitigating differences in fiscal capacity, how should its amount be calculated, so that it is equally distributed among the other municipalities? This is where the *coefficient of the fiscal disparity* comes into play, which we mentioned a little while ago because of the practical value it offers precisely for these needs and whose value is defined as:

$$FD_{coeff(i)} = \left(0{,}72 * \frac{PIT_{per\ capita\ (i)} - PIT_{per\ capita(N)}}{PIT_{per\ capita(N)}} + 0{,}28 * \frac{Square\ footage_{per\ capita\ (i)} - Square\ footage_{per\ capita(N)}}{Square\ footage_{per\ capita(N)}}\right)$$

For this purpose, the *corrective factor of the fiscal disparity* is first calculated as a product of the coefficient of the fiscal disparity $FD_{coeff(i)}$ and the number of local residents in the municipality *POPi:*

$$FD_{correction\ factor(i)} = FD_{coeff(i)} * POP_i$$

and then from the *sum of the corrective factors (for all municipalities with negative disparity*) the *weighting of the corrective factor of the specific municipality* is determined as follows:

$$(Ponder)\ FD_{correction\ factor(i)} = FD_{correction\ factor(i)}\ /\ \sum_{i=1}^{N} FD_{correction\ factor}$$

The resulting weight plays a key role in the even distribution of funds from the total available fund for this purpose. The distribution is made by multiplying the received weight with the total amount of the transfer pool. In Republic of N. Macedonia, it is elegantly solved with the

methodology for the distribution of VAT revenues. We mentioned that according to the legal regulations, that fund amounts to 10% of the total VAT revenues that belong to the local self-government units. For the year 2010, those 10% amounted to approximately MKD 100,000,000. Now we will assume that the whole country consists of a total of 4 municipalities: Vraneshnica, Shtip, Kochani and Arachinovo and that the total pool of those funds should be distributed based on the differences in fiscal capacity. Since Shtip and Vraneshnica have a positive disparity, they are not entitled to these funds, but only the municipalities of Kočani and Aračinovo, which have a negative fiscal disparity.

Thus, if we apply the above formulas for the municipality of Kočani and Aračinovo, we will get:

$$FD_{coeff(kocani)} = \left(0{,}72 * \frac{2.118 - 2.160}{2.160} + 0{,}28 * \frac{23 - 25}{25}\right) = \ -0{,}036$$

$$FD_{coeff(aracinovo)} = \left(0{,}72 * \frac{847 - 2.160}{2.160} + 0{,}28 * \frac{15 - 25}{25}\right) = \ -0{,}549$$

$$FD_{correction\ factor(kocani)} = 0{,}036 * 38.092 = 1.371$$

$$FD_{correction\ factor(kocani)} = 0{,}549 * 11.597 = 6.367$$

$$(Ponder)\ FD_{correction\ factor(kocani)} = 1.371/(1.371 + 6.367) = 1.371/7738 = 0{,}178$$

$$(Ponder)\ FD_{correction\ factor(aracinovo)} = 6.367/(1.371 + 6.367) = 1.371/7738 = 0{,}822$$

Finally, *the distribution of the transfer pool* will be carried out in the following way:

$$Transfer_{kocani} = 0{,}178 * 100.000.000 = 17.800.000$$

$$Transfer_{aracinovo} = 0{,}822 * 100.000.000 = 82.200.000$$

Also, we make some *remarks* regarding certain elements of the calculation process, for the reader to pay attention to them:

- Municipalities with a negative fiscal disparity, i.e. a negative coefficient, have the right to an equalizing transfer;
- When calculating the corrective factor of the fiscal disparity in the formula, the value of the coefficient is taken with a positive sign;
- The sum of the individual weights of the corrective factor from all municipalities (which have the right to a grant) should always be 0 (zero). In this example, 0.178+ 0.822 = 1;
- The sum of the individual transfers per municipality should always be equal to the amount of the total transfer pool intended for distribution. In this example, 17.800.000 + 82.200.000 = 100.000.000.
- Although this is a simplified example, if a real distribution of these funds were to be made among the municipalities throughout N. Macedonia, the rules and remarks must remain the same.

4. Conclusion

Not every municipality is the same. Some are urban, some rural, and consequently constructed with generaly diferent characteristics. The number of people who live in them and the extention in size of the municipality is fundamental in dictating the expenditure size of the local authorites budget. That arises question about the fiscal capacity or subseqently tax capacity and administrative capacity. A lot of small communities are not capable and does not have capable administration that will help them to increase the collected revenues from local duties, such as real estate tax, development fees and business comunal fees, in order to finance those public services. Therefore, the central government is expected to undertake some fiscal measures, such as intergovernment transfers (earmarked and non-earmarked) in order to surpas those financial dificulties of the small municiplaities. The communities with negative fiscal disparity, like Kocani and Aracinovo, are expected to be suported with transfers by the government in comparison with the communities with positive fiscal disparity, like Stip and Vranesnica. Hence, the relevance to try to obtain some information about their potential fiscal capacity. Several methods were presented in this paper in order to clarify the diferent aprouches in determing the municipal fiscal capacity. Starting from historical method, representative tax system, assesment method with macroeconomic indicators, formula based system and the use the method of aproximative variables.

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