



THE WORKSHOP
"MEASURING FISCAL CAPACITY
OF MACEDONIAN LSG"

DECENTRALIZATION OUR GOAL

The Center for Economic Analyses (CEA) is a think tank of economists who share a common vision for the Republic of Macedonia as an emerging new European economy integrated in the regional and worldwide market. The Mission of CEA is to continuously research economic development and economic policy in the Republic of Macedonia and to offer recommendations, suggestions and measures where it is deemed appropriate.

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From the editor

Dear readers,



Macedonia is in the process of creating basic institutions and of designing the role, relationship, and responsibilities of different levels of government. The stakes are high; successful outcomes will contribute greatly to achieving broad objectives of stability, growth, prosperity and national cohesion.

The fiscal decentralization is a part of the decentralization process. It is natural extension of the political and administrative decentralization. The Macedonian case is complex and yet there is low level of quality and credible debate on the topic. Starting 1st of July 2005 the new law on financing LSG will be on power but it seems that the municipalities neither are ready to absorb the new competencies nor have identified and estimated their fiscal capacity. The very process is at risk and thus, requires civil pressure and the voice of technical experts to the two tiers of government for viable strategy, actions and quantification.

CEA would like to address the issue of the fiscal capacity scale of the Macedonian LSG, how one can measure it by respecting Macedonian characteristics and what should be the government policy in equalizing horizontally Macedonian LSG. The workshop organized 24th and 25th of February 2005 have had that objective and the outcome is a policy recommendation for the government for measuring fiscal capacity. This issue of the bulletin is dedicated to the outcomes and recommendations from that event.

The concept of the costs for the public service responsibilities of a government is difficult to define. It is perhaps best understood as the common meaning of the term "needs" as a synonym for relative public service costs. But in order to fulfil the needs a properly designed LSG should have capacity to match the needs. Thus, for the policy makers in Macedonia it is very much welcomed to define and to quantify what is the capacity of the Macedonian LSG to raise revenues in order to meet the needs for a standard basket of goods and services that should be delivered to the citizens. Natural question that follows is if some LSG do not have the capacity how the central Government will proceed in order to equalize the LSG and to foster balanced regional development.

Finally, I express my deepest gratitude to the participants who have contributed to the event and have improved the quality of public debate on issues of decentralization in Macedonia.

Best wishes,

Marjan Nikolov, MSc



The Key to Successful Local Governance: Progressive Local Development requires Municipal Authorities to Effectively Measure fiscal Capacity

Claire Sneed

Acting Head of
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As municipal officials assume competencies in the areas of social and economic development, they will be required to identify and evaluate municipal assets and forecast municipal income, while at the same time balancing income generating capacity with local development needs in areas such as urban planning, public service provision, education and local economic development. To successfully meet the challenging task of measuring income with expenditures, municipalities will need to have the basic ability to measure the fiscal capacity of their municipality. The 2004 Law on Financing the Units of LSG provides municipalities with information regarding the laws regulating municipal financing. However, adoption of a legal framework is not a sufficient indication of municipal "know-how". Such knowledge can only be developed through experience, with the support of experts and with opportunities to share experiences between practitioners between regions. This addition of "Decentralization Our Goal" is dedicated to the topic of measuring fiscal capacity, in pursuit of the shared goal of a successful, equitable and dynamic local development processes.

Thanks to the World Learning's (USAID) small grant, that CEA won in a competitive bid the web page: <http://www.lsg-data.org.mk> is available for all those in need of data, information and indices related to the LSG. CEA is pioneer among the NGOs in hosting database with LSG data on the Internet and making it available to the larger public with no fee.

CEA expresses highest gratitude to OSCE for the support in publishing this newsletter.



THE WORKSHOP "MEASURING FISCAL CAPACITY OF MACEDONIAN LSG"

The workshop took place 24th and 25th of February and had the following objectives

- Identify optimal measurement for fiscal capacity for the Macedonian LSG by taking into account Macedonian characteristics, identify methodology and assess data requirements
- Active participation of Government officials, LSG officials and related NGO sector
- To provide recommendations about the fiscal capacity and possibly equalization scheme for the Macedonian LSG
- To initiate empirical work and studies on fiscal decentralization in Macedonia
- Develop excel models of fiscal capacity, word documents from the two working groups and a power point presentations for the follow up briefing for the media and the decision makers.

2. The Law on financing local self-government units defines the sources and the ways for financing local self-government units, i.e. it defines the conditions that should provide quality completing of the municipal responsibilities which are determined in The Law on local self-government. The Law on property tax and The Law on public utilities tax determine the ways and the procedures for collecting these incomes.

3. The fiscal capacity of the municipality defined as the municipal own income should provide carrying out of the municipal responsibilities in financial way, followed only from the municipal own income sources (property taxes, public utilities taxes, personal tax).

4. In order to determine the fiscal capacity of the municipalities, in the given case are used parameters that are available and according to the source that provides them are considered to be validated.

5. Great number of data that we have as parameters for calculations and for which the source is Public Revenue Office are determined according to the territorial division before year 1996. For that reason we had to use approximations with other variables (source: State Statistical Office) which follow the real conditions on the field and that is the new territorial division to 84 municipalities.

6. The latest list of the population in year 2002, records all the settlements on the territory of Republic of Macedonia by number and surface which can be appropriately used in creating quality data base for calculating property tax. The municipalities should get the data in electronic version so they can process them properly.

7. The PRO of Republic of Macedonia and the regional PROs need to be provided in electronic form with a constant data base for making property tax resolutions, so the base after the last list of population in 2002 and the known evidence of the PRO can be compared.

8. The municipalities according to The Law on property tax should form, in the frames of the adequate

SPEAKERS AND PRESENTERS

| Name and surname of the participants | Institution/Organization |
|--------------------------------------|-------------------------------------|
| 1. Dubravka Jurlina-Alibegovik | Institute of Economics-Zagreb |
| 2. James Wooster | Bearing Point |
| 3. Marjan Nikolov | CEA |
| 4. Aleksandar Stojkov | CEA |
| 5. Marija Kostovska | Ministry of Finance |
| 6. Vukica Saveska | Ministry of Finance |
| 7. Valentina Rushkovska | Ministry of local self-government |
| 8. Sofija Spasovska | Ministry of labor and social policy |
| 9. Snezana Kostovska | Ministry of labor and social policy |
| 10. Miko Miloshevski | Public Revenue Office |
| 11. Snezana Georgievska | State Statistical Office |
| 12. Vesna Srceva | Public Revenue Office |
| 13. Suzana Ichkova | State Statistical Office |
| 14. Violeta Chadikovska | State Statistical Office |
| 15. Zoran Jankulovski | ZFRLSJP (Association of financial |
| 16. Evgenija Gramatikova | ZFRLSJP workers from the local |
| 17. Irena Stankovska | ZFRLSJP self-government) |
| 18. Maksim Acevski | ZFRLSJP |
| 19. Rina Petkovska | City Skopje |
| 20. Krsto Andonovski | City Skopje |
| 21. Veliche Nikolovska | ZELS |



Conclusions of the first working group

Considerations and recommendations for real measurement of the fiscal capacity of the municipalities

1. The Law on territorial organization of the local self-government units in Republic of Macedonia determines the number of the municipalities in Republic of Macedonia and defines the populated areas that form the municipalities.

services, Commissions that will determine the new assessment of the overall property, which is due to taxation (the market value of the property should be used as base for taxation).

The methods selected for calculation of the fiscal capacity

1. Methodology of representative system on incomes

This methodology is used to determine the average effective tax rate as percentage of participation of the total collected incomes of the municipalities based on property taxes in the GDP².

In order to determine the fiscal capacity of each individual municipality, we multiply the average effective rate with the individual GDP on each municipality.

On that way with a reasonable approximation, the determined incomes from the PRO for 34 municipalities were reflected to 84 municipalities according the new territorial division.

According the new Law on financing LSG part of the incomes from the personal income tax is included in the municipal own income, so this income is evidenced as component of the determined tax incomes on the base of tax income.

In order to disperse these incomes to 84 municipalities we used the total unemployment rate, using the data from the Project Socio-economic disparities of the municipalities in Republic of Macedonia.



2. Methodology of determined tax incomes

According to this simple methodology, the fiscal capacity of the municipality is equal to the determined tax incomes based on the property taxes.

We carry out this concrete assignment on the following way:

Representative system of incomes

For this methodology, as parameters for calculation, we used GDP by municipalities (it was determined with an expert evaluation during the creation of the Project Socio-economic disparities of the municipalities in Republic of Macedonia), tax incomes of the municipalities realised in year 2002 and the number of inhabitants according the data from the list of population in 2002.

Methodology of determined tax incomes

For this methodology we used data from the PRO for the determined tax incomes on the base of the property tax disaggregated on 34 municipalities.

In order to disperse these incomes to 84 municipalities we used the data for the surface in m² of the total apartments of 123 municipalities from the list of apartments, buildings and households.

Initial selection of the relevant variables

From the offered list of variables, we consider as relevant the following ones:

1. Infrastructural indicators - Asphalted roads 2003; Surface 2003; Number of residences 2002; Telephone plugs of legal subjects 2001 and telephone plugs of institutions and other subjects will be used as control variables.

2. Demographic data - all of this data except the ethnical structure of the population which is irrelevant for the local public services.

3. Fiscal indicators - Total budget incomes of the municipalities (year 2002); Budget incomes of the municipalities (year 2002); Budget expenditures of the municipalities (year 2002); Budget incomes of the municipalities per capita (year 2002); Charged central taxes by municipalities; Total incomes and expenditures by sorts of the municipal budgets (administration, road fund and fund for public settling).

4. Real sector - Rate of unemployment (local level); year 2002 GDP (method of purchasing power parity);

2) GDP by municipalities is an expert evaluation of Mr. Dimitar Bogov for purposes of UNDP.



year 2002 per capita and number of registered firms (it is necessary to provide data on the active enterprises).

Analyses of the correlation of the variables with local incomes and the fiscal capacity of the municipalities

Considering the fact that we don't have any analytical data on the collection of national taxes by municipalities, we used for our analyses the total municipal incomes by sort and purpose (administration, road fund and fund for public settling).

As measure of the economic potential of the municipality, we concentrated on several indicators that are pointed out in the economic theory. For example, one can notice high degree of correlation between the total municipal incomes and:

- number of residences (apartment units): 81.7%
- telephone plugs for firms: 65.3%
- number of registered enterprises (active and non-active): 92.5%
- rate of unemployment: (-31.6%)

Although the simplest method for determining the fiscal capacity is collecting municipal incomes (total incomes per capita by municipality), it is not possible to use this method because we have no available data on the new territorial division. The use of this method from the aspect of distribution of subventions from the state budget makes opposite strike for collecting own incomes.

Since the most often used measures of fiscal capacity of the municipalities are real sector indicators, we concluded our choice on two concepts:

- estimation on the value added per capita from the non-financial enterprises according the purchasing power parity method (PPP in \$) and
- estimation of the gross regional product per capita (municipal GDP) according the purchasing power parity method (PPP in \$).

The supportive regression showed that if the gross regional product (GDP of the municipality) is increased for 1% the municipal incomes will increase 0.58%.

In the next phase of the analyses we calculated the fiscal effort, measurement that shows the capacity of the local government to collect the municipal incomes according the economic power on her territory (relation between total municipal incomes and the chosen measure for fiscal capacity).

Besides the lack of official data (municipal GDP), the working group in accordance with the analyses recommends the concept of estimation of the gross regional

product per capita (municipal GDP) according the purchasing power parity method (PPP in \$). The argument in favour of this decision is that the concept of estimation on the value added per capita from non-financial enterprises according the purchasing power parity method (PPP in \$) is not representative enough and only includes the non-financial sector (55% from GDP) on the level of Republic of Macedonia.

In accordance with the chosen method the average fiscal effort in Republic of Macedonia is 0.2% from the GDP, and from the total number of municipalities (84 without the new formed municipalities Aerodrom and Butel) 50 municipalities are under the state average while the other 32 (i.e. 34 together with the new formed municipalities Aerodrom and Butel, for which we have no data available) show ability for realization of incomes. Analyzing the municipalities that are under the state average of fiscal capacity, we put them into correlation with the number of inhabitants and residences and we came to conclusion that with increased administrative effort the municipalities have an opening to reach the average fiscal capacity in the Republic.

Recommendations

- Providing official data for the GDP of municipalities
- The municipalities that have under average fiscal capacity should be stimulated initially to increase the fiscal effort:
- increasment on the range of tax payers i.e. expansion of the tax base;
- improvement of the administration and payment of taxes
- selection of an adequate tax rate according the economic ability of the population.

Conclusions of the Center for economic analyses

The participants on this Forum shared identical opinion about the importance of the measurement of fiscal capacity and fiscal effort of the municipalities, as well as for the significance of the subject especially in the phase of the fiscal decentralization.

Each scheme for fiscal equalization between municipalities, which will be suggested by the Ministry of Finance, will be strongly limited if previously the fiscal capacity as well as the fiscal effort of each municipality is not measured.

There are several methods for measuring fiscal capacity of municipalities, from who the most frequently used are representative system of incomes and some of the indicators for economic power of the

municipality (municipal gross product, personal income, value of the tax base etc.). Although each method has its own advantages and disadvantages, the fact is that the selection of the method is mostly determined by available data. Therefore the quality analyses of the fiscal capacity must be based on quality data on detailed level.

At this moment the State Statistical Office and The Public Revenue Office maintain numerous indicators for the municipalities, but the real work for arranging the evidence is yet to come. We need fast steps for developing base of disaggregated data that will be in correspondence with the recently adopted territorial organization of republic of Macedonia (84 municipalities and city of Skopje).

Regarding the evaluation of the economic power of the municipalities, the State Statistical Office maintains expert's estimations of the value added of non-financial enterprises in some municipalities (according the purchasing power parity method) but they include only part of the established municipal gross product. Even if the official data on the municipal gross product would be published, it is a great challenge to answer the question if this is the real indicator for the economic potential of the municipality. Namely, in this moment the local incomes of the LSG in Republic of Macedonia are generally collected from property taxes and public utilities taxes i.e. with tax burden on the citizen's and company's wealth. Since the municipal gross product as concept is more connected to the income then to the wealth, other indicators should also be used.

The participants of the Forum agreed that the tax bases of certain taxes that are collected on local level can be very useful indicator for the financial power of the municipalities (fiscal capacity) and for evaluation of its utilization from the local authorities (fiscal effort). For example, the determining of the present market value of real estate will enormously improve the collection of property tax, which now is paid according the value of the property given in the statements of the tax payers, and some of them were given in year 1994.

In that sense, the participants emphasized that the top management of the involved institutions must be informed of the urgent need for extension to the statistical data on local level as well as for serious improvement of the quality of this data.

The municipalities need to accelerate the forming of Commissions for determining the new assessment of the total property that is due to taxation (the market value of the property). On this way the payment of local incomes will be significantly improved, not by increasing the tax rates but with expansion of the tax base.

The measurements of the both working groups showed that, based on expert's estimations, in many municipalities there is not enough utilization of the fiscal capacity i.e. the collections are considerably under the state average (or average fiscal effort of the LSG in Republic of Macedonia). Those are mostly municipalities with high density of the population and strong concentration of firms, financial institutions, physical infrastructure etc.

This means that stimulation for the local governments in order to enhance the payments (fiscal effort) is necessary.

Regardless of the chosen way, the conclusion is that the successful motivating of the municipalities to strengthen their fiscal effort and to improve public services depends on quality analyses of their fiscal capacity.

Finally, so far the communication and coordination between the institutions involved in the coming decentralization were carried out mainly on political level. In that sense, the Center for economic analyses recognizes this workshop as pioneer attempt to make constructive debate and cooperation on expert's level through wide participation of representatives from different institutions that showed high professionalism and really great enthusiasm. But still we are surprised of the lack of interest of the representatives from the Ministry of local self-government (although they should've express leadership considering the fact that this Ministry is head of the government working group for decentralization) who walked away from the workshop in the first part on the first working day and missed this opportunity to exchange their experiences with the participants from the other interested state institutes and other organizations.

The indirect, but not less important, effects from the workshop can be seen in the strengthening of the informal relationships between the different institutions, the exchange of ideas and the authentic informing for the progress of each institution in the process of decentralization.

Conclusions of the expert Mr. James Wooster

The topic itself is important and quite timely for Macedonia. Macedonia is at the beginning of its decentralization process - perhaps the single most important public policy decision it has made since independence. Crucial to making the decentralization process work properly is the design and implementation of a credible and adequate system of intergovernmental transfers based upon objective criteria. Credible measures of municipal fiscal capacity can be a very important design element in a transfer system and can do much to ensure the general perception of fairness - especially when there is a reality and a general perception of



significant differences across municipalities in their ability to finance municipal services from their own revenues.

Second, the workshop was well organized and extraordinarily well managed. Both CEA and OSI should be proud. The initial and final presentations were well prepared and on point and the conduct of the workshop itself - splitting the participants into two groups to actually work on real data - was inspired. I doubt that I have ever participated in a workshop marked by such a high level of enthusiastic and informed participation by attendees.

Municipal Own Source Revenue Data Deeply Flawed. During the workshop it became quite clear that the available data on municipal own source revenues is deeply flawed for the purpose of measuring municipal fiscal capacity. Available data is drawn from the prior municipal territorial structure reflecting 34 municipalities while the current territorial division has 84. The process of imputing data from 34 to 84 for the various revenue categories was interesting and worthwhile to workshop participants, but the end result is not sufficient to inform policy decisions on intergovernmental transfers. Not only was the data too aggregated, but it was also out of date. In addition, no data was available to make a reasonable assessment of fiscal effort (differential levels of administrative effort and differential policy decisions regarding rates, for example). This is not a criticism. The effort of working with this data provided participants with a better understanding of the kind of information that will be required in the future in order to develop accurate and credible estimates of municipal fiscal capacity.

The Importance of Systematically Collecting Municipal Fiscal Data Going Forward.

Going forward it is recommended that an analysis group be established in one of the Central Government Ministries to collect and analyze data from municipalities that would permit the construction of a "Representative Revenue System" and that this be used to estimate municipal fiscal capacity. Such data would include tax collection information, tax rate information, information on property assessment, and information relevant to administrative effort.

Use of Proxies in the Short Term May be an Option Municipal: Municipal GDP (PPA).

One of the things that the activity of the workshop revealed is that there are some available estimates of Municipal GDP at Purchasing Power Parity prepared by the UNDP. In addition, a census was recently completed in Macedonia which provides reliable data on municipal of population. Between these two it is possible to establish estimates of municipal per capita economic activity which can serve as a proxy for measuring municipal fiscal capacity. In the end this was done by workshop participants. What it revealed was a very high level of disparity across Macedonia's municipalities. Indeed the revealed level of disparity is too high to be ignored.

I cannot vouch for the accuracy of the municipal GDP estimates or for the level of credence given them by Macedonia's policymakers and citizens. However, if the accuracy can be verified and if the level of credibility is reasonably high, this data can be used to fashion a simple proxy for municipal fiscal capacity which can be used to modify the structure of the intergovernmental transfer system and ameliorate some of the underlying disparities in fiscal capacity.

CALCULATION OF THE MUNICIPAL FISCAL CAPACITY INN MKD

| Municipality/city in Republic of Macedonia | Realized personal income tax in year 2000 (3%) | Representative tax system | Accepted property taxes and public utilities taxes in year 2000 (000 MKD) | Total fiscal capacity |
|--|--|---------------------------|---|-----------------------|
| Republic of Macedonia | 225,389,369 | 663,646,243 | 80,111,000 | |
| Skopje-City | 63,210,317 | 345,111,531 | 17,153,287.76 | |
| Arachinovo | 603,023 | 674,864 | 313,130.17 | 916,153 |
| Berovo | 1,735,032 | 3,402,402 | 595,008.94 | 2,330,041 |
| Bitola | 11,589,779 | 124,214,656 | 4,062,813.69 | 15,652,593 |
| Novaci | 359,958 | 3,560,184 | 185,824.68 | 545,782 |
| Bogdanci | 1,225,261 | 2,708,914 | 382,955.14 | 1,608,216 |
| Dojran | 428,751 | 514,320 | 258,651.08 | 687,402 |
| Bogovinje | 1,392,453 | 3,781,647 | 1,010,681.54 | 2,403,135 |
| Brvenica | 1,730,026 | 2,080,963 | 515,311.96 | 2,245,338 |
| Valandovo | 1,306,503 | 1,952,406 | 480,370.45 | 1,786,873 |
| Veles | 6,409,599 | 15,669,563 | 2,016,852.04 | 8,426,452 |
| Chashka | 490,735 | 3,084,057 | 321,787.73 | 812,522 |
| Vinica | 2,436,438 | 6,332,373 | 747,269.44 | 3,183,708 |
| Vrapchishte | 2,549,911 | 4,461,759 | 929,921.72 | 3,479,833 |
| Gevgelija | 3,360,570 | 11,213,066 | 1,102,484.26 | 4,463,055 |
| Gostivar | 7,460,238 | 42,902,323 | 2,735,352.19 | 10,195,590 |
| Debar | 1,275,524 | 3,109,487 | 670,972.26 | 1,946,497 |
| Centar Zupa | 329,956 | 399,537 | 201,018.95 | 530,975 |
| Delchevo | 2,348,658 | 3,942,686 | 757,801.08 | 3,106,459 |
| Demir Hisar | 1,258,493 | 5,921,142 | 517,119.92 | 1,775,613 |
| Demir Kapija | 463,096 | 603,061 | 180,204.03 | 643,300 |
| Dolneni | 668,994 | 5,986,017 | 474,793.35 | 1,143,787 |

| | | | | |
|----------------------|------------|-------------|--------------|------------|
| Zelino | 833,417 | 1,533,501 | 657,289.19 | 1,490,706 |
| Ilinden | 1,946,172 | 5,367,472 | 577,218.04 | 2,523,390 |
| Jegunovce | 856,547 | 2,352,725 | 419,519.15 | 1,276,066 |
| Kavadarci | 3,663,221 | 13,254,696 | 1,686,005.16 | 5,349,226 |
| Kichevo | 3,272,371 | 5,171,154 | 1,235,186.22 | 4,507,557 |
| Vraneshtica | 100,214 | 153,513 | 120,075.27 | 220,289 |
| Drugovo | 277,682 | 388,494 | 243,803.56 | 521,486 |
| Zajas | 639,393 | 639,717 | 446,135.34 | 1,085,529 |
| Oslomej | 614,155 | 884,386 | 443,411.31 | 1,057,567 |
| Plasnica | 186,973 | 246,142 | 140,756.33 | 327,729 |
| Kochani | 4,392,479 | 11,582,776 | 1,446,457.80 | 5,838,937 |
| Zrnovci | 362,747 | 380,126 | 136,835.59 | 499,583 |
| Obleshevo-Cheshinovo | 889,025 | 3,217,982 | 310,957.72 | 1,199,983 |
| Kratovo | 1,158,041 | 1,942,535 | 468,790.47 | 1,626,831 |
| Kriva Palanka | 1,994,377 | 3,236,256 | 417,488.62 | 2,411,866 |
| Krushevo | 824,899 | 1,990,957 | 424,560.79 | 1,249,460 |
| Mogila | 763,318 | 2,675,588 | 253,865.88 | 1,017,184 |
| Kumanovo | 10,125,678 | 48,361,510 | 3,773,761.14 | 13,899,439 |
| Staro Nagorichane | 523,574 | 3,191,236 | 364,698.14 | 888,272 |
| Lipkovo | 1,098,847 | 1,893,622 | 738,142.55 | 1,836,989 |
| Makedonska Kamenica | 1,092,696 | 849,217 | 275,908.15 | 1,368,605 |
| Makedonski Brod | 785,509 | 3,998,709 | 414,185.59 | 1,199,694 |
| Mavrovo-Rostushe | 677,941 | 3,974,882 | 776,837.07 | 1,454,778 |
| Negotino | 1,980,957 | 5,414,008 | 797,026.22 | 2,777,983 |
| Novo Selo | 1,201,320 | 2,344,335 | 574,339.17 | 1,775,659 |
| Bosilovo | 1,509,743 | 3,537,277 | 501,862.74 | 2,011,606 |
| Ohrid | 6,700,483 | 16,546,111 | 3,269,438.86 | 9,969,922 |
| Debarca | 465,804 | 2,224,465 | 498,404.88 | 964,209 |
| Pehchevo | 578,405 | 1,257,404 | 309,322.33 | 887,727 |
| Petrovec | 803,852 | 1,031,665 | 362,709.55 | 1,166,562 |
| Zelenikovo | 428,887 | 392,992 | 171,688.40 | 600,576 |
| Prilep | 7,081,459 | 75,706,188 | 3,256,796.05 | 10,338,255 |
| Krivogastani | 482,335 | 786,402 | 254,317.47 | 736,652 |
| Probishtip | 1,999,577 | 4,164,236 | 695,791.79 | 2,695,369 |
| Radovish | 3,611,318 | 20,107,168 | 1,057,988.46 | 4,669,307 |
| Konche | 525,578 | 1,263,229 | 121,484.87 | 647,063 |
| Rankovce | 299,072 | 566,950 | 180,520.15 | 479,592 |
| Resen | 2,013,745 | 4,272,286 | 1,253,040.02 | 3,266,785 |
| Rosoman | 375,353 | 707,746 | 160,377.77 | 535,731 |
| Gradsko | 351,261 | 775,729 | 152,304.04 | 503,565 |
| Sopishte | 1,037,615 | 814,533 | 458,799.12 | 1,496,414 |
| Studenichani | 968,093 | 1,497,251 | 439,890.54 | 1,407,984 |
| Struga | 6,032,606 | 35,903,462 | 3,067,108.70 | 9,099,714 |
| Vevchani | 315,282 | 578,534 | 129,421.50 | 444,703 |
| Strumica | 6,237,192 | 46,422,051 | 2,184,282.63 | 8,421,475 |
| Vasilevo | 1,144,339 | 2,311,330 | 386,543.65 | 1,530,883 |
| Sveti Nikole | 2,016,096 | 6,437,013 | 713,919.76 | 2,730,016 |
| Lozovo | 281,954 | 840,843 | 100,963.48 | 382,917 |
| Tearce | 1,493,108 | 1,330,230 | 783,617.32 | 2,276,725 |
| Tetovo | 8,951,307 | 47,160,552 | 2,848,085.95 | 11,799,393 |
| Chucher-Sandev | 865,877 | 998,442 | 365,688.41 | 1,231,566 |
| Shtip | 6,175,920 | 13,528,604 | 1,836,028.69 | 8,011,949 |
| Karbinci | 344,061 | 944,089 | 138,300.02 | 482,361 |
| Saraj | 2,281,520 | 4,133,284 | 914,611.32 | 3,196,131 |
| Gazi Baba | 9,041,934 | 40,742,871 | 2,434,076.16 | 11,476,010 |
| Gorche Petrov | 5,726,846 | 2,959,277 | 1,633,034.05 | 7,359,880 |
| Karposh | 9,012,570 | 35,845,523 | 2,570,140.83 | 11,582,711 |
| Centar | 10,674,622 | 211,556,424 | 3,175,973.33 | 13,850,595 |
| Shuto Orizari | 929,323 | 610,265 | 407,355.34 | 1,336,679 |
| Kisela Voda | 9,418,797 | 22,837,309 | 2,361,012.67 | 11,779,810 |
| Chair | 4,130,521 | 5,089,667 | 1,105,341.35 | 5,235,862 |
| Aerodrom | 9,418,797 | 22,837,127 | 1,180,506.34 | 10,599,303 |
| Butel | 4,130,521 | 5,089,593 | 552,670.68 | 4,683,192 |