

# Case study regarding local revenue collection rate in Romania between 2008-2013

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*This article is trying to present local revenues collection rate in Romania between 2008-2013. It is treating local revenues collection rate from Romania at national, regional, county and local level. The highest local revenues collection rate was 85,38% in 2013 and the lowest collection rate was 80,23% in 2009. The average of the collection rate in urban area was 81,69% and 81,68%. NV Region has the best collection rate and S Region the lowest. From all 3228 local authorities Mintiu Gherlii from Cluj county has the highest collection rate(114,46%) and the lowest Fruntișeni from Vaslui(41,81%). We also pointed out the factors that are influencing the collection rate.*

*Keywords: collection rate, national, regional, county, local factors.*

*JEL Classifications: E6.*

**Introduction.** In order to better understand revenue budgetary policies we consider necessary to clarify various aspects of budget revenues (see [10], [5]). Budget revenues are means training funds that made money from where the public expenditures are made. Other authors Aronson, Schwartz, define different revenues[1] [7]. They believe that public

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revenues are revenues of the territorial administrative units, which are used to cover public expenditures and participate directly or indirectly to achieve various economic policies, influencing the behavior of individuals and businesses. On the other hand, public revenues are considered as means formed as a result of economic relations, from physical and legal persons, under the fiscal sovereignty of the local community. Another definition states that public revenues are "taking of wealth" used to cover public expenditure [3] [4]. Public financial resources are financial resources that procure them a public authority to perform its functions.

Tax revenue is the biggest part of the resources of the state budget. [6] [2] [10]. Tax policy is all fiscal decisions which the state takes to ensure financial resources necessary for carrying out its tasks [8] [9].

**The methodology for determining the degree of local tax collection.** The degree of local tax collection is calculated after the execution of the previous year's budget, using the financial and accounting data of the balance sheet. The degree of collection is determined considering a number of indicators so that initially the returns from the previous year are taken into consideration, and the sum of returns is determined through the bank statements from the past year's budget execution. A second indicator consists of the tax surpluses of the past year. Tax surpluses are sums paid by the taxpayers of a territorial and administrative division over those actually owed; these can also include erroneous payments, as well as the sums that the administration has to return to the citizens after their integral payment of all the taxes and the subsequent sale of the tax basis. A third indicator consists of tax evaluations considering the data from the past year.

The calculation of the collection rate is based on reference years (T-1), (T), (T+1), where T-1 is the penultimate year from the year for which the calculation is made, T is the previous year and T+1 is the current year of reference.

How is this degree calculated?

The degree of revenue collection is the percentage ratio between the returns from which surpluses are subtracted, divided by the prospective returns for the year of reference.

The degree of tax collection

$$V_p = \frac{\text{returns} - \text{surpluses}}{\text{prospective returns}} \times 100 \quad (1)$$

Where:

returns = the returns corresponding to year T

surpluses = the sums paid above those owed in the reference year T

prospective returns = the returns proposed in T-1 for collection in T

In order to eliminate the possibility of registering a deficit from the starting point and to ensure a correct prognosis, a clear formula was established for determining the revenues for the next year.

$$D_{(t)} = R_{t-1} + D_{\text{current}} + I_{(IF)(t)} + I_{S(t)} + \text{Acc}_{(t)} - \text{Surpluses}_{(t)} - \text{Cr}_{\text{litigation}(t)} - \text{Ins}_{(t)} \quad (2)$$

Where:

D = revenues for collection in T

$R_{t-1}$  = remains as per December 31<sup>st</sup> of the year T-1

$D_{\text{current}}$  = taxes, rents and royalties to be collected at the beginning of year T

$I_{if}$  = the spread of taxes established through fiscal inspection with payment deadlines which expire at the end of year T

$I_s$  = supplementary established taxes during year T as a result of taxpayer's acquisition of tax basis, for which payment orders are issued with maturity in year T

Acc = interest and fines established for failure to pay claims until December 31<sup>st</sup> of year T and also unpaid claims from previous years

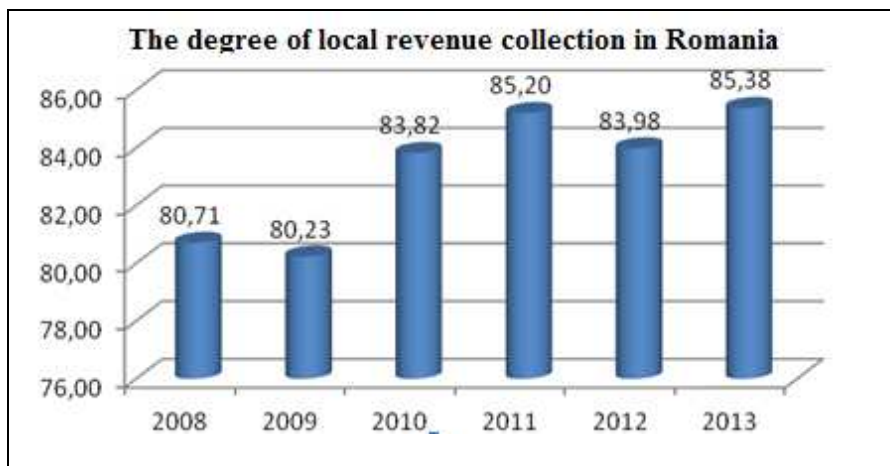
CR1 = disputed claims in year T and previous years  
Ins = claims which are insolvent by the end of year T

**Methodology.** In conceiving this paper regarding the degree of tax collection, the main research method used is data analysis. I have also used statistical data and reports issued by the Ministry of Administration and the Interior and also data received by request from the Local Fiscal and Budgetary Policies Directorate (LFBPD).

Among these statistics are annual reports on the degree of collection for years 2008-2013 at a national level, and also at county, city and commune level. I have also used local budget analysis and reports covering the country's regions.

I have chosen data analysis because it is the only method which can provide an overarching picture on the degree of collection, a method granting the maximum objectivity of the research. The research is mainly descriptive, with analytical elements. We also determined different factors that determined collection rate using SPSS.

**Chart no.1**



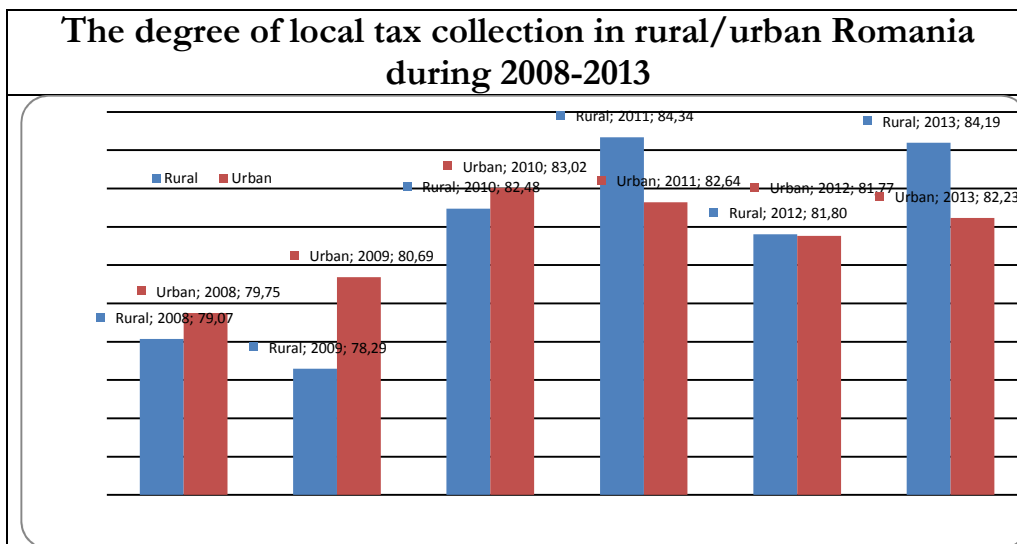
Source: own interpretation based on LFBPD data

**Collection at national level.** The post 2008 economic crisis, lead to an increase in the interest of local authorities in Romania for gathering as much revenue as possible. The year 2008 registered an average of 80,71% per TAD (Territorial Administrative Division) of tax collection, amounting to a brut sum of 6.337.552.362 Lei, which represents a share of 31% for local taxes in the total revenues of the TADs.

As shown in chart no. 1, the evolution of the degree of collection in Romania has been positive, starting with 2009, when its value was of 80,23 and reaching 85,38 in 2013, thus registering a growth of 5,15% during the five years.

The lowest level of the degree of collection was registered in 2009, totalling 80,23%. The collection average for 2010 shown a somewhat significant increase of 3,59%. The positive trend also applies for 2011, when the percentage of the degree of collection had risen with an additional 1,38%, totalling 85,20%.

Chart no.2



Source: own interpretation based on LFBPD data

The year 2012 comes with a slight decrease, the average for local tax collection shrunk by 1,22%, and 2013 registers a value of 83,98%.

During the 5 years referenced, the highest degree of tax collection was registered in 2013, when it reached 85,38%, with a 0,18% increase of the average of 2011, and the difference between 2009 and 2013 is 5,15%.

I found it interesting to compare the differences between the degree of collection of the urban authorities and those of the rural environment. To this end, I have calculated the average degrees of collection at city and municipality level and compared them with those of the communes (chart no. 2).

**Table no. 1**

Average, Minimum, Maximum, Median Degree of collection Rural Urban during 2008-2013							
		2008	2009	2010	2011	2012	2013
Rural	Average	79,07	78,29	82,48	84,34	81,80	84,19
	Minimum	54,13	56,01	71,52	74,06	63,92	70,58
	Maximum	93,25	91,51	96,86	96,58	98,54	97,50
	Median	79,88	78,46	83,03	84,00	81,49	83,99
Urban	Average	79,75	80,69	83,02	82,64	81,77	82,23
	Minimum	48,46	64,88	71,70	62,13	64,26	69,45
	Maximum	96,16	95,25	95,23	99,03	94,82	97,15
	Median	81,85	80,84	83,67	82,76	82,60	82,04

Source: own interpretation based on LFBPD data

The evolution of the degree of collection in the **rural** environment shows a significant increase during the 2008-2013 period, varying from 79,07% in 2008 to 84,19% in 2013. The degree of collection for every TAD decreases by 0,78% in 2009. After 2009, there is an increase of 6.05% in 2011 compared to 2009. In brut sum, this would mean that the local authorities in the rural areas have collected an additional 449.107.858 Lei from taxes in 2011 compared to 2009. The degree of

collection for **municipalities and cities** has a different trajectory compared to the rural areas, registering a 0,94% increase during 2008 and 2009, from 79,75% to 80,69%. The positive trend maintains throughout 2010, the collection rate reaching 83,02%, that is an increase of 2,33%.

An interesting evolution is registered after 2010 when, in comparison with the rural degree of collection which had a 1,86% increase, the municipalities and cities had a 0,38% fall, and in 2013 we can see an increase to 82,23%.

Table no. 1 shows a calculation of the average, minimum, maximum and median degree of collection in both urban and rural environments, in order to have a comparative analysis of these indicators.

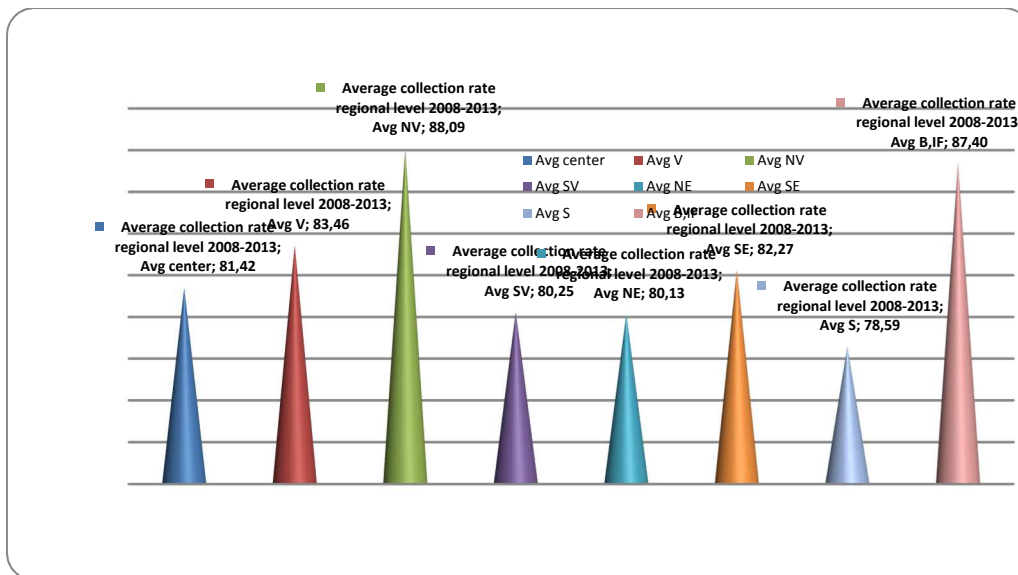
Regarding the degree of collection in rural and urban regions I have observed a higher level in the years 2009 and 2010 in the urban environment, with a percentage of 80,72 and 82,90, respectively, in comparison with the rural environment which had an average collection of 78,76% (2009) and 82,71% (2010). Thus, the differences between the two regions during 2009 and 2010 are of 1,96% and 0,19%, respectively. The small lead of the urban environment in 2010 disappears in 2011, when the rural authorities achieve a 1,92% lead in collection, reaching a maximum percentage during the referenced period of 84,53. In 2012, both environments comply with the national downtrend, but the degree of collection is still higher in the rural environment by 0,93%. The most drastic difference is registered in 2013, that is 2,06%, when the cities and municipalities achieve an average collection of 82,4% and the communes 84,30%.

**Regional collection.** In the context of regionalization, we find it interesting to see which are the regions with the most effective local public authorities regarding local tax collection.

It can be observed that the region with the highest degree of collection is the **North-West Region**, which has collected 88,09% of the taxes established for collection in this period.

Chart no. 3

### Average collection rate regional level 2008-2013



Source: own interpretation based on LFBPD data

The second region as degree of collection is *Bucharest – Ilfov (B-IF)*, with 87,40%. The region with the weakest degree of collection is South, with 78,59% (Chart no. 3).

The *North-West* region had a collection rate of 85% in 2008, ranking second as collection degree, after Bucharest-Ilfov. The year 2009 brought an increase of 0,51% then continuing on an ascending trend, registering a significant 3,6% increase, totalling 89,11% in 2010. 2011 had an insignificant increase compared to the 2009-2010 period, registering a collection rate of 89,56% in 2011, surpassing the Bucharest-Ilfov region. The North-West region is the only one with an average over 90% in 2012.



**Table no. 3**

**The degrees of local tax collection in Romania per regions  
during 2008-2013(%)**

	2008	2009	2010	2011	2012	2013	Medie 2008-2013
<b>Average Center</b>	79,60	81,23	81,79	82,53	80,76	82,58	<b>81,42</b>
<b>Average W</b>	83,18	81,67	83,21	87,33	79,35	86,03	<b>83,46</b>
<b>Average NW</b>	85,00	85,51	89,11	89,56	90,35	89,02	<b>88,09</b>
<b>Average SW</b>	77,42	75,36	81,00	83,96	80,25	83,51	<b>80,25</b>
<b>Average NE</b>	74,29	75,20	81,48	82,62	84,28	82,92	<b>80,13</b>
<b>Average SE</b>	81,17	78,48	80,17	81,85	87,33	84,64	<b>82,27</b>
<b>Average South</b>	73,80	71,45	79,03	82,15	82,97	82,14	<b>78,59</b>
<b>Average B,IF</b>	88,62	88,31	89,71	88,39	86,11	83,25	<b>87,40</b>

Source: own interpretation based on LFBPD data

The West region registered a 83,18% degree of collection in 2008, while 2009 brings a 1,51% decrease, with a comeback in 2010 reaching a little over the 2008 value: 83,21%. 2011 brings a 4,21% increase for the West region, reaching 87,33% and the 2013 value was of 86,03%. *The South-West region* had a 77,42% collection in 2008, reaching 75,36% in 2009. After 2009, the percentage rises significantly from 81% in 2010, to 83,52% in 2013. *The North-East region* registered a collection rate of 74,29% in 2008, which rose in 2009 and 2010 reaching 84,28% in 2012. *The South-East region* begins 2008 with a degree of collection of 81,17%,

which would drop in 2009 with 2,69%. In 2010 the value increases, the result being 1% lower than the average for 2008. In 2012 there is a new increase (87,33%). *The Center region* has a linear increase, starting from 79,60% in 2008 and reaching 83,96% in 2011. The degree of collection drops in 2012 to 80,76% and increases in 2013 to 82,58%.

*The South region* is the weakest region as to the degree of collection. Even if it has a significant increase of 8,7% during 2009-2012, it remains last amongst the regions.

The Bucharest-Ilfov region has a special evolution because it has three decreases in its rate, the first in 2009 (0,31%), the second in 2011 (1,32%) and in 2013 the degree of collection reaches 83,25%.

An analysis of the situation at regional level points out an ascending trend (see table no. 2) until 2011. Furthermore, it expresses a significant ascending trend for the South region. But the Bucharest-Ilfov region is defined by stability until 2011, with a downtrend until 2013.

**At regional level** there is a need for responsibility and the capacity to establish integrated development plans, which should be followed by both local authorities and intermediate bodies involved in EU funds management.

## Illustration no. 2

### The degree of tax collection in 2013



Source: own interpretation based on LFBPD data

Therefore, it is important that the development and implementation of operational programmes be made at a regional level, and these should offer solutions for the areas with a reduced degree of development. This way, integrated projects can be financed, which should cross over current county borders, with a visible impact on more local communities.

**Collection at county level.** I have considered to be of interest to see what were the differences regarding the degree of collection achieved by the authorities in the years 2009 and 2013, when the lowest and the highest levels, respectively, have been registered. Thus, we conceived two maps which illustrate the percentages of each county.

According to the data, it is clear that there are no counties with a degree of collection lower than 55%, and the counties with the lowest collection rate are Giurgiu (56,62%), followed by Dâmbovița (59,82%) and Vaslui (62,84%). Most counties fall within the 75-85% average and cover all the country's regions. The highest degree of collection was

achieved in Sălaj county, which registered 91,76%, the North-West region leading the ranking with 85,51%.

Regarding 2013, the increase of the degree of collection is visible (illustration no. 2), because there are no counties with a rate lower than 65%. Decreases have been registered in counties such as Cluj, Neamț and Arad, but the lowest outcome was in the Ilfov county, with 14,11%. The county with the highest degree of collection is still Sălaj, but with a higher percentage than that of 2009, of 96,81%, and the North-West region is also still ranking first, with 89,02%. The other end of the ranking is occupied by the Ilfov county, which in 2013 registered the lowest tax collection rate of only 73,20%.

Romania has 41 counties and 8 development regions, with no administrative role, established to facilitate the implementation of European funding. At county, regional and inter-county level we can often observe a lack of coherence in planning the development projects, most of them financed through operational programmes. Another noteworthy aspect at this administrative region is that, within the regions, the counties have differing resources and levels of development; the last decade has brought a stable distancing between the wealthy and poor counties, with negative impacts on the quality of public services and the standard of living.

**Collection at commune, city and municipal level.** The 2008-2013 period reveals huge differences between the degree of collection for TADs. In 2008, 154 TADs had a tax collection degree lower than 50% with a slight improvement in 2009 to 143. Between 2009 and 2010, the collection rate improved, as did that at national level, thus a 3.32 times lower number of TADs (43) registered a low collection rate. 2011 is similar to 2010 from this point of view, because the number of TADs with a collection degree of under 50% has remained at 43. A slight increase of this number can be observed in 2012, when it hits 70, after which it drops to 25 in 2013.

In order to illustrate this fact, we have conceived a ranking of the most inefficient authorities tax collection wise, according to the average degree of collection during the 5 reference years. The TADs with the lowest degree of collection are the following:

**Table no. 3**

**The TADs with the lowest degree of collection in Romania  
during 2008-2013**

Rank	County	TAD	2008	2009	2010	2011	2012	2013	Average 2008- 2013
1	Vaslui	Frunțișeni	31,5 2	22,2 0	54,0 0	24,0 0	34,1 0	85,0 6	41,81
2	Prahova	Jugureni	30,6 4	20,6 5	25,9 3	59,0 4	73,9 8	60,5 0	45,12
3	Dâmbovița	Cojasca	44,9	24,5 4	46,4 5	45,1 0	68,3 2	45,4 0	45,79

Source: own interpretation based on LFBPD data

Of course, there are territorial administrative divisions which have a significantly better standing, managing even to surpass the proposed level for tax collection. A total number of 121 TADs have surpassed the expectations for the referenced period. In 2008 we have observed 34 towns. In 2009, 29 managed to pass the 100% threshold. In 2010, 25 towns have exceeded their level and in 2011 this number grew to 29 again. The years 2012 and 2013 have brought degrees higher than 100% for just 2 towns each. Raking first and second as most effective authorities regarding tax collection are two communes from the Cluj county.

**Table no. 4**

**The TADs with the highest degrees of collection in Romania during 2008-2013**

Rank	County	TAD	2008	2009	2010	2011	2012	2013	Average 2008-2013
1	Cluj	Mintiu Gherlii	131,07	117,16	125,09	113,64	99,82	100,00	114,46
2	Cluj	Aiton	167,15	102,71	93,62	97,32	95,13	92,50	108,07
3	Prahova	Teișani	97,42	117,84	108,42	134,80	86,02	100,00	107,42

Source: own interpretation based on LFBPD data

A major difference can be observed between the Frunțișeni commune, the TAD with the lowest degree of collection and Mintiu Gherlii commune, which has the highest degree of tax collection, in comparison with the country average. 2008 registered a huge difference between the two, of 99,5%, the final average being 72,65% higher for the commune belonging to Cluj county. Mintiu Gherlii had the highest degree of collection, compared to the country average of 2010, when it surpassed it by 41,27%.

The main cause for the difficult situation of the public administration from communes and small cities is the **lack of administrative capacity**. Conclusively, **the lack of qualified personnel and financial resources** cause an inability for mayor's offices to conceive and implement development projects, including those financed through EU funding. The situation is more serious for communes with up to 3.000 inhabitants (1.490 TADs) and cities with under 5.000 inhabitants (20 TADs).

Unfortunately, the last 20 years have not brought awareness of these dangers, as 247 new communes have been established, other 60 of them became cities and 47 cities became municipalities.

**At local level**, both international and national experience clearly shows that larger TADs can provide a wider variety of services, because they can mobilize larger human and financial resources.

**Factors that could influence the degree of collection.**

*1. Economic factors*

*a. The link between incomes and the degree of collection.* Considering the hypothesis that the level of income can influence the payment or non-payment of taxes, we determined the average net salary during 2008-2011 for each county. This average was compared with the degree of tax collection per county. This way, we discovered that the influence between the average net salary and the degree of collection is insignificant, as there is no link between the two (see illustration no. 3).

*b. The link between GDP (county) and the degree of collection,* using the same time-frame as for the previous analysis, its variation from one level to another and the variation of the degree of collection. This has pointed out that between the first variable, the degree of collection, and the GDP, there is a positive link and a moderate correlation level.

*2. Historical factors.* As noted, the degree of collection declines from North-West to South-East. In short, the mayor's offices from the Old Kingdom have a lower collection rate than those beyond the Carpathians. The entry of the historical Ardeal region under the rule of the Habsburg Empire at the end of the 18<sup>th</sup> century and the subsequent implementation of the State Apparatus of the latter, have brought a new form of organization in Transilvania which brought high costs requiring a collection of as much revenue as possible.

Tax recovery litigations, hiring a claim recovery firm or even the presence of the mayor's office in court can force the taxpayer to pay his taxes.

## Illustration no. 4

**The link between GDP (county) and the degree of collection**

	degree	gdp
degree Pearson Correlation	1	.420**
Sig. (2-tailed)		.006
N	42	42
gdp Pearson Correlation	.420**	1
Sig. (2-tailed)	.006	
N	42	42

\*\* . Correlation is significant at the 0.01 level (2-tailed).

Source: own interpretation based on LFBPD and NSI (National Statistics Institute) data

3. *Administrative factors.* The existence of the practice of collecting taxes at the place of residence. In the Sălaj county, for example, the tax collector makes home visits in order to collect taxes from elderly people in the villages.

### Conclusions and recommendations

Compared to 1990, 247 new communes have been established, another 60 have become cities and 47 cities have become municipalities. The average number of TAD inhabitants in Romania is larger than that of France, the Czech Republic, Slovakia or Hungary, yet significantly lower than that of Poland, Bulgaria, the Netherlands or the Scandinavian countries. Although the Romanian average is not amongst the lowest in Europe, the current TAD organization generates a series of



development and resource gaps at county as well as commune and city level. The fiscal capacity of the 2.861 communes and that of a large number of cities is low.

Currently, the average degree of collection of local revenue in Romania is relatively good, but at local level there are some territorial administrative divisions where tax collection is very low. The degree of collection is primarily dependant on the involvement of the authorities in achieving the most effective collection degree and in keeping the most exact inventory of the taxpayers. Another important factor is fiscal civic attitude, that is a voluntary payment of fiscal obligation by the taxpayers. That is why I consider necessary to create a pattern of normality regarding the payment of debts due to the state.

I have observed that the greatest discrepancy at a regional level is that between the North-West, which ranks first in tax collection and the South-West, which ranks lowest. A higher degree of collection would mean a reduction of budget deficit and a step forward towards achieving financial autonomy for every territorial administrative division, because taxes, as well as fines and penalties applied for defaults in payment constitute important revenues for the local budget.

An important conclusion is the fact that the level of collection for public local administrations is only in a small degree dependant on income or the economic development of the TADs. Another fact is that, given that the taxation degree is not influenced by the type of town, rural or urban, the degree of collection is relatively equal in both cases. It is revealed that there is a problem with tax collection in South-East Romania and a improved collection rate in the North-West.

It might be said that the degree of collection is rather dependant on the involvement of the public administration and its interest to achieve a top level of collection, and also a correct prognosis of the revenues for next year.

Tax collection depends on the wilful contribution of the taxpayers and their civic involvement. Accepting the idea that tax payment, as well as

civic involvement are beneficial for the taxpayer, and the fact that failure to pay is an antisocial behaviour, can only lead to an improvement in collection.

**Recommendations:**

- to establish a strategy to mobilize and inform citizens regarding their financial obligations towards the local community;
- to organize a single database at national level which would allow the verification of the basis for each taxpayer;
- to reorganize the taxation departments of the mayor's offices;
- to introduce a way of collecting taxes at the place of residence in rural communities;
- to increase the interest of the mayor's office for recovering claims by implementing a forced execution policy;
- to use modern payment instruments (credit card, promissory note), thus achieving a faster collection of taxes;
- to have a more strict approach to procedures used against debtors.

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