

Local Government Finances in Macedonia Today: Possible Reforms for Tomorrow

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Abstract

In 2005, Macedonia began a two-phased decentralization process in which the national government began to transfer to local governments significant new competencies. As of 2009, about half the country's 86 jurisdictions have entered the so-called second phase by assuming very significant new social sectors responsibilities, particularly the responsibility for financing and managing pre-tertiary education. This study analyzes the funding of local governments in Macedonia today, and whether the current intergovernmental fiscal system provides adequate funding to the local government level. In doing so, the study relies on a new local government finance data base to present a picture of how local government finances have evolved over the last three years. Based on this analysis, the study provides a concrete proposal for some initial reforms that would improve the adequacy, efficiency, and equity of intergovernmental financial relations in Macedonia.



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1. Introduction

Over the last six months, the USAID sponsored Macedonian Local Government Activity, in cooperation with the Macedonian Municipal Association (ZELs) and the Ministry of Finance, has developed a relational data base on local government revenues and expenditures for the years 2006-2008. The information contained in the data base is drawn from the national Treasury System and covers all local government revenues and expenditures to the sixth digit of the Chart of Accounts.

This study has two basic objectives. The first is simply to use the unprecedented detail and comprehensiveness of the data base to present a picture of how local government finances have evolved over the last three years. In particular, we are concerned with how the 2005 Law on Local Government Finance is working, and with the movement of local governments from the so-called first phase of decentralization to the second.

This movement is still incomplete. But its magnitude can already be seen as social sector functions—particularly responsibility for managing and financing primary and secondary schools—get progressively transferred to local governments. Indeed, this process makes answering certain questions that once seemed distant and abstract, immediate and pressing.

The second objective of the study is to provide some suggestions about what can be done to improve the efficiency, effectiveness, and equity of intergovernmental financial relations in Macedonia. Our suggestions are not meant to be complete or comprehensive. Indeed, we have consciously chosen to concentrate on what we think are the most serious challenges facing policy makers, both to make the study more “digestible” and to focus attention on the issues that we think are of greatest systemic significance.

The most fundamental question is simply whether local governments have sufficient funds to provide the service responsibilities they have been assigned, and whether these funds are being

¹ This working paper was based on a report written by Tony Levitas for USAID/MLGA. The opinions contained in the publication are the author’s own, and do not express the views of USAID or the US Government.



allocated efficiently, and equitably. This question is difficult to answer because it manifests itself in a variety of different ways when one looks across different types of local governments, the different institutions and functions they have to maintain and develop, and the different ways they receive funds to finance them.

But our answer to this question is basically: “No, local governments do not have sufficient funds to pay for the services they have been assigned. Equally importantly, the funds that are available are not being allocated efficiently or equitably.” Unfortunately, while this conclusion is easy enough to arrive at, fixing the problems associated with it is more difficult.

This is true in most countries, but more so in Macedonia because it is both poor and ethnically divided: On the one hand, there is simply not enough public money around to satisfy peoples’ legitimate desire for better public services. On the other hand, moving money from one level of government to another, or across beneficiaries, inevitably raises very painful political questions. It is like trying to make a blanket that is too small cover the feet of a half dozen people sharing the same bed.

Obviously, and over the long term, what is needed is a bigger a blanket. In the immediate, however, yanking it from side to side, or from top to the bottom, does nobody much good. In fact, it distracts attention from what should be the common goal of knitting together a larger quilt. Again, and unfortunately, there are no obvious or magic solutions to how this should be done, especially when people are tired and cranky after a long winter of fitful nights. Indeed, even well rested and warmer people can and will disagree strongly about what reasonable solutions might look like.

Nonetheless, after observing the Macedonian political scene from more than half a decade, my feeling is that instead of concentrating on the inevitably painful issues that result from the country’s poverty and its ethnic divisions, people are still spending most of their time and energy trying to pull the blanket from here to there. Thus, at the risk of being too frank, the first part of this study (section 2) attempts to name and frame the most divisive of these political questions, questions that I think must be addressed head-on if there is any chance of reaching some consensus about how to make the blanket fit better now, and even more importantly, how over the longer term, all who lie under it, can focus more on making it bigger.

Here, there are three central points. The first is that too little of Macedonia’s too small fiscal pie is going to local governments. The second is that too much of that too small piece of the fiscal pie is going to Skopje. And the third is that too little of that too small fiscal pie is going to poorer jurisdictions. As such, the main beneficiaries of any immediate increase in local government revenues should go to poor jurisdictions outside of Skopje.

Section 3 of this study outlines a strategy that might make it possible for people to share a blanket that is admittedly too small now, in the name of working together to grow a bigger one in the future. This strategy has four essential components. The first is simply that the national government has to commit to making the blanket a little bigger now.



The second is that the new money put into the system comes from a significant increase in the local government share of the Personal Income Tax. This increased share will benefit urban jurisdictions in general and Skopje in particular, while making both less dependent on grants. It will also “free-up” money currently coming out of the general grant (VAT) for more explicit equalization purposes. Finally, it should also create an incentive for all local governments to work with the national government to reduce personal income tax evasion.

The third component of the strategy is to change the way the current equalization system works so that more money flows to jurisdictions whose tax bases are weak. Here we propose a mix of three basic instruments or measures. The first and most important is equalizing the revenues of poorer local governments to a percentage of the average per capita yield of the (new) PIT share and the average per capita yield of a (three-year average) of the transfer tax.

Throughout transitional Europe, equalization systems are largely, if not exclusively based, on the per capita yield of the personal income tax as the basic measure of the relative wealth of different jurisdictions. In Macedonia, we think supplementing this standard measure with a three year average of the per capita yield of the transfer tax makes sense because the tax accurately reflects activity on the real estate market. Using a three-year average of the yield is necessary to avoid distortions that might result from single larger transactions that took place in the previous year.

Alongside of these measures, some funds would continue to be allocated on the basis of the physical size of local governments to help local governments that have large land masses and low population densities; and some funds would be allocated on straight per capita basis. Finally we propose introducing a lump sum payment for all local governments, but will help those local governments that have both small populations and small land areas.

In the simulation model that was developed alongside this study each of the potential variables mentioned above, including the size of the new PIT share can be adjusted and the resulting distribution of revenues analyzed. But conceptually, what is being done is that a new PIT share is being introduced and the existing general grant (VAT) is being used to fund the equalization measures described above. These measures, however, have been designed so that the general grant (VAT) pool can remain fixed to protect the national budget.

Finally, the fourth part of the strategy is for Macedonian policy makers to recognize that the success of the entire decentralization process is now in large measure dependent of what happens in primary and secondary education, and to a lesser degree the other social sector functions that are currently being devolved to local governments in the second phase of fiscal decentralization. On the one hand, the financial significance of these social sector functions simply cannot be underestimated. On the other hand, and equally importantly, the ability of local governments to successfully manage their schools, kindergartens, and old age homes—where they have these institutions— or to provide these services when they don’t already have them,

will require an intensification of strategic planning, inter-ministerial coordination, and intergovernmental dialogue.

2. Local Government Finances in Macedonia Today

The Law on Local Government Finance

To understand local government finances in Macedonia today it is necessary to briefly review the major changes that the 2005 Law on Local Government Finances introduced into Macedonia's intergovernmental finance system. The changes can be summarized as follows.

- a. The Law transferred responsibility for administering and collecting the property tax, the property transfer tax, and the gift and inheritance tax from the national government to local governments. It also gave local governments rate setting powers over these taxes, within limits set by the national government, clearly making them local government own revenues.

In 2006, these revenues constituted about 21 percent of total local government revenues, with the lion's share (17 percent) coming from the property transfer tax. The immediate financial impact of assigning these taxes to local governments as own revenues was, however, modest because prior to the law revenues from these taxes were 100 percent shared with local governments. Since 2006, and as we shall see, local governments have significantly improved the collection of the property tax. It is also worth adding that in 2008, the national government amended the Law on Property Taxes and significantly expanded the base for the taxation of property owned by legal persons.

- b. The Law gave local governments a 3 percent share of the personal income tax paid by people living in their jurisdictions, and a 100 percent share of the tax on independent artisans. The total yield of these shares was about 140 million denars in 2006, or about 3 percent of total local government revenues. Since 2006, however, the yield of these shares has actually declined by about 10 percent because the National government has moved to a 10 percent flat rate on the income tax.
- c. The Law earmarked 3 percent of the national yield of the Value Added Tax (VAT) for a general grant to local governments. In 2006, this grant increased local government revenues by about 810 million denars and immediately came to constitute about 13 percent of total local government revenue. As such, this grant was the source of the most palpable improvement in the financial position of local governments created by the Law.

The Law states that at least 50 percent of the VAT fund will be allocated to local governments on a per capita basis, though it allows for exceptions for the City of Skopje and the municipalities within it. The allocation formula is determined by the Ministry of Finance after consultation with the Committee for Monitoring the Development of the



Local Government Finance System, a body that includes both representatives of the national government, and through ZELs, local governments.

We will examine the formula that is currently being used at greater length later on in the study. For the moment, it is simply worth noting that the allocation of the VAT fund has, not surprisingly, been a source of great contention, with Skopje arguing that it has been unfairly discriminated against, and poorer jurisdictions arguing that more of the fund should flow to them.

- d. The Law created a two-phased process for the decentralization of social sector functions. In the first phase, local governments were made the owners of primary and secondary schools, cultural institutions, sports facilities, old age homes, and fire protection units. They were also given earmarked grants to pay for the costs of maintaining these facilities. For education, by far the most significant of these functions, this earmarked grant amounted to 13 percent of total local government revenues in 2006.

Under the second phase of decentralization, local governments who had met specific conditions would become responsible not just for maintaining these facilities, but for paying the wages of the people who worked in them. At this point, earmarked grants would be transformed into sectoral block grants, meaning that local governments would be free to spend, for example, their block grant on education on any mix of education spending they thought was most effective, but could not spend this money on, say, roads.

By 2008, 51 of Macedonia's 85 local governments had entered the second phase. This has had profound consequences on the total amount of money flowing to local governments. As we shall see in greater detail in a moment, local government revenues as a percentage of GDP have almost doubled in the last two years, primarily because teachers' wages constitute such a significant share of all public expenditures.

The progressive and still incomplete movement of local governments into the second phase of decentralization however, presents serious problems for the analysis of the sector because it means that the revenue and expenditure data that we have is not fully comparable across all local governments from year to year.

More importantly, the transfer of social sector functions to local governments raises many critical policy questions that have yet to be fully addressed. Perhaps the most significant of these is whether under the second phase of decentralization, the national government is transferring social sector functions to local or governments, or just responsibility for running particular social sector institutions? For example, and to put the matter more concretely, some cultural institutions in some jurisdictions have been transferred to local governments. And these local governments are now receiving block grants for culture. But in many other local governments there were no cultural institutions to be transferred. As a result, these local governments receive no additional

money from the national government and thus unlike other jurisdictions have to support whatever cultural activities they do provide from other funds.

In general, this problem is caused by fact that most social sector institutions—indeed much of the country’s urban infrastructure—were concentrated in the 34 municipalities of the old Yugoslav order and simply does not exist in many of Macedonia’s newer jurisdictions. Unfortunately, there is no easy way to resolve the problems generated by the historically uneven distribution of what should now be municipal institutions. Moreover, possible solutions to this dilemma will differ depending on whether we are talking about culture, fire protection, or secondary education.

What is clear however, is that as the second phase of decentralization goes forward much greater attention has to be paid to developing these solutions, and that this will require an intensification of the dialogue both between the national government and local governments, and across line ministries. We will return at greater length to this is issue in section 3 of this study.

Local Government Revenues as a Share of GDP and Total Public Revenues

There are no simple metrics for measuring either how much decentralization a country should have, or for judging whether local governments in any given country have adequate funds to meet their expenditure responsibilities. The main reason for this is that local governments perform different functions in different countries, and do so against different socio-economic and institutional background conditions. Further complicating matters, is the fact that the budget classification systems and financial reporting practices of countries also vary substantially. As result, it is hard to compare revenue and expenditure patterns across countries without getting into fairly detailed analyses of what function local governments provide, and in what way their budget classification systems categorize revenues and expenditures.

For example, in one country, local governments may pay teachers’ wages while in another country they are only responsible for maintaining school buildings, and in a third all education functions may be paid for by the national government. Similarly, in some countries the maintenance and development of water and sewage systems may be a national government responsibility, a local government responsibility, or indeed, entirely privatized.

Nonetheless, some basic judgments can be made by looking at the share of local government revenues (and or expenditures) in relation to a country’s GDP and comparing these shares to other countries where we have reason to believe that the division of responsibilities between levels of government are similar. Table 1 below, presents the share of local government revenues in Macedonia as percentage of GDP and of Central Government Revenue in 2004—the year before the Local Government Finance Law went into effect—and then from 2006 through 2008. The year 2005 has been left out of the series because the new law actually went into effect in July, meaning half the year was under the old system, and half under the new system.

Table 1. Local Government Revenues in Macedonia as a Share of GDP and Central Government Revenues				
	2004	2006	2007	2008
GDP (millions)	265,257	310,932	353,786	398,640
Public Revenues (millions)	88,176	104,044	119,609	136,412
LG Revenues (millions)	4,439.6	6,235.8	9,430.1	18,266.1
LG Revenues as % of Public Revenues	5.0%	6.0%	7.9%	13.4%
LG Revenues as % of GDP	1.7%	2.0%	2.7%	4.6%

Source: Ministry of Finance.

Note: Transfers to local governments from the central government have not been netted out of the calculation.

Between the 2004 and 2006, local government revenues as a share of GDP increased from 1.7 to 2.0 percent, and as share of Central Government revenues from 5.0 to 6.0 percent. About 1 billion denars of this growth came from the new “VAT fund” and the new PIT shares (810 million VAT, 200 million PIT) with the remainder coming from the new earmarked grants for social sector functions. In September 2007, 42 local governments entered the second phase of decentralization and began receiving block grants, most importantly for teachers pay.

The importance of the shift of teachers pay to the local government level cannot be underestimated: The fact that half of the country’s local governments became responsible for teachers’ pay in the last quarter of 2007 was enough to increase the share of local government revenues in the GDP from 2.0 to 2.7 percent. More importantly, by the end of 2008, when 66 local governments had moved into the second phase, teachers pay had boosted the share of total local government revenue in the GDP to 4.6 percent and in total central government revenues to over 13 percent. Indeed, it is likely that once all local governments have entered the second phase of decentralization local government revenues as a share of GDP and as a share of total public expenditures will have almost tripled, standing at near 5 percent of GDP and about 15 percent of total public revenues.

This is truly impressive growth. But what does it tell us about how adequately funded Macedonia’s local governments really are?

Here, the first thing to bear in mind is that in most European and OECD countries, teachers’ wages typically account for about 3 percent of GDP. This is also true in Macedonia, and means that by the end of the decentralization process local governments will receive about 2 percent of GDP to finance all functions other than teachers’ wages. As such, it is fair to say that the overall financial position of local governments has not improved very significantly since the first year of the reform when the new general grant (VAT Fund) and PIT share increased local

government revenues by a billion denars and raised local government revenues as a share of GDP from 1.7 percent to 2.0 percent.

Table 2. Local Government Revenues as a Share of GDP in Select European Countries					
Countries in which the local government does pay teachers' wages			Countries in which the local government does not pay teachers' wages		
Macedonia	4.60%	2008	Serbia	6.60%	2006
Albania	5.80%	2006	Croatia	5.80%	2006
Bulgaria	7.43%	2007	BiH – FbiH	4.30%	2007
Hungry	12.34%	2007	BiH – RS	7.00%	2007
Poland	15.30%	2006	Estonia	8.52%	2007
			Czech	12.00%	2007

Unfortunately, it also means that local government revenues in Macedonia remain extremely low. This can be seen from Table 2 above. The Table presents local government revenues as share of GDP from select countries in the region and beyond. The first group in the Table contains countries in which local governments are responsible for teachers pay. As can be seen from the Table the only country in which local governments are responsible for teachers pay, and total local government revenue is less than 6 percent of GDP are Albania and Macedonia.

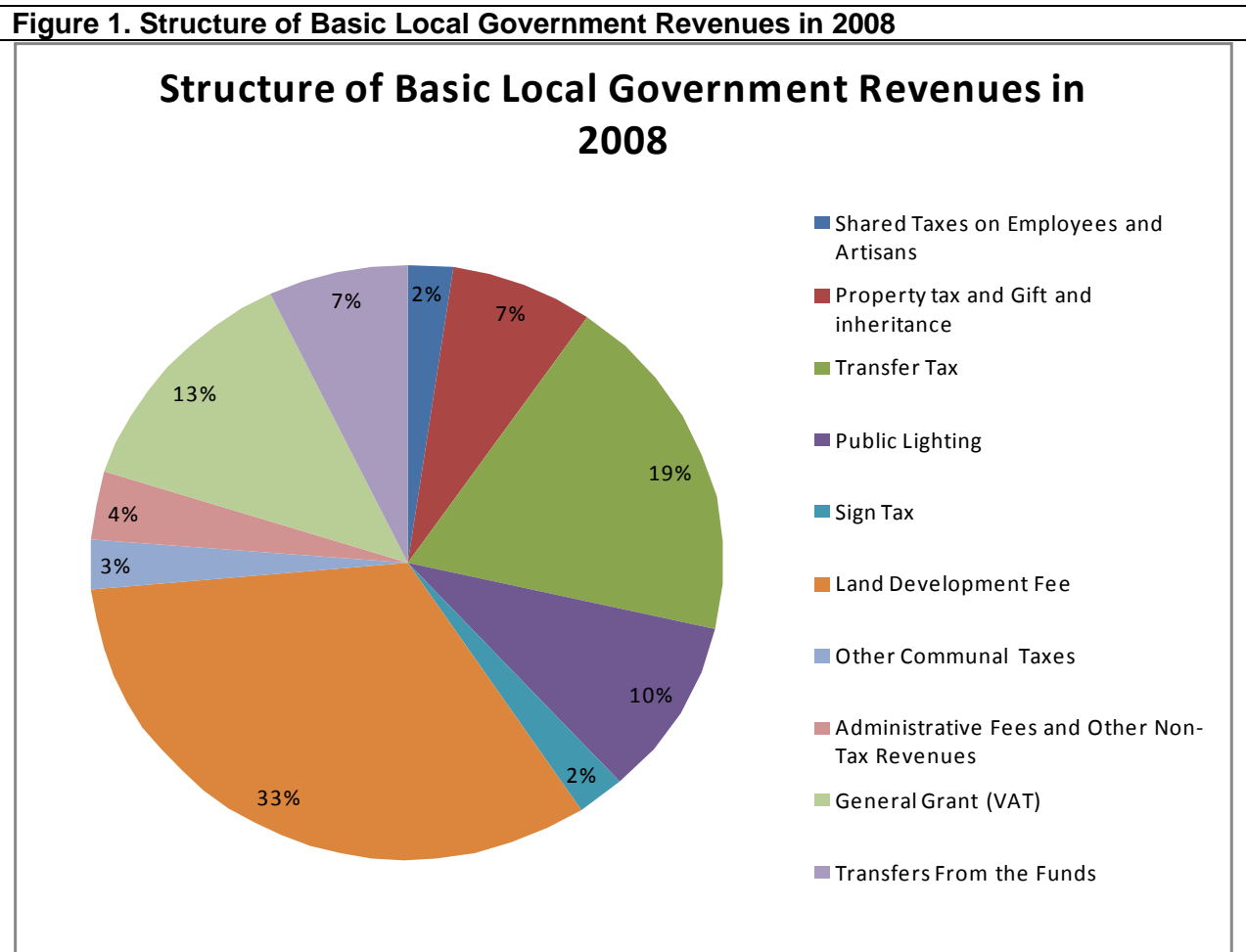
Moreover, even if we assume that when all Macedonian local governments enter the second phase of decentralization the share of local government revenues in the GDP will rise to close 5 percent; this will still be 20 percent lower than in Albania. Meanwhile, if we look at countries in which local governments are not responsible for teachers pay, all of them—with the exception of the Federation of Bosnia Herzegovina (within BiH)—already provide their local governments with significantly more funding than Macedonia does now. Indeed, if we were to assume that in F BiH responsibility for teachers pay were to be devolved to local governments then it is safe to say that local government revenues as percentage of GDP would exceed 7 percent, considerably exceeding the current share in Macedonia.

For us, these measures—as inexact as they may be—strongly suggest that despite the progress that has been made since 2004, Macedonia is still significantly underfunding its local governments. Indeed our guess is that even if local government revenues were to rise to 7 percent of the GDP over the next two – five years, they would still be low in comparison to the other countries in the region, given the fact that unlike most of them, Macedonian local governments pay teachers' wages. Doing even this, however, will be extremely difficult under current economic circumstances. Nonetheless, we are convinced that efforts in this direction must be made. We return to the question of how this might be done in section 3 of this study.

Analysis of the Basic Revenue of Local Governments

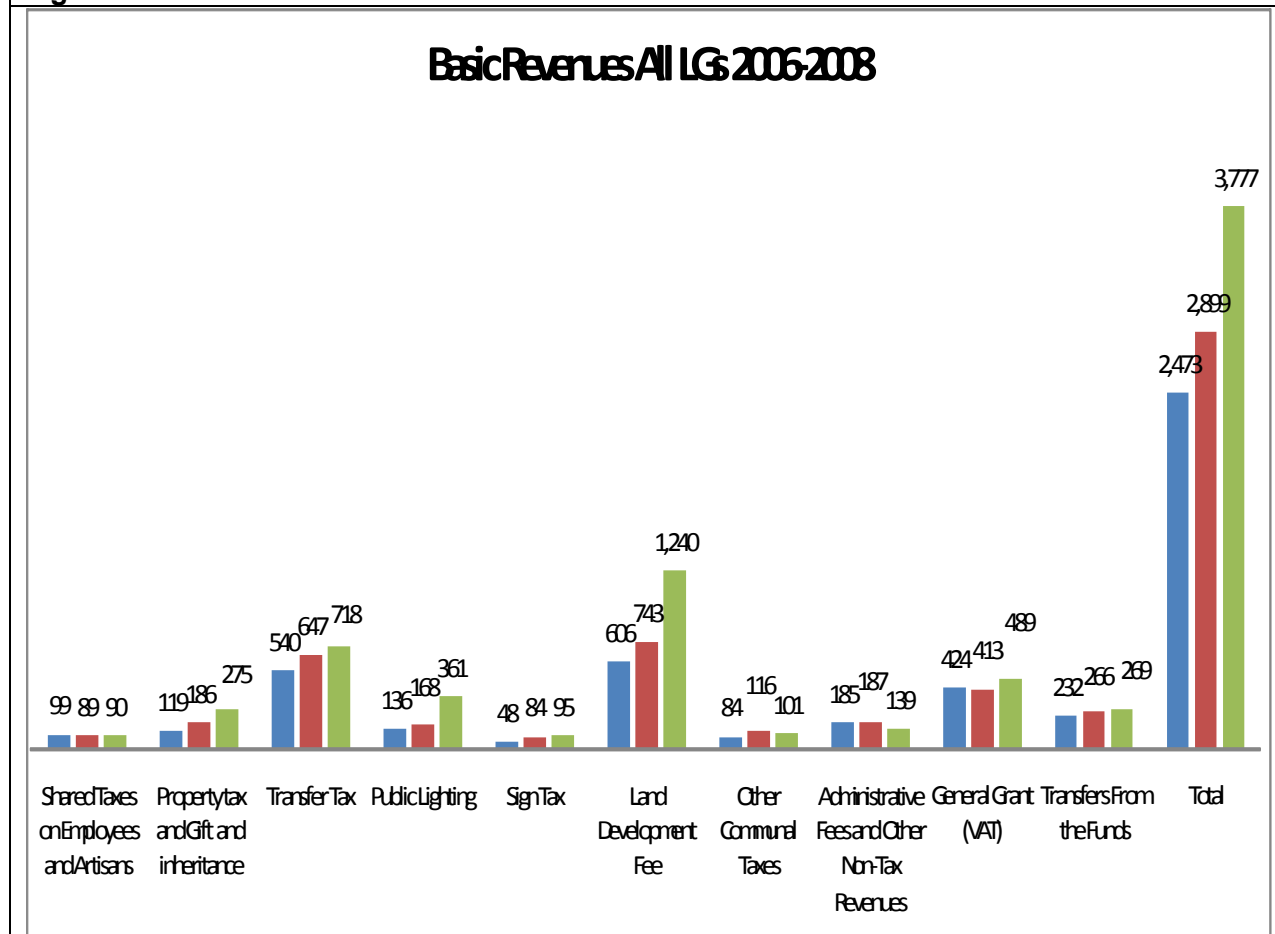
In this section of the study we analyze the composition of the “basic revenues” of local governments over the last 3 years, and how this composition differs among different groups of local governments. By “basic revenues” we mean local government own revenues, shared taxes, and revenues from the general grant (VAT Fund) and the road fund. We call these revenues “basic revenues” because all local governments receive them on a regular basis; because their yields are fairly predictable; and because unlike earmarked or block grants, they are not designated for the delivery of particular social sector functions.

Moreover, this group of revenues has been stable for all local governments for the past 3 years, meaning that unlike with earmarked or block grants, the amount of money local governments have received through them is not dependent on whether they have entered the second phase of decentralization. Figure 1 below presents the composition of local government revenues by each of the major revenue types within this group of basic revenues in 2008.



As can be seen from figure 2, the basic revenues of local governments have increased by more than 30 percent over the past three years, rising from about 2500 denars per capita (about 40 Euros) to close to 3,800 dinars per capita (c. 60 Euros) in 2008 denars. Most of this growth has come from the land development fee and the transfer tax. This indicates that at least in certain places the real estate market has been active and that new, private sector investment is being made.

Figure 2. Basic Revenue All Local Governments 2006-2008



It is also worth noting, that revenues from the property tax have more than doubled since local governments have assumed responsibility for the tax. As can be seen from table 3, the property tax (without the gift and inheritance tax or the transfer tax) now accounts for almost 500 million denars in local government revenue. Despite this impressive growth, however, the average property tax burden is low at about 4 euro per capita. Clearly there is significant space for improvement here, especially since revenues from legal entities should increase with the 2008 decision to expand the base of the property tax for firms.

	2006	2007	2008	% growth	Total
Property tax	205,353,956	327,622,403	496,439,979	242%	8,072,195
Per capita	102	162	245	242%	4.0 Euros

Revenues from the public lighting fee have also tripled. Much of this growth is the result of the national governments decision to double the maximum allowable rate. But at least some of it is coming from better collection, suggesting that here too local governments are taking their own revenue responsibilities more seriously.

Despite economic growth over the last three years, revenues from the very modest PIT share have not increased. This is because the government has lowered the general personal income tax rate to a flat 10 percent over the last few years. Meanwhile revenues from the general grant (VAT) and the road fund have grown, but relatively modestly.

This generally positive picture of the growth of local government basic revenues however begins to unravel a bit when we look at it from the point of view of what is happening in Skopje versus the rest of the country. Table 4 below, presents the growth of basic revenues for the consolidated municipalities of Skopje versus all other local government between 2006 and 2008 in inflation adjusted denars. Figure 3 below, shows the per capita basic revenues for the consolidated municipalities of Skopje versus all other municipalities in 2008.

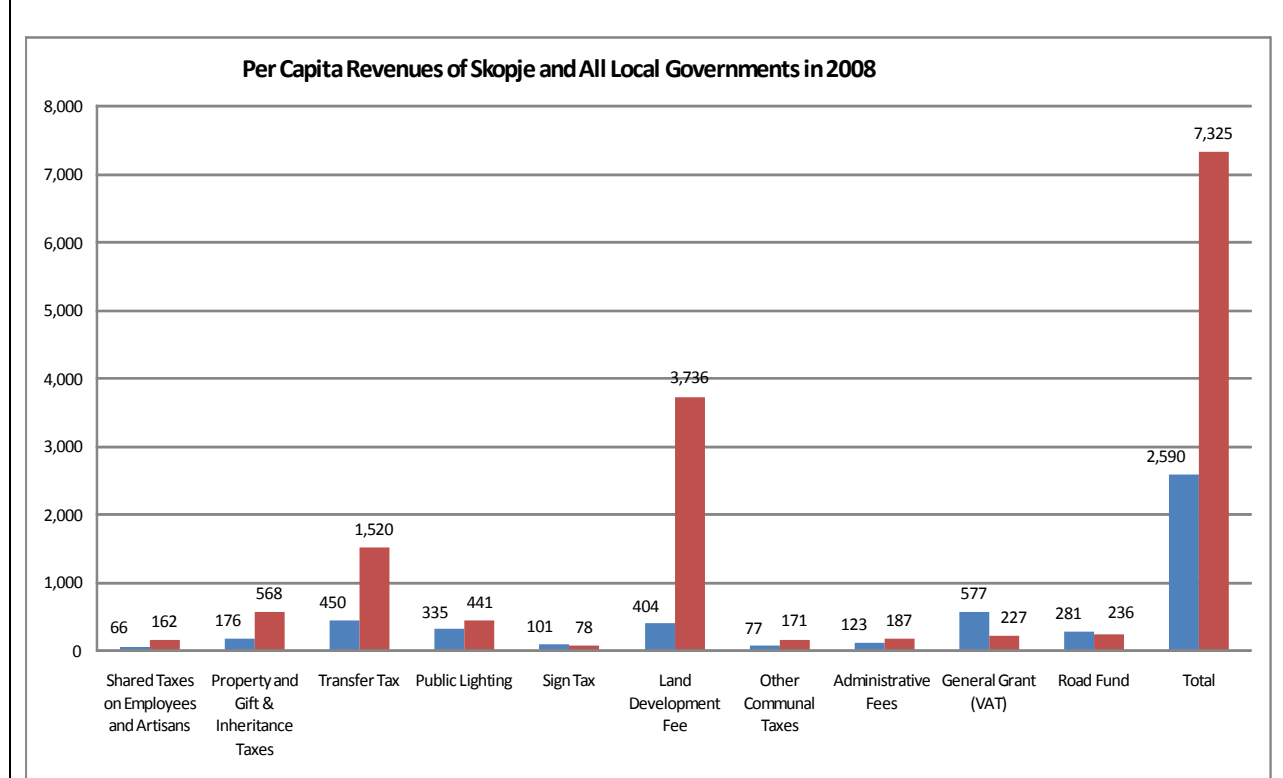
	Shared Taxes on Employees and Artisans	Property and Gift and Inheritance Taxes	Transfer Tax	Public Lighting Fee	Sign Tax	Land Development Fee	Other Communal Taxes	Administrative Fees and Other Non-tax Revenues	General Grant (VAT)	Transfers from the Funds	Total
Other LGs	-12%	81%	41%	193%	119%	58%	6%	-16%	13%	20%	38%
Skopje	-5%	209%	27%	118%	46%	126%	46%	-38%	37%	5%	72%
All	-9%	130%	33%	166%	99%	105%	20%	-25%	15%	16%	53%

As can be seen from table 4 the basic revenues of all local governments increased by an average of 53 percent between 2006 and 2008. But Skopje's revenues grew by 72 percent, while the revenues of all other local governments grew by only 38 percent. Most of the difference in the overall growth rates comes from the difference in the growth rate of the Land Development fee which grew by 126 percent in Skopje, but only 56 percent elsewhere. Indeed, the land development fee (as can be seen from Figure 3) generates over half of Skopje's per capita revenues (3,736 out of 7,325 denars per capita) and is almost 9 times more than the average

elsewhere (404 per capita). Not surprisingly the rate of growth of the property tax in Skopje was much higher than elsewhere (209 percent versus 89 percent).

More curiously, revenues from the general grant grew in Skopje faster than elsewhere (13 vs 37 percent). This is attributable to the fact that lobbying by Skopje succeeded in increasing the City’s share of the pool of funding from 10 to 12 percent in 2007. Conversely, however, other local governments did better with road fund, where their revenues from this source increased by 20 percent while Skopje’s increased by only 5 percent.

Figure 3. Per Capita Revenues of Skopje and All Local Governments in 2008



It is important to note that the growth rates of the sign tax and the public lighting fee in non-Skopje local governments outpaced those of the capital. This and the high rate of growth for the property tax even outside of Skopje suggest that it is not only Skopje that is intensifying its efforts to collect own revenues.

Nonetheless, the overall picture that emerges from figure 3 is disturbing. The total per capita revenues of Skopje are almost three times more than the average elsewhere. Indeed, Skopje accounts for almost 50 percent of all the revenues in the system despite that fact that only 25 percent of the population resides in the capital.

To be sure, the cost of providing services in the city is higher than elsewhere, if for no other reason than the fact that the city probably pays significantly higher wages for many types of

services. Moreover, there is no question that the Capital provides services to citizens throughout the country. And finally, there is no doubt that the City must expand its infrastructure, particularly as people migrate to the capital.

But it remains an open question whether the developmental needs of the entire country are best served by these kinds of disparities in public spending. Indeed, it seems to us that Macedonia is at the risk of falling into something of a vicious circle: As public services deteriorate or fail to improve outside of the capital, more and more people will immigrate to Skopje, putting ever greater financial pressure on the City. Thus, despite the Capitals' undoubted need for new money, we think that the existing disparities suggest that any immediate increase in the overall revenues in the system should be directed to jurisdictions outside of Skopje.

Further Analysis of Disparities in the Basic Revenues of Local Governments

Unfortunately, the problem of radical disparities in the basic revenue of local governments is not confined to the question of Skopje versus all other jurisdictions. Indeed, if we drill down a little farther into the data we see that these problems get worse. To do this, we have organized local government revenues by quartile. What this means is that we have ranked, by total per capita income, all non-Skopje jurisdictions from poorest to richest into four equally sized groups, and then looked at the average per capita revenues for each group by revenue type. Table 5 below presents the results.

Table 5. Basic Revenues of Local Governments by Quartile and with Skopje Municipalities and the City of Skopje Consolidated in 2008 (per capita)

	Shared Taxes on Employees and Artisans wage taxes per capita	Property Tax	Transfer Tax	Public Lighting Fee	Sign Tax	Land Development Fee	Other Communal Fees	Administrative Fees	General Grant (VAT)	Transfers from the Funds	Total
1st Quartile	30	68	222	182	36	68	22	50	499	205	1,382
2nd Quartile	66	163	429	373	114	225	60	111	517	242	2,300
3rd Quartile	78	142	355	356	90	373	79	211	741	345	2,770
4th Quartile	89	319	753	404	147	992	152	149	622	362	3,988
Skopje	162	568	1,520	441	78	3,736	171	187	227	236	7,325

Note: Six local governments failed to record income from the land development as budget revenue. As a result, we do not know how much revenue they earned from the fee. This failure is a violation of the Budget Law and should be monitored by the national government and corrected by the concerned local governments. The absence of this revenue from these six jurisdictions however would not significantly change the picture presented in this Table.

As can be seen from table 5, the poorest 25 percent of Macedonian local governments have per capita revenues 6 times lower than those of Skopje, and three times lower than the richest 25 percent of jurisdictions without counting Skopje. Indeed, the poorest jurisdiction—Lipkovo, population 27,000—had per capita revenues (768) equal to about half the average of the poorest quartile (1,382), and only 10.5 percent of those of Skopje (7,325).

What is particularly striking about the table, however, is that the poorest jurisdictions are getting the least amount of money from both the general grant and the road fund. Indeed, the next poorest group of local governments (those contained in the second quartile) also gets significantly less from the general grant and the road fund, than the richer third and fourth quartiles.

Table 6 below, sheds more light on what is going here. The table presents local governments in quartiles by both population and per capita wealth for the 74 non-Skopje jurisdictions. The first quartile for population contains the smallest local governments and the fourth the largest; while the first quartile of per capita revenue contains the local governments with the lowest per capita basic revenues and fourth the ones with the highest.

Table 6. Number of Jurisdictions by Population and Per Capita Basic Revenues

	1st Quartile Population	2 nd Quartile Population	3 rd Quartile Population	4 th Quartile Population	Total
1st Quartile per cap revenue	3	7	8	1	19
2nd Quartile per cap revenue	2	8	5	4	19
3rd Quartile per cap revenue	6	4	3	5	18
4th Quartile per cap revenue	10	2	4	2	18
Total	21	21	20	12	74

As can be seen from the table, 10 of the 18 jurisdictions with the highest per capita revenues, and 6 of the 18 with the next highest belong to the smallest group of local governments by population size. Almost all of them owe their relative wealth entirely to the distribution of the general grant (VAT) and the road fund. For example the small, fourth quartile local governments of Novaci, Vraneshtica, and Drugovo all receive more than 2,000 denars per capita from the general grant (VAT) and 1,000 denars per capita from the road fund.

At the same time, the quartile of local governments with the lowest per capita basic revenues is dominated by larger local governments. Particularly, striking is the fact that almost half of the third quartile by population size in the first quartile by per capita revenues. This group is dominated by local governments which, like the small jurisdictions in the richest group, get very little money from own revenues or shared taxes. They also, however, get very little from the

general grant or the road fund. For example Lipkovo, Zhelino, and Bogovinje all have populations of over 25,000 and are in the third quartile by population. But they get less than 500 denars per capita from the general grant and less than 200 denars per capita from the road fund.

It is unclear exactly why the distribution of the road fund works in the same way as that of the general grant. But with respect to general grant, the reasons for this are clear: Once 12 percent of the total pool is subtracted for Skopje, the rest is divided according to a formula in which 60 percent is allocated per capita, 27 percent on the basis of a local government's share in the total territory of Macedonia, and 13 percent on the basis of a local government's share in the total number of settlements in Macedonia.

The theoretical justification of the use of territory in the formula is that the physical size of local government is a proxy for it "rurality" and by extension a measure of wealth or, rather, poverty. The theoretical justification for the use of settlements in the formula is that it costs more to deliver services to citizens living in small villages scattered across a single jurisdiction. Both of these theoretical justifications are defensible and in fact both measures have been used in other countries. What is less defensible however, is the amount of money being allocated according to these criteria; the absence of the use of any other measure of relative wealth; and the fact that in Macedonia the use of settlements not only double counts the same factor as jurisdictional size, but in practice works against municipalities with more concentrated settlement patterns.

Local Government Expenditures between 2006 and 2008

In this section, we briefly examine the expenditures of local governments between 2006 and 2008. Our main purpose here is to show the magnitude of the shifts taking place with the second phase of decentralization. Unfortunately, however, it remains difficult to seriously analyze the expenditure patterns of local governments since 2006 for two reasons. The first reason is that not all local governments have entered the second phase of decentralization, and those that have, have entered in different waves—including waves that started in the middle of the year. As a result, data is not comparable across or even within years.

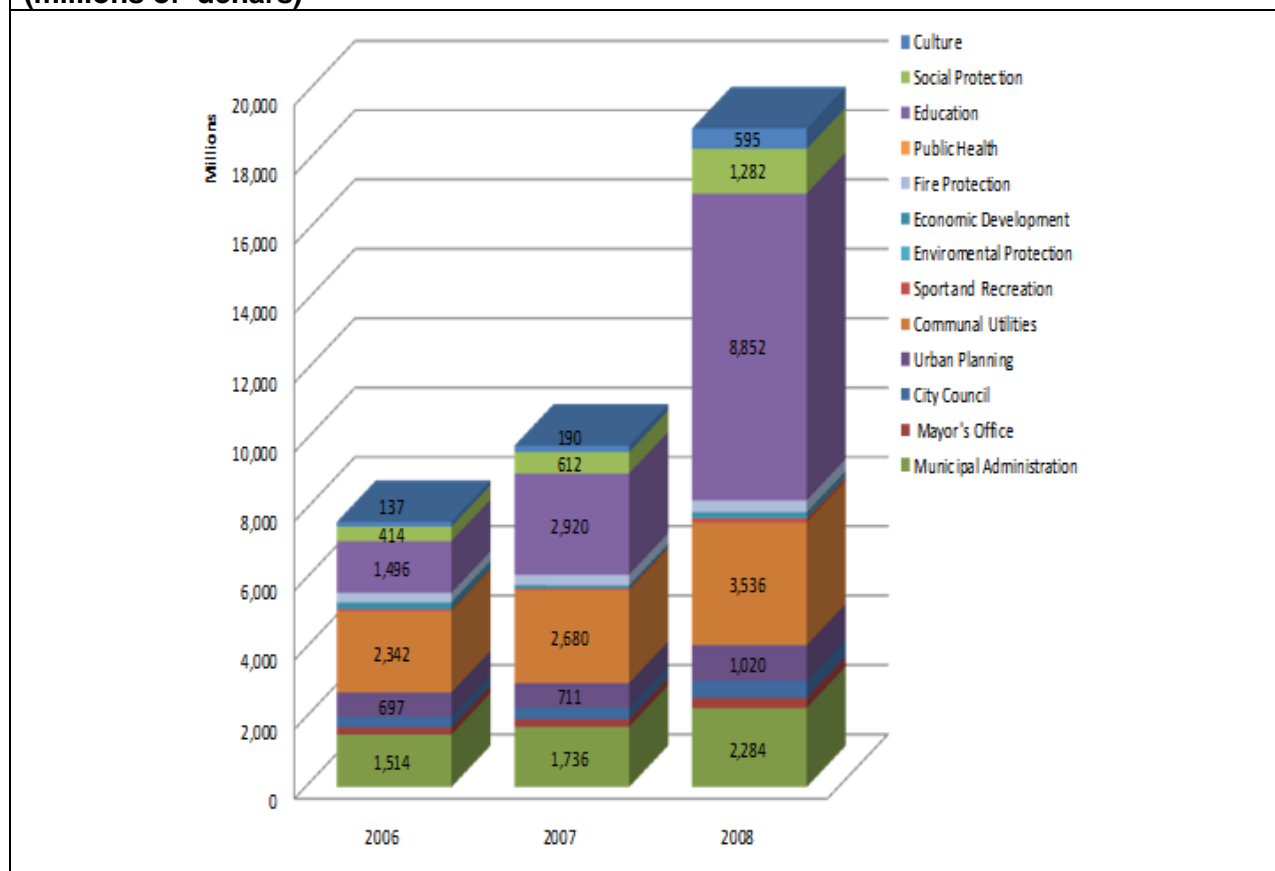
The second reason is less visible, but over the longer term more important. It is a product of a problem we have alluded to earlier, meaning that the second phase of decentralization has—at least in certain sectors—been primarily about devolving to local governments control over particular institutions, or particular types of institutions, and not really about decentralizing the functions. As a result, there are second phase municipalities who receive no money for culture or for preschools simply because they don't have these institutions, while other second phase municipalities of comparable size receive substantial block grants simply because they have always had them.

We will return to this problem in section 3 of the study. For the moment, what is important is that this problem makes it difficult to compare social sector spending across local governments because this spending is primarily being driven by block grants whose size is being determined by the historical costs of existing institutions, and not by local government decisions.



Figure 4 below, presents the growth and composition of local government expenditures from 2006 to 2008. The figure shows the magnitude of the financial effects of the second phase of decentralization. The top four segments of the columns show the shift that is occurring as block grants are given to local governments for culture, social protection (mainly kindergartens), education and fire protection. Expenditures on these functions now constitute well over half of all local government expenditures. Of obvious particular importance are education (primary and secondary schools) and social protection (primarily kindergartens). Together, these two functions now account for 53 percent of all local government expenditures.

Figure 4. Growth and Composition of Local Government Expenditures, 2006-2008 (millions of denars)



In 2007, the national government allocated block grants for education simply on the basis of the historical costs of schools. In 2008, however, the Ministry of Education moved to formula system of funding. The formula includes three factors; a “lump sum per municipality,” an amount based on the number of pupils attending schools in the municipality (including coefficients that “weight” students with specials need; who attend vocational classes, and who have subject teaching); and a coefficient for population density designed to ensure that in rural

areas—where class sizes are necessarily smaller than in urban ones—local governments have enough funds run their schools.

The importance of this formula for the future of both Macedonia’s education system and for the finances of its local governments cannot be underestimated. And it is to Macedonia’s great credit that it has made a commitment to moving to a weighted per pupil system of financing because over the longer term this is the only way to ensure that education funds flow to where they are needed, meaning to where pupils actually attend school.

But at least two things should be noted. The first is that at the moment, money is flowing to local governments not on the basis of the number of pupils attending schools in their jurisdictions but primarily on the basis of the number teachers teaching in them. This is problematic because Macedonia has many schools with overcrowded classes and many schools in which class sizes are unsustainably low. Moving towards a more equitable allocation of resources in the sector—and with it a more equitable allocation of financial resources for education to local governments—will by a long and difficult process, not least because schools in some areas will have to be closed, while in other areas they will have to be built. At a minimum, this means that the national and local governments will have to cooperate in solving these problems, and that over time, the weights for different types of pupils and for population density will have to be adjusted to meet the goals of both increased equity and efficiency in sector.

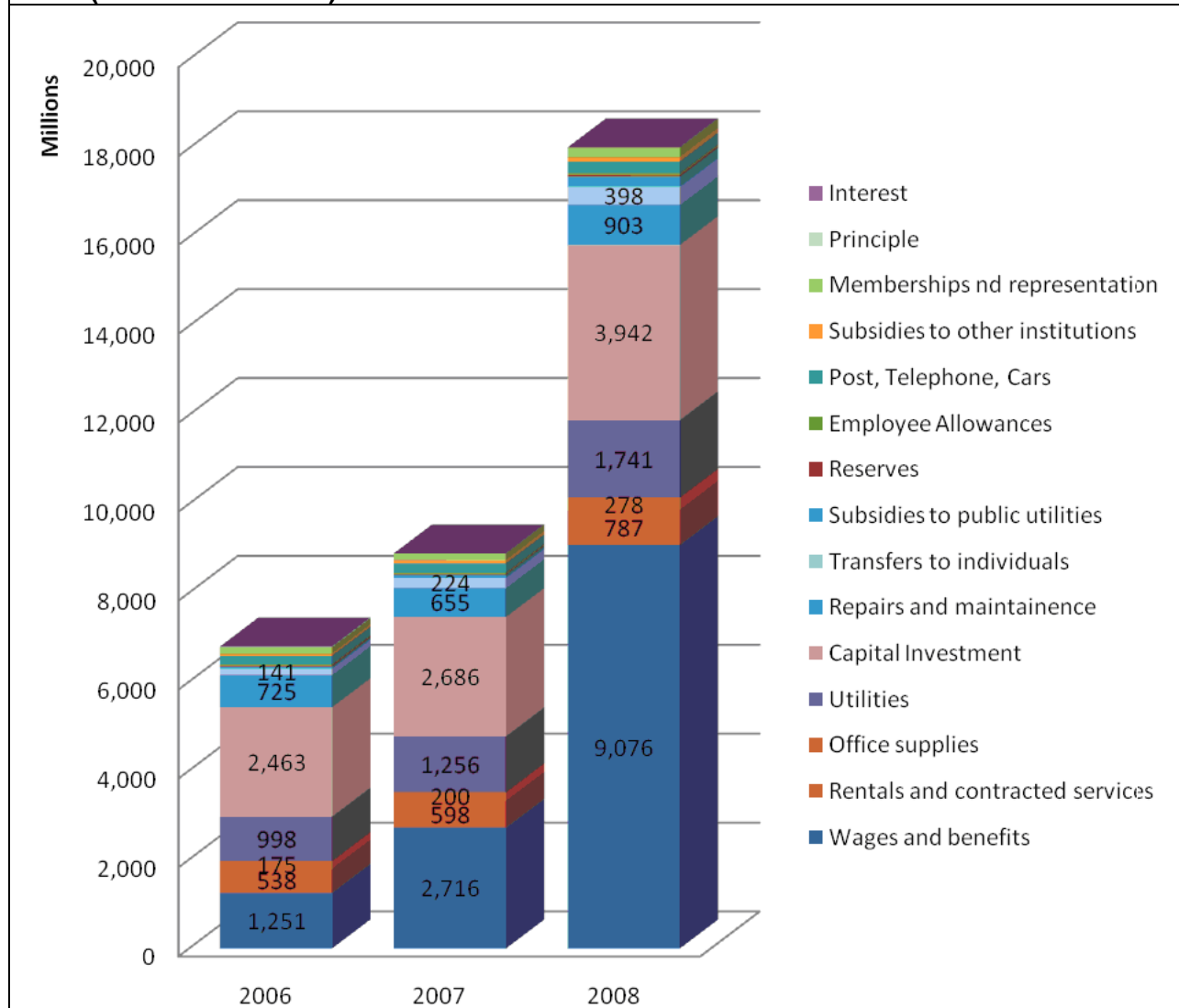
The second thing to be noted is that while the ordinance for the allocation of education block grants has been published and the formula it contains expresses the Ministry of Education’s commitment to a transparent and equitable allocation of education resources, the formulas are not presented in a way that would allow any local government to calculate the size of its education grant. Indeed, key elements of the formulas are missing (e.g., the amount of the lump sum per municipality, the basic weight per pupil). Moreover, and unlike in the past, the ordinance does not inform local governments of the amount of money each of them will receive through the block grant in the coming year.

As such, the formulas only begin to fulfill the national government’s promise of moving to a more equitable and efficient allocation of resources in the sector. Equally importantly, the absence of the full formulas, the sums for the next year, and perhaps most importantly, a clear statement of the policy that the Government intends to pursue over the coming years, it will be very hard for local governments to rationally manage the sector, and to sensibly think about reorganizing their school networks or reallocating teachers between schools.

It is also extremely important to recognize that while the Ministry of Education has taken concrete steps to meet its obligation under Article 12, point 2 of the Law on Local Government Finance with respect to the allocation of block grants “in line with appropriate measures of need,” this is not true for either the Ministry of Culture or the Ministry of Labor and Social Welfare. Instead, these Ministries are allocating funds on the basis of the historical costs of cultural institutions, preschools and old age homes. As a result, and as we have already noted,

local governments that already have preschools and cultural institutions receive block grants for maintaining them, while local governments who don't, receive little or nothing.

Figure 5. Composition of Local Government Expenditures by Expenditure Type, 2006-2008 (millions of denars)



Correcting this problem is very difficult without putting new money into the system. If the historical amount of money that is currently being spent on a limited number of institutions in a limited number of jurisdictions is allocated more fairly—meaning, for example in the case of kindergartens on the number of pre-school age children in the jurisdiction, or in the case of culture on the basis of the total population—than those jurisdictions that have the institutions

already may not have enough funding to keep them running. At the same time, local governments that don't already have the institutions may not receive enough funding to provide the services in a meaningful way.

Indeed, the current allocation of funding for preschool education and cultural activities clearly expresses at least one dimension of the larger problem of the underfunding of municipalities in Macedonia today. How to fix this problem however, is a more difficult question, if for no other reason than because there is, again, too little public money available for the national government to provide all municipalities with the funds they would need to provide services equal to those provided by the municipalities who already have the relevant institutions.

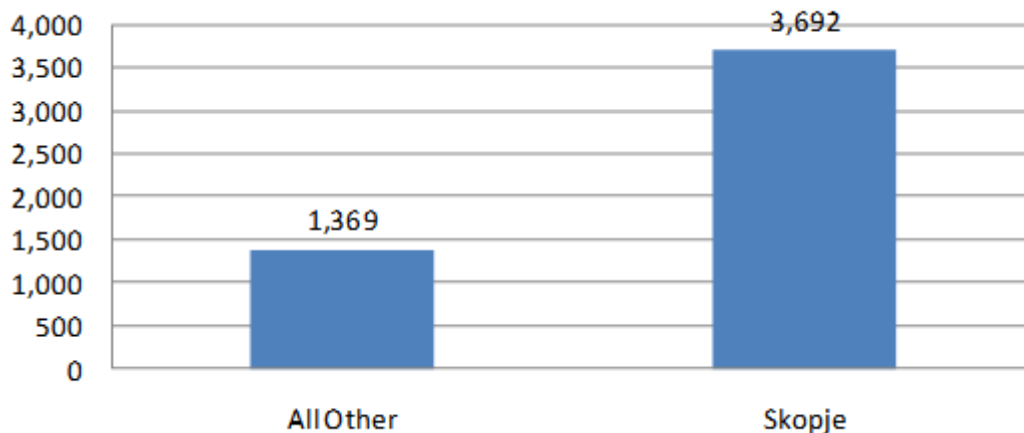
Figure 5 (previous page) is similar to figure 4 except that instead of presenting the growth and composition of expenditures by their functional purpose, it presents them by their economic type. As can be seen from the figure, expenditures on wages have increased more than seven times since 2006, again primarily because local governments who have entered the second phase are now paying teachers' wages.

After wages, the second largest type of local government expenditure in 2008 was on capital investment, and then on repairs and maintenance. In 2006 and 2007, however, capital investments constituted a larger share of spending than did in wages. Nonetheless the absolute amount of local government capital spending has increased every year despite its declining share in total expenditures. This is good news because it means that local governments have continued their capital spending even in the face of assuming massive new social sector responsibilities. Table 7 below shows the changes in the composition of the most important expenditure categories.

Table 7. Changes in the Composition of Local Government Expenditures 2006–2008 (percent)						
	Wages	Utilities	Capital	Repairs and maintenance	Other	Total
2006	18	15	36	11	20	100
2007	31	14	30	7	18	100
2008	50	10	22	5	13	100

Not surprisingly however, Skopje is responsible for 48 percent of the 4.8 billion denars of local government spending on capital investment and repairs in 2008, despite serving only 25 percent of the country's populations. As can be seen from figure 6 below, per capita investment spending in Skopje is almost three times higher than elsewhere in the country.

Figure 6. Per Capita Investment Spending in Skopje and All Other



3. Possible Directions for Reform

In the previous section of this study we have identified a number of major and inter-related problems with Macedonia's current system of intergovernmental finance. To summarize, these can be briefly stated as follows:

- Macedonia's local governments are underfunded and their revenues constitute a significantly smaller share of GDP than almost all of the countries in the region and all but two in Europe.
- The current allocation of the general grant (VAT) and the road fund are skewed and do not provide a reasonable share of the available funds to poorer jurisdictions.
- Skopje, understood as both the City of Skopje, and the municipalities within it, is relatively overfunded, receiving close to 50 percent of all local government revenues despite serving only 25 percent of the population.
- The current funding and allocation of block grants remains problematic, particularly for culture and social welfare (pre-schools and old age homes) where the national government has yet to begin to honor Article 12 of the Law on the Financing of Local Governments with respect to allocating these monies on the basis of "appropriate measures of need." At the same time, it is of critical importance that the efforts that have begun in the education sector are both continued, and made more transparent.

Solving these sorts of problems is extremely difficult in any country because it means shifting public money not only between levels of government, but across local governments, creating winners and losers at both levels. Worse, all these problems are particularly hard to address

during a serious economic crisis when public revenues are shrinking and there is less money to be moved around.

As such nobody should have any illusions about there being easy solutions. Moreover, given the current economic downturn, it is likely that any reasonable solution really must consist of a set of steps, or at least a clear policy direction, that will only be implementable over a number of years. In short, not only are there no easy solutions but there are no quick ones. Nonetheless, in the following, I try to lay out what I think is a reasonable set of possible reform initiatives and to describe both what I think the major choices are, and what I think might be the next best steps.

Putting New Money into the System

There are a number of ways that new money can be put into Macedonia's local government system. Most of them are not mutually exclusive. But all of them have different advantages and disadvantages. Below we briefly describe the main possibilities, and the issues associated with each.

Own Revenues: Increasing the own revenues of local governments by expanding their existing tax powers or giving them new ones is desirable because it increases the political accountability of local officials who become responsible to their electorates not just for how they spend public money, but for how they raise it. Increasing the own revenue raising powers of local governments can also be attractive for national governments because the increase does not cost the central budget money, and because the national government does not have to bear political responsibility for raising taxes.

Unfortunately, however, there are a very limited number of high yield taxes or fees that can easily be assigned to local governments. Moreover, Macedonia has already assigned what is generally considered the best local government tax—the property tax—to municipalities. Thus, while the national government might give local governments some new own revenue powers these are unlikely to radically improve their financial situation over the short term. Here, it should also be noted that increasing the own revenue powers of local governments almost always benefits jurisdictions with strong tax bases much more than jurisdictions with weak ones, usually putting new burdens on a country's equalization system.

Shared Taxes: Central governments can increase local government revenues by raising the shares local governments receive of national government taxes, such as the Personal Income Tax. Theorists of fiscal federalism generally dislike giving local governments shares in national government taxes because tax sharing comes with all the disadvantages of own revenues—greater inequality between richer and poor jurisdictions—with none of its benefits, meaning no increase in the political accountability of local governments vis-à-vis their electorates.

Nonetheless, tax sharing is used throughout the world and has been particularly prominent in post-Communist Europe where large shares of personal income tax have often been assigned to local governments. There are many reasons for this. First, the administration of shared tax

systems is easy and does not require new skills or personnel at the local level. Second, national governments can assign local governments tax shares, and give up central government revenue, without “losing control” of tax policy.

Third, and conversely, tax shares often feel like own revenues to local government officials because the shares are typically stated in law and their yields are clearly related to the performance of the local economy. Here, however, it must be stressed that this feeling can be profoundly misleading, precisely because the national government still controls the base and the rate of the shared tax. Indeed, many local governments have seen the value of “their” shares erode dramatically, as national governments change tax rates and bases in order to lower overall tax burden.

Fourth, national and local government officials in post-communist countries typically dislike the very idea of grants, in part because the idea smacks of the socialism everybody is trying to leave behind, and in part because in practice, grants have often served as instruments of political favoritism. Finally, and perhaps most importantly, tax sharing—particularly the sharing of PIT—at once creates a mechanism for giving significant amounts of tax revenue to local governments, while almost automatically creating a way to equalize for some of the disparities in wealth that tax shares—like own revenues—inevitably produce.

In other words, many post communist countries have assigned local governments significant shares of PIT, while simultaneously introducing rules that require the national government to equalize the revenues of local governments whose per capita yield of PIT is significantly below the national average. Here, in other words, PIT is being used to give local governments something that feels—a little illusorily—like on an own revenue, while at the same time creating an automatic mechanism for equalization that doesn’t feel like a grant, and which like good grants can be made independent of political manipulation.

Grants: National governments can provide local governments with new revenues through a variety of different sorts of grants. These can be earmarked or special purpose grants, meaning grants to administer very particular programs or projects, or to build specific types of infrastructure. They can be sectoral or block grants, meaning grants designed to give local governments the monies they need to provide a type of service, but which leave them free to spend that money for that service anyway they like. And they can be general grants which by definition come with no strings attached.

Many countries make use of all three types of grants, and almost all make use of some mix of general grants and special purpose ones. Nonetheless, the literature on local government finance typically argues for limiting the number of special purpose or block grants in a system, and for consolidating as many of these as possible into a general grant so as to increase the real space for meaningful expenditure decisions at the local level. This makes good sense. And there is little question that the Macedonian grant system is overly fragmented.

At the same time, it is important to recognize that unlike most countries at a similar stage of development, Macedonia has assigned responsibility for financing and managing primary and secondary schools to local governments. And given both the importance of education and the relative inexperience of local governments, there are extremely good reasons for why the national government should want to be able to ensure that monies earmarked for education are indeed spent on improving the quality of primary and secondary school.

Similar arguments can be made about kindergartens, especially if one sees them not as social welfare institutions, but as an integral part of a country's education system. Conversely, however, there are probably good reasons for giving local governments greater latitude over spending decisions in the area of culture, and indeed for eventually folding the money currently provided to local governments through the block grant for culture into some more general instrument.

Be that as it may, there are two critical questions that must be answered for any type of grant. The first is: "What rules define the size and the stability of the pool of money being used to fund the grant? And the second is, "What are the rules for allocating this pool across local governments?"

In Macedonia today, the rules defining the size of both the general grant and block grants are fairly clear. The size of the general grant is specified as 3 percent of the national yield of VAT. And the size of block grants are defined as being at least the amount of money spent on the function by the national government prior to its devolution to local governments, and adjusted upward for inflation.

With respect to the allocation of these grants, however, the situation is less clear. As we have already indicated, Article 12 of the Law on Local Government Finance obligates the line ministries responsible for particular block grants to develop formulas based on "appropriate measures of need". This means that the allocation of funding for culture, social welfare, and education should slowly be put on a per-user or per-client basis, and moved away from the current system of allocating funds on the basis of operating costs of existing institutions. Indeed, the formula for allocating education funds to local governments, despite its lack of transparency, does seem to be moving in this direction.

But this does not yet seem to be happening with funds for culture and social welfare. Moreover, as we have discussed earlier, doing this at current levels of expenditure—the current levels of the block grants for culture and social welfare—will be difficult because of the unequal endowment of the institutions associated with delivery of these public services across local governments. One way of ameliorating the problem is to increase the role of the private sector in the provision of these services.

For example, local governments need not build and run preschools. Instead, they can be allowed and indeed encouraged to purchase preschool services from private providers. Another way of improving the situation is to create mechanisms which allow local governments that don't have

the necessary institutions to provide a service, to purchase the service from one that does. For example, local governments might all receive funds for elderly care, with those that don't actually have old age homes, buying such services for their citizens from those who do.

Here the solutions are likely to differ from sector to sector. Nonetheless, it is likely that all workable solutions will ultimately require at least some additional funding from the national government. As such, there are good reasons for considering putting more money into block grants, and at least in the area of culture thinking about folding the existing block grant into a more general funding mechanism.

How much additional funding should be put into each block grant, and what policy reforms must be put in place to make sure that this additional funding is used effectively and efficiently (e.g. rules for private sector provision) will require sector by sector analysis. Such analysis is beyond the scope of this study. But, one thing is clear, it will be necessary to look at the adequacy of the block grants in the near future, particularly when all local governments have entered the second phase of decentralization.

The question of what should be done with the general grant, however, is more immediate because local governments have recently intensified their efforts to get the national government to substantially increase its size. Moreover, there are good reasons both to put more money into the local government finance system, and to reform the way the general grant is allocated.

At the same time, however, we are a little wary of simply expanding the size of the general grant without first clarifying its role in Macedonia's overall intergovernmental finance system. Unfortunately this role has never been entirely clear, starting with the name of the Grant itself. Indeed, the section in the Law on Local Government Finances that deals with the grant is entitled "Revenues from VAT", something that has encouraged people to talk about the grant, as the VAT Fund, and to lead some to believe that the intention of the Law was to give local governments a share of the VAT generated in their jurisdictions.

More importantly, the rules governing the allocation of the general grant have always been both contentious, and poorly justified. In practice, the fund has clearly been used to direct additional funding to some types of jurisdictions. Moreover, Skopje has always gotten less per capita than the rest of the country. At the same time, however national policy makers have been extremely reluctant to talk about the general grant specifically in terms of equalization and have resisted developing a proxy measure of relative wealth based on actual financial data.

As a result, not only has the allocation of the grant to poor jurisdictions been questionable, but there has been no clear way to define why Skopje is being treated differently from other richer jurisdictions. Not surprisingly, Skopje has considered this unfair, and repeatedly fought and sometime succeeded in getting more of the grant allocated to the Capital City. In short, the practice of the last few years suggests that the grant hangs uneasily between being an instrument for fiscal equalization, and an instrument for providing all local governments with equal

amounts of additional revenue. Worse, the uncertainty here has proved extremely politically divisive for ZELs.

Technically and legally it is possible for a single grant pool to serve both general revenue and equalization purposes. Our feeling at the moment, however, is that in Macedonia today it is probably better to more clearly distinguish between these two functions. We therefore propose that new general purpose funds be put in the system by substantially increasing the PIT share that local governments receive from the national government.

At the same time however, we propose that the first call on the general grant be used to equalize the revenues of poor jurisdictions to a statutorily binding percent of the average per capita yield of all shared taxes. This two sided movement would at once serve to increase the revenues of virtually all local governments, while clearly establishing equalization as the central purpose of the general grant.

The Basic Outlines of the Proposal

In the simulation model that was developed as part of this study (as reflected in the Appendices), I have proposed that the local government share of PIT be increased from its current level of 3 percent to 15 percent. A 15 percent share in 2008 would have amounted to an additional 660 million denars in local government revenue, or a 7.5 percent increase in their basic revenues.

There is no strong justification for why this share shouldn't be 13 percent, 17 percent or 20 percent or perhaps even more. On the contrary, it is explicitly an effort to find a politically acceptable, but economically reasonable compromise between what the national government might be able to afford in the current economic circumstances, and what local governments need to feel a palpable improvement in their financial situation.

With this said, however, it should be understood that a significant increase in the PIT share is not without its risks and problems. As we have indicated, shared taxes benefit local governments with stronger tax bases. This means that the revenue from a larger PIT share will flow primarily to richer jurisdictions and in particular to Skopje, which accounted for 46 percent of the entire yield of the tax in 2008. As a result, just increasing the local government share of PIT without reforming Macedonia's equalization system will lead to a further increase in the disparities in local government revenues across jurisdictions.

Moreover, if the national government increases the PIT share by too much, it will assign too much revenue to Skopje, while simultaneously depriving itself of revenues that it may need to fix other aspects of Macedonia's public finance system. For example, it may lack the revenues necessary to improve the adequacy and fairness of the allocation of block grants for education and social welfare.

As a result, increasing the PIT share should be treated with some caution. Equally importantly, the increase must be accompanied by very significant changes in the way the general grant is

thought about, and how it is allocated. We therefore propose that the increased PIT share be accompanied by a new set of rules for the allocation of the general grant. The most important rule is that the first call on the general grant will be to equalize the revenues of all local governments to somewhere between 80 and 90 percent of the average per capita yield of the personal income tax, and the transfer tax.

This means accepting that the yield of these two taxes constitute the best measures available for measuring the relative wealth of local governments. On the one hand, the personal income tax—even discounting for tax avoidance—is the best measure of the overall level of economic activity in a given jurisdiction. On the other hand, the transfer tax constitutes the best measure of the vitality of the local real estate market and its yield is very strongly correlated with the yield of the PIT, and with other measure of relative wealth.

The value of the transfer tax however can differ significantly from year to year—particularly in smaller jurisdictions—because of large, single investments. As a result, a three year average of the tax should be used for equalization purposes. It should also be noted that local governments have been given the right to set the rate of the transfer tax within boundaries determined by the national government. As such, it is important in computing the average yield of the transfer tax to compute it at a standardized rate for all jurisdictions. This is necessary to prevent local governments who choose to impose a lower rate for the tax from receiving additional equalization monies.

With the use of a simulation model (as noted in the Appendices), I have simulated how much money from the general grant would have to be allocated to poorer local governments if the rule governing the grant stated that local governments will receive equalization funds equal to the difference between the per capita yield of the PIT share and the three-year average yield of the transfer tax in their jurisdictions, and 90 percent of the national per capita average of these same two taxes. In 2008, this would have consumed about 470 million of the 990 million denars earmarked for the general grant.

This equalization rule will benefit all local governments with weak tax bases. But it will particularly benefit those jurisdictions which are currently receiving relatively little from the general grant for the reasons discussed earlier. At the same time, the rule will leave approximately 520 million denars of the general fund to be allocated according to different criteria.

The simulation model includes three possible criteria, and I have assigned notional percentages for how much of the residual fund should be allocated for each. The first criterion is the share of a local government's territory in the total territory of Macedonia. This, in other words is the same criteria that is currently being used to allocate 27 percent of the general grant, and is designed to provide additional support jurisdictions with large land areas and low population densities.

In the baseline proposals contained in the simulation model, we suggest that 40 percent of the residual of the general grant—after the equalization for PIT and transfer tax revenues—be allocated according to this criterion. If these rules had been applied in 2008, this means that the about 200 million denars of the general grant would have been allocated on the basis of area and instead of the 300 million denars that actually were.

We also propose that the next 40 percent of the residual be allocated to all local governments on a lump sum basis. The logic of this lump sum is to help local governments that have both small populations and small land areas. If 40 percent of the residual of the general grant were allocated in this way, each and every local government, including the local governments of Skopje, would receive about 2.5 million denars in general support.

Finally we propose that 20 percent of the residual of the general grant be allocated to all local governments on straight per capita basis. In the scenario contained in the simulation model this means that all local governments would receive about 50 denars per capita from this criterion. These new rules substantially improve the equity of the existing system. Table 8 below summarizes the effects of the base line scenario contained in the simulation model with the current system.

Table 8. Comparison of Simulated System with Current System on the Per Capita Basic Revenues of Local Governments		
Quartile by per capita income	Current system	Simulated system
1st Rev. Quartile	1,451	1,956
2nd Rev. Quartile	2,264	2,612
3rd Rev. Quartile	2,818	3,215
4th Rev. Quartile	4,397	4,649
Skopje	7,325	7,763
National Average	2,778	3,120

As can be seen from the table, the revenues of the poorest two quartiles rise substantially faster than those of the richest two, and of Skopje. As a result, the ratio of total per capita revenues between the richest quartile of local governments to the poorest drops from 3 to 1, to 2.4 to 1. Similarly, the ratio of Skopje to the poorest quartile decreases from 5 to 1, to 4 to 1, and between Skopje and the poorest jurisdiction from close to 10 to 1 to less than 6 to 1. Moreover, the new rules also significantly reduce the disparities across local governments within all quartiles.

The simulation model allows for the adjustment of both the general equalization rate, as well as the percentage of the residual of the general grant allocated according to each criterion. The

lower the equalization rate, the higher the residual that can be allocated according to other criteria. And the lower the percentage of the residual allocated according to area or through the lump sum mechanism, the more that can be allocated on a straight per capita basis.

What is extremely important to understand, however, is that higher the equalization rate, the more equitable the system will be for all jurisdictions that do not have either extremely large areas, or higher than average per capita revenues from the PIT share and the transfer tax.

Appendix I Variable Sheet of the Simulation model

Population	2,022,547
Hectares	2,487,701
GDP	398,640,000,000
Total Local Government Revenues 2008	18,266,061,329
Local Government Revenues in 2008 as share of GDP	4.58%
Simulated Local Government Revenues	18,946,318,185
Simulated share of GDP	4.75%
PIT sharing rate	15.0%
Equalization to PIT	90%
Total Value of Local government PIT Share	850,321,070
2008 Values of 3% PIT Share	170,064,214
Cost of PIT Share increase to Central Budget	680,256,856
Average per capita yield of the PIT share and 3 year average of transfer tax	1,056
Level to which local governments will be equalized for PIT per capita	950
Current Value of General Grant Fund	1,083,000,000
Cost of Equalizing to X% of national pit	469,531,410
Residual of General Grant Fund	613,468,590
Percent of residual to be allocated per hectare	40%
Sum to be allocated on an area basis	245,387,436
Amount to be Allocated per hectare	99
Percent of residual to be allocated on a lump sum base	40%
Sum to be allocated on a lump sum basis	245,387,436
Amount to be allocated to each local government on a lump sum basis	2,921,279
Percent of residual to be allocated on per capita basis	20%
Sum to be allocated on a per person basis	122,693,718
Amount to be allocated on a per capita basis	61
Check	613,468,590
System in Balance	In Balance

Appendix II

Effects of Simulated Scenario on Local Government Budgets

Municipality	pop	hectares	total budget 08	total budget simulated	% difference	per cap 08	simulated per cap
Lipkovo	27,058	26,782	20,776,078	37,644,333	81%	768	1,391
Zhelino	24,390	20,104	24,928,778	38,121,698	53%	1,022	1,563
Studenicani	17,246	27,616	19,273,803	27,833,368	44%	1,118	1,614
Vrapcishte	25,399	15,798	31,637,490	42,359,158	34%	1,246	1,668
Gostivar	81,042	51,339	131,002,073	140,396,341	7%	1,616	1,732
Bogovinje	28,997	14,165	36,975,763	51,657,291	40%	1,275	1,781
Aracinovo	11,597	3,130	11,161,050	21,010,328	88%	962	1,812
Tearce	22,454	13,654	29,652,902	42,000,890	42%	1,321	1,871
Brvenica	15,855	16,430	22,318,652	30,039,188	35%	1,408	1,895
Oslomej	10,420	12,109	14,144,426	20,448,601	45%	1,357	1,962
Zajas	11,605	16,108	16,117,703	23,633,549	47%	1,389	2,036
Bosilovo	14,260	16,199	21,001,764	30,681,331	46%	1,473	2,152
Tetovo	86,580	26,189	199,320,703	192,114,967	-4%	2,302	2,219
Jegunovce	10,790	17,693	18,668,027	24,566,318	32%	1,730	2,277
Centar Zhupa	6,519	10,721	11,296,059	15,207,489	35%	1,733	2,333
Plasnica	4,545	5,444	7,007,747	11,069,526	58%	1,542	2,436
Kumanovo	105,484	50,948	252,511,570	255,211,474	1%	2,394	2,419
Probishtip	16,193	32,557	31,460,890	39,216,859	25%	1,943	2,422
Krivogashtani	6,150	9,357	11,217,851	15,285,889	36%	1,824	2,486
Kocani	38,092	36,036	84,895,006	93,220,386	10%	2,229	2,447
Radovish	28,244	49,748	57,411,017	69,090,291	20%	2,033	2,446
Ceshinovo I Obleshevo	7,490	13,220	14,588,446	18,967,411	30%	1,948	2,532
Bogdanci	8,707	11,454	17,258,739	22,400,846	30%	1,982	2,573
Vasilevo	12,122	23,040	23,110,249	31,143,513	35%	1,906	2,569
Veles	55,108	42,745	129,736,910	142,370,757	10%	2,354	2,583
Negotino	19,212	42,646	44,368,908	49,452,115	11%	2,309	2,574
Debar	19,542	14,567	44,334,908	51,630,085	16%	2,269	2,642
Novo Selo	11,567	23,783	22,449,064	30,440,853	36%	1,941	2,632
Makedonska Kamenica	8,110	19,037	18,909,377	21,566,695	14%	2,332	2,659
Shtip	47,796	58,324	122,089,370	128,015,390	5%	2,554	2,678
Prilep	76,768	119,444	184,248,782	204,777,485	11%	2,400	2,667
Krushevo	9,684	19,068	20,357,900	26,261,059	29%	2,102	2,712
Petrovec	8,255	20,193	18,915,512	22,377,235	18%	2,291	2,711
Kriva Palanka	20,820	48,081	51,754,273	58,194,635	12%	2,486	2,795
Valandovo	11,890	33,140	27,226,317	33,396,760	23%	2,290	2,809
Berovo	13,941	59,807	31,956,924	39,851,633	25%	2,292	2,859
Zelenikovo	4,077	17,695	10,858,990	12,103,178	11%	2,663	2,969

Dolneni	13,568	41,243	32,265,127	40,109,843	24%	2,378	2,956
Mogila	6,710	25,562	17,212,555	20,211,357	17%	2,565	3,012
Kratovo	10,441	37,544	25,173,213	31,506,782	25%	2,411	3,018
Vinica	19,938	43,267	50,238,038	60,628,547	21%	2,520	3,041
Kicevo	30,138	4,914	86,834,207	93,531,887	8%	2,881	3,103
Pehcevo	5,517	20,820	13,401,392	17,027,425	27%	2,429	3,086
Rosoman	4,141	13,290	10,476,795	13,069,464	25%	2,530	3,156
Delcevo	17,505	42,239	47,282,316	54,221,484	15%	2,701	3,097
Kavadarci	38,741	99,244	114,267,086	119,974,987	5%	2,950	3,097
Sveti Nikole	18,497	48,289	58,057,540	58,372,739	1%	3,139	3,156
Demir Hisar	9,497	48,013	25,293,621	29,695,608	17%	2,663	3,127
Bitola	95,385	78,795	315,899,823	326,243,803	3%	3,312	3,420
Struga	63,376	48,300	212,726,987	222,528,889	5%	3,357	3,511
Konce	3,536	23,305	9,667,964	12,606,442	30%	2,734	3,565
Karbinci	4,012	22,970	12,372,228	14,389,945	16%	3,084	3,587
Demir Kapija	4,545	31,106	13,270,739	16,329,370	23%	2,920	3,593
Cashka	7,673	81,945	22,542,452	26,518,746	18%	2,938	3,456
Mavrovo I Rostushe	8,618	66,319	28,177,093	30,830,601	9%	3,270	3,577
Resen	16,825	55,077	62,494,805	62,541,904	0%	3,714	3,717
Zrnovci	3,264	5,582	9,370,114	12,764,923	36%	2,871	3,911
Debarca	5,507	42,539	18,911,173	20,862,793	10%	3,434	3,788
Vevcani	2,433	2,280	7,314,348	9,973,856	36%	3,006	4,099
Lozovo	2,858	16,632	8,765,057	11,322,078	29%	3,067	3,962
Rankovce	4,144	24,071	14,557,708	17,052,325	17%	3,513	4,115
Ohrid	55,749	38,993	234,352,609	236,704,689	1%	4,204	4,246
Cucer Sandevo	8,493	24,078	34,915,079	36,358,104	4%	4,111	4,281
Makedonski Brod	7,141	88,897	27,585,489	30,313,115	10%	3,863	4,245
Strumica	54,676	32,149	236,294,853	248,148,587	5%	4,322	4,539
Staro Nagoricane	4,840	43,341	20,574,728	21,340,468	4%	4,251	4,409
Gevgelija	22,988	48,343	104,681,479	109,343,278	4%	4,554	4,757
Drugovo	3,249	38,324	13,460,149	15,337,889	14%	4,143	4,721
Gradsko	3,760	23,619	16,178,408	18,378,849	14%	4,303	4,888
Dojran	3,426	12,916	15,122,405	17,318,856	15%	4,414	5,055
Novaci	3,549	75,353	18,528,718	19,695,060	6%	5,221	5,549
Sopishte	5,656	22,210	32,452,031	34,359,104	6%	5,738	6,075
Vraneshtica	1,322	10,913	7,359,993	8,590,804	17%	5,567	6,498
Ilinden	15,894	9,702	113,146,735	115,877,679	2%	7,119	7,291
Skopje Consolidated	506,926	57,146	3,713,321,231	3,945,752,404	6%	7,325	7,784
Total	2,022,547	2,487,701	7,639,490,309	8,293,593,609	9%	3,777	4,101