Joint Integrated Local Development Programme

Report on Policy Proposals for Improvement of Local Government Finance System in Moldova









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Executive Summary

This report offers specific policy proposals and solutions regarding consolidation of own revenues base of local government in Moldova together providing alternatives for the improvement of the fiscal transfer system. The reprot is designed in accordance with the Terms of Reference of the UNDP Moldova Project Analysis of Intergovernmental Fiscal Relations system in the Republic of Moldova and Recommendations for Advancing the Fiscal Decentralization Reform.

Specific Objective of this report is *Improving the actual system of local public finance*, by means of the fiscal autonomy of the local government accompanied with the maintaining of the fiscal discipline, maximising the efficiency and providing the equity in the distribution of financial resources.

The two priority action sectors are:

- 1) Increasing of own local government revenues and the decision making autonomy of the local governments in this field;
- 2) Reforming the system of shared taxes and intergovernmental transfers in order to:
 - a. increase predictability and accountability in setting the main features and parameters;
 - b. separate the budgets of the first and the second tier of local government;
 - c. assure a minimum level of services;
 - d. stimulate the local fiscal effort and the rational use of financial resources.

In order to achieve these objectives, set of the general principles were presented and discussed with the Beneficiary – the Ministry of Finance in February, 2012. Based on guidance of the Ministry of Finance this paper elaborates and proposes policy options.

Proposals for local finance models in Moldova are worked out by the team of international experts Victor Giosan, Inga Vilka, Maris Pukis and Maris Sprindzuks and local expert Petru Veverita and are based on findings of the following assessments carried out in relatively short time period - during five months (November, 2011-March, 2012):

1) Analysis of local finances international practice, the aim of which was to provide international experience comparison with Moldova local government policies.

The key findings of the assessment are:

- fiscal autonomy of local governments is very limited in Moldova in comparison with other European countries,
- local governments in Moldova depend on intergovernmental transfers, while in most European countries – there are rather stable and predictable revenues from PIT and own revenues play more important role in local government development,

- capital investment system in most countries has program nature with national and local government co-financing, while in Moldova there are no permanent capital investment programming framework.
- 2) Analysis of Local government own revenues and intergovernmental fiscal system in Moldova, including local government budget and statistical data. The key findings of the assessment were:
 - around 70% of local government revenues come of government transfers for education,
 - local government own revenue potential is not utilized,
 - local taxes and own revenues largely influenced by national policies especially tax on real
 estate,
 - current equalization system discourages local governments to generate more revenues,
 - capital investment is based on local government budget surplus, there is no multi year capital investment planning and budgeting.

The report consists of 9 chapters and Annex.

Project team would like to express its gratitude to Mr. Gabor Peteri, UNDP Moldova project quality assurance expert for methodological guidance and valuable inputs provided in designing this report.

This report will be distributed to the key project stakeholders: the Ministry of Finance, UNDP Moldova, State Chancellery and interested parties from local governments.

Abbreviations

ATU Administrative territorial units

CIT Company income tax

DPF Distribution pool by formula

ET Equalization transfer
FCC Fiscal capacity per capita

GT General transfer

LG1 The first tier local government LG2 The second tier local government

MDL Moldovan Leu
MoF Ministry of Finance

NDS National Decentralization Strategy

PIT Personal income tax VAT Value added tax

1. Main conclusions from analysis of local government finances in Moldova

Moldova is a small country in terms of territory, with rather fragmented local government network. The current size and structure of local government units is considered not economically viable in terms of self-governing due to narrow economic base and lack of economies of scale in the production and delivery of services. This leads to the accumulation of oversized administrative apparatus at several tiers of government and inadequate division of functions and responsibilities.

The impact of the three main local government finance pillars in Moldova is following: low autonomous tax (and fees), rather low tax sharing, high transfers¹.

The transfer/equalization system of financial resources is the core of financing system of local government in Moldova. It is designed, in theory, on the principle "equalization based on needs" where the needs are reflected by standard/normative costs for every function of sub-function assigned or delegated at local level. More or less all local government revenues participate to this financial model – the local revenues excluded makes only marginal (few percentage from total budgetary revenues of the local government).

The impact of this system is very important for fiscal and decisional autonomy of the local government on the one side and on efficiency and effectiveness of local expenditures on the other side:

- 1) Under the actual intergovernmental fiscal system, there is no qualitative distinction (in terms of different degrees in decision autonomy at local level) among own (local) revenues, tax shared revenues and transfers all (with marginal exception) are introduced in the equalization/transfer formula based on standard/normative costs.
- 2) Although the legislation provides rather high local government own revenue autonomy, the actual system does not offer incentives to local governments to increase the local fiscal effort, to generate more own (local) revenues: any increasing in this type of revenues has an immediate effect in the decreasing of transfer volume.
- 3) The decision autonomy on expenditures is very limited under the actual intergovernmental fiscal system the use of standard/normative costs is very similar with a rigid earmarked transfer system, where every function or sub-function assigned or delegated to local government has a dedicated conditional transfer, reflecting so called "needs".
- 4) The actual shared tax system in more or less useless due to the equalization/transfer formula based on "needs" there is no local stimulus for local economic development, which could impact the increase in the collection of shared taxes (PIT or CIT, or VAT in the case of Gagauzia).

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¹ From OECD countries in such group Luxembourg, Korea, Hungary, UK, Netherlands, Greece are classified.

- 5) The system of standard/normative costs, which would reflect the "needs", is relatively old and weak substantiate from empirical point of view. During the equalization/transfer process a lot of adjustments should be realized, based on historical costs and/or ad-hoc decisions. Generally any equalization/transfer system based on needs and implemented through numerous standard/normative costs is very difficult to be managed, needs lots of empirical data and studies. This type of system is effective only in very wealthy countries with a very strong administrative capacity at central and local level. The other difficult problem is how to set the limit of the need because the financial resources are limited and this problem is not only an economic-philosophical one, but becomes a practical one. The countries, which use this system, sets, in reality, arbitrary criteria for needs definition, these criteria reflecting in fact the available and limited financial resources.
- 6) The local governments from the first level are completely under the control of raions (the second level) regarding the allocation of financial resources. The actual system is not predictable and not stable, making difficult any effective planning on medium and long term.
- 7) The actual system does not stimulate the efficiency and effectiveness in the local spending. Local government units have the normal tendency to spend all financial resources that they receive, because the equalization/transfer system penalizes them by reducing the level of transfer next year.
- 8) The proportion of the education expenditures in Moldova is very large compared with other countries. The optimization of the education system is reserve for other expenditures, what could be used designing for proposed new equalization models.
- 9) The fragmentation of administrative territorial division of Moldova does not promote the decentralization and development of financial autonomy of local governments.

2. General guiding principles for proposals

- The policy proposals laid down in this paper should contribute to the achievement of the objectives clearly set by the Chapter II of the National Decentralisation Strategy (NDS), approved by the Government of Republic of Moldova and now being in similar procedure in the Parliament. In the domain of fiscal decentralisation, NDS sets a specific objective together with three priority action sectors, this paper referring to two of them.
- Proposals are worked out with consideration of the principles determined in the European Charter of Local Self-Governments.
- The actual financial envelope of local governments will be preserved.
- Local governments own functions will be financed by local taxes and fees, revenues from shared taxes (PIT) and equalization transfers general revenues. This policy proposal used the number of functions existing in 2010 and it considered as own all these functions, with the exception of education.
- Delegated functions (essentially education regardless of the tier of local government in charge for it) will be financed through conditional transfers, allocated based on formula – earmarked transfers.
- National taxes used for financing local government through the system of sharing by origin should have two
 essential features:
 - to be less sensitive to economic growth cycle;
 - to be as homogenous as possible distributed in territory.
- Sharing by origin ratios of the national taxes (PIT) will be fixed by the law for both tiers of the local government. The possibility to collect the PIT at residence place of employee will be analysed.
- The second level local governments influence on the first level local government revenues will be limited.
- The allocation formula for general/earmarked transfers should be predictable, transparent and simple, stable over time and reflecting, as is possible, both fiscal capacity and the needs in public services.
- Earmarked transfers: the volume and allocation formula will be set by responsible sectorial ministries together with Ministry of Financeand with consultations with local governments.
- Equalization system will be set based on principle: "per capita revenue equalization", with necessary incentives for widening the own revenues base of local government.

3. Own revenue system

In Moldova, tax policy and tax administration are fundamentally under the control of the central government. Local governments have no decision making power over the tax base and very little discretion on rates of the local fees which have been assigned to them. Rationalization of the revenue assignments together with adequate central support in developing tax administration capacity would prove to be a good start in the direction of providing a reasonable revenue base for the local governments.

The current revenue assignments of sources for local governments consist of own revenues, tax sharing and transfers. The analysis shows that there is a very poor level of own source revenue performance of local governments. For example, local governments lack property tax with significant revenue generation potential.

Key Policy Proposals: To increase local government own revenues both by increasing legal possibilities to increase tax revenues and by increasing local government motivation to collect own revenues.

In the OECD report on sub-national tax – grant balance it is concluded that local governments seem to prefer to rely more heavily on grants, even if it goes with limited spending autonomy, as raising local taxes might have negative consequences on their votes. Left to itself, the system could have inertia towards more grants and less own taxes. The reforms and strong will of politicians have to help mitigating this tendency².

1. To increase Property tax revenues.

One can conclude that in Moldova the Law provides rather high local government autonomy over the property tax. Though the main problems do not allow to make use of that, i.e. property re-evaluation is not done for more than 20 years for the most of holdings that leads to low tax collection level.

- The state administration had to develop and allocate the resources for the two-three year program for overall real estate value evaluation. Taxation based on property evaluation close to market value will increase the property tax revenues. Later the Law should have a provision of property re-evaluation in every three years or, if it is not possible, in order to avoid the legal nihilism re-evaluation period in the Law could be set longer 4-5 years.
- As alternative policy reference could be used experience of other South-Eastern European countries (Bulgaria, Romania) where value based property taxation is managed by introducing differentiated property tax base (unit costs of property) with a set of coefficients on the location, characteristics of the property, access to infrastructure, etc. These proxies will make the tax administration simpler and still could have the same positive impact on taxation, as the market value based taxation.
- Given that the property tax rate in Moldova in comparison with other countries is very low, the property tax rates stated in the Law could be increased (even doubled), or at least the upper border of the rates could be increased.

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² Explaining the Sub-national Tax-Grant Balance in OECD Countries. OECD, WP(2009)11

- There is very long list of property tax exemptions (almost 30) in Moldova, only three of them are up to local government decision. It is proposed to limit tax exemptions targeted to groups that are subject of social protection, address the needs of those groups in state social benefit system. For instance, the following provision of the law is under discussion: Article 283. (1) h; I; j; k; I. Also provisions in Article 283 (4) b (forests); d and e could be subject for discussions, either they could be eliminated from the list or local governments could decide on tax reliefs for those groups instead of including them in exemption list.
- To foster motivation of local governments to collect the property tax, the property tax revenues are not included in the equalization transfer calculation system.
- To avoid negative perception of society of tax increase, it is important to motivate local governments for recognizable territories' infrastructure improvement. Special investment programmes are to be designed ensuring necessary co-financing by the state budget, local budget, loans and other sources.
- To increase motivation of local government to collect taxes, it is proposed to include the collection level (rate) as one of local government administrative capacity indicators.

2. To increase revenues from local fees.

The latest amendments of the Law provide rather high local government autonomy over the local fees in Moldova – there is long list of local fees, for which local governments have right to set rates or amount. The problem is that most local government applies only few of local fees (just 2-3). This is why at present moment the introduction of new fees in the Law is not proposed, although international practice provides evidence of range of different other possible fees. The central government has to motivate local governments to increase tax collection already from the existing local fees.

- To motivate local governments collect local fees, generated revenues are not included in the equalization transfer calculation system.
- It is proposed to create central database of introduced local fees in all ATU of Moldova. It must be made available publicly (for instance, via web page of the Ministry of Finance).
- If the number of introduced local fees is less than 5, and generated revenues from the local fees tend to
 decrease, that can serve as a criteria indicating the necessity for local government consolidation
 (amalgamation) with others.

3. To enlarge the use of user charges.

The extension of charged public services means the extension of use of benefit principle in public finances. It is rather hard to apply service fees for countries originating from the former Soviet Union as it had system of free of charge services or in some instances - with symbolic charge. Whether to charge and how much to charge are hard decisions for the local politicians – it is very easy to get unpopular in front of their electorate.

- To enlarge the applying of user charges for different services provided by local government or from the
 use of the public/private property of local government units. Such local services as water supply,
 sewerage, waste, collection, waste disposal, central heating, public transport, car parking places, as well
 as school canteens, leisure facilities, adult sports, nursing homes definitely should be charged.
- To ensure that charges/prices for the main utilities and services provided by local government cover service expenses.
- To increase the autonomy of local government in the management of the own patrimony public and private property of the local government – especially regarding the power to set the level of rents and concessions.

4. To choose the best possible timing for own revenues increase

- Although local government own revenues are one of the main local finance autonomy indicators, their
 impact should not be overestimated. Even after increasing own revenues, they still would not form the
 main share of local governments' revenues shared tax revenues and especially transfers still will have
 more important role in terms of volume.
- The current moment which is close after previous local elections and far from the next election is good time to start implementation of own revenues rising. Lessons learnt from economic crisis indicate that tax revenue increase has to be implemented during the period of economic growth.

4. Improvement of shared tax revenues

The system of shared state taxes and fees in Moldova includes: personal income tax, corporate income tax, value added tax, excise taxes, private tax and fees to the Road Fund. Most significant is personal income tax (PIT). In Moldova in the present system 100% of PIT is distributed to local governments. Conditions of administration and implementation of those conditions are fully responsibility of central government. Distribution of shares from that tax between the second and the first level, as well as among local governments of the first level is responsibility of the second level local governments.

The PIT is distributed according the tax payer working place. Amount of revenues is dependent mainly on two factors:

- Level of legal economics in comparison to "grey" economics (when not all salaries are shown for taxation);
- Level and structure of economic activity.

Unfortunately, current system does not stimulate directly local governments to increase local entrepreneurial activity. There are two main reasons:

- 1) If revenues from PIT increase, then grants from national budget will decrease, therefore every improvement is inversly "compensated" by decreasing of available revenues;
- 2) The distribution of PIT does not depend on performed activities in the administrative territory, but on legal address of tax payer, i.e the employer. Huge number of tax payers have their headquarters' legal addresses concentrated in Chisinau, however really economic activities could be distributed in all country.

Key Policy Proposals: To change PIT distribution, to ensure predictable PIT share to each level of local governments and to motivate local governments rise PIT revenues.

1. To distribute PIT according the origin (place of residence)

Income tax sharing by place of origin would make local budget revenues more *predictable* and at the same time *buoyant*. Greater *transparency* in allocation and better connection between local wealth and the municipal services received would increase the *accountability* of elected officials. It opens up a new possibility for *revenue equalization*: local governments could be made eligible for income tax share up to a minimum per capita level.

Although the distribution of PIT according the residence place is more complicated, the Economic effect far exceeds both tax administration expenses and also some increase of administrative burden of accountants in the economy. Economic activity, which is generated by interest of local governments, leads to substantial increasing of both components of tax from salaries.

2. To register PIT taxpayers according their residence place

To ensure the PIT distribution according the place of residence, additionally to the company place (working place) registration, the registration of individual PIT tax payers is necessary. It means that tax payer (employer) has to indicate each tax payer, his residence place (code), salary, tax amount in monthly PIT reports.

When the person starts to work, or when he changes his place of residence, he is obliged to announce his administrative territory - place of residence to the employer. Employer, alongside with tax payment sends corresponding information to the tax administrator. In practical terms that means one more element of information - index of administrative territory. Residence place in the system has to be fixed once a year (January 1) (Latvia case).

3. To fix centrally the PIT share of each level of local governments

To ensure the predictability of the tax revenues and to avoid from the first level local governments dependency from second level, it is proposed to fix in central level the share of PIT for each local governments level.

To set the sharing ratios by origin for PIT by law and for all local government units (both tiers) - so based on territorial distribution of PIT, this paper proposes four specific sharing ratios by origin: i) for Chisinau and Balti; ii) for raion councils; iii) for cities raion residence; iiii) for the rest of the first tier of local government units.

4. To introduce equalization system that motivates local governments rise the PIT revenues

The rationale of all proposed (chapter 5) equalization models is to activate and raise interest of local governments to facilitate economic development in their administrative territories.

5. Not to use CIT and VAT as shared taxes

The Company Income Tax, Value Added Tax and Excises are considered by the international practice and theory not-suitable to be used as shared tax (essentially on derivation base system – what is collected within jurisdiction boundaries) due to the high level of instability over the economic cycle. The level of collection for all these taxes are strongly related and direct alternate with the level of economic activity: strongly increasing during boom periods, strongly decreasing during recession periods. The local government financing needs more stable revenues over economic cycle – for this reason only PIT is suitable for a sharing tax system for local government.

5. Fiscal intergovernmental transfer system

The transfer system in Moldova is unpredictable. The divisible pool (the transfer fund) is ad-hoc, and determined each year through parliamentary vote on the budget based on proposal of the Ministry of Finance. The Local Public Finance Law failed to guarantee by defining the "minimum grant" and by linking the grant with some appropriate national parameter for certainty and transparency in the system. As a result, the local governments operate in uncertainty until they receive the money adversely affecting their planning of the program and budget. This uncertainty lies at two levels: one, at divisible pool level because until parliament approval, the

total amount remains uncertain. Second level of the uncertainty lies at the distribution level. Since there is no transparent formula for the grant distribution, particularly between the second and the first level of local public administration, the local governments remain insecure as how to much they will receive out of the total amount.

There is also an unhealthy practice of keeping aside some funds out of the total grant allocated by the annual budget process (like increasing of salaries, financing of capital investment projects), which is then distributed to local governments in different time during the year. There are no transparent criteria for the distribution of the kept-aside funds, and the amount and frequency of the grant basically depend on various subjective factors. Therefore clear transparent rules for fund allocation should be adopted.

One of the expected outcomes of decentralization in Moldova is the increased local revenue generation. But this objective is inexplicit in the transfer allocation to the local governments. The current practice of adjusting the transfers based on actual revenue collection (rather than based on tax efforts) might have created vicious incentives for local governments in generating own revenues. Correction of such distortions with explicit inclusion of the key objectives and transparent factors in the transfer system would create the right signal to the local governments for enhanced own revenue generation.

5.1. Key Policy Proposals

5.1.1. - Gradual Improvement of grant allocation

Gradual shift away from the actual grant allocation system – gap filling model. According to this model the volume of transfers is set as the difference between the needs centrally calculated based on normative costs (or standard costs) and own revenues, also centrally estimated – in present only a limited number of local taxes and fees are excluded from equalization process (E_i - R_i = G_i). This model, as is used today in Moldova has four main features:

- a) The volume of financial resource that can be used by the local government units is fixed in a decisive manner by normative costs used by central administration to estimate the local "needs". Due to this the local autonomy is severely limited in fact the local budgets function as a sum of earmarked grants, every established by a normative cost;
- b) Local government units have no significantly incentive in increasing the own revenues base, in developing the local economy, in the efficient management of the own patrimony, because the supplementary resources possible to be obtained will generate automatically a similar decreasing in the level of the equalization transfers;
- c) The sharing system of national taxes has no significance any variance in the volume of tax collection or in the level of sharing ratio used within a raion have no effect over the volume of financial resources available for a first tier local government unit, because the volume of transfers will be automatically adjusted;
- d) The dependency of first tier over the second tier of local governments is very high raional councils finally setting the effective volume of transfers, particularly in the conditions of relative rigidity of normative costs. For this reason the actual system is strongly influenced by ad-hoc and discretionary decisions at raional level, which then are "introduced" in the historical trends of the budgetary

evolution. This fact will have important effects in the moment of transition to a new system, more rational and based on predictability and accountability;

Among potential solutions to improve the actual system, are the following:

- i. introducing standard rules for calculating local expenditures by using formula set by law: E_{standard} -R_i=G_i
- ii. introducing a general grant system, without controlling the expenditure level locally. General grants plus own revenues in a municipality define the level of expenditures: $Gi+R_i=E_i$
- iii. excluding the own revenues from the grant allocation formula: Gi+R'i=Ei
- iv. fixed (by law) revenue sharing ratio and allocation model (origin based)
- v. revenue equalization connected to shared PIT: raions above the national average reallocate shared revenues to raions below the average
- vi. make formula based allocation within raions compulsory, along nationally set rules
- vii. allocate national transfers directly to LG I units (primarias)
- viii. strict budget constrain (no supplementary funds)

5.1.2. Financing education through an earmarked grant

The education will be financed through an earmarked grant – primary and secondary education in all three alternatives and pre-school education in two of them. According to the 2010 budget the general transfer allocated by Central Government is almost equal with the Education Expenditures (pre-school, primary, secondary, vocational and extra-school), so as consequence the new earmarked grant WILL BE EQUAL with the 2010 general transfer. The exact manner of function allocation between the first and the second tier of local government does not significantly influence the intergovernmental fiscal system. For this reason, to preserve the comparability with the present situation, in two alternatives (model 1 and 3) we used the actual territorial distribution of education. In model 2 the pre-school education remains ad first tier of LG as own function, being financed through a general transfer, and primary and secondary school are assigned to the second tier of LG as a delegate function financed through an earmarked grant.

5.1.3. Not use of Company Income Tax (CIT) and Value Added Tax (VAT) in the sharing tax system by origin

It is NOT RECOMMENDABLE to use the Company Income Tax (CIT) and VAT as shared taxes by origin. According to the data used by MoF for the design of the budget in 2012, the territorial distribution of the CIT is very heterogeneous:

Table 1

Local Government	Population Share	VAT Share
Chisinau	22.1%	76%
Balti	3.7%	5.4%
UTA Gagauzia	4.2%	1.5%
Rest of LG units	70%	17.1%

Very probably this last ratio of 17.1% is concentred essentially in the cities raion residence, which means that in rural area collection from this tax is almost nothing. The same situation is also with VAT, plus the tax administration would be extremely complicated. Moreover, the collection of both taxes is very sensitive over the economic cycles: it increases very much during the boom and decreases very much during the recession, which means these two taxes cannot be used as automatic stabilizers of local government expenses. However, for political reasons, there is possible to maintain the VAT sharing system, and eventually also for CIT, in the case of UTA Gagauzia – distortion effects being minors.

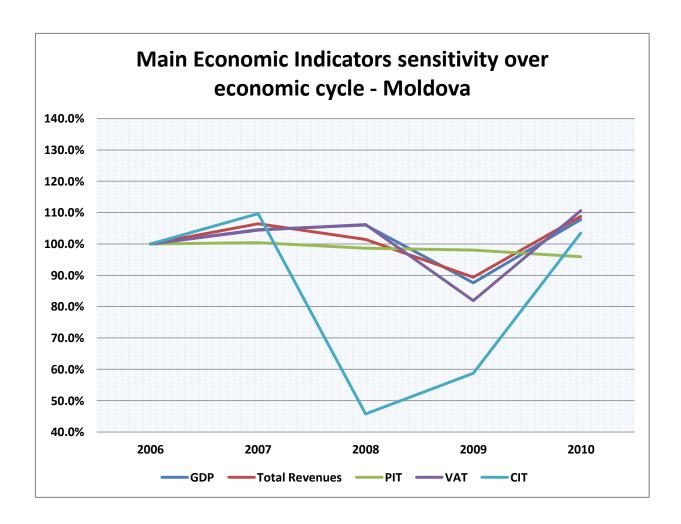
The last two recommendations are general accepted at international level. For an empiric evidence, see the table 2 and chart 1, realized based on data for the period of 2006 – 2010. The data a calculated based on constant 2005 MDL – so eliminating the influence of inflation. There is obvious that PIT is very stable over the period, with a slight decrease in the last three years 2008-2010. VAT and CIT are very volatile with increases of 9%-10% and decreases of more than 18% - the evolution of CIT in 2008 is due to legal changes – rate 0 under some conditions.

Summarizing, the below table and chart show why PIT, being the most stable national tax is recommendable to be shared by origin with the local government and VAT and CIT are not qualified for this.

Table 2

	Annual Indexes based on constant 2005 values				
Year	2006	2007	2008	2009	2010
GDP	100.0%	104.6%	106.0%	87.6%	107.8%
Total Revenues	100.0%	106.5%	101.4%	89.4%	108.8%
PIT	100.0%	100.4%	98.6%	98.1%	95.9%
VAT	100.0%	104.4%	106.2%	81.9%	110.6%
CIT	100.0%	109.7%	45.8%	58.7%	103.5%

Chart 1



5.1.4. Using only the Personal Income Tax in the sharing tax system by origin

The use in the system of tax sharing by origin ONLY of Personal Income Tax – the most used at international level for this aim and the only recommended by the public finance literature. The PIT is the more stable over the economic cycles and is the less heterogeneous distributed among local government units:

Table 3

Local Government	Population Share	PIT Share
Chisinau	22.1%	65.5%
Balti	3.7%	5.2%
UTA Gagauzia	4.2%	1.9%
Rest of LG units	70%	27.4%

Even PIT is enough heterogeneous distributed over territory, which will have clear effects on the ratio sharing levels. Because PIT is less sensitive to the economic cycles, the sharing system based on it can be used as automatic stabilizer of local government expenditures.

5.1.5. Different sharing ratios for PIT by LG unit groups

To set the sharing ratios by origin for PIT by law and for all local government units (both tiers) - so based on territorial distribution of PIT, this paper proposes four specific sharing ratios by origin: i) for Chisinau and Balti; ii) for raion councils; iii) for cities raion residence; iiii) for the rest of the first tier of local government units. The specific values of these ratios will be tested in the simulation models. These 4 ratios are also a direct consequence of: a) the relatively heterogeneous territorial distribution of PIT and b) the total use of the general transfer to cover the earmarked transfer for education. The cause a) imposes relatively low sharing ratios by origin, in this way remaining enough resources for equalization – higher ratios advantage only the few very rich LG units (Chisinau, Balti and cities raion residence), reducing in the same time the resources remained for equalization. The second cause (b), by using fully the 2010 general transfer for covering the new earmarked grant for education and taking account the essential principle of preserving the total financial envelope, limits the funds to be distributed by formula (Distribution Pool by Formula) ONLY to the rest of PIT, not-distributed in the sharing system by origin, and the CIT used in 2010 (revenues from chapters 111.20, 111.21, and 111.22) – or an equivalent amount of 268 256 thousands MDL in 2010 (doesn't matter the origin of budgetary revenues).

5.1.6. Allocation of Equalisation/General Transfer

The Distribution Pool by Formula (DPF) will be the only resource for the Equalisation/General Transfer. The allocation system for Equalisation Transfer - ET (for LG I) and General Transfer - GT (for LGII) will be based in principle on fiscal capacity per capita (FCC) – for ET - and on a set of base indicators, simple and transparent – for GT, which can well approximate the needs in public services at local level: population (general and age groups and area. This policy report considers, based on international experience and theory, this set of indicators as reflecting well both capacity to generate financial resources and the needs for public services. Setting the financial allocations for different destinations, setting the priorities in using the financial resources will be local decisions – normally with exception of using/financing earmarked transfers/delegated functions. For example in the case of Equalization Transfer for LG I the individual transfer received by a primaria will be INVERSE PROPORTIONAL with the individual Fiscal Capacity per Capita – a LG unit with low fiscal capacity per capita (poor) will receive more and a LG unit with a high fiscal capacity per capita (rich) will receive less or nothing). The general formula would be:

$$ET_i = ET^* [(T_e - FCC_i)/T_e]/\Sigma_i [(T_e - FCC_i)/T_e]$$
 (1)

Where:

ET_i = individual equalization transfer

ET = total equalization transfer

 T_e = threshold for equalization – an independent variable set by central decision makers according with the policy objectives for equalization and with the available financial resources.

FCC_i = individual (primarias) fiscal capacity per capita

In the case of General Transfer for LG II, the allocation formula will be:

$$GT_j = GT^*[(W_p^*P_j/P_n) + (W_a^*A_j/A_n)]$$
 (2
 $W_p+W_a+ = 100\%$ (3)

Where:

GT_i = individual general transfer

GT = total general transfer

 W_p = specific weight for population

P_i = population of the individual raion

P_n = total population of raions qualified by default to general transfer allocation

W_a = specific weight for area

A_i = area of the individual raion

 A_n = total area of the raions qualified by default to general transfer allocation

These indicators are closely connected to local government spending, so they can be used for general grant allocation: for example the costs of administration are related to the number of population; spending on communal services is proportional to the area of the local government and to the population and so on.

5.1.7. How to calculate Fiscal Capacity per Capita

Fiscal capacity per capita will be calculated in two alternatives: based on own revenues PLUS revenues from shared PIT by origin; or based only on revenues from shared PIT by origin. The first alternative is more equitable (smaller disparities among richest and poorest LG units), but less effective in supporting the increase of own revenues. The second alternative is less equitable (higher disparities among richest and poorest LG units), but more effective in creating incentives for increasing the own revenues.

The policy proposals presented by this report are specified in 3 models for the fiscal intergovernmental transfer system based on general principles and key policy proposal presented above. These models are summarized below and presented in details in the Annex 1.

5.2. Criteria for model assessment

These criteria should measure the effectiveness of the policy proposals – both key and specific – to contribute to the achievement of main objective/main direction of actions mentioned at the beginning of this paper.

5.2.1. Qualitative Criteria

- 1) Creating incentives for the consolidation and development of the own revenues base of local government (see also quantitative criterion 4 below);
- 2) Predictability and stability of the system;
- 3) Transparency and Accountability;
- 4) Simplicity;
- 5) Consolidation of fiscal autonomy for local government units as main instrument for local democracy developing;
- 6) Support the economic development of local government units;
- 7) Preserving macro-economic stability and the effectiveness of anti-cycle fiscal policy tools.

5.2.2. Quantitative Criteria

- 1) Dispersion of the total revenues per capita, current revenues per capita and total (less education) revenues per capita all these reflecting in general the equity of the new system compared with the actual system. The specific indicators are: standard deviation, relative standard deviation, ratio maximum/minimum, ratio maximum/median and ratio median/minimum.
- 2) Number of "winners" and "losers" for every alternative compared with 2010 effective allocation and the dimension of the losses. This indicator will show the impact for the specific alternative, however it should be used with some reservations for two reasons: is not correct to consider 2010 effective allocation as a desirable one it is strongly influenced by ad-hoc and discretionary decisions and by the historical trend of expenses, both non-rational criteria. Secondly, the transition from a system without strict rules, with a lot of ad-hoc and discretionary decisions to a much stricter system, with less flexible rules and with stability and predictability will never produce only winners because the "profiteers" of the actual system will become losers of the new one. However from other two perspective is rational to measure the number of winners and losers:
 - a) For political reasons is very clear that the winners will support the change and the losers not;
 - b) From the Pareto optimum the allocation that "all are better off and no one is worse off" or "only one is better off and all others are in the same situation" the emphasis of winner and loser numbers is very important. From this perspective no alternative is Pareto optimum, but all three are optimum from the perspective of Kaldor-Hicks criterion (to have a positive social net benefit), which is a softer optimisation criterion.
- 3) Impact of the planned changes number of losers at both tiers of local government by (i) raions, (ii) by population and (iii) by relative (%) dimension of losses compared with 2010 budget allocation.
- 4) A number of indicators reflective the financial autonomy of the local government: <u>ratio of own revenues</u> <u>in total revenues</u>; <u>ratio of autonomous revenues</u> (own revenues + revenues from PIT sharing by origin) in total revenues; <u>ratio of general destination revenues</u> (own revenues + revenues from PIT sharing + equalization transfer revenues) in total revenues

These criteria should measure the impact of the policy proposals: how they contribute to the achievement of main objective/main direction of actions mentioned at the beginning of this paper.

5.3. Model 1 - PIT sharing by origin, with equalisation transfers and general grants allocated by formula and whole education financed through an earmarked transfer

Summary of the Model 1

Table 4

Main Elements	Decisions
Delegated Functions – Education, which means 60.6%	Pre-school, primary and secondary education (Ed)
from 2010 Total LG Budget in 2010	financed through an earmarked transfer (ErT) equal
	with the general transfer (GT) effectively allocated in
	2010
	$EdErT_1 = 2010 GT$
Own Functions	All the rest functions covered by 2010 local budgets.
	Financed through general revenues: own revenues,
	revenues from PIT shared by origin,
	equalization/general transfers
PIT is allocated by origin as shared revenue	Different ratios for Chisinau, Balti, cities raion
	residence and rest of LG units. The effective level of all
	ratios will be tested, but this level should be
	RELATIVELY LOW (at least for Chisinau, Balti, cities raion residence and raion councils) due to the un-
	equal territorial distribution of PIT and the needs for
	equalization, which should be covered essentially by
	non-allocated PIT in sharing system together with CIT
	used in 2010 (sub-chapters 111.20, 111.21 and 111.22)
	in the sharing system by origin. The specific ratio for
	Chisinau and Balti will be the sum of ratio for Raion
	Councils and for Cities Raion Residence, because these
	two big cities play this double role.
Distribution Pool by Formula – DPF	The non-allocated PIT by sharing system by origin,
	together with CIT allocated in 2010 2010 (sub-chapters
	111.20, 111.21 and 111.22) by sharing system by
	origin, will be used as essential sources for DPF –
	Central Government can decides to increase DPF by
	using resources from VAT and/or CIT, but the first
	principle of maintaining the actual financial envelope
D	will strongly limit this possibility.
D_p	Distribution parameter to allocate DPF between first tier of LG (Equalization Transfer – ET_1) and second tier
	of LG (General Transfer – GT ₂)
Fiscal Capacity per Capita – FCC	Fiscal Capacity per Capita is calculated based on own
rissar supusity per supiture 199	revenues + revenues for PIT sharing system by origin,
	all divided to the specific population of a LG I unit
Allocation of Equalization Transfer for LG I – ET ₁	Three variants to allocate ET ₁ : two exclusively based
•	on fiscal capacity per capita, but using two different
	formulas; the third using fiscal capacity per capita,
	population and area. The allocation based on fiscal
	capacity per capita will be INVERSE PROPORTIONAL –
	so the poorer primaria (with low fiscal capacity per
	capita) will receive more and the richest primarias lees
	or nothing if they have a FCC above a possible
	threshold (T _e). The allocation based on population and

	ill be DIRECT PROPORTIONAL – essentially for
• • • • • • • • • • • • • • • • • • • •	tion, the final impact will be more egalitarian
allocat	ion in terms of revenues per capita.
$ET_1 = ($	100%-D _p)*DPF
Allocation of General Transfer for LG II – GT ₂ Two va	riants to allocate GT ₂ : one exclusively based on
popula	tion; the second based on population and area
GT ₂ = [D _p * DPF
GT ₂ allocation features Chisina	u, Balti and UTA Gagauzia (as raion) excluded
by defa	ault from the process: Chisinau and Balti
becaus	e they have a very strong own revenues and PIT
base a	nd they can obtain enough effective and
especia	ally potential revenues. UTA Gagauzia because it
has a s	pecial status receiving by sharing tax system CIT
and VA	T collected under its boundaries.
Investment transfers Volume	e and allocation not changed compared with
2010 d	istribution
Temporary Compensation Transfer Will co	ver the gap for losers compared with 2010
allocat	ion: 100% in first year, 50% in the second and
25% in	the third – in the second and third year the gap
used in	the grant calculation is the initial gap from
2010.	
Variable to be tested Differe	nt formula alternatives for ET and GT allocation.
Parameters to be tested Ratios	for PIT sharing by origin, D _p , P, W _{FCC} , W _p , W _a ,
Indicators for assessing the model Losers	compared with 2010 allocation for both tiers;
losers	distribution: by raion, by population, by relative
dimens	sion of losses
Dispers	sion: standard deviation, relative standard
deviati	on
Fiscal a	autonomy indicators
	the model - Value of the Temporary
	•

The features of the model together with other details and with the results obtain are presented in the Annex 1. A comparison summary of all these features and results are presented in the table 7 – see below.

5.4. Model 2 - PIT sharing by origin, with equalisation transfers and general grants allocated by formula, primary and secondary education financed through an earmarked transfer, pre-school education financed through general revenues

Summary of the Model 2

Table 5

Main Elements	Decisions
Delegated Functions – Primary and	Primary and secondary education (EdErT ₂₎

Secondary Education, which mean 44.31%	financed through an earmarked transfer
from Total LG Budget in 2010	equal with the general transfer (GT)
Irom rotal Ld Budget III 2010	•
	effectively allocated in 2010 minus the pre-
	school education expenses (PsEdExp) in 2010
	and assigned to raion councils
	$EdErT_2 = 2010 GT - PsEdExp$
	GT ₁ = PsEdExp
Own Functions	All the rest functions covered by 2010 local
	budgets, including pre-school education.
	Financed through general revenues: own
	revenues, revenues from PIT shared by origin,
	equalization/general transfers
PIT is allocated by origin as shared revenue	Different ratios for Chisinau, Balti, cities raion
, a.	residence and rest of LG units. The effective
	level of all ratios will be tested, but this level
	should be RELATIVELY LOW (at least for
	Chisinau, Balti, cities raion residence and
	raion councils) due to the un-equal territorial
	•
	distribution of PIT and the needs for
	equalization, which should be covered
	essentially by non-allocated PIT in sharing
	system together with CIT used in 2010 (sub-
	chapters 111.20, 111.21 and 111.22) in the
	sharing system by origin. The specific ratio for
	Chisinau and Balti will be the sum of ratio for
	Raion Councils and for Cities Raion Residence,
	because these two big cities play this double
	role.
Distribution Pool by Formula – DPF	The non-allocated PIT by sharing system by
-	origin, together with CIT allocated in 2010
	2010 (sub-chapters 111.20, 111.21 and
	2010 (sub-chapters 111.20, 111.21 and 111.22) by sharing by origin, will be used as
	111.22) by sharing by origin, will be used as
	111.22) by sharing by origin, will be used as essential sources for DPF – Central
	111.22) by sharing by origin, will be used as essential sources for DPF – Central Government can decides to increase DPF by
	111.22) by sharing by origin, will be used as essential sources for DPF – Central Government can decides to increase DPF by using resources from VAT and/or CIT, but the
	111.22) by sharing by origin, will be used as essential sources for DPF – Central Government can decides to increase DPF by using resources from VAT and/or CIT, but the first principle of maintaining the actual
	111.22) by sharing by origin, will be used as essential sources for DPF – Central Government can decides to increase DPF by using resources from VAT and/or CIT, but the first principle of maintaining the actual financial envelope will strongly limit this
D	111.22) by sharing by origin, will be used as essential sources for DPF – Central Government can decides to increase DPF by using resources from VAT and/or CIT, but the first principle of maintaining the actual financial envelope will strongly limit this possibility.
Dp	111.22) by sharing by origin, will be used as essential sources for DPF – Central Government can decides to increase DPF by using resources from VAT and/or CIT, but the first principle of maintaining the actual financial envelope will strongly limit this possibility. Distribution parameter to allocate DPF
D _p	essential sources for DPF – Central Government can decides to increase DPF by using resources from VAT and/or CIT, but the first principle of maintaining the actual financial envelope will strongly limit this possibility. Distribution parameter to allocate DPF between first tier of LG (Equalization Transfer
Dp	111.22) by sharing by origin, will be used as essential sources for DPF – Central Government can decides to increase DPF by using resources from VAT and/or CIT, but the first principle of maintaining the actual financial envelope will strongly limit this possibility. Distribution parameter to allocate DPF between first tier of LG (Equalization Transfer – ET ₁) and second tier of LG (General Transfer
	111.22) by sharing by origin, will be used as essential sources for DPF – Central Government can decides to increase DPF by using resources from VAT and/or CIT, but the first principle of maintaining the actual financial envelope will strongly limit this possibility. Distribution parameter to allocate DPF between first tier of LG (Equalization Transfer – ET ₁) and second tier of LG (General Transfer – GT ₂)
D _p Fiscal Capacity per Capita – FCC	essential sources for DPF – Central Government can decides to increase DPF by using resources from VAT and/or CIT, but the first principle of maintaining the actual financial envelope will strongly limit this possibility. Distribution parameter to allocate DPF between first tier of LG (Equalization Transfer – ET ₁) and second tier of LG (General Transfer – GT ₂) Fiscal Capacity per Capita is calculated based
	essential sources for DPF – Central Government can decides to increase DPF by using resources from VAT and/or CIT, but the first principle of maintaining the actual financial envelope will strongly limit this possibility. Distribution parameter to allocate DPF between first tier of LG (Equalization Transfer – ET ₁) and second tier of LG (General Transfer – GT ₂) Fiscal Capacity per Capita is calculated based on revenues for PIT sharing system by origin,
	as essential sources for DPF – Central Government can decides to increase DPF by using resources from VAT and/or CIT, but the first principle of maintaining the actual financial envelope will strongly limit this possibility. Distribution parameter to allocate DPF between first tier of LG (Equalization Transfer – ET ₁) and second tier of LG (General Transfer – GT ₂) Fiscal Capacity per Capita is calculated based on revenues for PIT sharing system by origin, divided to the specific population of a LG I
	essential sources for DPF – Central Government can decides to increase DPF by using resources from VAT and/or CIT, but the first principle of maintaining the actual financial envelope will strongly limit this possibility. Distribution parameter to allocate DPF between first tier of LG (Equalization Transfer – ET ₁) and second tier of LG (General Transfer – GT ₂) Fiscal Capacity per Capita is calculated based on revenues for PIT sharing system by origin,

- (0/=	T
Transfer - $G/ET = ET_1 + GT_1$	Transfer plus the 2010 Pre-School Education
	Expenses. The allocation will be done based
	on three indicators: population under 7 years
	old, fiscal capacity (calculated based on
	revenues from PIT sharing by origin) and
	area. The component of GT which should
	finance the pre-school education will be
	allocated DIRECT PROPORTIONAL with the
	population less than 7 years old. The rest of
	the G/ET (ET ₁ component) will be allocated
	like in model 1. The only difference is that
	fiscal capacity per capita is calculated in this
	model only based on revenues from sharing
	PIT by origin – not included the own
	revenues.
	ET ₁ = (100%-D _p)*DPF
	$GT_1 = PsEdExp$
G/ET (ET ₁ + GT ₁) allocation features	Cities raion residences excluded by default
5, 11 (11) 511, and and 110 110 110 110 110 110 110 110 110 11	from the process of ET component allocation,
	but they are eligible for the GT_1 component
	· · · · · · · · · · · · · · · · · · ·
	allocation – for pre-school education.
	$GT_2 = D_p * DPF$
Allocation of General Transfer for LG II -	Two variants to allocate GT ₂ : one exclusively
GT ₂	based on population; the second based on
	population and area. The system is identical
	with model 1
	With model 1
GT ₂ allocation features	Chisinau, Balti and UTA Gagauzia (as raion)
GT ₂ allocation features	
GT ₂ allocation features	Chisinau, Balti and UTA Gagauzia (as raion)
GT ₂ allocation features	Chisinau, Balti and UTA Gagauzia (as raion) excluded by default from the process: Chisinau and Balti because they have a very
GT ₂ allocation features	Chisinau, Balti and UTA Gagauzia (as raion) excluded by default from the process: Chisinau and Balti because they have a very strong own revenues and PIT base and they
GT ₂ allocation features	Chisinau, Balti and UTA Gagauzia (as raion) excluded by default from the process: Chisinau and Balti because they have a very strong own revenues and PIT base and they can obtain enough effective and especially
GT ₂ allocation features	Chisinau, Balti and UTA Gagauzia (as raion) excluded by default from the process: Chisinau and Balti because they have a very strong own revenues and PIT base and they can obtain enough effective and especially potential revenues. UTA Gagauzia because it
GT ₂ allocation features	Chisinau, Balti and UTA Gagauzia (as raion) excluded by default from the process: Chisinau and Balti because they have a very strong own revenues and PIT base and they can obtain enough effective and especially potential revenues. UTA Gagauzia because it has a special status receiving by sharing tax
GT ₂ allocation features	Chisinau, Balti and UTA Gagauzia (as raion) excluded by default from the process: Chisinau and Balti because they have a very strong own revenues and PIT base and they can obtain enough effective and especially potential revenues. UTA Gagauzia because it has a special status receiving by sharing tax system CIT and VAT collected under its
	Chisinau, Balti and UTA Gagauzia (as raion) excluded by default from the process: Chisinau and Balti because they have a very strong own revenues and PIT base and they can obtain enough effective and especially potential revenues. UTA Gagauzia because it has a special status receiving by sharing tax system CIT and VAT collected under its boundaries.
GT ₂ allocation features Investment transfers	Chisinau, Balti and UTA Gagauzia (as raion) excluded by default from the process: Chisinau and Balti because they have a very strong own revenues and PIT base and they can obtain enough effective and especially potential revenues. UTA Gagauzia because it has a special status receiving by sharing tax system CIT and VAT collected under its boundaries. Volume and allocation not changed
Investment transfers	Chisinau, Balti and UTA Gagauzia (as raion) excluded by default from the process: Chisinau and Balti because they have a very strong own revenues and PIT base and they can obtain enough effective and especially potential revenues. UTA Gagauzia because it has a special status receiving by sharing tax system CIT and VAT collected under its boundaries. Volume and allocation not changed compared with 2010 distribution
	Chisinau, Balti and UTA Gagauzia (as raion) excluded by default from the process: Chisinau and Balti because they have a very strong own revenues and PIT base and they can obtain enough effective and especially potential revenues. UTA Gagauzia because it has a special status receiving by sharing tax system CIT and VAT collected under its boundaries. Volume and allocation not changed compared with 2010 distribution Will cover the gap for losers compared with
Investment transfers	Chisinau, Balti and UTA Gagauzia (as raion) excluded by default from the process: Chisinau and Balti because they have a very strong own revenues and PIT base and they can obtain enough effective and especially potential revenues. UTA Gagauzia because it has a special status receiving by sharing tax system CIT and VAT collected under its boundaries. Volume and allocation not changed compared with 2010 distribution Will cover the gap for losers compared with 2010 allocation: 100% in first year, 50% in the
Investment transfers	Chisinau, Balti and UTA Gagauzia (as raion) excluded by default from the process: Chisinau and Balti because they have a very strong own revenues and PIT base and they can obtain enough effective and especially potential revenues. UTA Gagauzia because it has a special status receiving by sharing tax system CIT and VAT collected under its boundaries. Volume and allocation not changed compared with 2010 distribution Will cover the gap for losers compared with 2010 allocation: 100% in first year, 50% in the second and 25% in the third - in the second
Investment transfers	Chisinau, Balti and UTA Gagauzia (as raion) excluded by default from the process: Chisinau and Balti because they have a very strong own revenues and PIT base and they can obtain enough effective and especially potential revenues. UTA Gagauzia because it has a special status receiving by sharing tax system CIT and VAT collected under its boundaries. Volume and allocation not changed compared with 2010 distribution Will cover the gap for losers compared with 2010 allocation: 100% in first year, 50% in the
Investment transfers	Chisinau, Balti and UTA Gagauzia (as raion) excluded by default from the process: Chisinau and Balti because they have a very strong own revenues and PIT base and they can obtain enough effective and especially potential revenues. UTA Gagauzia because it has a special status receiving by sharing tax system CIT and VAT collected under its boundaries. Volume and allocation not changed compared with 2010 distribution Will cover the gap for losers compared with 2010 allocation: 100% in first year, 50% in the second and 25% in the third - in the second
Investment transfers	Chisinau, Balti and UTA Gagauzia (as raion) excluded by default from the process: Chisinau and Balti because they have a very strong own revenues and PIT base and they can obtain enough effective and especially potential revenues. UTA Gagauzia because it has a special status receiving by sharing tax system CIT and VAT collected under its boundaries. Volume and allocation not changed compared with 2010 distribution Will cover the gap for losers compared with 2010 allocation: 100% in first year, 50% in the second and 25% in the third - in the second and third year the gap used in the grant
Investment transfers Temporary Compensation Transfer	Chisinau, Balti and UTA Gagauzia (as raion) excluded by default from the process: Chisinau and Balti because they have a very strong own revenues and PIT base and they can obtain enough effective and especially potential revenues. UTA Gagauzia because it has a special status receiving by sharing tax system CIT and VAT collected under its boundaries. Volume and allocation not changed compared with 2010 distribution Will cover the gap for losers compared with 2010 allocation: 100% in first year, 50% in the second and 25% in the third - in the second and third year the gap used in the grant calculation is the initial gap from 2010. Different formula alternatives for G/ET
Investment transfers Temporary Compensation Transfer Variable to be tested	Chisinau, Balti and UTA Gagauzia (as raion) excluded by default from the process: Chisinau and Balti because they have a very strong own revenues and PIT base and they can obtain enough effective and especially potential revenues. UTA Gagauzia because it has a special status receiving by sharing tax system CIT and VAT collected under its boundaries. Volume and allocation not changed compared with 2010 distribution Will cover the gap for losers compared with 2010 allocation: 100% in first year, 50% in the second and 25% in the third - in the second and third year the gap used in the grant calculation is the initial gap from 2010. Different formula alternatives for G/ET (ET ₁ +GT ₁) and GT ₂ allocation
Investment transfers Temporary Compensation Transfer	Chisinau, Balti and UTA Gagauzia (as raion) excluded by default from the process: Chisinau and Balti because they have a very strong own revenues and PIT base and they can obtain enough effective and especially potential revenues. UTA Gagauzia because it has a special status receiving by sharing tax system CIT and VAT collected under its boundaries. Volume and allocation not changed compared with 2010 distribution Will cover the gap for losers compared with 2010 allocation: 100% in first year, 50% in the second and 25% in the third - in the second and third year the gap used in the grant calculation is the initial gap from 2010. Different formula alternatives for G/ET (ET ₁ +GT ₁) and GT ₂ allocation Ratios for PIT sharing by origin, D _p , P, W _{FCC} ,
Investment transfers Temporary Compensation Transfer Variable to be tested	Chisinau, Balti and UTA Gagauzia (as raion) excluded by default from the process: Chisinau and Balti because they have a very strong own revenues and PIT base and they can obtain enough effective and especially potential revenues. UTA Gagauzia because it has a special status receiving by sharing tax system CIT and VAT collected under its boundaries. Volume and allocation not changed compared with 2010 distribution Will cover the gap for losers compared with 2010 allocation: 100% in first year, 50% in the second and 25% in the third - in the second and third year the gap used in the grant calculation is the initial gap from 2010. Different formula alternatives for G/ET (ET ₁ +GT ₁) and GT ₂ allocation

to the state of th
both tiers; losers distribution: by population,
by revenues per capita (for LG I), by raion (for
LG I)
Dispersion: standard deviation, relative
standard deviation
Fiscal autonomy indicators
Cost of the model - Value of the Temporary
Compensation Transfer

The features of the model together with other details and with the results obtain are presented in the Annex 1. A comparison summary of all these features and results are presented in the table 7 – see below.

5.5. Model 3 - PIT shared by formula with equalisation effect and whole education financed through an earmarked transfer - similar with Latvian transfer system

Summary of the Model 3

Table 6

Table 0	
Main Elements	Decisions
Delegated Functions – Education, which means 60.6% from 2010 Total LG Budget in 2010	Pre-school, primary and secondary education financed through an earmarked transfer equal with the general transfer effectively allocated in 2010. Delegating responsibility of primary and secondary education to LGII, simultaneously local governments will start optimization of school network. LGI gets responsibility for optimization of preschool education.
	EdErT1 = 2010 General Transfer
Savings from Education Earmarked Transfer – EdErT	These savings will be added to PIT and CIT ₂₀₁₀ at DPF SEd = Z*EdErT1
	Z = independent parameter reflecting the saving ratio (%)
Own Functions	All the rest functions covered by 2010 local budgets. Financed through general revenues: own revenues, revenues from PIT shared by formula, equalization/general transfers
PIT Thresholds	Based on three different thresholds: specific to national level - T_n , specific to LG I tier - T_{LG1} , and specific to LG II tier - T_{LG2} and on one independent parameter: X – based on which are calculated T_{LG1} and T_{LG2} and it reflects the share of functions assignment between tier 1

	and 2 of local government.
PIT allocation for Chisinau and Balti	$IF PIT_i > T_n \rightarrow GT_i = T_n * P_i + Y * (PIT_i - T_n * P_i)$
	$IF PIT_i < T_n \rightarrow GT_i = T_n * P_i$
	Y is the parameter reflecting the bonus
	received by richer primarias
PIT allocation for LG I units – primarias	IF $PIT_i > T_{LG1} \rightarrow GT_i = T_{LG1} P_i + Y (PIT_i - T_{LG1} P_i)$
	or
	IF PIT _i > $(100\% - X)T_n \rightarrow GT_i = (100\% - X)T_n P_i +$
	$Y^*[PIT_i - (100\% - X)T_n^*P_i]$
	IF PIT _i $<$ T _{LG1} \rightarrow GT _i = T _{LG1} *P _i or
	IF $PIT_i < (100\% - X)T_n \rightarrow GT_i = (100\% - X)T_n P_i$
	Y is the parameter reflecting the bonus
	received by richer primarias
PIT allocation for LG II units - raions	$GT_i = T_{LG2} * P_j$ or
	$GT_i = X*T_n*P_j$
Distribution Pool by Formula	It is formed by PIT, by CIT allocated in 2010
	(sub - chapters: 111.20, 111.21, 111.22) by
	sharing system by origin, by savings from
	education earmarked grant and by other
	financial resources added by central
	government - like VAT and/or CIT
	$\Sigma_i GT_i + \Sigma_j GT_j > PIT$
	$\Sigma_i GT_i + \Sigma_j GT_j \le DPF$
Investment transfers	DPF = PIT + CIT ₂₀₁₀ + S _{Ed}
Investment transfers	Volume and allocation not changed
Temporary Compensation Transfer	compared with 2010 distribution
remporary compensation transfer	Will cover the gap for losers compared with 2010 allocation: 100% in first year, 50% in the
	second and 25% in the third - in the second
	and third year the gap used in the grant
	calculation is the initial gap from 2010.
Parameters to be tested	X, Y, Z
raiameters to be tested	Λ, Ι, Δ

The features of the model together with other details and with the results obtain are presented in the Annex 1. A comparison summary of all these features and results are presented in the table 7 – see below.

5.6. Comparing models and results

The table below summarized the essential features and results of all three models, allowing general comparisons – for detailed comparisons it is necessary to analyse the Annex 1.

Table 7

Features Model 1 Mo	del 2 Model 3
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		-	-
Education	Pre-school, primary, secondary, vocational and extra-school education – delegated functions financed through earmarked transfer	Primary, secondary, vocational and extra- school education — delegated functions financed through earmarked grant Pre-school education — own function financed through general transfer	Pre-school, primary, secondary, vocational and extra-school education – delegated functions financed through earmarked transfer
PIT Sharing	Different sharing ratios by origin: a) Chisinau and Balti b) Raion Councils c) Cities Raion Residence d) Rest of LG I units	Different sharing ratios by origin: a) Chisinau and Balti b) Raion Councils c) Cities Raion Residence d) Rest of LG I units	Formula based on fiscal capacity per capita
DPF Volume and Structure	Non-allocated PIT by sharing system by origin + CIT used in 2010 (111.20, 111.21, 111.22)	Non-allocated PIT by sharing system by origin + CIT used in 2010 (111.20, 111.21, 111.22) + the volume of pre- school education expenses in 2010	PIT + CIT used in 2010 (111.20, 111.21, 111.22) + SEd (potential savings from the earmarked grant to finance education – EdErT1
Fiscal Capacity	Calculated per capita, individually for all LG I units, based on own revenues + revenues from PIT sharing by origin	Calculated per capita, individually for all LG I units, based on revenues from PIT sharing by origin	Calculated per capita, globally at national level and for tier I and II, based on full PIT
Allocation of ET for LG I	By formula – 3 alternatives, using fiscal capacity per capita (individually calculated), population and area	By formula – 1 alternative, using fiscal capacity per capita (individually calculated) and area	By formula – 1 alternative, using fiscal capacity per capita nationally calculated.
Allocation of GT for LG I	-	By formula – 1 alternative using pre- school population number	-
Allocation of GT for LG II	By formula – 2 alternatives, using on population and area	By formula – 2 alternatives, using on population and area	By formula – 1 alternative, using on fiscal capacity nationally calculated
Investment Transfer	Same individual allocation as in 2010 – neutral influence	Same individual allocation as in 2010 – neutral influence	Same individual allocation as in 2010 – neutral influence
Results	Model 1	Model 2	Model 3
1.Losers – number for			

Total Budget (less Ed):						
-LG I	293		265		172	
-Cities Raion Residence	7		8		0	
-LG II	10		12		32	
2.Losers by relative	LG I	LG II	LG I	LG II	LG I	LG II
dimension of losses:						
-Less 10%	104	6	88	4	62	0
-Over 10%	189	4	177	8	110	32
3.Standard Deviation	LG I	LG II	LG I	LG II	LG I	LG II
	234,09	156,38	255,42	156,67	212,14	207,72
4.Relative Standard	LG I	LG II	LG I	LG II	LG I	LG II
Deviation	48,42%	37,62%	50,35%	37,61%	37,8%	88,42%
5.Fiscal Indicators:	LG I	LG II	LG I	LG II	LG I	LG II
Own Revenues Ratio	9,82%	12,54%	19,62%	7,81%	9,06%	13,92%
Autonomous Revenues	14,63%	31,92%	29,24%	19,89%	9,06%	13,92%
Ratio						
General Destination	20,44%	31,92%	41,79%	33,02%	26,53%	47,81%
Revenues Ratio						
6.Temporary	253 321	056 MDL	251 024	143 MDL	772 278	502 MDL
Compensation						
Transition Transfer						
Value						

Conclusions:

- 1. All the models offer much better policy options to the actual transfer system: they are more predictable, stable, transparent and much less discretionary, the fiscal autonomy is significantly improved, they are enough effective in stimulating the collection of local taxes and fees, and they are relatively simple to be implemented.
- 2. Models 1 and 2 are relatively similar, with a PIT sharing system by origin separately from the allocation by formula of the Equalization/General Transfers (Distribution Pool by Formula DPF). Model 3 mixed the allocation by formula with some components of the sharing system by origin.
- 3. No model offers a full set of perfect results the central decision maker is confronted with important trade-offs. For example, the Model 3 offers the best results for first tier of Local Government (primarias), but in the same time the results specific for the second tier (raions) are the worst and it is the most expensive. Model 1 and Model 2 present similar results for both tiers of Local Government and almost the same cost.
- 4. All models offer a significant increase in the fiscal autonomy comparing the fiscal indicators from the above table with the present situation:

Table 8

Tier of LG	Ratio of Own Revenues	Ratio of Autonomous	Ratio of General
	in 2010 Budget	Revenues in 2010	Destination Revenues in
		Budget	2010 Budget

LG I	2,76%	2,76%	2,76%	
LG II	4,98%	4,98%	4,98%	

On the other hand, the comparison among models, based on these indicators, is not very relevant, due to the different structure of functions in Model 1 and Model 3 compared with Model 2.

- 5. All models offer more effective incentives than in present to collect better the own revenues, to consolidate and strength the fiscal base of these revenues, to make more interested the local authorities to develop the local economy, to attract new investors and create new jobs.
- 6. The table 7 and the simulation models show a major trade-off of the new system: it is impossible to improve radically the financial status of all local government units from both tiers in the same time, respecting the major principle of preserving the actual financial envelope. Due to the major financial constraints the decision makers are the position to select among un-perfect policy options and in this case the decision will be strongly influenced by political considerations.
- 7. No model offers significant results in reducing the disparities among richest and poorest local government units at first tier (primarias), improving the equity of financial distribution. However, in the actual stage of fiscal decentralisation reform in Moldova, the efficiency considerations and the significant increase in fiscal autonomy of the local government are much more important. After the consolidation of the local autonomy and having a better efficiency in collecting local taxes and developing local economy, can be designed and implemented a new phase of the reform, focusing more on equity issues.

6. Local capital investment funding system

Local government capital investment policy lacks clear strategic framework. There is no permanent national capital investment programming instrument for local government. Local governments take investment decisions on ad hoc basis.

Legislation on local government borrowing in Moldova could be evaluated as local finance autonomy providing local governments have free access to capital. The main problem is the low local governments capacity to take loans. There are no legislative provisions for case of local governments insolvency.

Key Policy Proposals: To foster local government capital investment in the Republic of Moldova by introducing public capital investment program and improving local government borrowing system.

1. To set the limit of the annual local government debt service

The total debt of local governments must be registered and limited in order to control total public debt (general government debt according to the terminology of EU Treaty). In any negotiations with the EU or International Monetary Fund (IMF) namely general government debt is the subject of discussion.

2. To build value of collateral as basis of future revenues of LG

Building local government property is economic basis and long-term strategic goal of every local government. Presently there are different opinions in Moldova about usefulness of LG property.

Each local government needs to develop property development plan. Finance decentralization process will be facilitate to raise interest of local governments to property. Successful privatization could increase property tax revenues and revenues from local fees. Successful management could indirectly facilitate socio-economic development.

3. To manage municipal companies' debt

Municipal companies can be purely municipal enterprises (with 100% shares) or private companies with less than 100% municipal shares, or public companies, where shares are divided among state and one or several municipalities. Dealing with such kind of municipal property depends on composition of shareholders, but general principles are the same.

Majority of municipal companies are public service providers, including housing, public utilities, public transport, culture, sport etc. Part of them operate under conditions of legal monopoly (having exclusive rights) or natural monopoly. The other part operates in conditions of free or quasi free market and are competitors with private companies.

Planning of debt is responsibility of company's management, but also responsibility of shareholders.

Company's debt can originate due to different circumstances:

- 1) necessity to modernize technologies and management. This could be solved by attracting public investments or though borrowing.
- 2) difference between generated revenues that are based on regulated tariffs and theoretical(maximal) revenues from clients' payments (typical failure of the decision of the regulator or municipal council),
- 3) political decisions of the central government and the parliament, which lead to "legislation dependent" debts and that are not result of companies actions,
- 4) force majoure circumstances,
- 5) political decisions of central authorities on behalf of "social interests of residents",
- 6) bad management of municipal company etc.

In each case that makes problem for municipal politicians. If company can not cover debts (including interest rates) from clients' payments by existing tariffs or fees, then local government has several options:

- 1) to increase tariffs or service fees,
- 2) to cover debts from the municipal budget,
- 3) to ask assistance from the national budget,
- 4) to initiate the procedure of insolvency.

In the situation of multi-level budgeting the degree of freedom for particular municipality to decide on such questions is rather limited. Decentralization of local finances would substantially increase local freedom and local responsibility.

The problem is, that during the first stage of transition from centrally planned economy it was common to finance municipal enterprises from the national or local budget, planning external investments and subsidies. Services were provided at lower prices, than they can be "produced". Though transitional countries are not in unique situation. Elements of such traditions one can find not only in the new member states of the EU, but also in old democracies, where such situation is expressed by "social dimension" of public administration policy. Different approach, which is based on principle "goods and services have to be provided at real prices", is not fully applied. **Municipal companies to some extent are regarded as social policy providers.**

Introduction of finance decentralization leads to necessity to establish institutions and procedures that would address and solve different problems related to municipal debt, municipal liabilities and guarantees and debts of municipal companies.

Debt management of municipal companies has to be one of the counterparts of companies strategy. Marketing strategy could be recommended form, which has to be approved by shareholders.

Management of debt includes multi-years plan, on how to use different financial instruments to cover liabilities of company. It has to be based on trustful information about municipal or national liabilities to participate.

4. To form the commission for loan acceptance

In the situation of multi level budget contracting a loan shall be approved by higher authority. Taking into account general tendency in the EU to increase fiscal discipline, its recomennded to form special interinstitutional commision (counsil), that has to accept every loan, liabilities or local governments guarantees for the municipal enterprise.

5. To set the procedures in the case of local government over-debtness

Over-debtness can be result of different factors. It is recommended to set the special regulation (Law) on procedure how to improve local government economic situation in cases of over-debtness. Following issues must be regulated:

- a) initiating of stabilization;
- b) working out and approval of Stabilization plan;
- c) appointing the Stabilization Administrator;
- d) borowing stabilization grant from the State Treasury, if it is necessary;
- e) implementation of Stabilization plan in mid-term or long-term period.

6. To design of capital investment programming framework

- To require local governments to prepare annual and multi-year investment project programme (capital
 investment programme) to submit directly to one responsible state institution for financing their investment
 programmes, rather than through number of the different sector ministries. At present, there is no coherent
 overview of total local government investment needs (programmes). Investment projects are proposed to
 different sector ministries in hope of getting access to funding.
- Inability to prepare local government capital investment programme is criteria for necessity of local government amalgamation.
- To adopt specific rules on the share of financing of local projects with state budget funds and separate the local investment financing process from the state investment financing process.
- To adopt multi-year allocations of state investment targeted grants (transfers). Such a system would allow a
 more stable financing for local government projects, and reduce the requirement to renew annually the
 application process for projects.
- To use state targeted investment grants (transfers) to promote increasing of local government own revenues.
 For example, the state co-financing share for those local governments what managed to increase own revenues are higher than general financing division.
- To use state targeted investment grants (transfers) to promote local governments' consolidation in inter-municipal
 cooperation for a capital investment project. Special investment grant should be made accessible to those local
 governments that have involved in amalgamation process and after amalgamation meets the minimal number of
 population stated by the Law.
- To determine in the Law that such revenues as property sale or privatization could be spend only for capital investment purposes.

7. Local autonomy of budget expenditures decisions

In Moldova under the current budgeting system, a fundamental role is played by so called normative expenses, defined by the Ministry of Finance and included in the amount of expenditures during budget equalization. They are used to determine the resources for local authorities to perform specific public tasks – education, culture or social assistance, etc.

Central government structures do not believe that local politicians are ready to be responsible for variety of local policies and local administrations are not ready to prepare really autonomous budgets. Parliamentary politicians are not sure, that local financial revenues could sustain real political and administrative autonomy.

Key Policy Proposals: To increase local government budgets spending autonomy and accountability.

1. To refuse centrally defined normative on staff loads and salaries.

Local governments freedom to decide on staff and freedom to decide on salaries will increase decentralization and will raise local governments motivation to increase own revenues.

After introduction of new equalization (transfer) system set of precise normative will loose necessity, because the finance resource distribution will not be based on them.

2. To refuse first level local government dependency from raions local governments

Decentralization will include measures, which ensure real autonomy at both tiers of local governments. Real autonomy of first level authorities can be achieved by abolishing dependence of those authorities from second level authorities:

- a. separation of local and raions budgets
- centralization of supervision to national level authorities, excluding coordination or supervising functions of raions.

3.To provide training and educational programs on budget planning and evaluation for local politicians and administrators

4. To determine and ensure local governments budget public availability

- To ensure that local governments publish with explanations their budgets plans and reports in their web pages.
- To determine that local governments staff salaries are published in their web pages.

5. To provide regular analysis of local governments budgets

- To use local government budget indicators per capita to compare and evaluate effectiveness of local governments.
- To connect budget data with activities, outputs and outcomes.

8. Motivation for local administrative territorial consolidation (amalgamation)

The fragmentation of administrative territorial division of Moldova does not promote the decentralization and development of financial autonomy of local governments. Although at the moment there is no plan to implement the administrative territorial reform in Moldova with local governments amalgamation, it is possible to promote the voluntary amalgamation of the smallest local governments with others.

Idea, that amalgamation will have positive impact on local democracy and efficiency of local governments is popular in many countries. Such direction of local reforms is based on several hypothesis what could be more or less proved by facts depending on national circumstances. The main assumptions on behalf of amalgamation are, that after amalgamation of local governments:

- 1) the positive impact of the economy of scale will be achieved:
 - a) concentration of public investments,
 - b) wider specialization that improves quality of public services;
 - c) more attractive conditions for private investments;
- 2) better leaders can be elected from larger amount of residents;
- 3) better administrators can be contracted among wider population;
- 4) the development of political parties and NGOs can be achieved in greater territories on the wider basis of population.

Key Policy Proposals: To promote and support voluntary local governments' amalgamation.

- 1. To create special capital investment program for local governments that implements the amalgamation.
- 2. To compensate from the state budget the local governments expenditures for amalgamation process.

3. To use finance and administration capacity criteria for local governments amalgamation necessity arguments.

- To foster motivation of local governments to collect taxes, it is proposed to include the collection level (rate) as one of local government administrative capacity indicators.
- If the number of introduced local fees is less than 5, and generated revenues from the local fees tend to decrease, that can serve as a criteria indicating the necessity for local government consolidation (amalgamation) with others.
- Inability to prepare local government capital investment programme is a criteria for necessity of local government amalgamation.

9. Implementation plan for proposed recommendations

9.1. Implementation Phases

Designing the implementation plan of proposed decentralization policy changes and especially setting the necessary phases/steps, a major problem should be resolved: how to separate the reform process in relatively autonomous phases, which can be designed and implemented separately in an effective way, minimizing the friction costs and in the same time avoiding delays and jeopardizing reform process.

From the perspective of fiscal decentralization reform in Moldova, the actual financial allocation system to local government is the core issue that must be changed, based on a new approach which is revenue-oriented and includes following 3 key elements of the reform:

- · restructuring own revenues,
- new PIT sharing system,
- inter-governmental transfer scheme.

These are the key essential elements that should make real progress towards financial autonomy. Without renouncing actual financial allocation system to local governments, no real change in the financing of local government will be possible. Preserving the actual allocation formula of the general transfer, but changing the own revenues definition, setting or management; or defining clear and stable PIT sharing ratios, will be completely useless – that will not produce any change in the system of LG financing, maintaining the actual disincentives in collecting local revenues and preserving the actual dependence of LGs from the state. Moreover, the risk of muddling the process and huge friction costs is obvious.

In this context the implementation plan is structured in two main components:

- Defining the core elements of the fiscal decentralization reform, which represents the critical mass of the reform, without which any significant progress is not possible;
- Setting a road map with gradual steps of the fiscal decentralization reform in three phases, implemented in few years.

The core elements of fiscal decentralization reform in Moldavian context should be designed also in correlation with the main objectives set by the specific section from the National Strategy for Decentralization of the Republic of Moldova. Taking into account all these aspects, the key elements of the future reform are the following:

1) New system of intergovernmental transfer scheme to local government: general transfer, earmarked transfer for education: volume, allocation rules (formulas) and procedures;

- 2) Restructuring the system of own revenues a common definition, fiscal treatment and management;
- 3) Set clear and stable PIT sharing system, fully integrated with own revenues and transfers systems.
- 4) Strengthening administrative capacity of finance management in the Ministry of Finance, raion and 1st level local public administrations and designing sound information exchange and communication platform between all administrative levels.

After the setting of the key elements of the fiscal decentralization reform, the next step is to establish rational phases of the process, taking account that the core of the reform should be implemented in only one phase, preferable the first phase. Based on this logic and respecting specific political circumstances (electoral periods of local governments) of Moldova, it's proposed to have three major phases of the fiscal decentralization reform:

First phase 2012-2013

- 1) Restructuring own revenue system: new definition, unique and coherent financial management;
- 2) Setting a coherent and stable system of PIT sharing by types of LGs;
- 3) Defining the delegated responsibilities (education) financed through earmarked grants together with volume and rules/procedures;
- 4) Setting the volume and allocation rules/procedures for General/Equalization Transfer at the to both tiers of LG;
- 5) Coherent management system of transfer allocation from MoF to all LG units or at least to raions:
- 6) Corroboration with the Fiscal Code, Education legislation;

Second phase 2014 - 2015

- 1) More decentralized and autonomous framework for setting and management of local taxes and fees including the improvements of procedures for setting the property tax;
- 2) PIT collection at residence place reviewing the PIT sharing ratios set in the Phase I;
- 3) Improving the capital investment framework at local level: more transparent procedures for capital transfer allocation by selecting capital projects based on transparent eligibility

criteria; multi-annual capital investment management; diversifying the financing sources for investments;

- 4) Improving the framework for local borrowing: setting effective debt limits, according with specific macro-stability parameters for Moldova; diversifying the asset types that can be used as collateral (including the future revenues); central management of the local government borrowing possibility to set a loan commission; the coherent treatment of the municipal company debt; clear procedures to address the over-debtness and even bankruptcy cases at local government level;
- 5) Defining new local taxes, as it is proposed by this paper: a new local tax on vehicles based on engine capacity;
- 6) Incentives integrated in the allocation formula to stimulate the consolidation of LGs;
- 7) Corroboration with regional development legislation, with the legal framework of cadaster and vehicle registration;
- 8) Designing a support program to increase the administrative capacity at local level.

Third phase 2016 - after

- 1) Gradual integration of earmarked grants in the general transfers, according with the requirements of the European Chart of Local Autonomy;
- 2) Extending the decentralization process: new responsibilities assigned to Local Government;
- 3) Review the allocation formula based on more equity criteria the actual formula is strongly influenced by efficiency criteria;
- 4) More permissive borrowing framework for the local government units.

In this context one of the most important decisions is how to implement the first phase, which contains the core elements of the fiscal decentralization reform. The paper proposes two main scenarios:

a) Rapid Changes – a New Law of Local Public Finance is designed, approved by Government and Parliament and implemented from this phase. This alternative has few important advantages: the new regulation is fully coherent and reflects the policy paper; the risk of reform muddling is lower; having from the beginning the full legal framework, even it is applied from different moments helps to plan and implement effective actions to improve the administrative/institutional capacity at central and especially local level;

b) Gradual Changes - a New Law of Local Public Finance is ready only in the Phase 2 and the Phase 1 is implemented fixing its main requirements by amending the existing laws.

9.2. Policy Areas for Legislative Changes

Based on above mentioned implementation phases, it is necessary in the first instance to define clearly the policy areas that need legal changes already in the first phase (see attached Table 1). These main policy areas would be the following:

- a) Own revenue system this means changes (amendments) in the Tax Code, the Law on Local Public Finance, and the Law on administrative decentralization.
- b) Shared tax system between central and local government this means changes (amendments) in the in the Tax Code, Law on Local Public Finance, possible in Law on the budgetary system and budgetary process, including Budget Classification approved by Ministry of Finance.
- c) General Transfer system this means changes (amendments) in the Law on Local Public Finance.
- d) Earmarked Transfer system and definition of delegated functions for local government this means changes (amendments) in the Law on administrative decentralization, Law on Local Public Finance, in the Law on local public administration and Law on Education.
- e) Management system for transfers and shared tax system this means changes (amendments) in the Law on Local Public Finance and other relevant normative acts.

Therefore, the most important legislative changes are planned for the first phase (own revenue system, shared tax system, general transfer system, etc.). For next two phases is planned improvement of legal framework deep to strengthen decentralization and local autonomy.

9.3. Management of the Process

The management of the reform process is essential for the final success. The fiscal decentralization reform is rather complex and difficult policy to be implemented, which impose leadership, coordination, technical know-how and administrative capacity. The most important elements of the process management are described below, based also on the context from Moldova:

a) Coordination: is an important element, which should be realized essentially by Ministry of Finance. Inter-ministerial coordination can be done in the actual institutional framework offered by the Parity Commission and its working groups, mainly by the Working Group in Fiscal Decentralization. Inter-department coordination within the Ministry of Finance should be realized by a implementation/coordination team under the leadership of one important decision maker from the ministry, preferable the

minister. The team should be composed by representatives and experts from all key departments involved in the fiscal decentralization reform: local budget, tax setting and management, budget, accountability procedures. It is also necessary to establish new exchange of information not only between the Ministry of Finance and raion administrations but also with 1st level public administrations. That is a challenge that has to be addressed and be developed hand in hand with the decentralization reform progress.

- b) Management of the changes is other very important item during the implementation process. This element involves not only Ministry of Finance, but also the State Chancellery, the Ministry of Education, the Ministry of Regional Development. The major challenge from this perspective is how to link and coordinate different phases of the reform, resolving efficiently the contingent issues which normally appear during the implementation process. The main problem which can arise are linked to the following elements:
 - Preparing each implementation phase;
 - Organizing intermediary reviews and implementing the their recommendations;
 - Resolving the ad-hoc issues according in line with the designed policy which is implemented
 - Developing implementation capacity and motivation of the staff involved in the implementation process
- c) Developing institutional and professional capacity this is a very important element at both levels: the Ministry of Finance and local government units. At the Ministry of Finance level it's necessary to continue develop the technical capacity in four main domains:
 - designing appropriate fiscal decentralization policies (including the review of implementation process);
 - data base design and management, modeling the transfer system, including procedures and formulas, monitoring;
 - developing appropriate data basis using the actual potential;
 - strengthening tax administration and financial management: improving the collection of local taxes and fees; better control over the base of local taxes and fees reducing the local fiscal evasion; implementing the key elements for a hard budgetary constraints at local government level (no ad-hoc transfers to cover the deficits, transition from cash management/balance to accrual management/balance); performance-oriented budgetary management;

At the level of local government it's necessary to develop the technical capacity of civil servants – finance-budget departments/units in local administrations - and at the level of elected persons: councilors and especially mayors. There is a need of regular training and administrative capacity building measures throughout all administrative levels.

d) Structured communication and consensus building is another very important element for a successful implementation process of fiscal decentralization reform. The main

potential partners of the Ministry of Finance is CALM and other organizations of the local governments. Communicating the main phases of the reform, the key elements of every step including legislative initiatives, working together with the local government in preparing and realizing implementation of the reform will be very important assets in a successful process. On the other hand, communication is necessary with the specific structures of the Parliament: specialized Standing Committees: budget-finance, local government or ad-hoc committees. Communication policy to all key stakeholders is indispensible part implementation programme, because weak communication and lack of participation might lead to permanent frustrations or even blocking of reforms from the different stakeholders.

Also, it's important to communicate the main features of the reform with the broader public, civil society organizations and think-tanks, which can support the process of intermediary reviewing and final evaluation of the implementation process.

Annex 1. Features of Proposed Models

Features of Model 1:

1)Pre-school, primary and secondary education will be financed through an earmarked grant, allocated by formula, set according to the pilot programme of the Ministry of Education. The exact level of this earmarked grant is set at the effective expenses of 2010 budget for all three education forms – 4,452,991 thousand MDL – this amount is based on cash execution, including own revenues of the education system (for example the user charges paid by parents for the pupil meals in pre-school system. Taking account that the full transfer for the local government was in 2010 4,286,442 thousands MDL, it is possible to admit that the actual general transfer will fully cover the future earmarked transfer for education. This means that the Personal Income Tax will be exclusively used for the financing of the own functions of the local government under sharing tax system and under general/equalization transfer system. On the other hand to preserve the comparability of the Model 1 financial allocation with the 2010 situation, the individual allocation at the level of LG units (from both tiers) will remain not changed (so neutral);

$EdErT_1 = 2010 GT$ (1.1)

Where:

EdErT₁ = pre-school, primary, secondary education earmarked transfer 2010 GT = 2010 general transfer allocated to local government by central budget

2)Specific sharing ratio of PIT will be tested, according with the following model:

- Chișinău and Bălți a specific ratio from the total PIT collected within their administrative limits;
- Raional Councils a specific ratio from the total PIT collected within their administrative limits;
- Cities raion residence a specific ratio from the total PIT collected within their administrative limits;
- Rest of LG units a specific from the total PIT collected within their administrative limits.

The ratio for Chisinau and Balti will be the sum of ratios for Raion Councils and Cities Raion Residence, because these two large cities play a double role as the first and the second tier of Local Government. The non-allocated PIT by sharing system, together with CIT (sub-chapters 111.20, 111.21 and 111.22) used in 2010 by the sharing system by origin, will be used for equalization transfer (LG I) and general transfer (LG II), being the essential resources for the Distribution Pool by Formula (DPF). Normally the central government can add supplementary resources to DPF (from VAT or CIT), but this possibility is strictly limited under the supposition of the main first principle in this report: to maintain, during the reform process, the global financial envelope allocated to local government.

3)The specific financial needs for tier I and II of Local Government have been separately estimated based on function assignment reflected in the budgetary effective allocation n

2010 and after the distribution of the shared PIT by origin. For this reason it is fixed an independent distribution parameter (D_p) to allocate the Distribution Pool by Formula (DPF) between first and second tier of LG. The value of this distribution parameter is set also based on different possibility to raise the own revenues for both tiers of LG – the large majority of local taxes and fees are assigned to the first tier, so the possibility of raion councils to collect own revenues is very limited. In this situation the only two main sources for raion councils to finance the rest of own functions (excluding education) are the revenues from PIT sharing system and general transfer. Thus:

$$ET_1 = (100\%-D_p)*DPF$$
 (1.2)
 $GT_2 = D_p*DPF$ (1.3)

Where:

ET₁ = Equalization Transfer for the LG I - primarias

GT₂ = General Transfer for LG II – raions

D_D = Independent Distribution Parameter of DPF between LG I and LG II

- 4)Due to the actual territorial distribution of PIT and the double role played by Chisinau and Balti, these two cities ARE NOT QUALIFIED by default for equalization process at the first tier of local government. Another argument is that the own revenue base is very developed in these two LG units, so they have enough real and especially potential resources to increase the revenues in future.
- 5)Normally, if the central administration decides to increase the Distribution Pool by Formula for allocation to both tiers of LG, it can use the revenues from CIT or VAT. Any increase of the Distribution Pool by Formula increases substantially the performance of the transfer system, but this decision is strictly limited by the principle of preserving, at macro-economic level, of the financial envelope dedicated to local government financing.
- 6)At first tier of LG the equalization transfer is allocated according to the following criteria: Fiscal Capacity per Capita (FCC) (calculated based on own revenues and revenues from PIT sharing system by origin); population and area. Allocation according to the FCC is INVERSE PROPORTIONAL and the allocation according to population and area is DIRECTLY PROPORTIONAL, based on general formulas presented in main text, Chapter 5.

For ET₁ allocation this report proposes three different alternatives:

a)Only based on fiscal capacity per capita using the general formula (1) presented in 5.1., where T_e is the national average Fiscal Capacity per Capita (FCCna) (calculated for all LG I units) multiply with an independent parameter P>1. Only LGs with a FCC_i<P*FCC_{na} effective enter in the equalization process. Formula is:

$$ET_{i} = ET_{1}^{*}[(P^{*}FCC_{na}-FCC_{i})/FCC_{na}]/\Sigma_{i}[(FCC_{na}-FCC_{i})/FCC_{na}]$$
 (1.4)

Where:

 $\mathrm{ET_i}$ = individual equalization transfer allocation $\mathrm{ET_1}$ = total equalization transfer for LG I - primarias $\mathrm{FCC_{na}}$ = national average Fiscal Capacity per Capita $\mathrm{FCC_i}$ = individual LG unit Fiscal Capacity per Capita P = independent parameter, P >1

b) Only based on fiscal capacity per capita using the general formula presented above, where T_e is the maximum individual Fiscal Capacity per Capita – calculated for all LGs unit qualified by default for equalization process (this means less Chisinau and Bălţi). In this case the LGs with FCC_i<FCC_{max} are effectively qualified for equalization process, that means ALL LG units are practically qualified. Formula is:

$$ET_{i} = ET_{1}^{*}[(FCC_{max}-FCC_{i})/FCC_{max}]/\Sigma_{i}[(FCC_{max}-FCC_{i})/FCC_{max}]$$
(1.5)

Where:

ET_i = individual equalization transfer allocation

ET₁ = total equalization transfer for LG I - primarias

FCC_{max} = maximum individual Fiscal Capacity per Capita

FCC_i = individual LG unit Fiscal Capacity per Capita

c) Based of fiscal capacity per capita, using the a) form, population and area:

$$ET_{i} = ET_{1}*\{W_{FCC}*[(P*FCC_{na}-FCC_{i})/FCC_{na}]/\Sigma[(FCC_{na}-FCC_{i})/FCC_{na}] + W_{p}*(P_{i}/P_{n}) + W_{a}*(A_{i}/A_{n})\}$$
 (1.6)
$$W_{FCC} + W_{p} + W_{a} = 100\%$$
 (1.7)

Where:

ET_i = individual equalization transfer allocation

ET₁ = total equalization transfer for LG I - primarias

FCC_{na} = national average Fiscal Capacity per Capita

FCC_i = individual LG unit Fiscal Capacity per Capita

P = independent parameter, P>1

 W_p = specific weight for population

P_i = population of the individual primarias

P_n = total population of primarias qualified by default to equalization process

W_a = specific weight for area

A_i = area of the individual primarias

 A_n = total area of the primarias qualified by default to equalization process

The final result of allocation is:

$$\Sigma_i ET_i = ET_1$$
 (1.8)

7)General Transfer (GT₂) allocation for raion councils has been realized in 2 alternatives:

- Direct proportional with individual population weight in total population of all raions qualified by default in the allocation process;
- Direct proportional with the individual weights for population and area in total population and area of all raions qualified by default in allocation process.
 The formulas are the followings:

$$GT_j = GT_2*(W_p*P_j/P_n)$$
 (1.9)
 $W_p = 100\%$ (1.10)

and

$$GT_j = GT_2*[(W_p*P_j/P_n) + (W_a*A_j/A_n)]$$
 (1.11)
 $W_p+W_a = 100\%$ (1.12)

Where:

GT_i = individual general transfer

GT₂ = total general transfer for LG II - raions

W_p = specific weight for population

 P_i = population of the individual raion

P_n = total population of raions qualified by default to general transfer allocation

W_a = specific weight for area

A_i = area of the individual raion

A_n = total area of the raions qualified by default to general transfer allocation

The final result of allocation is:

$$\Sigma_{i}GT_{i} = GT_{2} \qquad (1.13)$$

- 8)UTA Gagauzia has been excluded –at raion level from the general transfer allocation by default due to its special status receiving 100% from collected VAT, and for 2012 also 50% from collected CIT. Chisinau and Balti, as raions, have been also excluded from the general transfer allocation by default due to their very strong base of own revenues and PIT, which offers them enough effective and especially potential revenues.
- 9)Special transfers for investment (special means for investment code 332) and privatization revenues used to cover different type of expenses in 2010 (current and capital) remain are allocated in the same way and volume like in 2010 effective allocation neutral impact.
- 10) A Temporary Compensation Transfer, for a limited period of three years, to compensate the losers according to the following scheme: 100% from the initial negative gap (allocation according with Model 1 effective allocation in 2010) in the first year, 50% from the initial negative gap in the second year and 25% from the initial negative gap in the third year.

Result Assessment for Model 1:

For measuring the results we used the following indicators:

a) Number of "losers" compared with the 2010 effective allocation. Distribution of the losers by population of LG units (for both tiers of LG), by relative dimension of losses (compared with 2010 budget allocation), and by raion (only for LG I).

Table 1.1 – distribution of LG I losers by primaria population

	Total number of LGs I	Total Budget FC&Pop &Ar - 2010 Total Budget	Current Budget FC&Pop &Ar - 2010 Current Budget	Total Budget (less Ed) FC&Pop& Ar - 2010 Total Budget (less Ed)	Total Budget FCCmax - 2010 Total Budget	Current Budget FCCmax - 2010 Current Budget	Total Budget (less Ed) FCCmax - 2010 Total Budget (less Ed)	Total Budget P*FCCn a - 2010 Total Budget	Current Budget P*FCCn a - 2010 Current Budget	Total Budget (less Ed) P*FCCn a - 2010 Total Budget (less Ed)
		Losers								
	896	315	315	315	312	312	312	293	293	293
Population	292	112	112	112	86	86	86	86	86	86

under 1500										
Population 1501 - 5000	519	176	176	176	197	197	197	177	177	177
Population 5001 - 10000	56	22	22	22	24	24	24	25	25	25
Population 10001 - 50000	29	5	5	5	5	5	5	5	5	5
Population over 50000	0	0	0	0	0	0	0	0	0	0

Table 1.2 – distribution of LG I losers by relative dimension of losses compared with 2010 budget allocation

	Ratio (Total Budget FC&Pop&Ar - 2010 Total Budget)/201 0 Total Budget	Ratio (Total Budget FCmax - 2010 Total Budget)/20 10 Total Budget	Ratio (Total Budget P*FCCna - 2010 Total Budget)/20 10 Total Budget	Ratio from Total LG I units	Ratio from Total LG I units	Ratio from Total LG I units
	Losers	Losers	Losers			
0% > Relative Loss > -5%	171	168	161	19.08%	18.75%	17.97%
Losers: -5% > Relative Loss > - 10%	90	91	79	10.04%	10.16%	8.82%
-10% > Relative Losses > -15%	31	30	32	3.46%	3.35%	3.57%
-15% > Relative Losses > -20%	13	14	11	1.45%	1.56%	1.23%
-20% > Relative Losses > -25%	2	2	3	0.22%	0.22%	0.33%
Relative Losses > -25%	8	7	7	0.89%	0.78%	0.78%
Total	315	312	293	35.16%	34.82%	32.70%

Table 1.3 – LG I losers among cities raion residence

	Total	Per Capita Total Budget (less Education) FC&Pop&Ar - 2010 Total Budget (less Ed)	Per Capita Total Budget (less Education) FCCmax - 2010 Total Budget (less Ed)	Per Capita Total Budget (less Education) P*FCCna - 2010 Total Budget (less Ed)
		Losers	Losers	Losers
Cities Raion Residence	32	9	12	7

Table 1.4 – distribution of LG I losers by raion

Raion	Number of LGs I Losers - Allocation based on FC, Pop and Area	Number of LGs I Losers - Allocatio n based on FCCmax	Number of LGs I Losers - Allocatio n based on P*FCCna	Ratio of LGs I Losers - Allocatio n based on FC, Pop and Area	Ratio of LGs I Losers - Allocatio n based on FCCmax	Ratio of LGs I Losers - Allocatio n based on P*FCCna
Chișinău	1	2	1	5.56%	11.11%	5.56%
Bălți	2	2	2	100.00%	100.00%	100.00%
Anenii Noi	10	5	7	38.46%	19.23%	26.92%
Basarabeasca	4	5	5	57.14%	71.43%	71.43%
Briceni	10	9	10	35.71%	32.14%	35.71%
Cahul	5	3	3	13.51%	8.11%	8.11%
Cantemir	9	7	8	33.33%	25.93%	29.63%
Călărași	10	16	8	35.71%	57.14%	28.57%
Căușeni	2	4	1	7.41%	14.81%	3.70%
UTA Găgăuzia	6	4	6	23.08%	15.38%	23.08%
Cimișlia	14	14	15	60.87%	60.87%	65.22%
Criuleni	4	5	4	16.00%	20.00%	16.00%
Donduseni	11	8	10	50.00%	36.36%	45.45%
Drochia	4	2	4	14.29%	7.14%	14.29%
Dubăsari	7	7	7	63.64%	63.64%	63.64%
Edineţ	15	8	13	46.88%	25.00%	40.63%
Fălești	10	12	9	30.30%	36.36%	27.27%
Florești	2	2	2	5.00%	5.00%	5.00%
Glodeni	10	10	11	52.63%	52.63%	57.89%
Hîncești	21	22	21	53.85%	56.41%	53.85%
Ialoveni	8	10	8	32.00%	40.00%	32.00%

Leova	12	10	10	48.00%	40.00%	40.00%
Nisporeni	9	10	8	39.13%	43.48%	34.78%
Ocnița	11	11	12	52.38%	52.38%	57.14%
Orhei	15	18	12	39.47%	47.37%	31.58%
Rezina	6	7	4	24.00%	28.00%	16.00%
Rișcani	6	3	4	21.43%	10.71%	14.29%
Sîngerei	6	7	5	23.08%	26.92%	19.23%
Soroca	6	5	6	17.14%	14.29%	17.14%
Streșeni	10	13	7	37.04%	48.15%	25.93%
Şoldăneşti	12	13	9	52.17%	56.52%	39.13%
Ştefan Vodă	12	12	15	52.17%	52.17%	65.22%
Taraclia	4	4	4	26.67%	26.67%	26.67%
Telenești	27	28	27	87.10%	90.32%	87.10%
Ungheni	14	14	15	42.42%	42.42%	45.45%

Table 1.5 – distribution of LG II losers by population

	Number of LGs II	Total Budget per Capita (GT allocation based on Pop) - 2010 Total Budget Per Capita	Current Budget per Capita (GT allocation based on Pop) - 2010 Total Current Per Capita	Total (less Ed) Budget per Capita (GT allocation based on Pop) - 2010 Current (less Ed) Budget Per Capita	Total Budget Per Capita (GT allocation based on Pop&Ar) - 2010 Total Budget Per Capita	Current Budget Per Capita (GT allocation based on Pop&Ar) - 2010 Current Budget Per Capita	Total (less Ed) Budget Per Capita (GT allocation based on Pop&Ar) - 2010 Current (less Ed) Budget Per Capita
				Lo	sers		
Population under 50000	7	4	4	4	2	2	2
Population 50001 – 100000	21	6	6	6	6	7	6
Population over 100000	7	1	1	2	1	2	2
Total	35	11	11	12	9	11	10

Table 1.6 – distribution of LG II losers by relative dimension of losses compared with 2010 budget allocation

	Ratio [Total Budget (GT allocation based on Pop) - 2010 Total Budget]/2010 Total Budget	Ratio[Total Budget (GT allocation based on Pop&Ar) - 2010 Total Budget]/2010 Total Budget Per Capita	Ratio from Total LG II Number	Ratio from Total LG II Number
	Losers	Losers		
0% > Relative Loss > -5%	5	0	14.29%	0.00%
-5% > Relative Loss > -10%	4	6	11.43%	17.14%
-10% > Relative Loss > -15%	2	1	5.71%	2.86%
-15% > Relative Loss > -20%	0	1	0.00%	2.86%
-20% > Relative Loss> -25%	0	0	0.00%	0.00%
Relative Loss > -25%	2	2	5.71%	5.71%
Total	13	10	37.14%	28.57%

In terms of number of "losers" and the relative dimension of the losses compared with 2010 budget allocation the best results are obtained at the first tier of LG (primarias) by the formula allocating the Equalisation Transfer based on national average of Fiscal Capacity per Capita with an independent parameter P – P*FCCna functioning as national threshold: all LG I units with individual FCC over the threshold (P*FCCna) are excluded from equalisation process.

At second tier of local government (raions), the best results are obtained by the General Transfer Allocation using the formula with 2 indicators: population and area. The specific values of independent parameters and weights are presented below in the table 1.11 which summarised the variables for what are obtained the best results with this simulation model.

b) The dispersion measured by standard deviation, relative standard deviation, ratio between maximum/minimum, maximum/median and median/minimum:

Table 1.7 – dispersion indicators for LG I units

	Total Local Budgets - ET allocatio n based on FCC, Pop and Ar	Total Local Budgets - ET allocatio n based on FCCmax	Total Local Budgets - ET allocatio n based on P*FCCna	Current Local Budgets - ET allocatio n based on FCC, Pop, Ar	Current Local Budgets - ET allocatio n based on FCCmax	Current Local Budgets - ET allocatio n based on P*FCCna	Total (less Ed) Local Budgets - ET allocatio n based on FCC, Pop and Ar	Total (less Ed) Local Budgets - ET allocatio n based on FCCmax	Total (less Ed) Local Budgets - ET allocatio n based on P*FCCna
Standard Dev	501.02	517.01	504.35	437.63	456.97	440.73	231.32	253.14	234.09
Max	6,277.47	6,351.64	6,260.19	5,684.45	5,758.62	5,667.18	2,664.52	2,617.28	2,721.98
Min	212.64	193.00	217.17	207.33	187.69	211.86	161.06	136.88	158.40
Median	1,554.47	1,539.75	1,559.27	1,452.85	1,441.67	1,473.05	441.15	464.12	449.55
Average	1,686.03	1,696.53	1,691.26	1,571.04	1,581.54	1,576.27	478.25	488.75	483.48
Relative Standard Dev	0.30	0.30	0.30	0.28	0.29	0.28	0.48	0.52	0.48
Max/Min	29.52	32.91	28.83	27.42	30.68	26.75	16.54	19.12	17.18
Max/Median	4.04	4.13	4.01	3.91	3.99	3.85	6.04	5.64	6.05
Median/Min	7.31	7.98	7.18	7.01	7.68	6.95	2.74	3.39	2.84

Table 1.8 – dispersion indicators for LG II units

	Per Capita Total Budgets - GT allocation based on Pop	Per Capita Current Budgets - GT allocation based on Pop	Per Capita Total (less Ed) Budgets - GT allocation based on Pop	Per Capita Total Budgets - GT allocation based on Pop, Area	Per Capita Current Budgets - GT allocation based on Pop, Area	Per Capita Total (less Ed) Budgets - GT allocation based on Pop, Area
Standard Dev	396.94	367.63	154.24	397.08	368.82	156.38
Мах	2,394.60	2,292.95	1,166.12	2,394.60	2,292.95	1,166.12
Min	336.45	371.80	207.89	352.95	388.30	190.67
Median	554.03	563.06	390.30	559.89	568.91	397.84
Average	650.58	661.00	413.30	652.93	660.24	415.65
Relative Standard Dev	61.01%	55.62%	37.32%	60.82%	55.86%	37.62%
Max/Min	7.12	6.17	5.61	6.78	5.91	6.12

Max/Median	4.32	4.07	2.99	4.28	4.03	2.93
Median/Min	1.65	1.51	1.88	1.59	1.47	2.09

As we mentioned in the core text of this report this model doesn't obtain significant results in reducing the disparities – low values for Standard Deviation and Relative Standard Deviation. The results obtained by the three allocation formula at first tier of LG and the two allocation formula at the second tier are similar, with a tinny advantage for the formula using fiscal capacity per capita, population and area at tier I and formula using population and area at tier II of local government.

c) Some specific indicators measuring the fiscal autonomy: ratio of own revenues in total revenues; ratio of autonomous revenues (own revenues + revenues from PIT sharing by origin) in total revenues; ratio of general destination revenues (own revenues + revenues from PIT sharing + equalization transfer revenues) in total revenues. For this simulation model these indicators are:

Table 1.9 – financial autonomy indicators

Local Government	Ratio of Own Revenues 2010	Ratio of Autonomous Revenues 2010	Ratio of General Destination Revenues 2010	Ratio of Own Revenues Model 1	Ratio of Autonomous Revenues Model 1	Ratio of General Destination Revenues Model 1
LG II	4.98%	4.98%	4.98%	12.54%	31.92%	31.92%
LG I	2.76%	2.76%	2.76%	9.82%	14.63%	20.44%

This model offers a significant increase in fiscal autonomy, which would be correlated with implicit incentives generated by the new system of transfers, revenue oriented, to improve the own revenues collection, to consolidate the fiscal base of local taxes and to develop local economy.

d) Costs of the alternative – the volume of the Temporary Compensation Transfer:

Table 1.10 – the volume of compensation grant, calculated for different formula alternatives

	LG I Allocation: P*FCCna, Population and Area	LG I Allocation: FCCmax	LG I Allocation: P*FCCna	LG II Allocation: Population	LG II Allocation: Population and Area
Volume of Temporary Compensation Transfer LG I	83,755,256.36	91,428,839.58	84,434,845.91		
Volume of Temporary Compensation Transfer LG II				60,320,043.45	63,997,528.10

Total Volume	252,131,774.66		
of Temporary			
Compensation			
Transfer			

Volume of Temporary Compensation Transfer for three years period is between 252 131 775 MDL and 271 996 143 MDL, which represents 3,43% respectively 3,7% from total annual revenues of LG.

The above results are the best that can be obtained under the hypothesis of this model. The values of parameters and the formulas, under which the above results are obtained, are presented in the following table and can be found in the EXCEL file which simulates the Model 1.

Table 1.11 – Main independent variables and parameters

Parameters	Value
Ratios for the PIT Sharing System by Orig	çin
Ratio for Chisinau and Balti	50%
Ratio for Raion Councils	30 %
Ratio for Cities Raion Residence	20%
Ratio for the rest of LG units	70%
Independent Parameters	
Distribution Parameter of DPF – Dp	75%
Threshold Parameter – P	1.6
Indicator weights used in ET ₁ allocation f	or the first tier of LG (primarias) – Formula 3
Weight of Fiscal Capacity per Capita	80%
Weight of Population	10%
Weight of Area	10%
Indicator weights used in GT ₂ allocation to	for the second tier of LG (raions) – Formula 2
Weight of Population	60%
Weight of Area	40%
Weight of Roads with hard surface	0%
Weight of Roads without hard surface	0%

Features of Model 2

1)Primary and secondary education will be financed through an earmarked grant set according to the pilot programme of the Ministry of Education – the approximate value is 3,225,776 thousand MDL, according to 2010 effective expenses (cash execution and including the own revenues of the education system, generated by some user charges). The primary and secondary education will be assigned to the tier II – the raion councils will be the only beneficiaries of the grant. The pre-school education remains an own function of the first tier of local government and it will be financed through general/equalization transfer. In this condition the former general transfer for 2010 - 4,286,442 thousand MDL, will be used to create the earmarked transfer for primary and education for tier II of LG, and to partially contribute to the general/equalization transfer for LG I – the part that should cover the pre-school education expenses (GT₁). Like in model 1 Personal Income Tax will be exclusively used for the financing of the

general/own functions of the local government under sharing tax system and under general/equalization transfer system;

EdErT₂ = 2010 GT
$$-$$
 2010 PsEdExp (2.1)
GT₁ = 2010 PsEdExp (2.2)

Where:

EdErT₂ = primary, secondary education earmarked transfer

2010 GT = 2010 general transfer allocated to local government by central budget

2010 PsEdExp = 2010 expenses for pre-school education

GT₁ = General Transfer component for the LG I to finance the pre-school education

2)Specific sharing ratio of PIT will be tasted, according with the following model:

- Chişinău and Bălți a specific ratio from the total PIT collected within their administrative limits;
- Raional Councils a specific ratio from the total PIT collected within their administrative limits;
- Cities raion residence a specific ratio from the total PIT collected within their administrative limits;
- Rest of LG units a specific from the total PIT collected within their administrative limits.

The ratio for Chisinau and Balti will be the sum of ratios for Raion Councils and Cities Raion Residence, because these two big cities play a double role as first and second tier of Local Government.

The non-allocated PIT by sharing system, together with CIT (chapters 111.20, 111.21 and 111.22) used in 2010 by the sharing system by origin, will be used for equalization transfer (LG I) and general transfer (LG II), being the essential resources for the Distribution Pool by Formula (DPF).

3)The specific financial needs for tier I and II of Local Government have been separately estimated based on function assignment reflected in the budgetary effective allocation in 2010 and after the distribution of the shared PIT by origin. It was fixed an independent distribution parameter to allocate the Distribution Pool by Formula (DPF) (non – allocated PIT by sharing system by origin and CIT allocated in 2010 by sharing system by origin) among the first and the second tier of LG. The level of this distribution parameter is set also based on different possibility to raise own revenues for both tiers of LG – the big majority of own revenues defined above – point a) of **OWN REVENUE SYSTEM** are assigned to the first tier, so the possibility of raions to collect money for their own budgets is very limited. In this situation the only two sources for raion councils to finance the rest of own functions (excluding education) are the revenues from PIT sharing system and equalization transfer.

At LG I tier to ET_1 will be added the general transfer necessary to finance the pre-school education (GT_1) with a value around 1,197 million MDL (pre-school education expenses at the 2010 level), covered from general transfer allocated in 2010. So

$$ET_1 = (100\% - D_p)*DPF$$
 (2.3)
 $GT_2 = D_p*DPF$ (2.4)
 $G/ET = ET_1 + GT_1$ (2.5)

Where:

 ET_1 = Equalization Transfer for the LG I - primarias

GT₂ = General Transfer for LG II – raions

D_p = distribution parameter to allocate DPF

G/ET = total general/equalization transfer for LG I -primarias

GT₁ = General Transfer component for the LG I to finance the pre-school education

4)Due to the actual territorial distribution of PIT and the double role played by Chisinau and Balti, these two cities ARE NOT QUALIFIED by default for equalization process at the first tier of local government. Another argument is that the own revenue base is more developed in these two LG units, so they have enough real and especially potential resources to increase the revenues in future.

On the other hand, Chisinau, Balti ARE QUALIFIED to receive allocations for pre-school education financing – GT₁

- 5)Normally, if the central administration decides to increase the Distribution Pool by Formula for allocation to both tiers of LG, it can use the revenues from CIT or VAT. Any increase of the Distribution Pool by Formula increases substantially the performance of the transfer system
- 6)At first tier of LG the equalization/general transfer is allocated according to the following indicators: number of population less than 7 years old; Fiscal Capacity per Capita (FCC) (calculated based on revenues from PIT sharing system by origin); and area. Allocation according to the FCC is INVERSE PROPORTIONAL and the allocation according with population under 7 years old, population and area is DIRECTLY PROPORTIONAL, based on general formulas presented above.

For G/ET the allocation will be done based on following formula:

$$G/ET_i = G/ET^*\{W_p^{k*}(P_i^k/P_n^k) + W_{FCC}^*[(P^*FCC_{na}-FCC_i)/FCC_{na}]/\Sigma_i[(FCC_{na}-FCC_i)/FCC_{na}] + W_a^*(A_i/A_n)\}$$
 (2.6)

$$W_p^k + W_{FCC} + W_a = 100\%$$
 (2.7)

Where:

G/ET_i = individual general/equalization transfer allocation

G/ET = total general/equalization transfer for LG I - primarias

FCC_{na} = national average Fiscal Capacity per Capita

FCC_i = individual LG unit Fiscal Capacity per Capita

P = independent parameter, P>1

 W_0^k = specific weight for population less than 7 years old

 $P_i^{k'}$ = individual population less than 7 years old in primarias

 P_n^k = total population less than 7 years old

W_a = specific weight for area

A_i = area of the individual primarias

A_n = total area of the primarias qualified by default to equalization transfer allocation

The final result of allocation is:

$$\Sigma_i G/ET_i = G/ET$$
 (2.8)

7)General Transfer allocation for raion councils has been realized in 2 alternatives:

- Directly proportional with population
- Directly proportional with population, area, length of the local roads with hard surface and the length of the roads without hard surface.

The formulas are the followings:

```
GT_j = GT_2*(W_p*P_j/P_n) (2.9)

W_p = 100\% (2.10)

and

GT_j = GT_2*[(W_p*P_j/P_n) + (W_a*A_j/A_n)] (2.11)

W_p+W_a = 100\% (2.12)
```

Where:

GT_i = individual general transfer

GT₂ = total general transfer for LG II - raions

 W_p = specific weight for population

P_i = population of the individual raion

P_n = total population of raions qualified by default to general transfer allocation

W_a = specific weight for area

A_i = area of the individual raion

 A_n = total area of the raions qualified by default to general transfer allocation

The final result of allocation is:

$$\Sigma_i GT_i = GT_2$$
 (2.13)

- 8)UTA Gagauzia was excluded –at raion level from the allocation of general transfer by default due to its special status receiving 100% from collected VAT, and for 2012 also 50% from collected CIT. Chisinau and Balti, as raions, have been excluded from the general transfer allocation by default due to their strong base of own revenues and PIT, which offer them enough effective and especially potential revenues.
- 9)Special transfers for investment (special means for investment code 332) and privatization revenues used to cover different type of expenses in 2010 (current and capital) remain are allocated in the same way and volume like in 2010 effective allocation.
- 10) A compensation grant for a limited period of three years, to compensate the losers according to the following scheme: 100% from the initial negative difference (allocation according with Model 2 effective allocation in 2010) in the first year, 50% from the initial negative difference in the second year and 25% from the initial negative difference in the third year.

Result Assessment for Model 2:

For measuring the results we used the following indicators:

a) Number of "losers" compared with the 2010 effective allocation. Distribution of the losers by population of LG units (for both tiers of LG), by relative dimension of losses compared with 2010 budget allocation, and by raion (only for LG I).

Table 2.1 - LG I losers distributed by primarias population

Categories of LG I units	Total LG I units	Total Budget per Capita (less Ed) - 2010 Total Budget per Capita (less Ed) Losers	Ratio
Total	893	265	29.68%
Population under 1500	292	65	22.26%
Population 1501 – 5000	517	170	32.88%
Population 5001 - 10000	56	25	44.64%
Population 10001 - 50000	28	5	17.86%
Population over 50000	0	0	

Table 2.2 – LG I losers distributed by relative dimension of losses compared with 2010 budget allocation

budget unocution	Ratio [Total Budget (less Ed) - 2010 Total Budget (less Ed)]/ 2010 Total Budget (less Ed) Losers	Ratio from Total LG I
0% >Relative Loss> -5%	56	6.27%
-5% > Relative Loss > -10%	32	3.58%
-10% > Relative Loss > -15%	36	4.03%
-15% > Relative Loss > -20%	37	4.14%
-20% > Relative Loss > -25%	24	2.69%
Relative Loss > -25%	80	8.96%
Total	265	29.68%

Table 2.3 – LG I losers among cities raion residence

Total number of LGs I	DIFFERENCES Total Budget per Capita less Education - 2010 Total Budget per Capita less Education	Ratio
	Losers	
32	8	25.00%

Table 2.4 – LG I losers distributed by raion

Raion	Number of LG I Losers	Ratio of LGs I Losers
Chișinău	1	5.56%
Bălți	2	100.00%
Anenii Noi	7	26.92%
Basarabeasca	3	42.86%
Briceni	6	21.43%
Cahul	3	8.11%
Cantemir	5	18.52%
Călărași	13	46.43%
Căușeni	2	7.41%
UTA Găgăuzia	4	15.38%
Cimișlia	10	43.48%
Criuleni	4	16.00%
Donduseni	6	27.27%
Drochia	2	7.14%
Dubăsari	7	63.64%
Edineţ	7	21.88%
Fălești	10	30.30%
Florești	2	5.00%
Glodeni	9	47.37%
Hîncești	21	53.85%
Ialoveni	10	40.00%
Leova	6	24.00%
Nisporeni	8	34.78%
Ocnița	10	47.62%
Orhei	13	34.21%
Rezina	5	20.00%
Rișcani	3	10.71%
Sîngerei	6	23.08%
Soroca	5	14.29%
Streșeni	12	44.44%
Şoldăneşti	8	34.78%
Ştefan Vodă	12	52.17%

Taraclia	4	26.67%
Telenești	27	87.10%
Ungheni	12	36.36%

Table 2.5 – LG II losers distributed by raion population

	Number of LGs II	Total (less Ed) Budget (GT allocation based on Pop) - 2010 Total Budget (less Ed)	Total (less Ed) Budget (GT allocation based on Pop&Ar) - 2010 Total Budget (less Ed)		tal number iions
		Losers	Losers		
Population under 50000	7	4	2	57.14%	28.57%
Population 50001 – 100000	21	6	6	28.57%	28.57%
Population over 100000	7	4	4	57.14%	57.14%
Total	35	14	12	40.00%	34.29%

Table 2.6 - LG II losers distributed by relative dimension of losses compared with 2010 budget allocation

baabet anotation				
	Ratio [Total	Ratio [Total	Ratio from	Ratio from Total
	(less Ed)	(less Ed)	Total LG II	LG II Number
	Budgets (GT	Budget (GT	Number	
	allocation	allocation		
	based on	based on		
	Pop) - 2010	Pop&Ar) -		
	Total Budget	2010 Total		
	(less Ed)]/	Budget (less		
	2010 Total	Ed)]/ 2010		
	Budget (less	Total Budget		
	Ed)	(less Ed)		
	Losers	Losers		
0% >Relative Loss> -5%	5	0	14.29%	0.00%
-5% > Relative Loss > -10%	1	4	2.86%	11 420/
-5% > Relative LOSS > -10%	1	4	2.80%	11.43%
-10% > Relative Loss > -15%	1	2	2.86%	5.71%
20/01 110141110 20001 20/0	_	-		
20/07 (10:00:00 20:00 7 20/0	_	_		
				5 71%
-15% > Relative Loss > -20%	5	2	14.29%	5.71%

-20% > Relative Loss > -25%	0	1	0.00%	2.86%
Relative Loss > -25%	2	3	5.71%	8.57%
Total	14	12	40.00%	34.29%

In this model at first tier it is used only one formula to allocate the Equalization Transfer and the General Transfer (for financing pre-school education) – the main indicators are: pre-school population, fiscal capacity per capita (used in the form P*FCCna) and area. The results are slightly better than in Model 1.

At second tier of local government (raions), the best results are obtained by the General Transfer (for this tier) Allocation using the formula with 2 indicators: population and area. The specific values of independent parameters and weights are presented below in the table 2.11 which summarised the variables for what are obtained the best results with this simulation model.

b) The dispersion measured by standard deviation, relative standard deviation, ratio between maximum/minimum, maximum/median and median/minimum:

Table 2.7 – dispersion for LG I units

Table 217 alspersion for 20	
	Per Capita Total LG I
	Budget less
	Education
Standard Dev	255.42
Мах	2,706.87
Min	151.99
Median	461.87
Average	507.30
Relative Standard Dev	50.35%
Max/Min	17.81
Max/Median	5.86
Median/Min	3.04

Table 2.8 – dispersion for LG II units - raions

	Per Capita Total Budget - GT allocation based on Population	Per Capita Curent LG II Budget - GT allocation based on Population	Per Capita Total (less Education) LG II Budget - GT allocation based on Population	Per Capita Total LG II Budget - GT allocation based on Pop&Ar	Per Capita Curent LG II Budget - GT allocation based on Pop&Ar	Per Capita Curent (less Education) LG II Budget - GT allocation based on Pop&Ar
Standard Dev	220.96	194.08	154.24	230.43	198.60	156.67
Max	2,471.73	2,370.08	1,166.12	2,471.73	2,370.08	1,166.12
Min	1,130.67	1,183.30	207.89	1,105.67	1,158.30	194.61
Median	1,411.97	1,407.58	390.30	1,382.51	1,417.72	396.49
Average	1,425.35	1,437.80	413.30	1,430.68	1,437.99	416.60
Relative Standard Dev	15.50%	13.50%	37.32%	16.11%	13.81%	37.61%
Max/Min	2.19	2.00	5.61	2.24	2.05	5.99
Max/Median	1.75	1.68	2.99	1.79	1.67	2.94
Median/Min	1.25	1.19	1.88	1.25	1.22	2.04

As we mentioned in the core text of this report this model doesn't obtain significant results in reducing the disparities – low values for Standard Deviation and Relative Standard Deviation. The results obtained by the allocation formula at first tier of LG and the two allocation formula at the second tier are similar, with a tinny advantage for the formula using population and area at tier II of local government.

c) Some specific indicators measuring the fiscal autonomy: ratio of own revenues in total revenues; ratio of autonomous revenues (own revenues + revenues from PIT sharing by origin) in total revenues; ratio of general destination revenues (own revenues + revenues from PIT sharing + equalization transfer revenues) in total revenues. For this simulation model these indicators are:

Table 2.9 – fiscal autonomy indicators

Local	Ratio of	Ratio of	Ratio of	Ratio of	Ratio of	Ratio of
Governme nt Tier	Own Revenu es 2010	Autonomo us Revenues 2010	General Destination Revenues 2010	Own Revenues Model 2	Autonomo us Revenues Model 2	General Destinatio n Revenues Model 2
LG II	4.98%	4.98%	4.98%	7.81%	19.89%	33.02%
LG I	2.76%	2.76%	2.76%	19.62%	29.24%	41.79%

This model offers a significant increase in fiscal autonomy, which would be correlated with implicit incentives generated by the new system of transfers, based on revenues, to improve the own revenues collection, to consolidate the fiscal base of local taxes and to develop local economy. However these results should be correct interpreted because the change in the structure of functions reflected also in model simulations – like in Model 2 - changed the volume of funds and artificially change (increase) the value of indicators from the table 2.9.

d) Costs of the alternative – the volume of the Transitory Compensation Transfer:

Table 2.10 – volume of compensation grant

	Allocation LG I: P*FCCna and Area		-	: Population	Allocation LG II: Population and Area
Volume of Temporary Compensation Transfer LG I	83,122,324.14	Volume of Tempo Compensation Tra LG II		60,320,043.45	66,630,000.11
Total Volume of Temporary Compensation Transfer	251,024,143.28				262,066,567.45

Volume of Transition Grant for three years period is between 251 024 143 MDL and 262 066 567 MDL, which represents 3,42% respectively 3,57% from total annual revenues of LG.

The above results are the best that can be obtained under the hypothesis of this model. The values of parameters and the formula, under which the above results are obtained, are presented in the following table and can be found in the EXCEL file which simulates the Model 2.

Table 2.11 – Main independent variables and parameters

Parameters	Value			
Ratios for the PIT Sharing System by Origin				
Ratio for Chisinau and Balti	50%			
Ratio for Raion Councils	30 %			
Ratio for Cities Raion Residence	20%			
Ratio for the rest of LG units	70%			
Independent Parameters				
Distribution Parameter – Dp	75%			
Threshold Parameter	1.2			
Indicator weights used in G/ET allocation for	r the first tier of LG (primarias)			
Weight of Population under 7 years old	82%			
Weight of Fiscal Capacity per Capita	18%			
Weight of Area	0%			
Indicator weights used in GT ₂ allocation for the second tier of LG (raions) – Formula 2				
Weight of Population	60%			
Weight of Area	20%			

Weight of Roads with hard surface	18%
Weight of Roads without hard surface	2%

Features of Model 3

1)Pre-school, primary and secondary education will be financed through an earmarked grant set according to the pilot programme of the Ministry of Education. The exact level of this earmarked grant is set at the effective expenses of 2010 budget for all three education forms – 4,452,991 thousand MDL – this amount is based on cash execution, including the own revenues of the education system (for example the user charges paid by parents for the pupil meals in pre-school system. Taking account that the full transfer for the local government was in 2010 4,286,442 thousand MDL, it is possible to admit that the actual general transfer will fully cover the future earmarked transfer for education. This means that the Personal Income Tax will be exclusively used for the financing of the general/own functions of the local government under sharing tax system based on formula. On the other hand to preserve the comparability of the financial allocation with the 2010 situation, we did not change the level and distribution of education expenses in the Model 3 allocation.

$EdErT_1 = 2010 GT (3.1)$

Where:

EdErT₁ = pre-school, primary, secondary education earmarked transfer 2010 GT = 2010 general transfer allocated to local government by central budget

2)The allocation for education is reduced totally with variable percentage (not over 10%) and money redirected to general/equalization transfer. Thus:

$$S_{Ed} = Z*EdErT_1 \qquad (3.2)$$

Where:

EdErT = Education Earmarked Grant

S_{Ed} = Potential savings from Education Earmarked Transfer

Z = ratio (%) of the savings

To all these will be also added the CIT used in 2010 in the transfer system for the local government financing (sub-chapters 111.20, 111.21, 111.22). In this case the Distribution Pool by Formula (DPF) will be formed by:

DPF = PIT +
$$CIT_{2010} + S_{Ed}$$
 (3.3)

Where:

DPF = Distribution Pool by Formula

PIT = Total Personal Income Tax

CIT₂₀₁₀ = Company Income Tax used in 2010 (sub-chapters 111.20, 111.21, 111.22)

S_{Ed} = Potential savings from Education Earmarked Transfer

3)The allocation of PIT differs essentially from the previous two alternatives even PIT is used exclusively to finance local government. PIT is allocated ONLY based on a formula (algorithm): it will be set three thresholds:

- a) The PIT per capita national average 448.8 MDL, which will be used for the allocation in the case of Chisinau and Balti;
- b) Ratio X (X = 37%) from PIT per capita national average 166.1 MDL, which will be used for allocation in the case of raion councils;
- c) Ratio (100% X) from PIT per capita national average 282.8 MDL, which will be used for allocation in the case of tier I of LG.

Thus, the formulas will be:

$$T_n = PIT/P_n$$
 (3.4)
 $T_{LG2} = X*T_n$ (3.5)
 $T_{LG1} = (100\% - X)*T_n$ (3.6)

Where:

T_n = National Threshold for PIT allocation

 T_{LG2} = Raion Threshold for PIT allocation

T_{LG1} = Primaria Threshold for PIT allocation

PIT = Total Personal Income Tax collected

 P_n = Total population of Moldova

X = Parameter calculated based on specific functions assigned to raion level

The value of parameter X has been set at 37%, based on an estimation of the actual assignment of functions for both tiers of the local government.

4)The allocation algorithm is the following:

a) For Chisinau, Balti and the first tier of LG, it will be compared the individual base of PIT with the specific threshold [T_n = 448.8 MDL and T_{LG1} = (100%-X)* T_n = 282.8 MDL]. If the individual PIT base is higher (OVER the specific threshold), the LG unit will receive a transfer equal with the population of unit multiply with the specific threshold (T_n for Chisinau and Balti and T_{LG1} for the rest of LG I units) plus a bonus (defined by **Y** parameter) from the positive difference – the rest being used for the allocation in the case of LG units with individual base of PIT UNDER the specific threshold. If the individual base of PIT is lower (UNDER the specific threshold), the LG unit will receive only the specific threshold (T_n for Chisinau and Balti and T_{LG1} for the rest of LG I units) multiply with the population.

i. Chisinau and Balti:

IF
$$PIT_i > T_n \rightarrow GT_i = T_n * P_i + Y * (PIT_i - T_n * P_i)$$
 (3.7)
IF $PIT_i < T_n \rightarrow GT_i = T_n * P_i$ (3.8)

ii. Rest of LG I units - primarias

IF PIT_i>
$$T_{LG1} \rightarrow GT_i = T_{LG1} * P_i + Y * (PIT_i - T_{LG1} * P_i)$$
 (3.9) or IF PIT_i> $(100\% - X)T_n \rightarrow GT_i = (100\% - X)T_n * P_i + Y * [PIT_i - (100\% - X)T_n * P_i]$ (3.10) IF PIT_i< $T_{LG1} \rightarrow GT_i = T_{LG1} * P_i$ (3.11) or IF PIT_i< $(100\% - X)T_n \rightarrow GT_i = (100\% - X)T_n * P_i$ (3.12)

Where

PTI_i = total PIT collected in the boundaries of LG I unit

GT_i = individual allocation of the general transfer for one LG I unit

T_n = National Threshold for PIT allocation

T_{LG1} = Primaria Threshold for PIT allocation

X = Parameter calculated based on specific functions assigned to raion level

b) Raion councils will receive a transfer equal with the specific threshold ($T_{LG2} = X*T_n = 166.1 \text{ MDL}$) multiply with the raion population.

Formula will be:

$$GT_i = T_{LG2} * P_j$$
 (3.13)
or
 $GT_i = X * T_n * P_j$ (3.14)

Where:

GT_i = individual allocation of the general transfer for one LG II unit

 T_n = National Threshold for PIT allocation

 T_{LG2} = Raion Threshold for PIT allocation

X = Parameter calculated based on specific functions assigned to raion level

Finally the results of the allocation are:

$$\Sigma_i GT_i + \Sigma_j GT_j > PIT$$
 (3.15)
 $\Sigma_i GT_i + \Sigma_i GT_i <= DPF$ (3.16)

- 5)Special transfers for investment (special means for investment code 332) and privatization revenues used to cover different type of expenses in 2010 (current and capital) remain are allocated in the same way and volume like in 2010 effective allocation.
- 6)A compensation grant for a limited period of three years, to compensate the losers according to the following scheme: 100% from the initial negative difference (allocation according to Model 2 effective allocation in 2010) in the first year, 50% from the initial negative difference in the second year and 25% from the initial negative difference in the third year.

Result Assessment for Model 3:

For measuring the results we used the following indicators:

a) Number of "losers" compared with the 2010 effective allocation. Distribution of the losers by population of LG units (for both tiers of LG), by revenues per capita of LG units (only for LG I), by raion (only for LG I).

Table 3.1 - distribution of LG I losers by primarias population

Total	Total Local	Current	Total Local	Ratio from
number	Budget -	Local	Budget	coresponding
of LGs I	2010 Per	Budget -	(less Ed) -	LG I units
	Capita	2010 Per	2010 Per	
	Total	Capita	Capita	
	Budget	Current	Total	
		Budget	Budget	
			(less Ed)	

		Losers			
	896	172	172	172	19.20%
Population under 1500	293	114	114	114	38.91%
Population 1501 - 5000	519	54	54	54	10.40%
Population 5001 - 10000	56	4	4	4	7.14%
Population 10001 - 50000	28	0	0	0	0.00%
Population over 50000	0	0	0	0	

Table 3.2 – distribution of LG I by relative dimension of losses compared to 2010 budget allocation

	Ratio [Total Local Budget (less Ed) - 2010 Total Budget (less Ed)]/2010 Total Budget (less Ed)	Ratio from LG I Units
	Losers	
0% > Relative Loss > -5%	31	3.46%
-5% > Relative Loss > -10%	31	3.46%
-10% > Relative Loss > -15%	28	3.13%
-15% > Relative Loss > -20%	23	2.57%
-20% > Relative Loss > -25%	17	1.90%
Relative Loss > -25%	42	4.69%
Total	172	19.20%

Table 3.3 – distribution of LG I losers by raion

Raion	Number of LG I Losers	Ratio of LGs I Losers
Chișinău	0	0.00%
Bălți	1	50.00%
Anenii Noi	6	23.08%
Basarabeasca	3	42.86%
Briceni	3	10.71%
Cahul	4	10.81%
Cantemir	2	7.41%
Călărași	6	21.43%
Căușeni	2	7.41%

UTA Găgăuzia	1	3.85%
Cimişlia	9	39.13%
Criuleni	2	8.00%
Donduseni	7	31.82%
Drochia	3	10.71%
Dubăsari	6	54.55%
Edineţ	4	12.50%
Fălești	2	6.06%
Florești	2	5.00%
Glodeni	4	21.05%
Hîncești	13	33.33%
Ialoveni	2	8.00%
Leova	8	32.00%
Nisporeni	3	13.04%
Ocnița	4	19.05%
Orhei	5	13.16%
Rezina	6	24.00%
Rișcani	3	10.71%
Sîngerei	3	11.54%
Soroca	5	14.29%
Streșeni	5	18.52%
Şoldăneşti	11	47.83%
Ștefan Vodă	4	17.39%
Taraclia	2	13.33%
Telenești	20	64.52%
Ungheni	9	27.27%

Table 3.4 – Losers among Cities Raion Residence

	Total number of LGs I	DIFFERENCES Per Capita Total Local Budget - 2010 Per Capita Total Budget	DIFFERENCES Per Capita Current Local Budget - 2010 Per Capita Current Budget	DIFFERENCES Per Capita Total Local Budget (less Education) - 2010 Per Capita Total Budget (less Education)
			Losers	
Cities Raion Residence	32	0	0	0

Table 3.5 – distribution of LG II losers by raion population

	Number of LGs II	Losers	Ratio
Population under 50000	7	7	100.00%
Population 50001 - 100000	21	21	100.00%
Population over 100000	7	4	57.14%
Total	35	32	91.43%

Table 3.6 – distribution of LG II by relative dimension of losses compared with 2010 budget allocation

		Ratio from Total LG II Number
	Losers	
0% > Relative Loss> -5%	0	0.00%
-5% > Relative Loss > -10%	0	0.00%
-10% > Relative Loss > -15%	0	0.00%
-15% > Relative Loss > -20%	2	5.71%
: -20% > Relative Loss > -25%	0	0.00%
Relative Loss > -25%	30	85.71%
Total	32	91.43%

In this model at first and second tiers it is used only one formula to allocate PIT and other resources from DPF (CIT used in 2010 plus potential S_{Ed}). At first tier the results are best from all three models (but comparable), but for the tier II the results are worst, with a huge difference compared with the other two models.

b) The dispersion measured by standard deviation, relative standard deviation, ratio between maximum/minimum, maximum/median and median/minimum:

Table 3.7 – dispersion for LG I units (primarias)

		Current Local	Per Capita Total (less Ed) Local Budget
Standard Dev	474.21	410.27	212.14

Max	6,118.73	5,525.71	2,617.58
Min	296.44	291.13	289.94
Median	1,710.56	1,613.37	514.69
Average	1,769.05	1,654.06	561.26
Relative Standard Dev	26.81%	24.80%	37.80%
Max/Min	20.64	18.98	9.03
Max/Median	3.58	3.42	5.09
Median/Min	5.77	5.54	1.78

Table 3.8 – dispersion for LG II units (raions)

	Per Capita Total Budget Raion Councils	Per Capita Current Budget Raion Councils	Per Capita Total Budget less Ed Raion Councils
Standard Dev	431.21	402.02	207.72
Мах	2,131.57	2,044.80	1,082.88
Min	187.62	222.97	24.50
Median	350.30	358.36	188.46
Average	468.05	478.33	234.92
Relative Standard Dev	92.13%	84.05%	88.42%
Max/Min	11.36	9.17	44.20
Max/Median	6.08	5.71	5.75
Median/Min	1.87	1.61	7.69

The results regarding the level of dispersion repeat the general evaluation from the previous set of criteria: the best results for tier I (but comparable with the others two models) and the worst for tier II of local government (but at huge distance from the results of the others two models)

c) Some specific indicators measuring the fiscal autonomy: ratio of own revenues in total revenues; ratio of autonomous revenues (own revenues + revenues from PIT sharing) in total revenues; ratio of general destination revenues (own revenues + revenues from PIT sharing + equalization transfer revenues) in total revenues. These indicators are:

Table 3.9 – fiscal autonomy indicators

Local	Ratio of	Ratio of	Ratio of	Ratio of	Ratio of	Ratio of
Government Tier	Own Revenues 2010	Autonomous Revenues 2010	General Destination Revenues 2010	Own Revenues Model 3	Autonomous Revenues Model 3	General Destination Revenues Model 3
LG II	4.98%	4.98%	4.98%	13.92%	13.92%	47.81%
LG I	2.76%	2.76%	2.76%	9.06%	9.06%	26.53%

These results are strongly biased by the double role of Chisinau and Balti and by the important gain obtained by these two cities after the transfer allocation. More valuable results would be obtained by a deeper analysis by categories of LG I and LG II units.

d) Costs of the alternative - the value of the Temporary Compensation Transfer

Table 3.10 – volume of compensation grant

	Volume of Temporary Compensation Transfer LG I 38,079,470.39	Volume of Temporary Compensation Transfer LG II 403,222,530.61
Total Volume of Temporary Compensation Transfer	772,278,501.74	

The volume of this grant is important -10,5% from the annual revenues of local government in 2010 - three times more than in the other two models.

The above results are the best that can be obtained under the hypothesis of this model. The values of parameters and the formula, under which the above results are obtained, are presented in the following table and can be found in the EXCEL file which simulates the Model 3.

Table 3.11 – Main independent variables and parameters

Parameters	Value
Independent Parameters	
Parameter X	37%
Parameter Y	35.5%
Parameter Z	0%

Annex 2. PROPOSED LEGISLATIVE PLAN TO CHANGE LOCAL GOVERNMENT FINANCE SYSTEM

No	POLICY AREA	LEGISLATIVE ACTS TO BE AMENDED	DESCRIPTION	PERIOD of LEGAL
		First nhase	2012-2013	DRAFTING**
1.	1. Own revenue system. General aspects	Law on local public finance # 397-XV of October, 2003 (as Art. 1, 4, 5) and or new Law on local public finance	Provide new definition, unique and coherent financial management, as increasing legal possibilities to increase tax revenues and by increasing local government motivation to collect own revenues:	
			 a) New coherent approach on local taxes and fees – these means they are gathered in an unique budgetary chapter and have the same treatment in the transfer design; 	
			b) Set a clear and predictable PIT sharing system according with the policy paper	1-2 months
			c) Designing a conditional transfer (earmarked grant) to finance the delegated responsibilities of local government (essentially education)	
			d) Designing a non-earmarked transfer system according with the proposals from the policy paper	
			e) Addressing the essential administrative and management issues necessary for an effective implementation of the points a)-d)	

2.	a) to increase Property tax revenues.	Tax Code of Republic of Moldova # 1163-XIII of April 24, 1997 (as art. 280, 283, 284 of Title VI (Tax on immovable property); Government Decision on approval of the evaluation of real property for tax purposes, # 1303 of November 24, 2004.	There is very long list of property tax exemptions (almost 30) in Republic of Moldova, only three of them are up to local government decision. It is proposed to limit tax exemptions targeted to groups that are subject of social protection, address the needs of those groups in state social benefit system. For instance, the following provision of the law is under discussion: <i>Article 283.</i> (1) h; l; j; k; l. Also provisions in <i>Article 283</i> (4) b (forests); d and e could be subject for discussions, either they could be eliminated from the list or local governments could decide on tax reliefs for those groups instead of including them in exemption list. It is necessary additional activities regarding real estate (immovable property) re-evaluation and Cadaster data base development – that would be the basis of revenues from real estate. That could be done also in 2 nd phase.	1-2 months
3.	b) To increase motivation of local government to collect taxes.	Law on administrative decentralization # 435 of December, 2006 (as art. 11, etc.).	It is proposed to include the collection level (rate) as one of local government administrative capacity indicators.	1-2 months
4.	c) The central government has to motivate local governments to increase tax collection already from the existing local fees.	Tax Code of Republic of Moldova # 1163-XIII of April 24, 1997 (as art. 292 of Title VII (Local fees); Law on administrative decentralization # 435 of December, 2006 (as art. 5, 11)	It is proposed to create central database of introduced local fees in all ATU of Moldova. It must be made available publicly (for instance, via web page of the Ministry of Finance). If the number of introduced local fees is less than 5, and generated revenues from the local fees tend to decrease, that can serve as a criteria indicating the necessity for local government consolidation (amalgamation) with others.	1-2 months

5.	d) To enlarge the use of user charges	Law on communal public services # 1402-XV of October 24, 2002 (as Art. 13-15); Law on state budget on 2012, nr. 282 of December 27, 2011, (as art. 13 and Annex 8) and other relevant acts.	To increase the autonomy of local government in the management of the own patrimony – public and private property of the local government – especially regarding the power to set the level of rents and concessions.	1-3 months
6.	2. Shared tax system between central and local government: a) to distribute PIT according the origin (place of residence); b) to register PIT taxpayers according their residence place; c) not to use CIT and VAT as shared taxes;	in Law on local public finance and, possible in Law on the budgetary system and budgetary process # 847-of May 24, 1996, including Budget Classification	It is recommended that legal changes are enforced later, because it is necessary serious changes in order to change some approach in taxation.	1-6 months
7.	3. Setting a coherent and stable system of PIT sharing by types of LGs: a) to fix centrally the PIT share of each level of local governments; b) to introduce equalization system that motivates local governments rise the PIT revenues.	See previous point	See previous point	See previous point

8.	4. Defining the delegated responsibilities (education) financed through earmarked grants together with volume and rules/procedures: a) financing education through an earmarked grant	Law on administrative decentralization # 435 of December, 2006 (as Art. 4-6); relevant provisions of Law on local public administration # 436 of December, 2006 and Law on local public finance # 397-XV of October, 2003; and Law on education # 547 of July 21, 1995 (as art. 40-48).	It is recommended that legal changes are enforced later. One model could be that the pre-school education remains ad first tier of LG as own function, being financed through a general transfer, and primary and secondary school are assigned to the second tier of LG as a delegate function financed through an earmarked grant	1-6 months
9.	5. Setting the volume and allocation rules/procedures for General/Equalization Transfer at the to both tiers of LG.	Law on local public finance # 397-XV of October, 2003 (as art. 1, 4-6, 9, 10, 19, 28, 29, etc.).	It is recommended that legal changes are enforced later: a) introducing standard rules for calculating local expenditures by using formula set by law: E standard -Ri=Gi. The allocation system for Equalisation Transfer - ET (for LG I) and General Transfer - GT (for LGII) will be based in principle on fiscal capacity per capita (FCC) - for ET - and on a set of base indicators, simple and transparent - for GT, which can well approximate the needs in public services at local level: population (general and age groups and area; b) introducing a general grant system, without controlling the expenditure level locally. General grants plus own revenues in a municipality define the level of expenditures: Gi+Ri=Ei; c) excluding the own revenues from the grant allocation formula: Gi+R'i=Ei; d) fixed (by law) revenue sharing ratio and allocation model (origin based); e) revenue equalization connected to shared PIT: raions above the national average reallocate shared revenues to raions below the average; f) make formula based allocation within raions	1-6 months

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			compulsory, along nationally set rules; g) allocate national transfers directly to LG I units (primarias) i) strict budget constrain (no supplementary funds)	
10.	6. Coherent management system of transfer allocation from MoF to all LG units or at least to raions.	See previous point	It is recommended that legal changes are enforced later *: a) not to use CIT and VAT as shared taxes; b) to refuse centrally defined normative on staff loads and salaries; c) to refuse first level local government dependency from raions local governments	See previous point
11.	7. Corroboration with the Tax Code, Education and other legislation.	See previous points	Will be done during execution of previous points of the table	1-6 months
		Second phase 201	4 - 2015	
12.	1. More decentralized and autonomous framework for setting and management of local taxes and fees - including the improvements of procedures for setting the property tax.	Law on local public finance and Tax Code	TBD ***	TBD
13.	2. PIT collection at residence place - reviewing the PIT sharing ratios set in the Phase I.	Law on local public finance and Tax Code	TBD	TBD
14.	3. Improving the capital investment framework at local level: more transparent procedures for capital transfer allocation by selecting capital projects based on transparent eligibility criteria; multiannual capital investment	Law on local public finance	TBD	TBD

	management; diversifying the financing sources for investments					
15.	4. Improving the framework for local borrowing: setting effective debt limits, according with specific macro-stability parameters for Moldova; diversifying the asset types that can be used as collateral (including the future revenues); central management of the local government borrowing possibility to set a loan commission; the coherent treatment of the municipal company debt; clear procedures to address the over-debtness and even bankruptcy cases at local government level	Law on local public finance				
16.	5. Defining new local taxes, as it is proposed by this paper: a new local tax on vehicles based on engine capacity.	Tax Code and Law on local public finance	TBD	TBD		
17.	6. Incentives integrated in the allocation formula to stimulate the consolidation of LGs	Law on local public finance, Law on administrative decentralization, Law on local public administration, etc.	TBD	TBD		
18.	7. Corroboration with regional development legislation, with the legal framework of cadaster and vehicle registration.	development, on cadaster of immovable goods, and on vehicle registration	TBD	TBD		
Third phase 2016 – after						

19.	1. Gradual integration of earmarked grants in the general transfers, according with the requirements of the European Chart of Local Autonomy	decentralization, Law on local	TBD	TBD
20.	2. Extending the decentralization process: new responsibilities assigned to Local Government	Law on administrative decentralization, Law on local public administration, etc.	TBD	TBD
21.	3. Review the allocation formula based on more equity criteria - the actual formula is strongly influenced by efficiency criteria	Law on local public finance, etc.	TBD	TBD
22.	4. More permissive borrowing framework for the local government units	Law on local public finance, etc.	TBD	TBD

^{*}It is recommended to implement (execute) legal changes after 1 January 2013 (new fiscal year) or later. Because of need for important institutional adaptation and preparatory work and other necessary changes the legislative proposals will be approved, but with Interim period of entering into force later (as middle of 2013 or even 2014).

^{**} Not including legislative procedure and approval. Estimated legislative period and approval usually take 6-12 months and more.

^{***}To be determined. Phases 2 and 3 depend on implementation progress of Phase 1 and they included strategic directions and no concrete actions and necessary period of time for drafting. It is more reasonable to plan the implementation of the next phases after implementation of Phase 1