THE ELUSIVE SEARCH FOR AN INTRA-RAYON TRANSFER FORMULA

Ukraine's new budget code introduced badly needed and far-reaching intergovernmental fiscal reforms that effectively dismantled the previous hierarchical "matroshka" system of subnational budgets. The budgets of oblasts, cities of oblast significance and rayons were vertically unlinked and new linkages between these budgets and the State budget were created through a system of formula based transfers.

The benefits of these reforms, however, stopped at the boundaries of the rayon. Although the budget code clearly spelled out expenditure and revenue assignments for cities of rayon significance and villages and settlements, it stopped short of defining a procedure for determining transfers between the budgets of these local self-governments and the rayon district budget. However, the code recognized the need for developing an intra-rayon transfer formula in its closing provisions. Article six of these provisions enjoins the Cabinet of Ministers to prepare a draft law "normalizing" intra-rayon fiscal relationships within two years after the enactment of the code. This draft law should be ready for application in 2004 which implies that it should be approved by the Verkhovna Rada no later than the Fall of 2003.

In what appeared to be an attempt to accelerate the process of intra-rayon fiscal reform, article 42 of the 2003 State budget required oblast administrations to develop and implement a formula based transfer methodology for 2003. With the assistance of the Ministry of Finance a generic formula was produced and provided to all of the oblasts. Most oblasts seem to have tried to apply this formula in some manner in 2003.

This note offers an initial assessment of the 2003 formula in terms of its acceptance and application by rayon administrations and discusses some of the problems that have been encountered thus far in trying to apply it successfully. The first part of this note describes the fiscal objectives against which any intra-rayon formula should be evaluated. It proceeds from there to describe the main features of the 2003 formula and some of the major problems its implementation has so far encountered. The final part of this note sets forth an alternative formula approach that attempts to address these problems.

I.   **Goals that an Intra-Rayon Formula Should Strive to Achieve**

There are several generally recognized criteria according to which the performance of a transfer formula at the intra-rayon level can be evaluated. These include the following:

(1) A formula should provide levels of funding that allow rayon significant cities, villages and settlements to discharge their expenditure responsibilities as they are defined by the budget code. Every local self-government should be empowered to provide local access to primary health care (in the form of first-aid/obstetric stations or 'feldscher' facilities), opportunities for pre-school education and for local entertainment and socialization, and as well facilitate interaction with locally elected

political leaders. Expenditures on state administration, health care, pre-school education and culture comprise the vast bulk of spending for rayon level local self-governments.

(2) In its design, a formula should encourage efficiency and economy in local government spending. This efficiency criterion implies that levels of formula funding should be entirely divorced from the influence of local decisions to employ public sector inputs. It would be a serious mistake, for example, to make the size of local transfers depend on locally determined manpower choices. To the greatest extent possible, the size of local transfers should be related to the demand for, or use of, public services. Schools with but a single student should not be funded through a formula. However, another implication of this criterion is that the formula should not exert undue pressure on local authorities to close local budget institutions. In the absence of investment funds that could spatially reallocate the supply of public services within the rayon, closure of local institutions may imply a smaller volume of public services within the rayon for a given amount of total public expenditure.

(3) In the interests of equitable resource allocation, a formula should eliminate arbitrary, or discriminatory decision making that results in unwarranted expenditure differentials among local self-governments. At the same time, however, the formula should support per capita expenditure differentials that are related to objectively measured differences in expenditure needs.

(4) In its estimation of expenditure need and revenue capacity, a formula should aim for simplicity of calculation. A complex formula undermines the transparency of the formula and causes an erosion of public trust and confidence in the results yielded by the formula. The formula must not only be fair in its application but also be perceived to be fair by those who are affected by its use.

II.   The 2003 Formula — A Preliminary Progress Report

(a)   Basic Features of the 2003 Formula Approach

In most respects the 2003 formula is designed along conventional lines. Transfers, both positive and negative, are determined as the difference between estimated expenditure needs and estimated revenue capacity. It bears a generic resemblance to the formula currently being used by the Ministry of Finance to calculate transfers to or from cities of oblast significance and rayons.

The first step in applying the 2003 formula is to establish the size of the aggregate budget for all cities, villages and settlements within the rayon. To do this, per capita expenditure norms are laid down for spending on state administration, health and culture. Total expenditure in these three functional areas is obtained as the product of the per capita norm and the population of the rayon. In the case of education, total spending is obtained as the product of the per student expenditure norm and the number of weighted students where the weights reflect differences in class size and in the differential cost of educating rural and urban students.

A peculiar aspect of this procedure for calculating an aggregate budget is that it is done without any assessment of the needs of the rayon district budget. Since the district budget accounts for about 80 per cent of total rayon expenditure in most rayons, this procedure is

equivalent to having the tail wag the fiscal dog as it gives the smallest aggregate expenditure unit the first slice of the rayon's budgetary resources. Moreover, by applying uniform expenditure norms this procedure assumes that one budgetary size for the group of cities, villages and settlements fits all rayons.

The available data indicate that one size does not fit all as there is significant variation among rayons in the source of consumption of public services, whether that be from the rayon district budget or from a city, village or settlement budget. For example, in one rayon village residents may live close to the rayon district hospital and have their medical needs serviced there. In another rayon remoteness from the district hospital might mean exclusive reliance on locally provided medical services.

The second step in applying the 2003 formula is to allocate the aggregate amounts of functional expenditure among individual cities, villages and settlements. For each functional area rayons are given a choice, through the use of a "K" factor, of selecting either the percentage of population in a territory or the percentage of norm based employment in the sector, or some weighted average of the two, to distribute the aggregate spending amount. This choice offers considerable flexibility in applying the formula but raises some important questions about the most appropriate measure of expenditure need. If the percentage of population is chosen as the distributive mechanism, the implicit assumption behind the formula is that expenditure needs are proportional to population size. Alternatively, if the percentage of norm based public sector employment were selected as the allocative instrument, differences in the amount of the local public sector network or infrastructure become the governing indicator of expenditure need. Thus imbedded in the 2003 formula are two very different formula approaches. Given a wide range of choice in applying the formula, how have rayons reacted so far?

(b)   Experience with the 2003 Formula: Some Problematic Areas

Several field trips to the Luhansk oblast and discussions with rayon finance officials there have revealed that at least three major difficulties have been encountered with the implementation of the 2003 formula.

(i) the 2003 formula ignores entirely the preparation of the rayon district budget

Rayon budgetary officials have complained that when they attempted to apply the two-step procedure in the 2003 formula they discovered that insufficient resources remained to adequately finance the expenditure needs of the rayon district budget. Their reaction to this situation was to manually claw back resources from city, village and settlement budgets in order to balance the rayon district budget. This response, however, destroys the formula's very foundations.

If the formula is to work in a non-discretionary manner it seems a more coordinated, and integrated, budgetary process is needed in which the consequences of all rayon budgetary decisions are carefully considered. One approach would be to begin the

process of budget formulation with the consolidated rayon budget. Given the expected revenue resources available to the rayon, rayon radas would make decisions on the size of the expenditure envelope in each functional area. These radas would subsequently partition each envelope into a rayon district share and a city, village and settlement share. The sum of the rayon district shares would establish the overall size of the rayon district budget. The sum of the city, village and settlement shares would determine the aggregate budget for these local governments. A formula would then be used to allocate this aggregate budget among the group of local governments.

If this procedure were followed it would mean abandoning uniform, centrally determined, per capita expenditure norms in each functional sphere. The first step in the 2003 formula approach would be replaced by a consistent budgetary framework that gave the rayons greater leeway in deciding which budget sufficiency norms were most appropriate for their situation.

(ii) the 2003 formula may miscalculate expenditure needs of cities, villages and settlements

If the version of the formula that accounts for only differences in the size of population is used, resources are redistributed from small villages to large ones. This result occurs because the formula, or at least this version of it, does not take into account the large differences in population size among villages and the important economies of scale these differences give rise to. These economies of scale are particularly prominent in state administration but also exist to a smaller degree in other spending categories. Many rayons contain villages as small as 200 residents along with other larger ones of up to 4,000 or more residents. Consequently, the per capita costs of state administration rise sharply as population size diminishes.

Some rayons in the Luhansk oblast, once they discovered this formula bias against smaller villages, again used manual methods to redistribute resources towards smaller villages. Other rayons manipulated the "K" coefficient in the formula to reduce the importance of population as a factor in determining expenditure need and thus the extent of the bias against smaller villages.

(iii) the 2003 formula overlooks large disparities in the size of the "set"

The version of the 2003 formula relying on population size to measure expenditure need would work reasonably well if, for a given population size, the local network of budget institutions the so-called "set", were more or less uniform. But, in the Luhansk oblast at least, the local network is noticeably non-uniform. Villages with approximately the same number of inhabitants may differ in the number of budgetary institutions they maintain by a factor of two or even three. Strict application of the 2003 formula where population size drives the calculation of expenditure need would exert strong pressures for closure of some budget institutionsin areas where their number is above average.

<u>To understand whether such pressures are desirable or not it is necessary to gain a better appreciation of why these differences in set exist in the first place.</u> In the eyes of some, these differences merely reflect the inefficiencies of central planning and any pressure by a formula to harmonize these differences and achieve greater set equalization is a positive feature. But are the observed disparities in set as irrational as it is alleged and are rayon officials simply misguided in their zeal to have a formula that would preserve the existing set?

An argument can be made that any formula should be sensitive to differences in set and that rayon officials may be correct in using the formula variant that is set protecting.

This argument flows in two directions. First, important variation may exist in the spatial pattern of budgetary institutions. Consider, for example, two local self-governments each with three separate villages. Under a population based formula each government would receive the same total funding. In one area, however, the villages are scattered requiring separate cultural clubs, first-aid stations and schools for effective service delivery. In the other area the villages are adjacent to each other allowing them to share a single school, first-aid station and club. The first area obviously has a need for a larger set and therefore any formula should record it with higher expenditure needs than the other area. In addition, local self-governments with the same population may service a different number of villages. Those who service more villages also have an obviously greater expenditure need that a formula should respect. In short, there may be situations in which the set is more closely correlated with need than with population.

Secondly, while a formula may produce pressures for set harmonization, it cannot by itself achieve that result. That is because harmonization, if it is to occur, requires investment resources to create new set in what may be labeled as deficient areas. Without these investment resources there is likely to be only service closure in areas that may be described as having surplus set.

 Given the paltry level of investment spending in rayon budgets and the inability of rayons to borrow funds, strict application of a formula that ignores set considerations may result in the provision of a lower volume of public services for the same amount of total expenditure. Policies are naturally judged by the effects they have and, in the case of a formula, ultimate interest lies in knowing how it will affect the quantity, as well as the quality, of basic public services.

(c)   The Example of Koziatinsky

Koziatinsky rayon in Vinnytska oblast provides another illustration of how the 2003 formula is being used to maintain the current set of local government institutions. Koziatinsky is a rural rayon that relies on transfers from the State budget for three-quarters of its total revenue. It is comprised of 32 village radas and 2 settlement radas that together account for about 21 per cent of its total planned expenditure in 2003. Only about one-third of these local self-governments operate pre-school facilities. All of the

villages, and settlements, however, are endowed with some type of primary health care facility, either a first-aid station(FAS) or a "feldscher"(FOS), and a cultural establishment in the form of either a club or library. Three of them also fund a district hospital from their budget.

The distribution of budget-funded health care and cultural establishments among villages and settlements is highly uneven and is poorly correlated with the population size of a village or settlement. This distribution, however, is closely correlated with the number of population points or cluster that a village or settlement rada services. For example, a village with four population clusters is likely to have twice as budget facilities as another village with only two population clusters.

Rayon finance officials chose a variant of the 2003 formula that would allow villages and settlements to continue funding the existing set of health care and cultural facilities. The variant they chose in estimating expenditure needs for health and culture gave a 90 per cent weight to uniform staffing norms and only a 10 per cent weight to population. Calculating expenditure needs in this fashion is almost equivalent to the direct, and uniform, funding of each separate type of budget institution. This is because staffing norms track the existing set perfectly. Staffing norms were also used to determine expenditure needs for state administration. In the case of pre-school education expenditure needs relied on a per student expenditure norm and the number of students in attendance.

In short, the experience of this rayon in coming to grips with the 2003 formula is an example of how to employ the formula in a way that preserves the pattern of funding for the current set of budget institutions operating in the rayon.

III.   An Alternative Formula Approach

The 2003 intra-rayon formula is basically an extension of the formula approach used by the Ministry of Finance to calculate transfers to and from cities of oblast significance and rayons but with one important difference. The 2003 formula can be adapted to take set considerations into account. Initial monitoring of the use of the intra-rayon formula suggests it has been either rejected, as in some rayons in Luhansk, or applied in a way that is set friendly as in Koziatinsky rayon. Two questions arise from these initial observations. Should the intra-rayon formula be allowed to function in a set friendly manner? Secondly, if the answer to the first question is yes, is there a simpler way of obtaining this outcome?

One of the goals of the Ministry's formula was to bypass set considerations in assessing expenditure needs and instead base estimates of need more directly on the demand for public services using population size as the primary determinant of need. At the city and rayon level this approach seems to have been met with only minor complaints and two factors may explain why this is so. First, differences in the size of the set are most likely smaller among rayons and cities than they are within any rayon. Within a rayon, differences in the size of the set can be a multiple of two or three for a given population size. Differences of this magnitude among rayons of the same size have not been

observed. Secondly, grants are provided from a State transition fund to remove prominent disproportion in the size of the set among cities and rayons. There is no counterpart to this fund at the rayon level. These two factors also help to explain why the Ministry's formula may not be capable of successful replication within the rayon.

Moreover, as was pointed out earlier, there may be a strong economic rationale behind the variation in set that is observed within rayons. Most of this variation appears to be rooted in the different number of population clusters a village or settlement services. Preserving the set then becomes the most obvious way of providing easy and continued access to local public services.

An alternative approach to designing an intra-rayon formula would make the formula simpler to apply and anchor it more firmly in the rayon budgetary process. To disentangle rayon budgets it would be desirable to balance the rayon district budget first in order to determine what resources are available in the aggregate for cities, towns and villages within the rayon. This step implies scrapping the use of uniform budget sufficiency norms to establish this aggregate. The second step would be to use historical expenditure shares to distribute this aggregate into functional expenditure amounts. A third step would be to calculate expenditure needs of each city, village and settlement according to its share of the existing set in the functional areas of health and culture. In the area of education, a city's expenditure need, for example, would be assessed as the total amount to be spent on pre-school education in the rayon multiplied by the percentage of the rayon's pre-school attendance attributable to the city. In the case of state administration it may be necessary to use the percentage of norm based employment levels. Transfer levels would fall out of these calculations as the difference between total expenditure need and estimated revenue capacity. Transfers would enable, but not compel, uniform funding for all budgetary institutions of a given type within the rayon. Transfers of this type may also be efficient in the sense of bringing pressure to bear on any institution operating with excessively high manpower levels.

A possible objection to this suggested alternative is that it would have the effect of fossilizing the existing sources of supply of public services. There is some truth to this allegation. However, an important public finance task is to match instruments with appropriate goals and to not ask any formula to do things it is not well suited to do. The sole purpose of intra-rayon transfers is to enable local self-governments with similar expenditure need to provide a similar bundle of public services in an objective and transparent manner. If greater harmonization in the set of public services is desired that task should be handed over to a separate investment program intended to achieve this goal. If some consolidation of these services is desired, local self-governments should be provided with the proper incentives to consolidate. For example, these governments might be allowed to keep any cost savings they could achieve through consolidation for a certain period of time.

Finally, it is important to recognize that any intra-rayon formula in the end has to yield results that are acceptable to rayon administrations. If it does not, the rayon, through other transfers from the district budget, always has the capacity to trump the results obtained from a formula based transfer system.

The alternative formula approach put forward here would meet with the approval of rayon administrations. In contrast to the 2003 formula, this alternative of funding eligible institutions is far simpler in its design and application and is consistent with the other criteria set out as benchmarks for evaluating the merits of any formula approach.

IV.   Conclusions

- A conventional formula that measures expenditure needs on the basis of differences in population will not work well at the rayon level in Ukraine.

- A workable formula will have to respect the differences in the so-called set among a rayon's local self-governments. There is an economic logic behind the observed differences in set.

- At least in some rayons, the 2003 formula is being applied in a way that takes into account differences in the set of budget institutions.

- A simpler approach than the 2003 formula can be designed that will also be sensitive to differences in the size of the set among cities, villages and settlements within a rayon.