Intergovernmental Fiscal Relations in Leningrad Region

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The purpose of this analysis is to describe the financial structure of the Leningrad Oblast government and its rayons, to describe the financial relations between the oblast and local governments, to identify the fiscal policy issues with which the government must deal in the next few years, and to suggest options for policy reform.

Leningrad Regional Economy

1. Leningrad Oblast (L.O.), with a population of 1.7 million, is the 28th largest among Russia's 89 regions. It is highly urbanized (about two-thirds of the population lives in urban areas) and has a per capita gross regional product about 18 percent below the national average. Economic growth has been at a rate below the national average. This suggests a relatively low taxable capacity. Approximately 60 percent of all medium and large sized enterprises have been privatized.

2. One-third of regional product is generated in the industrial sector, a larger share than in the Russian economy as a whole. The heaviest concentration of income generated in Leningrad is in industries related to energy production and raw materials processing. Employment growth in the Leningrad economy has not kept pace with that in the Russian economy. The main reason for this is that the industry mix in the region is concentrated in slower growing (or more rapidly declining) sectors. If one projects this trend into the future, the scenario is for revenues that will grow more slowly than in the rest of the nation.

3. There are significant disparities in taxable capacity and expenditure needs among the 29 municipal governments within the region. The average wage in 1996 varied from Rb 1,263 thousand to Rb 427 thousand. None of the 29 municipal areas had an average wage below the all-Russia subsistence level in 1996. The largest has a population that is 18 times that of the smallest, and the urbanization rate varies from 87 percent to 27 percent. Infant mortality in the worst case is eight times that of the best. The incidence of families living in substandard housing at the highest is 4.5 times that of the lowest. All of these indicators suggest more pressure on the expenditure budgets of some places than others.

Budgetary Position in The Region:
The Consolidated Government Sector

4. The oblast and municipal governments technically have budget autonomy, i.e., they may approve their own budgets. In fact, the fiscal autonomy of regional and municipal governments is circumscribed to a considerable degree. Each is dependent on higher-level governments for determination of their revenues. And while regional and local governments may form their own expenditure budgets, they are subject to stringent mandates from higher-level governments.

5. Leningrad region governments finance their budgets primarily from shared federal taxes. Three fourths of revenues are derived from the four major taxes: individual income, corporate income, value added and property. Per capita revenues in Leningrad Oblast in 1997 were 30 percent below the national average, but even so, Leningrad exerted a tax effort about 3 percent above the Russian average.

6. The present system of intergovernmental transfers to finance regional governments has two major components: the federal fund for support of the regions (FFSR) and mutual settlements. Both are distributed on a negotiated basis. The share of Leningrad Region and the per capita amount received, in both FFSR and mutual settlements, has varied erratically. In particular, the oblast has not fared well in its claim on the FFSR grant pool, and in the 1998 budget claimed only 39 percent of the national average per capita amount. Interestingly, it might do even worse under a more objective formula-based system, as is planned for the near future. Leningrad Region also receives a per capita distribution of mutual settlements that is 13 percent below the national average.

7. Governments in the oblast spend at a per capita rate that is about 25 percent below the national average level. Housing and utilities, health care and education account for two-thirds of spending by the regional and local governments. The federal government plays a major role in determining the size and the composition of regional government budgets, and the region plays a major role in determining the size and the composition of local budgets. The Russian fiscal system is very much a “top-down” affair, with expenditure discretion reduced at each lower level. This structure provides subnational governments with a significant incentive to beat the system using whatever informal, “backdoor” approaches they can find.

8. There are broad variations in per capita expenditures by local governments within the region. Municipal spending for each person is 2.4 times greater in the highest than in the lowest spending local government. Per capita expenditures tend to be higher where population is less. One might interpret this pattern as showing that a given amount of spending is allotted to each municipality, and that larger populations allow a “spreading” of this amount over more people, hence a lower per capita expenditure.

9. The consolidated budgetary position of the region was in deficit on current account by an amount equivalent to less than 2 percent of current expenditures in 1996 and about 9 percent in 1997. The overall budget deficits were much larger: 10 percent and 18 percent of total expenditures in 1996 and 1997 respectively. To cover the consolidated deficits, the regional governments have relied on a variety of sources of revenue. In both years, about one-third of the consolidated deficit was covered by mutual settlement grants. One way to look at this is that the federal government allowed the region to budget for a deficit, and then covered about one-third of this with a negotiated deficit grant. The remainder was financed primarily by short term borrowing from the banking system and by deferrals.

10. The largest single item in the consolidated expenditure budget is subsidies to enterprises, which accounts for about one-third of spending. Most of this amount, however, is for housing and utilities. Between 1996 and 1997, 57 of every additional 100 rubles of expenditure was for health, education and welfare purposes.

Budgetary Position of the Oblast Government

11. Current revenues of the oblast government for fiscal 1997 fell short of current expenditures by an amount equivalent to about 36 percent of current revenues. Mutual settlements reduced this financing gap to the equivalent of about 22 percent of current revenues. The oblast covered the remainder from borrowings, sales of assets, drawdown of balances and deferral of creditors. The picture has not improved dramatically since 1997. The budget deficit for 1998 was equivalent to about 26 percent of current expenditures, and that for 1999 was about 30 percent of current expenditures. The debt burden in Leningrad has been rising. If the 1999 budget deficit were to be covered entirely by borrowing, the total debt outstanding would be about 90 percent of total current revenues. In early 1999, the major rating agencies dropped their credit rating on the Region to "CCC", which is considered below investment grade and signals a high probability of default, which has now occurred.

12. In 1997, about 38 percent of the oblast budget was dedicated to grants to local governments. Since intergovernmental transfers are not budgeted by the government, one cannot report comparable numbers from the 1998 and 1999 budgets. The oblast has faced, and will continue to face, considerable debt service requirements. In 1997, debt repayment and interest took up nearly 20 percent of the budget.

13. Revenues in the region are drawn primarily from shared taxes and grants from the center. The Region has little say in determining the tax rate or base. Revenue growth has not been buoyant relative to GRP. But there are some good features of this revenue structure. By comparison to revenue structures of subnational governments in many countries, that in Russia is balanced and diverse. While it is true that the Region has little formal control over the amount of revenue it gets, it is also true that it has productive and elastic revenue bases. Subnational governments in

few countries can claim a share of the VAT and income tax bases. The built-in elasticity of the subnational revenue base should be as great as that of the central government. Another positive thing to say about the Leningrad Region revenue structure is that is not muddled up with a plethora of minor taxes and nuisance charges.

Oblast-Local Fiscal Relations

14. The design of intergovernmental fiscal relations within the region is a policy responsibility of the regional government. It may decide on the degree of equalization that will take place within the region, the extent to which the maintenance of infrastructure in more developed local areas will be supported, and whether it will introduce revenue-sharing features that will stimulate or dampen incentives for increased revenue mobilization. It can influence the level and mix of spending by rayon level governments in two ways. First, it imposes expenditure norms and mandates on local governments and decides on the degree to which it will enforce these rules. Second, it controls the total flow of resources to the lower level governments by setting the tax sharing rates and by determining the level of grants to the local governments.

15. Leningrad Oblast is more decentralized than other regions in Russia in terms of the distribution of budgetary expenditures. In the Federation, for every ruble spent by a regional government, the local governments spend Rb 1.45. The comparable number for Leningrad region is Rb 1.94. There is a significantly greater reliance on the municipal governments to deliver services in Leningrad than in other oblasts.

16. Leningrad Oblast has introduced its own guidelines for defining the expenditure norms in an oblast law on minimum expenditure budgets. These 'norms' set out minimum standards of service to be provided, and give an estimated cost of this provision. In this way, the regional government prescribes a minimum level of expenditures for each local government, and presumably guarantees the financing of this amount. Our review and evaluation of this approach leads us to three conclusions:

- In general, the calculation is objective and transparent. The one place where complication and judgement takeover is in the determination of the adjustment coefficient, which factors special "needs" into the minimum expenditure budget.

- Overall, it would appear that the adjustment coefficient is a counter-equalizing influence because it is partly driven by the size of the existing infrastructure. If a rayon has a greater rate of enterprise profitability and industrial production, and a larger urban housing stock, it has more of a capital plant to operate and to maintain, and therefore is assigned a significantly larger adjustment coefficient.

- Minimum expenditure budgets are not always honored by the fiscal system, i.e., municipal governments may not have the resources to meet the minimum levels.

17. The oblast government determines the level of resources that will be allocated to each municipal level government. The sharing rates (percent of total revenue collections that are retained by the local governments) are variable by rayon and by tax. The regional government, unlike the federal government, uses sharing rates as an instrument for redistribution of resources among its underlying units of local government.

18. Three types of grants are paid to the local governments by the oblast.

- *Subventions* are paid to the rayons in the form of earmarked grants (10 percent of total grants).

- *Subsidies* are paid to rayons to cover the general shortfall between capacity to pay for public services and the level of expenditures needed to provide standard services (45 percent of total grants).

- *"Mutual settlements"* allow the oblast to cover a portion of the financial shortfall of the municipality (45 percent of total grants).

The distribution of these grants is, on balance, equalizing. Per capita grants are greater in municipalities that have a lower average wage.

The Region uses three fiscal instruments to influence the behavior of municipalities and to gain the pattern of inter-municipal equity that it wants. The three are variable revenue sharing rates, grants, and minimum budget expenditures. What we might conclude from an analysis of the use of these instruments is that the regional government is ambiguous about what it wants to achieve with its intergovernmental transfer system. On the one hand, it does seem to allocate shared taxes and grants towards less developed regions, using *ad hoc* grant allocation and variable shared tax rates. On the other hand, there does not appear to be a relationship between revenue allocations and expenditure needs, and there is some evidence that places with a more developed infrastructure are rewarded with more resources. At the end of the process, per capita expenditure disparities among municipalities remain quite large.

Deficits and Deficit Financing

19. Using a conventional western definition of budget balance, we can determine that all Leningrad municipalities for which we have data (except one) were in a deficit position at the end of 1997. These data show that the median financing gap is 21 percent of total expenditures, and that about 84 percent of this gap is financed by mutual settlement grants. Our view of the deficit finance process in the region is that the oblast level government uses mutual settlement finances to cover a significant part of the "approved" budget deficit of the municipal settlements. In fact,

about 95 percent of the inter-municipal variation in the estimated budget deficits can be statistically explained by variations in mutual settlement grants.

20. There is no hard budget constraint for local governments in Leningrad Region, nor is there a concept of budget balance. The parallel between Russian regions and western subnational governments is interesting. The latter traditionally (legally) begin the year with a balanced budget, and then scramble to find resources if a shortfall begins to develop. In most cases, all expected revenues are part of the budget planning and execution process. Russian regions on the other hand begin with a budget deficit, and then try to close the gap as the year goes on. In this context, Leningrad Region treats its federal grant entitlements almost like a contingency against which the deficit will be offset. To make matters more complicated, the FFSR grant is partly distributed by negotiation, and the mutual settlement grants appear to be determined by the size of the deficit. This approach to budgeting all but guarantees a soft budget constraint.

POLICY ISSUES AND REFORM OPTIONS

21. The regional government plays the primary role in shaping the distribution of expenditures and government service levels within the region, and is in a position to significantly reinforce or offset federal policy. Local level governments have less influence over public finances. The region essentially determines their revenue levels and expenditure assignments, and they are subject to significant expenditure mandates.

Federal - Regional Issues

22. Many of the major policy impacts desired by the federal government depend crucially on fiscal distribution within the Oblast.

- Federal targets for equalization could be offset, or even overshot, if the regional government does not take the same view of redistribution as does the federal government.

- The regional government, through its tax sharing rates and grant distributions, could influence tax effort considerably. This could compromise (or reinforce) federal government programs for revenue mobilization.

- Expenditure assignments and mandates made by regional governments could effect the level of services provided, in ways that might be inconsistent with federal priorities.

23. The point here is that it is not possible to set intergovernmental fiscal policy in the Russian Federation without considering the policy stance that might be taken by the regional governments. The findings here might be summarized in the following stylized facts:

1. Neither the federal nor the regional government uses intergovernmental transfers to substantially equalize expenditure needs or fiscal capacity, though the regional government's intergovernmental fiscal system is more equalizing than that of the federal government. Moreover, the two levels take very different approaches to equalization. The federal level uses uniform tax sharing rates (which is a counter-equalizing practice) and an *ad hoc* distribution of grants. The Leningrad Oblast uses variable tax sharing rates, which can be equalizing, and an *ad hoc* distribution of grants (which is not distributed among rayons on an equalizing basis).

2. Expenditure assignment between the federal and oblast levels is not totally clear, and a major problem is the imposition of unfunded mandates on the regional governments. In Leningrad Oblast, the pattern is repeated. The expenditure assignment between the regional and municipal level is not clear, and the region imposes unfunded mandates on the local governments.

3. The regional governments place strict limits on the fiscal powers of rayon governments, so that they have markedly less discretion than the oblast government. This means that there is very limited accountability of officials at the rayon level.

4. The oblast does not report its internal fiscal activities to the federal level, therefore the federal level cannot monitor outcomes, and "tune" its policies.

24. At the extremes, there would seem to be two policy avenues open. One is for the federal government to give more fiscal autonomy to the regions, including some significant taxing powers. This will allow the imposition of a hard budget constraint on subnational governments, and will force a more transparent system of transfers on the federal and the regional governments. The other is for the federal government to mandate that all oblast-local relations mimic federal-oblast relations, i.e., be structured exactly the same as the federal-oblast shared taxes and grants. This would give the central government more control over policy outcomes, but would be a step back from local initiative and accountability. With either choice, the federal government will need to factor intra-oblast fiscal distribution into its policy framework.

Oblast-Local Relations

25. This case analysis suggests a number of areas where the Leningrad Oblast government could improve its fiscal decision making and management, even in the absence of major changes in federal policy.

1. Expenditure assignment should be made more clear.

2. A strategy for intergovernmental fiscal relations within the region must be developed. The oblast should weigh its objectives and determine an intergovernmental sharing system that meets this target. There are three fiscal instruments in the hands of the regional government: expenditure assignment, tax sharing rates, and grants. These should be coordinated to achieve the objectives chosen.

3. The oblast needs an information system that will enable it to monitor its intergovernmental fiscal system, i.e., to determine if it is meeting the objectives it has set. This implies a uniform set of fiscal accounts for rayon level governments (preferably independently audited) and a set of benchmark socio-economic data that will permit a tracking of equalization, etc.

4. The intergovernmental transfer system should be more transparent and less uncertain in the eyes of the rayon level governments. The "mutual settlements" approach should be dropped in favor of a formula-based system.

5. The oblast needs to develop a better system for revenue estimation, i.e., to measure the fiscal shock associated with important prospective changes in federal policy.

A Proposed Revenue Sharing Approach For Leningrad Region

We have developed a system for Leningrad Region that may improve on the present method of intergovernmental fiscal relations. The basic outcomes of the system are that it imposes a hard budget constraint on the municipal governments, it provides for an objective determination of expenditure needs, and it offers the region the opportunity for adjusting its policy parameters to emphasize either equalization or revenue mobilization. The system is simulated on data for all 29 municipalities in Leningrad Region for 1999. The details of this approach are found in the last section of this report.

INTRODUCTION[1]

This case study describes the financial structure of the Leningrad Oblast government and its rayons, describes and evaluates the financial relations between the oblast and local governments, identifies the fiscal policy issues with which the government must deal in the next few years, suggests some new directions for intergovernmental fiscal relations, and lays out a specific option for policy reform. The reform we propose is the replacement of the current, negotiated system of intergovernmental transfers with a formula-driven and more transparent system.

The next section of this paper addresses issues related to the overall finances of the region and to the finances of the regional government. We turn then to a case study of Kirovsk municipality. The following two sections, respectively outline the fiscal policy issues that have risen and present a specific reform option. The final section draws some general conclusions and suggests the contents of an action plan.

Our objectives in this research are to develop a better understanding of how the federal-regional-local system of intergovernmental fiscal relations actually operates, to better understand the problems that have arisen, and to develop an analytic method for assessing and evaluating the system. Hopefully, it can be a prototype for analyses in other regions. Where international comparisons are useful and appropriate, we bring them into the discussion. This work has led to the identification of viable reform options, which the regional government is now considering.

[1] This work was carried out with information gathered in several field trips to Leningrad Oblast. Dmitry Shishkin served as Georgia State University's resident advisor in Leningrad Oblast during much of the period.

PUBLIC FINANCES OF THE REGION AND THE REGIONAL GOVERNMENT

Leningrad Regional Economy

Leningrad Oblast, with a population of 1.7 million, is the twenty-eighth largest among Russia's 89 regions. The population of the region has remained stable in the past decade and is projected to grow very slowly over the near future. Because of in-migration and changes in the age distribution, however, a slight increase in the working age population is expected. About two-thirds of the population of the Leningrad region lives in urban areas.

Per capita gross regional product was Rb 10.1 million in 1997 (Table 1)[2], 18 percent below the national average, suggesting that Leningrad is relatively poor. This probably is not an accurate reflection of the economic prosperity of the region. It likely understates the relative well being of Leningrad residents because of the extensive amount of commuting to work in St. Petersburg City. It is estimated that about 30 percent of all oblast workers commute to places of employment in the city. The method used in the computation of regional product assigns earnings to the place of employment, but population is counted at the place of residence. We might say that even though 30 percent of the Leningrad labor force does not "contribute" to the GRP of that oblast, it does "contribute" to population and therefore leads to an understatement of the per capita income of residents.

Other evidence supports the proposition that the average level of well being in Leningrad is not so far below that in the rest of the region. In fact, the average wage in the oblast is only about 8 percent

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[2] This is stated in 1997 rubles, and is equivalent to about U.S. $2,000 in 1997. The Russian currency was re-denominated in 1998, with one thousand 1997 rubles equal to one 1998 ruble. Hence our tables and discussions (to be comparable) will refer, for example, to pre-1998 amounts in millions of rubles, and 1998 amounts in thousands of rubles.

below that in the nation (Table 1). The average wage may be a better measure of average well being than is per capita GRP. It is measured as the earnings of registered workers at enterprises and organizations within the region, and is inclusive of both personal income tax and payroll taxes for social contributions. Of course workers who live in St. Petersburg, but are employed in Leningrad, are counted in the oblast statistics. The average wage in Leningrad is closer to the national average than is per capita GRP. This is because the denominator is the number of workers rather than total population, and possibly because the numerator reflects primarily wages in the formal sector. The average wage does not pick up inter-regional differences in the employment rate, but it does reflect differences in the preponderance of higher paying jobs.

Why are these comparisons, and the possible flaws in these measures, so important for this analysis? The answer is that certain intergovernmental transfers in Russia are distributed among regions on a basis of the balance between taxable capacity and expenditure needs. Equalization would imply that poor places with high expenditure needs receive more subsidy. If per capita GRP is used as the measure of taxable capacity, then Leningrad Oblast will appear poorer than it really is. The problem is further complicated in Russia because the major taxes are shared with regional governments according to where production and wage payments take place, while most social service expenditure requirements are residence-based. Leningrad Oblast will be doubly-damned here: it will not receive credit for the value that its residents add in St. Petersburg enterprises, but it will be responsible for delivering services to all of its residents. On the other hand, it will be doubly-blessed if intergovernmental grants are distributed on an equalizing basis, and if per capita GRP is the indicator used to make the distribution: the region will appear poorer than it actually is, and will receive commensurately more in grant revenue.

Governance

Leningrad is governed by an elected Legislative Council and Governor. The Oblast *Law on Local Self Governance* (1996) provides for the creation of self-governing bodies within the oblast. In the second half of 1996, 29 municipal governments were created, and local governing councils were elected. Previously, the oblast had seventeen administrative districts that functioned as spending units and revenue districts of the regional government.

The municipal governments technically have budget autonomy, i.e., they may approve their own budgets. However, they must report to the oblast on matters having to do with compliance with oblast and federal regulations. As is discussed in this paper, so much compliance is required that one might question whether any significant financial autonomy resides with the local governments.

Economic Structure

The economic structure in Leningrad Oblast differs from that in the rest of Russia. As may be seen from Table 2, about one-third of regional product is generated in the industrial sector, a larger share than in the Russian economy as a whole. The heaviest concentration of income generated in Leningrad is in industries related to energy production and raw materials processing. Electricity and fuel oil production alone account for over half of the industrial output of the region. The structure of employment also shows a heavier concentration in production in Leningrad than in the overall Russian economy (see Table 3).

A heavy concentration of employment in production activities, especially heavy production activity, is a mixed blessing insofar as fiscal position is concerned. On the one hand, enterprises in these industries are likely to be in the formal sector and evasion of taxes may be more difficult. Enterprise

profits, value added and payrolls should be measured more easily for these than for smaller, or service-based enterprises. There also is the advantage that the "essential" industries have been somewhat protected from employment decline during the transition period. On the other hand, excessive reliance on heavy production activities may be less of a blessing to the Leningrad economy in the long run. Such industries can be more cyclically sensitive and possibly more subject to regulations that would limit profit rates and therefore the enterprise tax base. Moreover, the concentration of economic activity in heavy industry implies a greater pressure for public capital investment to support infrastructure maintenance and improvement.

The other side of the coin is the relatively light reliance of Leningrad on economic activity generated in the hard-to-tax service sector. Income generated in the self-employed private business sector is notoriously difficult to capture for the income tax or value-added tax. A lesser concentration of this sector in the oblast economy may be a positive influence on taxable capacity.

Growth Potential of the Economy

Perhaps more than any other factor, the competitiveness of the Leningrad economy will determine its long-term fiscal health. What are the prospects for growth in the Leningrad economy? This is an especially important question in an economy where about 60 percent of all medium and large scale enterprises have been privatized, and where the private enterprises now account for about two-thirds of all industrial output. In terms of fiscal health, the growth in value added, profits and payrolls will determine the growth in revenues from shared taxes, which accounts for about 60 percent of budgetary revenues of the region.

One way to evaluate the future prospects of the Leningrad economy is to extrapolate from its past performance. One proceeds with great caution here, because the Russian economy is changing rapidly in structure, organization and private sector orientation. The past may tell us little about future performance. Still, an examination of the historical competitive position of the region provides a baseline against which we may evaluate growth prospects.

We have employed a commonly used technique known as "shift-share analysis" to evaluate the past performance of the regional economy (Levy, 1985; Hoover, 1971). This straightforward arithmetic technique enables us to explain the pattern of employment growth. We first identify a *shift effect*, i.e., the difference between the actual change in employment and the change that would have occurred if Leningrad had grown (or declined) at the national average rate. We then partition this shift effect into an "industry mix effect" and a "competitive effect". The former tells us if Leningrad's relative employment growth performance was due to a concentration of fast (slow) growing industries in the region, and the latter tells us something about the competitiveness of Leningrad enterprises.

The results of the shift-share analysis for Leningrad region is presented in Box 1, and detailed calculations are shown in Table 4. What we might conclude from this analysis is that the Leningrad economy has not kept pace with the Russian economy. The main reason for this is that the industry mix in the region is concentrated in slower growing (or more rapidly declining) sectors. For example, if all "industry" sector employment in Leningrad had declined between 1990 and 1996 at the national average rate, the employment loss would have been 9,800 less (Table 4). In virtually every sector of the economy, the Leningrad region economy performed less well than that in the rest of Russia. If one projects this trend into the future, the scenario is for an economy that will grow more slowly than that in

the rest of the nation. It also suggests a scenario where revenues will grow more slowly than in the rest of the nation.

BOX 1
A SHIFT-SHARE ANALYSIS OF EMPLOYMENT GROWTH IN LENINGRAD: 1990-1996
(in thousands)

(1)	Employment in 1990	706.8
(2)	Employment in 1996	606.8
(3)	Change	-100.0
(4)	Change if the decline had been at the national average rate	-87.6
(5)	Shift Effect	-12.4
(5a)	Industry Mix Effect	-12.5
(5b)	Competitive Effect	0.1

The results of a shift-share analysis of employment growth are presented in the above computations. Between 1990 and 1996, employment in Leningrad declined by about 14 percent, leading to an employment loss of about 100 thousand (rows 1-3). In all of Russia, employment declined by about 12 percent. Had Leningrad shared proportionately in this national decline, it would have had an employment loss of 87.6 thousand (row 4). There was, therefore, a shift in employment of about 12 thousand jobs away from Leningrad (row 5).

The shift may be attributed to two factors. The first is the favorable or unfavorable industry mix in the region compared to the nation. The second is a competitive effect, i.e., whether Leningrad's industries performed better/worse than those in the same sector elsewhere in the nation. Leningrad's industry mix effect is negative, i.e., Leningrad had an employment decline of about 12 thousand because its mix of industry was concentrated more heavily in the slower growing sectors (row 5a). The competitive effect (row 5b) was nil, i.e. Leningrad's local enterprises performed about the same as their counterparts elsewhere in the nation.

Intra-Regional Disparities

There appear to be significant disparities in taxable capacity and expenditure needs among the 29 municipal governments within the region. (Table 5).[3] The largest locality has a population that is 18 times that of the smallest and the largest in land area is one thousand times larger than the smallest. The average wage in 1996 varied from Rb 1,263 thousand to Rb 427 thousand, around a median of Rb 652 thousand. The relative variation in the average wage, however, is much less than that in population (as

[3] A full list of the socioeconomic variables used in this analysis, together with definitions, is included in Appendix A.

indicated by the coefficients of variation at the foot of each column). It is interesting to note that none of the 29 municipal areas had an average wage below the all-Russia subsistence level in 1996. The localities also have very different numbers of enterprises relative to their populations – ranging from 59.4 per 10,000 population to 258.7 – suggesting wide differences in the strength of local economic bases.

Because there are no data on value-added or regional product for local areas, our analysis uses the average wage as a general indicator of economic development. This measure, a reasonable proxy for money income of workers, is significantly correlated with differences among municipalities in the profit of an average enterprise[4] (0.84) and with per capita industrial output (0.89) (see Table 6). Note also from Table 6 that it is positively related to the size of the education infrastructure, i.e., municipalities with a higher average wage tend to have fewer but larger schools, and a significantly greater kindergarten capacity. The average wage is not a perfect measure of economic well being, but it would appear to be a reasonable proxy, and we feel comfortable using the average wage as an index of variations in local economic capacity.

The wide variation in economic situation and population structure within the oblast (as described in Table 5) suggests significant differences in expenditure needs. Three municipalities are entirely urban, while one is only 13 percent urban. Infant mortality in the worst case is eight times that of the best. The incidence of families living in substandard housing at the highest is 4.5 times that of the lowest. All of these indicators suggest more pressure on the expenditure budgets of some places than others. On the other hand, there is relatively little difference in the numbers of children in school relative to the overall population, or in the share of pensioners in the population.

[4] This indicator is a ratio of the net profits of enterprises located in particular municipality divided by the number of registered enterprises.

Budgetary Position in the Region

Revenue Structure

As is the case for most subnational governments in Russia, Leningrad governments finance their budgets primarily from shared taxes. The data in Table 7 show that three-fourths of revenue comes from four major shared taxes: personal income, enterprise profits, value added and property. With minor exceptions, regional and local governments have no power to adjust the tax rate or the tax base. Only the federal government may adjust the legal structure of taxes.

Revenue collections from federation taxes are shared with subnational governments on a *derivation* basis, i.e., the region retains revenues according to the point of collection. The tax sharing rates are uniform across regions, i.e., every region retains the same percentage of collections for its own budget purposes. The sharing rates, which have been more or less stable for the period 1995-1998, are reported in Table 8.

The enterprise profits tax[5] is levied at a general rate of 31 percent in Leningrad. Distributions to individuals are taxed again under the individual income tax, and distributions to corporations are taxed at source at 15 percent. Preferential treatment is given to the agricultural sector and to small businesses. The tax base is generally reduced by the costs of doing business. However, there are some notable exceptions by comparison with western practice: certain wage costs, interest expenses, advertising expenses, pollution control expenditures and R & D outlays are not deductible. The base of the enterprise income tax is uniform across all of Russia.

[5] Strictly speaking, the enterprise profits tax is a piggybacked tax.

In 1994, regional governments were given the discretion to lower the rate from its federally set ceiling of 35 percent, but the federal revenue share (13 points in the 35 percentage point rate) could not be reduced. Leningrad region has reduced its rate to 18 percent, well below the full 22 percent regional rate it is entitled to levy. This right to reduce the enterprise income tax rate is one of the two major concessions that the Russian government has made to revenue autonomy for subnational governments.[6] Of the 75 regions for which we have data, only five have lowered the enterprise income tax rate below 22 percent.[7] Regional government can also provide preferences on the profit tax for targeted enterprises, so long as the regional government bears the full cost of these tax reductions.

The revenue performance of the enterprise income tax has been very weak. It has declined in nominal terms while nominal GRP has grown, and has declined in real terms at a greater rate than real GRP (Table 7). These revenue collection data include in-kind as well as cash amounts. There are a number of possible explanations for this lack of buoyancy: declining profitability of enterprises, excessive tax preferences, accumulating arrears, inaccurate valuation of in-kind revenues, and outright evasion.

The individual income tax applies to wage income at marginal statutory rates rising from 12 to 35 percent. Interest income is taxed at 15 percent. Incomes from pensions and capital gains from the sale of property are exempt. Neither the regional nor the local government may alter the tax rate or the tax base. There are, in addition, certain payroll taxes which the regional government is empowered to

[6] The other is the right to levy a retail sales tax, granted in 1999.

[7] The lower rates in these regions are 0 (Kalmykia), 18 (Leningrad), 20 (St. Petersburg) and 21 (Komi and Tyva).

authorize (e.g., the education tax), generally for the support of local governments.[8] Most workers outside the formal sector evade payment of the individual income

tax. Note from Table 3 that about one third of all employment in the Leningrad region is in sectors that might be classified as "hard to tax," but that this proportion is well less than the share in all of Russia.

Despite what some would see as an excessively narrow base, the individual income tax has been a buoyant revenue source. It grew in nominal and real between 1995 and 1997 (Table 7) and has a greater proportion of cash collections than does either the enterprise profit tax or the VAT.

The *value added tax* is levied at a general rate of 20 percent and at a 10 percent preferential rate on foodstuffs and goods for children. While the tax is generally broad-based, there are some significant departures from the international practice.

a. Tax liabilities are counted on a cash rather than an accrual basis, imposing a significant revenue cost on government.

b. Credits for tax paid on capital inputs are not recovered immediately, but over a six-month period.

c. Exports within CIS countries are treated as domestic sales, and imports from CIS countries are not taxable.

d. Exports to other countries are zero-rated.

e. There is a significant list of special exemptions.

[8] In addition, employers face payroll taxes of 28 percent to the pension fund, 3.6 percent to the social insurance and medical fund, and 1.5 percent to the unemployment fund. The net effect is a very high tax burden on labor. For more information (see L. Noiset, M. Rider and O. Vorontsova, 1998). These funds, however, are not under the control of the regional government, and are not reported in Table 7.

Regional governments have no authority to adjust the rate or base of the value added tax or to provide any differential treatment. Interestingly, this tax now accounts for less than 15 percent of revenues to Leningrad Region, less than for either income taxes or the property tax.

The VAT has been less revenue buoyant than the individual income tax, but has performed better than the enterprise profits tax (Table 7). It has grown faster than GRP over the 1995-1997 period. The true revenue performance is difficult to gauge, since nearly two-thirds of revenue collections in 1997 were reported to be in-kind.

Excise taxes are levied on domestically produced "luxury" and "sin" goods, and on those imported from outside the CIS. The excise list includes the "standard" items: tobacco products, alcoholic beverages, petroleum products, automobiles, and jewelry. Revenues from the excise tax are a minor source of financing in Leningrad.

The assignment of revenue to each of three levels of Russian government is reported in Table 8, for each revenue source, but the *actual* sharing for 1997 is reported in Table 9. The last row in Table 9 (column 3) shows that more than half of all revenues collected in Russia in 1997 was dedicated to subnational governments. Interestingly, these data indicate that the *actual* sharing of tax collections differs from that stated by legislation. For example, the federal budget receives only 65 percent of VAT on domestic goods instead of 75 percent. This result may be explained by the fact that regional governments accept taxes in non-monetary form (in kind) or offsets tax liabilities of enterprises against budgeted subsidies to those enterprises. When this happens, the regional share of the tax may increase because in-kind collections do not pass

through the state treasury office in the region.[9] Another explanation for the lower central share is that the federal government has provided enterprises with end-of-year tax offsets against federal obligations.

A breakdown of revenue collected and retained in Leningrad region is presented in Table 10. For example, column (1) shows that 38.6 percent of total (monetary) tax collections are paid to the federal budget, and column (2) shows that a negligible proportion of non-monetary payments is "shared up." Leningrad retains 61 percent of total collections (column 3), well more than the national average of 54 percent.

Note that Leningrad retained 72.1 percent of total enterprise income tax collections (versus an expected retention of 55 percent, based on the relative central and regional tax rates). The difference is attributable to in-kind payments. In 1997, 60.1 percent of total enterprise income tax collections were in-kind payments (column 4) and none of this was paid over to the central government (column 2). The region also retains some of the cash collections, therefore the central share is lower than the law prescribes.[10]

When offsets and in-kind collections are counted as budget revenue, Leningrad's share in total national regional budget revenues (0.8 percent in 1996) is close to its share of GRP (0.9 percent in 1996).

[9] We use the terms "in-kind payments" and "offsets" to mean a payment of taxes in goods or services. The government may accept in lieu of tax payment, say, bricks from a brick factory instead of rubles. The government then may sell those bricks for money and use the money for general budget purposes, but this happens only rarely. The more common practice is for the government to use the bricks to build a new facility. When we report revenue numbers in our tables, both in-kind payments and offsets are included.

[10] In fact, the in-kind payments (offsets) are often overvalued by the local tax authorities. Some anecdotal evidence suggests that the "discounts" are often as high as 50 to 100 percent. This inflation of the in-kind payment might serve two purposes. First, it would reduce the tax arrears shown for the enterprise, and second, it could be used to show more fiscal balance in the local accounts. So long as the federal government does not share in in-kind collections, there is no built-in disincentive to overstating these amounts.

Revenue Performance

Per capita revenues from own-sources -- tax and non-tax -- in Leningrad were Rb 1.467 million in 1997, 95.6 percent of the mean for all Russian regions.[11] However, Leningrad's capacity to raise taxes, measured either by average wage or by per capita gross regional product, is also below the national average. A region with below average income would be *expected* to raise below average tax revenue. In fact, the ratio of total retained revenues to gross regional product for Leningrad Oblast is 14 percent, slightly above the 13.9 percent average for all Russian regions (Table 1). Leningrad's tax effort, when measured this way, is about average.[12]

Can Leningrad Region authorities directly influence tax effort? Russian subnational governments have very limited rate-setting powers, very limited choice as to tax base, and the responsibility for tax administration technically rests with the federal government. How then can tax effort be influenced at the region level? In Leningrad, we may offer the following hypotheses about how the regional and local governments have influenced tax effort:

- Tax effort is lowered because the regional government has chosen to levy the enterprise income tax at 18 percent instead of the maximum 22 percent.

- Tax effort is lowered (raised) to the extent the local governments influence the tax administration authorities to be less (more) aggressive in their collection efforts.

- Tax effort is lowered (raised) to the extent the regional and local governments use offsets and in-kind payments to satisfy liabilities of taxpayers. The question here is whether the monetary value of in-kind payments is as great as the true tax liability. There is some anecdotal evidence that in-kind payments are significantly overvalued, in which case true tax effort is overstated.

[11] The mean of 13.7 percent is for seventy-one regions, i.e., for those regions where gross regional product data are not complicated by the presence of overlapping autonomous regions. Data are not yet available for 1997 calculations.

[12] In a study of 1992 data, using a regression approach, Bahl (1994) estimated a national average tax effort for Leningrad Oblast.

- Tax effort may be raised by the introduction of a retail sales tax by the regional government. This option was given to the regions, with a maximum rate of 5 percent, in 1999. Leningrad did not choose to levy a retail sales tax.

Of course there are the indirect influences that the region and its municipalities can exert on tax effort through their programs to stimulate economic development. These might include relaxation of regulatory policies, direct incentives, and the provision of credit directly or through the banking system.

Federal Grants to the Region[13]

The present system of federal grants has three major components.[14] The most discussed are transfers from the Federal Fund for support of regions (FFSR grants). There are in addition, earmarked grants through Federal projects and transfers under the category of "mutual settlements".

FFSR Grants. The FFSR is the largest component (about 65 percent of all federal grants in 1997). The total grant pool for distribution throughout Russia was equivalent to approximately 15 percent of tax collections from internal transactions in 1997. These are block grants originally designed as a formula-based system (see Lavrov, undated). Before 1998, the formula was structured to equalize per capita budget revenues among the regions. Revenue "needs" were estimated as the amount necessary to cover *basic* expenditures, defined as 1991 expenditures for designated purposes, inflated

[13] The grant system is discussed in Jorge Martinez and Jamie Boex "Fiscal Decentralization in the Russian Federation: Major Trends and Issues", Revised April 1999. A comparison of the Russian system with the international practice is presented in Appendix B.

[14] There also are block grants to closed cities, and to Moscow, that account for less than 5 percent of total grants. Leningrad Region does not share in this program.

to current levels. Revenue projections were based on previous levels adjusted to the current year (see Martinez and Boex, 1999).

Before the grant distribution was formally adopted by the Duma, regions could influence the process of calculation by claiming that actual revenue collections had been lower, and expenditures higher, than those used in the formula calculation. As a result, FFSR transfers came to be heavily dependent on negotiation. Indeed, they were actually distributed on more of an *ad hoc* basis than a formula basis. This system nearly guaranteed that some of the regions would be compensated above the level suggested by the formula. In fact, the number of regions receiving deficit grants increased each year.

In 1997, regional budgets were adopted much earlier than the federal budget. Thus the regions did not know their FFSR entitlement at the time they developed their budget plan. Some regions used preliminary data, often based on the preceding year, in the regional budget. The Leningrad government does not follow this practice and actually regards transfers as a revenue source to cover deficits rather than as a source of current revenue. FFSR grants are not budgeted.

In 1998, the Federal government approved a new concept of the intergovernmental fiscal relations reform. One of the significant changes it introduced was a revision in the transfer formula. The goals of the new approach are to move away from negotiation, toward a transparent system, and to adopt a program that is more equalizing. The detail of the new system is described in Box 2.

Earmarked Grants. A second form of transfers is earmarked financial assistance to regions. These grants, which may be used for capital and current expenditure, are determined by the Duma after a negotiation between regions and the Federal government. For 1998, these grants are shown in the budget as a separate item and account for about 15 percent of total grants to regional governments. It is

important to note that earmarked grants are also included in various expenditure heads in the federal budget and may finally sum to a much larger figure.

BOX 2
THE FFSR TRANSFER FOR THE 1999 FEDERAL BUDGET

In 1998, the Federal government developed a new formula approach to equalization grants. The new formula is designed to limit the possibility of negotiation. The formula includes an adjusted GRP measure as an indicator of the fiscal capacity of a region. This indicator of fiscal capacity is then weighed by an expenditure needs coefficient which is based on regional subsistence level and other indicators of regional expenditure needs. The weighted indexes for the regions are then ranked, with that region showing the worst balance between expenditure needs and fiscal capacity ranked lowest. The FFSR is then distributed through an iterative procedure. First, the poorest region is compensated with enough transfers to bring its index up to that of the next lowest region. Then the two poorest are leveled up to the third poorest. The process continues until there is no money left in the FFSR grant pool.

Unfortunately, the 1999 budget used only a rough approximation of the suggested formula, and distribution of transfers is still based on the actual and negotiated amounts of projected revenues and expenditures of subjects of federation.

The 1999 formula is based on the following parameters:

1. 1999 estimated own per capita budget revenues (Rpc) for region i:

$Rpc_i = R_i/P_i$

where

R_i = consolidated budget revenues of region i,

P_i = total population of region i.

2. The Expenditure needs coefficient (ENC) is computed for a group of regions within one economic zone j:

$ENC_{ij} = E_j/E_{min}$

where

E_j = 1999 estimated average per capita expenditures in regions belonging to economic zone j,

E_{min} = the minimum value of per capita expenditures for *all* economic zones.

3. Adjusted per capita budget revenues (R_{adj}) for region i:

$R_{adj} = Rpc_i/ENC_{ij}$

The distribution of transfers from the FFSR is based on the above described iterative procedure through the following final formula:

$T_i = (R_0 - R_{adj})* ENC_{ij} * P_i$ for $T_i>0$

where

T_i = the estimated amount of transfer to region i,

R_0 = the level of per capita budget revenues in the next highest region.

The percentage share of a region in FFSR is calculated as a ratio of T_i to the total volume of FFSR.

Mutual Settlements. By formal Ministry of Finance definition, mutual settlements include "funds transferred to and from the particular budget due to changes in planned revenues and expenditures introduced by decisions of the upper level of government after the budget law was adopted." This category has existed since the pre-reform period. In theory, it is used to balance the budgets of lower levels of government when deficits are created by changes in tax legislation or adoption of federal laws prescribing new expenditure mandates (e.g., if a law is enforced or enacted in the middle of a financial year). Presently, these "settlements" are mostly a one-way stream: from higher to lower-level governments.

In practice, mutual settlements can mean many things. Mutual settlements can include emergency grants, block grants, and settlements in lieu of financing regional investment programs. Some are budgeted and some are not. There is no formal method of distribution of mutual settlements among the regions, or of determining the total value of mutual settlements to be distributed in any year. Mutual settlements accounted for about 20 percent all federal grants in 1998.

Leningrad Distributions. The distribution of federal transfers to Leningrad is described in Table 11. The share of the region and the per capita amount received, in both FFSR and mutual settlements, has varied erratically. In particular, the oblast has not fared well in its claim on the FFSR grant pool, and in the 1998 budget claimed only 39 percent of the *average* per capita amount distributed in all of Russia. The way the new formula was used in the 1998 budget is far from what was initially intended, and was based on a combination of formula and negotiation. Obviously, Leningrad did not fare well in the negotiations.

Interestingly, Leningrad Oblast might do even worse under a more objective, formula-based system. Martinez-Vazquez and Boex (1997) have simulated the FFSR program under the assumption

of a grant fund equivalent to 15 percent of domestic revenue collections[15] for 1998. They simulate the distribution of FFSR across oblasts for six different formulae. The formulae use various combinations of measures of fiscal capacity, expenditure needs, tax effort and hold-harmless provisions. By any of these simulations, the share of transfers received by Leningrad Oblast would fall by comparison with the present allocation. The implication is that Leningrad has historically done better under a negotiated system than it would under any of the transparent formula-based systems that are under consideration, but it does not do well under either.

By contrast, Leningrad does better in obtaining a significant share of earmarked grants and mutual settlements (see Table 11), but still lags behind the rest of the country. In 1997, the oblast received 87 percent of the per capita amount received by the average oblast. We have no detailed data on the distribution of mutual settlements by purpose, but it would appear that much of it is housing related. A major federal mandate introduced in 1993 dictated that subnational governments assume responsibility for enterprise housing. The federal government promised to compensate for the required additional costs. The Leningrad finance committee reports that since 1994 its "mutual settlements" have mostly consisted of financial aid from the Federal government for these housing costs.

Expenditure Autonomy

Technically, the federal, regional and municipal governments have separate spheres of responsibility and powers. Each forms a budget and there is no requirement that the regional and municipal budgets be approved at a higher level. Each level of government has certain designated

[15] Excluding customs duties.

revenue sources and expenditure responsibilities. The federal and regional governments do keep a consolidated budget showing the fiscal activity of all subordinate governments, but this is reported to be mostly for analytic purposes. Some would interpret this state of affairs as showing that lower levels of government have significant freedom in making fiscal decisions.

In fact, the formal fiscal autonomy of regional and municipal governments is circumscribed to a considerable degree. Each is dependent on higher-level governments for determination of their total expenditure budget. Subnational governments have some discretion in determining their *mix* of expenditure but little ability to determine the *total amount* available for them to spend.

Even the composition of spending is partly dictated. Regional and local governments are subject to stringent (funded and unfunded) mandates from higher-level governments. These mandates are an important constraint on fiscal autonomy in that they prescribe specific subsidies for various population groups, or prescribe exact payments to workers or enterprises. It is important to note that the imposition of some of the mandates (such as wages for teachers and doctors, free meals, etc.) dictate expenditure amounts for functions which are considered "subjects of local government autonomy" as defined by *The Law On the General Principles of the Organization of Local Self-Government in RF (Article 6)*. A list of mandates is described in Box 3. Several Russian analysts have commented on the constraints imposed on subnational governments by such mandates (Morosov, 1998; Lavrov, undated).

BOX 3

FEDERAL MANDATES AND ENTITLEMENTS IMPOSED ON LOCAL AUTHORITIES: LENINGRAD OBLAST

1. Wage norms for teachers, doctors and certain other categories of budget employees.
2. Distribution of free medicine among certain population groups.
3. Payment of monthly child benefits.
4. Compensation to teachers for the cost of book purchases.
5. Payment of benefits to persons having custody over children.
6. Free meals in schools and hospitals.
7. Free milk products for children under 2 years of age.
8. Free prosthesis for disabled persons.
9. Burial subsidies.
10. Subsidies for gasoline purchase by disabled persons.
11. Subsidies related to payment for housing, utilities, electricity, and fuel.
12. Subsidies for payment for telecommunication, municipal transport and certain other services by the following population groups:

- Former WWII Veterans;
- Old-age Pensioners;
- Families of soldiers who died in WWII and of WWII invalids;
- Disabled persons;
- Victims of the Chernobyl disaster;
- Families with many children;
- Heroes of the Soviet Union and Heroes of the Socialist Labour Movement;
- Blood Donor;
- Police officers, customs officers, prosecutor's office workers, court officers, tax police officers, and traffic police officers.

In addition, the central government imposes spending norms on lower-level governments. These are usually *physical* rather than monetary spending requirements, e.g., the number of students per one teacher, the number of hospital beds per one doctor and so on. In practice, these "norms" are used primarily to determine the "minimum" level of expenditures to be supported by intergovernmental transfers from the central government. The "norms" are not strictly enforced mandates for each

category of subnational government spending, but the idea is that they should help determine the amount of revenue that flows to the lower level governments. Since the amount of local revenue is determined almost totally by the regional government, the expenditure norms represent another limit on the autonomy of the municipal governments.

These expenditure mandates and norms, and the resources to finance them, are prescribed in Federal laws. In most cases, the financing is supposed to be provided by the federal and regional governments. In some cases this is actually done. The costs of free medicines and subsidized telecommunications costs for certain segments of the population are usually covered at the prescribed levels through earmarked grants.

The usual situation, however, is that the regional government "takes into consideration" the expenditure needs implied by the mandates it imposes. This means that in computing the total amount of transfers to be given to the local governments responsible for delivering the service, these costs are somehow taken into account. Thus, it is almost impossible to prove whether adequate funds are transferred to finance the mandates. Many observers do not think that mandates are funded. The Kirovsk City Government, for example, has estimated that the execution of all mandates for 1997 would have required Rb 141,596 million in expenditures. Actual revenues (including all grants) in 1997 were equal to Rb 119,261 million, a shortfall of about 16 percent.

In short, the federal government plays a major role in determining the size and the composition of regional government budgets, and the regions play a major role in determining the size and the composition of local budgets. The Russian fiscal system is very much a "top-down" affair, with

expenditure discretion reduced at each lower level. This structure provides local governments with a significant incentive to beat the system using whatever informal, "backdoor" approaches they can find.[16]

Expenditure Structure

Governments in the oblast spend at a level that is about 25 percent below the average level of per capita expenditure in the 89 oblasts (see Table 1). This is in comparison with Leningrad's 18 percent disadvantage in per capita GRP. The inescapable conclusion is that Leningrad is a low spending region.

The consolidated expenditures of the regional and local governments are reported by function in Table 12. Housing and utility expenditures, which make up almost one-third of total expenditures, include maintenance of municipally-owned housing, operation of the central heating system and the provision of water supply. Education adds around twenty percent and health care another 13 percent. Spending on these three categories together accounts for more than half of total expenditures.

The data in Table 13 describe the expenditure structure by object. The single largest item is subsidies to enterprises, which accounted for over one-third of total spending in 1997. These subsidies are mostly for housing and utility services, and to a lesser extent for transportation companies to compensate for subsidized prices of services provided to households. Agricultural enterprises also

[16] Chinese local governments, faced with the same set of restraints and limits, were quite ingenious in finding many ways to beat the system, including imaginative use of extra budgetary funds, collusion with local enterprises to finance more local services, pressure on the provincial banks to make "policy loans" to enterprises, and influence on the local branch of the national tax service to alter collection patterns. These "backdoor" approaches were one factor that led to the sweeping 1994 fiscal reform in China. For a review and analysis, see Bahl (1999).

receive subsidies for purposes such as land improvement etc. Formerly, these subsidies were a 100 percent offset against land tax.

Wage costs accounted for 24 percent in 1997, a share substantially lower than for subnational governments in western countries.[17] The capital outlay share (purchases of durables, capital construction, and rehabilitation) doubled from 1996 to 1997, to 10.4 percent. Payment of interest amounted to only 2.5 percent of the total in 1997, but the increase from 1996 was quite significant, and surprising to many. Interest payments will continue to increase with the increase in Leningrad Region debt outstanding, a development that some see as troubling.

Per capita expenditures in the region increased by Rb 582 thousand between 1996 and 1997 (34.5 percent). In real terms, this is an increase in spending of only about 16 percent. Of every additional 100 rubles spent in the region during this period, 56 was for education, health and housing. Consolidated regional government expenditures were equivalent to about 23 percent of regional GRP in 1997.

Expenditure Disparities and Determinants

Per capita expenditures by local governments varies widely within the region, from Rb 2,326 thousand in Volkhovsky Rayon to Rb 239 thousand in Sertolovo City (see Table 14). That is, the municipal spending for each person is nearly 10 times greater in the highest than the lowest spending

[17] This result does not necessarily mean that wages of government workers are low compared to those in western countries. One should keep in mind that one of the major items of household expenditure, housing services, is heavily subsidized in Russia. The same is true of transportation and utility services. The net result is that the reported wage share of total expenditures is a significant understatement of the share of total expenditures attributable to compensation of government employees.

local government. What determines these large expenditure disparities? The simple correlation between per capita expenditures and various measures of the population and economic structure do not reveal any clear patterns (Table 6). This suggests that the pattern is random, or that the relationships are more complex than can be read from a simple correlation.

We have estimated a multiple regression equation to try and identify factors associated with variations in per capita expenditures for 21 municipalities for which data are available. The regression results, presented in Table 15, show that about half of the variation can be explained. The three independent variables used are average wage, population size and the rate of urbanization. Only population size is significantly related to variations in per capita expenditures. The results suggest that municipalities with larger populations have significantly lower levels of per capita expenditures. The presence of a significant constant term suggests that there is a threshold level of expenditures that is unrelated to the demographic or economic characteristics of the community. One might interpret this pattern as showing that a given amount of spending is allotted to each municipality, and that larger populations allow a "spreading" of this amount over more people, hence a lower per capita expenditure. An economy of scale argument seems more difficult to make.[18]

Budgetary Position

The consolidated budgetary position of the region is summarized in Table 16. We have restated the format of presenting the budgetary position of the region to reflect a more traditional definition of the budget deficit.

[18] Economies of scale would imply that more heavily populated municipalities are able to combine labor and capital more effectively to lower the per person costs of delivering a given quality of services.

- Current revenues (row 1) are the sum of tax, non-tax and grant revenues, but not "mutual settlement" transfers. This exclusion is based on the view that mutual settlements are not recurrent revenue. Because the distributions are negotiated, partly as a function of the estimated size of the deficit, this revenue is a "below the line" financing item. In effect, it is a kind of deficit grant. (In fact, mutual settlements are not included in the budget of the region, but are included in the year-end final accounts).

- Current and capital expenditures have been separated because the latter may be appropriately financed by "below the line" items (e.g., borrowing, special grants) and should not be counted as part of the current deficit.

- Rows (3) and (5) define two concepts of deficit. Row (3) is the current deficit, which under sound fiscal practice would be zero (current spending covered by recurrent revenue) and row (5) is the consolidated deficit, which shows the total amount of "below the line" financing needed.

- Below the line financing could include borrowing, deficit grants, capital grants, sales of assets, and draw-down of balances.

By this accounting, the consolidated budgetary position of the region was in deficit on current account by an amount equivalent to 1.6 percent of current expenditures in 1996 and 8.8 percent in 1997.[19] The overall budget deficits were much larger: 10.7 percent and 18.3 percent of total expenditures in 1996 and 1997 respectively.

To cover the consolidated deficits, the regional governments have relied on a variety of sources of finance. In both years, about one-third of the consolidated deficit was covered by mutual settlements. The oblast administration describes the funds transferred from the federal level through mutual settlements as "federal obligations to cover increased expenditures on housing that has been transferred to the municipal government". One way to look at this is that the federal government allowed the region to budget for a deficit and then covered about one-third of this with a negotiated deficit grant. The

[19] In actual fact, the region budgets for a current deficit of greater amount than is shown in Table 16, because FFSR grants are treated as non-budget revenue.

remainder was financed by loans from the banking system (nearly half in 1997 and one-third in 1996), regional securities (43 percent in 1996) and short-term borrowing from the federal government (17 percent in 1997). The latter was budgeted for repayment in 1998, in full amount.

By the beginning of 1998 the outstanding debt of the consolidated regional budget was Rb 367 million and $2.8 million. During 1998, the Oblast borrowed $50 million from a western syndicate and increased its domestic debt about Rb 638.3 million. Two-thirds of the loan was used to restructure ruble denominated debt, and one-third to pay off the salaries of state workers. In ruble terms, the total outstanding debt is equivalent to about 70 percent of the 1999 budget current revenues.

Budgetary Position of the Oblast Government

The budgetary position of the oblast government for fiscal 1998 and final outcomes for 1997 are described in Tables 17 and 18. There was a significant shortfall in 1997. Current revenues fell short of total expenditures by an amount equivalent to about 36.5 percent of current revenues. Mutual settlements reduced this financing gap to an amount equivalent to about 22.4 percent of current revenues. The oblast was left to cover the remainder from long and short-term borrowings, sales of assets, drawdown of balances and deferral of creditors. It would appear that borrowing for non-capital finance purposes was equivalent in amount to about 6.7 percent of current revenues.

Total expenditures were budgeted to exceed revenues (inclusive of FFSR transfers) by about 26 percent of estimated current revenues in 1998. A budgeted shortfall is not an unusual practice for oblast governments in Russia. Regional law stipulates that both oblast and rayon budgets may plan for a deficit in an amount up to 30 percent of expenditures. The 1998 oblast budget law provides for the deficit to be financed through borrowings and from other external sources. Even with the mounting debt

burden, the Oblast government continued to budget for a 30 percent deficit in FY 1999 (see Table 18). If the 1999 deficit is covered by borrowing, the level of debt outstanding will exceed current revenues by nearly 10 percent (see Table 18). It would appear that the regional government may be approaching its debt repayment limits.

At the end of 1998, Fitch international rating agency lowered the rating for Leningrad Region (and seven other regions) to "CCC" which is a below-investment-grade rating and signals a high probability of default.[20] The debt problem became even more real for Leningrad Region in early 1999. Following Russia's financial crisis, with a de facto ruble devaluation and freezing of the treasury bill market, western creditors asked the Region to repay its $50 million syndicated loan two years ahead of schedule.[21] A three-year payback was negotiated.

Expenditure Structure

Expenditures of the oblast government are reported in Table 19. The largest single expenditure category in 1997 (38 percent) was grants to local government budgets. Of this amount, nearly 60 percent took the form of (unbudgeted) mutual settlements with local governments. The oblast has faced, and will continue to face, considerable debt service requirements. In 1997, debt repayment and interest took up nearly 20 percent of the budget. The only other expenditure category amounting to as much as 10 percent of total expenditure is health care (9.5 percent). Other shares are much smaller.

Another way to look at the allocation of budget resources is in terms of object of expenditures (see Table 20). In 1997, direct current expenditures accounted for about 41 percent of the oblast

[20] IRT-TASS New Agency, December 30, 1998.

[21] *St. Petersburg Times*, April 20, 1999.

government expenditure budget. Capital expenditures accounted for about 11 percent and transfers to local governments for the remainder.

An interesting question is the extent to which the budget of the oblast government is "controllable", i.e., how much expenditure discretion does the regional government actually have? Nearly one-fifth of the region's budget is debt repayment and interest charges, and these are fixed commitments. Another one-fourth of the budget is made up of wages and payroll charges, public utility charges and subsidy payments to individuals. This spending is difficult to reduce,[22] unless public employment layoffs are introduced as an option. This leaves three areas where local government discretion may be greater:

a) Subsidies to enterprises account for about 9 percent of expenditures. These offer an opportunity for expenditure reduction as the economy privatizes.

b) Capital expenditures are about 11 percent of the total. The potential for reduction may be quite limited, because some of this is regular maintenance spending and some is for necessary infrastructure.

c) Transfers to local governments, accounting for nearly 45 percent of direct expenditures by the regional government, would seem a likely target for reduction when budgets are tight. On the other hand, the discretion that the regional government has in choosing the level of spending for various categories of expenditure depends heavily on central mandates, funding instructions, and payments of transfers and subsidies.

Revenue Structure

The revenue structure of the regional government is described in Table 21. As has been stressed throughout this paper, the Russian fiscal system is composed mostly of intergovernmental transfers that

[22] Though it is difficult to reduce compensation levels for public sector workers, it is commonplace for regional and local governments to defer their compensation payments.

flow from the federal level down. But these transfers are of many different types, with many different kinds of impacts (see also Appendix B). The best way to understand the revenue structure of the region is to understand these different types of intergovernmental transfers. About 20 percent of revenues are received in the form of mutual settlements and FFSR transfers. Until this year, both FFSR and mutual settlements were distributed in an ad hoc way and revenue estimation is very difficult. Mutual settlement transfers are not even budgeted.

Another 43 percent of the total is taken up by federally shared taxes. Though these are really intergovernmental transfers, each is structured differently. The four major federal shared taxes might be thought of as four different intergovernmental programs. The enterprise profit tax accounts for about a fourth of revenues of the region, and the enterprise property tax and the VAT each account for about 13 percent. The individual income tax is divided between the federal and the local level, and the Oblast government does not share in this. The remaining, local sources all together account for less than 6 percent of the revenues of the regional government.

How does one evaluate the revenue structure? One view is that by comparison to revenue structures of subnational governments in many countries, that in Russia is balanced and diverse. While it is true that the Region has little formal control over the amount of revenue it gets, it is also true that it has access to productive and elastic revenue bases. Subnational governments in few countries can claim a share of the VAT and income tax bases. The built-in elasticity of the subnational revenue base should be as great as that of the central government. Another positive thing to say about the Leningrad Region revenue structure is that is not muddled up with a plethora of minor taxes and nuisance charges.

There also are major drawbacks to a revenue structure based on sharing. The most important is the revenue uncertainty that comes with a lack of control. In many ways the flow of revenues to the regional budget is vulnerable to external influences.

- Almost all revenues of the Leningrad Regional government are determined by the center, since the oblast lacks independent taxing powers. Changes in the rate or base of any federal tax can have a significant effect on regional revenues. Recent federal proposals to reduce the VAT rate from 20 to 15 percent would have a significant dampening effect on regional government revenue. We estimate that the direct loss could be on the order of 4 percent of own source revenues.

- The fact that the sharing rate is fixed yearly by Federal budget law suggests the vulnerability of the oblast to changes in federal policy. Federal proposals such as the recent attempt to increase the federal share of the individual income tax would worsen the fiscal balance position of the regional government. The proposed increase in the federal share to 25 percent could cost Leningrad governments an amount equivalent to about 2.5 percent of own source revenues.

- The 1999 law reducing the enterprise profits tax to 30 percent has not had an impact on Leningrad Oblast revenue as the oblast has retained its 18 percent rate.

- There is also a vulnerability to federal grant policy. The total sharing pool for FFSR and mutual settlements is determined by the federal government. The federal government has not been reluctant to alter the size of these sharing pools. The total FFSR allocation was reduced by excluding VAT on imported goods from the base of calculation (in 1999, the FFSR sharing pool is 14 percent of all federal taxes on domestic goods). The federal government has also declared that it will reduce the volume of mutual settlement transfers, but has not announced its replacement program. However sensible these actions may be from a point of view of federal policy, they will compromise the financial resources available for regional governments.

- Even the access to elastic revenue bases has a dark side. Total regional government revenues are quite susceptible to economic downturns in its major donor municipalities. The two local governments with the lowest sharing rates (Kirishy City and Sosnovy Bor City) provide 70 percent of oblast government collections on shared taxes and 60 percent of total oblast government revenues.

On balance, we may conclude that the regional government has a call on potentially productive revenue bases and that its revenue structure is relatively uncluttered. But, it is quite susceptible to federal policy changes that can dampen revenues significantly. The fact that commensurate changes in

expenditure assignment do not follow federal tax policy and revenue sharing changes suggests that this linkage is not a key consideration in federal policy actions.

Budget Revisions and Execution During the Year

The budgets of regions in Russia are not meant to be the fiscal plan for the year. The "planned" budget in Leningrad Region does not include certain sources of revenue and intentionally understates certain types of expenditures. This is well illustrated by the way that intergovernmental transfers are handled in the budget. Note from the far right panel of Table 19 that grants to local governments (excluding shared taxes) account for only 4.3 percent of the 1998 *budgeted* expenditures of the oblast.[23] The year-end accounts will show a very different picture, in particular, a much greater amount of transfers to the local governments. For example, transfers to local governments were about 38 percent of the 1997 budget. "Mutual settlement" transfers and other ad hoc transfers (e.g., fuel subsidy) to local governments are *not* included in the budget amounts. This practice results partly because the oblast government does not know its mutual settlement revenues from the federal level at the time it forms its budget. It also is because some mutual settlements are payment for newly mandated expenditures incurred during the year. The result of such practices is to greatly limit the use of the budget as an effective instrument of fiscal planning.

A review of oblast budget data for 1995, 1996, and 1997 (see Boxes 4-6) shows considerable difference between the planned budget and the executed budget. Originally adopted budgets have been officially revised during the year, but even the supplementary budgets have not been fully executed. The budget revisions apparently follow no regular schedule, and several revised budgets may be issued. The following provides a brief history of supplemental budgets over the 1995-1997 period.

[23] Though taxes shared between oblast and local governments are a transfer (because the local government has no control over tax rate, tax base or revenue sharing rate), the shared taxes are not reported in the budget as grants to local governments. Only subventions, subsidies and mutual settlements, unrelated to tax sharing, are shown as expenditures in the oblast accounts, and mutual settlements are not in the budget.

1995: Budget revisions were made in June, July, and September (see Box 4). The first two revisions made little change to budgeted revenue and expenditure, and the expected deficit was not changed. The third revision dramatically increased both revenues (41 percent) and expenditures (82 percent), because of inflation (the 1995 inflation rate reached 130 percent). Executed amounts exceeded budgeted amounts by 149 percent in total revenues (2.5 times growth), by 89 percent in total expenditures, and the deficit[24] (planned at 24 percent of expenditures) became a small surplus (0.3 percent). Note that all federal grants (FFSR and mutual settlements) were introduced at year-end as budget balancing items, and this partially explains the significant underestimation of revenues.

1996: Revisions were made in March, July, October, and November, but none of the revisions resulted in significant changes in either revenues or expenditures (Box 5). The situation was very different from the prior year. Final budget execution was below the original plan. Total revenues decreased by 6 percent, total expenditures decreased by 29 percent and as a result the deficit decreased to 10 percent from its planned level of 32 percent of expenditures.

1997: Revisions occurred in June, September, November, and December (Box 6). The first three budget adjustments were for small increases in total revenues and total expenditures, but the December correction produced more significant changes. As in 1995, executed figures exceeded originally budgeted amounts quite significantly: total revenues were higher by 42 percent, total expenditures were higher by 24 percent and the deficit dropped from 27 percent (planned) to 17 percent (realized). In 1997 the last supplementary budget was introduced on December 9.

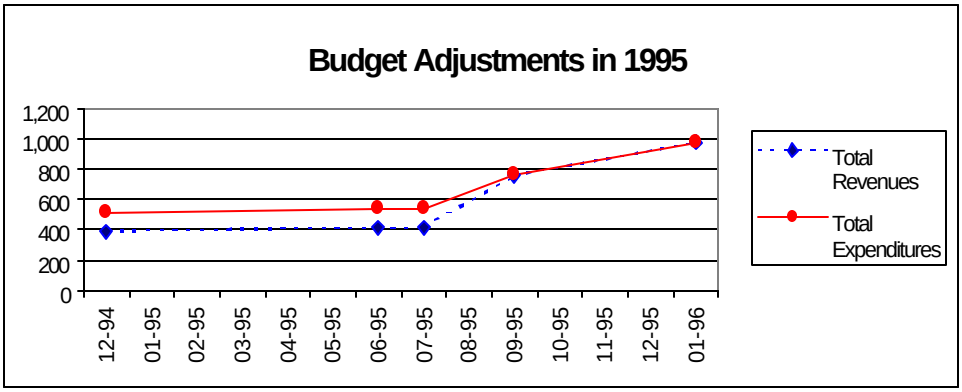
[24] Russian budget classification defines "deficit" as a difference between total revenues (including grants) and total expenditures. The deficit may be financed by changes in current account balance and by all kinds of borrowings (regional or municipal bonds, loans from higher levels of budget and loans from commercial organizations).

BOX 4

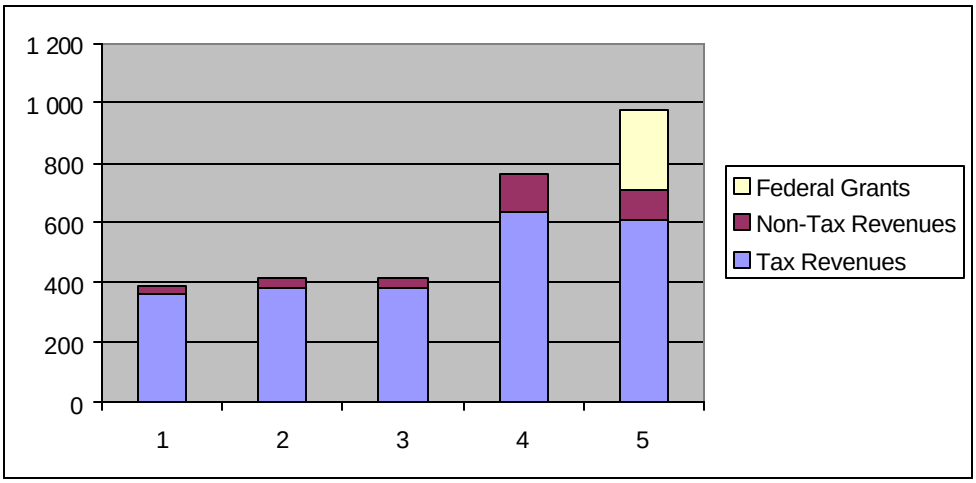
ANALYSIS OF BUDGET PROCESS IN LENINGRAD OBLAST GOVERNMENT: 1995

	Budgeted by Law	Adjustment 1	Adjustment 2	Adjustment 3	Executed as Reported
Date	27.12.94	14.06.95	14.07.95	26.09.95	01.01.96
Total Revenues	392	418	418	760	978
Total Expenditures	515	542	542	766	975
Deficit (as a percent of expenditures)	24%	23%	23%	1%	0%
Tax Revenues	357	383	383	640	613
Non-Tax Revenues	35	35	35	120	93
Federal Grants*	0	0	0	0	272

* Federal grants include transfers from FFSR and mutual settlements.



1995 Budget Revenue Composition

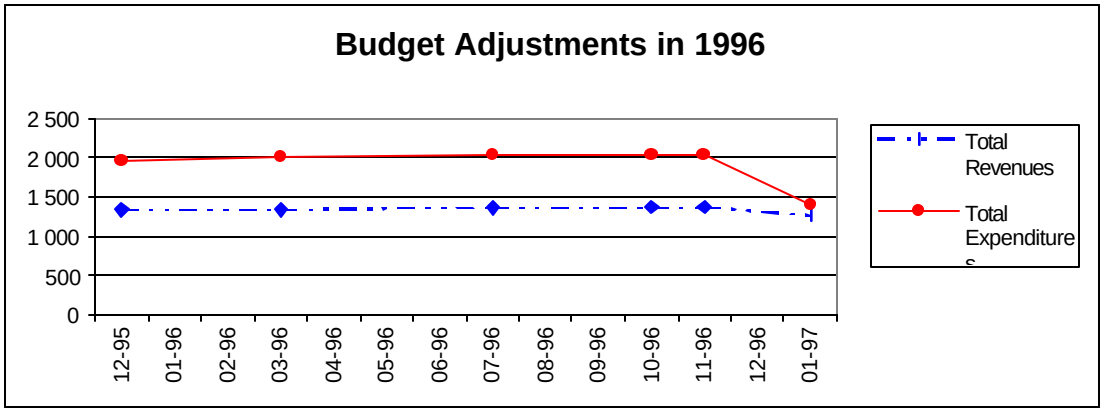


BOX 5

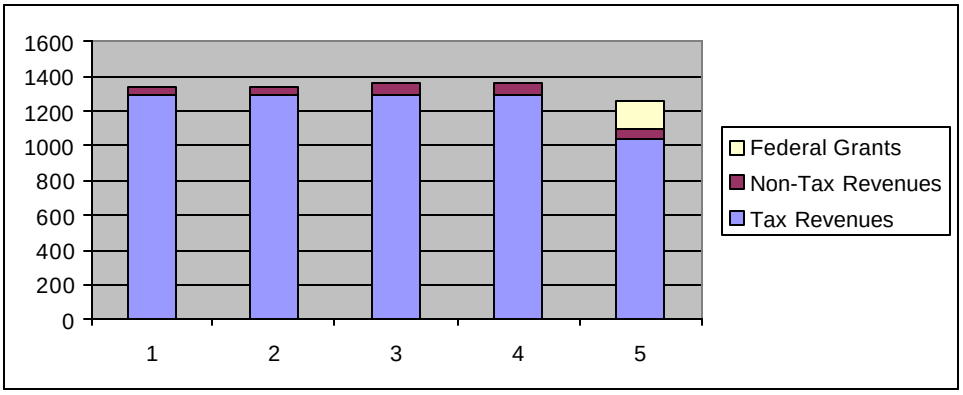
ANALYSIS OF BUDGET PROCESS IN LENINGRAD OBLAST GOVERNMENT: 1996

	Budgeted by Law	Adjustment 1	Adjustment 2	Adjustment 3	Executed as Reported
Date	26.12.95	20.03.96	09.07.96	29.10.96	01.01.97
Total Revenues	1 332	1 332	1 360	1 363	1 257
Total Expenditures	1 961	2 002	2 029	2 033	1 396
Deficit (as a percent of expenditures)	32%	33%	33%	33%	10%
Tax Revenues	1283	1283	1283	1286	1035
Non-Tax Revenues	49	49	77	77	56
Federal Grants*	0	0	0	0	166

* Federal grants include transfers from FFSR and mutual settlements.



1996 Budget Revenue Composition

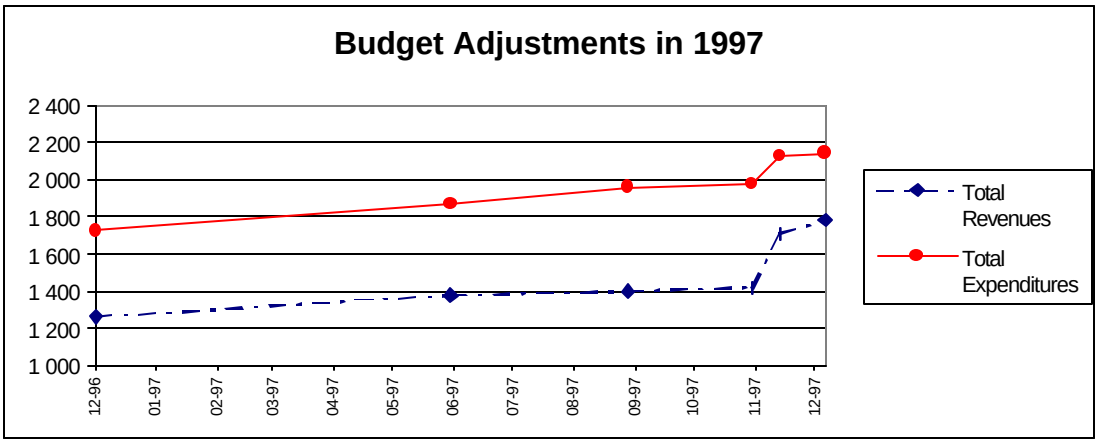


BOX 6

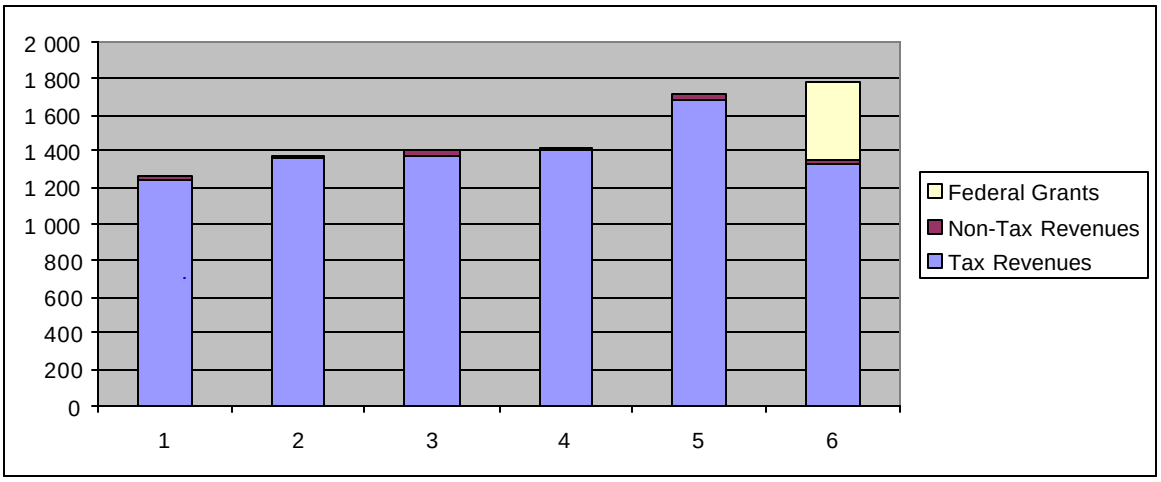
ANALYSIS OF BUDGET PROCESS IN LENINGRAD OBLAST GOVERNMENT: 1997

	Budgeted by Law	Adjustment 1	Adjustment 2	Adjustment 3	Adjustment 4	Executed as Reported
Date	27.12.96	25.06.97	23.09.97	25.11.97	09.12.97	01.01.98
Total Revenues	1 261	1 379	1 400	1420	1 708	1 782
Total Expenditures	1 727	1 869	1 958	1978	2 127	2 143
Deficit (as a percent of expenditures)	27%	26%	28%	28%	20%	17%
Tax Revenues	1 242	1 359	1 380	1 400	1 688	1 331
Non-Tax Revenues	19	20	20	20	20	23
Federal Grants*	0	0	0	0	0	428

* Federal grants include transfers from FFSR and mutual settlements.



1997 Budget Revenue Composition



The evidence for 1995 through 1997 shows that the approved budget was not executed as originally planned. The evidence also shows the Regional government typically will begin the year with a planned budget deficit and end the year with a deficit in the final accounts. In 1997, the budget was adopted and executed with a large deficit. The budgets for 1995 and for 1996 were adopted with substantial deficits (24 percent in 1995 and 32 percent in 1996), but the deficits decreased as the budgets were executed (there was a small surplus in 1995 and a deficit of 10 percent in 1996). The 1995 result may have been caused by unexpected inflation that increased revenues more than expenditures. In 1996, the budget was executed with a 32 percent cut in total expenditures. Note that because federal grants are not budgeted in Leningrad Region, actual deficits always will be smaller than planned deficits.

What is the rationale behind "planning" for a budget deficit? Why fail to include regular FFSR transfers in the annual budget plan? One explanation is that the planned shortfall is meant to show the Federation that the region desperately needs more money.[25] However, for Leningrad Oblast, it is not immediately apparent that an increase in the budget deficit forecast by the region has influenced the Federal government to increase financial support. In 1995, the Region's budgeted deficit was relatively small (about zero) and total grants were quite large (26 percent of the total budget). In 1996, the deficit was 10 percent and grants were 12 percent. In 1997, the deficit was 17 percent and grants 20 percent.

The parallel between Russian regions and western subnational governments is interesting. The latter traditionally (legally) begin the year with a balanced budget, and then scramble to find resources if

[25] Transfers from the Federal government are not included in original or corrected budgets and appear only in budget execution reports.

a shortfall begins to develop. In most cases, all expected revenues are part of the budget planning and execution process. Russian regions on the other hand begin with a budget deficit, and then try to close the gap as the year goes on. In this context, Leningrad region treats its federal grant entitlements almost like a contingency against which the deficit will be offset. To make matters more complicated, the FFSR grant is partly distributed by negotiation, and the mutual settlement grants appear to be determined by the size of the deficit. This approach to budgeting all but guarantees a soft budget constraint.

Oblast-Local Fiscal Relations: Expenditures

The design of intergovernmental fiscal relations within the region is the responsibility of the oblast government. On the revenue side, the federal government determines the tax structure but otherwise sets relatively few direct guidelines for oblasts to follow in distributing resources among the municipal governments. The oblast is not required to seek approval of its intergovernmental sharing arrangements from the federal level, though regions do report to the MOF on the actual distributions of revenues between regional and local levels. There are some restrictions on sharing arrangements, and certain federal tax revenues are specifically designated for local governments, but these are a relatively minor part of the overall revenue sharing arrangement.

The oblast government is the key authority in determining the allocation of fiscal resources within the region. It decides -- implicitly or explicitly -- the degree of equalization that will take place within the region, the extent to which the maintenance of infrastructure in more developed local areas will be supported, and whether it will introduce revenue-sharing features that will stimulate or dampen incentives for increased revenue mobilization. The region may decide whether a local government will be

given a predictable and adequate stream of revenue that will enable efficient budgetary planning, and even whether local governments will have a capability to repay loans.

The oblast government has great discretion to choose the instruments that will be used in shaping its intergovernmental fiscal relationships. It can influence the level and mix of spending by rayon-level governments in two very significant ways.

- The oblast imposes expenditure mandates on local governments and decides on the degree to which it will enforce these rules and fund these mandates. A description of these is presented below.

- The oblast controls the total flow of resources to the lower-level governments by setting tax sharing rates and by determining the level and distribution of grants to the local governments. Municipal governments do have some formal fiscal autonomy, but this clearly does not extend to a determination of the level of revenues available to finance their budgets. The *level* of spending by local governments is essentially fixed by the region.

The oblast government assigns expenditure responsibilities to its local units, and assigns a share of revenues to these units. Leningrad is more decentralized than other regions in Russia in terms of the distribution of budgetary expenditures. In the Russian Federation, regional and local spending was 57.1 percent of subnational expenditures in 1997,[26] compared with a regional and local share of 68.5 percent in Leningrad Oblast. That implies a significantly greater reliance on municipal governments to deliver services in Leningrad Oblast.

In the remainder of this section, we evaluate the most important fiscal instruments used in the allocation of resources to the municipal governments: the "minimum" budgets for municipal governments.

[26] Freinkman and Yossifor (1999, p. 14) estimate a much lower subnational share, about 46 percent in all of Russia in 1996.

Minimum Budgets

Most national and regional governments would like to develop equalization grants that are tied to the guarantee of some minimum level of government-provided services. Equalization grants should somehow be linked to the difference between the fiscal capacity of the jurisdiction and the amount needed to finance the minimum level of services. In designing such a program, virtually all governments run into the same two problems: (a) how to measure fiscal capacity and, (b) how to measure minimum budget needs.

Leningrad Oblast establishes minimum budget needs using a formula basis. These "minimum budgets" are the first step in the allocation of oblast assistance to the municipal governments. The detail of this determination of minimum expenditures is presented in Appendix C to this report. Here we simply present a set of stylized observations about the present Leningrad system.

1. The oblast wants to develop an objective basis for distributing resources among the municipalities in the region. The objective measure it estimates is the "minimum required local budget." This is meant to reflect the Region's view about the target level of (minimum) spending for each resident.

2. The first step in this formula is the calculation of a three-year average of actual per capita expenditures for the region. This becomes the basic amount which will be adjusted to develop an expenditure needs index. This average figure will not necessarily be equalizing since poorer municipalities do not spend significantly less than richer municipalities on a per capita basis (see the correlation analysis presented in Table 6). It is important to take note of the fact that the starting point for the calculation of minimum expenditures is *actual* expenditures.

3. The regional "average" per capita expenditure is then inflated/deflated by an adjustment coefficient for each municipality that is meant to take expenditure needs into account.

4. The "adjustment coefficients" are calculated to account for differences among municipalities in the number of service users.

- For those municipalities where the share of population under working age is greater that the oblast average, the adjustment coefficient is scaled up to increase the minimum budget for education.

- For those municipalities where the share of non-working age population is greater than average for the oblast, the adjustment coefficient is scaled up to increase the minimum budget for health care.

5. The adjustment coefficient is also scaled up to reflect the availability of social infrastructure facilities (e.g., hospital beds, places in kindergartens and schools) and the 'intensity' with which these facilities are used (e.g., number of patients visiting clinics in one shift.[27] This indicates that the oblast government thinks it necessary to allocate more funds to municipalities where the infrastructure is more developed. The government believes that expenditure needs for maintenance and operation of the already existing social facilities should be taken into account when determining the amount of funding to which municipalities are entitled. As a result, municipalities that have more municipal housing, schools, hospitals, etc., receive more funding. Clearly, this feature of the system is not equalizing.

It is not clear what objective the regional government is trying to achieve with its minimum budget approach. The desire to develop a transparent system is a laudable goal, and the minimum budget calculation is indeed formula-based. But it is very complicated. The transparency gained with a formula versus a negotiated system may be partly given up by the complication of the system. The objectivity of a formula is desirable, but the clients need to be able to understand the formula in order to have confidence in it. In the case of Leningrad's municipalities, it is doubtful that there is a full understanding of the minimum budget methodology. The system has some equalizing elements: average per capita expenditures are used as a norm for some functions, and a client-driven component is used for health and education expenditures. But it also has some elements that favor those municipalities that already have a more developed infrastructure. There also is an incentive feature. The regional government has used the minimum expenditure approach to provide a disincentive for inefficient

[27] In polyclinics one shift is 5 hours.

expenditures for housing and utilities by requiring more self-financing. One could reasonably conclude from a review of this program design that the regional government is ambivalent about the goals it wants to achieve with the minimum budget approach.

Evaluation of the Minimum Budget Approach

In order to evaluate the use of the minimum expenditure budget in Leningrad Oblast, two questions need to be answered. First, does the formula for computing expenditure needs produce any equalization effects, or do richer municipalities get an advantage? Second, does the oblast provide the rayons with sufficient funding to cover their minimum budgets?

Equalization Features. Does the minimum budget approach lead to higher per capita expenditures for poor places, or does it narrow fiscal disparities between rich and poor places, or is there neutrality in the distribution? The minimum budget amounts computed for the 1998 and 1999 budgets are presented in Tables 22 and 23. There is quite a wide spread in per capita minimum expenditures proposed for 1998: from Rb 1,784 thousand in Ivangorod City to Rb 1,179 thousand in Koltushskaya Volost. While there is a significant range in per capita minimum budget expenditures, it is far less than the disparity in actual per capita expenditures in 1997 (see Table 14). The range between highest and lowest municipalities remained unchanged between 1998 and 1999, but the coefficient of variation fell slightly between 1998 and 1999. A first reading of these data suggest no evidence of a major change in equalization policy.

To examine the equalization features of the minimum budgets in a more systematic way, we have calculated the simple correlation coefficients shown in Table 24. The third and fourth panels in this table

show the per capita minimum budget amounts, correlated with selected variables that represent the economic and population structure of municipalities. The pattern we find is roughly one of counter-equalization. Where the average wage, or the level of industrial production, is higher, the level of per capita minimum expenditures is also higher. These correlations also reveal a significant and positive relationship between the level of minimum expenditures and the quality of its social infrastructure (e.g., hospital beds, housing stock, etc.). There also seems to be a systematic bias in favor of local governments with a smaller population. From this evidence, we could not conclude that minimum budgets are equalizing.

Are Minimum Expenditure Levels Honored? Another evaluation question is whether the "minimum expenditure levels" are honored, i.e., are they fully funded by the amount of shared taxes and grants put at the disposal of the local governments? Or are they simply a wish list? We have made calculations to try and answer this question. In Table 22, we compare minimum budget expenditures for each municipal government in 1998, with the actual expenditures made by that municipality in 1997. The results show that the minimum budget for 1998 was greater than actual expenditures in 1997 in 10 of the 21 municipal governments examined. The median ratio of minimum budget expenditure to previous year expenditure is about 97 percent. What we can conclude from this is that minimum budgets are set very high relative to actual spending. The ratio of the minimum budget in 1999 to the actual budget in 1998 (including the planned deficit) is also quite high (87 percent as shown in Table 23).

Another way to answer this question is to study the difference between local and assigned revenues, and minimum budgets. Note from Table 22 that in the case of the "median" municipality, the share of local financing was equivalent to 26 percent in 1988. So, two-thirds to three-fourths of

revenues to finance minimum budgets must be made up from shared taxes and grants. As may be seen from Table 23, the results are similar for 1999, with a median of 33 percent.

Expenditure and Budget Policy: Evaluation

The budgeting practices currently in use in the Leningrad Oblast have the following major weaknesses:

1. They do not provide for the budget to be balanced. Leningrad Oblast budgets for 1995, 1996, 1997 and 1998 were all approved with a deficit. This either rendered them impossible to implement, or required borrowing and led to increases of deferred payments, which weakened the financial position of the Leningrad Oblast.[28]

The practice of ignoring the annual budget as a hard constraint on fiscal decisions, or even as a planning tool, can be illustrated by examining 1996 data. A comparison of actual and budgeted revenues shows that the "median" municipality underestimated revenues by 13 percent and expenditures by 21 percent.

2. There is a lack of clear assignment of expenditure responsibilities between the regional and the local government levels. As a result, each municipality tries to negotiate more funding from the oblast level by claiming a greater level of expenditure responsibility. This significantly compromises the integrity of the budget planning process and reduces its transparency.

3. The calculation of minimum budgets is flawed in several ways. This leads to incentives for local governments to behave in ways that compromise the regional government's objectives for its intergovernmental transfer system.

[28] As is pointed out by the central government, this practice cannot continue. When planning the budget for 1999, it is necessary to take into account the stringent constraints on regional budget imbalances imposed by the recently approved RF Budget Code (Article 92).

- Budgeting for mandates is not property done. Under the current procedure for estimating minimum budgets of municipalities, expenditure needs associated with mandated spending responsibilities (such as subsidizing telephone tariffs and medication prices) are funded from the same common pool as are all other expenditures. This creates disincentives for the local governments to execute the delegated expenditure responsibilities.
- The estimation of minimum budgets (expenditure needs by sector) is as much facility-oriented (depends on availability of schools, kindergartens, policlinics, hospitals, etc.), as it is client-oriented (number of people, children, elderly, etc.). Therefore, the municipalities that have a greater number of schools or hospital beds, already in a better position than municipalities that have less adequate facilities to offer, receive larger minimum budgets. This leads to greater inequality in the ability of local authorities to provide their population with vital services.[29] Another negative outcome of linking financial assistance to the availability of social facilities is that it discourages local authorities from choosing the best way to meet the needs of their constituencies. Rather than eliminating facilities that are no longer needed, the municipalities have an incentive to expand infrastructure (a typical example is increasing the number of hospital beds).
- The current method for computing minimum local budgets (expenditure needs) uses adjustment coefficients that are calculated in an extremely complicated and nontransparent manner, which complicates the evaluation of the results of the intergovernmental transfer system.

Oblast- Local Fiscal Relations: Revenues

The revenue dimension of intergovernmental fiscal relations in the region is characterized by a greater degree of centralization than is the expenditure side. All of the significant categories of local revenue -- local taxes, shared taxes, and grants -- are tightly controlled by the central government. In fact, municipal governments in Russia have no significant taxing powers. The oblast government

[29] There are two justifications for the "facilities"approach. One is that more facilities imply more maintenance and operations cost. The other is based on the assumption that the existing spatial distribution of public facilities matches the needs of the localities. In other words, the assumptions are that the number of schools is higher in municipalities that have more children of school age, the number of kindergartens is higher in municipalities where there are more children of pre-school age, the number of hospital beds is higher where susceptibility to illnesses is higher, etc. In reality, however, these assumptions often do not hold true and they create unequal access to basic services that come under the responsibility of local governments.

determines the resources that will be allocated to each municipal level government, either in the form of shared taxes, or direct grants. This defines the budget constraint for municipal governments.

Local Revenue

Certain taxes are designated as “local”, which generally means that 100 percent of the revenues collected remain with the local government where the taxes are collected. However, even though these are designated as "local" taxes, the rate and base is usually set by the federal government.[30] In some cases, the oblast government may choose whether or not to levy the tax, and may choose a tax rate within prescribed ranges. These are shown in Table 25 as local and “assigned taxes”, and as “own source revenues”, and are discussed in more detail below in the case study of Kirovsk City.

Note from Table 24 that there is a strong correlation between the per capita revenues from these sources and both the average wage and enterprise profitability. We present the per capita levels of assigned and own source revenues in Table 25. The difference between the two series is the federal and regional shared taxes. Total revenues, not shown in this table, would include the subsidies, subventions and mutual settlement grants. The relative variation in the per capita amount of assigned revenues is nearly twice that of all own-source revenues, and the range in per capita own source revenues is very great. Kirishy City raises Rb 1610 thousand per capita while Kuznechnoye City raises only Rb 32 thousand. This range of variation is reduced when shared taxes are included, and the coefficient of variation is lower, but the disparities remain quite large (see Table 25).

[30] There are some exceptions, as noted above. The most notable is that the oblast may choose to reduce the enterprise income tax rate, and beginning 1999 it may levy a retail sales tax. Municipal governments have virtually no taxing power.

The great variation in per capita assigned revenue is largely due to variations in fiscal capacity. Per capita assigned revenue is strongly correlated with average wage (0.88), urbanization (0.46), the per capita value of industrial output (0.93), and with the profitability of the enterprise sector (0.77) (see Table 6). This is consistent with the hypothesis that low wage municipalities cannot collect significant amounts of revenue, even if they have the incentive of a 100 percent retention rate. There simply is no adequate tax base (either payrolls or profits).

Tax Sharing

In the case of the more productive (broad-based) taxes, the oblast and the lower-level governments divide the revenues according to negotiated sharing rates. In the case of a few taxes, the federal government has stipulated the sharing rate. In most cases, the sharing rate is set by the regional government. The sharing rates (percent of total revenue collections that are retained by the local governments) for all major federal and regional taxes and for the property tax are shown in Table 26. The retention rates vary by year, rayon by rayon, and tax by tax. The Leningrad regional government, unlike the federal government, uses the sharing rates as an instrument for redistribution of resources among its underlying units of local government.[31]

One pattern that can be observed in this variable sharing rate scheme is that there are "donor" local governments and "recipient" local governments. The former passes a portion of collections within their boundaries to the oblast level, and the latter retain all of their collections. By this classification, in

[31] The use of variable sharing rates across rayons is not unusual in Russian intra-oblast relations. Alexeev and Kourliandskaia (1997) report different sharing rates for rich and poor local governments in 1997 in Nizhny Novgorod, Novgorod, Novosibirsk, and Perm. In 1992, however, Bahl (1994) found uniform sharing rates in Moscow Oblast, Tyumen Oblast and Khanty-Mansiisk Okrug. Igudin (1998) also reports uniform sharing rates in Sverdlovsk and Penza.

1999, 16 of the 29 lower-level governments in Leningrad Oblast are donors (see Tables 26 and 27). The distribution of tax retention rates varies among these municipalities in what appears to be a subjective way, e.g., the sixteen local governments that receive less than 100 percent of enterprise income tax revenues have retention rates of zero, 6 percent, 31 percent, 34 percent, 50 percent, 53 percent, 66 percent, 73 percent, 84 percent and 85 percent. Clearly the regional government is engaged in some form of fine-tuning to accomplish its objectives. Six of the "donors" are city-level local governments, but three other city-level local governments are recipients. Similar patterns are observed for the other shared taxes. The variable sharing rates appear to be an attempt by the Regional government to equalize fiscal capacity among the local governments, and to "claw back" a significant portion of revenues from the local governments. As may be seen from Tables 5 and 27, all but two of the donor regions have an average wage above the median for the region.[32]

Retention rates also differ dramatically year by year. Only eight municipalities enjoyed unchanged rates during 1997-1999. One of these is Kirishy City, a "pure donor", who pays all collected revenues on shared taxes to the oblast budget. The other seven are "pure recipients" who leave all collected revenues in local budgets. This system of changing retention rates at the discretion of the oblast government makes it difficult for municipalities to estimate revenues and leaves them in the situation of budget uncertainty. How are variable sharing rates determined? And how do they change? The oblast administration does not have a transparent algorithm that it uses for this purpose. Rather, the sharing rates are negotiated, and as may be seen from Table 26, they may vary significantly from year to year.

[32] In a study of Chelyabinsk Oblast using 1993 data, Bahl and Wallace (1994) found that the retention rate for the major shared taxes was *positively* correlated with the average wage.

The very significant disparities in fiscal capacity within the region are not completely offset by equalizing (variable) tax retention rates. This is shown in the distribution in per capita "own" revenues, including shared taxes, described in Table 25. The disparities (after sharing) are quite significant, from an average of Rb 1463 thousand in the three municipalities where the average wage is highest, to Rb 848 thousand in the three municipalities where it is lowest. Even after taking variable sharing rates into account, per capita revenues are more than 40 percent higher in the high wage than in the low wage municipalities. Still, there is some evidence that tax sharing reduces these disparities. The coefficient of variation in 1997 for per capita local assigned revenues (excluding shared taxes) equals 0.79. The coefficient for all own local revenues (including revenues from shared taxes) equals 0.45. The relative variation in per capita revenue is much less after the variable sharing rates have been applied.

To conclude that the variation in per capita expenditures is less, however, is not to prove that tax sharing equalizes fiscal capacity differences. To examine this hypothesis, we have regressed per capita own revenues and per capita assigned revenues on the average wage, with the following results:

$$OR_p = -29.50 + 1.30\ W \qquad (\bar{R}^2 = 0.58)$$
$$(0.16) \quad (5.31)$$

$$AR_p = -380.58 + 1.38\ W \qquad (\bar{R}^2 = 0.56)$$
$$(1.90) \quad (4.95)$$

where

OR_p = per capita own revenues
AR_p = per capita assigned revenues
W = average wage
And t-values shown in parenthesis, N=21

A Rb 1 higher average wage is associated roughly with a Rb 1.3 higher level of revenue, both before and after tax sharing. By this analysis, the shared tax system does not significantly equalize fiscal disparities within the region.

Grants

The oblast makes three types of grants to its bcal governments: subventions, subsidies, and mutual settlements. The actual distribution for 1997 is shown in Table 28.

Subventions are paid to the rayons in the form of earmarked grants. These grants are of three types: Housing subsidies for low income families, price subsidies for medicines distributed to veterans and the handicapped, and partial compensation to communication companies to cover losses because of the subsidized rates given to pensioners and others. The policies concerning the size of subventions and the eligibility of recipients are prescribed by the higher level legislation (e.g., child benefits).

On average, subventions account for less than 10 percent of total grants. Per capita subventions received vary widely, from nearly Rb 300 thousand in Gatchina City to under 10 thousand in Shlisselburg City. A priori reasoning would lead us to expect that subventions are distributed on a basis of the number of needy clients. In fact, this is generally the case. The simple correlations reported in Table 29 show that per capita subventions are significantly higher in municipalities where the share of pensioners in the population is greater and where the infant mortality rate is greater. There is no negative association with the average wage, however, and subventions appear to be significantly higher where the housing stock is larger.

Subsidies are paid to rayons to cover the general shortfall between capacity to pay for public services and the level of expenditures needed to provide standard services. These account for about 44

percent of total grants to the average municipality. Unlike subventions, the subsidies are general purpose grants.

The distribution of subsidies is made in an ad hoc way, that is, there is no formula that guides the allocation among rayons. The variation is quite substantial. The per capita amount received by Gatchina City is 40 times larger than that received by Shlisselburg City. However, the subsidy element of intergovernmental grants does appear to be equalizing. Note from Table 29, the negative correlation between per capita subsides received and each of the average wage, the average profitability of enterprises and the per capita level of industrial production.

The other channel of providing earmarked financial assistance is the so-called *mutual settlements.* Unfortunately, the official budget reporting does not permit a breakdown of municipal settlement transfers according to the purpose of these transfers. Regional officials stated that most mutual settlements are for the purpose of financing municipal housing and utilities, and maintenance of social facilities. However, "mutual settlements'' are sometimes used as a channel for transferring additional (non-budgeted) financial assistance, including assistance in writing off outstanding budget loans.

The variation in the distribution of municipal settlement grants is quite large, from nearly one million rubles per capita in Priozyorsk City to zero in Kirishy City. Overall, the relative variation is about the same as for subsidies and subventions (Table 28). Mutual settlement grants appear to be partly earmarked and partly general purpose, but the distribution among municipalities in on an *ad hoc* basis. The simple correlation analysis shown in Table 29 suggest a random distribution, i.e., we can find no clear patterns of relationship.

The per capita amount of the grant *total* for each rayon is presented in the far right column of Table 28. An inspection of the allocations shown in this table does not suggest that the overall grant distribution is equalizing. The relative variation is lower than for any of the components of total grants, but the range is still very great: from a per capita amount of over Rb 3 million in Gatchina City to under Rb 200 thousand in Pikalyovo City. Neither does a simple correlation analysis of per capita grants against several indicators of economic development show equalization. The results, shown in Table 29, indicate that per capita grants are smaller in municipalities that are less urbanized. Otherwise, there does not appear to be a pattern to the distribution.

Sometimes, patterns of relationship are too complex to be picked up by a simple correlation analysis. In fact, a multiple regression analysis on these data does identify an equalizing pattern in total grants. After we account for differences in urbanization, population, student population, and the level of industrial output, we can find a negative and significant relationship between the average wage and per capita total grants (Table 30).

Tax Effort

There is much discussion in Russia about the tax effort of regions, i.e., the need to encourage increased revenue mobilization. The presumption is that even though subnational governments do not have rate or base setting powers, they can stimulate or dampen tax collections by the influence they bring to bear on the local tax administration service, and on the enterprises to which they are so closely tied. They may also increase tax effort by enacting a retail sales tax, by pressing all other local taxes to the authorized maximums, or they may reduce tax effort by lowering the enterprise income tax rate. It is also true that they may increase "tax effort" by overstating the value of in-kind collections from

enterprises. In any case, if the federal government is concerned about the revenue mobilization efforts of the regions, then the region should be concerned about the revenue mobilization efforts of the local governments. In fact, the issue of local tax effort may be as relevant as regional tax effort because the local governments are closer to both the local enterprises in terms of their regulatory relationships, and to the tax service in terms of their day-to-day working relationships.

To investigate the possibility that there are significant variations in tax effort among the local governments, we have developed a measurement approach that borrows on the literature that addresses the subject of tax effort measurement in developing countries.[33] The basic approach may be stated simply. If a municipality has a higher level of economic development, one *expects* higher tax revenue. High tax effort refers to collections above expectations. The idea is to estimate taxable capacity based on the economic and population characteristics of the municipality, and then to compare this hypothetical amount with what is actually raised.

To estimate tax collection *potential*, we have carried out a regression analysis between per capita revenues collected (Rp) and selected measures of taxable capacity. The dependent variable is per capita total tax collections. Our goal is to measure the overall capacity to raise taxes, and not just the expected revenue share of the local government. The revenue that finally accrues to the local government budgets is determined by a combination of collections and the sharing rates. In order to abstract from the latter, the dependent variable in this analysis must include revenues sent to the oblast and federal budgets along with revenues retained by the locality.

[33] See Bahl (1971, 1972). For a similar analysis of subnational government tax effort in China, see Bahl (1999). For tax effort analysis in Russia, see Bahl (1984), Boex and Martinez-Vazquez (1997b).

The independent variables in such an analysis should reflect both the level of economic development and the ease with which the tax administration can reach this base. Since most taxes are collected directly from enterprises, revenue collections should be highly correlated with the average wage, profits in all enterprises (besides small business and joint stock companies) and industrial production. We tried numerous specifications but finally settled on one independent variable, the per capita value of industrial output. Higher values on this variable should signal a higher level of revenue potential for all major taxes in the system.

The relationship between actual collections and industrial output was estimated as:

$R_p = 643.4 + 0.1Q^*$ $R^2_{adj} = 0.85$ number of observations = 21[34]
(3.6) (10.6)

where:

R_p = actual per capita collections (thousands of rubles)
Q = per capita industrial output (thousands of rubles)

More than 80 percent of the variation in per capita tax collection levels among local governments may be explained by variations in industrial output. A Rb 1000 higher level of industrial output per capita is associated with a Rb100 higher level of taxable capacity.

The predicted values from the regression equations show how much taxes should have been collected by each municipality, if, all other things being equal, the level of tax effort that applied in each case coincided with the average tax effort across all municipalities of the oblast. For example, in Kirishy

[34] Our analysis was based on only 21 observations, because the breakdown of data available was done by "old" sub-oblast jurisdictions, and also because industrial output figures were not reported for a number of cities and rayons. We aggregated the available budget indicators in accordance with the old territorial break-down and excluded a number of municipalities for which statistical data were not available. After running the regression we assumed that the index of tax effort for all jurisdictions that are part of an "aggregated municipality" is the same as for the aggregated municipality.

City, revenues actually collected were Rb 6,188 thousand per capita (column 1 of Table 31). But given our equation that reflects the average use of tax bases in the region, and given Kirishy's industrial output of Rb 50,332 thousand, it should have collected Rb 6,478 thousand (column 3). By our terminology, Rb 6,476 thousand is the *taxable capacity* of the municipality. The ratio of what was actually raised to what should have been raised is 0.96, i.e., Kirishy City exerts a tax effort that is 4 percent below the average in the region. The tax effort indexes for all municipalities is shown in the last column of Table 31.

A reasonable proposition is that, *cet. par.*, a higher retention rate on shared taxes will encourage tax effort. That is, the more a municipality can keep, the harder it will try to raise more revenue. We find that the average level of tax effort in the donor municipalies (1.140) is not significantly lower than that in the recipient municipalities (0.973.)

A second hypothesis about the behavioral response of local governments is that tax effort and par capita grants received will be inversely related. That is, a local government that can rely heavily on grants will have less need to push for a higher tax effort. We find a strong positive correlation between per capita grants and tax effort ($r = 0.788$). Grants and taxes do not appear to be substitutes.

What to make of this seemingly perverse behavior? One possibility is that local officials, steeped in a centralized tradition for so long, simply do not react as normally would be the case in a market setting. They are still too new to the market system to react to changing relative prices, and too bound to a rule-based approach to fiscal decisions.

A second view is that the true reaction is as expected, but it is hidden by the data. For example, municipalities that receive significant amounts of grants can afford to overstate in-kind collections and so their lower level of tax collections is hidden. The overstatement of in-kind revenues gives the statistical impression of a high tax effort, but the reality may be quite different.

Finally, there is the possibility that income effects completely dominate the price-based incentive effects that concern us here. For example, a higher income municipality may have such a strong demand for services that it pushes hard for increased taxation even though it receives a significant amount of intergovernmental grants. Still, this explanation does not help us account for showing a high tax effort when little or none of the revenue can be retained.

Deficits and Deficit Financing

In general, the budget deficit (or surplus) equals the difference between revenues and expenditures. In practice there are several different versions of the definition. According to standard government finance practice, it should equal the difference between expenditures reported by the rayon government and the sum of "own revenues" and recurrent grants. Following this concept, the "deficit" positions of the 23 rayon-level local governments in 1997 are presented in Table 32. For example, Boksitogorsk City finances 64 percent of its total expenditures from own source revenues and transfers, with the remainder (36 percent) being financed from mutual settlements (which is treated here as a deficit grant or a "below the line" item) and "other sources" including borrowings. Since there is relatively little in capital expenditures in these budgets, we view the "remainder" as a deficit.

By this definition of the deficit, all municipalities in the region except for Kuznechnoye City were in deficit in 1997, and the median financing gap was equal to 21 percent of total expenditures. On average, about 84 percent of this gap is financed by mutual settlements. We could find no pattern to the distribution of budget deficits described in Table 32.

How is the remainder of the budget deficit financed? In column (1) of Table 33, we show the total financing required. For example, after the receipt of tax revenues, transfers and mutual settlements

the remainder is equivalent to about 6 percent of total expenditures in Boksitogorsk City, and on average, about 10 percent in the oblast. After mutual settlements are accounted for, only three rayons are not in a deficit position. Borrowing from outside the government sector financed more than three-fourths of the remaining deficits (including that of the oblast government).

We also have calculated the budget deficits for 1998, using the same methodology, as reported in Table 32. The results, presented in Table 34, are much the same. All municipalities budgeted for a deficit in 1998. The median level of the budget deficit is equivalent to 22 percent of expenditures.

One view of the deficit finance process in the region is that the oblast-level government uses mutual settlements to cover a significant part of the expected budget deficit of the municipal governments. Since the amount of mutual settlement grants received is negotiated rather than based on some formula, we could think of these as "deficit grants" if the negotiation is based on the level of the deficit of the municipal government. This may lead one to the hypothesis that municipal deficits are developed *in anticipation* the receipt of mutual settlements.

We have estimated a linear regression for 1997 between the per capita financing gap (Dp) of each municipal government, derived from Table 34, and the per capita level of mutual settlement grants (Sp) received. The results of this OLS equation are shown below:

$$Dp = 62.68 + 0.98Sp \qquad R^2_{adj} = 0.94$$
$$(3.67) \quad (20.06)$$

About 94 percent of the variation in the estimated budget deficits can be explained by variations in mutual settlements. A 1,000 ruble higher level of mutual settlements is associated with about the same level of budget deficit. Clearly, mutual settlement allocations and budget deficits are closely related in the minds of Russian local government fiscal planners, but the direction of causation does not seem so clear.

Evaluation: Expenditure Equalization

Any evaluation of the equalization features of an intergovernmental fiscal system must begin with a definition of "equalization." The approach we take here is positive, in that we only measure the equalization features of the system and do not suggest how equalizing the system *should* be. We compare the level of expenditures that municipalities could have afforded if their only sources of revenue were local and assigned taxes, against the level of spending that was prescribed and finally provided for by the oblast. The equalization question here is whether these disparities were reduced as a result of intergovernmental fiscal policy and by how much? We then examine the ex-post disparities in per capita expenditures.

In terms of per capita local and assigned revenues, the disparities among the municipalities in Leningrad Oblast are quite large, and reflect the unevenness in the spatial distribution of the revenue base across the territory of the oblast. In 1996, the top end per capita local revenue was 4.4 times the bottom. In 1997, 1998 and 1999, the comparable numbers were 3.6, 6.8, and 4.3. The data in Table 25 show the wide disparities in per capita assigned local revenues of municipalities for 1997. If the aim of regional policy would be to equalize, there certainly would be a lot of room to narrow the fiscal disparities. The two major instruments that the region can use to narrow fiscal disparities are the tax sharing rates and the distribution of grants.

In fact, the regional government did narrow these fiscal gaps significantly. The ratio of maximum to minimum actual expenditures was 1.7 times in 1996, 1.4 times in 1997 and 1.3 times in 1998 and 1999. Not only was the range in expenditures reduced, but the relative variation in per capita spending was also reduced (see Table 35).

We might think of equalization in three ways. The first is in terms of whether the regional government's policies of tax sharing and grants allocate resources from higher income to lower income municipalities. One way to examine this question is to return to the simple correlations in Table 6. Note that the correlations of per capita assigned revenues (before sharing and before grants) with the fiscal capacity variables are strongly positive. Per capita assigned revenues are significantly greater in municipalities with a higher average wage, a higher industrial output per person, and greater profitability of enterprises. The same measures of fiscal capacity and economic development are not significantly correlated with per capita expenditures. The fiscal advantage of the more developed municipal areas are reduced substantially by shared taxes and by grants, but very large disparities in per capita expenditures remain (Table 14).

Another way to define equalization is in terms of expenditure needs, i.e., a fiscal system could be equalizing if it distributed revenues among municipalities according to their expenditure needs. We assume that expenditure needs are determined by the following:

- The concentration of low income population that increases the need for social support;
- The high share of children in total population which increases the demand for education services;
- The high share of children and senior citizens in the total population that increases the demand for healthcare services; and
- The high percentage of rural population which increases the demand for expenditures for maintaining dispersed infrastructure facilities.

If municipalities where these shares are higher are able to spend more, then we may conclude that the equalization process takes some account of the differences in the need for public services across municipalities.

The simple correlation analysis presented in Table 6 does not show a consistent or strong relationship between the indexes of expenditure need and the levels of per capita expenditure (see Table 23). We cannot conclude that spending is higher where needs are higher. The percent of children and pensioners is not significantly related to actual expenditures in 1996 and 1997. However, there is some evidence of a relationship between the minimum budget estimates in 1998/1999 and the age distribution of the population.

The hypothesis, that in rural areas per capita expenditures should be higher to compensate for the higher costs associated with the spatial dispersion of the population, likewise was not confirmed. On the contrary, in the municipalities with a higher proportion of rural population, per capita budget expenditures were less than the average, as evidenced by negative correlation coefficients in 1996, 1997 and 1998. In 1996, municipalities with a higher share of urban population had higher total spending and higher spending on housing and utilities, and health care; in 1997 they spent more than average on education; and in 1998 minimum budget levels were higher in more urbanized places.

A third factor that potentially could explain variations in per capita spending is the availability of social infrastructure facilities in the municipality. This is quite likely, in fact, because revenue allocations have been made in part according to the amount of inventory to be maintained (e.g., schools, hospitals, etc.). Since social infrastructure is distributed unevenly, it would be expected that the funding allocated for its maintenance has also been distributed unevenly. Our analysis of the correlation between the availability of public infrastructure and per capita expenditures shows some significant, positive relationships. The relation between each of the number of hospital beds and visits to policlinics per 1000 citizens, and health care expenditures, were significant. Minimum budgets computed for 1998 show a tendency towards allocating funds for maintenance of existing schools and kindergartens. With minimum

budgets for 1999, this tendency disappears, and instead the relation between education expenditures and the number of children is stronger.[35]

What we might conclude from this analysis is that the regional government is ambiguous about what it wants to achieve with its intergovernmental transfer system. On the one hand, it does seem to allocate shared taxes and grants towards less developed regions, using ad hoc grant allocation and variable shared tax rates. On the other hand, there does not appear to be a relationship between revenue allocations and expenditure needs, and there is some evidence that places with a more developed infrastructure are rewarded with more resources. At the end of the process, per capita expenditure disparities among municipalities remain quite large (Table 14).

THE FINANCES OF KIROVSK RAYON

Population and Economy

The total population of the Kirvovsk municipal settlement is 85,800, of which 23,700 (27.6 percent) live in the city and the remainder live in 12 villages. The rayon has an average wage that is slightly above the median for the region, but its industrial base is not strong relative to other rayons. The total budget for 1998 is Rb 100,833 million, or about Rb 1,172 thousand in per capita terms.

[35] Another conformation of this hypothesis can be seen in the fact that in 1998, Leningrad Oblast decided that minimum budgets of municipalities that receive subsidies from the equalization fund can not exceed 95 percent of minimum budgets of municipalities that do not receive subsidies.

Budgetary Position

Our best estimate of the financial condition of the municipality is given in Table 36, again converted to a format traditionally used in market economies.

- Row 1 shows total current revenues, defined as the sum of own taxes, shared taxes, subsidies and subventions. These are revenues regularly received. Based on information supplied by the municipal government, the total of current revenues is Rb 77 million in budget 1998. Mutual settlements do not appear in the budgeted revenue accounts.

- Total current expenditures are Rb 91.8 million (row 2). The difference between row (1) and row (2) is the current deficit (row 3). In budget 1998, this is Rb 14.8 million, equivalent to about 14 percent of the size of total budget expenditures. Another Rb 9 million is allocated to capital expenditures for housing and utilities (the purchase of boilers). The overall deficit is Rb 23.8 million (row 5). The rayon has budgeted for about a 33 percent smaller overall deficit in 1998 than was reported in 1997. The deficit reduction program includes a proposed 30 percent decrease in expenditures. In reality, this deficit reduction may not occur. Note that the actual budget in 1997 was over three times the size of the budgeted deficit.

Kirovsk City officials consider the 1998 budget as being "non-deficit", though the gap between current revenues and current expenditures is equivalent to about 15 percent of current expenditures. The current budget deficit (and the overall budget deficit) is proposed for coverage by loans from commercial banks, and by mutual settlements. Of the total of Rb 23.8 million to be raised, Rb 9 million is for a capital purchase of boilers. This is a long-lived asset and therefore a legitimate candidate for debt finance. The remainder of the overall deficit will be financed from a combination of sale of government property, roll-over of short-term loans (less than one year maturity) to cover operating costs, and a "mutual settlement" from the regional government. The vagaries of municipal budgeting show up prominently in Table 36. Note that there is no budget provision for municipal settlements as a source of deficit financing, even though municipal settlements will figure prominently in balancing the rayon budget.

By our calculations, based on data supplied by Leningrad authorities, Kirovsk ran a current deficit of about Rb 24 million in 1997, equivalent to 22 percent of current expenditures (see Table 36). This amount plus a portion of capital spending was financed primarily by deficit grants (mutual settlements). There was a similar pattern in 1996.

Revenue Structure

Revenues by source, as reported by municipal officials for the 1998 budget, are shown in Table 37. We have used the following categories of revenue for the municipal government: local revenues, shared taxes, subventions, and subsidies.

The rayon has no independent taxing powers. All taxes, in effect, are central government levies. Yet, Kirovsk Rayon reports four distinct classes of revenue: Local revenues, federally assigned revenue, shared regional taxes, and shared federal taxes. In addition, there are grants from the regional government, and loans. The rayon also raises some revenues that are off budget. Each of these classes of revenue is discussed below.

Local Revenues

"Local Revenues" account for nearly 19 percent of rayon level finances (see Table 37). *The tax on the maintenance of housing* is budgeted to yield Rb 8 million in 1998. This is equivalent to 8 percent of the rayon budget, but it is far less than the 21 percent of the rayon budget that is spent for the maintenance of housing. The tax on housing maintenance is levied on all (except budget) enterprises. The tax base is the gross sales of an enterprise, with the maximum tax rate of 1.5 percent set by federal law. The local government has some discretion in (a) the introduction of this tax, (b) reducing the tax rate, and (c) providing certain, specified

exemptions. Enterprises receiving subsidies from the municipal budget are exempted from this tax by local government decision. Moreover, if an enterprise provides housing or other similar services, the tax base is reduced by an amount determined from local "norms" for providing this kind of service.

The militia (police) tax is budgeted at Rb 410,000. Revenues from this tax are earmarked for maintenance of the police activity in the local area.[36] The tax base is set as the product of the number of employees and three times the minimum wage. The federal government determines the maximum rate for this tax, which is 3 percent. The tax may be introduced, or not used, at the discretion of local government. Enterprises receiving subsidies from the municipal budget are exempt by local government decision. The tax is collected for the government by enterprises.

The fee for a license to sell liquor is budgeted for 1998 at Rb 865,000. This fee may be introduced at the discretion of local government, but the federal government sets the fee schedule.

The income received from leasing municipal property, municipal assets and municipal land is projected to yield Rb 1.15 million. This revenue comes from three principal sources: sales of assets (15 percent); revenue from leasing municipal property (79 percent); and sales of land to privatized enterprises (6 percent).[37]

Local governments do have discretion in controlling the level of certain other fees and charges. Together these revenue sources add up to less than one percent of total revenues.

[36] Kirovsk Rayon does not have a municipal militia, and budgeted expenditures for "Law and Order" are only Rb 300,000.

[37] The privatization of an enterprise involves transfer of the structure and all other assets except land. The land must be purchased or leased separately by the enterprise.

- *Fees for licensing (other than liquor) and registration,* budgeted at Rb 2,156 million, include licensing and registration of various economic activities. The local government sets the fee schedules.

- *Administrative payments* are budgeted at Rb 213,000. These are a series of penalties, fines and fees. They include fines for violation of sanitary norms, other environmental and social norms, etc. The municipality sets the fee levels.

"Other" local taxes and fees are budgeted at Rb 68,000. These kinds of taxes (e.g., dog licenses) are introduced at the discretion of local government. The rates of some are set by local governments without a limit, while in other cases the federal government sets a maximum rate. Enterprises, which receive subsidies from the municipal budget, are exempted from this tax by local decision.

Taxes Assigned by the Federation

Revenues from certain taxes are assigned by the federal government to local governments. In most cases these taxes appear to have been created for regulatory or control purposes rather than as significant revenue raising instruments. In total they account for less than 2 percent of revenues in Kirovsk City.

The personal property tax is budgeted at Rb 430,000 in Kirovsk City, and a *tax on gifts* is estimated to field Rb 121,000. These mandatory taxes were introduced by federal legislation, with 100 percent of revenues assigned to local budgets. The regional government sets the tax rates.

The tax on use of subsoil resources yielded Rb 642,000 in 1997, and is budgeted to yield the same in 1998. The federal law specifies tax base and tax rates for particular natural resources and also specifies a federal/regional/ local sharing of this tax. Taxes on extraction of "common resources" are assigned to local budgets at 100 percent; for hydrocarbons the retention rates are:

30 percent local, 30 percent regional, and 40 percent federal; for other natural resources the retention rates are: 50 percent local, 25 percent regional, and 25 percent federal. The taxpayer is responsible for making payment of the tax according to the sharing rates.

The tax on water is budgeted at Rb 40,000. The federal government introduces the tax, however, the rates are set by the regional government. Enterprises pay the tax on water according to their consumption. The Leningrad Oblast has assigned 100 percent of the revenues from this tax to municipalities.

The transport tax is budgeted at Rb 150,000. The tax is imposed by authorization of the federal government. The federal government fixes the tax rate at 1 percent of the total wages paid by enterprises. According to federal law, 100 percent of revenue collections are retained by subnational budgets. The Leningrad Oblast fully assigns revenues from this tax to local budgets.

Fines paid by enterprises that violate tax legislation are budgeted to yield Rb 80,000 (the same amount as in 1997). Of this amount, 75 percent goes to the municipal government, and the other 25 percent is passed to the STS as a fee for collection. The revenues are used mostly for equipment. Federal or regional governments specify rates.

State Duty is budgeted to yield Rb 390,000. These include duties such as payment of court fees, notary fees, etc. Rates are specified by federal or regional governments. Another tax that belongs to this category is a gift tax.

Shared Regional Taxes

Land tax and land rent are budgeted at Rb 9.1 thousand. At about 12 percent of total revenues, this is a significant source of financing for the rayon. Owners of land pay land tax and lessees of the land pay land rent. Federal law refers to this as a "local tax", however, the local government has relatively little discretion in determining the amount of revenue to be raised. The federal government sets the average tax rate for the region, and the regional government sets the average rate for each rayon. The local government then determines final tax rates and rent fees within these bounds. Revenues are shared with the federal and regional governments. The federal government determines its share and the split between region and local is set by the regional government. In Kirovsk City, 50 percent of collections are left in the local budget, the region takes 20 percent, and the federal level takes 30 percent.

Land rent and land taxes are subject to a different collection regime than are other local taxes. For other federal and regional shared taxes, the STI and territorial treasury both collect the tax and divide the revenues. However, the *land tax* is paid directly to the local budget and STS only provides control over taxpayers. The municipal government assumes the administrative role of dividing the revenues among levels of government. For the *land rent*, the Kirovsk municipal committee on property both collects the tax and divides the revenue.

The enterprise property tax is budgeted at Rb 8.1 million. The federal level requires that this tax be levied, and sets the maximum rate at 2 percent. The regional government has the option to choose a rate within this 2 percent ceiling. The Federation also requires that at least 50 percent of this tax should go to local governments, but the exact sharing rates are set by each region. Leningrad Oblast chose a uniform 50 percent retention rate for all municipalities.

The education tax, which is budgeted at Rb 1.82 million, is a shared tax authorized by the region and assigned fully to the local budget. It is calculated as 1 percent of the payroll of the enterprise. Enterprises that receive subsidies from the municipal budget are exempt from this tax by local decision. In reality, the education tax is a general fund revenue since it covers only about 9 percent of total education expenditures. Its total yield does not even cover one month of the wages of teachers (which average about Rb 2 million per month).

The tax on foreign exchange is budgeted to yield Rb 145,000. The federal government sets the rate of tax, but regional governments have discretion on whether or not to levy the tax. The Leningrad Oblast government has assigned 100 percent of the revenues from this tax to municipal governments.

Shared Federal Taxes

The four major federal shared taxes together account for 55 percent of budgeted 1998 revenues in Kirovsk City, and are the principal source of revenue. Kirovsk City is a "recipient" region in that it retains 100 percent of all shared tax revenues collected within the region.

The enterprise income tax is budgeted at Rb 6,397 thousand in 1998. A 13 percent tax rate is paid directly to the federal government by each enterprise. An 18 percent subnational rate is set by the region, within the maximum allowable 22 percent subnational rate. In 1997, the oblast government received 7 percent and the municipality received 11 percent. In 1998, the municipal government will keep the full 18 percent.

Among the biggest problems posed by a shared enterprise income tax are (a) the fact that most local enterprises are not in a profit-making position, and (b) the problem of taxing enterprises with branches in more than one local area. With respect to the former, there are 1,300

enterprises in the rayon, but only 600 make profits. Kirovsk City is below the regional average in terms of number of enterprises registered (adjusted for population) and in terms of the average profitability of enterprises. It has a lower industrial output than the median for the region. Revenues are concentrated in a small number of taxpayers. Fifteen enterprises pay 70 percent of the taxes. Because of its proximity to St. Petersburg City, Leningrad Region faces a special problem with respect to the proration of taxes on branches operating in the municipality. At present, the division of profits seems to be based on certain *ad hoc* arrangements.

1. Branches of large enterprises with headquarters in St. Petersburg City pay local taxes, personal income tax, subsoil use taxes, water tax, and land tax to the local budget. The remaining taxes are paid to the budget of St. Petersburg City.

2. By oblast decision, *new* industrial enterprises and those that increased their sales by more than 5 percent over 1997 levels will pay the regional share of profits tax, VAT, property tax, and excise tax to local budgets.

3. If any enterprise opens a new branch in the rayon, all of the revenue will go to the location of the headquarters office. This is true for all shared taxes.

VAT revenues for the rayon are budgeted at about Rb 10 million. In 1998, the municipal government will retain 25 percent of VAT collections within the region, 75 percent will pass up to the federal government, and the oblast will receive zero. The municipal share has increased. In 1997, the municipality retained 15 percent of collections and the oblast government received 10 percent. Exporting enterprises are taxed at zero rate and receive VAT rebate directly from the federal budget.

Personal income tax collections in the rayon are budgeted at Rb 26 million, and are the single most important source of revenue. The average wage of workers in Kirovsk municipality is well above the average for the region. Sharing rates for the individual income tax, between federation and oblast, are set every year by federal budget law. For the last 2 years the federation has assigned 100 percent of the revenues from this tax to the regional level. According to the

1998 oblast budget law, Kirovsk City will retain all of the revenue collected from the personal income tax.

A problem with the individual income tax stems from the fact that all revenues accrue to the jurisdiction of work rather than the jurisdiction of residence. In fact, many Kirovsk City residents commute to work in St. Petersburg City. Implicitly, this allocation arrangement for the personal income tax implies that it should finance services to workers but not to residents, even though half or more of all services provided by local governments appear to be resident-oriented. It was noted that St. Petersburg City provides an *ad hoc* subsidy to the municipality in recognition of this problem, but the nature of the subsidy was not specified.

Excise tax collections are estimated to be only Rb 3,000 in 1998. Sharing rates between the federation and the region are set by federal legislation. For the year 1998, Leningrad Oblast assigned 100 percent of excise collections to the rayon level.

Enterprises in Kirovsk City are in (permanent) arrears by about Rb 11 million on all taxes, an amount equivalent to about 14 percent of budgeted collections in 1998.

Subventions

A subvention in the terminology of Russian intergovernmental fiscal relations is an earmarked grant, and is not to be confused with a general-purpose transfer to a local government. In 1998 Kirovsk City receives two subventions:

1. A price subsidy for drugs and medical services for veterans of Rb 986,000; and
2. A payment to telephone companies to compensate them for losses because certain customers receive special have benefits (e.g., veterans).

In total, these subventions are budgeted to account for less than 2 percent of total financing in Kirovsk City. In practice, subventions and subsidies together will likely account for an amount closer to 20 percent of total revenues. However, municipalities do not budget for these grants.

Borrowing and Loan Finance

The 1998 budget includes provision for "loan finance" of Rb 22.65 million, including the following:

1. Two loans of Rb 3.5 million each for boilers (for the heating system), to be taken from commercial banks;
2. A Rb 10 million loan to cover wages of municipal workers; and
3. "Other" loans from commercial banks for unspecified purposes.

Technically, this is loan finance, since the funds to pay the expenditures come directly from the banks, and the local governments do have the authority to borrow. In 1997, Kirovsk City borrowed Rb 7.5 million to cover the cost of salaries and wages. A 40 percent interest rate was paid. In 1998 the rayon planed to borrow at a 33 percent interest rate. These are short-term (6-month) obligations that may be rolled over.

In reality, however, much of this is grant-financed. The oblast government guarantees the repayment of the loans, and in fact the banks collect directly from the oblast. The interest payments are a liability of the local governments, but in 1997 the oblast government paid the interest.

Extra Budgetary Revenues and Accounts

The municipality has an off-budget account that draws revenue from four major sources. These are mostly earmarked revenues. No data were provided on the size of this account or the annual flow of revenues.

- *Ecology tax* is a voluntary contribution by enterprises, based on the amount of pollution for which they are responsible.
- *Road fines for traffic violations* are earmarked for road maintenance. According to oblast law, 50 percent of fines go to the oblast budget and 50 percent to off-budget funds of municipalities.
- *Tax police revenues* are derived from the sales of confiscated property, and are earmarked for the tax police. It is a kind of a fee paid to the tax police, since the tax police monitor the sales of this property. The proceeds are not used for wages but for equipment, etc.
- *Franchise fees from insurance companies* are set at some percent of reserves of these companies. The money is earmarked for public investments that might minimize insurance losses, e.g., the purchase of fire engines.

Expenditure Assignment

The division of expenditure responsibility between the federal/regional/local governments is not clear. The regional government has prepared a draft law, but rayon and oblast officials feel that the draft law leaves too many gray areas. The biggest problem is that the law does not clearly state the division of responsibility. Even in a number of separate laws and instructions that describe how some of these responsibilities should be financed, there is not an unambiguous interpretation of the matter.

The following example gives a flavor of the problem. One of the major points of contention has to do with “maintenance of schools”, which is assigned as a local government responsibility. But the law does not define “maintenance” and a major issue of debate is whether teachers' salaries are a part of this maintenance. Local officials see this as regional government

responsibility and note that the region is nearly always tardy in its payment of teachers' salaries. Kirovsk City officials discussed the following other state functions as problematic:

- Subsidized fuel prices;
- Veterans and disabled benefits;
- Grants to families with children; and
- Medical expenditures.

Leningrad Region is not alone in its concern over fuzzy expenditure assignments. Igudin (1998) points to several examples of shifting expenditure responsibilities between the region and local levels.

- Responsibilities for urban transit were shifted from the regional to the city level in Bryansk Region.
- Significant social welfare functions were transferred from the regional to the local budgets in Penza Region.
- Vocational training was transferred from the local to the regional budget in Tomsk Region.

Expenditure Structure

The following are the major categories of expenditure as noted in the budget (Table 38).

Housing and Utilities accounts for Rb 30 million or nearly 30 percent of the 1998 budget. The capital expenditures in this category of expenditures are primarily for boilers for the heating system. This is the only capital expenditure item that shows up in the expenditure budget. The fuel subsidy will bring this total expenditure amount up to Rb 40 million, but the additional Rb 10 million is not included in the budget (on either the revenue or expenditure side). However, the fuel subsidy will appear in the final accounts, financed as a “mutual settlement”.

Education expenditure accounts for Rb 21 million and makes up 21 percent of the budget. The functions included are pre-school, primary and secondary schools, and after-school activities. The local budget includes all teachers' wages and summer camps, as well as orphanages.

Agriculture support expenditures are nearly 10 percent of the rayon budget. This amount includes earmarked grants to large agricultural companies for irrigation, and improvement of soil fertility (but not grants to individual farmers). Within Kirovsk City are five large agriculture companies (former state farms) which produce both grain and chicken. Chicken production is said to be profitable, but this may be due in part to subsidies for grain production. Nearly all local government expenditures on agriculture are provided as a tax offset to agricultural companies. Agricultural enterprises do not pay land taxes.

Administration expenditures are 8.5 percent of the total budget. This category of expenditure has increased considerably compared with 1997, in part because new responsibilities have been taken on. These include a new department to regulate prices of heat and water. Note that administration expenditures account for about 6 percent of the budget of the oblast government.

Courts (actually public notaries) account for expenditures of Rb 100,000. There are two public notaries and the municipal government must cover 30 percent of their costs (mostly office articles).

Law and Order accounts for Rb 300,000. No wages are included in this category. This expenditure is covered by the police tax. But note that the police tax is greater than the Rb 300,000 budgeted here for this function.

Industry expenditures are Rb 200,000. This is a subsidy to a company selling different kinds of fuel to households. Actually this is a subsidy for fuel sales to households.

Transport, Road Maintenance and Communication expenditures are Rb 2,400 million. These outlays are of two kinds. The first is compensation to the bus company, which provides free service to elderly people, veterans, etc. The payment to the bus company, which is based in St. Petersburg City, is done in the form of an offset of the local taxes that would have been paid by the branch that operates in the municipality. The revenues from offset taxes appear as negative entries on the revenue side of the budget. The second component of this expenditure category is compensation to the post office and telephone service for providing benefits to certain categories of households.

Market Infrastructure expenditures are Rb 500,000. These are small business loans that the rayon provides at subsidized rates.

Culture expenditures are Rb 1.93 million. This is maintenance of club buildings and wages paid to professional directors and staff of amateur theaters groups, costumes for performers, and travel expenses.

Mass Media expenditures are Rb 480,000. The city subsidizes two radio stations, one television station, and one newspaper. These expenditures do not include wages.

Expenditures for Health Care are budgeted at Rb 6 million, but based on last year's final outcome, actual expenditures are likely to be much higher. This amount includes building maintenance and medical and other supplies of hospitals. In addition, the municipal budget pays salaries to certain categories of doctors, e.g., in Kirovsk Rayon to emergency service employees. Other categories of doctors are paid from the territorial fund for mandatory medical insurance.

The budgeted figure also contains compensation to pharmacies for subsidized prices on medicine (Rb 819,000).

Outlays for Physical Culture total Rb 200,000. This supports football and sports events including travel expenses, etc.

Social Policy expenditures are Rb 2.33 million, of which Rb 1,680 is services for the socially vulnerable, including all costs for retirement centers, free kitchens, old age services, and the wages of workers and the utilities of old age service centers. A total of Rb 500,000 is subsidies to vulnerable household and families with children, and Rb 150,000 is expenditure for youth policy, including stipends and awards for top students.

Interest payments on loans amount to Rb 3 million and principal repayment is Rb 5 million. Together these account for about 8 percent of total budgeted expenditures in 1998.

Expenditures not otherwise classified are Rb 9,309 million. The major categories are the housing subsidy for eligible families (Rb 1 million), contingency fund (Rb 3 million), and development fund (Rb 5 million). The development fund is used to assist in restructuring bankrupt enterprises so as to enhance their marketability.

Expenditure Autonomy

There is some degree of budget autonomy at the local level. The municipality approves its own budget, and there is a minimum of line-by-line scrutiny. It may budget for a deficit, but the regional government sets the limits of this proposed deficit. Most observers have agreed that budget autonomy of local governments in Russia is greater with respect to determining the mix of expenditures than in determining the level of expenditures. However, even in the case of expenditure composition, there are some severe constraints on local autonomy. Wages and salary

rates are determined from federal guidelines. The region may adjust these rates within limits, but in general the central government determines wage rates for particular categories of budget employees (teachers, doctors). However, the local government may pay bonuses to its employees within amounts approved by the local legislative assembly. The total wage bill is about 26 percent of the rayon budget.

A more serious challenge to expenditure discretion (and budget balance) is the existence of mandates by the higher level governments. The mandates presently imposed on municipal governments are described in Table 39. Some of these are mandated expenditure amounts for specific activities (e.g., fuel price subsidies) while others are entitlements that are widely understood by eligible recipients. In most cases these mandates are federally imposed.

This practice compromises local autonomy by limiting discretion in budget choices, but it also weakens the fiscal position of the local governments because the mandates are in general not funded. Kirovsk City officials have estimated the funds needed to finance the mandates described in Table 39. Their conclusion was that these mandated expenditures alone would more than exhaust all budget revenues of the municipality. Reported budget revenues in 1997 were Rb 110 million, 16 percent less than the total amount mandated.

Expenditure Reform

Some would argue that there is “fat” in the municipal level budgets, and that this level of government is a prime candidate for expenditure reduction. This set of criticisms usually centers on two issues: excessive payments to workers or unwarranted subsidies to local governments.

The case for excessive wages would appear to be difficult to make. In the entire region, the wage bill is only 26 percent of the total budget. It would appear that much of the labor compensation rests in the housing and utility category of expenditures.

The subsidies paid to enterprises for private purposes, however, could be significant in amount. The development fund, which appears to cover the losses of selected enterprises, accounts for about 5 percent of the total budget. Other subsidies for goods that might be considered more private than public, are included in the following expenditure categories: Housing and utilities (30 percent of the budget), and agriculture (9 percent). In neither case is there necessarily waste implied in these amounts, but these are the areas where an efficiency study might concentrate.

Region - Municipal Fiscal Relations

The rayon receives 70 percent of its revenues in the form of shared taxes and transfers from the regional government. In all cases, the amounts are negotiated and change significantly from year-to-year.

Revenues from shared taxes are determined by the regional government, and the retention rate has changed in the past year for nearly all shared taxes. At present, Kirovsk Rayon retains all revenues collected from the income taxes, VAT and excises, and 50 percent of revenues collected from the enterprise property tax.

The deficit grants that take the form of “mutual settlements” are determined on a negotiated basis. Kirovsk City has a “basic” expenditure that is about 2 percent below the median for the region, and an adjustment coefficient of 0.96. The resulting minimum expenditure is slightly less than the median level for the oblast. The per capita amount of grants received by the

rayon in 1997 was about 24 percent above the median for the region, owing largely to the level of subsidy received.

The steps in the allocation of transfers, and the accounting of these transfers by the local governments, are outlined below:

Step 1: The oblast government makes decisions on distribution of grants from the oblast budget, based on (a) funding mandates it will impose, and (b) the estimated gap between minimum expenditures and "own revenues". The budget resources of the region that constrain this decision do *not* include revenues from transfers from the FFSR or expected mutual settlement transfers from the federal government. The oblast's estimated 1998 deficit for Kirovsk City was 16 percent of minimum expenditures, a relatively small deficit compared to other rayons.

Step 2: The oblast government negotiates with each rayon to determine the funds necessary to cover the target level of expenditures. The oblast promises to provide these funds when they become available (when the oblast receives the FFSR transfer and "mutual settlements" from the federal government). Meanwhile, it allows the rayon to borrow from the commercial banks with an oblast guarantee to repay the loan (up to the negotiated amount). In effect, the rayon sells the commercial bank a short-term revenue anticipation note, i.e., a promise to repay based on anticipated receipt of grants from the regional government. As described above, these notes are fully guaranteed by the regional government.

Step 3: The municipality includes this negotiated amount in budgeted expenditures. On the revenue side, it shows the corresponding financing item as a "loan from the commercial bank". When the oblast repays the loan on behalf of the rayon, the corresponding amount is transferred from "loans" to "mutual settlements" on the revenue side of the rayon financial

accounts. This scheme of transfers shows up clearly in the reports on the execution of rayon budgets.[38] There are additional transfers from the oblast level that increase the actual expenditures of the rayon. This is the case for fuel subsidies, as noted above. For 1998, the projected amount of this funding (Rb 9 million) will significantly increase housing and utility expenditures. These amounts are also negotiated by the rayon with the oblast.

POLICY ISSUES AND REFORM OPTIONS

Government finance in Russia is very much a top-down affair. The federal government controls the total level of revenue mobilization, sets the rules for revenue sharing with the regions and for all tax policy and administration, and imposes significant expenditure mandates. The regional government plays an important role in shaping the distribution of expenditures and the government service levels within the region, and is in a position to significantly reinforce or offset federal policy.

Local level governments have less capacity to influence public finances. The region establishes their revenue levels and expenditure assignments, and they are subject to significant expenditure mandates and entitlements. However, local level governments can use backdoor approaches to influencing public financing in the region. First, they can exert an indirect, but quite important, influence on the efficiency of the tax administration service. Second, they may influence the distribution of revenues within the region by using their skill in negotiating for an increased share of resources.

[38] The level of executed "mutual settlements" (the mutual settlements never appear in the budget law) shows that the oblast uses the mutual settlements as an instrument for managing local budgets. This financial instrument may be the least transparent of all that are used in Russia because the oblast legislative assembly does not control it.

This section of the paper presents a number of policy and management issues that emerge from this case study, and suggests some possibilities for reform. As the Russian economy continues to modernize, the intergovernmental fiscal component of the public financing must keep pace. These suggestions and proposals are meant to be in this spirit of modernization.

Federal - Regional Issues

While a great deal of research and policy debate has been focused on federal-regional relations in Russia, relatively little attention has been given to regional-local relations. Yet many of the major policy impacts desired by the federal government depend crucially on fiscal distributions within the region.

1. Federal targets for equalization could be offset, or even overshot, if the regional government does not take the same view of redistribution as does the federal government.

2. Because subnational government actions influence tax collections, the regional government, through its tax sharing rates and grant distributions, could influence tax effort considerably. This could compromise (or reinforce) federal government programs for revenue mobilization.

3. Expenditure assignments and mandates made by regional governments could effect the level of services provided, which might distort federal priorities.

The point here is that it is not possible to set national intergovernmental fiscal policy in the Russian Federation without considering the policy reaction that might be taken by the regional governments. Nor is it possible to evaluate the fiscal health of subnational governments independent of federal policy concerning tax structure, tax sharing and tax administration. The findings here that can raise policy issues for the federal government might be summarized in the following stylized facts:

- Neither the federal nor the regional government successfully uses intergovernmental transfers to equalize expenditure needs or fiscal capacity. Moreover, the two levels take

very different approaches to equalization. The federal level uses uniform tax sharing rates (which is a counter-equalizing practice), while Leningrad uses variable tax sharing rates (which are potentially equalizing). Some grants, both by the federal and regional governments, appear formula-based but the measures reflected in the formulae are of uncertain impact. Other transfers between levels of government seem to be totally negotiated on both levels.

- Neither the federal nor the regional government appears to have a clear intergovernmental fiscal strategy. Some aspects of their systems are equalizing while others have the opposite effect, and there is ambiguity about whether the use of revenue mobilization incentives is desirable.

- Expenditure assignment between the federal and oblast levels is not totally clear, and a major problem is the imposition of unfunded mandates on the regional governments (Lavrov, undated). The pattern is repeated within the oblast. The expenditure assignment between the regional and rayon level is not clear, and the region imposes unfunded mandates on the local governments.

- The regional governments place strict limits on the fiscal powers of rayon governments, so that they have markedly less discretion than the oblast government. This means that there is limited accountability to voters on the part of officials at the rayon level.

- The oblast does not report the detail of its internal fiscal activities to the federal level, therefore the federal level cannot monitor outcomes, and "tune" its policies.

As the Russian government revises its stance on fiscal decentralization and intergovernmental fiscal relations, it will need to face a key policy issue. Will it continue to give regional governments the authority to shape intergovernmental fiscal relations within its boundaries? There are significant costs and benefits associated with this decision. The potential cost of allowing the region freedom to structure fiscal relations with their local governments is that the Federal government will lose some control over shaping the total intergovernmental system and therefore will be less likely to achieve its policy objectives. The benefits of continuing this practice are that given more fiscal discretion, the oblasts can be innovative, responsive to local needs and more accountable for their actions.

Under the present system, the Federation has given up part of the potential benefits of decentralization because it has not given the oblasts enough fiscal autonomy to be truly

innovative or sufficiently accountable. Moreover, by funding year-end deficits it has given up on the possibility of establishing a hard budget constraint on its local governments. Yet it has incurred the costs of decentralization because it has given the region some choices over investment options, control over equalization within the region, and ability to provide incentives and disincentives for revenue mobilization.

At the extremes, there would seem to be two policy avenues now open. One is for the federal government to give more fiscal autonomy to the regions, including some significant taxing powers. This will allow the imposition of a hard budget constraint on local governments, and it will force a more transparent system of transfers on the federal government. But this would be a big step, and would change the entire philosophy of public financing in Russia. The issues to be sorted out would include (a) which taxes to devolve, (b) how much rate-setting discretion to give, and (c) whether tax collection would become a dual responsibility. The major policy questions to be evaluated are whether revenue decentralization would increase the overall level of resource mobilization, whether it would compromise macro fiscal policy, and whether it would make the fiscal system even less equalizing than it is now. Those looking for evidence that Russian policy is moving in this direction can find it in the authorization for imposition of a retail sales tax by regional governments.

The other policy route is for the federal government to mandate that all oblast-local relations mimic federal-oblast relations, i.e., the structure of shared taxes, grants, expenditure norms and mandates, etc. This would afford more central government control over policy outcomes, but would reduce local initiative and accountability. This policy would also cause some major adjustments in the finance of the local governments, and would impose significant transaction costs. As Leningrad evidence shows, a different approach to tax sharing and grant

distribution is taken in the oblast than at the federal level. A mandate of uniformity would cause a major disruption in the flow of resources to sub-oblast governments and would lead to a significant reallocation of resources among the local governments units.

One point is clear. The federal government cannot ignore the fiscal decisions of the regions. It must factor intra-oblast fiscal distribution into its policy framework. It also must factor into its decisions, the impacts on the subnational government budgets and their potential reactions. Recent decisions by the federal government to reduce the individual income tax sharing rate, and to reduce the value added tax rate, appear to have been taken without the benefit of an analysis of the effects on the fiscal conditions of regional and local governments.

Oblast-Local Relations: Recommendations

This case study suggests five areas where the Leningrad Oblast government could improve its fiscal decision making and management, even in the absence of major changes in federal policy. Some are policy areas and some are in public management.

First, *Expenditure assignment should be made clear*. A major problem cited by Leningrad Oblast and municipal officials is uncertainty about the assignment of expenditure responsibility, the bickering over whom truly has responsibility, and the delay in funding services in question. Until expenditure assignment is clearly laid out, it is not possible to make a proper assignment of revenues nor is it possible to impose a hard budget constraint on local governments. The regional government should draft a detailed set of regulations defining exact responsibilities for every service, and then rethink its revenue assignments accordingly.

Second, *a strategy for intergovernmental fiscal relations within the region must be developed*. The objectives of equalization, better government services, and the promotion of

economic development in the more prosperous areas are not fully compatible, and the stimulation of tax effort is probably not consistent with equalization. The oblast should weight it objectives and determine an intergovernmental sharing system that meets this target. There are three fiscal instruments in the hands of the regional government: expenditure assignment and mandates, tax sharing rates, and grants. These should be coordinated to achieve the objectives chosen.

Third, *the oblast needs an information system that will enable it to monitor its intergovernmental fiscal system*, i.e., to determine if it is meeting the objectives it has set. This implies a uniform set of fiscal accounts for rayon level governments (preferably independently audited) and a set of benchmark socio-economic data that will permit a tracking of equalization, etc. These need to be brought together in a single database. At present, there is no such information system in place, and no regular reporting on the distributional impacts of intra-oblast fiscal structure. When there is not such a system, changes in grant and shared tax structures become piecemeal and *ad hoc*, and their potential impacts are uncertain. A fiscal analysis unit should be charged with regularly analyzing the impact of alternative programs proposed by the Duma and the Administration, and with monitoring the impacts of the present system.

Fourth, *the intergovernmental transfer system should be more transparent and less uncertain for rayon level governments.* The "mutual settlements" approach should be dropped in favor of earmarked grants for funding mandates and entitlements, and formula-based transfers. An equalizing system that will compliment the shared tax system might be considered. Developing such a system will require simulations to determine outcomes of different scenarios, the development of a supporting data system, and the establishing of an office of policy that will be able to manage the grant system. The abolition of the deficit grant system will open the door

to impose a hard budget constraint on the rayon governments. This implies that a monitoring system and a technical assistance office is in place at the regional level.

Fifth, *The oblast needs to develop a better system for revenue estimation*, i.e., to measure the fiscal shock associated with important prospective changes in federal policy. For example, the federal government is discussing various tax and intergovernmental reforms that might have a significant effect on the revenue base of the regional government. It is essential that the regional government be able to anticipate such changes. Some not-too-far-fetched examples are the following: a) The switch of the VAT to an accrual basis, and the elimination of special treatment of certain goods; b) the reduction in the enterprise income tax rate, and the inclusion of all labor costs in the base; c) the reduction in the local share of individual income tax revenues; d) the reduction in the VAT rate; and e) the creation of a formula-based equalization grant program to replace the present system of distributions.

REFORMING INTERGOVERNMENTAL FINANCE WITHIN REGIONS: A PROPOSAL

Reform of the intergovernmental system in Russia, if it is aimed at strengthening the financial capacity of local governments, should adhere to some basic principles. These principles are the basics upon which concrete policy may be developed. In present-day Russia, the following may not be far out of line with national goals. All levels of government should be given:

- Sufficient degrees of freedom (within the framework of existing legislation) to make decisions on raising revenues and allocating funds for specific needs.
- Access to revenues that are predictable so as to facilitate fiscal planning.

- Strong incentives to increase revenue mobilization to legally set levels.
- Revenues adequate to provide minimum levels of public services as guaranteed by the Constitution.

Finally, and perhaps most important, is the balanced budget constraint. If there is to be some degree of fiscal autonomy given to regional and local governments, then there must be movement toward the imposition of a hard budget constraint on these governments. Subnational governments must live within their revenue constraints without recourse to year-end bailouts or deficit grants.

The intergovernmental system in Russia, and in Leningrad region as described in this case study, does not match up well with these principles. Regional and local governments have inadequate levels of revenue that flow in unpredictable ways, and there are not strong incentives to increase the rate of revenue mobilization. Subnational governments have limited autonomy to make fiscal decisions and budget constraints are softened by year-end grants to cover revenue shortfalls.

There are intergovernmental fiscal arrangements that could come closer to meeting these principles. But there is no single “best” choice. In the sections below, we present only one such program. This proposal emphasizes equalization, but with some adjustments it could just as easily have placed more emphasis on revenue mobilization.

The specific program we describe here is focused on equalization, and at the first glance, seems very similar to the one currently in use in Leningrad Oblast. Estimated expenditure “needs” are compared with “normal” revenues, and if expenditure needs exceed normal revenues, financial assistance is granted to compensate for some portion of the shortfall. Closer inspection, however, reveals that the proposed system is a “better” model for Russia.

- Revenues and expenditures of all municipalities are balanced, i.e., a hard budget constraint is guaranteed.
- There is a clear distinction between regional government and local government expenditures.
- The expenditure "needs" of municipalities are determined in an objective way, and are client-based rather than facility-based.
- The estimation of expenditure needs, and the estimation of the budget implications of mandated expenditures, are carried out separately.
- The proposed methodology merges all transfers (subsidies, mutual settlements and shared taxes) into a simpler and more transparent system of intergovernmental finance.
- The revenue capacities of municipalities are determined on the basis of characteristics of the local economy, rather than on the basis of historic revenue collections.

These desirable features of the proposed new system are taken up in the next sections of this paper. We then present an analysis of the strengths and weaknesses of this system, and the tradeoffs involved. Throughout, we provide simulations showing the potential impact of this system if it were to be implemented.

Instruments of Revenue Sharing

The federal Law *On financial foundations of local self-governance in the RF* envisions four sources of finance for local governments. These are:

1) shared taxes;
2) subsidies and subventions;
3) funds allocated from the Regional Equalization Fund; and
4) mutual settlements from higher level budgets.

In principle, the amount in each category should be clearly and distinctly determined and stated in the Oblast Budget Law for the next budget year. As an alternative, we would propose

first to classify all of these revenues into two categories: earmarked transfers and general-purpose transfers. We propose that the entire amount of earmarked financial assistance be determined in the Budget Law and be allocated through subventions. General-purpose assistance is in one way or another intended for budget equalization purposes. We propose the following revision:

- financial assistance should be limited to two channels only: tax sharing and transfers from the Federal Fund for the Support of Municipalities (FFSM); and
- the allocation of all funds intended for equalization purposes should be based on a single method.

This approach would simplify the system of budgetary regulation, making it transparent to all and easier to control by legislative authorities. It will also lead to a more objective determination of tax sharing rates for local governments. Finally, it could expand the amount of the financial resources available for equalization.

Determining the Budget Expenditure Share of Local Governments

One of the most important decisions in forming the regional budget is determining the split between the regional government budget and the budget of the municipal government sector, i.e., the vertical share. This policy decision essentially determines the amount of funds that the oblast administration is prepared to transfer to the local level through tax sharing and direct financial assistance.

Under existing legislation, the regions enjoy virtually unlimited discretion in determining this share. We do not propose that the oblast government should give up this discretion, but we do propose that the oblast administration divide expenditure responsibilities between the oblast and the local level under a more transparent methodology. Many analysts have called for a re-

thinking of expenditure assignment in the Russian Federation, and this will be a major undertaking (one well beyond the scope of this research). In the method proposed here, and in the simulations, we make a convenient, but simplifying assumption. We have assumed that the division of expenditure responsibility will continue as in the past except that it may be adjusted for a planned reduction in government spending on housing.

A Hard Budget Constraint

An important feature of the proposal we make here is the requirement of a hard budget constraint for local governments. The total current expenditures of rayons cannot exceed the anticipated amount of total recurrent revenues for rayons. In accordance with this principle, computation of financial assistance to be extended to municipalities from the oblast budget should be based on realistic budgeted levels of expenditures.

The move to a hard budget constraint for every local government holds some important implications for both policy and legislation.

- The legal right of municipal governments to budget for a deficit of up to 30 percent of expenditures would have to be rescinded.
- The Leningrad Regional Government's practice of not budgeting for FFSR and mutual settlements, or for total transfers to local governments, must be eliminated. All revenues and expenditures must be budgeted at both the regional and the local government level.
- Mutual settlements, both federal-to-region and region-to-local, would be eliminated.
- Local governments must have enough autonomy on both the expenditure and revenue side to adjust their budget during the fiscal year so as to maintain balance. Mandates and entitlements should either be funded or dramatically cut back and local governments must be given some revenue discretion.
- The regional governments methods for estimating revenue needs must be sharpened, because there no longer will be a year end deficit grant to cover problems of underestimation.

Estimation of Expenditure Needs

Under the proposed method, the estimation of rayon expenditure needs involves the following steps:

1. Decide on the basic determinants of expenditure needs.
2. Determine the total amount of "needed" municipal expenditures in the region.
3. Determine expenditure needs of every rayon.

The Determinants of Expenditure Needs

There is no single "right" way to determine expenditure needs. The choice of indicators of need is necessarily subjective, but it should be driven by the goals of the intergovernmental system. In this case, the proposed system is focused on equalization, which we take to mean the offering of a minimum level of services to every family in the region.

When allocating financial assistance among rayons by an equalization criterion, oblast authorities should begin with the assumption that every oblast resident (family) is entitled to the same level of public services. There are, however, differences in personal characteristics and family composition that may cause the cost of providing *equal* services to be higher for some families (and some municipalities) than for others. For example, the "clients" of education services are children under 17, while the client population of health care may be skewed toward young children and senior citizens.

Another, contentious issue related to the "cost" of normal service provision is the quality of the existing social infrastructure. Should the system of distributing regional financial assistance emphasize the higher cost of providing services where facilities are deficient, or the higher cost of maintaining and operating more modern facilities? Clearly the latter offers the possibility for a

more productive delivery of education services, but the former is more in the spirit of equalization.

There are no easy answers here, but since this illustrative example is driven by equalization, we take the position that expenditure needs should be established on a basis of the size of the client population rather than on a basis of the cost of maintaining a high quality social plant. In the proposed method therefore, it is assumed that all categories of budget expenditures except health care and education are distributed between rayons in proportion to their total population. "Client" population, using a method such as that suggested in Table 40, will drive education and health expenditures.

This example is illustrative, and suggests a straight per capita determination of expenditure needs, with two exceptions: health and education where the number of children and the number of elderly are weighted more heavily. We use this approach to determining expenditure needs in this example.

Of course, there are other ways to do this, including a more disaggregated approach. For example, the oblast administration could apply "client weights" to other services. Social policy services are primarily oriented towards children and youth (child benefits and youth policies), the disabled, and lower income households, and the expenditure need index could take this into account. The proposal we make here is meant to be illustrative rather than definitive, but it does show that a reasonable, transparent distribution system can be developed. Moreover, this illustration describes a system that is relatively uncomplicated.

The weighted number of clients of health care services (C_i) for a municipality can be computed using the following formula:

$$C = h_1 Y_i + h_2 E_i + h_3 W_I$$

Where:

Y = number of young

E = number of elderly

W = number of working age

The weights (h_1, h_2, h_3) can be assumed based on some a priori knowledge, or they can be determined from the medical records that show the cost of medical assistance for people in different age groups. Since detailed data were unavailable to us, we have arbitrarily set h_1 and h_2= 2.0, and h_3 = 1.0. That is, we have assumed that young children and senior citizens require medical assistance twice as often as people in other age groups. Note that these three categories sum to 100 percent of the population.

Estimating Total Local Government Expenditure Needs

We assume that the distribution of expenditures in local budgets will remain the same in the budget year as in the base year. For example, if education expenditures in all rayons average 31 percent of total expenditures in the base year, they will be assumed to remain at 31 percent in the budget year. However, the oblast administration could adjust these base year proportions to accommodate their own budget reforms or federal mandates. For example, Leningrad Oblast, following national priorities, has taken a decision to reduce subsidies for housing from 70 percent in 1997 to 45 percent in 1999. This leads to a lower projected share of housing expenditures in the 1999 budget. Application of this "constant share" approach in Leningrad Oblast leads to the expenditure structure shown in the first two columns of Table 41. Education

spending will account for 31 percent, health care for 11 percent and all other expenditures for 58 percent.

These *relatives* may be converted to absolute amounts of expenditure needs in the following way. First, we establish the ratio of local government to consolidated expenditures, for each expenditure category, in the base year. This percentage is shown in the far right column of Table 41. For example, the local government share of total health care expenditures is 50 percent in the base year. Second, the Region establishes the total level of consolidated expenditures and the functional distribution of consolidated expenditures in the budget year. This enables us to determine the planned ruble amount of spending for each local government. One final adjustment is required. We must subtract the amount of subventions received for each category of expenditures. This finally gives us an overall estimate of total expenditure "needs" of the local government sector (Table 42). For example, the results of this computation show that the local governments in the region will be entitled to Rb 277 million in health care expenditures. This is the amount that will be divided among municipalities to satisfy minimum expenditure needs.

We may now calculate the "standards" for local government expenditures. We do this by dividing total expenditure "needs" for each function, by the number of clients. For example, local governments are entitled to an expenditure of Rb 745 million for education services. Dividing this by the 354 thousand school aged children in the region yields an expenditure standard of Rb 2,084 thousand per student, as shown in the last column of Table 42. This amount can be viewed as the minimum level of expenditures to which each municipality will be entitled.

Determining Expenditure Needs of Individual Municipalities

To estimate the expenditure needs of individual municipalities, we multiply the average oblast expenditure needs per client by the number of clients in the municipality.

The total expenditure needs of each municipality, estimated from the above procedure, are presented in the first column of Table 43. In per capita terms, the final results show a significant spread in expenditure needs, from Rb 1,250 thousand in Sertolovo City and Kuznechnoye City to less than Rb 1,080 thousand in five municipalities. The highest level of expenditure needs is 11 percent above the average, and the lowest is 4 percent below.

We compare the per capita minimum budget amounts implied by this scheme with the per capita minimum budget amounts used by the region government, for our reduced sample of 21 municipalities, in Table 44. The correlation between this distribution of expenditures and actual per capita expenditures in 1997 shows no significant relationship. Neither is the distribution of minimum expenditures suggested here significantly related to the average wage. This needs-based method produces a very different pattern of expenditure requirements.

Estimating the Revenue Potential of Municipalities

Expenditure needs must be compared with an estimate of revenue potential in order to determine whether there is a financing gap. For this purpose, “revenue potential” is a hypothetical measure based on the taxable capacity of the community rather than on actual tax collections. Since we cannot measure tax capacity directly, we must use an indirect method.

There are numerous approaches possible for estimating the taxable capacity of governments. The most accurate way of measuring the tax base would be to do a detailed survey and across-the-board audit of all business operations in the jurisdiction, including the shadow

economy, but the cost of this would be exorbitant. The indirect approach used here is the regression approach, described above in the section on "Tax Effort." As noted above, the estimated equation for taxable capacity is:

$R_p = 643.4 + 0.1\ Q^*$ $R^2_{adj}=0.85$ number of observations = 21

(3.6) (10.6),

Where:

R_p = actual per capita collections (thousands of rubles),

Q = per capita industrial output (thousands of rubles).

All data are for 1997.

Figures in parenthesis are t-statistics.

The estimated regression equations show how much tax revenue should have been collected by each municipality, if, all other things being equal, the level of tax effort that applied in each case coincided with the average tax effort across all municipalities of the oblast. The indexes of tax effort for each municipality are reported in Table 31.[39]

We use these estimates of tax effort in the following way: First, we adjust *actual* local taxes (T) to a tax *potential* amount equal to (T/E) where E is the tax effort index reported in Table 31. Second, we will reduce the expenditure gap of municipalities by subtracting this tax potential. In other words, local governments are given "credit" for the amount that could be raised at a normal level of effort. If they raise more, it does not count against the intergovernmental transfers they will receive to fill the gap. If they raise less, an increased intergovernmental transfer will not compensate for the undercollection.

[39] Because data are available only for 21 municipalities, we must impute a tax effort to the remaining eight municipalities in this illustrative example. We impute an average tax effort, i.e., a value of 1.0 to each.

The estimated level of assigned local revenues (including the enterprise property tax) is shown in column (2) of Table 43. In column (3) of Table 43, this amount is adjusted for the level of tax effort of the municipality.[40] For example, Boksitogorsk municipality is estimated to have Rb 23,539 thousand in assigned local revenues for the budget year. When this is adjusted for the low level of tax effort, we derive an estimate of Rb 33,029 thousand for *tax potential* (column 4). That is, Boksitogorsk will be "given credit" for raising Rb 33,029 thousand in computing its entitlement to intergovernmental transfers. It will therefore have a maximum incentive to increase its tax effort to make up for its shortfall of about 10 million rubles. Volkhov City, on the other hand, exerts a high tax effort. It receives "credit" for only Rb 23,939 thousand against its expenditure gap, even though it actually raised Rb 50,167 thousand. Volkhov City therefore, has no incentive to reduce its tax effort as regards local revenues. In both cases, every additional ruble raised may be retained for local use.

Comparing Expenditure Needs and Assigned Local Revenues

The data in Table 43 present a comparison of expenditure needs and local revenues of municipalities -- the latter adjusted by applying the tax effort index. The resulting financing gap is shown in the last column of Table 43.[41] We can identify four municipalities whose own revenues, after the adjustment, exceed the estimated expenditure needs (Box 7).

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[40] This is done by dividing actual collections by the tax effort index.

[41] The penultimate column in Table 43 shows the expenditure gap to be covered if actual rather than adjusted revenues are used in the computation. Comparing the last two columns shows that Boksitogorsk loses Rb 9,490 thousand in intergovernmental transfers because of its low level of tax effort.

The fact that tax potential of these municipalities exceeds their estimated expenditure needs means that there is no need to transfer any additional funds to them. It also should be noted that under current legislation this excess cannot be redistributed to other municipalities via the equalization fund, i.e., it remains with the municipal budget where it was raised.[42]

BOX 7

DONOR MUNICIPALITIES UNDER THE PROPOSED METHOD

This method of allocating intergovernmental transfers yields the result that four municipalities have the capacity to finance "needed expenditures" from their own source revenues. This is, they need no share of federal or regional taxes, and they need no grants. The situation of the four municipalities, as described in the table below, is quite different, however. Kirishy can cover its minimum expenditure needs and still have significant excess, even though its tax effort is below average. Svetogorsk City also has an excess, but adds to this excess by making a high tax effort. Pikalyovo City and Kommunar City do not cover minimum expenditures, but this is because of a low tax effort. If these two cities did exert an average tax effort, they would also have an excess.

Municipality	Excess of actual own revenues over expenditure needs (thousand Rb)	Excess of own revenues adjusted by applying the index of tax efforts over expenditure needs (thousand Rb)
Kirishy City	66,716	74,239
Pikalyovo City	-1,810	26,713
Kommunar City	-4,526	1,710
Svetogorsk City	34,244	22,619
Total	94,626	125,278

Covering the Financing Gap with Shared Taxes and Grants

Once the final expenditure needs of municipalities have been determined and compared with local and assigned tax potential, the next step is to determine the sources from which the remaining gap will be covered. Theoretically, the entire financial shortfall (the last column in Table 43) could be covered with direct oblast subsidies. Certainly this would be a simple and understandable approach. However, there are three problems with this approach. First, it would

[42] As a result, the estimated expenditure needs of other municipalities must be adjusted so as to take into account the relevant reduction of resources left at the disposal of the oblast administration. (See Appendix C).

remove any incentive for local governments to push for higher levels of revenue mobilization. Second, it would place the determination of the level of the local budget almost fully in the hands of the regional government.

The third problem has to do with the perception of local governments. Municipal officials believe that under the present conditions the safer way to get the resources to which they are entitled is to retain a share of federal tax collections. In effect, local governments believe that once the funds are in the hands of the regional or federal government, they may not receive their full entitlement. They believe, as do many subnational governments around the world, in a "flypaper effect", i.e., money sticks where it hits. This might lead us to conclude that the use of shared tax revenues to fill the financing gap might lead to a stronger revenue mobilization effort.

Moreover, there is a timing issue. Shared taxes accrue as they are collected, but a significant portion of grants may not be received until year-end. In this sense, shared taxes are worth more and reduce the pressure on local governments to defer compensation payments and repayment of other liabilities.

The method proposed here differs from the general practice now used by the oblast. The difference is twofold. First, a tax effort adjustment is used to determine the amount of shared tax revenue that will be credited toward coverage of minimum expenditures. The amount of intergovernmental transfers to which a municipality is entitled will be based on "expected" tax revenue, i.e., a high tax effort will not be penalized. For municipalities with low tax effort, the shortfall will not be made up by equalization grants. This feature does not penalize higher levels of tax effort. The adjustment for tax effort is made by dividing total collections (before sharing) by the tax effort index, for each tax.

Second, there is an order in which federal shared taxes shall be paid over to municipalities to fill the remaining expenditure gap. The order is:

- personal income tax
- enterprise profit tax
- VAT

Every subsidized municipality is first allowed to retain PIT collections, then CIT collections, and finally, VAT collections. This order reflects a view about the exportability of each of these taxes, and the extent to which local authorities can control collections.[43]

If the entire list of federal shared taxes is exhausted, but the municipality is still lacking the funds needed to cover its estimated expenditure needs, the remaining gap is covered with a general grant from the regional budget. We refer to this general grant as *the equalization fund*.

In Table 45, we describe the results of this simulation for all municipalities in Leningrad Region. The first column in the table shows the amount of expenditures to be covered and the second column reports the amount of local assigned revenues (at constant) tax effort, available to finance these expenditures. The other columns show the coverage of the remaining gap, following the criteria presented above. For example, consider the case of Boksitogorsk. Under this scheme, its shortfall is Rb 19,545 thousand (the difference between columns (1) and (2). To cover this gap requires assignment of (a) the full 75 percent share of personal income tax collections, and (b) collections resulting from 16 percent of the 18 percent regional rate of the enterprise income tax. Boksitogorsk would not receive a share of the VAT, nor would they receive any intergovernmental transfers.

[43] Since excise duties represent an insignificant fraction of Leningrad Oblast revenues, we did not use them as an equalization tool in this computation exercise, but rather assigned them fully to the local governments. The same is true of Bank profit taxes.

Based on the results of this simulation, we have identified four groups of municipalities (Table 45):

Group 1: Rich municipalities whose local and assigned revenues – after adjustment for tax effort -- exceed the estimated expenditure needs. As noted above, this "donor" group includes only three municipalities: Kirishy, Pikalyovo, Kommunar and Svetogorsk. These municipalities neither share in revenues from the major taxes, nor do they receive grants.

Group 2: Municipalities whose expenditure needs can be covered by allowing them to retain only the PIT (in full or a part thereof). This group includes three municipalities: Sosnovy Bor City, Kuznechnoye City and Novaya Ladoga City. These municipalities will not share either in the VAT nor the enterprise income tax, nor will they receive any grants.

Group 3: Municipalities whose expenditure needs can be covered by allowing them to retain some portion of the CIT and VAT. This group includes four municipalities: Boksitogorsk City, Kingisepp City, Gatchina City and Volkhovsky Rayon. These municipalities do not receive grants.

Group 4: All other municipalities, where the total of own revenues and shared taxes (at a 100 percent retention rate) is not enough to cover the estimated expenditure needs. In these cases, direct subsidies are required. This group includes: Volkhov City, Vsevolzhsk City, Vyborg City, Gatchinsky Rayon, Ivangorod City, Kirovsk City, Lodeynoye Pole City, Luga City, Podporozhye City, Priozyorsk City, Slantsy City, Tikhvin City, Tosno City, Shlisselburg City, Volosovsky Rayon, Lomonosovsky Rayon, Sertolovo City and Koltushskaya Volost.

An issue raised about this approach may have to do with the possibility that the equalization fund will not be affordable. The answer is that the size of the equalization fund is

controllable because the Regional government can raise or lower the level of minimum expenditures. In fact, the system proposed here is affordable, because the result has been forced to approximately equal the total amounts spent by local governments under the existing system.

The required size of equalization fund necessary to support this program of grants in 1999 is estimated at Rb 286 million. Total grants to municipal governments in the Region in 1997 were Rb 949 million. This partly reflects a reduced level of "minimum expenditures" in 1999. As shown by the comparison below, using 1997 data to represent the "old system", local governments have minimum expenditures that are below actual expenditures in 1997. They would, however, finance a greater portion of it from assigned and shared taxes.

	New System, 1999 (millions Rb)	Old System, 1997 (millions Rb)
Expenditures	1,963	2,632
Tax Financed	1,677	1,684
Grant Financed	286	948

Evaluation of the Proposed Method

One could evaluate this approach to oblast-local fiscal relations according to several criteria.

- Equalization
- Revenue Mobilization Incentives
- Transparency
- Local Autonomy
- Administrative Costs
- Fiscal Discipline

Intergovernmental fiscal systems can emphasize any one of these objectives, but almost always at the cost of doing another one less well. One's evaluation of this proposed approach depends very much on the objectives she most wants to achieve.

Equalization

A first question is whether the equalization fund designed here is more or less equalizing than the present system of grants. The regression analysis reported in the first four columns in Table 30 show that the per capita distribution of grants under the present system is negatively and significantly related to the average wage, i.e., it is equalizing. Under the proposed system, the per capita equalization fund shows an even stronger negative relationship with the average wage (columns 5 and 6 of Table 30). The proposed system appears to give a more equalizing distribution of grants. This is directly a result of the method used to define minimum required expenditures.

But while the proposed Fund is more equalizing than the present system of grants, the size of the equalization fund is smaller relative to other forms of financing. The regional government could alter this. If the level of "minimum" expenditures is raised, the size of the equalization fund is increased and the system becomes more equalizing. But this requires a larger transfer from the regional government and compromises fiscal discipline. If the equalization fund is not increased in size, and as the weight of financing shifts toward shared taxes and local assigned revenue, the expenditure disparities shift back in favor of those municipalities with a greater capacity to finance and a stronger tax effort. The other instrument in the hands of the regional government is the sharing rates. It could increase minimum budget levels thereby increasing the size of the equalization fund, and it could finance this by lowering the local tax

retention rates. But this would dampen the incentive for increased revenue mobilization. The strength of this approach is that the regional government can clearly identify the tradeoffs among fiscal discipline, equalization and revenue mobilization.

This proposed system does provide an incentive for local governments to increase their rate of revenue mobilization. When municipalities raise more than is "expected", based on their taxable capacity, they may keep the excess[44] without incurring any penalty as regards their share of equalization grants. By the same token, a municipality that exerted a low tax effort would be penalized in that its "under collections" would be counted against its share of the equalization fund.

But, as with any system, there are tradeoffs. Three points might be made. First, certainly there would be a maximum incentive to collect local taxes. Anything collected would be fully retained and would not lead to any reduction in other transfers. This would be true of those exerting a low tax effort and those exerting a high tax effort. The story is different for shared taxes because only a percentage of collections is retained. There is less incentive to increase efforts to collect shared taxes. Of course, those municipalities that do not share in VAT or income tax collections will have no more incentive to increase shared tax collections than they do at present.

Second, a municipality whose taxable capacity is high may find that it will not participate in sharing the value added tax, for example. It will have met its "target" with income taxes. This would cause a reaction of encouraging more vigorous collections of local taxes and income taxes, and trying less hard on the VAT.

[44] Of course the "excess" collections will be shared with the regional government according to the established sharing rate.

Third, another tradeoff implied is that the tax effort rewards are accomplished at a cost of less equalization in the final distribution of per capita expenditures. Municipalities exerting a low tax effort may not even be able to cover their minimum expenditures, while those with high tax efforts and high tax capacity can spend at very high levels.

Underlying this approach is the assumption that local governments can influence tax effort, even though tax structure decisions and tax administration responsibilities are not under their control. The argument, made above, is that the closeness of the local governments to the enterprises and the divided loyalties of the tax administration service, combine to give local governments some powers to control the rate of revenue mobilization. If this is not the case, then the tax effort effects supposed here will not materialize.

Transparency

This approach is objective and there is no negotiation involved. This means that it passes one important transparency test. Moreover, the determination of minimum expenditure needs is relatively straightforward and simple, and so it passes the test of being understandable on that count.

The problem comes with the requirement that taxable capacity be estimated for each municipality, for each year. The estimate has been made here using a regression analysis, and this will clearly not be understandable to all**,** even to many officials who must approve the resulting allocations each year. It is not likely that a municipality will fully understand why its taxable capacity is being judged high or low, and this harms the transparency objective. On the other hand, the municipality will understand its revenue target, and will understand that its

marginal rewards for exceeding a given revenue target are a 100 percent retention of the local share of the excess.

In sum, there is objectivity, but also complication. Complication does not defeat this proposal, but it is a negative feature.

Local Autonomy

The approach proposed here does not give the local governments any significant increase in autonomy. There are no truly local taxes involved, and the size of the total revenue pie is set at the national and regional level, as it is now.

Fiscal Discipline

The proposal for revenue sharing outlined here forces the local government to balance its budget. Actual expenditures must be covered by revenues raised, even if minimum expenditure levels are not met. The size of the equalization fund is set by the regional government when it sets minimum expenditure levels and tax sharing rates, so it can impose a fiscal discipline on the consolidated budget. Another advantage is the clarity under this approach about the discretionary action required to produce budget balance, e.g., how much the shared tax ratio would need to be reduced to increase the equalization fund by a given amount.

Administrative Costs

There are administrative costs imposed with instituting this approach to oblast-local fiscal relations. One is the calculation of the tax effort indexes and the maintenance of this index from year to year. A kind of commission or oversight board might be created to approve and reconsider this approach. Among the issues:

- Should a regression approach be used, or should a more straightforward ratio approach be used?

- What about the specifics of the tax effort equation? Should the explanatory variables be changed?

- Should the penultimate year be used to determine the tax capacity targets for each fiscal year?

In addition, the expenditure needs index should be calculated every year, and a study group should be convened to re-validate the data and to revise the method as necessary. An extensive database should be maintained to continuously re-estimate the equations. Finally, training for local officials to understand the methods used should be offered on a periodic basis.

CONCLUSIONS AND RECOMMENDATIONS

Reform of the fiscal system in Russia requires a consideration of all levels of government: federal, regional and local. Most analytic work on fiscal policy in Russia has concentrated on the central level, and most work on the system of fiscal federalism has

concentrated on federal-regional relations. But the regional-local level is a major piece of these interrelations, and far too little is known about this sector.

Why is the regional-local level such an important dimension of fiscal policy in Russia? One reason is that the subnational governments now account for about 60 percent of all government spending in the country. Another is that the three levels of government are tied together by a top-down fiscal decision making structure, and wise policy decisions by one level cannot be taken without consideration of the reaction by the other two levels.

- There are two systems of intergovernmental fiscal relations in Russia: one between the federal governments and the regions, and the other between the regions and the local governments. Regions have autonomy to choose different intergovernmental systems, and that is exactly what is done in Leningrad Oblast. A question too infrequently asked is whether the "regional fiscal federalism" offsets or reinforces the objectives of the fiscal federalism policies followed by the national government. In the case of Leningrad Region, we find evidence of offsetting effects.

- Tax policy is made at the federal level, but there are profound effects on subnational government budgets that result from changes in the rate and base of federal taxes. A question too infrequently asked is about the potential impacts of federal tax policy changes on the budgets of regions, and whether tax policy changes can induce regional effects that might not be revenue enhancing. In Leningrad Region, we find that federal tax policy changes will effect equity and revenue mobilization, and will set in motion a significant change in regional fiscal policy.

- Tax administration is a federal responsibility, but in fact, tax officials are thought to have a "divided loyalty" and may act partly as representatives for the regional and local government. One reason why federal tax policy is sometimes not implemented as designed, is this divided loyalty. A question too infrequently asked is whether the tax administration problems that so plague Russia might not have their roots in the nature of the regional fiscal federalism. We find that in Leningrad Region, there are wide disparities in tax effort among the local governments, and that there are relatively few incentives to increase revenue mobilization.

So, while the fiscal structure is very centralized in Russia, there is sufficient freedom and "backdoor" approaches that allow lower levels of government to thwart or reinforce national

objectives with their own fiscal actions. Likewise, fiscal changes introduced by the federal government may seriously compromise the workings of the subnational governments, where, after all, nearly two-thirds of government funds are spent. The Russian system has been designed to closely link the federal, regional and local sectors, but with a heavy hand at the top as regards fiscal leadership. It follows that any federally proposed reform of the fiscal system must tie these three levels together.

There is a second, important set of conclusions that flow out of this case study. It is that the inefficiencies of the federal-regional financing system tend to be passed down and mirrored in the regional financing system. There are many examples that show up in the Leningrad study. One is that federal mutual settlements with the regions are repeated as regional-local mutual settlements -- with all the bad features: *ad hoc* determination, exclusion from the budget, uncertain in amount, year-end settlements, etc. Another example is that just as the federal government allows the regions to enter the fiscal year with a budget deficit, so do the regions allow their local governments to budget for a deficit.

This case study suggests several important needs for policy reform, and for management changes to make the Russian fiscal system operate in a more effective manner. The following might summarize these:

1. A major impediment to the operation of an efficient sub-national government financing system is the absence of a hard budget constraint. The regional and the local governments in Leningrad Region each run a significant budget deficit, which is covered by a combination of year-end deficit grants (mutual settlements) and borrowing from Banks (including deferrals of compensation). Until a balanced regional budget is required, and until the practice of giving year-end balancing grants to reduce the deficit is stopped, local governments will likely continue as a drain on the total public financing of the region, and the regional financial accounts will remain out of balance.

2. The Leningrad Region government uses a combination of three fiscal instruments -- variable tax sharing rates, equalization grants, and minimum expenditure standards -- to reduce fiscal disparities among the 29 municipal governments within the region. While

per capita expenditures still exhibit a disparate pattern, our analysis shows that these three fiscal instruments do significantly reduce the financing gaps due to taxable capacity differences. Leningrad Region policy arguably weighs equalization policy more heavily than does the federal government. To truly understand the equalization effects of its transfer system, the federal government will need to understand how the regions use fiscal policy to equalize among their municipalities.

3. Just as the federal government gives the regions relatively little fiscal autonomy, the regions give their local government very little fiscal autonomy. The level of the local budget is determined by the region, and the distribution of local spending is restricted by mandates. The regional government prescribes deficits for each municipality, and the local governments have little formal way of increasing their revenue flow. Mutual settlement grants are a year-end "settling up" of the local deficit, and this is determined by the regional government. All revenue sharing is determined by the Leningrad regional government, and the grant distributions and the tax sharing rates are adjusted regularly by the regional government. This flies in the face of a goal of relying on local initiative to bring some fiscal discipline to the budget process.

4. The level of transparency at the regional-local level in Leningrad mirrors that at the federal-regional level. Federal transfers to regions (FFSR and mutual settlements) have been negotiated, and subsidies and mutual settlements given by region to local governments likewise have been negotiated. In Leningrad Oblast, the variable tax sharing rates and the amounts of "minimum expenditures" are well known, but few understand how they were derived or the rationale behind their derivation.

5. It is possible to convert an intergovernmental fiscal system such as that which exists in Leningrad Region into a more objective and transparent fiscal system. We have proposed a method for this, which provides for an objective determination of revenue shares among the municipalities that does provide some incentive for increased revenue mobilization and that does guarantee a hard budget constraint. We stop short of building local revenue raising autonomy into the system, but clearly this is necessary if Russian regional and local governments are to be given an incentive to develop their fiscal systems in a way that guarantees a hard budget constraint.

TABLE 1

LENINGRAD OBLAST AND AVERAGE VALUES
FOR ALL OBLASTS: SELECTED STATISTICS FOR 1997

	Leningrad Oblast	Average for Russia	Leningrad Oblast Ranking Among 89 Oblasts[b]
Population Size (millions)	1.7	1.7	27
Percent of Population Living in Urban Areas, 1997	66.1	73.1	51
Percent Change in Population (1990-1997)	0.07	-0.95	38
Land Area (thousand sq km)	73.7	191.9	41
Average Wage (thousand Rb)	869.6	950.2	39
Per Capita GRP, 1997 (million Rb)	10.1	12.3	36
Percent Change in Real Per Capita GRP (1994-1996)	-10.5	-7.7	33
Per Capita Expenditures, 1977 (million Rb)[a]	2.3	3.0	55
Per Capita Retained Fiscal Revenues, 1977 (million Rb)[a]	2.0	2.3	52
Expenditures as a Percent of Collections[a]	113.4	108.2	34
Retained Revenues as a Percent of GRP, 1996[a]	14.0	13.9	16

[a] Refers to the aggregate finances of the regional government and all lower level governments.
[b] Ranking from highest value to lowest value in 1996, 1997.
Source: Based on Goscomstat and Ministry of Finance data.

TABLE 2

PERCENT DISTRIBUTION OF GRP IN LENINGRAD OBLAST: 1996

	Leningrad Oblast	Russian Federation[a]
Industry	33.6	28.9[b]
Construction	10.8	8.7
Agriculture	12.3	7.1
Services	37.2	50.8
Market Services	19.8	38.2
Transport and Communication	4.6	13.6
Wholesale and Retail Trade	9.1	15.2
Other, including Financial	6.1	9.6
Public Services	17.4	12.6
Net Taxes	5.5	13.3

[a] 1995.
[b] Manufacturing.
Source: Leningrad Oblast Information Memorandum. Price Waterhouse, March 1998.

TABLE 3

STRUCTURE OF EMPLOYMENT IN LENINGRAD OBLAST AND RUSSIA: 1996

Sector	Percent Distribution in Leningrad	Percent Distribution in Russia
Production	28.6	24.7
Agriculture and Forestry	13	14.9
Construction	7.7	9.5
Transportation and Communications	6.5	7.9
Wholesale and Retail Trade	10.4	10.4
Housing and Utilities	7.5	5
Health Care and Physical Culture	6.7	7
Education, Culture and Arts, Science	12.1	13.6
Finance and Insurance	0.7	1.4
Administration	4.2	2.9
Other Sectors	2.6	2.7

Source: St. Petersburg and Leningrad Oblast, *Statistical Yearbook, 1996*.

TABLE 4

EMPLOYMENT CHANGE IN LENINGRAD OBLAST: SELECTED YEARS
(in Thousands)

	Total Employment in Leningrad Region			Employment in Leningrad if National Average Growth in Each Industry was Realized	Industry Growth Differential	Local Effect
Sector	1990	1996	Change	1990-1996	1990-1996	
Industry	245	165.3	-79.7	175.1	-9.8	-69.9
Agriculture	88.9	54.5	-34.4	87.4	-32.9	-1.5
Forestry	6.0	5.3	-0.7	5.9	-0.6	-0.1
Construction	58.2	46.4	-11.8	40.6	5.8	-17.6
Transportation	40.0	30.7	-9.3	35.3	-4.6	-4.7
Communications	10.3	9.8	0.5	10.3	-0.5	0.0
Wholesale and Retail Trade[a]	56.5	59.4	2.9	66.0	-6.6	9.5
Housing and Other Services	42.0	45.6	3.6	43.1	2.5	1.1
Health Care and Social Services	42.2	44.0	1.8	44.8	-0.8	2.6
Education	57.9	58.0	0.1	59.4	-1.4	1.5
Culture and Arts	9.8	9.9	0.1	10.1	-0.2	0.3
Science	16.0	11.0	-5.0	9.1	1.9	-6.9
Banking, Finance, Insurance [b]	3.3	4.6	1.3	7.4	-2.8	4.1

[a] Trade, Public eating places, Personal services, and Housing maintenance.
[b] Financial sector including banks, lending agencies, and retirement systems.
Source: St. Petersburg and Leningrad Oblast, *Statistical Yearbook, 1996*.

TABLE 5

DISPARITIES WITHIN THE LENINGRAD OBLAST: 1996

City or Rayon	Population[a] (thousands)	Land Area (sq. km)	Average Wage[b] (thousand Rb)	Number of Registered Enterprises per 10,000 population
Boksitogorsk City	42.8	7,188.0	549.8	143.5
Gatchinsky Rayon (includes Gatchina City & Kommunar City)	213.9	2,892.0	663.2	106.6
Ivangorod City	12.1	7.7	427.5	258.7
Kingisepp City	74.2	2,898.0	652.4	206.1
Kirishy City	69.3	3,043.0	1,263.0	135.1
Kirovsk City	85.8	2,576.0	692.1	118.8
Lodeynoye Pole City	39.6	4,900.0	561.3	121.2
Lomonosovsky Rayon	68.4	1,919.0	577.3	112.3
Luga City	86.4	6,013.0	623.3	142.6
Pikalyovo City	25.4	9.5	774.4	59.4
Podporozhye City	38.2	7,708.0	589.1	116.2
Priozyorsk City (includes Kuznechnoye City)	64.6	3,597.0	709.7	163.0
Shlisselburg City	12	14.5	564.1	150.8
Slantsy City	51.4	2,200.0	529.0	70.2
Sosnovy Bor City	60.8	72.0	1,190.3	126.3
Tikhvin City	84.6	6,990.0	620.4	113.6
Tosno City	110	3,601.0	737.2	94.3
Volkhovsky Rayon (includes Novaya Ladoga City &Volkhov City)	104.7	5,123.0	688.0	113.4
Volosovsky Rayon	47	2,683.0	581.5	100.6
Vsevolzhsk City (includes Koltushskaya Volost & Sertolovo City)	192.9	2,925.0	666.9	127.8
Vyborg City (includes Svetogorsk City)	194.5	7351.0	837.4	197.6
Median	68.4	2,925.0	652.4	121.2
Minimum	12.0	7.7	427.5	59.4
Maximum	213.9	7,708.0	1,263.0	258.7
Coefficient of Variation[c]	0.71	0.71	0.29	0.34

[a] 1997.
[b] 1996.
[c] Standard deviation as a percent of the mean.
Source: Rayons of Leningrad Oblast 1996.

TABLE 5 (CONTINUED)

DISPARITIES WITHIN THE LENINGRAD OBLAST: 1996

City or Rayon	Percent of Urban Population[a]	Infant Mortality, per 1000 population[b]	Number of Pensioners, per capita[b]	Number of Families on a Housing Waiting List, per 1000 population[b]	Number of Students at Primary and Secondary Schools, per 1000 population[c]
Boksitogorsk City	0.59	15.20	0.35	18	131
Gatchinsky Rayon (includes Gatchina City & Kommunar City)	0.61	10.80	0.27	28	128
Ivangorod City	1.00	26.70	0.25	38	149
Kingisepp City	0.68	3.70	0.27	15	148
Kirishy City	0.86	7.60	0.27	13	150
Kirovsk City	0.87	22.30	0.28	30	139
Lodeynoye Pole City	0.70	3.30	0.27	36	139
Lomonosovsky Rayon	0.13	9.50	0.23	20	121
Luga City	0.52	25.90	0.32	35	144
Pikalyovo City	1.00	9.10	0.33	12	122
Podporozhye City	0.82	8.60	0.34	20	152
Priozyorsk City (includes Kuznechnoye City)	0.40	9.30	0.26	18	152
Shlisselburg City	1.00	NA	0.23	50	167
Slantsy City	0.79	13.30	0.34	56	138
Sosnovy Bor City	1.00	12.70	0.18	53	164
Tikhvin City	0.81	14.20	0.26	21	144
Tosno City	0.70	7.50	0.29	52	140
Volkhovsky Rayon (includes Novaya Ladoga City &Volkhov City)	0.74	11.70	0.31	37	135
Volosovsky Rayon	0.28	10.40	0.27	16	151
Vsevolzhsk City (includes Koltushskaya Volost & Sertolovo City)	0.58	10.10	0.23	34	136
Vyborg City (includes Svetogorsk City)	0.67	10.70	0.25	26	143
Median	0.70	10.55	0.27	28	143
Minimum	0.13	3.30	0.18	12	121
Maximum	1.00	26.70	0.35	56	167
Coefficient of Variation	0.34	0.52	0.15	0.46	0.08

[a] 1997.
[b] 1996.
[C] 1996/1997 School year.
NA = Not Available.
Source: Rayons of Leningrad Oblast 1996.

TABLE 6

LENINGRAD OBLAST: SIMPLE CORRELATION COEFFICIENTS BETWEEN AVERAGE WAGE, PER CAPITA EXPENDITURES AND PER CAPITA ASSIGNED REVENUES WITH SELECTED INDICATORS OF ECONOMIC DEVELOPMENT AND EXPENDITURE NEEDS
1997

	Average Wage	Per Capita Assigned Revenues[a]	Per Capita Expenditures
Indexes of Expenditure Needs			
Population	0.18	-0.03	-0.35
Land Area (sq km)	-0.14	-0.20	-0.05
Population Density	0.05	0.25	0.11
Percent of Population over working age	-0.35	-0.12	0.07
Percent of Population under working age	0.13	0.02	0.32
Indexes of Economic Base			
Average Wage	1.00	0.88*	0.18
Value of Industrial Production (Rb per capita)	0.89*	0.93*	0.31
Per Capita Assigned Revenues[a]	0.88*	1.00	0.37
Number of Registered Enterprises units	0.21	-0.02	-0.27
Number of Registered Enterprises per 1000 Population	-0.10	-0.16	0.32
Average Profits in Industry (profits divided by number of registered enterprises)	0.84*	0.77*	0.29
Indexes of Social Infrastructure Size			
Municipal Housing Stock (sq m) per capita	0.24	0.37	0.46*
Total Housing Stock (sq m) per capita	-0.33	-0.25	-0.10
Percent of Housing Stock in Urban Areas	0.29	0.38	0.33
Number of Public Libraries, per capita	-0.43*	-0.41*	-0.01
Number of Public Museums, per capita	-0.31	-0.11	0.28

TABLE 6 (CONTINUED)

LENINGRAD OBLAST: SIMPLE CORRELATION COEFFICIENTS BETWEEN AVERAGE WAGE, PER CAPITA EXPENDITURES AND PER CAPITA ASSIGNED REVENUES WITH SELECTED INDICATORS OF ECONOMIC DEVELOPMENT AND EXPENDITURE NEEDS
1997

	Average Wage	Per Capita Assigned Revenues[a]	Per Capita Expenditures
Hospital Beds per 1000 Population	-0.31	0.04	0.24
Visits to Policlinics per day, per 1000 Population	-0.09	0.21	0.11
Capacity of Kindergartens, per 1000 Population	0.76*	0.71*	0.25
Number of Schools per 10,000 population	-0.40*	-0.42*	-0.12
Capacity of Schools per 1000 Population	0.15	0.30	0.32
Number of Students per School	0.57*	0.48*	0.15
Indexes of Social Services Quality			
Infant Mortality per 1000 Population	-0.25	-0.23	0.17
Number of Families on a Housing Waiting List per 1000 Population	-0.05	-0.12	-0.07
Number of Afternoon Classes Students as a percent of total number of students	0.06	0.10	0.05
Number of Students per Teacher at Primary and Secondary Schools	0.33	0.37	-0.11

[a] Assigned revenues include local revenues, and revenues that are assigned to the local governments by federal or regional law. Assigned revenues exclude the shared federal taxes (VAT, PIT, CIT, Excises) and the regional taxes (enterprise property tax, education tax, forest tax, and water tax).

* Indicates significance at the .05 level.

Source: Calculated by authors on the basis of the *Statistical Yearbook Rayons of Leningrad Oblast in 1996* and Finance Committee data.

TABLE 7

LENINGRAD OBLAST: CONSOLIDATED REVENUES BY SOURCE

	Total (billion Rb)			Total (in billions of 1995 Rb)			Real Per Capita Percent Increase		GRP Elasticity		GRP Elasticity (In 1995 Prices[a])	
	1995	1996	1997	1995	1996	1997	1995/96	1996/97	1995/96	1996/97	1995/96	1996/97
GRP	12,507.0	17,882.0	19,456.0	12,507.0	11,481.4	11,225.5	-8.20	-2.23				
CIT	742.3	692.4	624.1	742.3	569.4	442.4	-23.29	-22.30	-0.16	-1.12	2.84	10.01
PIT	277.7	397.3	601.3	277.7	326.7	426.3	17.65	30.50	1.00	5.83	-2.15	-13.69
Taxes on Wage Fund	46.1	72.8	90.2	46.1	59.9	63.9	29.87	6.80	1.35	2.72	-3.64	-3.05
VAT	239.3	288.6	400.1	239.3	237.3	283.6	-0.82	19.50	0.48	4.39	0.10	-8.75
Excise Taxes	27.4	44.9	89.5	27.4	36.9	63.4	34.76	71.80	1.49	11.28	-4.24	-32.22
Property Taxes	146.8	373.1	498.5	146.8	306.8	353.4	109.01	15.20	3.59	3.82	-13.29	-6.82
Taxes on Wage Fund	46.1	72.8	90.2	46.1	59.9	63.9	29.87	6.80	1.35	2.72	-3.64	-3.05
Nat. Resource Taxes	64.8	109.9	190.7	64.8	90.4	135.2	39.47	49.60	1.62	8.35	-4.81	-22.26
Housing Tax	119.3	176.3	232.3	119.3	145.0	164.7	21.53	13.60	1.11	3.61	-2.63	-6.10
Other Taxes	120.2	205.8	101.0	120.2	169.2	71.6	40.80	-57.70	1.66	-5.79	-4.98	25.89
Total	1,783.9	2,361.1	2,827.7	1,783.9	1,941.7	2,004.7	8.85	3.20	0.75	2.25	-1.08	-1.44

[a] Tax collections have been adjusted using the regional CPI index, and GRP has been adjusted using the regional GRP deflator.
Source: Goscomstat, MOF.

TABLE 8

REVENUE-SHARING BETWEEN FEDERAL AND REGIONAL GOVERNMENTS IN RUSSIA, FOR FEDERATION TAXES AS PRESCRIBED IN LEGISLATION: 1998

	Federal (Percent)	Subnational (Percent)
Value-added Tax (VAT)	75	25
Corporate Income Tax	35[a]	65[a]
Personal Income Tax	0	100
Excise Tax on Alcohol	50	50
Other Nonenergy Excises	0	100
Energy Excises	100	0
Natural Resource Taxes	35	65
Property Tax	0	100
Land Tax	30	70
Foreign Trade Taxes	100	0

[a] Assumes that Regional governments levy the full 22 percent rate to which they are entitled.

Sources: Ministry of Finance; These sharing rates are consistent with those reported by The World Bank; and IMF staff estimates. See also Craig, Norregaard and Tsibouris (1997).

TABLE 9

RUSSIAN FEDERATION: ACTUAL REVENUE SHARING BETWEEN FEDERAL, REGIONAL AND LOCAL LEVELS OF GOVERNMENTS FOR FEDERATION TAXES IN 1997 (PERCENT DISTRIBUTION)

	Federal	Regional	Local
Corporate Income Tax	35	44	21
Personal Income Tax	3	39	58
VAT Domestic	65	24	12
VAT Imports	100	0	0
Excises	81	15	4
Property Taxes	1	54	45
Natural Resource Taxes	23	58	20
Import Duties	100	0	0
Other Taxes	13	35	51
Total Tax Revenues	46	31	23

Source: Georgia State University estimates based on MOF data.

TABLE 10

TAXES COLLECTED / RETAINED BY LEVELS OF GOVERNMENT IN LENINGRAD OBLAST: 1997

	Percent Of Total Collections Paid To The Federal Budget	Percent Of In-Kind Collections Paid To The Federal Budget	Percent Of Total Collections Retained By Leningrad Oblast	Percent Of In-Kind Collections In Total Collections	Percent Of Total Collections In The Region
Corporate Income Tax	27.9	0.0	72.1	60.1	55.1
Personal Income Tax	1.8	0.0	98.2	24.6	13.2
VAT Domestic	68.3	0.0	31.7	69.4	26.9
Excises	85.0	0.0	15.0	26.4	13.3
Property Taxes	0.2	0.0	99.8	67.8	10.7
Natural Resource Taxes	3.8	2.0	96.2	40.3	4.4
Other Taxes	1.1	0.0	98.9	46.4	8.8
Total Tax Revenues[a]	38.6	0.0	61.4	53.8	100.0

[a] Percents are rounded to the nearest tenth.

Source: Leningrad Oblast TTI data.

TABLE 11

THE DISTRIBUTION OF FEDERAL GRANTS TO LENINGRAD OBLAST GOVERNMENT

	1994	1995	1996	1997	1998 (budgeted)
Share in FFSR (in percent)	0.96	0.23	0.36	0.57	0.45
Per Capita FFSR Revenue (in Rb)	12,255	26,566	56,305	121,306	104.81
Per Capita FFSR Revenue (Average for Russian regions = 1.0)	0.83	0.20	0.31	0.55	0.39
Per Capita "Other" Grants (in Rb)[a]	74,210	127,756	41,987	131,908	…
Per Capita Other Grants (Average for Russian regions = 1.0)[a]	0.61	1.66	0.26	0.87	…

[a] Mutual Settlements.

Source: MOF data.

TABLE 12

LENINGRAD OBLAST: CONSOLIDATED EXPENDITURES BY FUNCTION

	1996		1997		1996 - 1997
	Amount (billion Rb)	Percent Distribution	Amount (billion Rb)	Percent Distribution	Percent Real Growth
Housing and Utilities	973.3	34.4	1,226.1	32.2	8.6
Education	587.1	20.8	785.1	20.6	15.3
Health and Physical Culture	392.3	13.9	494.7	13.0	8.7
Welfare	210.3	7.4	200.7	5.3	-17.7
Culture	64.7	2.3	89.6	2.4	19.4
Public Administration	162.4	5.7	221.6	5.8	17.6
Transport	105.4	3.7	123.1	3.2	0.7
Agriculture	75.9	2.7	141.8	3.7	61.1
Industry	35.2	1.2	42.9	1.1	5.1
Security	90.9	3.2	119.9	3.1	13.7
Other	128.2	4.5	362.4	9.5	143.7
Total	2,825.7	100	3,807.9	100	16.2

Source: Leningrad Oblast Finance Committee.

TABLE 13

LENINGRAD OBLAST: CONSOLIDATED EXPENDITURES BY OBJECT

	1996		1997		1996 to 1997
	Amount (billion Rb)	Percent Distribution	Amount (billion Rb)	Percent Distribution	Percent Real Growth
Wages and salaries. including payroll taxes	735.2	26.0	913.2	24.0	7.1
Other operating costs	583.7	20.7	782.0	20.5	15.5
Payment of interest	1.5	0.1	96.5	2.5	5,284.3
Subsidies to enterprises	1,060.7	37.5	1,364.1	35.8	10.9
Subsidies to households and non-for-profit organizations	209.0	7.4	173.0	4.5	-28.6
Procurement of equipment and durable goods	40.5	1.4	86.1	2.3	83.0
Capital construction	95.3	3.4	190.9	5.0	72.6
Rehabilitation of buildings and facilities	124.4	4.4	116.2	3.1	-19.5
Credits extended less repayment	-24.7	-0.9	86.0	2.3	-400.1
Total Expenditures	2,825.7	100.0	3,807.9	100.0	16.2

Source: Leningrad Oblast Finance Committee.

TABLE 14

FISCAL OUTCOMES FOR MUNICIPAL GOVERNMENTS: 1997

City or Rayon	Per Capita Expenditures (thousand Rb)	Per Capita "Own Revenues" (thousand Rb)
Boksitogorsk City	1,720	884
Gatchina City	1,808	878
Gatchinsky Rayon	1,303	683
Ivangorod City	2,063	607
Kingisepp City	1,862	1,003
Kirishy City	2,015	1,803
Kirovsk City	1,513	813
Koltushskaya Volost	696	328
Kommunar City	1,320	1,060
Kuznechnoye City	342	61
Lodeynoye Pole City	1,338	655
Lomonosovsky Rayon	1,405	534
Luga City	1,401	816
Novaya Ladoga City	1,679	890
Pikalyovo City	1,506	1,140
Podporozhye City	1,527	727
Priozyorsk City	1,780	934
Sertolovo City	239	70
Shlisselburg City	1,530	780
Slantsy City	1,746	1,057
Sosnovy Bor City	1,749	1,465
Svetogorsk City	1,699	1,606
Tikhvin City	1,870	1,014
Tosno City	1,411	1,024
Volkhov City	2,045	1,543
Volkhovsky Rayon	2,326	935
Volosovsky Rayon	1,564	580
Vsevolzhsk City	1,211	649
Vyborg City	1,461	1,085
Median	1,530	884
Coefficient of Variation	0.30	0.45

Source: Leningrad Oblast Finance Committee.

TABLE 15

LINEAR REGRESSION OF PER CAPITA EXPENDITURES AGAINST
SELECTED INDEPENDENT VARIABLES:
LENINGRAD RAYONS IN 1997[a]

Constant	1,722.652 (7.12)	1,514.148 (5.63)
Population	-0.00464 (4.07)	-0.0051 (4.50)
Percent Urban	204.601 (0.74)	60.481 (0.21)
Average Wage	…	0.5039 (1.55)
$\overline{R}^2$	0.48	0.51
N	21	21

[a] T-statistics shown in parenthesis.

TABLE 16

CONSOLIDATED BUDGETARY POSITION OF THE REGION: 1996 AND 1997
(in billion Rb)

		1996	1997
1	Current Revenues	2,523	3,096
	Tax Revenues	2,361	2,828
	Non-Tax Revenues w/o Sale of Property	91	62
	Grants w/o Mutual Settlements	96	206
	Minus: Payments to Federal Funds	24	0
2	Minus: Current Expenditures[a]	2,565	3,396
3	Equals: Current Deficit	-42	-300
4	Minus: Capital Expenditures	260	393
5	Equals: Overall Deficit	-302	-693
	Required Financing:	302	693
	Mutual Settlements with Federal Government	70	221
	Decrease in Current Account in Bank	27	16
	Sale of State Property and Land	19	26
	Budget Loans	2	100
	Regional Securities	93	-28
	Loans from Banks	91	358

[a] Budget loans from Oblast to Rayons are excluded.

Source: Leningrad Oblast Finance Committee.

TABLE 17

BUDGETARY POSITION OF THE REGION: 1996-1998

		1996 (billion Rb)	1997 (billion Rb)	1998 (budgeted) (million Rb)
1	Current Revenues	1 179	1 548	1460
	Tax Revenues	1 047	1 331	1 241
	Non-Tax Revenues w/o Sale of Property	49	11	43
	Grants w/o Mutual Settlements	96	206	176
	Minus: Payments to Federal Funds	13	0	
2	Minus: Direct Current Expenditures	543	957	1 857
3	Minus: Transfers to Local Governments	740	949	102
	Transfers	79	294	
	Subventions	418	108	
	Mutual Settlements	243	547	
4	Equals: Current Deficit	-104	-358	-397
5	Minus: Capital Expenditures	113	237	66
6	Equals: Overall Deficit	-217	-595	-463
	Required Financing:	217	595	463
	Mutual Settlements with Federal Government	70	221	
	Change of Current Account in Bank	-26	19	1
	Sale of State Property and Land	7	12	103
	Budget Loans	0	100	
	Regional Securities	93	-34	
	Loans from Banks	71	277	359

Source: Leningrad Oblast Finance Committee.

TABLE 18

LENINGRAD OBLAST GOVERNMENT: BUDGETARY POSITION IN 1999[a]
(million Rb)

		1999
1	Current Revenues	2,557
	Tax Revenues	1,316
	Non-Tax Revenues w/o Sale of Property	1,062
	Grants w/o Mutual Settlements	179
2	Minus: Current Expenditures	3,061
3	Minus: Transfers to Local Governments	283
4	Equals: Current Deficit	-788
5	Minus: Capital Expenditures	201
6	Equals: Overall Deficit	-989
	Required Financing:	989
	Change of Current Account in Bank	1
	Sale of State Property and Land	32
	Borrowings	955

[a] According to 1999 Budget Law.

TABLE 19

LENINGRAD OBLAST GOVERNMENT: COMPOSITION OF EXPENDITURES

Function	1997 Budgeted Amount (billion Rb)	1997 Percent of Total	1997 Actual Amount (billion Rb)	1997 Percent of Total	1997 Actual as a Percent of Budgeted	1998 Budgeted Amount (million Rb)	1998 Percent of Total
Administration	86,014	5.0	79,544	3.2	92.5	114,230	5.9
Law and Order	135,272	7.8	102,775	4.1	76.2	105,316	5.5
Industry, Energy and Construction	45,936	2.7	30,206	1.2	65.8	39,190	2.0
Agriculture	99,451	5.8	93,907	3.7	94.4	87,320	4.5
Ecology	20,880	1.2	15,794	0.6	75.6	27,040	1.4
Transport, Road Maintenance Telecommunication	21,854	1.3	36,267	1.4	166.0	16,800	0.9
Market Infrastructure	25,000	1.4	7,462	0.3	29.8	8,500	0.4
Housing and Utilities	74,264	4.3	69,331	2.8	93.4	246,800	12.8
(of which, fuel supply to municipalities)	-	-	-	-	-	(220,500)	
Prevention of Emergencies	13,818	0.8	13,323	0.5	96.4	7,400	0.4
Education	91,163	5.3	71,171	2.8	78.1	86,200	4.5
Culture, Arts, Cinema	52,875	3.1	31,806	1.3	60.2	48,400	2.5
Mass Media	24,475	1.4	13,849	0.6	56.6	22,300	1.2
Health Care and Sports	249,343	14.4	238,481	9.5	95.6	347,600	18.1
Social Policy	111,328	6.4	58,377	2.3	52.4	223,240	11.6
(of which, subsidies to families with children)	-	-	-	-	-	(111,000)	
Other Expenditures	111,842	6.5	131,406	5.2	117.5	24,834	1.3
Public Investments (Non-Compensatory)	105,853	6.1	108,336	4.3	102.3	65,500	3.4
Grants to Local Budgets, including	258,029	14.9	949,331	37.7	367.9	101,600	5.3
subsidies	215,046	12.5	294,137	11.7	136.8	70,000	3.6
subventions	42,983	2.5	108,111	4.3	251.5	31,600	1.6
mutual settlements		-	547,083	21.7	-	-	-
Repayment of Debt and Debt Service	200,000	11.6	464,363	18.5	232.2	350,000	18.2
Total Expenditures	1,727,397	100.0	2,515,729	100.0	145.7	1,922,270	100.0

Source: Leningrad Oblast Finance Committee.

TABLE 20

LENINGRAD OBLAST GOVERNMENT: EXPENDITURE COMPOSITION BY OBJECT IN 1997

	Amount (billion Rb)	Percent Distribution
Wages and salaries, including payroll taxes	268,778	12.5
Other operating costs	315,867	14.7
Payment of interest	91,699	4.3
Subsidies to enterprises	195,588	9.1
Subsidized to households and non-for-profit organizations	15,856	0.7
Procurement of equipment and durable goods	59,770	2.8
Capital construction	151,307	7.1
Rehabilitation of buildings and facilities	25,592	1.2
Credits extended	-359,779	-16.8
Repayment of credits	290,502	13.6
Transfers to local budgets	949,331	44.3
Total expenditures (w/o subsidy and subvention transfers to local budgets)	2,143,065	100.0

Source: Leningrad Oblast Finance Committee.

TABLE 21

LENINGRAD OBLAST GOVERNMENT: REVENUE STRUCTURE

	1997 budgeted		1997 Actual		1997	1998 Budget	
Revenue Source	Amount (million Rb)	Percent of Total	Amount (million Rb)	Percent of Total	Actual as a Percent of Budgeted	Amount (thousand Rb)	Percent of Total
Total Tax and Non-Tax	1,260,789	83.63	1,723,036	80.1	136.7	1,350,975	88.6
CIT	544,660	36.13	484,656	22.5	89.0	452,096	29.6
PIT	169,498	11.24	177,684	8.3	104.8	161,297	10.6
VAT	185,672	12.32	273,768	12.7	147.4	222,071	14.6
Excise	100,000	6.63	21,743	1.0	21.7	74,300	4.9
License Fees	2,973	0.20	7,276	0.3	244.7	7,267	0.5
Enterprise Property Tax	181,869	12.06	268,957	12.5	147.9	236,574	15.5
Subsoil Use Tax	1,540	0.10	1,530	0.1	99.4	2,100	0.1
Mineral Rehabilitation Fee	8,353	0.55	7,359	0.3	88.1	14,000	0.9
Forest Fee & Wild Life Fee	30,330	2.01	43,865	2.0	144.6	39,690	2.6
Land Tax and Land Lease	17,261	1.14	39,160	1.8	226.9	30,640	2.0
Other Taxes	0	0.00	948	0.0	-	965	0.1
Lease & Sale of State Property & Sale of Land	4,010	0.27	15,484	0.7	386.1	103,950	6.8
Other Non-Tax Revenues	7,895	0.52	7,942	0.4	100.6	1,061	0.1
Repayment of Loans and Interest	6,728	0.45	372,664	17.3	5539.0	4,964	0.3
Transfers from FFSR	246,753	16.37	206,220	9.6	83.6	174,262	11.4
Mutual Settlements	-	-	221,473	10.3	-	-	-
Total Revenues	1,507,542	100.00	2,150,729	100.0	142.7	1,525,237	100.0

Source: Leningrad Oblast Finance Committee.

TABLE 22

PER CAPITA AMOUNTS FOR MINIMUM BUDGET EXPENDITURE, ACTUAL EXPENDITURE, AND ASSIGNED REVENUES: 1998

City or Rayon	Assigned Revenues (thousand Rb)	Minimum Budget Expenditure	Assigned Revenue as a Percent of Minimum Budget Expenditure	Actual Expenditures 1997	Minimum Budget 1998 as a Percent of Actual Expenditures in 1997
Boksitogorsk City	411	1,562	26.3	1,720	90.8
Gatchina City	395	1,725	22.9	1,808	95.4
Gatchinsky Rayon	325	1,282	25.4	1,303	98.4
Ivangorod City	289	1,784	16.2	2,063	86.5
Kingisepp City	674	1,489	45.3	1,862	80.0
Kirishy City	1,653	1,651	100.1	2,015	81.9
Kirovsk City	436	1,459	29.9	1,513	96.4
Koltushskaya Volost	87	1,179	7.4	696	169.4
Kommunar City	215	1,503	14.3	1,320	113.9
Kuznechnoye City	149	1,518	9.8	342	443.9
Lodeynoye Pole City	367	1,341	27.4	1,338	100.2
Lomonosovsky Rayon	297	1,445	20.6	1,405	102.8
Luga City	314	1,430	22.0	1,401	102.1
Novaya Ladoga City	194	1,415	13.7	1,679	84.3
Pikalyovo City	1,005	1,769	56.8	1,506	117.5
Podporozhye City	329	1,489	22.1	1,527	97.5
Priozyorsk City	420	1,562	26.9	1,780	87.8
Sertolovo City	54	1,562	3.5	239	653.6
Shlisselburg City	252	1,548	16.3	1,530	101.2
Slantsy City	497	1,562	31.8	1,746	89.5
Sosnovy Bor City	835	1,621	51.5	1,749	92.7
Svetogorsk City	1,841	1,636	112.5	1,699	96.3
Tikhvin City	513	1,533	33.5	1,870	82.0
Tosno City	696	1,489	46.7	1,411	105.5
Volkhov City	763	1,548	49.3	2,045	75.7
Volkhovsky Rayon	358	1,371	26.1	2,326	58.9
Volosovsky Rayon	305	1,518	20.1	1,564	97.1
Vsevolzhsk City	338	1,327	25.5	1,211	109.6
Vyborg City	906	1,577	57.5	1,461	107.9
Median	367	1,518	26.1	1,530	97.1
Coefficient of Variation	0.808	0.090	0.749	0.300	0.945

TABLE 23

PER CAPITA AMOUNTS FOR LOCAL AND ASSIGNED REVENUES AND MINIMUM BUDGETS: 1999

City or Rayon	Assigned Revenues	Minimum Budget Expenditure 1999	Assigned Revenue as a Percent of Minimum Budget Expenditure	Budgeted Expenditure 1998	Minimum Budget in 1999 as a Percent of Total Expenditure in 1998
Boksitogorsk City	550	1,470	37.4	1,222	95
Gatchina City	487	1,468	33.2	1,608	99
Gatchinsky Rayon	350	1,370	25.6	1,110	87
Ivangorod City	417	1,781	23.4	1,198	90
Kingisepp City	661	1,630	40.5	1,335	84
Kirishy City	2,208	1,685	131.0	2,005	78
Kirovsk City	502	1,528	32.8	1,175	95
Koltushskaya Volost	405	1,339	30.2	1,102	103
Kommunar City	938	1,483	63.2	2,063	69
Kuznechnoye City	813	1,658	49.1	2,673	54
Lodeynoye Pole City	405	1,519	26.7	1,113	90
Lomonosovsky Rayon	388	1,471	26.4	1,030	105
Luga City	432	1,567	27.6	1,067	87
Novaya Ladoga City	598	1,576	38.0	1,140	77
Pikalyovo City	1,215	1,636	74.3	1,682	72
Podporozhye City	483	1,574	30.7	906	95
Priozyorsk City	394	1,523	25.9	1,024	88
Sertolovo City	206	1,683	12.2	1,581	87
Shlisselburg City	378	1,530	24.7	864	100
Slantsy City	533	1,496	35.6	1,281	76
Sosnovy Bor City	1,620	1,615	100.3	2,251	64
Svetogorsk City	2,979	1,738	171.4	2,026	78
Tikhvin City	454	1,625	28.0	1,504	69
Tosno City	766	1,508	50.8	1,503	77
Volkhov City	1,022	1,443	70.8	1,993	70
Volkhovsky Rayon	560	1,460	38.4	1,538	61
Volosovsky Rayon	416	1,554	26.7	961	108
Vsevolzhsk City	410	1,434	28.6	1,153	93
Vyborg City	703	1,520	46.3	1,285	85
Median	502	1,528	33.2	1,281	87
Coefficient of Variation	0.82	0.07	0.75	0.32	0.16

TABLE 24

SIMPLE CORRELATION BETWEEN PER CAPITA EXPENDITURES AND INDEXES OF EXPENDITURE NEEDS, ECONOMIC BASE, SOCIAL INFRASTRUCTURE SIZE AND SOCIAL SERVICES QUALITY.

	Actual Expenditures in 1996				Actual Expenditures in 1997				Minimum Budget 1998				Minimum Budget 1999			
	Total	*H&U*	*Education*	*Health Care*	*Total*	*H&U*	*Education*	*Health Care*	*Total*	*H&U*	*Education*	*Health Care*	*Total*	*H&U*	*Education*	*Health Care*
Indexes of Expenditure Needs																
Population	-0.37	-0.29	-0.30	-0.02	-0.35	-0.15	**-0.44**	-0.01	**-0.45**	-0.25	**-0.49**	-0.28	-0.13	-0.10	-0.31	-0.28
Land Area sq km	-0.29	-0.30	-0.34	0.11	-0.05	0.02	-0.29	0.15	-0.29	**-0.49**	-0.05	0.02	0.28	0.15	0.15	0.03
Population Density	**0.51**	**0.43**	**0.56**	-0.07	0.11	-0.09	**0.40**	-0.13	**0.56**	**0.63**	0.19	**0.54**	-0.08	0.29	-0.21	**0.55**
Share of Rural Population	**-0.62**	**-0.53**	**-0.54**	-0.08	-0.36	-0.15	**-0.40**	0.00	**-0.43**	**-0.53**	-0.05	-0.19	0.04	0.02	0.07	-0.20
Share of People over working age	-0.19	-0.34	-0.16	0.12	0.07	0.02	0.17	0.11	0.12	-0.11	-0.07	**0.40**	0.27	**0.41**	-0.34	**0.42**
Share of People under working age	**0.56**	**0.60**	0.38	-0.06	0.32	0.33	0.03	-0.11	0.24	0.35	0.39	-0.22	-0.08	-0.19	**0.61**	-0.21
Number of Students at Primary and Secondary Schools, percent of total population	0.35	0.37	0.29	-0.03	0.25	0.16	0.11	-0.05	0.14	0.29	0.17	-0.31	0.01	-0.05	**0.62**	-0.32
Indexes of Economic Base																
Average Wage	**0.43**	0.30	**0.48**	**0.53**	0.18	-0.14	0.11	**0.58**	0.30	0.22	0.21	0.07	**0.51**	0.00	0.20	0.01
Value of Industrial Production Rub per Capita	**0.57**	0.37	**0.64**	**0.59**	0.31	-0.08	0.30	**0.65**	**0.54**	0.35	**0.40**	0.35	**0.55**	0.02	0.16	0.30
Assigned Revenues, Rub per Capita	**0.66**	**0.41**	**0.60**	**0.65**	0.37	-0.03	0.31	**0.75**	**0.53**	0.38	0.26	0.31	**0.61**	0.04	0.12	0.25
Number of Registered Enterprises units	-0.27	-0.24	-0.13	0.02	-0.27	-0.17	-0.34	0.06	-0.32	-0.10	-0.39	-0.33	-0.05	-0.03	-0.18	-0.32
Number of Registered Enterprises per 1000 of Population	0.30	0.23	**0.44**	0.01	0.32	0.31	0.14	0.00	0.23	0.30	0.18	-0.13	0.04	-0.07	**0.46**	-0.11
Average Profits in Industry (profits divided by number of registered enterprises) million Rb	**0.72**	**0.67**	**0.60**	0.35	0.29	0.15	0.05	0.39	**0.51**	0.35	**0.44**	0.17	0.34	-0.22	0.34	0.13
Indexes of Social Infrastructure Size																
Per Capita Housing Stock, sq m	-0.37	-0.32	-0.27	-0.09	-0.10	0.15	-0.12	-0.09	0.03	-0.04	-0.08	0.27	-0.03	0.10	-0.20	0.27
Percent of Housing Stock in Urban Areas	**0.62**	**0.53**	**0.56**	0.09	0.33	0.13	0.37	-0.01	**0.46**	**0.56**	0.02	0.17	0.00	0.01	-0.02	0.19
Per Capita Municipal Housing Stock, sq m	**0.62**	**0.51**	**0.48**	0.11	**0.46**	0.35	0.36	0.10	**0.79**	**1.00**	0.09	0.28	0.00	0.07	-0.13	0.29
Number of Public Libraries, per capita	-0.34	-0.35	-0.28	0.04	-0.01	0.08	-0.17	0.06	-0.17	**-0.52**	0.19	0.10	0.32	0.21	0.35	0.11
Number of Public Museums, per capita	**0.41**	**0.41**	0.24	-0.21	0.28	0.33	0.24	-0.32	0.30	**0.55**	-0.09	0.14	-0.34	-0.01	-0.03	0.20
Beds in Hospitals per 1000 of Population	0.23	-0.01	0.20	**0.41**	0.24	0.21	0.18	0.31	**0.44**	0.16	0.32	**0.63**	0.38	0.22	-0.15	**0.66**
Visits to Policlinics per day per 1000 of Population	0.04	-0.18	0.07	**0.52**	0.11	0.06	0.05	**0.46**	0.29	-0.03	0.17	**0.77**	**0.50**	0.25	-0.19	**0.77**
Places in Kindergartens per 1000 Population	0.28	0.13	**0.44**	**0.50**	0.25	-0.04	0.18	**0.61**	0.39	0.15	**0.42**	0.19	**0.57**	0.04	0.32	0.11
Places in Schools per 1000 of Population	0.29	0.07	0.31	0.37	0.32	0.03	0.28	**0.47**	**0.45**	-0.05	**0.87**	0.35	**0.58**	0.26	0.25	0.29

TABLE 24 (CONTINUED)

SIMPLE CORRELATION BETWEEN PER CAPITA EXPENDITURES AND INDEXES OF EXPENDITURE NEEDS, ECONOMIC BASE, SOCIAL INFRASTRUCTURE SIZE AND SOCIAL SERVICES QUALITY

	Actual Expenditures in 1996				Actual Expenditures in 1997				Minimal Budget 1998				Minimal Budget 1999			
	Total	*H&U*	*Education*	*Health Care*	*Total*	*H&U*	*Education*	*Health Care*	*Total*	*H&U*	*Education*	*Health Care*	*Total*	*H&U*	*Education*	*Health Care*
Indexes of Social Services Quality																
Infant Mortality per 1000 of Population	0.22	0.39	0.02	-0.27	0.17	**0.54**	-0.20	-0.35	0.17	0.31	-0.08	0.17	-0.33	-0.24	-0.14	0.22
Number of Families on a Housing Waiting List per 1000 of pop	0.12	**0.40**	-0.16	**-0.52**	-0.07	0.20	-0.25	**-0.52**	-0.23	0.10	-0.28	-0.39	**-0.53**	-0.30	-0.25	-0.39
Number of Afternoon Classes Students % of total number of students	0.12	0.15	0.09	-0.16	0.05	-0.01	0.25	-0.19	0.09	0.36	-0.10	-0.08	-0.20	0.07	0.07	-0.10
Number of Students per one Teacher at Primary and Secondary Schools	0.28	0.38	0.05	-0.07	-0.11	-0.02	-0.20	-0.04	0.02	0.34	-0.28	0.01	-0.31	-0.21	**-0.69**	0.04

Source: Authors' calculations based on data provided by Leningrad Oblast Finance Committee.

TABLE 25

PER CAPITA LEVELS OF ASSIGNED AND OWN SOURCE REVENUES: 1997
(in thousand Rb)

City or Rayon	Assigned Revenues[a]	Own Source Revenues
Boksitogorsk City	510	884
Volkhov City	900	1,543
Vsevolzhsk City	261	649
Vyborg City	495	1,085
Gatchina City	365	878
Ivangorod City	291	607
Kingisepp City	581	1,003
Kirishy City	1,610	1,803
Kirovsk City	391	813
Lodeynoye Pole City	289	655
Luga City	260	816
Pikalyovo City	936	1,140
Podporozhye City	315	727
Priozyorsk City	349	934
Slantsy City	521	1,057
Sosnovy Bor City	849	1,465
Tikhvin City	399	1,014
Tosno City	562	1,025
Shlisselburg City	338	780
Volosovsky Rayon	274	580
Volkhovsky Rayon	304	935
Gatchinsky Rayon	315	683
Lomonosovsky Rayon	263	534
Koltushskaya Volost	174	328
Kommunar City	385	1,060
Kuznechnoye City	32	61
Novaya Ladoga City	256	890
Svetogorsk City	1,559	1,606
Sertolovo City	43	70
Median	349	884
Coefficient of Variation	0.79	0.45
Correlation with:		
Average Wage	0.82	0.83
Balance of Profits and Losses	0.62	0.55

[a] Assigned revenues include local revenues, and revenues that are assigned to the local governments by federal or regional law. Assigned revenues exclude the shared federal taxes (VAT, PIT, CIT, Excises) and the regional taxes (enterprise property tax, education tax, forest tax, and water tax).

TABLE 26

REVENUE SHARING WITHIN THE LENINGRAD REGION: 1998
(Percent of Collections Retained)

City or Rayon[a]	CIT			VAT			PIT			Excise			Enterprise Property Tax (Same for all three years)
	99	98	97	99	98	97	99	98	97	99	98	97	
Boksitogorsk City	100	100	100	100	100	100	100	100	100	0	100	100	50
Volkhov City*	0	0	0	0	0	0	62	100	100	100	100	100	50
Vsevolzhsk City	78	100	28	96	100	52	100	100	100	100	100	100	50
Vyborg City	50	6	12	51	4	8	100	48	64	100	100	100	50
Gatchina City*	47	100	50	74	100	52	100	100	79	100	100	100	50
Ivangorod City*	100	100	100	100	100	100	100	100	100	100	100	100	50
Kingisepp City	52	100	100	52	100	100	100	100	100	100	100	100	50
Kirishy City	0	0	0	0	0	0	0	0	0	0	0	0[b]	50
Kirovsk City	100	100	61	100	100	60	100	100	100	100	100	100	50
Lodeynoye Pole City	100	100	100	100	100	100	100	100	100	0	100	100	50
Luga City	100	100	100	100	100	100	100	100	100	100	100	100	50
Pikalyovo City*	11	11	0	8	8	0	27	53	50	0	100	100	50
Podporozhye City	6	100	100	4	100	100	90	100	100	100	100	100	50
Priozyorsk City	100	28	100	100	100	100	100	70	100	100	100	100	50
Slantsy City	55	100	100	55	48	100	100	100	75	100	100	100	50
Sosnovy Bor City*	0	11	11	0	8	8	33	78	38	0	100	100	50
Tikhvin City	100	83	100	100	32	100	100	100	100	100	100	100	50
Tosno City	31	28	17	31	8	12	100	100	87	100	100	100	50
Shlisselburg City*	100	100	100	100	100	100	100	100	100	100	100	100	50
Volosovsky Rayon	100	100	100	100	100	100	100	100	100	100	100	100	50
Volkhovsky Rayon	83	100	100	83	100	100	100	100	100	0	100	100	50
Gatchinsky Rayon	100	100	100	100	100	32	100	100	100	100	100	100	50
Lomonosovsky Rayon	100	100	100	100	100	100	100	100	100	100	100	100	50
Koltushskaya Volost	100	100	100	100	100	0	100	100	55	100	100	100	50
Kommunar City*	6	100	100	4	100	100	26	100	100	0	100	100	50
Kuznechnoye City	6	100	0	4	100	0	30	100	100	0	100	100	50
Novaya Ladoga City*	6	7	28	4	100	100	21	100	100	0	100	100	50
Svetogorsk City*	0	0	0	0	0	0	0	6	0	0	100	100	50
Sertolovo City	100	100	100	100	100	0	100	100	28	0	100	100	50

[a] City noted with (*)
[b] In June 1997, the Kirishy rate was raised to 25.
Source: Leningrad Oblast Budget Laws 1997-1998.

TABLE 27

CHARACTERISTICS OF DONOR JURISDICTIONS IN 1998

Rayon or City[a]	Retention Rates				Ranking by Average Wage
	CIT	VAT	PIT	Excise	
Volkhov City*	0	0	100	100	8
Vyborg City	6	4	48	100	3
Kirishy City	0	0	0	0	1
Pikalyovo City*	11	8	53	100	4
Priozyorsk City	28	100	70	100	6
Slantsy City	100	48	100	100	20
Sosnovy Bor City*	11	8	78	100	2
Tikhvin City	83	32	100	100	13
Tosno City	28	8	100	100	5
Novaya Ladoga City*	67	100	100	100	18
Svetogorsk City*	0	0	6	100	19

[a] City noted with (*).

Source: Leningrad Oblast Budget Law 1998.

TABLE 28

PER CAPITA GRANTS TO EACH RAYON: BY TYPE OF GRANT FOR 1997
(in thousand Rb)

City or Rayon[a]	Subvention	Subsidy	Mutual Settlements	Total
Boksitogorsk City	47	519	167	733
Gatchinsky Rayon (includes Gatchina City & Kommunar City)	298	2,321	541	3,160
Ivangorod City*	32	128	245	405
Kingisepp City	69	980	314	1,363
Kirishy City	58	304	0	361
Kirovsk City	160	767	231	1,158
Lodeynoye Pole City	66	77	360	503
Lomonosovsky Rayon	43	531	714	1,288
Luga City	271	295	484	1,050
Pikalyovo City*	14	102	12	128
Podporozhye City	170	148	385	703
Priozyorsk City (includes Kuznechnoye City)	76	661	992	1,729
Shlisselburg City*	7	55	146	209
Slantsy City	127	533	102	761
Sosnovy Bor City*	27	301	34	362
Tikhvin City	82	857	509	1,449
Tosno City	95	756	86	936
Volkhovsky Rayon (includes Novaya Ladoga City &Volkhov City)	79	1,155	396	1,630
Volosovsky Rayon	48	392	566	1,006
Vsevolzhsk (includes Koltushskaya Volost City & Sertolovo City)	67	325	44	436
Vyborg (includes Svetogorsk City)	167	770	354	1,291
Median	69	519	314	936
Coefficient of Variation	0.82	0.89	0.81	0.70

[a] City noted with (*).

TABLE 29

SIMPLE CORRELATION COEFFICIENTS BETWEEN PER CAPITA GRANTS AND SELECTED VARIABLES IN 1997: BY TYPE OF GRANT

Measure of Development	Per Capita Subsidies	Per Capita Subventions	Per Capita Mutual Settlements	Per Capita Total Grants
Indexes of Expenditure Needs				
Population	-0.24	0.04	0.21	0.03
Urbanization	-0.62*	-0.06	-0.17	-0.43*
Population Density	-0.31	-0.35	-0.40	-0.48*
Infant Mortality Rate	0.11	0.43*	-0.03	0.10
Pensioners. per capita	0.00	0.49*	0.09	0.14
Families on a Housing Waiting List. per capita	-0.33	0.09	-0.09	-0.21
Land Area	0.25	0.41	0.14	0.29
Indexes of Economic Base				
Average Wage	-0.49*	-0.16	-0.05	-0.30
Number of Registered Enterprises	-0.21	-0.01	0.11	-0.03
Registered Enterprises. per capita	0.04	-0.14	-0.11	-0.08
Profitability of an Average Enterprise	-0.40	-0.15	-0.14	-0.33
Profit Rate of an Agricultural Enterprise	0.04	0.17	0.41	0.35
Per Capita Value of Industrial Production	-0.47*	-0.21	-0.11	-0.32
Indexes of Infrastructure Quality				
Finished Construction of Housing. per capita	-0.27	-0.19	-0.09	-0.20
Per Capita Value of Self-Financed Construction	-0.38	-0.24	-0.13	-0.27
Per Capita Housing Stock	0.06	0.47*	0.10	0.15
Percent of Housing Stock in Urban Areas	-0.66*	-0.22	-0.18	-0.40
Seating Capacity of Municipal Cultural Centers.	0.16	0.56*	0.65*	0.61*
Number of Public Libraries. per capita	0.41	0.25	-0.06	0.14
Number of Public Museums. per capita	-0.21	-0.29	-0.33	-0.36

TABLE 29 (CONTINUED)

SIMPLE CORRELATION COEFFICIENTS BETWEEN PER CAPITA GRANTS AND SELECTED VARIABLES IN 1997: BY TYPE OF GRANT

Measure of Development	Per Capita Subsidies	Per Capita Subventions	Per Capita Mutual Settlements	Per Capita Total Grants
Indexes of Education Services				
Number of Kindergartens, per 10,000 Population	-0.11	0.06	-0.09	-0.11
Average Student Capacity of Kindergartens	-0.49*	-0.38	-0.14	-0.33
Average Student Capacity of Kindergartens per 10,000 Population	0.00	-0.21	-0.01	-0.03
Students per capita	-0.08	-0.20	-0.35	-0.31
Students per Teacher	-0.41	0.04	0.05	-0.12
Teachers per capita	0.25	-0.15	-0.24	-0.10
Schools per capita	0.35	0.16	-0.19	0.01
Students per School	-0.45*	-0.29	-0.02	-0.22
Percent of Students in Afternoon Sessions	-0.21	-0.04	0.05	-0.04

TABLE 30

OLS REGRESSION OF PER CAPITA TOTAL GRANTS AGAINST SELECTED INDEPENDENT VARIABLES FOR 21 MUNICIPALITIES IN 1997[a]

	Equation 1	Equation 2	Equation 3	Equation 4	Equation 5[b]	Equation 6[b]
Constant	19.67	14.88	15.05	19.93	25.84	67.69
	(6.99)	(7.03)	(5.73)	(6.99)	(1.64)	(3.64)
Average Wage	-1.24	-1.01	-1.04	-1.49	-4.19	-8.18
	(3.66)	(2.78)	(2.31)	(5.01)	(1.55)	(3.47)
Percent of Population	-0.28	-0.21	-0.21	…	-0.18	-0.86
in Urban Areas	(1.77)	(1.19)	(1.17)		(0.16)	(0.77)
Population	-0.11	0.12	-0.21	…	0.63	1.19
	(1.02)	(1.78)	(1.72)		(0.88)	(1.51)
Students per capita	2.23	…	…	2.13	…	12.01
	(2.30)			(2.39)		(1.78)
Per Capita Value of	…	…	0.01	…	-0.97	…
Industrial Output			(0.11)		(1.84)	
Adjusted R^2	0.59	0.49	0.46	0.56	0.37	0.36

[a] All variables expressed in logarithms.

[b] Dependent variable is per capita equalization fund.

TABLE 31

TAX EFFORT ESTIMATES: BY MUNICIPALITY FOR 1997

City or Rayon	Per Capita Tax Revenues (thousand Rb)	Per Capita Volume of Industrial Production	Per Capita Tax Capacity (thousand Rb)	Tax Effort Coefficient
Boksitogorsk City	1,059	7,266	1,485	0.71
Gatchina City	1,225	3,545	1,054	1.16
Gatchinsky Rayon (includes Kommunar City)	803	3,717	1,074	0.75
Ivangorod City	611	1,074	768	0.80
Kingisepp City	1,246	7,049	1,460	0.85
Kirishy City	6,188	50,332	6,476	0.96
Kirovsk City	1,043	1,853	858	1.22
Lodeynoye Pole City	711	1,843	857	0.90
Luga City	864	4,086	1,117	0.77
Pikalyovo City	2,097	28,740	3,974	0.53
Podporozhye City	881	3,220	1,017	0.87
Priozyorsk City (includes Kuznechnoye City)	1,008	2,941	984	1.02
Shlisselburg City	825	1,500	817	1.01
Slantsy City	1,224	4,825	1,203	1.02
Sosnovy Bor City	7,304	44,145	5,759	1.27
Tikhvin City	1,111	6,147	1,356	0.82
Tosno City	1,918	3,209	1,015	1.89
Volkhov City	2,176	3,410	1,039	2.10
Volkhovsky Rayon (includes Novaya Ladoga)	813	3,011	992	0.82
Volosovsky Rayon	661	2,064	883	0.75
Vsevolzhsk City (includes Koltushskaya Volost & Sertolovo City)	709	1 073	0.66	0.81
Vyborg City (includes Svetogorsk City)	1,734	6,303	1,374	1.26
Median	1,059	3,545	1,054	0.9
Coefficient of Variation	1.03	1.54	0.96	0.37

Source: Calculated based on data provided by Finance Department and Regional Statistical Committee.

TABLE 32

FINANCING OF 1997 BUDGET: BY RAYON

City or Rayon	Total Expenditures (million Rb)	Financing GAP as a Percent of Total Expenditures	Financing GAP (million Rb)	Percent of GAP Financed From	
				Mutual Settlements	Other Sources
Boksitogorsk City	73,602	0.36	26,609	0.83	0.17
Volkhov City	104,093	0.19	19,926	0.84	0.16
Vsevolzhsk City	189,877	0.31	59,617	0.80	0.20
Vyborg City	261,445	0.21	54,146	0.95	0.05
Gatchina City	147,871	0.45	65,980	1 02	-0.02
Ivangorod City	24,957	0.23	5,766	0.95	0.05
Kingisepp City	138,138	0.34	47,357	0.89	0.11
Kirishy City	139,666	0.09	12,246	1 06	-0.06
Kirovsk City	129,851	0.33	43,406	0.76	0.24
Lodeynoye Pole City	52,998	0.17	8,824	0.37	0.63
Luga City	121,086	0.15	18,263	0.69	0.31
Pikalyovo City	38,245	0.21	8,172	0.53	0.47
Podporozhye City	58,349	0.12	6,820	0.93	0.07
Priozyorsk City	105,736	0.21	21,796	0.82	0.18
Slantsy City	89,744	0.29	25,635	0.89	0.11
Sosnovy Bor City	106,310	0.14	14,612	0.88	0.12
Tikhvin City	158,226	0.30	47,111	0.78	0.22
Tosno City	155,188	0.22	34,723	0.93	0.07
Shlisselburg City	18,355	0.13	2,411	0.97	0.03
Volosovsky Rayon	73,508	0.27	19,981	0.84	0.16
Volkhovsky Rayon	99,806	0.21	21,320	0.84	0.16
Gatchinsky Rayon	149,437	0.32	47,416	0.66	0.34
Lomonosovsky Rayon	96,086	0.28	27,170	0.84	0.16
Koltushskaya Volost	5,425	0.18	992	0.82	0.18
Kommunar City	22,971	0.10	2,377	0.34	0.66
Kuznechnoye City	1,778	-0.02	-33	-2.12[a]	3.12
Novaya Ladoga City	18,303	0.36	6,515	1.03	-0.03
Svetogorsk City	26,339	0.05	1,312	0.08	0.92
Sertolovo City	6,754	0.10	709	0.09	0.91
Median	96,086	0.21	19,926	0.84	0.16
Coefficient of Variation	0.71	0.49	0.88	0.89	1.77

[a] Negative figures for Mutual settlements appear due to transfer of funds from local to regional budget.
Source: Leningrad Oblast Finance Committee.

TABLE 33

SOURCES OF DEFICIT FINANCE IN LENINGRAD REGION: 1997[a]

Local Government Unit	Total Financing Required		Percent Distribution of Financing From:			
	Total (in million Rb)	Percent of Expenditures	Budget Loans	Other Loans	Change in Cash Balance	Government Paper
Boksitogorsk City	4,392	5.97	45.08	54.60	0.32	0.00
Volkhov City	3,227	3.10	37.84	65.91	-3.75	0.00
Vsevolzhsk City	11,782	6.20	9.69	16.98	5.69	67.65
Vyborg City	2,932	1.12	0.00	143.25	-43.25	0.00
Gatchina City	-1,382	-0.93	45.37	-180.90	35.53	0.00
Ivangorod City	296	1.19	79.39	0.00	20.61	0.00
Kingisepp City	5,427	3.93	11.63	109.32	-20.95	0.00
Kirishy City	-764	-0.55	0.00	0.00	-100.00	0.00
Kirovsk City	10,590	8.16	34.76	67.09	-1.85	0.00
Lodeynoye Pole City	5,527	10.43	24.66	75.63	-0.29	0.00
Luga City	5,637	4.66	41.00	77.35	-18.34	0.00
Pikalyovo City	3,822	9.99	0.00	52.33	47.67	0.00
Podporozhye City	494	0.85	0.00	60.73	39.27	0.00
Priozyorsk City	4,016	3.80	0.00	95.59	4.41	0.00
Slantsy City	2,844	3.17	21.80	91.42	-13.22	0.00
Sosnovy Bor City	1,745	1.64	0.00	165.16	-65.16	0.00
Tikhvin City	10,424	6.37	35.70	65.78	-1.48	0.00
Tosno City	2,423	1.56	0.00	61.91	38.09	0.00
Shlisselburg City	61	0.33	0.00	0.00	100.00	0.00
Volosovsky Rayon	3,215	4.36	28.43	71.82	-0.25	0.00
Volkhovsky Rayon	3,494	3.50	0.00	158.84	-58.84	0.00
Gatchinsky Rayon	16,246	9.49	0.00	86.79	25.52	-12.31
Lomonosovsky Rayon	4,438	4.62	0.00	123.93	-23.93	0.00
KoltushskayaVolost	178	3.28	0.00	0.00	100.00	0.00
Kommunar City	1,557	6.78	8.61	96.34	-4.95	0.00
Kuznechnoye City	-103	-5.79	0.00	485.44	-585.44	0.00
Novaya Ladoga City	-165	-0.90	113.33	0.00	-213.33	0.00
Svetogorsk City	1,212	4.60	0.00	165.02	-65.02	0.00
Sertolovo City	644	9.54	0.00	122.20	-22.20	0.00
Consolidated	464,999	9.72	25.54	77.17	-0.22	-6.08

[a] The deficit in this table is defined *after* accounting for mutual settlement revenues.
Source: Leningrad Oblast Finance Committee

TABLE 34

ESTIMATED BUDGET DEFICITS[a]: BY LOCAL GOVERNMENT UNIT. FOR 1998

Local Government Unit	Estimated Per Capita Budget Deficit (in thousands)	Deficit as a Percent of Expenditure
Boksitogorsk City	318	26.0
Volkhov City	403	20.2
Vsevolzhsk City	214	18.6
Vyborg City	208	16.2
Gatchina City	377	23.4
Ivangorod City	363	30.3
Kingisepp City	308	23.1
Kirishy City	197	9.8
Kirovsk City	264	22.5
Lodeynoye Pole City	329	29.5
Luga City	199	18.7
Pikalyovo City	388	23.1
Podporozhye City	84	9.2
Priozyorsk City	341	33.3
Slantsy City	334	26.1
Sosnovy Bor City	223	9.9
Tikhvin City	454	30.2
Tosno City	290	19.3
Shlisselburg City	236	27.3
Volosovsky Rayon	164	17.0
Volkhovsky Rayon	328	21.3
Gatchinsky Rayon	326	29.4
Lomonosovsky Rayon	258	25.0
Koltushskaya Rayon	94	8.6
Kommunar City	412	20.0
Kuznechnoye City	638	16.7
Novaya Ladoga City	238	20.9
Svetogorsk City	465	22.9
Sertolovo City	503	31.8
Median	318	22
Coefficient of Variation	0.39	0.31

[a] Deficit here is the difference between budgeted revenues and budgeted expenditures (as indicated in municipal budget decrees).

Source: 1998 Municipal Budget Decrees.

Table 35

Coefficients Of Variation Of Local Plus Assigned Revenues And Of Actual Expenditures Across Municipalities

	1996	1997	1998	1999
Local and assigned per capita revenues	75.1	79.0	80.7	81.5
Actual expenditures in 1996-97 and expenditure needs in 1998-99 (per capita Rb.)	21.9	16.3	9.0	8.7

TABLE 36

KIROVSK RAYON: BUDGETARY POSITION IN 1996, 1997 AND 1998

	1996 (in millions)		1997 (in millions)		1998 (in thousands)
	Budgeted	Actual	Budgeted	Actual	Budgeted
(1) Current Revenues	96,133	83,836	95,545	86,082	77,033
Tax & Non-Tax Revenues w/o Sale of Property	74,190	68,001	68,944	69,355	75,564
Subsidy	0	0	9,874	9,874	0
Subventions	21,943	15,835	16,727	6,853	1,469
(2) Minus: Current Expenditures	131,230	101,417	94,421	109,895	91,833
(3) Current Deficit	-35,097	-17,581	1,124	-23,813	-14,800
(4) Minus: Capital Expenditures	10,447	6,067	13,139	19,956	9,000
(5) Overall Deficit	-45,544	-23,648	-12,015	-43,769	-23,800
(6) Financing	45,544	23,648	12,015	43,769	23,800
Mutual Settlements	0	16,447	0	32,816	0
Change of Current Account in Bank		6,236		-196	0
Sale of Municipal Property and Land	773	640	617	363	1,150
Budget Loans				3,681	
Loans from Banks	44,771	325	11,398	7,105	22,650

Source: Leningrad Oblast Finance Committee and Kirovsk Rayon Finance Department.

TABLE 37

KIROVSK RAYON: REVENUES BY SOURCE

	1997 (actual)		1998 (budgeted)	
	Amount (million Rb)	Percent of Total	Amount (thousand Rb)	Percent of Total
I. Local Revenues	15,097	17.5	15,212	19.5
Housing Tax	7,489	8.7	8,080	10.3
Personal Property Tax	376	0.4	430	0.5
Earmarked Duties (for militia education etc)	2,313	2.7	2,230	2.9
Other Local Taxes	814	0.9	68	0.1
License for Selling Liquor	712	0.8	865	1.1
Other Licenses and Registration Fees	1,942	2.2	2,156	2.8
Sale of Municipal Property and Municipal Land	363	0.4	1,150	1.5
Administrative Payments	6	0.0	213	0.3
Other Revenues	1,082	1.3	20	0.0
II. Assigned Revenues	3,487	4.0	1,423	1.8
Tax on Gifts	111	0.1	121	0.2
Subsoil Use Fee	645	0.7	642	0.8
Water Use Fee	43	0.0	40	0.1
Transport Tax	1,933	2.2	150	0.2
Fines for Violation of Tax Legislation	381	0.4	80	0.1
State Duty	374	0.4	390	0.5
III. Shared Regional Taxes	14,852	17.2	17,369	22.2
Land Tax and Rent	7,390	8.5	9,124	11.7
Forest Tax	13	0.0	0.0	0.0
Enterprise Property Tax	7,449	8.6	8,100	10.4
Foreign Exchange Tax	0	0.0	145	0.2
IV. Shared Federal Taxes	36,282	42.0	42,710	54.6
CIT	5,308	6.1	6,397	8.2
PIT	25,335	29.3	26,145	33.4
VAT	5,618	6.5	10,165	13.0
Excise	21	0.0	3	0.0
V. Other	16,727	19.3	1,469	1.9
Subsidy	9,874	11.4	0.0	0
Subvention	6,853	7.9	1,469	1.9
Total Revenues (current + sale of property)	86,445	100.0	78,183	100.0

Source: Leningrad Oblast Finance Committee and Kirovsk Rayon Finance Department.

TABLE 38

KIROVSK RAYON: 1997 AND 1998 BUDGET EXPENDITURES

Functions	1997		1998	
	Amount (million Rb)	Percent of Total	Amount (thousand Rb)	Percent of Total
Housing and Utilities:	63,256	48.7	30,000	29.8
Maintenance of Houses	0.0	0.0	21,000	20.8
Capital Investment	0.0	0.0	9,000	8.9
Education	36,136	27.8	21,000	20.8
Agriculture	1,538	1.2	9,645	9.6
Administration	9,410	7.2	8,550	8.5
Courts	18	0.0	100	0.1
Law and Order	182	0.1	300	0.3
Industry	270	0.2	200	0.2
Transport Road Maintenance and Communication	1,966	1.5	2,400	2.4
Market Infrastructure	0.0	0.0	500	0.5
Culture	3,681	2.8	2,000	2.0
Mass Media	485	0.4	480	0.5
Health Care and Sports	8,296	6.4	6,019	6.0
Social Policy	2,426	1.9	2,330	2.3
Development Fund	-	0.0	5,000	5.0
Housing Subsidy	-	0.0	1,000	1.0
Other Expenditures	1,862	1.4	9,309	9.2
Debt Service:				
Payment of Interest	0.0	0.0	3,000	3.0
Repayment of Principal	325	0.0	5,000	5.0
Total Expenditures	**129,851**	**100.0**	**100,833**	**100.0**

Source: Leningrad Oblast Finance Committee and Kirovsk Rayon Finance Department.

TABLE 39

FUNDS NEEDED TO FINANCE FEDERAL AND REGIONAL MANDATES AND ENTITLEMENTS IN KIROVSK MUNICIPALITY: 1997

Type	Description	Level of Authority Responsible for the Mandate or Entitlement	Funds Needed (million Rb)
Mandate	Education standards and minimum wages for teachers	Federal	32,474
Mandate	Healthcare standards and minimum wages for doctors	Federal & Regional	15,828
Mandate	Fuel price subsidies	Federal	1,400
Entitlement	Benefits for veterans and the disabled	Federal	69,037
Entitlement	Benefits for families with many children*	Federal	1,719
Entitlement	Subsidies to children under custodianship	Federal	124
Entitlement	Benefits to blood donor	Federal	684
Entitlement	Subsidy to victims of irradiation	Federal	1,693
Entitlement	Housing subsidies to particular categories of population**	Federal	252
Entitlement	Burial subsidies to unemployed non-pensioners	Federal	153
Entitlement	Subsidies to single mothers	Federal	2,000
Entitlement	Subsidies to mothers with children under 3 years old laid off due to enterprise bankruptcy	Federal	2
Entitlement	Subsidies to victims of Stalin camps	Federal	15
Entitlement	Subsidies to families with children	Federal	13,480
Mandate	Local veterinary service	Federal	1,240
Mandate	Subsidies to mass media	Regional	694
Mandate	Maintenance of local representative offices of federal bodies***	Federal	800
	Total		141,595

Source: Estimated for Kirovsk raion by local officials for 1997

* The category includes families with 3 and more children.

** The category includes teachers, doctors, vets, workers of culture.

*** The category includes: civil defense and emergency office, state inspectorate of agricultural aviation, commission on juvenile delinquency, commission on administrative violation.

Table 40

CLIENT POPULATION FOR CATEGORIES OF SERVICES PROVIDED BY LOCAL GOVERNMENTS

Service	Clients
Education	Population under 17
Health care	Children and senior citizens should receive a weight greater than 1 to reflect their higher "cost" of health care services. All others should receive a weight of 2. This weighed sum shall be referred to as the number of clients.
Other services	Total population

TABLE 41

BASE YEAR SPENDING SHARES BY FUNCTION AND BY LEVEL OF GOVERNMENT
(amounts in thousand rubles)

	Local Budget		Consolidated Budget		
Expenditure Category	Amount	Percent	Amount	Percent	Local Government Share
Education	670,861	31	785,093	23	85
Health Care	249,387	11	494,678	15	50
Other	1,280,752	58	2,090,202	62	61
Total Expenditures	2,201,000	100	3,369,973	100	65

TABLE 42

ESTIMATED EXPENDITURE NEEDS BY FUNCTION AND BY LEVEL OF GOVERNMENT
(amounts in thousand rubles)

	Local Government			
Expenditure Category	Amount	Percent	Number of Clients (in thousands)	Per Client Expenditure Needs
Education	745,624	85	354	2,084
Health Care	277,180	50	2,403	91
Other	1,423,483	61	1,680	776
Total Expenditures	2,446,287	65	--	1,346

TABLE 43

EXPENDITURE AND REVENUE ASSIGNMENT UNDER THE PROPOSED EQUALIZATION SYSTEM

Municipalities	Total Assigned Expenditures	Assigned Revenues	Assigned Revenues, Adjusted for Tax Effort	Gap Between Total Expenditures and Assigned Revenues	Gap Between Total Expenditures and Assigned Revenues Adjusted for Tax Effort
Boksitogorsk City	55,953	23,539	33,029	32,414	29,924
Volkhov City	69,139	50,167	23,939	18,972	45,200
Vsevolzhsk City	203,997	65,307	65,307	138,690	138,690
Vyborg City	240,490	117,074	92,760	123,416	147,729
Gatchina City	106,415	46,053	39,637	60,362	66,778
Ivangorod City	17,288	5,614	7,057	11,674	10,231
Kingisepp City	101,168	49,368	57,851	51,800	43,317
Kirishy City	94,550	161,266	168,789	-66,716	-74,239
Kirovsk City	118,851	45,378	37,347	73,473	81,504
Lodeynoye Pole City	54,173	17,611	19,759	36,562	34,594
Luga City	116,553	34,773	44,946	81,780	71,608
Pikalyovo City	33,689	31,879	60,402	1,810	-26,713
Podporozhye City	52,293	21,659	24,985	30,634	27,308
Priozyorsk City	81,206	22,884	22,350	58,322	58,856
Slantsy City	67,055	29,609	29,082	37,446	37,973
Sosnovy Bor City	86,155	100,804	79,484	-15,649	5,671
Tikhvin City	115,270	42,106	51,368	73,164	63,903
Tosno City	145,695	86,401	45,734	59,294	99,961
Shlisselburg City	16,612	4,080	4,044	12,532	12,568
Volosovsky Rayon	65,233	19,104	25,506	46,129	39,728
Volkhovsky Rayon	57,794	23,503	28,680	34,291	29,114
Gatchinsky Rayon	151,920	42,807	57,244	109,113	94,676
Lomonosovsky Rayon	91,834	26,787	26,787	65,047	65,047
Koltushskaya Volost	10,313	2,357	2,357	7,956	7,956
Kommunar City	23,015	18,489	24,725	4,526	-1,710
Kuznechnoye City	7,637	4,628	4,520	3,009	3,117
Novaya Ladoga City	14,931	7,310	8,920	7,621	6,011
Svetogorsk City	22,216	56,460	44,735	-34,244	-22,519
Sertolovo City	41,432	4,700	4,700	36,732	36,732
Total	**2,261,876**	**1,161,717**	**1,135,861**	**1,110,159**	**1,126,015**
Subsidized	2,088,406	893,623	837,211	1,194,783	1,251,196
Non-Subsidized	173,469	268,094	298,650	-94,625	-125,181

TABLE 44

PER CAPITA MINIMUM BUDGET EXPENDITURE UNDER THE PROPOSED EQUALIZATION SCHEME FOR 1999 WITH THAT IN 1997

City or Rayon	Per Capita Amount	Per Capita Relative	Per Capita Relative in 1997	Average Wage
Boksitogorsk City	1,455	1.50	1.16	550
Gatchinsky Rayon (includes Gatchina City & Kommunar City)	1,000	1.03	0.47	663
Ivangorod City	1,209	1.24	1.39	428
Kingisepp City	1,141	1.17	1.25	652
Kirishy City	1,142	1.17	1.36	1,263
Kirovsk City	1,164	1.20	1.02	692
Lodeynoye Pole City	1,144	1.18	0.90	561
Lomonosovsky Rayon	1,119	1.15	0.94	577
Luga City	1,122	1.15	0.94	623
Pikalyovo City	1,099	1.13	1.01	774
Podporozhye City	1,144	1.18	1.03	589
Priozyorsk (includes Kuznechnoye City)	1051	1.08	1.10	710
Shlisselburg City	272	0.28	1.17	564
Slantsy City	911	0.94	1.18	529
Sosnovy Bor City	850	0.87	1.26	1,190
Tikhvin City	878	0.90	0.95	620
Tosno City	1,154	1.19	0.67	737
Volkhovsky Rayon (includes Novaya Ladoga City &Volkhov City)	1,024	1.05	1.05	688
Volosovsky Rayon	284	0.29	0.35	582
Vsevolzhsk City (includes Koltushskaya Volost & Sertolovo City)	226	0.23	0.90	667
Vyborg Rayon (includes Svetogorsk City)	1,031	1.06	0.90	837
Mean	972	1.00	1.00	690

TABLE 45

FINANCING MINIMUM EXPENDITURE LEVELS: BY MUNICIPALITY IN 1999

Municipalities	Total Minimum Expenditures	Assigned Local Revenues	Excises			Personal Income Tax			Enterprise Profit Tax		
			Tax Base	Percent	Amount Assigned	Amount Collected	Percent	Amount Assigned	Tax Base	Percent	Amount Assigned
Boksitogorsk City	52,574	33,029				15,854	75	11,891	47,224	16	7,655
Volkhov City	64,981	23,939	9,261	100	9,261	18,432	75	13,824	11,147	18	2,007
Vsevolzhsk City	191,699	65,307	6,773	100	6,773	54,312	75	40,734	190,567	18	34,302
Vyborg City	226,077	92,760	3,575	100	3,575	68,934	75	51,701	158,394	18	28,511
Gatchina City	100,002	39,637	4,717	100	4,717	33,207	75	24,906	68,443	18	12,320
Ivangorod City	16,262	7,057	33	100	33	2,648	75	1,986	3,240	18	583
Kingisepp City	95,123	57,851	20,187	0	0	43,720	75	32,790	34,172	13	4,482
Kirovsk City	111,767	37,347	31	100	31	25,040	75	18,780	26,104	18	4,699
Lodeynoye Pole City	50,932	19,579				10,416	75	7,812	8,524	18	1,534
Luga City	109,557	44,946	2	100	2	33,827	75	25,370	78,415	18	14,115
Podporozhye City	49,164	24,985	19	100	19	17,166	75	12,874	20,982	18	3,777
Priozyorsk City	76,349	22,350	217	100	217	19,622	75	14,716	17,954	18	3,232
Slantsy City	63,009	29,082	15	100	15	15,101	75	11,326	22,640	18	4,075
Sosnovy Bor City	80,100	79,484				47,759	01	617	421,536	0	0
Tikhvin City	108,385	51,368	181	100	181	34,375	75	25,781	54,336	18	9,780
Tosno City	136,933	45,734	38	100	38	23,388	75	17,541	104,743	18	18,854
Shlisselburg City	15,622	4,044	3	100	3	3,183	75	2,387	2,847	18	512
Volosovsky Rayon	61,342	25,506	2,071	100	2,071	17,921	75	13,441	19,634	18	3,534
Volkhovsky Rayon	54,326	28,680				10,244	75	7,683	82,754	18	14,896
Gatchinsky Rayon	142,784	57,244				34,436	75	25,827	80,177	18	14,432
Lomonosovsky Rayon	86,332	26,787	4	100	4	12,137	75	9,103	25,533	18	4,596
Koltushskaya Volost	9,691	2,357	104	100	104	1,971	75	1,478	628	18	113
Kuznechnoye City	7,816	4,520				4,423	60	2,666	4,297	0	0
Novaya Ladoga City	14,037	8,920				8,555	60	5,117	6,894	0	0
Sertolovo City	38,990	4,700				2,723	75	2,042	2,189	18	394
Total for Subsidized Municipalities	1,963,226	837,211	62,928	0	27,044	559,396	54	382,395	1,493,374	8	188,402
Kirishy City	88,900	168,789									
Pikalyovo City	31,662	60,402									
Kommuncar City	21,631	24,725									
Svetogorsk City	20,896	44,735									
Total for the Three:	163,089	298,650									
Total for All Municipalities	2,126,314	1,135,861									

TABLE 45, CONTINUED

FINANCING MINIMUM EXPENDITURE LEVELS: BY MUNICIPALITY IN 1999

Municipalities	Bank Profit Tax			Value Added Tax			From Equalization Fund	Total Revenue
	Tax Base	Percent	Amount Assigned	Amount Collected	Percent	Amount Assigned		
Boksitogorsk City	81	0	0	32,115	0	0	0	52,574
Volkhov City	246	19	47	20,093	25	5,023	10,881	64,981
Vsevolzhsk City	4,605	19	875	109,360	25	27,340	16,368	191,699
Vyborg City	2,552	19	485	158,100	25	39,525	9,519	226,077
Gatchina City	1,622	19	308	72,669	25	18,114	0	100,002
Ivangorod City				6,692	25	1,673	4,930	16,262
Kingisepp City	2,603	0	0	10,518	0	0	0	95,123
Kirovsk City	572	19	109	41,276	25	10,319	40,482	111,767
Lodeynoye Pole City	199	19	38	19,465	25	4,866	17,102	50,932
Luga City	1,897	19	361	88,922	25	22,231	2,532	109,557
Podporozhye City				25,433	25	6,358	1,150	49,164
Priozyorsk City	5	19	1	30,245	25	7,561	28,272	76,349
Slantsy City				58,834	25	14,708	3,803	63,009
Sosnovy Bor City	5,760	0	0	259,280	0	0	0	80,101
Tikhvin City	1,303	19	248	77,809	25	19,452	1,575	108,385
Tosno City	273	19	52	100,573	25	25,143	29,572	136,933
Shlisselburg City				5,673	25	1,418	7,257	15,622
Volosovsky Rayon	450	19	85	32,892	25	8,223	8,483	61,342
Volkhovsky Rayon				29,330	10	3,068	0	54,326
Gatchinsky Rayon				55,796	25	13,949	31,332	142,784
Lomonosovsky Rayon				33,456	25	8,364	37,478	86,332
Koltushskaya Volost				3,548	25	887	4,752	9,691
Kuznechnoye City				22,705	0	0	0	7,186
Novaya Ladoga City				13,350	0	0	0	14,037
Sertolovo City				4,384	25	1,096	30,758	38,990
Total for Subsidized Municipalities	22,168	11	2,608	345,746	0	239,318	286,246	1,963,226
Kirishy City								168,789
Pikalyovo City								60,402
Kommunar City								24,725
Svetogorsk City								44,735
Total for the Three:								298,650
Total for All Municipalities								2,261,876

APPENDIX A

Glossary of Data Definitions

Population: Number of people living in the territory (including those who are not registered as permanent population).

Average Salary: The average amount of monthly wages (including personal income tax and social payroll payments) of employees registered as wage earners at the enterprises and organizations located in the respective jurisdiction.

Number of Registered Enterprises: Number of legally operating enterprises.

Number of Employees in Industry: Number of employees of enterprises that are engaged primarily in industrial production.

Finished Construction of New Housing: The square meters of space in newly built residential structures.

Profits in All Kinds of Enterprises (excluding small business and joint venture companies): The final financial result of an enterprise calculated by using its balance sheet. This is the difference between the gross revenue from sales of produced goods, assets of an enterprise, and other revenues on one side and gross expenditures on all these operations.

Self-Financed Capital Construction: The value of capital construction undertaken by enterprises by using their own resources.

Profitability of Enterprises: The ratio of the profit of an enterprise and its costs.

Profit for Average Enterprise: The ratio of the sum of reported profits or losses of enterprises located in a particular municipality to the number of registered enterprises.

Industrial Production: The value of industrial output of goods and services produced by enterprises, including large, medium and small businesses and joint venture companies. This includes the cost of finished goods, cost of semi-finished goods, and cost of industrial services. The value production does not include the cost of those finished and semi-finished goods that are later processed.

Urban Population: Population living in areas which have been legally defined as urban.

Infant Mortality: The average of two ratios: 1) a ratio of a number of those born in the current year and died before one year old to the total number of born in the current year 2) same ratio for the previous year.

Number of Pensioners: The number of pensioners registered in the social security offices.

Number of Families on a Housing Waiting List: The number of families registered as living in sub-standard conditions.

Number of Students at Primary and Secondary Schools: Number of students attending primary and secondary schools, usually 7 to 17 years old.

Number of Students in Regular Schools Attending Lessons in the Afternoon: Number of students attending primary and secondary schools in the afternoon because a space shortage does not permit morning attendance.

Land Area: The bounded area of the municipality.

Rural Housing Stock: The square meters of the living space in settlements that are classified as rural.

Urban Housing Stock: The square meters of the living space in settlements that are classified as urban.

Number of Kindergartens: The number of pre-schools attended by children at the age of 3 to 7 by the choice of their parents.

Capacity of Kindergartens: The maximum number of children that a kindergarten may serve.

Number of Secondary and Primary Schools: The number of schools providing both primary and secondary education.

Number of Teachers at Secondary and Primary Schools: The number of employed teaches teaching in primary and secondary schools.

Number of Municipal Cultural Centers: The number of Cultural Centers. (These are now usually financed from the municipal budget. Previously some were financed by enterprises.)

Capacity of Municipal Cultural Centers: The maximum number of seats in the cinema or concert hall of the cultural center.

Number of Public Libraries: The number of library organizations financed from different levels of budget. In the places other than regional capital they are financed from municipal budgets.

Number of Public Museums: The number of museums financed from different levels of budget. In the places other than regional capital they are financed from municipal budgets.

APPENDIX B

Russia's System of Intergovernmental Transfers in International Perspective

Subnational government revenues in Russia are all part of a system of intergovernmental transfers. Since local governments are unable to influence either the tax rate or the tax base, there are no truly "local taxes." However, the system of transfers from federal to regional governments, and from regional to local governments has several components with different features. The question we raise in this Appendix is the nature of the *grant system* that results from the various types of intergovernmental transfers. We try and answer this question with a comparative analysis of the structure of intergovernmental transfers in Russia with that used in other countries. Such a comparison might help us answer the following rhetorical question: Based on the international experience, what goals might we expect the Russian system to accomplish?

A Taxonomy of Intergovernmental Transfers

Intergovernmental transfers have two dimensions: the size of the divisible pool and the distribution of this pool among eligible local government units. Some have referred to the pool dimension as having to do with the *vertical* fiscal balance between the central and subnational governments and the allocation dimension as having to do with *horizontal* fiscal balance. Unless one examines both components of an intergovernmental transfer, he cannot estimate the full impact.

Bahl and Linn (1992, Chapter 13) developed a taxonomy of grant systems that takes both of these dimensions into account. A matrix, cross classifying transfers by these two dimensions, is presented in Table B-1. Consider first the determination of the size of the total amount to be distributed in a given year, that is, the divisible pool. The international practice suggests three

basic approaches: a specified share of national (or state) government tax revenues, an *ad hoc* decision (such as an annual appropriation voted by parliament), or reimbursement of approved expenditures. Once the amount of the distributable pool is determined, allocations among local governments are typically made in some combination of four ways: by returning shares to the jurisdictions from which the taxes were collected, that is, using a derivation principle; by formula; on an *ad hoc* basis; or by reimbursing costs.

TABLE B-1

ALTERNATIVE FORMS OF INTERGOVERNMENTAL TRANSFER PROGRAMS

Method of allocating the divisible pool among eligible units	Method of determining the total divisible pool		
	Specified share of national or state government tax	Ad hoc decision	Reimbursement of approved expenditures
Origin of collection of the tax	A	L	N.A.
Formula	B	F	N.A.
Total or partial reimbursement of costs	C	G	K
Ad hoc	D	H	N.A.

N.A. = Not applicable.

This two-way classification gives a taxonomy of twelve potential grant types; eight of which are more or less common (Table B-1). The *type A* grant is commonly used, especially in the former socialist countries. The central government sets the tax rate and base, and then determines a share of local collections that can be retained by the region. These are sometimes erroneously referred to as “local taxes” but this is incorrect because the rate and base of taxation are beyond local control. The total national allocation for a *type B* grant is based on a share of a national tax, but the distribution among local governments is made by formula. Thus in the Philippines, 40 percent of national internal revenue collections are distributed among local governments on the basis of population, land area, and equal shares. *Type C* grants differ from *type B* grants only in that the distribution among local governments is on the basis of project

costs. For example, a fixed percentage of a national tax may be distributed among local governments on the basis of the cost of constructing public works projects or the cost of teachers' salaries. A *type D* grant fixes the vertical share but allocates the funds among local governments on a discretionary basis. Subnational governments tend to prefer these types of grants because they guarantee a certain share of revenues. There is much dispute, however, over whether the share is large enough and whether it is distributed in a "fair" way.

The second column in Table B-1 are the types of transfers that centralists prefer. These commit the center to no fixed subnational government share, and basically leave this determination to the political process. The distribution among local governments may be objective (*type F* and *type G*) or completely discretionary (*type H*).

The cost reimbursement grants (*type C, type G,* and *type K)* allow the central government to exercise some control over how the money is spent, by imposing standards as a requirement for receiving reimbursement. The *type G* and *K* grants particularly tilt the balance of discretion towards the central government.

Federal-Oblast Relations in Russia

All revenues in the Russian system are transfers because the subnational governments have no control over the tax rate or the tax base. The dominant form of transfer in the Russian system is shared taxes, the most important of which involve the value added tax, the enterprise income tax and the individual income tax. The revenues from these taxes are partially or wholly assigned to subnational governments. These are *type A transfers* because the total grant pool is determined as a percent of taxes collected and the distribution is by the derivation principle.[1]

[1] Distribution by a "derivation principle" means that the base for revenue sharing is the amount of tax collected within the boundaries of the recipient unit.

A second form of transfer in Russia is FFSR grants. The total amounts of these grants is determined on a year-by-year basis, are not related to any particular tax in a stable way, and do not commit the government to cover any particular level of expenditures. We can say that these are *ad hoc* grants insofar as the determination of the grant pool is concerned. Formally, the distribution of these grants among regions is by formula (a *type F* transfer). In reality it is a *type H* transfer because negotiation rather than formula has driven the distribution. A reform program now proposes to fix the vertical share as a percent of national VAT collections, and would distribute among subnational governments on a formula basis. This would convert FFSR to a *type B* grant.

The other form of intergovernmental transfer in Russia is referred to as a "mutual settlements. " The total amount funded varies from year to year, depending on availability of federal revenues. The distribution is largely negotiated with the lower level governments. Thus we would classify mutual settlements in the same way as FFSR, a *type H* grant.[2]

One cannot see a guiding principle implicit in the Russian system of intergovernmental transfers. The system, like that in most countries, appears to have been developed partly out of compromise. The *type A* and *type H* transfers that make up the system are a mixture of those that favor central control and those that give subnational governments some degree of certainty. The *type A* grants (shared taxes) give regional governments a fixed claim on total central revenues and tend to be the choice of subnational governments in determining the size of the grant pool. The distribution on a derivation basis with uniform sharing rates tends to favor the higher income regions. The fact that the sharing rates have remained constant for the past two years is another feature that has strengthened the subnational government fiscal position. Finally, these transfers

[2] There is some dispute about this. Some would argue that mutual settlements are partly a cost reimbursement grant for mandated federal expenditures, while others see mutual settlements as partly federal assumption of regional debt obligations.

also have the feature of being unconditional, hence give regional governments significant discretion in the use of these funds.

The *type H* grants, on the other hand, are controlled by the federal government to a much greater degree. Both the *ad hoc* determination of the grant pool and the *ad hoc* basis for distribution give the federal level the opportunity to control the amount being distributed and to set standards to guide the expenditures.

These two types of transfers in the system have offsetting effects on the equalization of public service levels across provinces. The distribution by derivation (*Type A*) favors higher income provinces and reinforces interregional disparities in fiscal capacity. The *type H* grants leave it to the central government to decide whether the distributional effects of the *type A* grants will be offset or reinforced. The net effect on equalization will depend on that decision.

Oblast-Local Transfers

As in the case of federal-oblast transfers the intergovernmental system is made up of two kinds of transfer. The first is shared taxes. Unlike the federal level, however, the Leningrad regional government chooses variable sharing rates -- differing by type of tax and by local government. The determination of the sharing rates and therefore the total amount of revenue distributed to the lower level government appears to be made on an *ad hoc* basis. The middle column in Table B-1 represents this approach. The distribution of the amount shared is made according to derivation as shown in row (1) of Table B-1. This would appear to be a *type L* grant. This type of intergovernmental transfer tends to be unstable in terms of the share distributed, and does not improve local government fiscal planning or local fiscal autonomy. It is, however, equalizing when the tax retention rates fall with income level, as is the case in Leningrad.

The second major form of transfer between the oblast and the local government is mutual settlements. Clearly the vertical share is an *ad hoc* distribution by the regional government, with the amounts not usually known until late in the fiscal year. Mutual settlements are distributed partially on an *ad hoc* basis and partly on cost reimbursement basis. It is a combination of a *type H* and a *type G* grant. This form of grant compromises local autonomy, and as is shown in this study is not equalizing. There are two other forms of grants in Leningrad Oblast. Subsidies are paid to municipalities to cover the shortfall between minimum expenditures and available revenues. This constitutes about 45 percent of total grants (excluding shared taxes) in the Region. The vertical share and the distribution are made in an *ad hoc* way, hence these are *type H* transfers. They tend to compromise local autonomy because they are distributed in an uncertain way, and are not easily budgeted.

Subventions are earmarked grants to local governments for housing subsidies and certain price subsidies. These are *type K*, cost reimbursement grants. These transfers do not compromise local autonomy because they are relatively certain in amount, but they do limit local discretion because their use is strictly prescribed.

Can we use this information to deduce the intent of the intergovernmental transfer system and to evaluate the direction of its impacts? To do this, we have described three possible objectives:

- The decentralization objective would be fulfilled by a system that granted some autonomy to lower level governments, in terms of determining how they will spend the intergovernmental transfer, and in terms of the certainty with which it will flow to them. The latter allows more efficient budgeting and fiscal planning by the lower level government.

- The transparency objective is fulfilled by a system whose revenue flow is clearly determined. Both the vertical and the horizontal shares can be estimated by higher and lower level governments and a minimum of negotiation are involved.

- The equalization objective is achieved if the transfer reallocates funds significantly from higher to lower income places.

The results of this review are summarized in Table B-2. We should emphasize the positive nature of this analysis. There is no implied normative conclusion that decentralization, transparency and equalization are somehow "better" than systems structured in alternative ways. The comparisons in Table B-2 are meant only to note difference in emphasis.

The Federal-Regional system of intergovernmental transfers in Russia appears to be driven by mixed objectives. The shared taxes dominate the revenue structure, and these are more decentralizing than the other components of the transfer system. They are unconditional grants in that they are not designated for any particular purpose. Moreover, shared taxes are transparent. The FFSR and mutual settlement transfers, on the other hand, are neither decentralizing nor transparent. These account for only about 20 percent of the revenue structure.

TABLE B-2

GRADING THE SYSTEM OF INTERGOVERNMENTAL TRANSFERS IN LENINGRAD REGION: 1997

				Shares in Total Revenue	
	Decentralizing	Transparent	Equalizing	Regional Government	Local Government
Federal-Regional					
FFSR	NO	NO	NO	9.6	…
Mutual Settlements	NO	NO	NO	10.3	…
Shared Taxes	YES-	YES	NO	80.1	…
Regional-Local					
Subventions	NO	YES	YES	…	7.0
Subsidies	YES	NO	YES	…	19.0
Mutual Settlements	NO	NO	NO	…	35.3
Shared Taxes	YES-	YES-	YES	…	38.7

One place where the intergovernmental transfer system seems to be in agreement is on the degree of equalization provided. In all cases, the distribution of transfers is not equalizing.

Regional-local relations are somewhat different. Here the revenue structure is dominated by direct transfers rather than by tax sharing. The Region, like the federal government, does not

encourage significant local autonomy. The subsidy element is decentralizing, as is the shared tax element, because these are in effect general purpose grants. The subvention and subsidies however, are not. The former because it provides funds for earmarked purposes and the latter because mutual settlements are distributed as year-end transfers and cannot formally enter into the budget planning process.

There is also a mixed conclusion in the case of transparency. Subventions are clearly known. Shared taxes also are clearly known, but are altered each year and there is some uncertainty about the amount to be received. Subsidies and mutual settlements are not transparent and appear to be determined in large part by negotiation.

There is more agreement in the case of equalization. All instruments except the mutual settlements (about two-thirds of the total) are equalizing in nature. This is in stark contrast to the results for Federal-regional relations, where there was no equalization implied by any of the instruments.

From this analysis, we can state a few tentative conclusions:

- The federal government has less diversity than the regional governments in terms of the types of intergovernmental transfer that it uses to achieve its objectives.
- The Leningrad regional government appears to be more interested in equalization than does the federal government.
- With instruments other than shared taxes, the regional government has more interest in providing local government autonomy than does the federal government. At least it is true that the transfer system is more conducive to decentralization at the regional level.
- With instruments other than shared taxes, the regional system of transfers is more transparent than is the federal system.
- Shared taxes appear to be the strongest influence in the system on transparency and decentralization, however, shared taxes have significant centralizing influences depending on how discretionary policy is used.

APPENDIX C

Estimation of Minimum Budgets: the Approach Currently Used

The formula currently used by the Leningrad Oblast for computing minimum local budgets (MB) is:

$MB = Pop\ (SS_{H\&U}C_{H\&U} + SS_{EDU}C_{EDU} + SS_{HEALTH}C_{HEALTH} + NS) + EDelegUp - EDelegDown$, where:

Pop is population of municipality,

SS_j is Social Standards (*norms*) for housing & utilities (H&U), education (EDU), and health care (HEALTH),

C_j is adjustment coefficients, one for each of the three Social Standards;

NS is part of minimum budget, the estimation of which is *not* driven by Social Standards;

EDelegDown is expenditures to be shifted by the oblast to the municipal level in the next budget year;

EDelegUp is expenditure responsibilities to be shifted from the municipal to the oblast level in the next budget year.

Minimum budgets are computed on the basis of Social Standards of the Leningrad Oblast determined in Leningrad Oblast *Law on Social Standards in the Leningrad Oblast*. This Law defines SS as the necessary minimum of per capita availability of important public services (socio-cultural, housing, etc), both in-kind and in money terms, that is guaranteed by the oblast government, oblast legislative assembly and local authorities.

The Law defines the following 4 categories of SS (each corresponds to an appropriate section of the functional classification of budget expenditures:

1) Education: organization, maintenance and improvement of pre-school, general school education and vocational education institutions;

2) Health Care: organization and improvement of health care institutions, ensuring sanitary well-being of the population;

3) Housing , Utilities, and City Planning: maintenance and use of housing; organization, maintenance and improvement of power supply, gas, heating, water and sewer; arranging for provision of fuel to municipal agencies and households;

4) Social Policies: provision of social support and promoting employment.

In 1998 and 1999, however, only three of these 4 SS categories were actually used for computing minimum standards, namely: Housing and Utilities, Education, and Health Care.

SS were computed using budget expenditures for the appropriate function in the base period. The base period used was the three proceeding years for which budget execution data were available. The procedure for computing SS was as follows:

- Total municipal expenditures for each of the above three budget functions were computed for each of the 3 years of the base period.
- For each function, these expenditures were averaged across the 3 years of the sample period and deflated to bring the averages up to the planning year (the next budget year).
- Total population of the oblast to arrive at the three Social Standards, expressed as expenditures per capita then divided these real expenditures.

Social Standards (*norms*) are applicable to all municipalities, and for 1999 budget they were set at:

$SS_{H\&U}$ = 455.4 Rb/person

SS_{EDU} = 401.6 Rb/person

SS_{HEALTH} = 94.8 Rb/person.

The Law requires that SS be stated in the Budget Address of the oblast Governor and approved by the Legislative Assembly. However, for 1998 and 1999 budgets, SS were approved only by the Governor (the Legislative Assembly did not approve them).

A. Adjustment Coefficients and the Standard Budget

The calculated SS are multiplied by "adjustment coefficients" that increases or decreases the total revenue entitlement of the municipality. The larger the adjustment coefficient, the larger the minimum budget. The idea is to adjust for needs. The sum of the product of the adjustment coefficients and the SS form the standard component of the minimum budget of the municipality. To understand the nature of the changes introduced by the adjustment coefficient, it is necessary to understand how these coefficients are computed.

The general description of the composition of adjustment coefficients is shown in Box 8.

1. $C_{H\&U}$:

$$C_{H\&U} = C_{H\&U_1}\sqrt{aC^2_{H\&U_2} + bC^2_{H\&U3}}$$

where

$C_{H\&U2}$ = the ratio of per capita floor area of municipal housing in the municipality, to the same indicator for the oblast (sq. m /person);

$C_{H\&U}$ = the ratio of heating costs per sq. m of municipal housing in the municipality to heating costs per sq. m. of municipal housing for the oblast (Rb/sq. m).

a = 0.57 is the share of housing maintenance and public utility costs in total H&U expenditures of all municipalities in the base period;

b = 0.43 is the share of fuel costs in total H&U expenditures of all municipalities in the base period;

$C_{H\&U1}$ is ratio of H&U costs covered by residents:

$$C_{H\&U_{1i}} = T \Big/ T_{oblast}$$

where T is the share of total H&U costs covered by the municipality in the base period (minimum was 55.6 percent (Pikalyovo City) and maximum was 80.8 percent (Priozyorsk City); The average share of H&U costs borne by municipalities in the base period of 29.3 percent (T_{oblast}).

Box 8. Decomposition of Adjustment Coefficients

$$MB = Pop(SS_{H\&U} C_{H\&U} + SS_{EDU} C_{EDU} + SS_{HEALTH} C_{HEALTH} + NS) + EDeleg_{Up} - EDeleg_{Down}$$

$$C_{H\&U} = C_{H\&U1}\sqrt{0.43C^2_{H\&U_2} + 0.57C^2_{H\&U_3}}$$

- $C_{H\&U1}$: Budget share in H&U expenditures
- $C_{H\&U_2}$: Heating costs per sq m in municipal housing
- $C_{H\&U_3}$: Municipal housing per capita

$$C_{EDU} = \sqrt{C^2_{EDU_1} + C^2_{EDU_2}}$$

- C_{EDU_1}: Share of young people
- C_{EDU_2}: Share of young and elderly people

$$C_{HEALTH} = \sqrt{C^2_{HEALTH_1} + C^2_{HEALTH_2}}$$

$$C_{\grave{E}DU_1} = \sqrt{0.27C^2_{EDU_{11}} + 0.64C^2_{EDU_{12}} + 0.05C^2_{EDU_{13}} + 0.04C^2_{EDU_{14}}}$$

- $C_{EDU_{11}}$: Per capita places in kindergarten
- $C_{EDU_{12}}$: Per capita places in high schools
- $C_{EDU_{13}}$: Per capita places in boarding schools
- $C_{EDU_{14}}$: Per capita places in orphanages

$$C_{HEALTH_1} = \sqrt{C^2_{HEALTH_{11}} + C^2_{HEALTH_{12}}}$$

- $C_{HEALTH_{11}}$: Per capita beds in hospitals
- $C_{HEALTH_{12}}$: Per capita visits to clinics

Apparently, by using this "coverage" coefficient the oblast government is trying to create incentives for the municipalities to reduce their H&U expenditures, by shifting the burden of these expenditures onto the population. Otherwise, the adjustment coefficient will vary directly with the amount of housing and utilities presently provided. It is not apparent whether this coefficient will enhance or weaken equalization.

2. C_{EDU} :

$$C_{EDU} = \sqrt{C_{EDU_1}^2 + C_{EDU_2}^2}\ ,\ \text{where}$$

C_{EDU1} is the adjustment coefficient that reflects per capita availability of educational facilities in the municipality. It is computed using the following formula:

$$C_{EDU_1} = \sqrt{cC_{EDU_{11}}^2 + dC_{EDU_{12}}^2 + eC_{EDU_{13}}^2 + fC_{EDU_{14}}^2}\ ,\ \text{where}$$

C_{EDU11} is per capita number of places in pre-schooling institutions in the municipality

C_{EDU12} is per capita number of places in general education (non-vocational) schools in the municipality

C_{EDU13} is per capita number of places in boarding schools in the municipality

C_{EDU14} is per capita number of places in orphanages in the municipality

Coefficients c=0.27, d=0.64, e=0.05, and f=0.04 in this formula are average shares of spending on pre-schooling institutions, general schools, etc. in total education outlays of all municipalities in the base period. In other words, of total expenditures made by Leningrad Oblast municipalities on education in the base period: 27 percent on kindergartens, 64 percent were spent on schools, 5 percent on boarding schools and 4 percent on orphanages.

C_{EDU2} reflects disparities in the demographic composition of the population and is computed as:

$C_{EDU_2} = D \,/\, D_{oblast}$ where

D is the share of population under working age in a given municipality,

D_{oblast} is the average share of population under working age across municipalities.

The education coefficient, then, is driven by the size of the client population for schools and the size of the school plant. One would not expect this coefficient to have an equalizing effect.

3. C_{HEALTH}:

$C_{HEALTH} = \sqrt{C^2_{HEALTH_1} + C^2_{HEALTH_2}}$, where

$C_{HEALTH1}$ is the coefficient that reflects the per capita availability of services of polyclinics and hospitals:

$$C_{HEALTH_1} = \sqrt{C^2_{HEALTH_{11}} + C^2_{HEALTH_{12}}}$$

$C_{HEALTH11} = A/A_{oblast}$, where

A is the number of hospital beds in the municipality, per 1000 residents,

A_{oblast} = the number of hospital beds in the oblast, per 1000 residents

$C_{HEALTH11i} = B/B_{oblast}$, where

B is number of visits to doctors per shift, per 1000 residents of municipality

B_{oblast} is the number of visits to doctors, per shift, per 1000 oblast residents

$C_{HEALTH2}$ reflects how the demographics of the municipality are different from that of the oblast:

$C_{HEALTH_2} = H/H_{oblast}$, where

H is the share of persons under and over working age in a given municipality,

H_{oblast} is the same share for the oblast (oblast average).

The goal of this computation is to recognize the higher maintenance and operations costs associated with a greater level of health infrastructure (beds and doctors). It also recognizes clients (it assumes a greater demand for services on the part of young and old) and possibly the general health of the population. It does not seem likely that the health expenditure adjustment coefficient will have an equalizing effect.

B. Non-standard part of the budget

The *non-standard* part of the budget includes the expenditure items that are not part of the three sections of the budget driven by social standards. This non-standard part is estimated on the basis of average per-capita base period outlays of all municipalities. This total is then inflated to bring it up to the next budget period. Since the non-standard-driven part of the minimal budget is the same for all municipalities in the Leningrad Oblast (233 Rb/person in 1999), this component of expenditures produces a definite equalizing effect.

C. Decentralized Expenditures

Included in this category are expenditures that were financed from the oblast budget in the base period, but will be delegated to municipalities in the forthcoming year (utility bills of museums, veterinary services). This category also includes expenditures made from land tax and land lease revenues that the oblast leaves in the possession of

municipalities.[3] This factor increases the revenue claim for those who 'receive" the new service responsibility.

D. EDelegUp

This category includes expenditures that are expected to shift from the municipal to the oblast level in the forthcoming year. In the 1999 budget, for example, these include centralized provision of fuel, provision of free medications and telephone services to certain categories of citizens. "Centralized provision of fuel" means that municipalities purchase part of the fuel that they need from the oblast by reducing their budget revenues in favor of the oblast. This adjustment reduces the claim of the municipality.

Box C-1 presents a step-by-step minimum budget computation procedure for Boksitogorsk City for 1999 budget.

[3] Expenditures made from land tax and land lease payments essentially coincide with the amount of revenues collected from these sources.

BOX C1

ESTIMATION OF THE NECESSARY MINIMUM OF BUDGET EXPENDITURES

We shall illustrate the procedure for estimating minimum budgets by computing the expenditure needs (necessary minimum of budget expenditures) for Boksitogorsk City. For this city, the minimum budget for 1999 estimated by the oblast is 53,194.7 thousand rubles (see line 10). Here is how this number was computed:

		Thousand Rb
1.The SS for H&U is 455.4 Rb/person. This is multiplied by the adjustment coefficient for H&U (1.02) and by population		19,463
2. SS for education is equal to 401.6 Rb/person. This is multiplied by the adjustment coefficient of (1.07) and population		18,005
3. SS for health care (94.8 Rb/person) is multiplied by adjustment coefficient (1.23) and population size		4,886
4. The sum of these three gives is the standard-driven part of minimum budget		42,354
5. The average per capita expenditures on non-standard-driven items of minimum budget (223 Rb/person) are multiplied by population to get the "non-standard-driven" part of the budget		9,344
6. Sum of "standard" and "non-standard" parts of the minimum budget =		51,697
7. Add expenditures on functions delegated from the oblast to municipalities:		9,119
8. Subtotal:		60,816
9. Subtract expenditures assumed by the oblast:		7,622
Fuel provision	6,771	
Subsidized telephone services	210	
Subsidized medications	641	
10. Total minimum budget		53,194

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