Fiscal Decentralization and Budget Discipline in Russian Regions

Michael Alexeev, Indiana University; Nikolay Avxentyev and Arseniy Mamedov, Russian Academy of National Economy and Public Administration
February 2015

We use panel data from the Russian regions for 2005-2013 to estimate the link between intraregional fiscal decentralization and regional budget deficits. Although Russian regions are not as autonomous in their fiscal policies as regions in other federal states such as Switzerland and the US, we obtain rather robust and highly statistically and economically significant results. Most importantly, we show that expenditure decentralization tends to have a positive effect on consolidated regional budget balance, while the weakness of regional tax base (relative to municipal one) is associated with significantly higher deficits. Also, as expected, the dependence of municipal budgets on transfers from the regional government leads to higher deficits of the consolidated regional budget. We conjecture that the deficit-reducing role of expenditure decentralization is due in part to better monitoring by the citizens and more efficient handling of expenditures by officials closer to the place where the funds are spent. Also, it might be easier for the regional government to pre-commit to a given level of expenditures when these expenditures are allocated to municipalities, because most municipalities in Russia appear to have harder budget constraints than the regional government.

The Russian Federation is currently experiencing significant budgetary difficulties that are particularly acute at the regional level. Although the average debt burden in the regions is still relatively small by international standards (see, Mamedov and Avxentyev 2014), the trend is worrisome, particularly since one of the main sources of regional budget revenue is the notoriously volatile and highly pro-cyclical corporate profits tax. What can be done to improve regional budget balances without reducing the provision of public goods? Our research suggests that one possible approach is to increase the degree of within-region fiscal decentralization.

In theory, fiscal decentralization has an ambiguous effect of budget deficits. On one hand, decentralization of fiscal decisions may lead to an increase in the number of veto players over government expansion, making such expansion more difficult. Moreover, fiscal decentralization could improve monitoring of the government by citizens, including closer monitoring of expenditures, and local officials may be able to spend funds more efficiently. In addition, competition among lower levels of government for capital and labor may induce fiscal discipline by increasing the opportunity cost of expenditures (Qian and Roland 1998). On the other hand, fiscal decentralization could make it easier for local governments to commit to spending more than they would if they expect the central government to bail them out. This is the "soft budget constraints" story.

The empirical literature on the budgetary consequences of fiscal decentralization has not produced definitive results, although most tests find some positive effects of decentralization (e.g., Neyapti 2010, Escolano et al. 2012, and Argimon and de Cos 2012). These tests have typically used country-level data, looking at fiscal decentralization between the regions and the central government. The main disadvantage of this approach is that it is difficult to adequately take into account inter-country differences. Moreover, country-level data on fiscal decentralization differ significantly depending on the source, which raises serious questions about data reliability. Instead of using country-level data, Schaltegger and Feld (2007), and Freitag and Vatter (2011) look at the consequences of fiscal decentralization within Swiss cantons.

We follow their regionally focused approach and use panel data on 73 Russian regions for 2005-2013. (We exclude federal cities of Moscow and St. Petersburg, regions containing "okrugs", and the republics of Ingushetia and Chechnya). The advantages of this approach are that time-varying differences across regions of a single country are typically much smaller than those across different countries, and in Russia, regions use the same methodology for calculating regional and municipal revenues and expenditures.

In order to test the influence of fiscal decentralization on budget balances, we regress four different measures of the consolidated regional budget balance (overall or primary and relative to budget revenue or to gross regional product) on fiscal decentralization variables and several controls. Our main fiscal explanatory variables are (1) "expenditure decentralization" calculated as the share of sub-regional (municipal) expenditures in total budget expenditures in the region; (2) the share of tax revenue accrued to municipalities in total regional tax revenue; (3) "transfer dependency" – the ratio of transfers from the regional government to municipalities in total municipal revenues (including the transfers); and (4) consolidated regional debt. In calculating expenditure decentralization and transfer dependency measures, we take out the subventions because they do not reflect any expenditure flexibility on behalf of the receiving government.

Although one may view municipal tax revenue share as "tax decentralization", it actually reflects more the strength of regional budget revenue than the degree of revenue independence of municipalities from the regional government. This is because the tax share assignments to municipalities made at the discretion of regional governments have been used mainly as a substitute for transfers to cover imbalances in municipal budgets. This implies that there is a little substantive difference between transfers and shares of regional budgets allocated to municipalities. Moreover, similarly to explicit transfers, municipal revenue share (inversely) depends largely on the strength of the regional economy and the size of regional government revenue rather than on the degree of any substantive fiscal decentralization. Therefore, we interpret the expenditure decentralization measure as a proxy for fiscal decentralization while the share of municipal revenues and transfer dependency reflect fiscal centralization.

In addition to budgetary measures, we also control for a measure of the region's dependence on natural resources (share of mineral tax collections in all tax collections), gross regional product (GRP) growth rates, lagged logarithm of per capita GRP, and the region and time fixed effects.

In the benchmark fixed effects regression, the coefficient of expenditure decentralization is positive and statistically significant at 1% level. Our two indicators of fiscal centralization (municipal revenue share and transfer dependence) both have negative and highly statistically significant coefficients. These results are robust to different measures of the dependent variable and to the inclusion or exclusion of control variables such as GRP growth rate and lagged debt. In terms of economic significance, a one-percentage point increase in expenditure decentralization reduces the ratio of primary budget deficit to budgetary revenues by about one half of a percentage point.

One potentially serious problem with the above estimation approach is that our budgetary measures may be endogenous with the budget balance. For example, an improvement in the budget balance could make it more likely that the regional government would give more expenditure responsibilities to the municipalities. In that case, the causality would go not from decentralization to budget balance, but in the opposite direction. The best way to deal with endogeneity is to find valid instrumental variables for the decentralization and centralization measures. Unfortunately, the only instruments we have been able to find are the lagged values of the variables in the benchmark regression equation. Although this approach described in Arellano and Bover (1995) and Blundell and Bond (1998) is rather “mechanical”, it is the best available alternative in the absence of “natural” instruments. This approach also allows for the inclusion of a lagged value of the dependent variable to account for dynamic effects within the panel.

Reassuringly, the results of these instrumented regressions are similar to the fixed effects regressions. The expenditure decentralization coefficients remain positive and statistically significant at 5%. The coefficients of the other fiscal measures have the same signs and similar levels of statistical significance as in the fixed effects specifications. The point estimates are not dramatically different either. Not surprisingly, the lagged dependent variable has a positive and highly statistically significant coefficient, pointing to a degree of inertia in regional budget balances.

Finally, we note that our results are broadly similar to the existing estimates for Switzerland and to our own preliminary estimates for the US.

We conclude that despite a significant degree of political centralization, expenditure decentralization within Russian regions can significantly improve regional budget balances, presumably by increasing the efficiency of expenditures decentralized to municipalities and hardening the budget constraints.

▪

References

Arellano, M., and O. Bover, 1995. “Another look at the instrumental variable estimation of error-components models,” Journal of Econometrics 68: 29–51.

Argimon, I. and P. H. de Cos, 2012. “Fiscal rules and federalism as determinants of budget performance: An empirical investigation for the Spanish case,” Public Finance Review 40, 30-65.

Blundell, R., and S. Bond, 1998. “Initial conditions and moment restrictions in dynamic panel data models,” Journal of Econometrics 87: 115–143.

Escolano, J., L. Eyraud, M. Moreno Badia, J. Sarnes, and A. Tuladhar, 2012, “Fiscal Performance, Institutional Design and Decentralization in European Union Countries,” IMF Working Paper WP/12/4.5

Freitag, M. and A. Vatter, 2008. “Decentralization and fiscal discipline in sub-national governments: evidence from the Swiss federal system,” Publius: The Journal of Federalism 38(2), 272–294.

Mamedov A. A., and N. A. Avxentyev, 2014. “Региональный и муниципальный долг субъектов Российской Федерации: ретроспективный анализ и перспективы” Научно-исследовательский финансовый институт, Финансовый журнал 4: 66 - 80. (“Regional and minucipal debt of subjects of the Russian Federation: a retrospective analysis and perspectives” Research Financial Institute, Financial Journal 4:66-80)

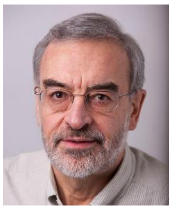
Neyapti, Bilin, 2010.”Fiscal decentralization and deficits: International evidence" European Journal of Political Economy, 26(2), pages 155-166.

Qian, Yingyi, and Gerard Roland, 1998. "Federalism and the Soft Budget Constraint," American Economic Review, 88(5):1143-61.

Michael Alexeev

Indiana University

MAlexeev@indiana.edu
http://mypage.iu.edu/~malexeev/



Michael Alexeev holds the rank of Full Professor of Economics at Indiana University, Bloomington, Indiana. He graduated from Moscow University in 1975, majoring in Economics and Mathematics, and received a Ph.D. in Economics from Duke University in 1984.

His current research interests lie mostly in the fields of institutions and governance, economics of transition to a market economy, fiscal federalism, and the effects of natural resources on the countries' institutions and growth.

Alexeev's research has appeared in such leading general economics journals as Journal of Economic Theory and Review of Economics and Statistics, as well as in comparative and development economics journals and edited volumes. He has also published articles in public choice and in law and economics, and has recently co-edited The Oxford Handbook of the Russian Economy, the Russian edition of which was published earlier this year. Alexeev's CV is available at http://mypage.iu.edu/~malexeev/alexeev_cv_dec09.pdf.

Nikolay Avxentyev

Russian Academy of National Economy and Public Administration

Nikolay Avxentyev is currently Research fellow at the Russian Academy of National Economy and Public Administration, and Research fellow at the Research Financial institution of Ministry of Finance, both in Moscow, Russia. He received his Master's degree in Economics from the New Economic School in 2013.

Nikolay's primary research areas are fiscal federalism and health economics. His main research papers on fiscal federalism are concerned with the effect of (de)centralization on budgetary performance and regional debt policy. His main papers on health economics examine health insurance systems in Russia and abroad.

Arseniv Mamedov

Russian Academy of National Economy and Public Administration

Arseniy Mamedov is currently Senior Research Fellow at the Russian Academy of National Economy and Public Administration and acting Head of Department for Fiscal Policy at the Gaidar Institute for Economic Policy, both Moscow, Russia. He received his Master's degree in Economics from Moscow State University in 2009.

Arseniy's research interests lie mostly in the fields of fiscal federalism, tax policy, budget expenditures, government debt, efficiency of government sector. He has published articles and research papers mainly in Russian journals and books and he is co-author of the NBER paper "Russia's Fiscal Gap".