

Constitutions, Regulations, and Taxes: Contradictions of Different Aspects of Decentralization⁺

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One of the main problems for the empirical literature on decentralization, its driving forces and economic impacts, is that decentralization is really difficult to measure. The traditional indicators like retention rates or subnational share of public expenditures have all been discussed and thoroughly criticized. The aim of this paper is to explicitly confront different concepts of decentralization using a single dataset. The objective is rather positive than normative: first, I try to establish a correlation between different aspects of decentralization, and second, look at the driving forces determining the decentralization outcomes. From this point of view the paper aims to contribute to the growing empirical endogenous decentralization literature in economics and political sciences, attempting to perform a positive analysis of factors determining (various) degrees of decentralization. It is difficult to find a reasonable empirical playground for this exercise, mostly because decentralization beyond simple allocation of revenues and expenditures is very hard to measure. This paper takes advantage of the process of asymmetric devolution in the Russian Federation in the 1990s, and uses Russia as the laboratory for comparing different aspects of decentralization.

Since decentralization seems to be one of the main concepts for economic and political reforms in both developing and developed countries, there exists a multitude of intersecting and diverging theoretical and empirical concepts for measuring decentralization, often applied as “proxies” for one another. To start with, the main problem of the literature is actually not the choice between “centralized” and “decentralized” governments, but rather between *political*, or *constitutional* (which in turn may refer to the autonomy of decision-making, autonomous appointment of governments and their ability to participate in federal decision-making), and *administrative* (which mostly refers to the construction of public administration, i.e. deconcentration of bureaucracy) decentralization. For a large country (in terms of population or

⁺ This is a significantly shorter version of the original paper, excluding most estimation results, robustness tests and references, to be distributed among the participants of the HSE conference. For citation and discussion please refer to the original paper. The paper was presented at the Center for European Economic Research (ZEW) in December 2008. The author appreciates the comments of Lars P. Feld and Steffen Osterloh. All mistakes are my own.

territory) administrative decentralization is unavoidable and undisputable simply because of technical reasons of governability. Hence, the question for the optimal degree of decentralization usually refers to the decision-making autonomy of regional governments (although a world with agency problems and power asymmetries administrative decentralization may “turn into” political autonomy of regional governments through the informal migration of authority).

A further distinction should be made, as already noticed, between the (already defined) *constitutional* decentralization and *post-constitutional decentralization*. The post-constitutional decentralization reflects the *outcomes* of the political process, once the constitutional rules are set, rather than the rules themselves. The distinction is particularly simple in fiscal matters: the constitutional decentralization implies the right of regions to independently decide on revenues and expenditures of their budgets; the post-constitutional decentralization, however, means just the allocation of funds between center and regions. In countries like Germany states receive substantial portion of tax revenue, but have virtually no right to decide on bases and rates for taxes (which are then federal or joint responsibility). In what follows *fiscal decentralization* refers exclusively to these post-constitutional outcomes (as it is the case in almost all empirical studies, though not all of them acknowledge it). The situation is slightly more complicated, if one looks at the regulations. The constitutional decentralization, once again, means the allocation of decision-making rights on standards and norms for economic activity. However, this allocation may be different from the “real” significance of regional and federal regulations for economic agents. For example, it is possible that one of the parties (either center or states) is more active in filling their “regulatory niche” with acts and norms, than the other. Once again, *regulatory decentralization* in this paper refers to the post-constitutional “relative importance” of federal and regional law for economic agents. Obviously, it is a vague concept, which I will, however, operationalize in what follows.

This paper therefore looks at three concepts of decentralization: constitutional and two post-constitutional (regulatory and fiscal) dimensions of devolution. Obviously, it is not the first attempt to confront different dimensions of decentralization, although the literature in this field has been very limited so far. Moreover, the existing contributions mostly focus on international settings. Hence, data compatibility across nations adds an additional dimension to the measurement problem. It is therefore reasonable to look at different dimensions of decentralization and their origin using the *intra-national* variation of decentralization, which, however, to my knowledge have never been considered empirically before. Once the subnational variation is taken into account, a further distinction should be made. First, one can focus on the decentralization *within* subnational units, if they are different enough. Second, however, the degree of devolution achieved by *each region* versus the central government is often

heterogeneous, implying the development of what one may call “asymmetric federalism”. While asymmetries in terms of *outcomes* of economic policies (say, retention rates) are always present in federations (but may have substantially different origin), the asymmetry at the level of *constitutional* decentralization is a more rare phenomenon, which is, however, observed in a variety of countries. I will follow the second way presented, given the Russian institutional specifics.

In this paper the *fiscal decentralization* is measured by the traditional variable of tax retention rate (share of regional government in the overall tax revenue collected from its territory). Although the data is published by the Federal Statistical Authority (Goskomstat) on the annual basis, in order to ensure compatibility with other data, which are available only in a cross-section, I take the average over 1995-1999 (with 1995 being the first year after the reform of the federalism in 1994, establishing the existing system of interbudgetary relations in Russia, and 1999 being the last year of the Yeltsin’s presidency before the re-centralization attempts under Putin started).

A unique advantage of the Russian dataset is that one can use a specific measure for the *regulatory decentralization* encompassing multiple dimensions of economic regulation. As already mentioned, the regional legislation in the late Yeltsin period included a large number of significant contradictions to the federal law. Although the federal law existed, regional courts and regional police, captured by local governments, usually enforced the local law – so, the federal acts simply did not matter for economic agents. After the start of the Putin’s presidency, one of the first steps of the new government was to revise the regional law in order to ensure the predominance of the federal legislation. As part of this effort, the Ministry of Justice established the so-called Federal Register (*federal’nyi registr*), or catalogue of regional acts (both of the legislatures and of executive bodies, but incorporating legal norms) in power at that moment. The acts included in the Register should pass an examination by the expert commission established by the Ministry of Justice, which determines their compatibility with the federal law. As a result, a statement is published, which is then included in the file in the Federal Register as well. The acts contradicting federal law should be abolished or changed; however the file in the Register remains, even if the act is not valid any more. Although originally the Register was unable to cover all regional acts (a revision process certainly takes time), after several years one can be sure that most acts passed by the regions were included in the Register.

I use the Register statistics as published by the Ministry of Justice on December 31, 2006 and calculate two indicators. First, I take *the share of acts, which were assessed as contradicting the federal law, in the total number of acts for which an expert opinion is present* (which is, as one should mention, smaller, than the overall number of acts included in the Register), as

indicator of the degree of regulatory devolution achieved by a particular region. This measure may, however, face two problems. First, it may be too small because of the acts passed after 2001 in the Putin's period (when the war of laws was reduced significantly) and included in the Register. Second, it is possible that the acts are more likely to be passed in general if the region is willing to violate the federal law: if it does not desire it, it just remains silent over a certain area of regulation, which is then covered by the federal acts. Hence, I also use the *total number of acts* contradicting the federal law as a proxy for regulatory decentralization. As shown below, both values are significantly correlated, but it is still necessary to look at both to establish the robustness of the results.

The devolution at the constitutional level in Russia is, as usually, a relatively tricky part for an empirical study. There is a certain literature addressing this problem by examining the reasons for establishment and for the duration of power-sharing agreements. Obviously, the existence of a power-sharing agreement may be treated as an indicator for higher constitutional devolution. However, there is no research looking at the content of the treaties. This paper does apply a different measure of constitutional decentralization, looking directly at the content of *regional constitutions*. I use six main dimensions of divergence in term of center-region relations for the republican constitutions (as they were valid in 1999) in order to construct the index. For the details on the index the reader should be directed to the full version of the paper.

The first problem to be considered in the framework of this paper is whether different dimensions of decentralization are related to each other. *Table 1* reports simple pairwise correlations between four indicators used in this paper. First of all, one can see that there is virtually no correlation between different aspects of decentralization. The same holds if other control variables are taken into account. Hence, one can conclude, that different aspects of decentralization process in one country, based on interaction of identical agents with (obviously) identical preferences, result into different outcomes. To conclude, identical agents seem to generate completely different outcomes for different components of the decentralization process.

Table 1: Correlation of different aspects of decentralization

	Fiscal	Regulatory (share)	Regulatory (number)	Constitutional
Fiscal	1.000			
Regulatory (share)	-0.020 (0.852)	1.000		
Regulatory (number)	0.071 (0.513)	0.686*** (0.000)	1.000	
Constitutional	0.170 (0.475)	0.087 (0.715)	0.084 (0.724)	1.000

Notes: numbers in parenthesis are p-values. *** significant at 1% level.

Although so far I have focused on measuring decentralization in Russia, the aim of this exercise is to empirically identify the factors determining the degree of devolution achieved by individual regions according to different dimensions. From this point of view it is necessary to identify the variables able to serve as proxies for the main theoretical factors able to influence devolution. The theoretical literature on endogenous decentralization has been rapidly growing over the last decade. Simplifying a lot, one may probably distinguish among six main hypotheses able to influence the process of decentralization: trade-off between preference heterogeneity and benefits from centralized public goods provision and insurance; redistribution schemes between regions; bargaining power and rules for intergovernmental bargaining; political systems; influence of lobbies and path dependence. Thus it is necessary to find variables to measure the all factors mentioned above in the particular case of the Russian asymmetric federalism.

Once again, the detailed discussion of the variables is present in the full version of the paper. Nevertheless, one should mention that the broad selection of variables generates three problems: multicollinearity, endogeneity and measurement error. I attempt to partly fix these problems by using the following procedure (although most of these steps are not reported in this short version of the paper). In the first step I estimate the “basic” specification, which does not include “expert opinion” variables. Since most decentralization indicators do not vary over time, I estimate a cross-section for 88 Russian regions (i.e. all regions including Chechnya) and average time-varying variables over 1995-1999. Particular robustness tests on this stage also include log-odds transformation of dependent variable and SUR estimation.

The next step aims to look at the measurement error and multicollinearity problems more closely. First, I re-estimate the regressions by varying the sets of controls and also by adding the “expert opinion” variables one by one. In this case I am rather interested in the robust results, which keep constant over different specifications, than in analysis of each individual specification. Second, as a “limiting case” for this analysis I take a completely agnostic view on the validity of variables and theories and perform an extreme bounds analysis. Obviously, for the extremely small sample of constitutional decentralization these experiments are limited in terms of selection of variables simultaneously included in regressions; it is inevitable, but, of course, means that I may have lost the “precisely correct” specification in my estimates. Third, I also apply a different approach for solving the multicollinearity problem by performing factor analysis on covariates and using the predicted common unobserved factors as regressors.

The third step of the analysis finally focuses on the endogeneity problem. I am considering results, which remain robust at the second step; therefore I can also ignore the problem of endogenous controls (the usual way to deal with this issue – exclusion of potential

endogenous controls and analysis of robustness of results with and without them – is per construction performed at the second step). As I will show, most of the “suspicious” variables actually turn out to be insignificant, thus “resolving” me from the endogeneity problem, so, part of the problem disappears “by default”. There are however cases when two-stage estimation techniques (TSLS and two-stage ordered logit) are required.

The results of the first step of analysis are reported in *Table 2. Fiscal decentralization* seems to be particularly driven by the bargaining factors; especially regions with large territory and large distance from Moscow are likely to have higher retention rates. Interestingly enough, though income per capita is insignificant, distance from average income has a significant negative impact on the degree of devolution in fiscal area. This is a surprising result, since it means that regions with higher preference distance are likely to have lower retention rates. It is obvious that for poor regions lower retention rates may be associated with expectation of higher redistribution through the federation. It is however more problematic for rich regions. One possible explanation could be the desire of the federal government to control rich regions and to limit their autonomy. Nevertheless, further steps of analysis cannot rule out that the result is driven by endogeneity.

For the *regulatory decentralization* results for the specification with number and with share of negative conclusions vary slightly. First, one finds a strong and significant effect of the rules of bargaining / path dependence factors: republics are on average able to achieve higher degree of devolution, although I was unable to find any effect of the republic status for fiscal decentralization. Distance from Moscow is also significant and positive, but it is partly non-robust to outliers (for share, but not for number of negative conclusions). Moreover, regions with larger population seem to have higher number of violations; for the share of violations results are non-robust to specification. However, population seems to be highly correlated with number of acts issued and assessed (because, say, large regions issue more acts or the Ministry paid more attention to large regions), so the result can come from this feature.

Table 2: Factors of decentralization, 1995-1999

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	OLS	OLS	OLS	OLS	Negative binomial	Negative binomial	Ordered logit	Ordered logit
	Fiscal	Fiscal	Regulatory (share)	Regulatory (share)	Regulatory (number)	Regulatory (number)	Constitutional	Constitutional
Territory	0.051**	0.051**	0.002	0.000	0.129	0.119	8.957	6.247
	(0.020)	-0.017	(0.012)	(0.012)	(0.085)	(0.086)	(8.482)	(9.804)
Population	-0.010	-0.014	0.005	0.005	0.140***	0.140***	1.378	2.044
	(0.011)	(0.010)	(0.003)	(0.003)	(0.035)	(0.035)	(0.867)	(1.775)
Oil and gas	0.015	0.159	0.042	0.041	0.460	0.442	95.876	124.153
	(0.180)	(0.132)	(0.04)	(0.036)	(0.307)	(0.286)	(143.094)	(172.252)
Income per capita	-0.042		-0.019		-0.087		1.840	
	(0.043)		(0.012)		(0.091)		(6.492)	
Distance from average income		-						
		0.102**		-0.019		-0.082		13.230
		(0.046)		(0.013)		(0.094)		(19.367)
Dummy autonomous okrug	0.090	0.123*	0.043*	0.039	-0.188	-0.213		
	(0.071)	(0.066)	(0.025)	(0.025)	(0.199)	(0.201)		
Dummy republic	0.028	0.038	0.053***	0.053***	0.581***	0.579***		
	(0.030)	(0.027)	(0.012)	(0.012)	(0.120)	(0.121)		
Distance from Moscow	0.010**	0.009**	0.006*	0.006*	0.057**	0.053**	0.837	1.364
	(0.005)	(0.004)	(0.004)	(0.003)	(0.023)	(0.022)	(0.726)	(1.754)
Dummy border region	0.024	0.024	0.006	0.006	0.065	0.066	-1.857	-2.453
	(0.022)	(0.021)	(0.010)	(0.010)	(0.103)	(0.102)	(2.694)	(4.226)
Share of Russians							-13.396**	-10.592
							(6.583)	(7.801)
Urbanization	1.134	1.312	-0.636	-0.765*	-2.440	-3.175	212.057*	281.125
	(1.109)	(1.062)	(0.472)	(0.454)	(4.135)	(4.038)	(113.072)	(185.913)
Fiscal transfers	-0.140	-0.106	-0.003	0.009	0.154	0.205	17.297*	21.011
	(0.104)	(0.104)	(0.039)	(0.040)	(0.415)	(0.429)	(9.758)	(19.225)
Retail trade	0.000	0.001						
	(0.001)	(0.001)						
Net profit	-0.004	0.004**						
	(0.003)	(0.002)						
Constant	0.597**	0.583**	0.116***	0.117***	5.173***	5.185***		
	*	*	(0.036)	(0.037)	(0.368)	(0.382)		
Observations	88	88	88	88	88	88	20	20
Pseudo R²					0.037	0.037	0.490	0.503
R²	0.277	0.321	0.407	0.404				
	10.57**							
F-stat	*	9.90***	7.53***	8.10***				
Wald Chi-stat					90.61***	91.28***	26.08***	36.63***
J.-B. test	195.3**	134.3**						
	*	*	56.37***	63.15***				
LR proportional odds test							32.28	31.44

The estimations for the *constitutional decentralization* are especially problematic because of small sample. It is surprising that one obtains a reasonable statistical significance for this sample at all. Nevertheless, some results should be mentioned. First, in the specification with average income per capita urbanization and fiscal transfers seem to have significant and positive effect on devolution; while the first effect once again confirms the theory, the second may in fact indicate the presence of reverse causality in the data: regions with higher autonomy have also received higher “pacifying” transfers. Moreover, share of Russians has a significant and negative impact; unlike other specifications, where it seemed to matter only if the dummy republic was excluded (as I will show in what follows), for constitutional decentralization one finds an additional direct effect even for the sample consisting of republics – regions with lower share of ethnic Russians seem to have higher level of constitutional devolution. These effects, however, vanish if distance from average income instead of average income is used. Moreover, estimations are extremely problematic due to small sample, proportional-odds assumption and endogeneity and do not seem to be robust in the extreme bounds analysis.