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REGIONAL DISPARITIES AS BARRIERS TO TRANSITION TO A MARKET ECONOMY: THE RUSSIAN EXPERIENCE

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ABSTRACT

This paper designs an index of socio-economic development in Russia following the break-up of the Soviet Union in 1991. The purpose of this index is to act as a measure of a regions' economic potential for the purpose of regional comparison and also to help policy makers in designing future regional economic policy. Finally, with the use of this weighted index this paper proposes some suggestions concerning the future design of regional economic policy in Russia.

JEL Classifications: P11, N24
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INTRODUCTION

Following the collapse of the former communist regimes, Eastern European countries and the former Soviet Union undertook a number of measures towards the establishment of market economy. The transition from planned to a market economy involved a complex process of institutional, structural and behavioral changes. At the political level it included a new democratic constitution with rules for the distribution of political power divided among president, parliament, central and local government and rules for electing these bodies. At the economic level the transition from plan to market economy involved the liberalization of prices, international trade activities and financial and banking system

as well as the implementation of the necessary legislative framework. Parallel to liberalization it was necessary to achieve stabilization in order to secure macroeconomic conditions without inflationary pressures and finally to change the incentive structure in state-owned enterprises through privatization.

Whereas in the literature there is an extended discussion as regards the strategies and elements of transition to market economy,[i] there is hardly any discussion as regards the interaction of economic transition and regional disparities. Liberalization and privatization, for example, might represent important characteristics of transformation process for a country as a whole, but they might be associated with a worsening of regional inequalities. This is due to the fact that some regions might have a traditional structure with an orientation towards the domestic market. They might lack international links and competitive industries. A forced liberalization might result in a worsening of the region's competitive position.

These problems become more acute in countries characterized with a heterogeneous regional structure. Russia represents such a country. When analyzing the Russian economy, it must be pointed out that Russia, compared to many other countries, has a considerable geographical stretch, several time zones and climatic belts. More than one hundred nationalities live in Russia. It is quite natural then, these differences in geographical location, economic and social conditions to influence the level of development of the economy.

What stems from the above is that a detailed study on Russia's potential for regional development is more than essential. This can be achieved with the construction of an index based on socio-economic characteristics. It represents a useful exercise, as it will provide planners and policy makers with important information as regards the economic and social developmental position of each region. The next section of the paper examines the regional structure of the Russian economy, while section 3 discusses the design of an index for the measurement of regional socio-economic development and section 4 proceeds with the necessary estimations. The last section of the paper offers some conclusions and policy implications.

REGIONAL STRUCTURE OF THE RUSSIAN ECONOMY

The Russian Federation consists of 89 regions: 21 republics, 49 oblasts (regions), 6 krais Territories), 10 okrugs (autonomous areas), 1 autonomous oblast and 2 federal cities (see Table 1). The differences across Russian regions, although they may not be enormous by EU standards, are nonetheless striking: from highly urbanized to predominantly agrarian, from Mediterranean climatic conditions to extremely cold, from rich in natural recourses to poor in natural resources, from gateway or commercial hub regions to regions facing high transport costs.

Russian regions can be classified as following: (a). Natural resource: regions in which fuel-energy, nonferrous metal, and timber industries together account for at least one-half of industrial output (8 regions – Karelia, Komi, Leningrad Oblast, Tyumen,

Krasnoyarsk, Irkutsk, Sakka and Magadan accounting for 17.8 percent of the population); (b). Rural: regions in which at least 45 percent of the population is classified as rural (11 regions –all in the south, accounting for 10.9 percent of the total population); (c). Industrial/high-tech: regions with the largest number of identified factories and research institutes in electronics, communications equipment and aerospace sectors (10 regions –Moscow city, St Petersbourg, Moscow oblast, Nizhny Novgorod, Novgorod, Samara, Voronezh, Sverdlovsk, Novosibirisk and Kaluga, accounting for 26.3 percent of the population); (d). Commercial hub/gateway: regions that have major ports with a total of 30.2 percent of the population (13 regions- the most important of which, in descending order of foreign exchange market turnover in 1996-97, are Moscow, St Petersburg, Sverdlovsk, Novosibirk, Primorskii Krai (on the Pacific coast), Samara, Nizhny Novgorod); (e). Other Russian regions: comprising 43 regions with a total of 36 percent of the Russian population.[ii] These categories are not mutually exclusive, for example, one rural region, Krasnodar is also a gateway region.

Table 1. Regional Structure of Russian Federation

NAME	CAPITAL	NAME	CAPITAL
21 REPUBLICS		**49 OBLASTS (continue)**	
Adygeya	Maykop	Orenburg	Orenburg
Altai	Gomo-Altaisk	Orel	Orel
Bashkortostan	Ufa	Penza	Penza
Buryatiya	Ulan-Ude	Perm	Perm
Chechnya	Grozny (Dzhokhar-Gala)	Pskov	Pskov
Chuvashiya	Cheboksary	Rostoy	Rostov-on-Don
Dagestan	Mahachkala	Ryazan	Ryazan
Ingushetia	Nazran	Sakhaiin	Yuzhno-Sakhalinsk
Kabardino-Balkariya	Nalchik	Samara	Samara
Kalmykiya	Elista	Saratoy	Saratov
Karachaevo-Cherkess	Cherkessk	Smolensk	Smolensk
Kareliya	Petrozavodsk	Sverdlovsk	Y ekaterinburg
Khakasiya	Abakan	Tambov	Tambov
Komi	Syktyvkvar	Tomsk	Tomsk
Marii El	Ioshkar-Ola	Tula	Tula
Mordoviya	Saransk	Tver	Tver
North Ossetiya	Vladikavkaz	Tyumen	Tyumen
Sakha (Yakutia)	Yakutsk	Ulyanovsk	Ulyanovsk
Tatarstan	Kazan	Vladimir	Vladimir
Tyva	KYZYl	VoIgograd	Volgograd
Udmurtiya	Izhevsk	Vologda	Vologda

49 OBLASTS (REGIONS)		Voronezh	Voronezh
Amur	BIagoveschensk	YaroslavI	YaroslavI
ArkhangeIsk	ArkhangeIsk	6 KRAIS (TERRITORIES)	
Astrakhan	Astrakhan	Altai	BamauI
BeIgorod	Belgorod	Khabarovsk	Khabarovsk
Bryansk	Bryansk	Krasnodar	Krasnodar
Chelyabinsk	Chelyabinsk	Krasnoyarsk	Krasnoyarsk
Chita	Chita	Primorsky	Vladivostok
Irkutsk	Irkutsk	Stavropol	StavropoI
Ivanovo	Ivanovo	10 OKRUGS (AUTONOMOUS AREAS)	
Kaliningrad	KaIiningrad	Agin-Buryat	Aginskoe Pos.
Kaluga	Kaluga	Chukorka	Anadyr
Kamchatka	Petropav Iovsk - Kamchatsky	Evenk	Tura
Kemerovo	Kemerovo	Khanty:-Mansi	Khanty-Mansiysk
Kirov	Kirov	Komi-Permyak	Kudymkar
Kostroma	Kostroma	Koryak	Palana
Kurgan	Kurgan	Nenets	Naryan-Mar
Kursk	Kursk	Taimyr	Dudinka
Leningrad	Sr. Petersburg	Ust-Orda Buryat	Ust-Orda
Lipetsk	Lipetsk	YamaI-Nenets	Salekhard
Magadan	Magadan	1 AUTONOMOUS OBLAST:	
Moscow	Moscow	Jewish Autonomous	Birobidzhan
Murmansk	Murmansk	2 FEDERAL CITIES:	
Nizhny Novgorod	Nizhniy Novgorod	Moscoow	
Novgorod	Novgorod	Sr. Petersburg	
Novosibirsk	Novosibirsk		
Omsk	Omsk		

Source: Goskomstat of Russia 1996.

According to Gimplelson (1995) all Russian regions can be divided into five major types that differ in their economic profiles. Roughly speaking, there are those, which are competitive and adaptive on the world market (primarily due to their mining and extractive industries), and those that lack these advantages. These groups are the following: a. Resource-rich regions with mining and extractive profiles (mostly the Northern and the Far-Eastern regions); b. Urbanized industrial areas combining heavy and light industries, the military industrial complex (the central European part of Russia, and parts of the Urals and Siberia); c. "Export-oriented regions" and financial capitals (Moscow and

St. Petersburg) or border regions with maritime ports (the North and the Far-East); d. Regions with developed agriculture oriented towards the domestic market (many regions of the Black-Earth zone and Povolzhye); e. Ethnic regions.

Each of these regions requires a different adjustment strategy. The resource-rich areas, the financial capitals and the maritime regions would benefit from the liberalization of the economy and from free trade. These regions, relying on the export of mineral resources, on geographic location, or on financial capital, are inclined to back the more liberal foreign trade oriented policy. They are currently net contributors to the federal budget. Consequently, they try to get more independence from Moscow and reduce tax transfers to the federal funds. The result is that the enterprises' interests in the domestic market decline and economic links are gradually replaced by foreign trade ties. This is true for both Moscow and St. Petersburg.

The traditional industrial regions, consisting of machine building (including military-industrial enterprises and light industry) are oriented towards the domestic market. This group of regions probably faces the most serious difficulties in the structural adjustment. Liberalization of the economy makes the enterprises completely uncompetitive. These regions have very limited resources for an active foreign trade policy and therefore, they are interested in close ties with the federal state. Dependent on state subsidies, these regions prefer stronger control from the center over regional economies that would allow redistributive maneuvering, since they are getting financial aid from the redistribution of income coming from the rich regions. Being strongly oriented towards the domestic market they would favor protectionism and advocate not only the integrity of Russia but also even the restoration of a united post-Soviet economic space.

The regions with self-sufficient agriculture may seek to form regional self-sustained food markets administratively providing low price levels (such as, in the region of Ulyanovsk). The main policy goal here is to preserve social and political stability and, therefore, to maintain the power of local elites. Administrative barriers blocking the free movement of goods, which ultimately lead to autarchy, also accompany their preferred strategy. These regions may search for more independence from Moscow to protect themselves from more radical economic reforms imposed by the central government.

Finally, the ethnic regions constitute two different sub-groups: The depressed areas (mostly in the North Caucasus) where separatist ethnic factors dominate economic ones and the areas where the ethnic and cultural identity may amplify economic interests (Tatarstan, Bashkiria, Komi, or Karelia).

The structural, inter-regional differentials determine the division of regions into those that contribute to the state budget and those who receive from it. The behaviors of regional elites can influence region-to-region and center-to-regions relationships. The Russian government is responsible for conducting the policy for regional development and at the same time is trying to overcome the heritage of a planned-economy system. The current stage of development highlights the shift of emphasis regarding the management of social and economic processes from federal to regional level.[iii] Regional economic policy of the government is based on federal subsidies and transfers to the regions. The Russian presidential administration department divided all 89 regions -for the share

of subsidizing- on the basis of per capita income; fall in industrial output since 1991, and employment levels.[iv] This approach, however, has failed to consider regional disparities and regional economic potential. The purpose of this paper is to cover this gap by offering an instrument for the assessment of regional socio-economic development in Russia.

THE DESIGN OF AN INDEX FOR THE ASSESSMENT OF REGIONAL SOCIO-ECONOMIC DEVELOPMENT IN RUSSIA

Regional economic development is based on coordination and planning. But coordination and planning cannot be carried out scientifically without analyses of regional specifications. This is because if regional priorities and disparities are not considered, economic growth will be delayed and decreased. The state's approach with the use of subsidies involves only general (macroeconomic) indicators such as income per capita, unemployment and decline of production. But as Russian regions differ greatly in economic, social and demographic conditions, these three variables are not sufficient to decide which region should receive a greater or a smaller amount of subsidy.

Furthermore, regional economic studies consider some important elements, which need to be considered for regional development.[v] First, an analysis of regional labor markets e.g. unemployment level, survival level of income, share of employees in part-time work, etc. Second, the importance of economic infrastructure, such as banking and finance; third the level of social infrastructure as provided by the standard of living, e.g. housing, central heating, consumption, e.g.

It is necessary to note that the effective interaction of both social and economic infrastructure is a major issue for regional economic policy in transition countries. Industrial development also characterizes a region. Health and environmental conditions are also important elements in regional development. Finally, some variables that characterize the transition economy, for example, privatization and liberalization as well as independence of regional economic development from the federal budget are equally important elements for regional development.

In this study we try to incorporate most of the above elements of regional development, subject to the limitations of data availability. Consequently, we try to design an index, which would reflect socio-economic development in Russian regions. This index will be useful in showing a regions' economic potential for development and in obtaining a ranking that would allow comparison of the regions. Finally, with the use of this index we will be able to propose some suggestions concerning the future design of regional economic policy.

The advantages of using an index for assessing regional socio-economic development have been stressed by a number of authors.[vi] Ott (1978) describes indicators in the following way: "Ideally, an index or an indicator is a mean, devised to reduce a large quantity of data down to its simplest form, retaining essential meaning for the questions that are being asked of the data. In short, an index is designed to simplify. In the process

of simplification, of course, some information is lost. Hopefully, if the index is designed properly, the lost information will not seriously distort the answer to the question".[vii]

A common characteristic of most indices is that they take the form of a weighted average of a set of economic, social and other characteristics. Hope et al (1992), for example, considered 15 environmental indicators, eight of which were also used by the British Labor Party's environmental index. These reflect most of the major environmental concerns in western countries. To form suitable weights for their environmental indices, they used the European Omnibus Survey, which covered all the EU member states. The weights used were different for each country. Gyourko and Tracy (1991), Blomquist et al (1988), Roback (1988) and Rosen (1979) define an index, which is the weighted average of local amenities. The weights assigned to local amenities are linear in the amenities' implicit prices from the housing and/or labor market. To obtain these weights they estimated a hedonic housing price equation and/or wage equation. Giannias (1996, 1997 1998) introduced an equilibrium approach that provided a consistent way of testing whether the assumed functional forms are consistent among themselves and the underlying economic structure.

In this paper we develop a regional socio-economic development index which takes into consideration elements such as (a) the labor market (b) economic infrastructure (c) social infrastructure (d) demography (e) privatization process (f) industrial development and (g) regional balance independence.[viii] The choice of these elements is in accordance with other studies as well as with the reasoning developed above. However, we have not included environmental and health indices due to data limitations.

The above seven groups consist of 20 variables allocated to seven categories as following:

1. LABOR MARKET

1. UL - Unemployment level, %.
2. WDE - Wage debts per employee[ix] , %.
3. SPGP - Share of poorest group of population[x] ,%.
4. SRGP - Share of richest group of population[xi] , %.
5. SEPTW - Share of employees in part-time work, %.
6. OHUL - Overall hidden unemployment[xii], %.
7. LF - Labor force, thousands people.

2. ECONOMIC INFRASTRUCTURE

8. PPCB - Population provision with commercial banks per 100.000 people.[xiii]
9. NBAU - Number of banks per one administrative unit.[xiv]
10. NBCL - Number of banks with currency (foreign exchange) license.

3.SOCIAL INFRASTRUCTURE

11. CARS - Number of individually owned cars per 1000 people.

12. ATSP - Average total space per resident, (Goscomstat definition) square meters.
13. HEAT - Housing with central heating, %.
14. ELCOM - Electricity consumption per capita KWt/h.[xv]

4.DEMOGRAPHY
15. TERR - Territory, thousands of square km.
16. POP - Population, thousands.

5.PRIVATIZATION
17. PERP - Number of enterprises privatized, %
18. STENT - Number of state enterprises, %.

6.INDUSTRIAL DEVELOPMENT
19. RIND - Real industrial production, %.

7.REGIONAL BUDGET INDEPENDENCE
20. PEOBP - Provision of expenditures by own budget potential[xvi], %.

The RSEDI (regional socio-economic development index) was computed using Goscomstat 1995 (Russian Government Statistical Committee) data for 79 regions of the Russian Federation.[xvii] The above variables were chosen because they can affect directly or indirectly regional economic development. The values of each one of these variables were scaled from 0 to 100. The scaling is such that the value 100 is reserved for the region with the "best" value (the highest or the lowest depending on the variable considered) and the value 0 for the "worst", while all other values lie in-between. Scaling was carried out using the following formula for the variables, which have positive correlation with RSEDI (4,5, 7-17, 19-20):[xviii]

$X^* = (X-Xmin / Xmax - Xmin)*100$

where X^* is the scaled value of the variable X, X is the value (before scaling) of the variable, Xmin is the minimum value of X, and Xmax is the maximum value of X.
For variables which have a negative influence on regional development (1-3,6,18) scaling takes the form:

$X^* = 100- (X-Xmin / Xmax - Xmin*100)$

Given the transformed variables we defined the Regional Socio-Economic Development Index (RSEDI) using the formula:

where X_{ij} is the th indicator-scaled variable of region j and is the weighted ith indicator of region j. The weights were based on a 2003 experts' opinion survey. In this opinion survey we asked 55 experts (University professors and/or researchers) involved in social, economic and/or environmental sciences research to value on a 0-100 scale the importance of each one of the above 7 variables for the quality of life a region. The average

weights for each variable were used to compute environmental quality. The weights are given in Table 2. Table 3 presents the allocation of responders according to their region of origin and their discipline.

Table 2. Weights of the Variables*

Variables	Weights
1. UL - Unemployment level, %	95
2. WDE - Wage debts per employee , %	80
3. SPGP - Share of poorest group of population ,%	60
4. SRGP - Share of richest group of population , %	60
5. SEPTW - Share of employees in part-time work, %	65
6. OHUL – Overall hidden unemployment, %	50
7. LF - Labor force, thousands people	80
8. PPCB - Population provision with commercial banks per 100.000 people	83
9. NBAU - Number of banks per one administrative unit	81
10. NBCL - Number of banks with currency (foreign exchange) license	79
11. CARS - Number of individually owned cars per 1000 people	77
12. ATSP - Average total space per resident, square meters	80
13. HEAT - Housing with central heating, %	90
14. ELCOM - Electricity consumption per capita KWt/h	56
15. TERR - Territory, thousands of square km	67
16. POP - Population, thousands	52
17. PERP - Number of enterprises privatized, %	82
18. STENT - Number of state enterprises, %	78
19. RIND - Real industrial production, %	69
20. PEOBP - Provision of expenditures by own budget potential, %	65

Table 3. Allocation of Eexperts According to Region of Origin and Discipline*

	Economics	Social Sciences	Environment	Total
Moscow	10	8	4	22
St. Petersburg	5	3	5	13
Kaliningrad	5	2	1	8
Novgorod	3	2	2	7
Samara	1	1	2	4
Ulyanovsk	1	0	0	1
Total	25	16	14	55

*Note: 55 experts participated in these surveys that were conducted in 2003. All experts have been involved in socio-economic and /or environmental sciences research projects in the last 3 years.

The RSEDI value for a region was taken to be the weighted average of the scaled values of the variables of the region. They are presented in Table 4.[xix] Table 5 gives some interesting information regarding the characteristics of each region. We observe that regions with high values of RSEDI are Moscow City, St Petersburg, Samara Oblast and Krasnoyarsk Krai. These regions are mainly industrial located at the center of Russia.[xx] In contrast, regions with the lowest values of RSEDI, such as Pskov Republic, Kabardino-Balkarian Republic, Chita Oblast and Tuva Republic are rural regions located mainly at the borders of Russia. As shown in Table 4, group 1 includes regions, which have a high developmental potential. Economic reforms will have a positive impact on these regions. Group 4 includes regions with a low developmental potential. Economic reforms, such as liberalization and privatization in these areas might jeopardize their competitive position. The close examination of the relative position of each region is an important task for regional planners and policy makers. Depending of the objectives of regional policy, the allocation of funds might take any form. If, for example, the dominant objective of regional policy is a rigorous development, then federal funds should be allocated to regions with high values of RSEDI, that is, regions that lie in Group 1. If, however, the main objective is political e.g. national security and territorial integrity, then federal funds should be allocated to the poorest regions, that is, regions that lie in Group 4. The current mechanism for the allocation of regional funds is neither based on an overall assessment of the economic and social position of each region nor on clear objectives of regional policy. The suggestion advocated in this paper is that the allocation of federal funds should consider both the overall socio-economic situation of the region and the economic, political and social objectives of regional policy.

Table 4. Conditional Grouping of the Regions in Accordance with the Values of RSEDI

Group 1	RSEDI	Group 2	RSEDI	Group 3	RSEDI	Group 4	RSEDI
Moscow City	69,5	Ulyanovsk Obl.	45,0	Dagestan Rep	39,0	Primorski Krai	32,1
St. Petersburg	56,4	Tula Obl.	44,3	Arkhangelsk Obl.	38,6	Sakhalin Obl.	32,0
Samara Obl	53,2	Kursk Obl.	44,0	Astrakhan Obl.	38,5	Novgorod Obl.	32,0
Krasnoyarsk Krai	50,5	Leningrad Obl.	44,0	Komi Rep.	38,5	Magadan Obl.	31,7
A1tai Rep	48,3	Stavropol Krai	43,7	Kirov Obl.	38,4	Mordovian Rep.	31,6
Tumen Obl.	47,9	Saratov Obl.	43,5	Kostroma Obl.	38,0	Bryansk Obl.	31,6
Sverdlovsk Obl.	47,8	Irkutsk Obl.	42,9	Tver Obl.	37,4	Adygei H.cp.	31,0
Nizhni Novgorod Obl	47,3	Kalmyk Rep.	42,3	Omsk Obl.	37,1	Perm Obl.	32,8

Chelyabinsk Obl.	47,2	Smolensk Obl.	42,0	Orel Obl.	36,4	Mariy-El Rep.	32,6
Krasnodar Krai	47,1	Kaliningrad Obl.	41,7	Khabarovsk Krai	36,2	Amur Obl.	32,4
Belgorod Obl.	46,9	Tomsk Obl.	41,3	Vladimir Obl.	36,0	Buryat Rep.	32,4
Rostov Obl	46,7	Murmansk Obl.	40,6	Kaluga.. Obl	35,3	Khakass Rep.	32,0
Kemerovo Obl.	46,5	Arkhangelsk Obl.	40,6	Kurgan Obl.	35,2	Ivanovo Obl.	31,9
Volgograd Obl.	46,3	Voronezh Obl.	40,2	Altai Krai	35,0	North-Ossetian Rep	31,5
Tatarstan Rep.	46,0	Penza Obl.	39,9	Orenburg Obl.	34,9	Karelian Rep.	31,3
Lipetsk Obl.	45,9	Ryazan Obl.	39,5	Chuvash Rep.	34,5	Tuva Rep.	31,0
Yakutsk-Sakha Rep.	45,5	Novosibirsk Obl.	39,3	Karachai-Cherkess Rep.	34,5	Chita Obl.	30,9
Bashkortostan Rep.	45,5	Tambov Obl.	39,3	Kamchatka Obl.	34,4	Kabardino-Balkarian R	30,4
Vologda Obl.	45,2	Udmurt Rep.	39,1	Moscow Obl.	34,3	Pskov Obl.	30,3

Republic/Territory/Region /Area	**Size**	**Pop.**	**Capital City**	**Dist.**	**Time**
Adygei Republic	7.6	442	Maykop	1190	0
Agin-Buryant Autonomous Area	19	79	Aginskoe Pos.	4740	+6
Altai Republic	93	196	Gorno-Altaisk	2896	+4
Altai Territory	261.7	2851	Barnaul	2935	+4
Amur Region	363.7	1074	Blagoveschensk	5617	+6
Archangelsk Region	587.4	1573	Arkhangelsk	991	0
Astrakhan Region	44.1	1010	Astrakhan	1274	0
Bashkortostan Republic	143.6	3984	Ufa	1168	+2
Belgorod Region	27.1	1408	Belgorod	576	0
Bryansk Region	34.9	1464	Bryansk	344	0
Buryant Republic	351.3	1056	Ulan-Ude	4425	+5
Chechen Republic	10	800	Crozny	1498	
Chelyabinsk Region	87.9	3641	Chelyadinsk	1498	+2
Chita Region	431.5	1392	Chita	4740	+6
Chukot Autonomous Area	738	146	Anadyr	5907	+9

Chuvash Republic	18.3	1353	Cheboksary	542	0
Daghestan Republic	50.3	1890	Mahachkala	1590	0
Evenki Autonomous Area	770	25	Tura	3355	+4
Ingush Republic	9	500	Nazran	1496	
Irkutsk Region	767.9	2863	Irkutsk	4211	+5
Ivanovo Region	23.9	1317	Ivanovo	254	0
Jwish Autonomous Region	36	220	Birobidzhan	6114	+7
Kabardino-Balkarian Republic	12.5	784	Nalchik	1427	0
Kaliningrad Region	15.1	887	Kaliningrad	1083	+1
Kalmyk Republic	76.1	328	Elista	1152	0
Kaluga Region	29.9	1080	Kaluga	159	0
Kamchatka Region	472.3	473	Petr.-Kamch	3883	+9
Karachai-Cherkess Republic	14	431	Cherkessk	1236	0
Karelia Republic	172.4	799	Petrozavodsk	695	0
Kemerovo Region	95.5	3180	Kemerovo	2991	+4
Khabarovsk Terotory	824.6	1855	Khabarovsk	6146	+7
Khakass Republic	62	570	Abakan		+4
Khanty-Mansi Autonomous Area	523.1	1305	Khanty-Mansiysk	1715	+2
Kirov Region	120.8	1700	Kirov	798	+1
Komi Republic	415.9	1265	Syktyvkar	1006	0
Komi-Permyak Autonomous Area	33	160	Kudymkar	1160	+2
Koryak Autonomous Area	301.5	40	Palana	6779	+9
Kostroma Region	60.1	813	Kostroma	304	+1
Krasnodar Territory	83.6	4800	Krasnodar	1195	
Krasnoyarsk Territory	2401.6	3630	Krasnoyarsk	3336	+4
Kurgan Republic	71	1115	Kurgan	1733	+2
Kursk Region	29.8	1336	Kursk	459	0
Leningrad Region	85.9	1670	St. Petersburg	632	0
Lipetsk Region	24.1	1234	Lipetsk	373	0
Magadan Region	1199.1	534	Magadan	5907	+8
Mariy-El Republic	23.2	762	Ioshkar-Ola	647	0
Mordovia Republic	26.2	964	Saransk	518	0
Moscow (Federal City)				Capital	0
Moscow Region	47	6710	Moscow		0
Murmansk Region	114.9	1150	Murmansk	1488	0

Nenets Autonomous Area	176.7	54	Naryan-Mar	991	0
Nizhny Novgorod Region	74.8	3705	Nizhniy Novg.	407	0
Northern Ossetia Republic	8	695	Vladikavkaz	1501	
Novgorod Region	55.3	755	Novgorod	486	0
Novosibirisk Region	178.2	2796	Novorosibirisk	2816	+3
Omsk Region	139.7	2163	Omsk	2241	+3
Orel Region	124	2204	Orel	322	0
Orenburg Region	124	2204	Orenburg	1226	+2
Penza Region	43.2	1512	Penza	558	0
Perm Region	60.6	3110	Perm	1160	+2
Primorkiy Territory	165.9	2299	Vladivostok	6418	+7
Pskov Region	55.3	845	Pskov	605	0
Rostov Region	100.8	4363	Rostov-on-Don	959	
Ryazan Region	39.6	1349	Ryazan	704	0
Sakha (Yakutiya) Republic	3103.2	1109	Yakutsk	4878	+7
Sakhalin Region	87.1	717	Yuz.-Sakh	6644	+8
Samara Region	53.6	3290	Samara	862	+1
Saratov Region	100.2	2708	Saratov	727	0
Smolensk Region	49.8	1164	Smolensk	364	0
St. Petersburg (Federal City)				632	0
Stavropol Territory	80.6	2536	Stavropol	1236	
Sverdlovsk Region	194.8	4730	Yekaterinburg		+2
Taimyr Autonomous Area	863	53	Dudinka	3355	+4
Tambov Region	34.3	1315	Tambov	422	0
Tatarstan Republic	68	3696	Kazan	3664	0
Tomsk Region	316.9	1012	Tomsk	2882	+4
Tula Region	25.7	1844	Tula	172	0
Tver Region	84.1	1676	Tver	130	0
Tyumen Region	1435.2	3137	Tyumen	1715	+2
Tyva Republic	170.5	310	Kyzyl	3664	+4
Udmurt Republic	42.1	1637	Izhevsk	973	+1
Ulianovsk Region	37.3	1430	Ulyanovsk	364	0
Ust-Orda Buryant Autonomous Area	22.4	140	Ust-Orda	4211	+5
Vladimir Region	29	1656	Vladimir	185	0
Volgograd region	113.9	2643	Vologda	901	0
Vologda Region	145.7	1362	Vologda	409	0

Voronezh Region	52.4	2475	Voronezh	467	0
Yamalo-Nenets Autonomous Area	750	479	Salekhard	1715	+2
Yaroslavl Region	36.4	1476	Yaroslavl	283	-1

Size represents the size of the area ('000 km2).
Pop. Represents the population ('000).
Dist represents the distance from Moscow (km)
Time represents the time difference from Moscow (hours).

CONCLUDING REMARKS

One of the main challenges that Russia faces, today, is related to economic transition from plan to market economy. For a country with large regional disparities, such as Russia, the process of economic transition creates a number of side effects, which influence negatively or positively Russian regions. In this paper we tried to put some light on the regional aspect of Russia's transition to market economy. This represents a useful exercise as it provides regional planners and policy makers with an index that reflects socio-economic development of Russian regions. This index is useful in showing a regions' economic potential for development and in obtaining a ranking that would allow comparison of the regions. The suggestion advocated in this paper is that the allocation of federal funds should consider both the overall socio-economic situation of the region and the economic, political and social objectives of regional policy.

ENDNOTES

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[1] For an overview see De Mello, Denizer and Gelb (1996).

[2] This seems to be a rather large proportion of the population that remained uncategorized and delegated to an "other" category.

[3] This is fully reflected in "Major Regulations on Regional Policy in the Russian Federation" approved by Decree No. 803 of the President of the Russian Federation, 3 June 1996 ("Vestnik Economiki", The Ministry of Economy of RF, No 3-4, 1996).

[4] See Daily Digest, May 9, 1995 "Draft Programme to aid depressed Regions".

[5] See Taylor (1991), Martin (1992), Krugman (1991), Krugman and Venables (1990), Armstrong and Taylor (1993) and Giannias and Liargovas (2002).

[6] See Hope and Parker (1990, 1995), Hope et al (1991, 1992), Giannias (1996, 1997,1998), Giannias et al (1999), Giannias and Liargovas (2002), Roback (1988), Blomquist et al (1988) and Gyourko and Tracy (1991).

[7] See Ott (1978) pp. 44-6.

[8] The United Nations also construct the so-called Human Development Index. Although we use a similar methodology regarding the normalization of the variables, our index is very different when compared to the HDI. The HDI is based on just three indicators: longevity, as measured by life expectancy at birth; educational attainment, as measured by a combination of adult literacy (two-thirds weight) and the combined first-, second- and third-level gross enrolment ratio (one-third weight); and standard of living, as measured by real GDP per capita. Our index takes into consideration a number of socio-economic variables that affect regional development. For a detailed calculation of the HDI see Human Development Report (1998).

[9] Percentage of wage that regional enterprises are not able to pay.

[10] Goscomstat definition.

[11] Goscomstat definition.

[12] It refers to underemployment.

[13] Number of banks per certain number of people.

[14] Number of banks per region.

[15] Variables 13 and 14 do not overlap because most of central heating is based mainly on gas.

[16] The percentage of a region's budget that is not subsidized by Federal Funds.

[17] Due to data limitations we included 76 instead of 86 regions. Unfortunately it was not possible to compare data from Goscomstat with other sources due to the scarcity of regional data in Russia.

[18] Variable 4 has a positive influence on the RSEDI index because a higher proportion of the richest group in the population increases the government's ability to re-distribute income. In addition variable 5 is positively related to the RSEDI index because a higher share of employees in part –time work implies increased flexible arrangements in the labour market and therefore greater potentiality for economic growth.

[19] Table 4 does not offer information regarding which socio-economic characteristic is responsible for the index value. Such information can be reveled by looking at the actual data, which is available upon request.

[20] A useful extension of this work could examine statistically the connection between the development index and economic growth.

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