

The Donald W. Treadgold Papers

*In Russian, East European,
and Central Asian Studies*

Russian Regionalism: The Economic Dimension

**Steven Rosefielde,
Shinichiro Tabata,
Akira Uegaki, and
Sadayoshi Ohtsu**

No. 36

January 2003

*The Henry M. Jackson
School of International Studies
The University of Washington*

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The Henry M. Jackson School of International Studies
University of Washington
2003

ISSN 1078-5639

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University of Washington, 2003.

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The *Donald W. Treadgold Papers* publication series was created to honor a great teacher and great scholar. Donald W. Treadgold was professor of history and international studies at the University of Washington from 1949 to 1993. During that time, he wrote seven books, one of which — *Twentieth Century Russia* — went into eight editions. He was twice editor of *Slavic Review*, the organ of the American Association for the Advancement of Slavic Studies, and received the AAASS Award for Distinguished Contributions to Slavic Studies, as well as the AAASS Award for Distinguished Service. Professor Treadgold molded several generations of Russian historians and contributed enormously to the field of Russian history. He was, in other ways as well, an inspiration to all who knew him.

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Acknowledgements

This volume represents one of the major achievements of the research project on the inter-regional flow of financial resources in Russia, funded by the Japanese Ministry of Education and Science in 1998-2000.

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Foreword

During the nineties it was fashionable to conjecture that global integration would prove to be the key to Russia's successful post-Communist transition. This optimism has been superseded in 2001 by the realization that while the Russian economic system has changed, its new "eastern" market system does not possess the desirable micro and macroeconomic efficiency attributes of the West, and consequently cannot be expected to be industrially integrated into the global economy. Some, like the eminent Finnish economist Pekka Sutela, expect Russia to survive, but to underperform the advanced industrial economies, while others, like Jeffrey Tayer boldly assert that "Russia is Finished!"

A primary cause of the initial post-Soviet optimism was the belief that Ricardian "comparative advantage" would prompt regional authorities to realign their trade and production with neighboring countries. The economic theory was sound, assuming that the Russian economy operated on generally competitive, Anglo-American principles, but alas the assumption was erroneous. The papers in this collection document the failure of Russia's regions to competitively integrate themselves into the global economic system, and illuminate the systemic causes of Russia's insularity, while collaterally shedding light on the evolving ties between Moscow and the regional periphery.

Globalism to the Rescue?: Russian Regionalism during the Yeltsin Years

Steven Rosefielde

Alfred Stepan, a noted authority on democratic federalism, recently predicted that Russia will succeed in “putting together” a prosperous federation spanning ten time zones because federal and local officials now grasp that it is advantageous to put aside their differences.¹ By constructing an integrated rule of civil and commercial law, and installing equitable taxation, revenue sharing and incentives for direct foreign investment, regions and the center can integrate themselves in the new global economic order, and thrive. His forecast is predicated on the belief that privatization and liberalization programs like those subsequently crafted by President Vladimir Putin’s economic advisors Andrei Illarionov and German Gref will assure efficient global integration.² Among other things, as Masaaki Kuboniwa has explained, this will require the adoption of the “new” globalist foreign direct investment paradigm.³ Russia, he insists, must refrain from erecting high tariff walls that provide oligopoly rents to foreign investors in selected industries, and must abolish capital controls. Adherence to these competitive principles will permit foreigners to invest in the most lucrative opportunities unrestrained by concerns about profit repatriation.

Stepan’s and Kuboniwa’s observations remind us that Russian Federalism, if purged of regional corruption by Putin’s latest campaign and integrated into the global marketplace, could be highly desirable.⁴ But both know that this did not happen during the nineties. The implosion of the post-Communist economy has sunk all ships, spawning corruption and impeding the development of a globally competitive domestic manufacturing sector.⁵ But perhaps there is a silver lining. Has the Great Collapse been accompanied by signs of capital modernization, efficient factor reallocation, migration, re-education, improved health and fertility, diminished mortality, entrepreneurship, enhanced management, reduced inequality and greater social justice?

Recent studies by Shinichiro Tabata, Akira Uegaki, Sadayoshi Ohtsu and Masaaki Kuboniwa shed considerable light on the prospective costs and benefits of Russian Federation.⁶ They show that there are no pockets of progressive transition and few signs of industrial revival. The asset-seizing, rent-seeking and other

anti-competitive features that epitomize Russia's kleptocratic laissez-faire are endemic throughout the federation. Output is depressed nearly everywhere (although income is up in Moscow), unemployment properly calculated is mostly in the high double digits, fertility is falling, mortality is rising, and the population decreased at 930 thousand per annum (excluding in-migration from the near abroad) in 1999. Russia has not modernized its capital stock, or significantly improved factor allocation despite the post-1998 financial crisis mini-revival. There has been considerable migration, but much of this would not have occurred if the mis-transition had been orderly. Education, health, fertility, mortality, the distribution of income, honesty, and social justice all have deteriorated, without compensation in the form of vigorous entrepreneurship and enhanced management.⁷ Exit and decline are the principal motifs. 25 per cent of Russian scientists and engineers may have already emigrated, and 50 per cent of recent graduates of the prestigious Moscow area institutions surveyed indicate that they intend to follow. Capital flight persists at high levels, destined never to return, and Goskomstat is forecasting that the population may fall to 134.7 million in 2010.⁸ Peering out another 40 years, Murray Feshbach expects the population to plummet to an astounding 80 million in 2050.⁹ Population flight from the periphery is already casting a pall over many regions, and is bound to worsen.¹⁰

The outlook for democracy is not any brighter. Stepan is cheered by the ousting of incumbents in numerous elections, but the "*demos*" is nowhere in control. Real democracy is closely connected with the concept of consumer sovereignty. Property rights, government administration, regulation, taxation, revenue sharing, transfers and programs all must be fully responsive to popular preferences, subject to ranking inconsistencies commonly known as Arrow's Paradox. Parliamentary democracy in the Russian case is light years away from this standard. The president and governors rule by edict (*ukaz*), backed by the thinly disguised threat of force, and electoral politics is mostly about which oligarchs and clans will despoil the people.¹¹

Masterminds of transition like Strobe Talbott or the perennially optimistic Lawrence Summers of course remain confident for complex reasons, few of which have any bearing on Russia's welfare.¹² They continue to reassure that democracy and competitive markets are self-generating and self-purifying. And they clinch their case by lauding globalism, and Russia's supposed lofty place in the emerging world order, conveniently forgetting

that globalism is not a panacea. Living standards in the Third World, exclusive of China, the Asian Tigers, and the NIE's failed to improve from 1980-95, and declined absolutely through 1999.¹³

The fundamental problem for Russia, and much of the Third World, does not lie in the idealist logic of democracy and generally competitive market theory. It reposes in the unwillingness of the powerful to play by these rules. Falsely claiming as Lenin did that Bolshevik elections were a "million" times more democratic than parliamentary balloting in the West did not make the people any more consumer sovereign than kleptocratic privatization, liberalization and stabilization have made Russia's economy competitively efficient and socially just. Russia's tragedy is that Yeltsin's mis-transition has become "path dependent." Neither Russia nor the other members of the Federation will be able to change course any time soon.¹⁴ The kleptocrats are not going to voluntarily relinquish their power, or transform themselves into improving gentry like George Washington, and there is no middle class alternative.

The durability of the Russian Federation therefore does not turn solely on the theoretical virtues of multicultural democracy, or competitive economies of market size and scope. If the efficiency gains forecast for the European Union largely have gone unrealized, kleptocratic integration can hardly be expected to deliver the goods. The ties that bind in Eurasia are different. They are the classic Tsarist ones between imperial Moscow and the tribute paying periphery. The hegemonic Kremlin informally rules a vast subject empire by supporting the rent-seeking activities of local vassals in return for a piece of the action. Moscow provides protection against factional and foreign threats, and the periphery allows the Kremlin elite to own key assets and purchase resources at a negligible fraction of their international market value. Other considerations are secondary. From time to time, of course, some segments of the periphery may grow dissatisfied with their take, and garrison regions may be more of a burden than a benefit. The forces of dissolution also could be incited by Kremlin insurgents for tactical advantage, as Yeltsin did with the Soviet Union. But for the moment at least, Moscow appears to have sufficient power to maintain its imperial authority, even under conditions of sustained asymmetric decline. Chechnia, and other would-be separatists could temporarily exit, but their retrograde political and economic systems make them vulnerable to re-conquest.

There is little on the horizon which could subvert the Kremlin's hegemony short of collapse, civil war and most unlikely

of all, successful market transitions on the frontiers of the Federation like Primorskii Krai. The Russian Federation is secure, but it is also trapped in a destructive political economic matrix which precludes its integration into the global system on terms beneficial to the general population.¹⁵

This reality is invisible to those who conflate “private” property, price decontrol, utility-seeking and laissez-faire with general competition.¹⁶ True believers grasp at any straw to deny the undeniable:¹⁷ that all markets are not alike. But they are wrong. Markets are only efficient if managers maximize shareholders’ profits, prices are competitively determined, utility-seeking is non-coercive under the rule of law. When these conditions are violated by oligopoly, monopoly, rent-seeking, asset-grabbing, kleptocratic abuse and labor exploitation, unfettered utility-seeking invariably results in anticompetitive pricing, factor misallocation, and inequitable income distribution. In especially degenerate systems like Putin’s, it is also factor demobilizing (mass involuntary unemployment), under productive, and immiserizing.¹⁸ Therefore, it should not be assumed that the existence of markets in the Russian Federation assures the gradual emergence of general competition. Disordered market behavior only proves that Russia could do better if it were less corrupt.¹⁹

Kuboniwa’s, Uegaki’s, Tabata’s and Ohtsu’s studies of foreign direct investment, exports, dollar receipts, revenue transfers and unemployment confirm aspects of this appraisal. They show that the gross regional product (GRP) of the Russian Federation is concentrated in Moscow City and the Tiumen’ Oblast; the former accounting for 11.8 per cent, and the later 9.6 per cent in 1996.²⁰ These power centers are also the Federation’s growth nodes. While “liberal” components like St. Petersburg and the Nizhnii Novgorod Oblast suffered severe negative GRP growth 1996-98, Moscow City advanced at a double digit clip, receiving nearly 50 per cent of all foreign direct investment, and an even larger share of “other investment” 1996-98.²¹ Moscow spent nearly 50 per cent of the Federation’s foreign currency in 1996-97 (\$37 billion on average), almost double its share in 1992. While Tiumen’ Oblast and Sakha Republic generated much of this income, Moscow was the principal beneficiary,²² its per capita real income being estimated at five times Ivanovo’s.²³ The great sucking sound heard throughout the Federation is wealth being drained from the periphery to the center. Accordingly, Ohtsu reports that unemployment rates are lowest in Moscow, better than in America in 1997 at 3.7 per cent, but unemployment is more than 9 per cent in St. Petersburg, and 52 per

cent in the Ingush Republic.²⁴ These are survey rates using the International Labor Organization's method which omits discouraged workers (lumpen proletariat) and ghosting (idle workers officially mis-listed as employed). The real figures are approximately 80 per cent higher.²⁵

Uegaki manages to find grounds for some optimism in the responsiveness of the export mix in Rostov to comparative advantage. He describes the phenomenon as an aspect of globalism, but this is subsidiary. The big story is that Moscow's elites exploit the rest of the Federation as a resource hinterland to support their lavish lifestyle, not that the Russian Federation is moving toward the Stolper-Samuelson international price equalization ideal.²⁶ Uegaki's research convincingly shows that there is no evidence that the regions are being integrated as competitive partners into the new global order.

Widening regional inequalities in income and unemployment, to say nothing of Russia's general immiseration, further confirm that under normal democratic, and competitive market conditions, most regions would benefit from disunion, with or without globalization. Since the Russian Federation is neither democratic nor generally competitive, the elites managing the tributary mechanism are not as disgruntled as per capita inequalities might suggest, and Moscow has in a small way attempted partial rectification. Tabata demonstrates statistically that revenue transfers within the Federation flow from the rich to the poor, but the amounts are small and declining. The Duma earmarked 13.2 per cent of the Federal budget in 1996 to the Fund for Financial Support of the Regions, and only 8.1 per cent in 2000.²⁷ This relief was welcome, but did not significantly redress the overall imbalance. Likewise, the possibility that barter and "shuttle trade" might ameliorate some of the harsher regional disparities should not be overlooked. Perhaps per capita income differentials are not as bad as they seem. But this cannot change the fundamentals. The Kremlin has used the Federation to soften the effect of hyper-depression on Moscow, and protected its privileged position by thwarting global regional integration, even though this could jeopardize the Federation's long term security.²⁸ It is therefore difficult to share Stepan's enthusiasm about the Russian Federation's future. Of course as he argues, it would be "reasonable" for the Kremlin and Russia's regions to efficiently integrate into the global market, and realistic strategies do exist which would allow transition to succeed, but they are being discouraged by the G7, and disregarded in Moscow.²⁹

Regional Sources of Federal Expenditure and the Pattern of Revenue Sharing in Post-Soviet Russia¹

Shinichiro Tabata

This paper investigates the inflows of tax receipts from Russia's regions to the federal budget and subsequent federal revenue sharing with the regions.² Previous research only took account of transfers from federal to regional budgets.³ The inclusion of regional tax transferred to Moscow allows us to ultimately study the relationship between net regional tax revenues and regional GDP. Our goal is to track flows of tax revenues among regions from their generation and distribution to their final budgetary uses. This paper presents a preliminary assessment of these interregional financial flows.

In the first section, we revise and update prior data on transfers from federal to regional budgets and clarify current trends. In the second section, we consider the relationship between regional budget revenues and GRP. Finally, the pattern of regional tax outflows and inflows from the federal budget is pinpointed with cluster and principal component analysis. It shows that rich regions provide most of the financial support for federal outlays and poor regions receive some compensatory financial assistance.

Transfers from federal to regional budgets

There are two published sources of data on transfers from federal to regional budgets. One is obtained from the official annual federal budget showing planned expenditures (Table 1). The other is taken from various reports made by the Ministry of Finance and the State Committee on Statistics of the Russian Federation (Goskomstat Rossii), recording actual regional budgetary revenues (Table 2)

From Table 1 we can see that the Fund for Financial Support of Regions (FFPR) has accounted for the bulk of regional financial support since 1995. This fund was created in 1994 to reduce regional inequality.⁴ Its shares in total financial support have been around 80 per cent 1997-2000.

Financial support for regions as a share of federal total expenditure decreased from 13.2 per cent in 1996 to around 8 per cent in 1999-2000, probably due to two changes in federal budget law. First, in 1998 the FFPR was set at 14 per cent of total federal

Table 1: Planned financial support earmarked for regional budgets

Type of Support	1993	1994	1995
	(in millions of new rubles)		
Total expenditure of the federal budget	18,725.1	194,495.3	248,344.3
Financial support for regions*	1,576.7	26,967.0	28,499.5
Federal fund for financial support of regions (FFPR) ^b	---	11,866.6	14,858.1
Grants to "closed cities"	---	583.2	1,043.2
Grants to Sochi health resort	---	---	43.6
Grants to Leninsk city for rental of Baikonur space center	---	---	1,61.0
Subventions to Moscow city for capital functions	70.0	2,774.7	1,999.2
Federal programs for regional development	415.1	---	844.2
Compensation for electricity rates in the Far Eastern regions	---	---	850.0
State support to the Far Northern regions for product delivery	266.0	6,467.0	4,380.2
Expenditure for social facilities and housing transferred to regions	---	5,275.5	4,320.0
Other	825.5	0.0	0.0
	(in % of total expenditure)		
Total expenditure of the federal budget	100.0	100.0	100.0
Financial support for regions*	8.4	13.9	11.5
Federal fund for financial support of regions (FFPR) ^b	---	6.1	6.0
Grants to "closed cities"	---	0.3	0.4
Grants to Sochi health resort	---	---	0.0
Grants to Leninsk city for rental of Baikonur space center	---	---	0.1
Subventions to Moscow city for capital functions	0.4	1.4	0.8
Federal programs for regional development	2.2	---	0.3
Compensation for electricity rates in the Far Eastern regions	---	---	0.3
State support to the Far Northern regions for product delivery	1.4	3.3	1.8
Expenditure for social facilities and housing transferred to regions	---	2.7	1.7
Other	4.4	0.0	0.0

Notes:

* Since 1994 "Financial support to budgets on other level" was provided in the federal budget law. This item also includes "State support to Far Northern regions for the delivery of products", which were shown separately from the above-mentioned item in 1994 and 1996-1997. For 1993, related items are chosen, due to lack of the comprehensive item corresponding to the years that followed 1994.

1996	1997	1998	1999	2000
(In millions of new rubles)				
435,750.0	529,765.2	499,945.2	575,046.6	855,073.0
57,625.1	66,971.8	51,703.8	43,444.4	69,148.6
39,337.0	52,929.4	39,183.8	33,725.8	57,350.9
1,932.3	2,735.0	2,586.1	2,007.8	6070.6
195.2	355.2	140.0	238.0	300.0
719.9	582.2	413.9	353.1	590.9
2,660.0	2,400.0	1,000.0	---	---
2,475.4	2,290.0	2,300.0	1,508.3	2,200.0
---	1,300.0	1,200.0	1,000.0	---
3,000.0	3,500.0	2,640.0	3,000.0	---
6,805.3	880.0	---	---	---
500.0	0.0	2,240.0	1,611.4	2,636.2
(In % of total expenditure)				
100.0	100.0	100.0	100.0	100.0
13.2	12.6	10.3	7.6	8.1
9.0	10.0	7.8	5.9	6.7
0.4	0.5	0.5	0.3	0.7
0.0	0.1	0.0	0.0	0.0
0.2	0.1	0.1	0.1	0.1
0.6	0.5	0.2	---	---
0.6	0.4	0.5	0.3	0.3
---	0.2	0.2	0.2	---
0.7	0.7	0.5	0.5	---
1.6	0.2	---	---	---
0.1	0.0	0.4	0.3	0.3

^a In 2000 "Compensation for electricity rates in the Far Eastern regions" and "State support to the Far Northern regions for delivery of products" are included in this fund.

Sources: Compiled by author from *Vedomosti S'ezda Narodnykh Deputatov RF / Verkhovnogo Soveta RF* No. 22 (1993), pp. 1302-1326 and *Vedomosti Federal'nogo Sobranie Zakonodatel'stva RF*, No. 10 (1994), pp. 1525-1553; No. 14 (1995), pp. 2189-2256; No. 1 (1996), pp. 193-226; No. 9 (1997), pp. 1698-1817; No. 13 (1998), pp. 2706-2861; No. 9 (1999), pp. 1687-1880; No. 1 (2000), pp. 12-255

Table 2: Actual revenues of regional budgets

Source	1992	1993	1994	1995	1996	1997	1998
	(in millions of new rubles)						
Total revenue of regional budgets	2,672.3	30,129.4	115,674.5	241,000.0	322,900.0	414,925.8	397,743.3
Profit tax	920.9	11,350.7	31,829.7	76,100.0	64,200.0	69,040.5	61,495.0
Personal income tax	431.3	4,394.5	17,440.4	33,300.0	51,500.0	73,370.3	71,134.0
Value Added Taxes (VAT)	498.2	4,008.2	10,231.9	23,900.0	42,100.0	53,815.8	51,763.1
Other tax and non-tax revenues	493.1	4,748.5	27,383.1	67,600.00	111,500.0	153,795.2	145,799.3
Financial support from the federal budget	315.0	5,423.8	26,899.2	29,200.0	46,300.0	49,980.1	43,209.7
Transfers	---	---	5,675.6	19,400.0	23,300.0	32,947.5	29,667.2
FFPR	---	---	2,252.2	14,300.0	15,200.0	23,164.9	26,309.6
FFPR offset against VAT	---	---	3,423.5	5,100.0	8,100.0	9,782.5	3,357.5
Grants to "closed cities"	---	---	585.1	900.0	2,100.0	3,457.2	3,179.3
Subventions	142.5	1,124.2	2,621.6	2,000.0	2,700.0	2,400.0	563.5
Short-term loans	17.3	76.8	103.0	---	---	---	---
Mutual settlements	155.2	4,222.8	17,914.0	6,900.0	18,200.0	11,175.4	9,799.8
Other revenues	13.9	203.6	1,890.1	10,900.0	7,300.0	14,923.8	24,342.3
GDP	19,005.5	171,519.5	610,745.2	1,540,492.8	2,145,655.5	2,521,941.5	2,684,538.6
	(in % of total revenue)						
Total revenue of regional budgets	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Profit tax	34.5	37.7	27.5	31.6	19.9	16.6	15.5
Personal income tax	16.1	14.6	15.1	13.8	15.9	17.7	17.9
VAT	18.6	13.3	8.8	9.9	13.0	13.0	13.0

Table 2 (continued)

Source	1992	1993	1994	1995	1996	1997	1998
	(in % of total revenue)						
Other tax and non-tax revenues	18.5	15.8	23.7	28.0	34.5	37.1	36.7
Financial support from the federal budget	11.8	18.0	23.3	12.1	14.3	12.0	10.9
Transfers	---	---	4.9	8.0	7.2	7.9	7.5
FFPR	---	---	1.9	5.9	4.7	5.6	6.6
FFPR offset against VAT	---	---	3.0	2.1	2.5	2.4	0.8
Grants to "closed cities"	---	---	0.5	0.4	0.7	0.8	0.8
Subventions	5.3	3.7	2.3	0.8	0.8	0.6	0.1
Short-term loans	0.6	0.3	0.1	---	---	---	---
Mutual settlements	5.8	14.0	15.5	2.9	5.6	2.7	2.5
Other revenues	0.5	0.7	1.6	4.5	2.3	3.6	6.1
	(in % of GDP)						
GDP	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total revenue of regional budgets	14.1	17.6	18.9	15.6	15.0	16.5	14.8
Profit tax	4.8	6.6	5.2	4.9	3.0	2.7	2.3
Personal income tax	2.3	2.6	2.9	2.2	2.4	2.9	2.6
VAT	2.6	2.3	1.7	1.6	2.0	2.1	1.9
Other tax and non-tax revenues	2.6	2.8	4.5	4.4	5.2	6.1	5.4
Financial support from the federal budget	1.7	3.2	4.4	1.9	2.2	2.0	1.6
Transfers	---	---	0.9	1.3	1.1	1.3	1.1
FFPR	---	---	0.4	0.9	0.7	0.9	1.0

Table 2 (continued)

Source	1992	1993	1994	1995	1996	1997	1998
	(In % of GDP)						
FFPR offset against VAT	---	---	0.6	0.3	0.4	0.4	0.1
Grants to "closed cities"	---	---	0.1	0.1	0.1	0.1	0.1
Subventions	0.7	0.7	0.4	0.1	0.1	0.1	0.0
Short-term loans	0.1	0.0	0.0	---	---	---	---
Mutual settlements	0.8	2.5	2.9	0.4	0.8	0.4	0.4
Other revenues	0.1	0.1	0.3	0.7	0.3	0.6	0.9

Sources: For 1992-1994, data was obtained from unpublished reports of consolidated budget execution (Ministerstvo Finansov Rossiiskoi Federatsii, *Mesiachnyi otchet ob ispolnenii biudzheta v Rossiiskoi Federatsii na 1-oe ianvaria 1993 goda* (1993); *Godovoi otchet ob ispolnenii biudzheta v Rossiiskoi Federatsii*, reports for the years 1993 and 1994; *Otchet ob ispolnenii biudzheta sub'ektov Rossiiskoi Federatskii za 1994 god*, (1995); For 1995 and 1996, tax revenue data was obtained from *Rossiiskoi statisticheskii ezhegodnik (RSE)* (1997), pp. 520; (1999), pp. 492, and data on financial support from *Tekushchie tendentsii v denezhno-kreditnoi sfere* No. 3 (1997), pp. 20; For 1997 and 1998, tax revenue was obtained from regional budget execution reports (Ministerstvo Finansov Rossiiskoi Federatsii, *Svodnyi mesiachnyi otchet ob ispolnenii mestnykh biudzheta*, unpublished reports for the years 1998 and 1999); GDP data was obtained from *Natsional'nye scheta Rossii v 1991-1998 godakh* (Moscow: Goskomstat Rossii, 1999), pp. 27.

budget revenues, excluding import duties, instead of 15 per cent as it was in 1996 and 1997. Second, in 1999 other taxes levied by the State Customs Committee (which included value added taxes (VAT) and excise taxes), were excluded from the sources for the FFPR.⁵

Table 2 presents data on regional budgetary revenues compiled from three sources, which could be inconsistent.⁶ Moreover the data in Table 2 are not easily reconciled with the statistics in Table 1.⁷

Nonetheless, it demonstrates:

- (1) As was pointed out in Table 1, the FFPR has accounted for the largest part of regional financial support; 65-70 per cent in the period 1997-1998.
- (2) If mutual settlements are disregarded,⁸ the level of financial support as shares of regional budgetary revenue and GDP has been almost unchanged since 1994: 8-9 per cent of total regional revenue and 1.2-1.5 per cent of GDP.

- (3) The difference between planned and actual FFPR transfers has been significant (Cf. Table 2 with Table 1). During the period 1996-1998 planned FFPR were only 60-75 per cent fulfilled because of pervasive tax revenue deficits.
- (4) "FFPR offset against VAT" in Table 2 amounted to approximately 30 per cent of all transfers in 1995-1997, but decreased to only 11 per cent in 1998.⁹ The reason for this decrease is not clear.

Table 2 shows that total financial support amounted to only 11 per cent of regional budget revenues and less than two per cent of GDP in 1998. But this was not necessarily too low, as sometimes suggested in the Russian and Western literature,¹⁰ because the size of transfers depends on the amount of retained regional tax receipts. Indeed the Ministry of Finance is proposing to increase VAT profit retention rates while reducing transfers from the center, in order to concentrate transfers in a small number of regions.¹¹

With respect to the statistics on transfers from federal to regional budgets, we concentrate on the FFPR because the data are consistent and other forms of transfers are ambiguous. The data on the distribution of FFPR are summarized in Table 3.¹² The rules for distributing the FFPR among regions were set in 1994 and although numerous revisions have taken place from year to year, the basic scheme has not changed. Regions are eligible to receive FFPR, if their per capita regional tax revenues are below the country's average, or lack revenues to cover current expenditures.¹³

As shown in Table 3, nine resource-endowed and/or industrial regions, namely, Moscow, Lipetsk, Tatarstan, Samara, the Bashkir Republic, Sverdlovsk, Khanty-Mansiisk Autonomous Okrug, Iamal-Nenets Autonomous Okrug, and Krasnoïarsk Krai did not receive FFPR from 1994-1998. Generally speaking, the Northern, Northwestern, Urals and East Siberian economic regions receive small amounts of FFPR. These transfers can be treated as donations, but only if they are not offset by retained regional tax receipts as sometimes happens.

The ten largest recipients of FFPR from 1994-1998 were Kemerovo, Altai Krai, Dagestan, Rostov, Krasnodar Krai, Stavropol', the Buriat Republic, Amur, Saratov and Omsk. Because per capita regional tax revenues in the regions of the North Caucasus are generally low and current expenditures in the regions of West

Table 3: Regional distribution of the FFPR (in % of Russian total)

Region	1994*	1995	1996	1997	1998	1999	2000
	(Planned figures)						
Karelian Republic	0.2	2.0	1.1	0.8	0.7	1.0	0.7
Komi Republic	---	0.8	0.2	0.4	---	---	---
Arkhangel'sk Oblast	1.0	0.9	0.6	1.0	1.1	1.5	1.8
Nenets A.O.*	0.3	0.2	0.3	0.2	0.2	0.1	0.2
Vologda Oblast	---	0.6	0.2	0.3	0.2	0.2	---
Murmansk Oblast	---	0.3	---	0.8	0.9	0.6	0.5
St. Petersburg City	---	---	0.9	0.7	---	---	---
Leningrad Oblast	0.8	0.2	0.5	0.5	0.5	0.3	0.2
Novgorod Oblast	0.5	0.7	1.2	1.0	0.9	0.6	0.6
Pskov Oblast	1.1	0.9	1.5	1.1	1.0	1.3	1.6
Briansk Oblast	1.8	1.6	1.1	0.8	1.0	1.3	2.5
Vladimir Oblast	0.7	0.5	1.3	1.0	0.9	1.2	1.0
Ivanovo Oblast	1.3	1.0	2.2	1.6	1.5	1.6	1.9
Kaluga Oblast	1.1	1.0	0.7	1.1	1.0	1.0	1.0
Kostroma Oblast	0.5	1.9	1.1	1.6	1.4	0.9	0.7
Moscow City	---	---	---	---	---	---	---
Moscow Oblast	---	3.7	---	3.1	---	---	---
Orel Oblast	0.6	1.2	1.3	1.1	1.3	1.2	0.8
Rязан' Oblast	---	0.1	0.5	0.9	0.8	1.1	0.7
Smolensk Oblast	0.6	0.5	0.8	0.6	0.7	0.5	0.9
Tver' Oblast	1.2	1.2	0.9	0.8	0.8	0.8	1.3
Tula Oblast	1.2	0.8	0.8	0.6	0.9	0.6	1.1
Iaroslavl' Oblast	---	---	0.1	0.5	0.4	0.3	---
Mari El Republic	2.0	1.4	1.2	1.0	0.9	1.3	0.9
Mordovian Republic	1.2	1.0	1.6	1.3	1.3	1.5	1.1
Chuvash Republic	1.5	1.3	1.4	1.1	1.0	1.3	0.9
Kirov Oblast	1.3	1.3	2.1	1.6	1.4	0.9	0.8
Nizhnii Novgorod Oblast	---	---	1.1	0.8	0.7	0.5	---

Avr.	1994	1995*	1996	1997	1998	Avr.
	(Actual figures)					
0.9	0.2	1.0	1.1	0.9	1.0	0.8
0.2	---	0.7	0.3	0.3	0.0	0.3
1.1	1.2	1.0	0.8	0.7	1.1	1.0
0.2	0.2	0.2	0.3	0.3	0.2	0.2
0.2	---	0.6	0.3	---	0.5	0.3
0.4	---	0.3	0.1	0.6	1.0	0.4
0.2	---	---	0.7	0.5	0.2	0.3
0.4	0.4	0.2	0.4	0.5	0.5	0.4
0.8	0.2	0.8	1.2	1.1	1.0	0.9
1.2	1.5	0.9	1.7	1.1	1.2	1.3
1.4	2.4	1.6	1.4	0.7	1.2	1.5
0.9	1.0	0.5	1.4	1.2	0.8	1.0
1.6	0.7	1.0	1.8	2.0	1.5	1.4
1.0	1.5	1.0	0.9	1.2	1.0	1.1
1.1	0.7	1.8	1.4	1.4	1.6	1.4
---	---	---	---	---	---	---
1.0	---	2.8	1.4	2.3	0.4	1.4
1.1	0.3	1.3	1.2	1.6	1.1	1.1
0.6	---	0.1	0.6	0.7	0.8	0.4
0.6	0.8	0.5	0.8	0.7	0.8	0.7
1.0	1.7	1.1	1.0	1.0	0.9	1.2
0.9	1.5	0.8	1.0	0.6	0.8	0.9
0.2	---	---	0.0	0.5	0.4	0.2
1.3	2.1	1.5	1.2	1.2	0.9	1.4
1.3	1.8	1.1	1.5	1.5	0.9	1.4
1.2	2.0	1.4	1.4	1.2	0.9	1.4
1.3	2.3	1.2	2.1	1.8	1.8	1.8
0.4	---	---	1.2	0.7	0.8	0.5

Table 3 (continued)

Region	1994 ^a	1995	1996	1997	1998	1999	2000
	(Planned figures)						
Belgorod Oblast	---	0.1	0.1	0.2	0.2	0.2	0.2
Voronezh Oblast	1.7	1.7	2.0	1.5	1.3	1.7	1.2
Kursk Oblast	0.4	0.5	0.8	1.1	1.0	0.6	0.5
Lipetsk Oblast	---	---	---	---	---	---	---
Tambov Oblast	1.1	1.0	1.3	1.0	0.9	1.3	1.3
Kaimyk Republic	1.4	1.0	1.2	0.9	0.9	0.6	0.4
Tatarstan Republic	0.9	0.3	1.1	0.8	---	---	---
Astrakhan' Republic	0.9	1.0	2.0	1.5	1.3	0.9	0.7
Volgograd Oblast	0.9	0.7	1.0	0.7	0.7	0.9	0.6
Penza Oblast	1.6	1.6	1.6	1.2	1.1	1.5	1.6
Samara Oblast	---	---	---	---	---	---	---
Saratov Oblast	1.8	1.7	2.6	1.9	1.8	1.6	1.1
Ulianovsk Oblast	---	0.8	0.7	0.9	0.8	0.5	0.4
Adygei Republic	0.5	0.6	0.8	0.7	1.2	1.2	0.8
Dagestan Republic	3.5	5.0	4.4	3.4	5.2	7.0	7.6
Ingush Republic	0.6	0.5	0.6	0.6	0.8	1.1	1.2
Kabardino-Balkar Republic	1.1	1.1	1.5	1.1	3.4	3.1	2.3
Karachai-Cherkess Republic	0.6	0.6	0.7	0.5	0.8	1.1	0.9
North Ossetian Republic	0.9	1.1	1.4	1.1	1.4	1.9	1.3
Chechen Republic	1.6	1.6	1.9	1.4	0.3	0.8	0.9
Krasnodar Krai	1.5	1.8	4.2	3.2	2.8	1.8	2.1
Stavropol' Krai	2.2	2.6	2.5	2.4	2.4	1.6	2.0
Rostov Oblast	2.6	2.6	2.7	2.4	3.1	2.8	3.0
Bashkir Republic	---	---	---	---	---	--	---
Udmurt Republic	1.0	0.9	1.4	1.5	1.6	1.0	0.7
Kurgan Oblast	1.0	1.0	1.4	1.0	0.9	1.2	0.9
Orenburg Oblast	0.9	0.9	1.1	0.8	1.0	0.6	0.5
Perm' Oblast	---	1.0	---	0.6	---	---	---
Komi-Permiak A.O.	0.5	0.4	0.4	0.3	0.3	0.4	0.7

<i>Avr.</i>	<i>1994</i>	<i>1995*</i>	<i>1996</i>	<i>1997</i>	<i>1998</i>	<i>Avr.</i>
	(Actual figures)					
0.2	---	0.1	0.1	0.2	0.2	0.1
1.6	2.9	1.7	2.1	1.7	1.4	2.0
0.7	1.2	0.5	0.9	1.1	0.9	0.9
---	---	---	---	---	---	---
1.1	1.6	---	1.0	1.2	1.2	1.0
0.9	1.0	1.0	1.2	1.2	0.7	1.0
0.5	---	---	---	---	---	---
1.2	0.3	1.0	2.1	1.6	1.5	1.3
0.8	0.7	0.6	1.5	0.5	0.7	0.8
1.5	2.3	1.5	2.1	1.4	1.1	1.7
---	---	---	---	---	---	---
1.8	2.3	1.6	2.3	2.1	2.3	2.1
0.6	---	0.7	0.9	0.8	1.0	0.7
0.8	0.7	0.6	0.9	1.3	1.2	1.0
5.1	3.7	6.7	3.9	3.9	5.0	4.6
0.8	0.7	0.5	0.6	0.6	1.0	0.7
1.9	1.4	1.1	1.5	1.6	2.8	1.7
0.8	0.5	0.6	0.6	0.7	0.8	0.6
1.3	0.7	1.0	1.6	1.2	1.6	1.2
1.2	---	3.4	1.7	---	---	1.0
2.5	2.0	1.7	3.8	3.9	3.0	2.9
2.2	2.7	2.9	2.8	2.5	2.8	2.7
2.7	4.1	2.8	2.4	2.9	2.5	2.9
---	---	---	---	---	---	---
1.2	1.2	1.0	1.4	1.4	1.5	1.3
1.1	1.5	0.9	1.4	1.1	1.2	1.2
0.8	1.1	0.8	1.3	0.7	0.8	0.9
0.2	---	0.8	0.2	0.4	0.3	0.4
0.4	0.5	0.4	0.3	0.3	0.3	0.4

Table 3 (continued)

Region	1994 ^a	1995	1996	1997	1998	1999	2000
	(Planned figures)						
Sverdlovsk Oblast	---	---	---	---	---	---	---
Chebiabinsk Oblast	---	0.3	0.4	0.8	0.7	0.4	---
Altai Republic	1.0	0.7	0.5	0.4	0.3	0.4	0.8
Altai Krai	4.9	4.2	5.4	4.5	5.5	6.2	5.4
Kemerovo Oblast	17.8	8.1	2.0	3.2	4.0	2.9	2.0
Novosibirsk Oblast	3.9	3.0	1.3	1.3	1.1	0.9	1.7
Omsk Oblast	3.8	3.1	0.5	1.6	1.4	0.9	1.1
Tomsk Oblast	0.7	0.9	0.8	1.0	0.9	0.6	0.6
Tiumen' Oblast	0.1	1.1	2.0	1.5	1.4	0.9	---
Khanty-Mansiisk A.O.	---	---	---	---	---	---	---
Jamalo-Nenets A.O.	---	---	---	---	---	---	---
Buriat Republic	2.5	1.9	2.2	1.6	2.6	3.1	2.7
Tyva Republic	1.4	1.0	1.0	0.9	1.5	1.5	1.9
Khakass Republic	0.4	0.5	0.5	0.3	0.3	0.4	0.4
Krasnoiarsk Krai	---	---	---	---	---	---	---
Taimyr A.O.	0.6	0.3	0.2	0.2	0.2	0.3	0.5
Evenki A.O.	0.5	0.3	0.3	0.2	0.2	0.3	0.5
Irkutsk Oblast	---	0.9	---	0.6	1.0	0.9	1.1
Ust'-Orda Buriat A.O.	0.7	0.5	0.5	0.4	0.5	0.6	0.8
Chita Oblast	1.6	1.5	1.0	1.2	1.8	2.4	2.6
Aga-Buriat A.O.	0.3	0.2	0.2	0.2	0.3	0.4	0.4
Sakha Republic	---	1.9	5.5	4.1	3.7	3.1	4.6
Evrei A.Obl.	0.4	0.4	0.7	0.7	0.8	0.9	1.0
Chukotka A.O.	2.0	1.4	1.6	1.2	1.2	1.1	1.7
Primorskii Krai	---	1.2	---	4.8	4.3	4.0	3.4
Khabarovsk Krai	0.5	1.7	1.4	2.4	2.1	2.6	2.7
Amur Oblast	0.7	1.6	3.5	2.6	2.3	2.3	2.5
Kamchatka Oblast	2.2	1.3	---	1.3	1.2	1.6	1.7

<i>Avr.</i>	<i>1994</i>	<i>1995^c</i>	<i>1996</i>	<i>1997</i>	<i>1998</i>	<i>Avr.</i>
	(Actual figures)					
---	---	---	---	---	---	---
0.4	---	0.2	0.5	0.6	0.7	0.4
0.6	1.7	0.8	0.7	0.6	0.3	0.8
5.2	6.6	4.5	5.3	4.7	5.3	5.3
5.7	13.7	7.8	2.7	2.8	4.1	6.2
1.9	1.5	3.1	1.5	1.3	0.9	1.7
1.8	3.3	2.9	1.0	1.2	1.6	2.0
0.8	0.4	0.9	0.9	1.0	1.0	0.9
1.0	0.1	1.0	1.0	1.7	2.0	1.1
---	---	---	---	---	---	---
---	---	---	---	---	---	---
2.4	2.8	1.9	1.7	2.6	2.4	2.3
1.3	1.3	1.0	1.2	1.0	1.4	1.2
0.4	0.5	0.5	0.4	0.3	0.3	0.4
---	---	---	---	---	---	---
0.3	0.3	0.2	0.2	0.2	0.2	0.2
0.4	0.3	0.3	0.3	0.4	0.2	0.3
0.6	---	0.9	0.0	0.5	0.9	0.5
0.6	0.6	0.5	0.6	0.5	0.6	0.5
1.7	2.2	1.5	1.3	1.2	1.7	1.6
0.3	0.3	0.2	0.2	0.2	0.3	0.2
3.3	---	1.7	3.1	2.5	2.2	1.9
0.7	0.5	0.6	0.7	0.7	0.9	0.7
1.4	1.3	1.6	1.3	1.3	1.1	1.3
2.5	---	1.1	0.2	3.6	4.1	1.8
1.9	0.2	1.6	1.7	2.3	1.6	1.5
2.2	1.1	1.6	2.7	3.1	2.6	2.2
1.3	1.6	1.2	0.5	1.0	1.0	1.1

Table 3 (continued)

Region	1994 ^a	1995	1996	1997	1998	1999	2000
	(Planned figures)						
Koriak A.O.	2.6	0.9	0.3	0.5	0.4	0.4	0.7
Magadan Oblast	0.6	1.4	2.1	1.6	1.4	1.4	2.0
Sakhalin Oblast	1.9	1.6	1.8	1.6	1.4	1.9	2.1
Kaliningrad Oblast	0.8	0.9	0.4	0.5	0.5	0.6	0.6
Russian Federation	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Notes:

^a A.O. = Autonomous Okrug.

^b Last three quarters. Calculated assuming that 62 per cent of FFPR was earmarked for regions in need of support and 38 per cent for regions in need of considerable support (See Tabata, "Transfers," pp. 454-455). This ratio is obtained from T. Boiko and A. Lavrov, "Biudzhetye otnosheniia v Rossii," *EKO* No. 1 (1995), pp. 171.

^c Calculated from figures of plan fulfillment reported in S. Khursevich, "O nekotorykh usloviakh rezul'tativnosti reformy mezhibiudzhetykh otnoshenii," *Voprosy ekonomiki* No. 10 (1998), pp. 129-130

Siberia and the Far East are generally large compared with their revenues, they receive larger amounts of FFPR.

Table 4 reveals how important FFPR is for each region's budget.¹⁴ Shares of FFPR in regional budgetary revenues vary greatly from one region to another. The largest shares were recorded in Aga-Buriat Autonomous Okrug, the Ingush Republic, Ust'-Orda Buriat Autonomous Okrug, Dagestan, Altai Republic, Tyva Republic, Koriak Autonomous Okrug, Evrei Autonomous Oblast, Kalmyk Republic, and Komi-Permiak Autonomous Okrug during 1994-1998. These are mostly small regions. While in the Northern, Central, Central Black Earth and Urals economic regions shares range from 8 to 10 per cent. In the North Caucasus and West Siberia the average share exceeds 25 per cent.

It is worth noting that the share of FFPR in the regional budgetary revenues of each region did not fluctuate too much. Coefficients of variation in 27 regions were less than 0.3 and those of 60 out of 80 regions that received FFPR were less than 0.5 1994-1998 (See the last column of Table 4). The transfer pattern appears relatively stable.

In conclusion, the transfer system from federal to regional budgets is stable at a comparatively low level. The amount of FFPR that each region receives also has been relatively fixed.

<i>Avr.</i>	1994	1995	1996	1997	1998	<i>Avr.</i>
	(Actual figures)					
0.8	1.6	0.9	0.4	0.4	0.4	0.8
1.5	0.5	1.5	2.2	1.5	1.5	1.4
1.8	1.2	1.6	1.7	1.6	1.6	1.5
0.6	0.9	0.8	0.3	0.7	0.2	0.6
100.0	100.0	100.0	100.0	100.0	100.0	100.0

Sources: Compiled from *Sobranie zakonodatel'stva RF* No. 10 (1994), pp. 1542-1544; No. 14 (1995), pp. 2200, 2203-2205; No. 1 (1996), pp. 205-207; No. 9 (1997), pp. 1713-1715; No. 13 (1998), pp. 2723-2725; No. 9 (1999), pp. 1701-1703; No. 1 (2000), pp. 27-29; Ministerstvo Finansov Rossiiskoi Federatsii, *Svodnyi mesiachnyi i otchet ob ispolnenii mestnykh biudzhетov*, unpublished reports for the years 1994 and 1997-1998; *MFK Renaissance Research* (March 1998), pp. 30-33.

Regional budgets and GDP

In this section data on GDP, tax revenues and FFPR are analyzed in regional perspective. The analysis is limited to 1996, the only year for which tax revenue data are available.

In Russia, regional GDP is calculated by Goskomstat Rossii as Gross Regional Product (GRP). The sum of regional GRP's does not add up to Russia's GDP because defense, state administration, bank activities and foreign trade are not attributable to specific regions.¹⁵ GRP data were first published in 1997 in Goskomstat's national accounts handbook.¹⁶ At present, data for the period 1994-1997 are available. GRP data for the nine Autonomous Okrugs that constitute the main components of the Federation have not been compiled, except for Chukotka Autonomous Okrug and Evrei Autonomous Oblast. In addition, GRP data for the Chechen Republic have been unavailable because of the on going military conflict. Also bear in mind that the GRP data is preliminary.¹⁷

With regard to tax revenues, federal budget tax receipt data from regions are rarely available.¹⁸ We only have the data for 1996 published in *Russian Economic Trends*.¹⁹

Data on FFPR and regional budget revenues is readily available. The data for 1996 was obtained from *MFK Renaissance Research*.²⁰

Table 5 summarizes GRP and tax revenues of Russia's regions in 1996. GRP is concentrated in a small number of regions. Twelve out of 79 regions (Moscow City and Oblast, Tiumen',

Table 4: Share of FFPR in actual regional budget revenues (in percent of total regional budget revenue)

Region	1994	1995 ¹	1996	1997	1998	Av. ¹	Coeff. of Var. ²
Karelian Republic	1.5	12.0	15.0	15.2	14.6	11.7	0.45
Komi Republic	---	3.2	1.7	2.4	0.3	1.5	0.80
Arkhangel'sk Oblast	6.1	5.2	8.4	7.9	12.0	7.9	0.30
Nenets A.O.	16.6	29.9	21.7	21.7	13.7	20.7	0.27
Vologda Oblast	---	4.1	2.6	---	4.7	2.3	0.87
Murmansk Oblast	---	2.2	0.7	4.7	6.8	2.9	0.88
St. Petersburg City	---	---	1.7	1.4	0.3	0.7	1.08
Leningrad Oblast	2.4	1.7	3.3	5.9	3.7	3.4	0.43
Novgorod Oblast	2.9	13.2	22.1	22.3	17.8	15.7	0.46
Pskov Oblast	19.2	18.2	33.6	29.2	28.1	25.7	0.23
Briansk Oblast	18.7	16.5	21.0	14.1	20.6	18.2	0.14
Vladimir Oblast	5.9	4.5	13.6	14.3	8.5	9.3	0.43
Ivanovo Oblast	6.2	11.0	26.5	31.4	26.0	20.2	0.48
Kaluga Oblast	13.2	11.4	12.1	18.8	13.7	13.9	0.19
Kostroma Oblast	6.6	18.3	16.7	19.5	23.0	16.8	0.33
Moscow City	---	---	---	---	---	---	---
Moscow Oblast	---	4.7	2.5	4.9	0.8	2.6	0.77
Orel Oblast	3.2	14.0	20.3	28.0	18.9	16.9	0.49
Riazan' Oblast	---	0.8	8.3	11.0	10.8	6.2	0.78
Smolensk Oblast	7.3	6.4	13.0	13.1	13.0	10.6	0.29
Tver' Oblast	10.2	10.3	10.1	12.1	10.3	10.6	0.07
Tula Oblast	8.2	5.7	8.9	7.9	8.9	7.9	0.15
Jaroslavl' Oblast	---	---	0.2	4.9	2.8	1.6	1.24
Mari El Republic	24.3	24.7	28.4	34.0	24.8	27.2	0.14
Mordovian Republic	19.0	13.7	22.7	24.2	18.5	19.6	0.19
Chuvash Republic	15.2	12.8	17.7	15.2	12.1	14.6	0.14
Kirov Oblast	14.8	9.2	22.1	21.8	6.4	14.9	0.43
Nizhni Novgorod Oblast	---	---	4.7	2.7	8.6	3.2	1.00

Table 4 (continued)

Region	1994	1995 ^a	1996	1997	1998	Av. ¹	Coeff. of Var. ²
Belgorod Oblast	---	0.8	1.3	2.8	2.0	1.4	0.69
Voronezh Oblast	13.6	13.1	16.5	15.1	11.2	13.9	0.13
Kursk Oblast	10.4	5.3	9.8	15.1	10.1	10.1	0.31
Lipetsk Oblast	---	---	---	---	---	---	---
Tambov Oblast	14.1	---	14.8	20.0	21.3	14.0	0.54
Kalmyk Republic	18.7	36.7	52.6	47.8	26.3	36.4	0.35
Tatarstan Republic	---	---	---	---	---	---	---
Astrakhan' Republic	3.6	13.4	31.9	26.7	25.1	20.1	0.51
Volgograd Oblast	2.8	3.1	8.0	3.9	5.9	4.7	0.41
Penza Oblast	18.7	19.2	28.8	21.9	19.9	21.7	0.17
Samara Oblast	---	---	---	---	---	---	---
Saratov Oblast	9.8	9.8	13.7	14.3	14.0	12.3	0.17
Ulianovsk Oblast	---	7.2	11.0	10.6	12.3	8.2	0.54
Adygei Republic	16.0	27.1	38.6	51.9	40.2	34.8	0.35
Dagestan Republic	14.3	44.5	52.9	49.5	54.1	43.1	0.34
Ingush Republic	32.0	43.6	70.9	66.4	48.4	52.3	0.28
Kabardino-Balkar Republic	15.5	20.7	31.7	34.1	43.3	29.1	0.34
Karachai-Cherkess Republic	10.2	25.6	32.2	34.5	43.6	29.2	0.38
North Ossetian Republic	10.7	28.5	34.3	33.3	44.5	30.3	0.37
Chechen Republic	---	83.0	80.7	---	---	32.7	1.22
Krasnodar Krai	3.7	5.7	13.7	16.3	12.3	10.4	0.46
Stavropol' Krai	10.0	16.5	20.3	21.8	20.6	17.8	0.24
Rostov Oblast	10.4	10.9	11.3	16.8	12.5	12.4	0.19
Bashkir Republic	---	---	---	---	---	---	---
Udmurt Republic	7.2	8.8	10.0	10.5	12.2	9.7	0.17
Kurgan Oblast	13.8	13.7	23.1	21.4	21.7	18.8	0.22
Orenburg Oblast	4.7	4.7	8.3	5.2	5.3	5.7	0.24
Perm' Oblast	---	2.7	0.8	2.0	1.3	1.4	0.68
Komi-Permiak A.O.	23.9	41.8	40.0	39.8	34.3	36.0	0.18

Table 4 (continued)

Region	1994	1995 ^a	1996	1997	1998	Av. ¹	Coeff. of Var. ²
Sverdlovsk Oblast	---	---	---	---	---	---	---
Cheliabinsk Oblast	---	0.6	1.4	2.4	2.7	1.4	0.73
Altai Republic	43.0	39.9	54.8	51.3	25.6	42.9	0.24
Altai Krai	20.3	20.0	30.8	33.3	33.7	27.6	0.22
Kemerovo Oblast	22.9	17.3	7.4	10.3	14.7	14.5	0.37
Novosibirsk Oblast	4.8	12.5	7.6	7.9	5.2	7.6	0.36
Omsk Oblast	12.1	12.2	5.7	7.2	8.8	9.2	0.28
Tomsk Oblast	3.3	7.4	8.7	8.6	9.9	7.6	0.30
Tiumen' Oblast	0.3	1.1	5.2	10.1	11.8	5.7	0.81
Khanty-Mansiisk A.O.	---	---	---	---	---	---	---
Jamalo-Nenets A.O.	---	---	---	---	---	---	---
Buriat Republic	20.5	16.6	23.5	40.3	35.0	27.2	0.33
Tyva Republic	16.5	22.8	57.1	54.7	57.9	41.8	0.44
Khakass Republic	6.7	11.3	9.3	8.6	7.7	8.7	0.18
KrasnoIarsk Krai	---	---	---	---	---	---	---
Taimyr A.O.	12.3	16.8	24.1	16.1	9.9	15.8	0.31
Evenki A.O.	17.2	25.4	29.3	44.5	26.6	28.6	0.31
Irkutsk Oblast	---	2.5	0.1	2.4	4.6	1.9	0.91
Ust'-Orda Buriat A.O.	30.7	34.8	53.5	64.5	59.1	48.5	0.28
Chita Oblast	15.6	15.1	16.5	18.5	24.9	18.1	0.20
Aga-Buriat A.O.	27.4	37.8	65.0	70.7	73.0	54.8	0.34
Sakha Republic	---	4.9	13.7	12.7	13.1	8.9	0.62
Evrei A.Obl.	15.7	25.3	47.7	51.3	57.1	39.4	0.41
Chukotka A.O.	10.4	28.2	27.7	36.8	37.6	28.2	0.35
PrimorskiI Krai	---	3.9	1.1	17.3	22.5	9.0	1.02
Khabarovsk Krai	0.7	7.0	9.5	16.2	9.3	8.5	0.59
Amur Oblast	7.2	15.4	26.7	38.9	30.9	23.8	0.47
Kamchatka Oblast	11.2	10.9	8.2	19.2	17.5	13.4	0.31
Koriak A.O.	31.0	31.4	39.5	49.9	47.3	39.8	0.20

Table 4 (continued)

Region	1994	1995 ^a	1996	1997	1998	Av. ¹	Coeff. of Var. ²
Magadan Oblast	3.7	15.8	24.9	22.9	26.8	18.8	0.45
Sakhalin Oblast	6.9	14.9	19.2	21.0	18.8	16.2	0.31
Kaliningrad Oblast	9.1	11.6	5.2	12.3	3.0	8.2	0.44
Russian Federation	4.7	6.5	7.4	7.9	7.5	6.8	0.17

Notes:

^a Calculated from figures of plan fulfillment reported in Khursevich, "O nekotorykh usloviakh", pp. 129-130 and regional budget revenue data reported in *Regiony Rossii* (Moscow: Goskomstat Rossii, 1998), pp. 699-700.

¹ Average

² Coefficient of variation

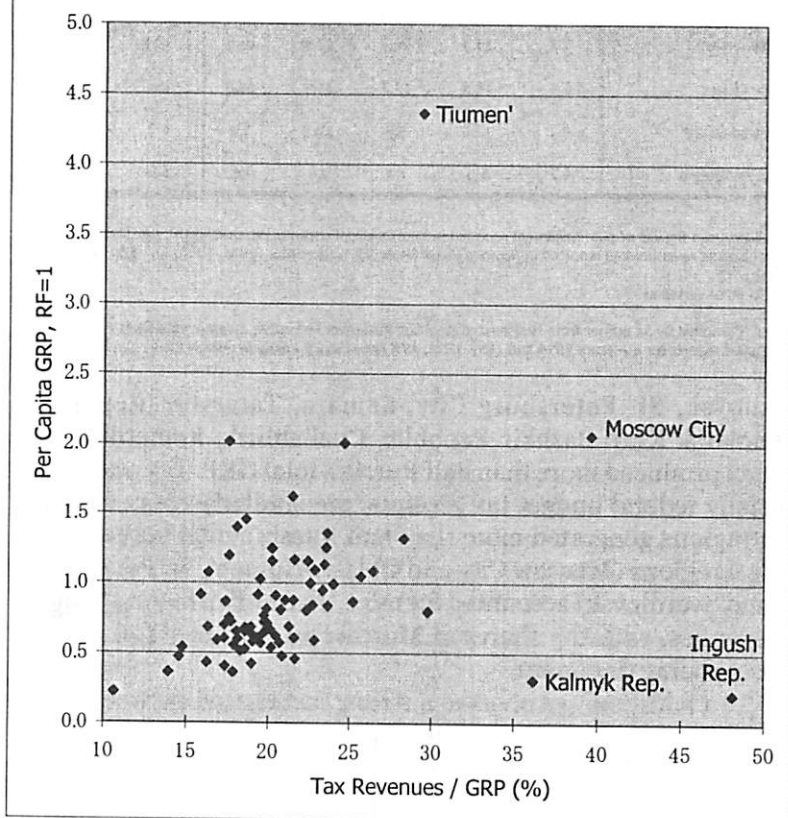
Sources: Compiled by an author from Ministerstvo Finansov Rossiiskoi Federatsii, *Svodnyi mesiachny i otchet*, unpublished reports for the years 1994 and 1997-1998; *MFK Renaissance Research* (March 1998), pp. 30-33.

Sverdlovsk, St. Petersburg City, Samara, Tatarstan Republic, Krasnoarsk Krai, Bashkir Republic, Cheliabinsk, Kemerovo and Irkutsk) produced more than half Russia's total GRP. Tax revenues, especially federal budget tax receipts, are similarly concentrated. Eight regions generated more than half Russia's total tax receipts, and five regions (Moscow City and Oblast, Tiumen', St. Petersburg City and Sverdlovsk) accounted for more than half of federal budget tax revenues, with the shares of Moscow and Tiumen' (26 and 13 per cent) being dominant.

In addition, we observe a strong correlation between GRP and aggregate tax collections (correlation coefficient = 0.974) and a stronger correlation between GRP and regional budget revenues (correlation coefficient = 0.994). Although these correlation coefficients are high, there are differences in ratios of tax receipts to GRP among regions (See Table 6). These statistics show that the tax receipts-GRP ratios for the Ingush Republic (48 per cent) and Kalmyk Republic (36 per cent) are extremely high and lowest for the Dagestan Republic (11 per cent).²¹ It is worth noting that coefficients of tax variation for regional budget revenue-GRP ratios (0.17) is much lower than for federal budget receipts from the regions (0.63, see the bottom line of Table 6). Which factors determine regional budget revenues-GRP ratios?

The data in Table 6 points to two explanatory variables. First, there is a positive, though weak, correlation between the budget revenues-GRP ratio and per capita GRP (See Chart 1). If we exclude the Ingush and Kalmyk Republics, the correlation coefficient equals 0.540.

Chart 1: Ratio of Tax Revenues to GRP and Per Capita GRP (1996)

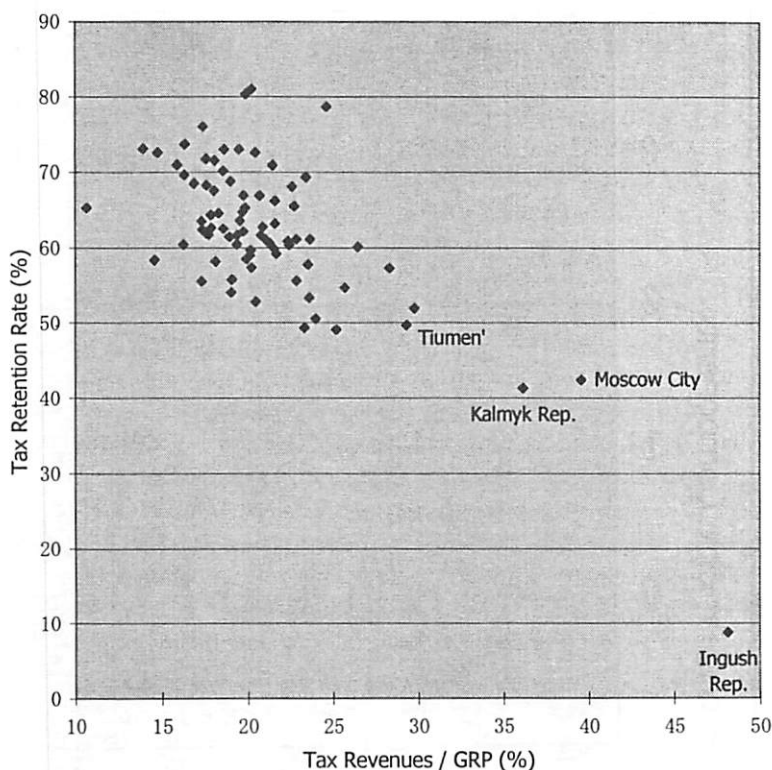


Second, Chart 2 displays a negative correlation between the tax revenues-GRP ratios and the tax retention rate, calculated as share of regional budget tax revenues in total tax revenues (correlation coefficient = -0.730).²² This negative correlation can be explained as follows:

The tax revenues-GRP ratio is defined algebraically as TR/GRP , where TR denotes tax revenues;

The tax retention rate is $RBTR/TR$, where RBTR denotes regional budget tax revenues.

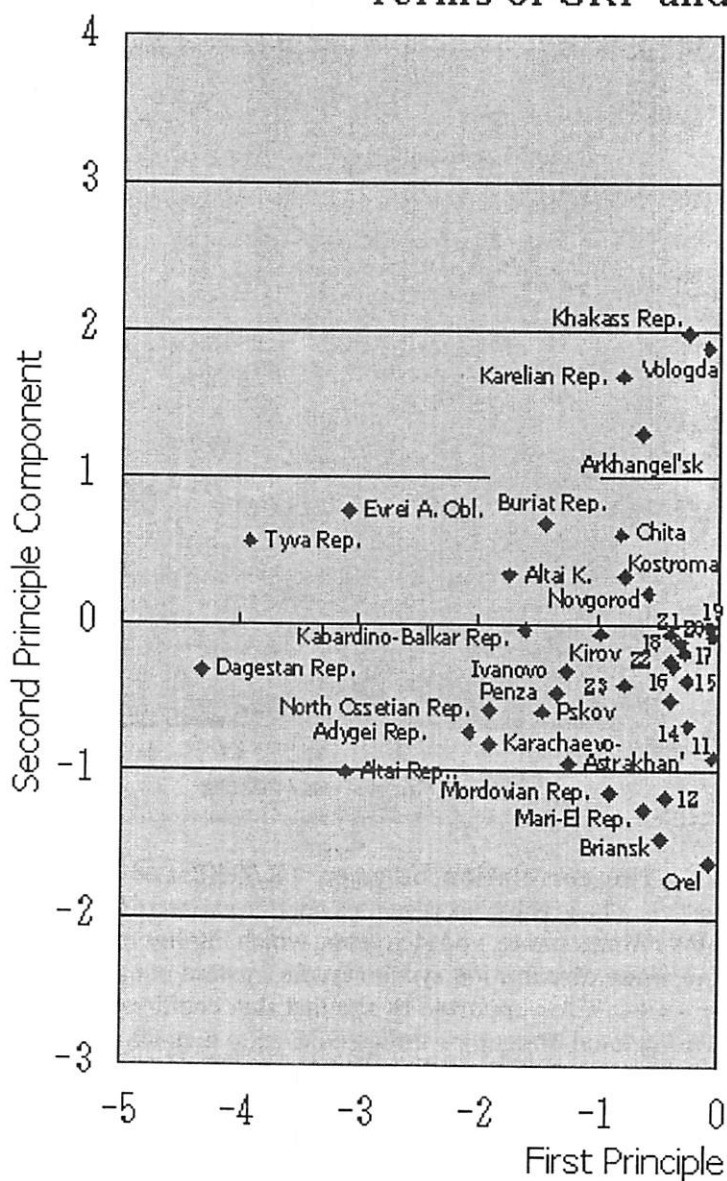
Chart 2: Ratio of Tax Revenues to GRP and Tax Retention Rate (1996)



The correlation between TR/GRP and RBTR/TR is negative. The greater tax revenues are in relation to GRP, the lower the tax retention rate, and vice versa, which implies that the existing tax revenue distribution system favors income-equalization. This inference is also supported by the fact that coefficient of variation of the regional budget revenues-GDP ratio is much lower than for federal tax receipts from the regions.

In order to identify structural correlations between GRP and regional budget indicators, we applied cluster and principal component analyses. The sample size was 75. Because the data for Moscow, Tiumen', and the Ingush and Kalmyk Republics were outliers in preliminary rounds of our analyses and GRP data for the Chechen Republic was not available, these five regions were

Chart 3: Classification of
Terms of GRP and



Russian Regions in Budget Indicators

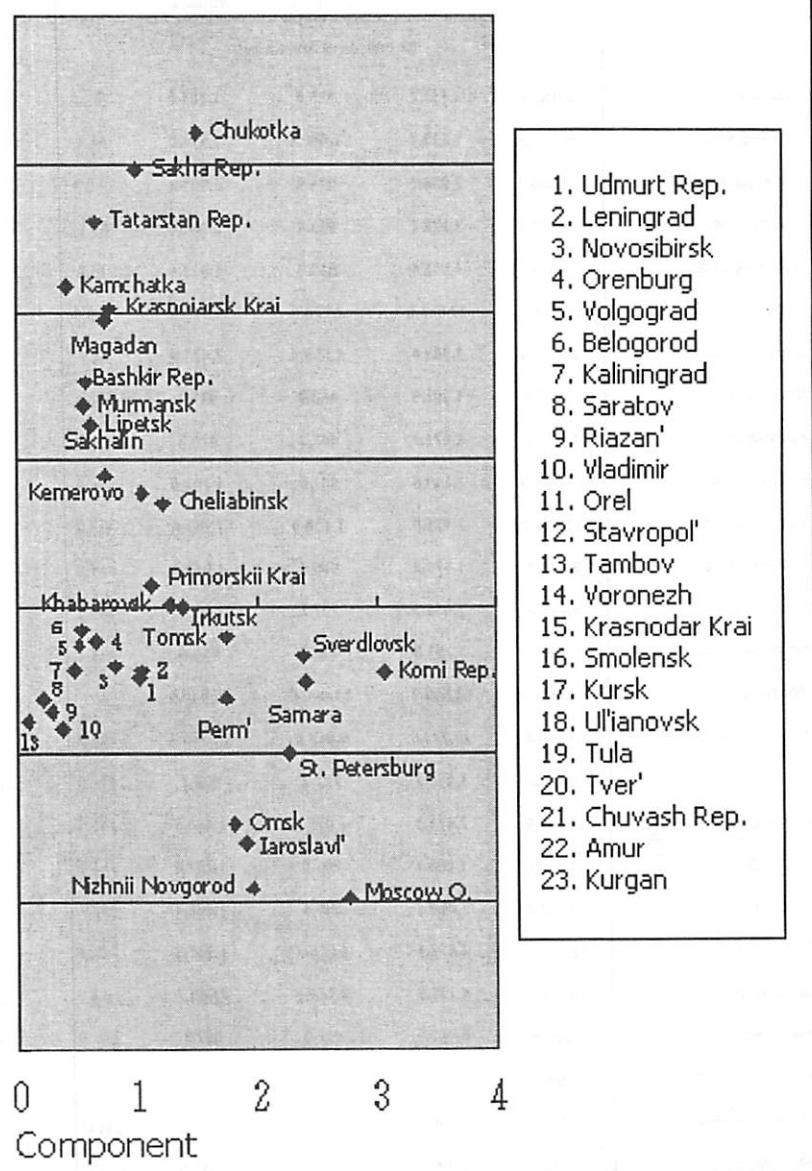


Table 5: GRP and tax revenues of regions (1996)

Region	GRP	Total tax revenues	Federal budget tax revenues	Regional budget tax revenues	FFPR
(in millions of new rubles)					
Karelian Republic	8,960.9	1,557.7	373.9	1,183.8	263.2
Komi Republic	20,562.9	5,823.1	2,487.1	3,336.0	74.9
Arkhangel'sk Oblast	18,306.2	2,908.7	844.9	2,063.8	252.1
Vologda Oblast	19,140.8	3,128.2	823.4	2,304.8	65.9
Murmansk Oblast	16,435.1	2,891.6	918.0	1,973.6	16.8
St. Petersburg City	66,331.5	17,046.6	7,726.8	9,319.8	168.9
Leningrad Oblast	17,822.1	3,983.4	1,559.5	2,423.9	84.5
Novgorod Oblast	7,047.0	1,391.5	460.2	931.3	284.7
Pskov Oblast	5,777.2	1,072.7	402.2	670.5	398.8
Briansk Oblast	1,1294.9	2,149.6	987.6	1,162.0	336.2
Vladimir Oblast	12,830.2	2,931.5	1,138.9	1,792.6	322.3
Ivanovo Oblast	8,578.3	1,570.2	556.4	1,013.8	424.9
Kaluga Oblast	9,649.9	1,943.1	797.7	1,145.4	205.0
Kostroma Oblast	6,940.0	1,251.8	406.2	845.6	337.7
Moscow City	236,323.0	93,500.3	53,860.8	39,639.5	---
Moscow Oblast	69,606.4	20,733.0	9,963.6	10,769.4	327.2
Orel Oblast	7,476.6	1,530.3	722.2	808.1	274.0
Riazan' Oblast	12,405.9	2,472.0	1,025.1	1,446.9	149.2
Smolensk Oblast	10,059.8	1,868.1	700.5	1,167.6	181.1
Tver' Oblast	14,367.9	2,850.4	989.1	1,861.3	243.2
Tula Oblast	15,337.6	3,022.1	1,065.2	1,956.9	225.7
Iaroslav' Oblast	18,131.1	4,229.8	2,144.1	2,085.7	6.8
Mari-El Rpublic	4,659.4	1,009.4	412.1	597.3	288.4
Mordovian Republic	7,604.7	1,316.1	585.5	730.6	364.3
Chuvash Republic	10,314.3	2,134.9	706.4	1,428.5	341.0
Kirov Oblast	15,046.7	2,604.0	950.5	1,653.5	485.9
Nizhnii Novgorod Oblast	42,559.4	10,722.8	5,458.6	5,264.2	292.5
Belgorod Oblast	14,955.5	2,952.0	1,117.9	1,834.1	24.5

GRP	Total tax revenues	Federal budget tax revenues	Regional budget tax revenues	FFRP
(in % of Russian total)				
0.5	0.3	0.2	0.4	1.1
1.1	1.2	1.2	1.2	0.3
0.9	0.6	0.4	0.8	1.1
1.0	0.7	0.4	0.9	0.3
0.8	0.6	0.4	0.7	0.1
3.4	3.6	3.7	3.5	0.7
0.9	0.8	0.8	0.9	0.4
0.4	0.3	0.2	0.3	1.2
0.3	0.2	0.2	0.3	1.7
0.6	0.5	0.5	0.4	1.4
0.7	0.6	0.6	0.7	1.4
0.4	0.3	0.3	0.4	1.8
0.5	0.4	0.4	0.4	0.9
0.4	0.3	0.2	0.3	1.5
12.2	19.7	26.0	14.8	---
3.6	4.4	4.8	4.0	1.4
0.4	0.3	0.3	0.3	1.2
0.6	0.5	0.5	0.5	0.6
0.5	0.4	0.3	0.4	0.8
0.7	0.6	0.5	0.7	1.0
0.8	0.6	0.5	0.7	1.0
0.9	0.9	1.0	0.8	0.0
0.2	0.2	0.2	0.2	1.2
0.4	0.3	0.3	0.3	1.6
0.5	0.4	0.3	0.5	1.5
0.8	0.5	0.5	0.6	2.1
2.2	2.3	2.6	2.0	1.3
0.8	0.6	0.5	0.7	0.1

Table 5 (continued)

Region	GRP	Total tax revenues	Federal budget tax revenues	Regional budget tax revenues	FFPR
	(in millions of new rubles)				
Voronezh Oblast	20,185.3	3,906.9	1,497.6	2,409.3	488.5
Kursk Oblast	12,821.5	2,272.3	870.3	1,402.0	203.8
Lipetsk Oblast	15,056.3	3,079.9	844.8	2,235.1	---
Tambov Oblast	8,260.0	1,723.4	642.0	1,081.4	244.7
Kalmyk Republic	1,31.2	474.8	278.7	196.1	288.3
Tatarstan Republic	57,642.0	11,656.3	2,212.7	9,443.6	---
Astrakhan' Oblast	8,151.4	1,476.5	617.9	858.6	4,91.7
Volgograd Oblast	28,925.9	6,004.1	2,303.7	3,700.4	346.8
Penza Oblast	11,390.7	2,034.8	760.5	1,274.3	491.1
Samara Oblast	59,476.1	14,043.6	6,553.4	7,490.2	---
Saratov Oblast	24,780.4	5,271.1	2,076.3	3,194.8	539.1
Ulianovsk Oblast	14,781.9	2,601.9	991.5	1,610.4	203.5
Adygei Republic	2,417.5	419.2	157.6	261.6	209.9
Dagestan Republic	6,019.3	641.7	222.5	419.2	913.5
Ingush Republic	845.9	407.1	371.4	35.7	148.4
Kabardino-Balkar Republic	4,434.6	842.2	263.0	579.2	363.2
Karachai-Cherkess Republic	2,494.8	405.4	160.4	245.0	147.2
North Ossetian Republic	3,173.8	566.3	201.8	364.5	377.9
Krasnodar Krai	45,698.5	8,649.3	3,335.9	5,313.4	893.9
Stavropol' Krai	22,060.2	4,207.0	1,861.0	2,346.0	670.1
Rostov Oblast	31,351.2	6,321.6	2,549.1	3,772.5	574.6
Bashkir Republic	55,574.1	10,830.9	2,924.9	7,906.0	---
Udmurt Republic	18,094.1	4,279.1	1,663.8	2,615.3	333.5
Kurgan Oblast	8,347.4	1,630.0	594.1	1,035.9	337.7
Orenburg Oblast	25,824.4	5,432.3	2,114.4	3,317.9	312.4
Perm' Oblast	43,494.8	9,939.2	4,411.8	5,527.4	123.0
Sverdlovsk Oblast	67,262.1	17,798.9	7,094.6	10,704.3	---
Cheliabinsk Oblast	48,595.9	10,977.8	3,501.1	7,476.7	106.6

GRP	Total tax revenues	Federal budget tax revenues	Regional budget tax revenues	FFRP
(in % of Russian total)				
1.0	0.8	0.7	0.9	2.1
0.7	0.5	0.4	0.5	0.9
0.8	0.6	0.4	0.8	---
0.4	0.4	0.3	0.4	1.1
0.1	0.1	0.1	0.1	1.2
3.0	2.5	1.1	3.5	---
0.4	0.3	0.3	0.3	2.1
1.5	1.3	1.1	1.4	1.5
0.6	0.4	0.4	0.5	2.1
3.1	3.0	3.2	2.8	---
1.3	1.1	1.0	1.2	2.3
0.8	0.5	0.5	0.6	0.9
0.1	0.1	0.1	0.1	0.9
0.3	0.1	0.1	0.2	3.9
0.0	0.1	0.2	0.0	0.6
0.2	0.2	0.1	0.2	1.6
0.1	0.1	0.1	0.1	0.6
0.2	0.1	0.1	0.1	1.6
2.4	1.8	1.6	2.0	3.9
1.1	0.9	0.9	0.9	2.9
1.6	1.3	1.2	1.4	2.5
2.9	2.3	1.4	3.0	---
0.9	0.9	0.8	1.0	1.4
0.4	0.3	0.3	0.4	1.5
1.3	1.1	1.0	1.2	1.3
2.2	2.1	2.1	2.1	0.5
3.5	3.8	3.4	4.0	---
2.5	2.3	1.7	2.8	0.5

Table 5 (continued)

Region	GRP	Total tax revenues	Federal budget tax revenues	Regional budget tax revenues	FFPR
(in millions of new rubles)					
Altai Republic	1,258.8	183.6	76.4	107.2	154.3
Altai Krai	20,995.7	3,544.6	1,116.6	2,428.0	1,244.5
Kemerovo Oblast	47,094.0	10,171.9	3,435.1	6,736.8	629.3
Novosibirsk Oblast	31,867.2	6,861.1	2,752.1	4,109.0	351.7
Omsk Oblast	28,534.2	6,845.4	3,386.8	3,458.6	240.8
Tomsk Oblast	17,865.2	4,205.4	1,776.6	2,428.8	221.7
Tiumen' Oblast	183,450.9	53,807.3	27,066.5	26,740.8	225.5
Buriat Republic	9,478.1	1,546.7	469.6	1,077.1	401.9
Tyva Republic	1,484.1	206.8	55.7	151.1	274.3
Khakass Republic	6,289.2	1,250.6	245.6	1,005.0	100.1
Krasnoïarsk Krai	57,388.4	10,363.9	2,954.5	7,409.4	124.4
Irkutsk Oblast	46,036.4	9,308.6	3,966.2	5,342.4	136.9
Chita Oblast	11,572.6	2,148.9	641.3	1,507.6	367.9
Sakha Republic	27,197.6	4,778.3	1,350.1	3,428.2	728.7
Evrei A.Obl.	1,481.1	218.9	60.1	158.8	158.1
Chukotka A.O.	2,334.3	574.8	122.6	452.2	311.9
Primorskii Krai	24,980.9	5,675.5	1,958.3	3,717.2	50.3
Khabarovsk Krai	23,908.6	5,361.0	2,123.6	3,237.4	399.9
Amur Oblast	12,527.7	2,426.2	959.9	1,466.3	638.0
Kamchatka Oblast	7,841.0	1,460.1	394.5	1,065.6	218.8
Magadan Oblast	5,466.2	1,173.0	341.4	831.6	508.5
Sakhalin Oblast	9,600.1	2,248.7	689.6	1,559.1	405.8
Kaliningrad Oblast	7,494.9	1,618.7	596.2	1,022.5	70.8
Russian Federation*	1,943,118.8	474,468.5	206,800.5	267,668.0	23,212.9

Note:

* Data for the Chechen Republic is excluded.

Sources: Compiled by an author from *Russian Economic Trends* (March 1997); *MFK Renaissance Research* (March 1998) pp. 30-33; *Natsional'nye scheta* (1999), pp. 108-110

GRP	Total tax revenues	Federal budget tax revenues	Regional budget tax revenues	FFRP
(In % of Russian total)				
0.1	0.0	0.0	0.0	0.7
1.1	0.7	0.5	0.9	5.4
2.4	2.1	1.7	2.5	2.7
1.6	1.4	1.3	1.5	1.5
1.5	1.4	1.6	1.3	1.0
0.9	0.9	0.9	0.9	1.0
9.4	11.3	13.1	10.0	1.0
0.5	0.3	0.2	0.4	1.7
0.1	0.0	0.0	0.1	1.2
0.3	0.3	0.1	0.4	0.4
3.0	2.2	1.4	2.8	0.5
2.4	2.0	1.9	2.0	0.6
0.6	0.5	0.3	0.6	1.6
1.4	1.0	0.7	1.3	3.1
0.1	0.0	0.0	0.1	0.7
0.1	0.1	0.1	0.2	1.3
1.3	1.2	0.9	1.4	0.2
1.2	1.1	1.0	1.2	1.7
0.6	0.5	0.5	0.5	2.7
0.4	0.3	0.2	0.4	0.9
0.3	0.2	0.2	0.3	2.2
0.5	0.5	0.3	0.6	1.7
0.4	0.3	0.3	0.4	0.3
100.0	100.0	100.0	100.0	100.0

Table 6: Relative volumes of tax revenues of regions (1996)

Region	Total tax revenues	Federal budget tax revenues	Regional budget tax revenues	Tax revenue retention rates*	Share of FFPR in regional budget revenues	Per capita GRP
	In % of GRP			%	%	RF=1
Karelian Republic	17.4	4.2	13.2	76.0	15.0	0.87
Komi Republic	28.3	12.1	16.2	57.3	1.7	1.32
Arkhangel'sk Oblast	15.9	4.6	11.3	71.0	9.8	0.91
Vologda Oblast	16.3	4.3	12.0	73.7	2.6	1.07
Murmansk Oblast	17.6	5.6	12.0	68.3	0.7	1.19
St. Petersburg City	25.7	11.6	14.1	54.7	1.7	1.05
Leningrad Oblast	22.4	8.8	13.6	60.9	3.3	0.80
Novgorod Oblast	19.7	6.5	13.2	66.9	22.1	0.72
Pskov Oblast	18.6	7.0	11.6	62.5	33.6	0.53
Briansk Oblast	19.0	8.7	10.3	54.1	21.0	0.58
Vladimir Oblast	22.8	8.9	14.0	61.1	13.6	0.59
Ivanovo Oblast	18.3	6.5	11.8	64.6	26.5	0.51
Kaluga Oblast	20.1	8.3	11.9	58.9	12.1	0.67
Kostroma Oblast	18.0	5.9	12.2	67.6	16.7	0.65
Moscow City	39.6	22.8	16.8	42.4	---	2.06
Moscow Oblast	29.8	14.3	15.5	51.9	2.5	0.80
Orel Oblast	20.5	9.7	10.8	52.8	20.3	0.62
Riazan' Oblast	19.9	8.3	11.7	58.5	8.3	0.71
Smolensk Oblast	18.6	7.0	11.6	62.5	13.0	0.65
Tver' Oblast	19.8	6.9	13.0	65.3	10.1	0.66
Tula Oblast	19.7	6.9	12.8	64.8	8.9	0.64
Iaroslavl' Oblast	23.3	11.8	11.5	49.3	0.2	.95
Mari-El Republic	21.7	8.8	12.8	59.2	28.4	0.46
Mordovian Republic	17.3	7.7	9.6	55.5	22.7	0.60
Chuvash Republic	20.7	6.8	13.8	66.9	17.7	0.57
Kirov Oblast	17.3	6.3	11.0	63.5	22.1	0.70
Nizhnii Novgorod Oblast	25.2	12.8	12.4	49.1	4.7	0.87
Belgorod Oblast	19.7	7.5	12.3	62.1	1.3	0.77

Table 6 (continued)

Region	Total tax revenues	Federal budget tax revenues	Regional budget tax revenues	Tax revenue retention rates*	Share of FFPR in regional budget revenues	Per capita GRP
	In % of GRP			%	%	RF=1
Voronezh Oblast	19.4	7.4	12.0	61.7	16.5	0.61
Kursk Oblast	17.7	6.8	10.9	61.7	9.8	0.72
Lipetsk Oblast	20.5	5.6	14.8	72.6	---	0.91
Tambov Oblast	20.9	7.8	13.1	62.7	14.8	0.48
Kalmyk Republic	36.2	21.2	14.9	41.3	52.6	0.31
Tatarstan Republic	20.2	3.8	16.4	81.0	---	1.16
Astrakhan' Oblast	18.1	7.6	10.5	58.2	31.9	0.60
Volgograd Oblast	20.8	8.0	12.8	61.6	8.0	0.81
Penza Oblast	17.9	6.7	11.2	62.6	28.8	0.55
Samara Oblast	23.6	11.0	12.6	53.3	---	1.36
Saratov Oblast	21.3	8.4	12.9	60.6	13.7	0.69
Ulianovsk Oblast	17.6	6.7	10.9	61.9	11.0	0.75
Adygei Republic	17.3	6.5	10.8	62.4	38.6	0.41
Dagestan Republic	10.7	3.7	7.0	65.3	52.9	0.22
Ingush Republic	48.1	43.9	4.2	8.8	70.9	0.21
Kabardino-Balkar Republic	19.0	5.9	13.1	68.8	31.7	0.42
Karachai-Cherkess Republic	16.2	6.4	9.8	60.4	32.2	0.43
North Ossetian Republic	17.8	6.4	11.5	64.4	34.3	0.36
Krasnodar Krai	18.9	7.3	11.6	61.4	13.7	0.68
Stavropol' Krai	19.1	8.4	10.6	55.8	20.3	0.62
Rostov Oblast	20.2	8.1	12.0	59.7	11.3	0.54
Bashkir Republic	19.5	5.3	14.2	73.0	---	1.02
Udmurt Republic	23.6	9.2	14.5	61.1	10.0	0.83
Kurgan Oblast	19.5	7.1	12.4	63.6	23.1	0.57
Orenburg Oblast	21.0	8.2	12.8	61.1	8.3	0.88
Perm' Oblast	22.9	10.1	12.7	55.6	2.1	1.09
Sverdlovsk Oblast	26.5	10.5	15.9	60.1	---	1.09

Table 6 (continued)

Region	Total tax revenues	Federal Budget tax revenues	Regional budget tax revenues	Tax revenue retention rates*	Share of FFPR in regional budget revenues	Per capita GRP
	in % of GRP			%	%	RF=1
Cheliabinsk Oblast	22.6	7.2	15.4	68.1	1.4	1.00
Altai Republic	14.6	6.1	8.5	58.4	54.8	0.47
Altai Krai	16.9	5.3	11.6	68.5	30.8	0.59
Kemerovo Oblast	21.6	7.3	14.3	66.2	7.4	1.17
Novosibirsk Oblast	21.5	8.6	12.9	59.9	7.6	0.88
Omsk Oblast	24.0	11.9	12.1	50.5	5.7	0.99
Tomsk Oblast	23.5	9.9	13.6	57.8	8.7	1.25
Tiumen' Oblast	29.3	14.8	14.6	49.7	0.8	4.37
Buriat Republic	16.3	5.0	11.4	69.6	23.5	0.68
Tyva Republic	13.9	3.8	10.2	73.1	57.1	0.36
Khakass Republic	19.9	3.9	16.0	80.4	9.3	0.81
KrasnoIarsk Krai	18.1	5.1	12.9	71.5	1.7	1.40
Irkutsk Oblast	20.2	8.6	11.6	57.4	2.2	1.25
Chita Oblast	18.6	5.5	13.0	70.2	18.6	0.68
Sakha Republic	17.6	5.0	12.6	71.7	13.7	2.02
Evrei A.Obl.	14.8	4.1	10.7	72.5	47.7	0.54
Chukotka A.O.	24.6	5.3	19.4	78.7	27.7	2.01
PrimorskiI Krai	22.7	7.8	14.9	65.5	1.1	0.84
Khabarovsk Krai	22.4	8.9	13.5	60.4	9.5	1.16
Amur Oblast	19.4	7.7	11.7	60.4	26.7	0.92
Kamchatka Oblast	18.6	5.0	13.6	73.0	13.2	1.45
Magadan Oblast	21.5	6.2	15.2	70.9	24.9	1.62
Sakhalin Oblast	23.4	7.2	16.2	69.3	19.2	1.13
Kaliningrad Oblast	21.6	8.0	13.6	63.2	5.2	0.61
Russian Federation^b	24.4	10.6	13.8	56.4	7.3	1.00
Coefficient of variation	0.25	0.63	0.17	0.16	0.86	0.63

Notes:

* Shares of regional budget tax revenues in total tax revenues

^b Data for the Chechen Republic are excluded

Sources: FFPR data are calculated from *MFK Renaissance Research* (March 1998), pp. 30-33. Per capita GRP data are calculated from *Natsional'nye scheta* (1999), pp. 111-113. Other data are calculated from Table 5.

excluded in the final round. Four variables were taken into account: ratios of tax revenues to GRP; the tax revenue retention rate; the share of FFPR in regional budget revenues; and per capita GRP. All this data is reported in Table 6.

According to cluster analysis, Russia's regions were classified into five groups.²³ Chart 3 illustrates this result. The first principal component indicates regional wealth and the second regional "independence."²⁴

As shown in Table 7, the first group includes relatively affluent regions, which pay heavily to the federal budget and receive little from it. Moscow and Tiumen' also belong to this group.

The second group are relatively rich regions that finance their budget by disproportionately retaining tax revenue. They do not rely on financial support from the center. Most of these regions are located in the northern area,²⁵ and include four republics (Karelian, Tatarstan, Bashkir, and Sakha Republics) which determine their own tax retention rates.²⁶

The third group comprises "medium" regions with per capita GRP 50-80 per cent below Russia's average (See the last column of Table 6). Most of these regions are located in central European Russia. Northern and Siberian regions are not included.

The fourth group is composed of relatively poor regions that rely heavily on financial support from the federal budget.²⁷

Finally, the fifth group represents the poorest regions of Russia. The Ingush, Chechen, and Kalmyk Republics could also be included.

The typology presented here is unusual because it combines budget and tax revenue indicators with a wealth indicator (GRP indicator). In contrast with the Lavrov group's "budget independence" typology, northern regions like Chuktoka, Magadan, Kamchatka and Sakhalin are classified in a higher category because their GRP is high. Likewise we rank the Karelian, Tatarstan, Bashkir, and Sakha Republics in the second category instead of treating them as "privileged republics."²⁸

Concluding remarks

The evidence suggests there is a fivefold pattern of financial flows among regions.²⁹ The first group, plus Moscow and Tiumen', finance most of federal budget expenditures, by producing the mass of Russia's wealth. The second, which is also relatively productive, finances its own budgets with its own tax revenues. The regions

Table 7: Classification of Russian regions in terms of GRP and budget indicators

<p>First Group (20 regions): St. Petersburg City, Leningrad, Komi Republic, Moscow Oblast, Iaroslavl', Nizhnii Novgorod, Volgograd, Samara, Udmurt Republic, Perm', Sverdlovsk, Cheliabinsk, Orenburg, Omsk, Novosibirsk, Tomsk, Kemerovo, Irkutsk, Khabarovsk Krai, Primorskii Krai</p>
<p>Second Group (14 regions): Murmansk, Karelian Republic, Arkhangel'sk, Vologda, Lipetsk, Tatarstan Rep., Bashkir Republic, Krasnoarsk, Khakass Republic, Sakha Republic, Chukotka A.O., Magadan, Kamchatka, Sakhalin</p>
<p>Third Group (21 regions): Kaliningrad, Tver', Smolensk, Briansk, Kaluga, Orel, Tula, Riazan', Vladimir, Kursk, Belgorod, Voronezh, Tambov, Mordovian Republic, Mari El Republic, Ul'ianovsk, Saratov, Astrakhan', Rostov, Stavropol' Krai, Krasnodar Krai</p>
<p>Fourth Group (16 regions): Novgorod, Pskov, Ivanovo, Kostroma, Penza, Chuvash Republic, Kirov, Kurgan, Adygei Republic, Karachai-Cherkess Republic, Kabardino-Balkar Republic, North Ossetian Republic, Altai Krai, Buriat Republic, Chita, Amur</p>
<p>Fifth Group (4 regions): Dagestan Rep., Altai Republic, Tyva Rep., Evrei A.Obl.</p>

that belong to the fourth and fifth groups receive large amounts of financial support from the federal budget.

Analyses of regional industrial structure may shed further light on the relationship between interregional income generation and distribution, and will be undertaken soon.

An Analysis of Russia's Embryonic Globalization: Regional Foreign Trade and Hard Currency Receipts¹

Akira Uegaki

Introduction

Are Russia's regions integrating into the global economy? The opening of the Russian economy was expected to destroy the country's old economic structure and stimulate the development of internationally competitive industries. Has this occurred? In this chapter, data on regional exports (oblasts, krais, okrugs, etc.) are used to investigate this question. They show the involvement of each region in the world economy. Exports, however, are not the only aspect of regional foreign economic relations. Financial and monetary flows are also important. Their effects are studied with data on regional "foreign currency receipts."²

Regional export inertia

Table 1 reports Russia's top ten exporting regions ranked on a per capita basis, and valued in American dollar prices. A total of 22 regions are listed. Seven³ are mineral rich with fuels, ferrous and non-ferrous metals accounting for more than 50 per cent of regional industrial production in 1995.⁴ Four to five mineral rich regions were among the top ten 1990-91 and 1993-95. The economy of two other high ranked regions⁵ were forestry⁶ and fishery intensive,⁷ confirming that Russia's exports are still natural resource oriented. It also shows that the collapse of the Soviet Union did not have any significant effect on the regional structure of Russian exports. This finding is unaltered in 1997 if we exclude Moscow City (See Table 2).⁸

The least active 20 exporting regions per capita are presented in Table 4, divisible into three groups. The first includes frontier regions located in Siberia or the Far East. They are Kurgan, Altai Krai, Novosibirsk, Omsk, Buriat Republic, Tyva Republic, Chita, Evrei Autonomous Oblast., Chukotka Autonomous Okrug, Amur, and Magadan. These regions have substantial non-Russian populations. The second group includes the North Caucasus (where many non-Russians also reside), Astrakhan', Dagestan Republic, Krasnodar Krai, Adygei Republic,

Table 1: Top 10 regions by export volume (1990-1995), per capita, US\$¹

1990		
1	Tiumen ²	78.3
2	Samara	28.2
3	Karelian Republic	24.9
4	Murmansk	23.0
5	Arkhangel'sk ³	20.6
6	Krasnoïarsk Krai ⁴	18.9
7	Vologda	15.7
8	Irkutsk ⁵	13.1
9	Primorskii Krai	11.7
10	Sakha Republic	11.4
	Russian Average	8.4

1991		
1	Tiumen ²	35.8
2	Murmansk	12.9
3	Samara	10.8
4	Karelian Republic	9.9
5	Khakass Republic	7.8
6	Krasnoïarsk Krai ⁴	7.4
7	Arkhangel'sk ³	7.0
8	Vologda	6.3
9	Kamchatka	6.2
10	Irkutsk ⁵	5.9
	Russian Average	3.7

1992		
1	Tiumen ²	311.6
2	Samara	311.5
3	Tomsk	213.3
4	Volgograd	204.5
5	Belgorod	113.9
6	Sverdlovsk	106.0
7	Krasnoïarsk Krai ⁴	99.0
8	Sakhalin	94.5
9	Irkutsk ⁵	87.1
10	Smolensk	84.3
	Russian Average	49.2

1993		
1	Tiumen ²	888.9
2	Samara	611.3
3	Vologda	442.8
4	Murmansk	341.4
5	Lipetsk	281.4
6	Khabarovsk Krai	276.6
7	Krasnoïarsk Krai ⁴	236.1
8	Karelian Republic	215.0
9	Sakhalin	211.1
10	Khakass Republic	207.0
	Russian Average	109.5

Table 1 (continued)

1994		
1	Vologda	802.2
2	Samara	604.5
3	Lipetsk	439.6
4	Tiumen ²	435.5
5	Kamchatka	407.1
6	Kemerovo	352.5
7	Krasnoiarsk Krai ⁴	342.8
8	Murmansk	331.2
9	Perm ¹	296.9
10	Karelian Republic	277.4
	Russian Average	157.4

1995		
1	Vologda	1193.0
2	Irkutsk	1086.4
3	Tiumen ²	946.5
4	Lipetsk	921.9
5	Sakha Republic	774.1
6	Samara	740.2
7	Karelian Republic	726.1
8	Kamchatka	694.5
9	Murmansk	681.6
10	Krasnoiarsk Krai ⁴	672.1
	Russian Average	547.8

Notes:

¹author calculated simple annual average from the data of simple monthly average of MICEX exchange rates.

²Including Khanty Mansi A.O. and Yamalo-Nenets A.O.

³Including Nenets A.O.

⁴Including Taimyr A.O. and Evenki A.O.

⁵Including Ust-Ordyn Burlat A.O.

Sources: Export volume: *Rossiiskii statisticheskii ezhegodnik* (Goskomstat Rossii, 1996), pp. 898-903 [in Rubles]; Exchange rate: Database of *Russian Economic Trends* [Monthly average rate of MICEX]; Population: *Rossiiskii statisticheskii ezhegodnik* (Goskomstat Rossii, 1998), pp. 99-100.

Ingush Republic (including the Chechen Republic), Kabardino-Balkar Republic, Karachai-Cherkess Republic, and North Ossetian Republic (Alaniia). The regions of the third group are located 200-500 km away from Moscow, and include Pskov, Bryansk, Ivanovo, Kaluga, Kostroma, Orel, Tver', Chuvash Republic, Mari-El Republic, Mordovian Republic, Voronezh, Tambov, Penza, and Ul'ianovsk. This doughnut shaped area is agricultural, with some districts having traditional industries like textiles in Ivanovo, passenger car and freight cars in Bryansk and Tver', and buses in Ul'ianovsk. Some non-Russian regions (Chuvash, Mari-El and Mordovian Republics) are part of this group.⁹

Table 4 reveals first that the structure of the low exporting regions did not change after the collapse of the Soviet Union. Second, since many of these regions are non-Russian it

Table 2: Top 10 regions by export volume (1997), per capita

(excluding Moscow City, US\$)

1997		
1	Tiumen ¹	3425.0
2	Murmansk	1230.4
3	Krasnoiarsk Krai ¹	1129.2
4	Vologda	1097.5
5	Lipetsk	1025.6
6	Leningrad	878.5
7	Tomsk	857.0
8	Irkutsk ¹	822.0
9	Kamchatka	794.6
10	Kemerovo	775.9
	Russian Average ²	411.9

Notes:

¹Same as Table 1

²Excluding Moscow City

Sources: Export Volume: *Rossiiskii statisticheskii ezhegodnik*

(Goskomstat Rossii, 1998), pp. 743-744. [in US\$]; Population:

Rossiiskii statisticheskii ezhegodnik (Goskomstat Rossii, 1998), pp. 99-100.

follows that non-Russian regions export little, in part because they have been dragged into wars. Regions of the third group have been inactive because the center of the Soviet state around Moscow has been relatively unaffected by Yeltsin's market transition.¹⁰

Tables 1 and 4 confirm that the regional structure of exports has not changed since the collapse of the Soviet Union for the top 10 and the bottom 20 regions. No new region has prospered because of close foreign ties. Autarkic regions before 1991, remained so in 1997. A detailed study of the data leads to another interesting result. Table 5 presents coefficients of variation derived from per capita export data for 71 of 89 Russian regions. Data for 18 regions are omitted because they are incomplete. The coefficient of variation is a good indication of

Table 3: Top 10 regions by export volume (1997), per capita

(including Moscow City, US\$)

1997		
1	Tiumen ¹	3425.0
2	Moscow City	2749.0
3	Murmansk	1230.4
4	Krasnoïarsk Krai ¹	1129.2
5	Vologda	1097.5
6	Lipetsk	1025.6
7	Leningrad	878.5
8	Tomsk	857.0
9	Irkutsk ¹	822.0
10	Kamchatka	794.6
	Russian Average ²	548.8

Notes:

¹Same as Table 1

²Including Moscow City

Sources: Export Volume: *Rossiiskii statisticheskii ezhegodnik* (Goskomstat Rossii, 1998), pp. 743-744. [In US\$]; Population: *Rossiiskii statisticheskii ezhegodnik* (Goskomstat Rossii, 1998), pp. 99-100.

data diffusion. The larger it is, the wider the difference between groups. The coefficients of variation in Table 5 show that the differences, which had widened after the collapse of the Soviet Union, narrowed in 1994 and 1995, and then reverted to the level of 1991 (excluding Moscow) due to Russia's "Corridor," a policy which overvalued the ruble and depressed exports other than natural resources perpetuating Russia's traditional regional structure.¹¹

Regional foreign currency inflows

Table 6 and 7 show the ranking of Russian regions by total and per capita foreign currency receipts.¹² They confirm the predominant status of Moscow. Table 9 provides further detail.

Table 4: Regions with least export (US\$, per capita)

1990			1997		
1	Mari El Republic	0.8	1	Tuva Republic	1.6
2	Pskov	1.0	2	Chukotka A.O.	5.9
3	Dagestan Republic	1.1	3	Adygei Republic	8.7
4	North Ossetian Republic	1.1	4	Evrei A.Obl.	14.0
5	Chita	1.2	5	Mordovian Republic	20.2
6	Tambov	1.2	6	Karachai-Cherkess Republic	22.5
7	Kabardino-Balkar Republic	1.5	7	Kabardino-Balkar Republic	24.6
8	Mordovian Republic	1.6	8	Mari El Republic	29.2
9	Magadan	1.6	9	Penza	31.6
10	Kurgan	1.7	10	Tambov	33.8
11	Tver	1.8	11	Dagestan Republic	38.1
12	Kaluga	1.9	12	Amur	50.7
13	Novosibirsk	2.1	13	Ivanovo	51.7
14	Astrakhan'	2.2	14	Orel	52.2
15	Buriat Republic	2.5	15	Briansk	55.3
16	Omsk	3.0	16	Chuvash Republic	60.7
17	Penza	3.1	17	Kostroma	68.7
18	Voronezh	3.1	18	Altai Krai	68.9
19	Briansk	3.1	19	Krasnodar Krai	74.2
20	Ingush Republic	3.2	20	Ul'ianovsk	75.5
Russian Average		8.4	Russian Average		411.9

Sources: Export Volume: *Rossiiskii statisticheski ezhegodnik* (Goskomstat Rossii, 1998), pp. 743-744. [in US\$]; Population: *Rossiiskii statisticheski ezhegodnik* (Goskomstat Rossii, 1998), pp. 99-100.

Half of the foreign currency that came into Russia went to Moscow in 1996 and almost half in 1997,¹³ after foreign access to Moscow's capital market was liberalized in 1995-96. The "Corridor" also strengthened Moscow's participation in the global

Table 5: Difference in per capita export volume ¹

	1990	1991	1992	1993	1994	1995	1997 ²	1997 ³
Standard Deviation (US\$)	10.15	4.64	61.45	143.28	154.00	283.40	551.01	477.33
Average (US\$)	7.70	3.30	46.35	102.43	136.94	268.05	399.29	365.72
Coefficient of Variation (%)	131.70	140.41	132.59	139.88	112.46	105.73	138.00	130.54

Notes:

¹Using data from 71 regions which are available entirely from 1990-1995 and 1997.

²Including Moscow City.

³Excluding Moscow City.

Sources: Export volume: *Rossiiskii statisticheskii ezhegodnik* (Goskomstat Rossii, 1996), pp. 898-903 [In Rubles];

Exchange rate: Database of *Russian Economic Trends* [Monthly average rate of MICEX]; Population: *Rossiiskii statisticheskii ezhegodnik* (Goskomstat Rossii, 1998), pp. 99-100.

economy as part of the government's new stabilization policy in the second half of 1995.

The high rankings of Tiumen' Oblast and the Tatarstan Republic are, of course, the result of oil. Steel regions like Vologda and Lipetsk improved their ranking. But Samara's position is deteriorating. Although Samara maintained a high export rank until 1995 (see Tables 1-3), its foreign currency receipts have been declining since 1993, especially after 1994. Table 10 shows that Samara's per capita receipts fell absolutely after 1994 while the all-Russian average increased until 1997. Despite its large industrial base, Samara's has been de-coupling from the world economy due to the overvalued rouble.

What is the situation in the low exporting regions? Regions poorly ranked in Table 4 get a bad ranking in Tables 6 and 7. Low exports generate small foreign currency receipts. But how small? Table 11 shows the dispersion in per capita foreign currency receipts between the upper and lower groups. The trend is the same as in the export case. The coefficient of variation lowered until 1994-95 and then rose again. But the coefficients of variation in Table 11 are larger than in Table 5, implying that the difference in exports leads to wider differences in foreign currency receipts. Considering that the access to foreign currency is vital in Russia, Table 11 can be construed as statistical reflection of the adage that the rich get richer and the poor get poorer.

The introduction of the "Corridor" and the granting of foreign access to the GKO/OFZ market in 1995 appears to have made Moscow Russia's preeminent recipient of foreign currency, making it a prosperous money center. This illuminates one

Table 6: Ranking by region's total receipt of foreign currency*

Region	1992	1993	1994	1995	1996	1997
1 Karelian Republic	36	20	42	41	37	38
2 Komi Republic	10	18	29	24	29	27
3 Arkhangel'sk Oblast	16	22	31	29	27	24
4 Vologda Oblast	25	21	19	21	19	8
5 Murmansk Oblast	13	19	21	22	33	33
6 St. Petersburg City	15	4	8	4	4	3
7 Leningrad Oblast	6	25	25	34	24	23
8 Novgorod Oblast	39	43	41	45	36	31
9 Pskov Oblast	66	71	64	65	63	60
10 Bryansk Oblast	52	52	60	66	62	55
11 Vladimir Oblast	70	54	59	55	53	46
12 Ivanovo Oblast	55	69	71	70	72	71
13 Kaluga Oblast	61	62	54	19	58	61
14 Kostroma Oblast	53	63	62	64	61	62
15 Moscow City	1	1	1	1	1	1
16 Moscow Oblast	23	27	7	12	9	6
17 Orel Oblast	65	61	63	62	54	52
18 Riazan' Oblast	31	42	35	39	44	51
19 Smolensk Oblast	33	37	37	37	39	39
20 Tver' Oblast	56	53	52	50	59	59
21 Tula Oblast	41	38	33	18	35	28
22 Yaroslavl' Oblast	34	41	38	43	41	43
23 Mari El Republic	69	72	66	60	66	70
24 Mordovian Reptublic	57	65	74	74	71	68
25 Chuvash Republic	54	56	55	47	52	58
26 Kirov Oblast	47	47	50	49	51	50
27 Nizhni Novgorod Oblast	12	17	18	17	15	18
28 Belogorod Oblast	24	14	28	23	21	32
29 Voronezh Oblast	49	51	53	56	43	48
30 Kursk Oblast	42	46	47	48	48	47

Table 6 (continued)

Region	1992	1993	1994	1995	1996	1997
31 Lipetsk Oblast	20	30	16	10	12	7
32 Tambov Oblast	60	59	67	69	64	66
33 Kalmyk Republic	66	75	69	61	69	63
34 Tartarstan Republic	7	9	10	9	7	9
35 Astrakhan' Oblast	59	57	58	59	57	56
36 Volgograd Oblast	9	24	27	25	28	37
37 Penza Oblast	58	58	61	63	56	49
38 Samara Oblast	3	3	4	8	6	10
39 Saratov Oblast	21	39	40	40	42	41
40 Ul'ianovsk Oblast	49	49	57	53	49	45
41 Adygei Republic	68	69	73	68	73	77
42 Dagestan Republic	48	55	68	71	67	65
43 Ingush Republic	71	74	77	76	76	75
44 Karachai-Cherkess Republic	74	77	76	73	75	73
45 North Ossetian Republic	64	67	70	67	68	72
46 Krasnodar Krai	21	13	23	26	20	21
47 Stavropol' Krai	44	45	43	42	40	40
48 Rostov Oblast	42	44	39	35	31	29
49 Bashkir Republic	4	8	11	16	14	14
50 Udmurt Republic	30	36	36	44	38	36
51 Kurgan Oblast	51	40	51	51	55	64
52 Orenburg Oblast	26	28	32	33	23	22
53 Perm' Oblast	11	16	15	15	17	17
54 Sverdlovsk Oblast	38	11	14	13	13	12
55 Cheliabinsk Oblast	39	15	17	27	22	16
56 Altai Republic	71	73	65	72	70	69
58 Altai Krai	63	48	44	46	50	54
59 Kemerovo Oblast	29	23	6	7	11	20
60 Novosibirsk Oblast	46	33	3	5	30	35
61 Omsk Oblast	32	26	26	31	34	4

Table 6 (continued)

Region	1992	1993	1994	1995	1996	1997
62 Tomsk Oblast	28	32	22	20	16	15
63 Tiumen' Oblast	2	2	2	3	2	2
64 Buriat Republic	75	60	49	57	65	57
65 Tyva Republic	75	75	75	77	77	76
66 Khakass Republic	62	66	45	38	47	44
67 Krasnolarsk Krai	7	5	5	6	5	11
68 Irkutsk Oblast	17	12	9	2	3	5
69 Chita Oblast	44	50	46	52	45	53
70 Sakha Republic	5	10	13	11	10	19
71 Evrel A.Obl.	75	67	72	75	74	74
72 Primorskii Krai	14	6	12	14	8	13
73 Khabarovsk Krai	18	7	24	30	18	30
74 Amur Oblast	71	64	56	58	60	67
75 Kamchatka Oblast	27	29	30	28	32	34
76 Magadan Oblast	37	34	48	54	46	42
77 Sakhalin Oblast	18	31	20	36	26	25
78 Kaliningrad Oblast	35	35	34	32	25	26

Notes:

* Receipt of foreign currencies in the current accounts of enterprises and organizations located in the regions concerned. Several regions are omitted because the data are too small or missing.

Sources: 1992: *Vneshneekonomicheskie svyazi respublik, kraev i oblastei Rossiiskoi Federatsii v 1992 godu* (Moscow: Goskomstat Rossii, 1993); 1993-1995: *Rossiiskii statisticheskii ezhegodnik* (1996), pp. 936-938; 1996-1997: *Finansy Rossii* (Goskomstat Rossii, 1998), pp. 116-119.

Table 7: Ranking by region's per capita receipt of foreign currency *

	1992	1993	1994	1995	1996	1997
1 Karelian Republic	22	7	31	26	22	26
2 Komi Republic	8	13	16	18	21	16
3 Arkhangel'sk Oblast	13	16	26	27	25	20
4 Vologda Oblast	18	14	15	16	12	4
5 Murmansk Oblast	9	11	8	11	23	23
6 St. Petersburg City	34	21	24	23	11	11

Table 7 (continued)

	<i>1992</i>	<i>1993</i>	<i>1994</i>	<i>1995</i>	<i>1996</i>	<i>1997</i>
7 Leningrad Oblast	6	22	22	34	26	21
8 Novgorod Oblast	25	30	27	30	18	13
9 Pskov Oblast	68	71	66	66	62	59
10 Bryansk Oblast	52	50	63	69	69	56
11 Vladimir Oblast	73	56	65	57	58	51
12 Ivanovo Oblast	57	70	74	72	74	72
13 Kaluga Oblast	63	64	50	8	60	62
14 Kostroma Oblast	48	59	58	63	55	60
15 Moscow City	1	2	1	1	1	1
16 Moscow Oblast	41	45	33	37	32	22
17 Orel Oblast	67	60	64	64	51	43
18 Riazan Oblast	30	39	34	35	42	49
19 Smolensk Oblast	26	26	28	29	30	37
20 Tver' Oblast	62	54	56	54	64	65
21 Tula Oblast	40	41	38	22	34	29
22 Yaroslavl' Oblast	33	40	41	40	41	44
23 Mari-El Republic	69	73	67	55	65	69
24 Mordovian Republic	56	67	75	73	70	68
25 Chuvash Republic	55	58	55	43	52	61
26 Kirov Oblast	42	44	53	52	53	53
27 Nizhnii Novgorod Oblast	27	35	36	32	27	31
28 Belogorod Oblast	19	10	20	20	20	30
29 Voronezh Oblast	53	52	61	62	49	57
30 Kursk Oblast	35	42	44	47	46	46
31 Lipetsk Oblast	12	19	7	6	5	3
32 Tambov Oblast	66	62	71	71	68	67
33 Kalmyk Republic	58	76	60	44	54	42
34 Tatarstan Republic	20	24	18	21	19	19
35 Astrakhan' Oblast	59	53	57	60	57	55
36 Volgograd Oblast	17	31	39	36	36	40

Table 7 (continued)

	<i>1992</i>	<i>1993</i>	<i>1994</i>	<i>1995</i>	<i>1996</i>	<i>1997</i>
37 Penza Oblast	64	66	68	68	63	52
38 Samara Oblast	4	8	9	14	14	18
39 Saratov Oblast	31	43	47	48	50	48
40 Ulianovsk Oblast	47	47	59	53	48	47
41 Adygei Republic	65	63	70	67	73	76
42 Dagestan Republic	49	65	72	74	72	70
44 Ingush Republic	71	74	77	75	76	77
45 Karachai-Cherkess Republic	74	77	76	70	75	71
46 North Ossetian Republic	61	68	69	65	67	74
47 Krasnodar Krai	38	34	42	46	40	38
48 Stavropol' Krai	43	49	49	50	45	45
49 Rostov Oblast	51	55	54	51	44	41
50 Bashkir Republic	11	23	25	31	29	32
51 Udmurt Republic	32	33	37	41	35	35
52 Kurgan Oblast	44	37	48	45	56	64
53 Orenburg Oblast	29	32	40	39	31	25
54 Perm' Oblast	23	25	23	25	24	24
55 Sverdlovsk Oblast	50	28	32	33	28	34
56 Cheliabinsk Oblast	46	29	35	42	39	28
57 Altai Republic	60	72	45	61	47	50
58 Altai Krai	70	51	51	56	61	63
59 Kemerovo Oblast	39	36	13	12	17	33
60 Novosibirsk Oblast	45	38	6	7	38	39
61 Omsk Oblast	36	27	30	38	37	5
62 Tomsk Oblast	16	20	11	9	7	7
63 Tiumen' Oblast	2	1	2	3	2	2
64 Buriat Republic	75	61	46	58	66	58
65 Tyva Republic	75	75	73	77	77	75
66 Khakass Republic	54	57	29	15	33	36

Table 7 (continued)

	1992	1993	1994	1995	1996	1997
67 KrasnoIarsk Krai	14	15	10	10	9	14
68 Irkutsk Oblast	28	17	14	2	4	6
69 Chita	37	46	43	49	43	54
70 Sakha Republic	3	3	3	4	3	10
71 Evrei A.Obl.	75	48	62	76	71	73
72 PrimorskiI Krai	21	9	12	17	10	15
73 Khabarovsk Krai	15	6	19	28	16	27
74 Amur Oblast	72	69	52	59	59	66
75 Kamchatka Oblast	5	5	4	5	6	8
76 Magadan Oblast	10	4	21	24	15	17
77 Sakhalin Oblast	7	12	5	13	8	9
78 Kaliningrad Oblast	24	18	17	19	13	12

Notes:

* Receipt of foreign currencies in the current accounts of enterprises and organizations located in the regions concerned. Several regions are omitted because the data are too small or missing.

Sources: 1992: *Vneshneekonomicheskie svyazi respublik, kraev i oblastei Rossiiskoi Federatsii v 1992 godu* (Moscow: Foskomstat Rossii, 1993); 1993-1995: *Rossiiskii statisticheskiI ezhegodnik* (1996), pp. 936-938; 1996-1997: *Finansy Rossii* (Goskomstat Rossii, 1998), pp. 116-119; 1998: *Rossiiskii statisticheskiI ezhegodnik* (1998), p. 99-100 [Population, as of January 11].

aspect of the question posed in the introduction. Has the emergence of new globally integrated industries brought prosperity to any of Russia's regions? No! Moscow certainly has prospered, but its superior performance is less an artifact of globally induced structural change than its continuing privileged status.¹⁴

The "Corridor": evidence from three regions

Tables 12-14 provide export data for Vologda, Orel and Rostov.¹⁵ What is interesting here is that about 95 per cent of the exports of Vologda go to non-CIS countries, whereas only two-thirds of Orel's exports went to these nations in 1996, even though the geographical setting is similar in the two oblasts. Apparently regions with hard currency exports prosper and build new international networks. Regions without them stagnate and retain their old economic ties.

Table 8: Receipt and consumption of foreign currency by region (million US\$) [an extract]

	1995			Receipt
	Receipt	Consumption	Remaining amount at the end of the year	
Russian Federation	64,412.8	65,046.7	2,737.6	72,985.5
North Territory	2,282.8	2,300.4	51.5	1,993.9
Karelian Republic	217.1	221.2	5.4	249.0
Komi Republic	508.8	507.4	15.6	392.6
Arkhangel'sk Oblast	399.5	404.9	11.4	403.4
including Nenets A.O.	0.4	0.5	0.1	108.6
Vologda Oblast	580.0	591.2	1.3	619.6

Note:

There is an inconsistency among figures in Table 8. If we suppose "receipt" in a year n is R_n and "consumption" C_n , and "remaining amount" RA_n , the following equation must be formed. $RA_n = R_n - C_n + RA_{n-1}$. But the figures in Table 8 violate this equality. Interest and exchange rates fluctuation of the currencies other than US dollar may explain the discrepancy.

Table 9: Foreign currencies in Moscow

	1992	1993	1994	1995	1996	1997
Receipt (Million US\$)	5,368.0	9,168.2	15,570.1	22,564.9	36,990.7	38,600.1
% in Russia's total	39.4	32.0	36.8	35.0	50.7	47.1
Receipt, per capita (US\$)	599.3	1,032.3	1,770.7	2,588.6	4,269.5	4,468.1
Consumption (Million US\$)	2,568.0	9,392.0	1,6712.7	2,2743.6	37,780.1	38,382.3
% in Russia's total	27.4	33.3	37.2	35.0	50.9	47.1
Consumption, per capita (US\$)	296.8	1,057.5	1,900.7	2,609.1	4,360.6	4,442.9

Sources: 1992: *Vneshneekonomicheskie svyazi respublik, kraev i oblastei Rossiiskoi Federatsii v 1992 godu* (Moscow: Goskomstat Rossii, 1993); 1993-1995: *Rossiiskii statisticheskiy ezhegodnik* (1996), pp. 936-938; 1996-1997: *Finansy Rossii* (Goskomstat Rossii, 1998), pp. 116-119.

1996		1997		
Consumption	Remaining amount at the end of the year	Receipt	Consumption	Remaining amount at the end of the year
74,181.4	1,939.3	81,992.3	81,514.2	2,453.3
2,000.6	40.3	3,457.6	3,442.9	54.3
255.1	2.0	206.8	207.4	2.0
394.7	15.4	497.5	476.9	35.9
404.1	12.4	542.9	547.7	7.3
111.4	0.3	107.3	107.3	0.2
613.5	4.7	1,871.6	1,871.6	4.6

Source: *Finansy Rossii* (Goskomstat Rossii, 1998), pp. 117.

Tables 12-14 display a common pattern. Exports rose until 1995, then stagnated. It is obvious that this was caused by the "Corridor". But the effect of the "Corridor" on imports is less clear. While in Vologda imports decreased slightly after 1995, Orel's imports jumped up from 1995 to 1996. In Rostov, imports stagnated after 1994, but non-CIS imports grew. The discrepancy between the behavior of exports and imports perhaps is explained by the fact that the imports are not always registered at the local customs office located in the place of final consumption.

Tables 15-20 show the export and import structure of the three regions. Tables 15-16 indicate the importance of the steel industry in Vologda —much of it exported to the USA.¹⁶ The share of "steel and precious metal" in Vologda's imports jumped in 1995. Here "steel and precious metal" were material inputs for the steel industry. The surge was due to lower imported materials cost for the steel industry brought about by the "Corridor."

As for the export and import structure of Orel, we see a discontinuity between 1995 and 1996, but it is difficult to interpret. "Machine" exports surged, while "mineral" exports contracted.

Table 10: Receipt of foreign currency per capita in Samara

	1992	1993	1994	1995	1996	1997
Per capita in Samara (US\$)	273.6	365.6	400.0	441.7	427.7	410.0
Per capita in Russia (US\$)	85.0	192.5	285.0	434.3	492.3	555.9

Sources: 1992: *Vneshneekonomicheskie svyazi respublik, kraev i oblastei Rossiiskoi Federatsii v 1992 godu* (Moscow: Goskomstat Rossii, 1993); 1993-1995: *Rossiiskii statisticheskiy ezhegodnik* (1996), pp. 936-938; 1996-1997: *Finansy Rossii* (Goskomstat Rossii, 1998), pp. 116-119.

Table 11: Difference in per capita foreign currency receipt¹

	1992	1993	1994	1995	1996	1997
Standard Deviation (US\$)	110.31	205.53	270.14	449.62	542.51	618.96
Average (US\$) ²	61.74	142.96	192.24	302.62	286.42	331.47
Coefficient of Variation (%)	178.66	143.77	140.52	148.58	189.41	186.71

Notes:

¹Using data from 77 regions which are available entirely from 1992 to 1997.

²Simple average without considering the weight of population of each region.

Therefore these are different from the figures in the second line in Table 10.

Sources: 1992: *Vneshneekonomicheskie svyazi respublik, kraev i oblastei Rossiiskoi Federatsii v 1992 godu* (Moscow: Goskomstat Rossii, 1993); 1993-1995: *Rossiiskii statisticheskiy ezhegodnik* (1996), pp. 936-938; 1996-1997: *Finansy Rossii* (Goskomstat Rossii, 1998), pp. 116-119.

Table 12: Foreign trade of Vologda (million US\$)

	1993	1994	1995	1996	1997	1998
Export	520	972	1614	1548	1590	1540
to other than the CIS	--	--	1540	1464	1510	1474
Import	65	64	274	256	253	230
from other than the CIS	--	--	121	115	109	113

Sources: *Vologodskaya oblast' v tsifrah 1998* (Vologda: Goskomstat, Vologodskii oblkomstat, May 1998), pp. 58; *Vologodskaya oblast' v 1997 godu, Ezhegodnik* (Vologda: Goskomstat, Vologodskii oblkomstat, September 1998), pp. 252; *Administratsiya Vologodskoi oblasti*, <<http://vologda.ru/~avo/Rus/Foreign.ht>> ml>

Table 13: Foreign trade of Orel (current price, million US\$)

	1992	1993	1994	1995	1996
Export	2.6	14.9	39.2	97.2	61.0
to other than the CIS	2.6	14.9	23.8	67.2	41.5
Import	1.9	6.2	12.3	35.3	90.0
from other than the CIS	--	--	59.2	45.9	38.3

Source: *Orlovskaja oblast' 1990-1996gg, Statisticheskii ezhegodnik* (Orel: Goskomstat, Orlovskii oblikomstat, 1997), pp. 348.

Table 14: Foreign trade of Rostov (current price, million US\$)

	1994	1995	1996	1997
Export	1233.2	1511.5	1509.7	1293.1
to other than the CIS	599.3	621.6	783.2	796.8
Import	678.5	779.6	784.5	736.2
from other than the CIS	320.9	292.8	352.1	425.9

Sources: *Rostovskaja oblast', Statisticheskii ezhegodnik, 1997* (Rostov-na-Danu: Goskomstat, Rostovskii oblikomstat, 1998), pp. 310.

Rostov's trade structure is also interesting. While the export share of "machinery and equipment" has been decreasing, the "food" share rose in 1996. "Fuel, mineral resources and metal" export shares increased until 1995, but then decreased. On the import side, the share of "industrial consumer goods" showed an acute decline, as did the "food" share. By contrast, the "machinery and equipment" share increased. Apparently the "Corridor" favored the imports of "machine and equipment" strengthening the industrial bases of Rostov oblast. What distinguishes Rostov from other regions is the complicated transformation of its trade structure. It is difficult to attribute it to one simple cause, but it seems to reflect market opportunities.

The common denominator of Tables 12-20 is the break 1995-1996, caused by the "Corridor." But its effect differed region by region. Looking at the Russian economy as a whole, the "Corridor" strengthened the traditional Soviet structure of international economic relations among Russia's regions.¹⁷ At the

Table 15: Export structure of Vologda (per cent) *

	1993	1994	1995	1996	1997	1998
Machine building products	1.1	1.0	2.0	1.9	2.2	1.4
Steel and precious metal	70.4	71.8	73.9	76.3	76.0	74.9
Chemical products	24.2	21.6	15.8	14.9	15.7	17.2
Wood and wood products	3.4	4.6	6.6	4.7	4.8	5.4
Fuel-energy products	0.5	0.3	--	0.2	0.4	0.3
Food and materials for food	0.1	--	0.4	1.0	0.1	0.1
Other	0.3	0.7	1.3	1.0	0.8	0.4

Notes:

* Against the whole world

Sources: *Vologodskaja oblast' v tsifrakh 1998* (Vologda: Goskomstat, Vologodskii oblkomstat, May 1998), pp.58; *Administratsiia Vologodskoi oblasti*, <<http://vologda.ru/~avo/Rus/Foreign.html>>**Table 16: Import structure of Vologda (per cent) ***

	1993	1994	1995	1996	1997	1998
Machine building products	54.8	56.0	36.7	36.7	40.7	35.9
Steel and precious metal	12.3	0.6	36.4	37.6	38.5	38.8
Chemical products	1.1	1.1	4.1	3.2	4.4	4.2
Wood and wood products	--	--	0.6	0.4	0.4	0.6
Fuel-energy products	--	0.8	0.3	0.3	0.2	1.7
Food and materials for food	17.9	7.3	11.8	14.0	6.0	2.6
Other	13.9	34.2	10.1	7.8	9.8	16.2

Notes:

* Against the whole world

Sources: *Vologodskaja oblast' v tsifrakh 1998* (Vologda: Goskomstat, Vologodskii oblkomstat, May 1998), pp. 59; *Administratsiia Vologodskoi oblasti*, <<http://vologda.ru/~avo/Rus/Foreign.html>>

Table 17: Export structure of Orel (per cent) *

	1992	1993	1994	1995	1996
Machine, equipment and means of transportation	11.1	6.5	12.1	9.1	25.0
Mineral products	--	0	1.0	1.0	--
Metal and precious stones	87.8	86.8	69.3	65.1	49.6
Chemical products, rubber	1.0	0.7	0.1	0.1	--
Wood and paper	--	0.5	0.5	0	--
Textiles	--	1.7	0.3	0.3	--
Leather	--	--	1.7	1.0	2.0
Food and materials for food	--	1.5	14.2	10.7	10.5

Notes:

* Against Non-CIS countries, calculated by current price.

Source: *Orlovskaja oblast' 1990-1996gg. Statisticheskii ezhegodnik* (Orel: Goskomstat, Orlovskii oblkomstat, 1997), pp. 351.

Table 18: Import structure of Orel (per cent) *

	1992	1993	1994	1995	1996
Machine, equipment and means of transportation	14.1	66.5	55.4	36.7	48.4
Mineral products	--	1.1	1.1	1.1	--
Metal and precious stones	--	3.8	7.0	2.9	0.7
Chemical products, rubber	4.5	6.5	6.8	8.0	7.1
Wood and paper	--	0.2	0.2	6.2	5.5
Textiles	43.4	9.4	11.8	0.6	0.2
Leather	--	0.4	0.1	0.1	--
Food and materials for food	37.8	7.4	17.1	22.0	28.6

Notes:

* Against Non-CIS countries, calculated by current price.

Source: *Orlovskaja oblast' 1990-1996gg. Statisticheskii ezhegodnik* (Orel: Goskomstat, Orlovskii oblkomstat, 1997), pp. 352.

Table 19: Export structure of Rostov (per cent) *

	1992	1993	1994	1995	1996	1997
Machine and equipment	62.0	44.4	27.2	24.0	21.0	22.6
Fuel, mineral resource, and metal	6.0	44.0	35.4	57.0	25.0	30.1
Chemical products, fertilizer	22.1	5.0	18.3	7.3	2.0	3.0
Materials for construction	0.3	0.6	0.1	0.1	--	--
Non-food materials	3.1	1.6	1.4	7.6	1.9	2.0
Food and materials for food	1.8	0.2	2.0	3.6	44.1	35.0
Industrial consumers goods	3.5	3.7	1.1	0.4	2.0	2.0
Other	1.2	0.5	14.5	--	4.0	5.3

Notes:

* Against Non-CIS countries, calculated by current price.

Source: *Rostovskaja oblast' statisticheskii ezhegodnik 1997* (Rostov-na-Donu: Goskomstat, Rostovskii oblkomstat, 1998), pp. 313.**Table 20: Import structure of Rostov (per cent) ***

	1992	1993	1994	1995	1996	1997
Machine and equipment	12.0	18.5	26.6	42.0	44.0	48.5
Fuel, mineral resource, and metal	2.9	8.0	10.7	8.0	10.0	9.8
Chemical products, fertilizer	7.3	10.5	20.9	15.0	19.0	15.0
Non-food materials	0.2	17.0	4.6	3.0	2.0	--
Food and materials for food	40.9	7.0	26.7	24.0	12.0	12.7
Industrial consumers goods	36.7	39.0	10.5	8.0	3.0	0.7
Other	--	--	--	--	10.0	13.3

Notes:

* Against Non-CIS countries, calculated by current price.

Source: *Rostovskaja oblast' statisticheskii ezhegodnik 1997* (Rostov-na-Donu: Goskomstat, Rostovskii oblkomstat, 1998), pp. 314.

regional level, however, although a few regions benefited, most did not.

Concluding remarks

It is natural to expect that the opening of Russia's economy would affect its regions. In some cases it did, but in others it did not. On the one hand, regions rich in natural resources or those with other export advantages are very active in trade, building strong global networks. On the other hand, most regions have been left behind. They have shunned trade and failed to prosper. The difference between the top and the bottom in per capital exports was as large as 2000 in 1997. The gap narrowed until 1995 and then widened under "Corridor." But the main point is that the disparities in regional Russian trade participation continues the established Soviet pattern.

It is well known that Russia needs foreign capital. Regional disparities in foreign currency receipts therefore are important. The gap between the top and the bottom regions widened after 1995. It was bigger than the export gap. The opening of the Russian economy has not created any new financial or monetary centers. The predominant status of Moscow in foreign currency circulation is especially noteworthy, but its effect on other regions' real and monetary economy seems slight.

As for the "Corridor," the effects have been regionally diverse due in part to their sectoral structures, a topic which deserves further investigation.

Russia's Regional Labor Markets: Diversity and Structure¹

Sadayoshi Ohtsu

During the Soviet era, Russian workers enjoyed a wide variety of labor rights. Employment was secure, and work rules well-defined. Wages were centrally fixed by the state, and unemployment was low. The abandonment of administrative command planning, and the sudden emergence of a market system wrecked these arrangements, and caused widespread distress including mass involuntary unemployment, reduced wages, wage arrears, lost savings, and a torn social safety net. These traumas are widely recognized, but the details are obscured by deficiencies of data, and social upheaval. Clearly, the quality of workers' lives has deteriorated sharply, but the suffering is difficult to quantify. This paper attempts to illuminate one aspect of the problem: the diversity and structure of contemporary Russian regional labor markets. It relies on official registered unemployment statistics, OECD-Goskomstat unemployment surveys (ILO definitions),² and data on job openings to clarify regional labor patterns.³ The research is supplemented with case studies of Voronezh and the Russian Far East. Despite some hopeful signs, it seems that under the present political and economic conditions, substantial changes cannot be expected in the near future.

Regional diversity and structure

The diversity of Russian regional labor conditions is illustrated in Table 1. It reveals that at the beginning of 1996 the registered rate of unemployment in Ivanovo was 13.7 per cent compared to a bare 0.6 per cent in Moscow, a 23-fold differential. Other regional disparities are also perplexing. Voronezh and Ivanovo are both industrial towns, yet the registered unemployment rate in Voronezh was only 2.4 per cent compared to 11.1 per cent for Ivanovo at the beginning of 1997 (Cf. Table 2). Is this disparity a statistical quirk? T. Gorbacheva, head of Goskomstat's labor statistics division provides a good supplementary descriptive overview, confirming that these disparities are real.⁴

In recent years, there were differences growing between the local markets of Russia. Although

Table 1: Labour market indicators of Russian regions (as of the end of March 1996)

	Registered unemployment rate	Intensity*	Average per unemployed	% of 1 year and more
	%	%	months	%
All Russia Average	3.7	10.4	6.3	15.1
Upper 10 Regions:				
1. Chuvash Republic	8.0	36.1	6.4	13.4
2. Kostroma Oblast	8.1	31.4	6.0	11.3
3. Iaroslavl' Oblast	9.0	26.6	7.0	21.1
4. Arkhangel'sk Oblast	9.2	25.5	6.8	19.5
5. Pskov Oblast	9.2	70.2	7.4	23.4
6. Kalmyk Republic	9.5	87.8	7.2	19.5
7. Vladimir Oblast	9.6	32.2	6.7	18.0
8. Udmurt Republic	9.6	41.8	6.6	17.1
9. Ivanovo Oblast	13.7	169.5	6.5	15.5
10. Ingush Republic	22.0	489.9	12.1	59.9
Lower 10 Regions:				
1. Moscow City	0.6	0.9	5.2	8.0
2. Orenburg Oblast	1.1	3.3	5.3	9.1
3. Smolensk Oblast	1.1	5.5	4.2	4.2
4. Lipetsk Oblast	1.2	2.2	5.7	10.3
5. Belgorod Oblast	1.2	6.5	5.0	4.5
6. Sakha Republic	1.2	7.1	4.8	7.6
7. Rostov Oblast	1.4	4.3	5.4	8.0
8. Tartarstan Republic	1.6	9.0	5.9	13.3
9. Kursk Oblast	1.7	9.3	5.2	9.1
10. Volgograd Oblast	1.8	6.3	5.3	9.7

Notes:

* "Intensity" of the labour market is defined as number of unemployed per vacancy

Source: *Federal'naya Sluzhba Zaniatosti* (Moscow: Monitoring Regional Unemployment, 1996), pp. 4.

Table 2: Registered unemployment rate and tightness of the Russian labour market in several regions, 1995-1997 (Jan.-Apr.)

	(As of the beginning of month)											
	1995				1996				1997			
	Jan.	Apr.	Jul.	Oct.	Jan.	Apr.	Ju.	Oct.	Jan.	Apr.	Jul.	Oct.
Unemployment Rate												
Russian Federation	2.2	2.6	2.7	2.8	3.2	3.7	3.6	3.4	3.4	3.5	3.5	3.5
Ivanovo Oblast	8.8	9.9	10.3	10.7	11.9	13.7	13.3	12.1	11.1	10.8	10.6	9.9
Moscow city	0.3	0.4	0.4	0.4	0.5	0.6	0.7	0.7	0.8	0.8	0.9	0.9
Voronezh Oblast	1.2	1.5	1.6	1.8	2.0	2.4	2.5	2.5	2.5	2.5	2.6	2.6
Tightness of LM*												
Russian Federation	5.8	6.6	5.0	5.3	8.2	10.3	8.3	8.2	10.8	10.8	10.7	10.3
Ivanovo Oblast	110.5	111.7	80.3	91.1	158.4	169.5	145.9	131.6	187.2	195.2	193.6	151.9
Moscow city	0.4	0.6	0.5	0.7	0.9	0.9	1.2	1.2	1.2	1.2	1.2	1.2
Voronezh Oblast	2.7	3.5	2.7	2.5	4.4	5.8	4.6	5.2	7.9	8.2	8.5	8.0

Note:

*Tightness of labor market is defined as the number of jobseekers per vacancy.

Source: *Monitoring Regional Unemployment* (Moscow: Federal Employment Service), each year.

the loss of work was a common feature of the whole Russian labor market, we can experience in the period of 1992-1996 heavy differences between the regions. These differences depend on the branches of economy, existence of non-productions, the investment opportunities and the trends of migration in the respective regions. There can also be other social and economic factors, such as the actions of the organs of political power in the labor market.

According to the data of the monitoring of the labor market in March 1996, the lowest rates of unemployment (between 5-6 per cent) were reported from six regions of the country: they are Moscow, the districts of Riazan', Tver', Belgorod and Tatarstan and Sakha (Iakutiia) Republics. Relatively low rates of unemployment were reported from the districts of Tula, Lipetsk, Omsk and Kemerovo. Unemployment rates reported from 41 regions exceeded the average of the country. For example, in Dagestan Republic the local rate was 2.6 times higher than the national level. The difficult situation is still prevailing in the districts of Ivanovo, Vladimir, Pskov, Arkhangel'sk, Penza, Chita and Karelian, Mordovian, Kalmyk, and Udmurt Republics. These territories have not only problems with unemployment, both registered and unregistered, but also with forced shorter hours employment.

This picture can be brought into sharper focus by separating Russia's regions into different categories, using formal criteria. The TACIS-Birmingham University report, and the S. Smirnov et.al. *Voprosy Ekonomiki* paper provide useful points of departure.⁵

TACIS-Birmingham use the registered unemployment rate to compute a mean and standard deviations which generate the classification scheme shown on Table 3. The concept is sound, but unfortunately, the registered unemployment data inadequately portray the real situation displayed in Figure 1.⁶

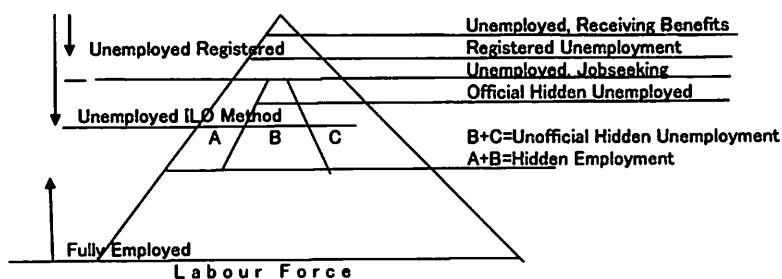
Smirnov et.al. take a different approach stressing labor market tightness (*nagruzka*). Their primary classification criterion is the ratio of registered unemployment to job vacancies offered by enterprises and administrative organizations registered at the local

Table 3: Typology of regions by the labor market situation in 1995

<p>Catastrophic Situation (above 400% of the Russian Average):</p> <p>Oblasts: Vladimir, Ivanovo, Yaroslavl', Kirov</p>
<p>Critical Situation (200% - 400% of the Russian Average):</p> <p>Oblasts: Pskov, Kostroma, Tambov, Perm', Kaliningrad</p> <p>Republics: Mari-El, Mordovian, Chuvash, and Udmurt</p>
<p>Unfavorable Situation (100% - 200% of the Russian Average):</p> <p>Oblasts: Arkhangel'sk, Murmansk, Leningrad, Novgorod, Briansk, Kaluga, Orel, Nizhni Novgorod, Astrakhan', Penza, Samara, Saratov, Ul'ianovsk, Kurgan, Sverdlovsk, Cheliabinsk, Amur</p> <p>Republics: Dagestan, North Ossetian</p> <p>Krais: Altai</p>
<p>Medium Situation (50% - 100% of the Russian Average):</p> <p>Oblasts: Vologda, Moscow, Riazan, Tver', Tula, Kursk, Novosibirsk, Omsk, Tomsk, Irkutsk, Sakhalin, Evrei Autonomous Oblast</p> <p>Republics: Karelian, Komi, Adygei, Kabardkino-Balkar, Bashkir, Khakass</p> <p>Krais: Krasnoarsk, Stavropol', Khabarovsk</p>
<p>Relatively Favorable Situation (10% - 50% of the Russian Average):</p> <p>Oblasts: Smolensk, Belgorod, Voronezh, Lipetsk, Volgograd, Rostov, Orenburg, Kemerovo, Tiumen', Chita, Kamchatka</p> <p>Republics: Tartarstan, Altai, Buriat, Tyva</p> <p>Krais: Krasnodar, Stavropol', Primorskii</p> <p>Moscow City</p>
<p>Favorable Situation (Below 10% of the Russian Average):</p> <p>Republic: Sakha</p>

employment service office (Tsentr Zaniatnosti). We combine both approaches and add the OECD-Goskomstat unemployment survey rate, which takes account of all active job-seekers. Goskomstat and the Federal Employment Service (Federalnaia Sluzhba Zaniatnosti) data for the period 1992 - 1997 are drawn from the latest edition (1998) of the statistical yearbook, *Regions in the Russian Federation*. Discouraged workers, millions of long term unemployed who have abandoned hope of finding jobs are disregarded. The ten best and worst regions based on these criteria are reported in Tables 4-1 and 4-2. Figure 2 simplifies and these labor market patterns using the five best and worst performing regions. It reveals that:

Figure 1



1. Moscow's performance is superior. This appears to be explained by capital inflows, and energy export distribution.
2. The performance of the "Volga triangle" (Iaroslavl', Kostroma, Ivanovo, Vladimir and other parts of the former industrial center) is good.
3. The performance of machine-building and heavy industrial regions like the Urals (including Voronezh) is below average.
4. The performance of the Russian Far East is poor, and worse than the indicators suggest.
5. The performance of peripheral, subsidy dependent regions (ethnic and semi-independent regions) is worst.

Is this picture accurate? Let us consider the third and fourth cases.⁷

Voronezh

Voronezh is an agricultural region located about 500 km to the south of Moscow in the black earth zone (*chernozem'e*). The city of Voronezh, the capital, is a major port where Peter the Great constructed Russia's first fleet. It industrialized during the thirties, only to be devastated by the Second World War. After the war, new industries like machine-building and electronics arose on the left bank of the Voronezh Reservoir, which flows quietly into the River

Table 4-1: Overall unemployment rate (OUR) per cent^a

	1992	1996	1997
Russian Federation	4.7	9.9	11.2
Upper 11 Regions:			
Ingush Republic	45.2 ^b	31.9	52.0
Evrei A.Obl.	6.8	13.0	25.1
Kalmyk Republic	7.3	12.6	22.5
North Ossetian Republic	2.2	30.3	22.7
Dagestan Republic	12.5	23.5	21.6
Buryat Republic	5.4	13.3	19.1
Chita Oblast	4.6	15.6	19.0
Tyva Republic	7.5	13.5	18.9
Karachai-Cherkess Republic	6.0	19.9	18.6
Altai Republic	5.9	12.4	17.7
Ivanovo Oblast	5.6	16.7	16.8
Lower 10 Regions:			
Moscow City	5.6	4.9	3.7
Kursk Oblast	2.4	7.2	7.5
Voronezh Oblast	4.4	8.8	7.6
Tatarstan Republic	3.2	6.6	7.7
Iaroslavl' Oblast	4.9	10.3	8.5
Orenburg Oblast	4.4	5.6	8.9
St. Petersburg City	7.0	9.5	9.0
Orel Oblast	2.8	9.3	9.1
Nizhnii Novgorod Oblast	4.0	8.7	9.2
Samara Oblast	3.4	8.4	9.3

Note:

^aOverall unemployment rate is defined by ILO method, divided by the number of economically active population as of the end of each year

^b 1995

Source: *Regions of Russia* Vol. 1 (1997), pp. 440-442 and Vol.2 (1998), pp. 89-90.

Table 4-2: Tightness of the labour market

	1992	1996	1997
Russian Federation	3.2	10.8	3.2
Upper 10 Regions:			
Kalmyk Republic	7.7	467.5	106.2
Ingush Republic	133.4*	414.5	278.0
Tyva Republic	2.6	224.4	351.7
Ivanovo Oblast	21.1	187.2	35.0
Komi Republic	34.2	176.8	52.5
Koryak A.O.	1.4	163.9	65.8
Altai Republic	8.6	118.8	64.8
Arkhangel'sk Oblast	24.5	116.0	85.0
Dagestsan Republic	16.4	107.5	67.1
Chita Oblast	0.9	105.0	68.5
Lower 13 Regions:			
Moscow City	0.8	1.2	0.7
St. Petersburg City	5.8	2.6	1.7
Orenburg Oblast	1.3	3.4	2.3
Lipetsk Oblast	1.6	4.1	1.9
Rostov Oblast	2.5	4.2	2.6
Omsk Oblast	2.3	6.5	5.4
Moscow Oblast	2.5	7.2	3.9
Sverdlovsk Oblast	4.3	7.4	4.3
Magadan Oblast	3.1	7.7	9.7
Novosibirsk Oblast	10.1	7.8	4.6
Kursk Oblast	2.8	10.5	2.7
Voronezh Oblast	1.7	7.9	4.9
Tatarstan Republic	4.5	10.3	7.4

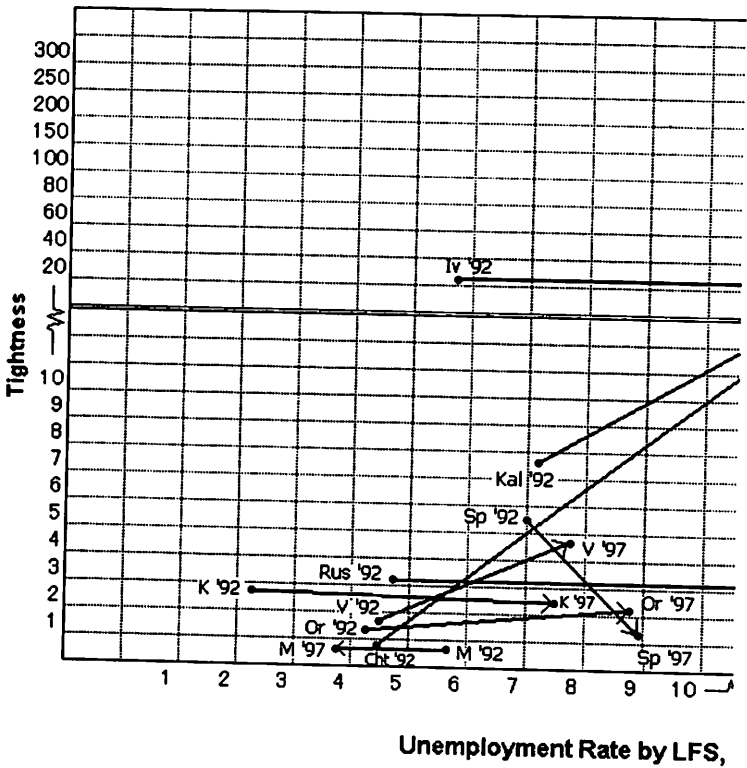
Note:

* 1993

Source: *Regions of Russia* Vol. 1 (1997), pp. 449-451 and Vol.2 (1998), pp. 93-94.

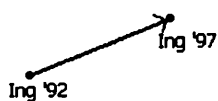
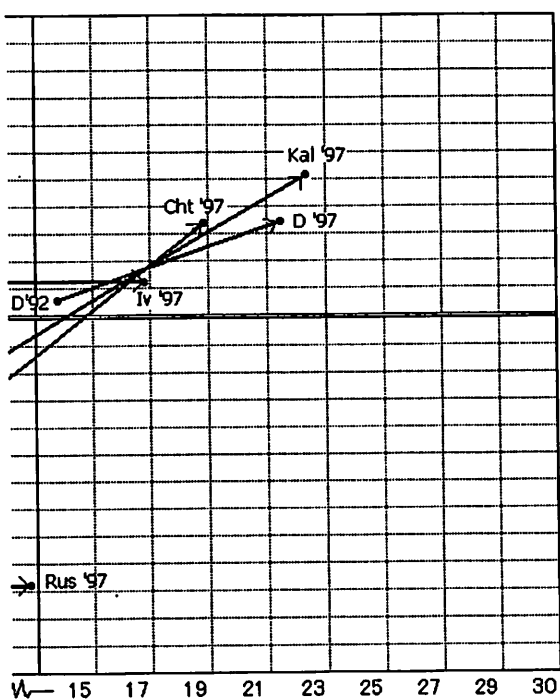
Figure 2

Changes in the unemployment situation



Source: *Regiony Rossiiskoi Federatsii* (Moscow 1998), Vol. 2, pp. 89-90 and 93-94.
 Unemployment Rate by LFS (ILO method), in % to the number of economically active population.

from 1992-1997 using data from Tables 4-1 and 4-2



- Legend**
- Kalmyk Republic = Kal
 - Ingush Republic = Ing
 - Ivanovo = Iv
 - Chita = Cht
 - Dagestan = D
 - Moscow City = M
 - St. Petersburg City = Sp
 - Orenburg = Or
 - Kursk = K
 - Voronezh = V

(ILO method) in %

Table 5-1: Population, labour resources in Voronezh, 1991-98

	<i>Unit</i>	<i>1991</i>	<i>1992</i>	<i>1993</i>
Population, all	1000		2474.6	2484.6
Urban	1000	1526.3	1531.1	1536.2
Rural	1000	848.3	956.5	962.3
Voronezh City	1000	902.2	903.3	904.6
Natural growth (+,-)	1000	-3.7	-4.7	-8.1
Mechanical Increase	1000	17.7	32.0	30.6
Labour Resources	1000	1375.6	1376.6	1384.4
Employed	1000	1169.6	1153.1	1123.8
Learning	1000	95.6	94.0	92.0
Unemployed	1000	110.4	129.5	168.6
Labour Market				
Total Unemployment	1000		20.6	49.2
% to economically active population	%		4.4	4.2
Registered Unemployment	1000		5.9	5.4
% to economically active population	%		0.5	0.5
Branch Composition, etc.				
Total Employment	1000	1169.6	1153.1	1123.8
in Industry %	%	29.5	28.6	28.7
in Agriculture	%	19.3	20.3	20.7
in Trade and Public Catering	%	7.9	7.7	8.2
Average Wages	1000 rubl.	0.5	4.1	40.9
Average Monthly Pension	1000 rubl.	0.4	3.2	25.8
Number of Pensioners	1000	700.8	721.0	744.4

Source: *Voronezh in Figures* (Voronezh Goskomstat, 1996, 1997, and 1998).

<i>1994</i>	<i>1995</i>	<i>1996</i>	<i>1997</i>	<i>1998 (1-6)</i>
2498.5	2506.9	2503.8	2499.1	2485.6
1542.6	1543.4	1543.4	1545.9	1542.7
964.3	960.4	960.4	953.2	942.9
907.8	909.0	909.0	910.1	908.8
-8.5	-8.3	-8.4	-8.9	--
29.6	20.6	16.8	8.9	--
1357.7	1360.5	1363.2	1360.1	--
1102.9	1048.3	1042.3	991.4	--
97.9	98.0	91.5	94.8	--
156.9	214.4	229.4	273.9	--
54.0	62.9	88.8	88.2	89.2
4.7	5.7	7.9	8.2	8.3
10.2	19.4	28.4	27.0	16.6
0.9	1.7	2.6	2.5	--
1102.9	1048.3	1042.3	991.4	--
26.7	25.3	24.1	23.9	--
19.6	19.3	18.9	19.1	--
9.3	9.9	10.6	10.3	--
140.1	294.6	487.5	6000	--
103.3	203.2	249.6	297.7	--
757.7	761.4	764.8	767.5	--

Table 5-2: Forced leave and shorter working hours used in some enterprises in the city of Voronezh, April-July 1997

	Total Average Monthly Employment	Forced Leave	Shorter Working hours			Number of Enterprises reported in 5 wards in the city
	A	B	C	B+C=D	D/A=%	
April	57,217	9,855	24,849	34,704	60.7	74
May	55,494	12,221	24,302	36,523	65.8	71
June	56,713	15,795	20,638	36,433	64.3	54
July	59,925	14,787	24,016	38,803	64.8	68

Source: First hand materials at the Voronezh City Employment Center

Table 6-1: Population dynamics in the Russian Far East by regions (thousand)

	1989	1991	1992	1993	1994
Russian Federation	147,400	148,543	148,704	148,673	148,366
Far East	7,941	8,057	8,032	7,900	7,788
Sakha Republic	1,081	1,109	1,093	1,074	1,061
Evrei A.O.	216	220	221	219	218
Chukotka A.O.	157	154	146	124	113
Primorskii Krai	2,258	2,299	2,309	2,302	2,287
Khabarovsk Krai	1,609	1,631	1,634	1,621	1,608
Amur Oblast	1,058	1,074	1,075	1,063	1,056
Kamchatka Oblast	446	473	472	456	439
Magadan Oblast	386	380	363	327	307
Sakhalin Oblast	718	717	719	714	699

Source: *Russian Statistical Yearbook* (1994), pp. 441-443; (1999), pp. 33.

Don. As a result, Voronezh is sectorally balanced with 61 per cent of the population residing in urban areas (below the Russian average of 73 per cent).

Since the "Gaidar shock," industrial production continuously fell at 12-15 per cent per annum. Agricultural production likewise plummeted at 10-20 per cent per annum with the exception of 1993 when growth of 2 per cent was recorded. Otherwise, the contraction was relentless, and did not decelerate after 1995 as it did elsewhere in Russia. This divergence from the economy-wide trend is explained by the dire situation in the heavy machinery and defense industrial sectors concentrated in Voronezh. Capital inflows were scant, and insufficient to offset Voronezh's great descent unlike some other regions.

Table 5 shows the impact of these depressionary forces on labor. The size of the labor force only decreased slightly, but employment declined 14 per cent from 1.17 to 1.05 million 1991-1996. Unemployment doubled from 110,000 to 229,000.⁸ Registered unemployment grew 4.7 times from 5,900 to 28,000 between 1992 and 1996, with the registered unemployment rate

<i>1995</i>	<i>1996</i>	<i>1997</i>	<i>1998</i>	<i>1999</i>
148,306	147,979	147,502	147,105	146,693
7,625	7,505	7,421	7,336	7,252
1,036	1,023	1,016	1,003	988
212	210	207	205	203
100	91	85	81	77
2,273	2,255	2,236	2,216	2,197
1,588	1,571	1,557	1,546	1,534
1,041	1,038	1,031	1,023	1,015
423	411	404	396	390
279	258	251	246	240
673	648	636	620	608

rising to 2.6 per cent, a figure below the Russian average. Total unemployment using the survey method is 89,000 and the unemployment rate is 7.9 per cent

The hardship implied by these rates is not exceptional either in Russia or the European Union. But two case studies conducted by the Voronezh Oblast Employment Service Center in 1994 and 1995 paint a bleaker picture. The first was based on questionnaires completed by 700 registered unemployed workers, the second based on "1-T" reports compiled by enterprises and collected by local Goskomstat agents. Among other things these studies show that unemployment benefits as a share of average monthly wages fell 32 per cent in 1994 and 29 per cent in 1995, when unpaid wage arrears first became a major problem.⁹ Clearly, as bad as continuously rising unemployment rates were, they were compounded by diminished unemployment compensation and unpaid wages. Moreover, while unemployment rates were lower than the Russian average, this cannot be interpreted as a sign of superior modernization. The Oblast Center's studies reveal that labor immobility in the Voronezh region compelled workers to accept any jobs they could find.¹⁰ Labor conditions thus were more adverse than the raw statistics indicate.

Another anomaly requires brief comment. Despite a worsening economy, registered unemployment declined after 1996. This should not be misinterpreted as a harbinger of recovery. It is due to the exclusion of new graduates from the labor force under a revised "Employment Law"; reduced incentives to register brought about by the low level of

Table 6-2: Changes in the employment in the national economy (thousand)

	1990	1991	1992	1993	1994
Russian Federation	75,324.7	73,847.8	72,071.1	70,851.5	68,484.4
Far East	4,047.7	3,935.5	3,852.8	3,712.7	3,500.4
Primorskii Krai	1,083.0	1,107.3	1,082.3	1,044.7	1,003.5
Khabarovsk Krai	914.4	858.2	764.9	754.6	699.2
Sakhalin Oblast	395.3	375.6	632.4	367.8	341.8

Sources: *Basic Indicators of the Labor Market in the Russian Federation* (1996); *Russian Statistical Yearbook, Regions of Russia* Vol. 2 (1999), pp. 76-77.

unemployment benefits and delayed payments; and the substitution of private for state employment services.

The Russian Far East

Labor problems in the Far East are rooted in the population trends displayed in Table 6-1. There has been a substantial exodus from the region since Yeltsin assumed power, differing in detail from oblast to oblast. The largest outflow was from the Magadan Oblast where the population decreased almost 40 per cent from 380,000 to 240,000 between 1990 and 1999. The situation in the Chukotka Autonomous Okrug is similar.

These demographic losses are attributable to declining birth rates, and soaring mortality rates, as well as emigration to the Western regions of the Russian Federation. The outflow from the Far East began in 1989, totaled 475,000 in the ensuing five years. According to Ekaterina Motrich at the Economic Research Institute of the Khabarovsk branch of the Russian Academy of Sciences, inflows accounted for 36-38 per cent of the population from the seventies to the mid-eighties, decelerating thereafter to 1989 when it turned negative."

These adverse demographic changes caused employment 1991-98 to decline 14.8 per cent in Primorskii Krai and 28.5 per cent in Khabarovsk Krai compared with a 15.5 per cent decrease in the Federation. The unemployment rate in Russia's Far East is not the worst in the nation, but it is still severe (Cf. Tables 1 and 5-3).

<i>1995</i>	<i>1996</i>	<i>1997</i>	<i>1998</i>
66,440.9	65,950.0	64,638.5	63,642.0
3,405.7	3,329.4	3,255.1	3,157.4
970.6	955.3	942.1	922.6
676.8	653.7	665.8	653.2
290.1	283.8	278.5	265.3

Table 6-3: Unemployment in the Russian Far East (OUR and RUR in per cent)

		1992	1993	1994	1995	1996	1997	1998
Russian Federation	OUR	5.2	5.9	8.1	9.5	9.7	11.8	13.3
	RUR	0.8	1.1	2.3	3.3	3.6	2.9	2.9
Sakha Republic	OUR	3.4	3.9	6.0	7.1	6.7	12.6	13.6
	RUR	0.1	0.2	0.6	0.9	1.6	2.0	2.5
Evrei A.Obl.	OUR	6.6	5.6	11.7	17.0	12.6	25.1	23.9
	RUR	0.7	0.4	1.6	2.9	2.1	1.4	1.4
Primorskii Krai	OUR	5.1	5.4	7.5	10.0	9.6	13.3	14.9
	RUR	0.4	0.6	1.5	2.7	4.2	3.6	3.1
Khabarovsk Krai	OUR	5.4	6.8	9.2	11.4	12.1	12.7	12.4
	RUR	0.3	0.7	2.7	5.1	5.0	3.6	4.6
Magadan Oblast	OUR	6.3	6.3	10.9	9.7	10.4	13.6	18.1
	RUR	1.0	1.4	2.9	2.8	3.0	3.6	4.3
Sakhalin Oblast	OUR	7.2	8.0	9.9	11.3	10.9	15.0	17.1
	RUR	1.5	2.0	3.8	5.0	3.6	3.9	6.1

Notes:

OUR=Overall Unemployment Rate, RUR=Registered Unemployment Rate, both against economically active population.

Source: *Regions of Russia* Vol. 2 (1999), pp. 97-98.

Emigration has had a mixed effect on the unemployment rate. It has reduced redundancies, but also created a vacuum attracting foreign (mostly Chinese) immigrants. This has created a contradictory situation. Nikolai Ulaev describes it well: "Nowadays, in the Far East, there are 30,000 officially unemployed, out of whom a relatively big number of people are highly qualified. They are 'too expensive' for the Russian employers. At present, some 40,000 foreign workers and specialists are employed and working in the Far East mainly through governmental agreements."¹²

The situation in Vladivostok sheds light on another aspect of the emigration problem. There were 3,154 foreign workers employed there in the first half of 1996. More than two-thirds were Chinese, followed by 60 Vietnamese and 842 North

Table 6-4: Foreign workers in Primorski Krai 1994-1995

	1994	1995	%
Total	11,273	12,848	100
From Near Abroad	16	244	1.9
From Far Abroad	11,257	12,604	98.1
Chinese	7,895	8,349	65.0
Koreans	2,872	3,956	30.8
Vietnamese	232	151	1.1
Yugoslavs	137	20	0.2
Japanese	12	5	0.05

Sources: *Statistical Yearbook of Primorski Krai* (Federal Migration Service, Goskomstat Primorie, 1995), pp. 39.

Table 6-5: Estimated number of permanent population and labour resources in the Far East.

	(by the end of year, per 1000)					
	1994	1995	1996	1997	2000	2005
Permanent Population	7,712.2	7,598.6	7,512.2	7,438.6	7,262.8	7,080.9
Labour Resources	4,754.8	4,589.1	4,536.1	4,489.5	4,419.4	4,421.8
Employment	3,416.4	3,250.1	3,197.7	3,166.8	3,114.3	3,129.3
in material production	2,361.1	2,115.0	2,042.8	1,987.9	1,916.5	1,918.9
Unemployed	86.13	161.25	236.1	277.3	271.1	222.8

Source: *Far East Development Program, 1996-2005*(1996), pp. 190-194.

Koreans. They were employed mainly in construction as prefabricated housing and stone workers (*kamenshichiki*), scarce skills that do not displace native Russians. But their presence has not been trouble free. Some Chinese workers were extremely eager to work in commerce, and used their construction worker status as a cover, provoking numerous complaints and posing serious difficulties for city officials.¹³

The presence of foreign workers in Primorskii Krai in 1994 and 1995 are reported in Table 6-4 by country of origin. There were almost no foreign workers from the former Soviet Union in 1995. The overwhelming majority were from Asian countries. More than 95 per cent came from China (65 per cent), and North Korea (30 per cent). This is powerful evidence that the Russian Far East is being Asianized. The inclusion of the Khabarovsk and Amursk regions exacerbates the problem, although the exact number of “unofficials” or “illegals” is unknown.

Also, the high concentration of military industrial enterprises in the region experiencing exceptionally hard times, suggests that “ghosting” is particularly serious in the Russian Far East.

Russia’s leadership is concerned. “The Program for the Development of the Russian Far East Until 2005,” adopted by the Federal Government in 1996 warns that if the present situation remains unchanged, by 2005 there will be a “further sinking of the regional economic base and heavier reliance on natural resources,” “mass outflow of the population, worsening of the age structure and extreme shortages of qualified labor,” etc. (see Table 6-5). At present there is scant prospect that these outcomes can be averted.

Endnotes for “Globalism to the Rescue? Russian Regionalism during the Yeltsin Years” by Steven Rosefielde

¹ Alfred Stepan, “Russian Federalism in Comparative Perspective,” *Post-Soviet Affairs* Vol 16, No. 2 (2000); Cf. Philip Hanson, “How Is the Russian Economy Different? Size and Regional Diversity” (paper presented at the VI ICCEES World Congress, Tampere, 29 July 2000); eds. Philip Hanson and M.J. Bradshaw; *Regional Economic Change in Russia* (Cheltenham, UK: E. Elgar, 2000); OECD, *Regional Economic Survey of Russia* (Paris, 2000).

² Alan Cullison and Guy Chazan, “Russian Government Approves Plan for Major Economic Reform,” *Wall Street Journal* (New York), 29 June 2000, pp. A22. The plan calls for steps to lower the tax burden, guarantee property rights, restructure natural monopolies and revamp Russia’s corruption ridden legal system. The plan would curtail government bureaucracy to encourage creation of new businesses. The plan urges the introduction of private land ownership, and an end to barter, greater competition and new laws with firm guarantees against re nationalization of property. Cf. Guy Chazan, “Russia’s Duma Clears Putin Backed Bills,” *Wall Street Journal* (20 July 2000), pp. A21.

³ Masaaki Kuboniwa, “A Note on the Recent Economic Situation of Advanced Regions in Russia” (paper presented at the 31st National Convention of the AAASS, St. Louis, Missouri, 18 November 1999). The three pillars of Russia’s “old” foreign direct investment paradigm are as follows: high tariffs and non tariff protection, tax preferences for foreign investors, and concentration of FDI in a few activities. Carl McMillan and Ken Morita, “Transitional Barriers to Foreign Direct Investment: Second Phase Solutions” (paper presented at the VI ICCEES World Congress, Tampere, 31 July 2000); Joal Bergsman, Harry Broadman, and Vladimir Dreventsev, “Improving Russia’s Foreign Direct Investment Policy Regime,” policy research working paper No. WPS 2329 (World Bank Group, 2000); Cf. Akira Uegaki, “Russia in the World Capitalist Economy: A Newcomer to the International Financial Market” (paper presented at the VI ICCEES World Congress, Tampere, 29 July 2000). Uegaki demonstrates that due to capital flight Russia is massively investing in the West, instead of vice versa.

⁴ Andrew Higgins, "Putin's War on Moguls Bogs Down as Front Shifts to the Provinces," *Wall Street Journal* (10 July 2000), pp. A1.

⁵ Shinichiro Tabata, "Russian Great Depression in the 1990s: It Causes and Implications" (VI ICCEES World Congress, Tampere, 29 July 2000). GDP and industrial output declined 44.1 and 54 per cent 1989-1998. See *United Nations Economic Commission for Europe, Economic Survey of Europe, 1999* No. 1 (1999), pp. 207, Table B1, and pp. 209, Table B4.

⁶ Shinichiro Tabata, "Regional Sources of Federal Expenditure and the Pattern of Revenue Sharing in Post-Soviet Russia"; Akira Uegaki, "An Analysis of Russia's Embryonic Globalization: Regional Foreign Trade and Foreign Currency Receipts"; and Sadayoshi Ohtsu, "Russia's Regional Labor Market: Diversity and Structure" all included in this volume. Shinichiro Tabata, "Distribution of Oil and Gas Export Earnings Among Russian Regions: A Preliminary Analysis" (paper presented at the 32nd AAASS National Convention, Denver Colorado, 9-12 November 2000). Akira Uegaki, "International Dimension of Regional Economy in Russia-Foreign Investment in Russia's Regions" (paper presented at the 32nd AAASS National Convention, 9-12 November 2000).

⁷ On these various themes see Steven Rosefielde, "Russia's Productive Capital Stock: Trends and Prospects" (paper presented to the National Intelligence Council, Workshop on Russia's Capital Structure, Rosslyn, VA, 1 February 2000) and "The Civilian Labor Force and Unemployment in the Russian Federation," *Europe-Asia Studies*, Vol. 52, No. 8 (December 2000), pp. 1433-1447; Tatiana Dolgopiatova, "Formirovanie modelei korporativnogo kontroliia v rossiiskoi promyshlennosti," *Ekonomicheskii Zhurnal Vysshei Shkoly Ekonomiki*, No. 3 (2000), pp 369-384; Judyth Twigg and Mark Field, ed., *Russia's Torn Safety Nets* (New York: St. Martin's Press, 2000); Michael Ellman, "The Social Costs and Consequences of the Transformation Process" (paper presented at the I ICCEES World Congress, Tampere, 29 July 2000); Dan Goldberg, "Thinking About Russia's Long Term Future" (paper prepared for the 31st National Convention of the AAASS, 20 November 1999); Giovanni Andrea Cornia and Renato Panizza, "The Transition Mortality Crisis: Evidence, Interpretation and Policy Responses," *The Mortality Crisis in Transitional Economies* (New York: Oxford University Press, 1999); Steven Rosefielde, "Premature Deaths:

Russia's Post Soviet Transition in Communist Perspective" (paper prepared for the 32nd National Convention of the AAASS, Denver, 10 November 2000).

⁸ *The Demographic Yearbook of Russia: Statistical Handbook* (Moscow: State Committee of the Russian Federation of States, 1998), pp. 549, Table 8.1.

⁹ Ohtsu, "Russian Regional Labor Market With a Focus on the Far East" (paper presented at the 31st National convention of the AAASS, St. Louis, Missouri, 21 November 1999); Tim Heleniak, "Internal Migration in Russia During the Economic Transition," *Post-Soviet Geography and Economics*, Vol. 38, No.2 (1997); and Heleniak, "Out Migration and Depopulation of the Russian North During the 1990s," *Post-Soviet Geography and Economics*, Vol. 40, No.3 (1999), pp. 155-205.

¹⁰ Kenneth Arrow, *Social Choice and Individual Values*, 2nd ed., (New York: Wiley, 1963).

¹¹ Lynn Nelson and Irina Kuzes, "Reforms and the Evolution of 'Democratic Ideals' in Russia From the Gorbachev Era to the Present," (paper presented at the 31st National Convention of the AAASS, 18 November 1999).

¹² Janine Wedel, "Rigging the U.S. Russia Relationship: Harvard, Chubais and the Transidentity Game" (paper presented at the 31st National Convention of the AAASS, 18 November 1999). Wedel suggests that Summer's role was influenced by a personal hidden agenda. Some believe that Talbott is motivated by a desire to create an appearance of diminished Russian nuclear capabilities. Others canvassed suggest that he is motivated by a belief that "understanding," "indulgence," and patience are cures for Kremlin delinquency. Wedel, *Collision and Collusion: The Strange Case of Western Aid to Eastern Europe* (New York: Palgrave, 2000); Wedel, "Tainted Transactions: Harvard, the Chubais Clan, and Russia's Ruin," *The National Interest* (Spring 2000), pp.23-34; Jeffrey Sachs, Anders Aslund, Marek Dabrowski, Peter Reddaway, Igor Aristov, Wayne Merry, Michael Hudson, David Ellerman, Steven Rosefielde, and Janine Wedel, "Tainted Transactions: An Exchange," *The National Interest*, No. 60 (Summer 2000), pp. 98-110.

¹³ Steven Rosefielde, *Comparative Economic Systems: Culture, Wealth and Power in the 21st Century*, (London: Blackwell, 2002), Chapter 15.

¹⁴ Philip Hanson, "The Russian Economic Crisis and the Future of Russian Economic Reform," *Europe-Asia Studies*, Vol 51, No. 7 (November 1999); George Kleiner, "Russia's Economy and the Crisis of Mutual Expectations," *Obshchestvennye nauki i sovremennost'*, No.2 (1999).

¹⁵ The Russian aircraft industry has been partly "integrated" into the global economy with the result that Russia may well be reduced to the role of a parts supplier, no longer manufacturing complete planes. See Julian Cooper, "Consolidation and Restructuring in the Russian Aviation Industry" (paper presented at the VI ICCEES World Congress, Tampere, 2 August 2000). The point often missed in that manufacturing in anti-competitive domestic markets is always at a competitive global disadvantage.

¹⁶ John Nellis, "Time to Rethink Privatization in Transition Economies?" International Finance Corporation working paper (World Bank, 1999).

¹⁷ For example, since electricity was virtually free for most purchasers, demand and hence supply remained high despite Russia's hyper-depression. This anomaly has been used to incorrectly suggest that official statistics greatly overstated the decline in industrial production. Masaaki Kuboniwa and Evgeny Gavrilentov, *Development of Capitalism in Russia: The Second Challenge* (Tokyo: Maruzen Co., Ltd., 1997), pp. 120.

¹⁸ Russian corruption and inequality are nearly twice as intense as the European standard. See Michael Ellman, "The Social Costs and Consequences of the Transformational Process" (paper presented at the VI ICCEES World Congress, Tampere, 29 July 2000).

¹⁹ Soviet foreign trade planners and managers were also responsive to price signals and economic incentives. During the sixties, embodied factor flows were Heckscher Ohlin rational. See Steven Rosefielde, *Soviet International Trade in Heckscher Ohlin Perspective*, (Lexington, MA: D.C. Heath, 1973) and Rosefielde and Kaoru Nakata, "Prospects for Japanese Russian Trade Expansion

in the Second Half of the Nineties," *Atlantic Economic Journal*, Vol. 24, No.3 (September 1996), pp. 228-243.

²⁰ Kuboniwa, "A Note on the Recent Economic Situation of Advanced Regions in Russia," Table 1.

²¹ Kuboniwa, "A Note on the Recent Economic Situation of Advanced Regions in Russia," Table 2.

²² Uegaki, "An Analysis of Russia's Embryonic Globalization: Foreign Trade and Foreign Currency Receipts," Table 9, this volume.

²³ Robert McIntyre, "Russian Economic Reform and Decentralization: Local Development Lessons from the Failure of Neo Liberal Reform in Russia," paper presented at the conference "Beyond Transition: Ten Years After the Fall of the Berlin Wall" (UNDP Regional Bureau for Europe; and the CIS and Institute for Social Studies, The Hague, Netherlands, 11-15 October 1999), Table 2; Steven Rosefielde, "Unlocking Northeast Asia's Development Potential: The Russian Paradox," in Kimitaka Matsuzato, ed., *Regions: A Prism to View the Slavic Eurasian World* (Sapporo: Slavic Research Center, Hokkaido University Press, 2000).

²⁴ Ohtsu, "Russian Regional Labor Market With a Focus On the Far East," Table 2.

²⁵ Steven Rosefielde, "The Civilian Labor Force and Unemployment in the Russian Federation," *Europe-Asia Studies*, Vol. 52, No. 8 (December 2000), pp. 1433-1447.

²⁶ Paul Samuelson, "International Trade and the Equalization of Factor Prices," *Economic Journal* (June 1948), pp. 181-97; Samuelson, "International Factor Price Equalization Once Again," *Economic Journal* (June 1948), pp. 181-97; Steven Rosefielde, "Trade and Production Potential: Evidence From the Changing Embodied Factor Proportions of Russia's Trade With Japan," Chapter 14, ed. Rosefielde, *Efficiency and Russia's Economic Recovery Potential to the Year 2000 and Beyond* (Aldershot, England: Ashgate, 1998), pp. 269-314.

²⁷ Tabata, "A Statistical Analysis of Regional Budgets and GDP in Russia," Cf. Tabata, "Transfers from Federal to Regional Budgets

in Russia: A Statistical Analysis," *Post-Soviet Geography and Economics*, Vol. 39, No. 8 (1996).

²⁸ Steven Rosefielde, "Changing of the Guard in the Asia Pacific Region? Economic Determinants of Military Power in the Twenty-First Century," *Problems of Post-Communism*, Vol. 40, No. 6, (November-December 1999), pp. 37-46; Rosefielde, "The Future Geometric Equation," eds. Vladimir Ivanov and Sheila Smith, *Japan and Russia in Northeast Asia* (Westport, CT: Praeger, 1999), pp. 144-53.

²⁹ Steven Rosefielde, and Natalia Vennikova, "Fiscal Federalist Relations in Russia Through the Eyes of the 'Washington Consensus,'" unpublished manuscript December 2001.

Endnotes for "Regional Sources of Federal Expenditure and the Pattern of Revenue Sharing in Post-Soviet Russia" by Shinichiro Tabata

¹ An earlier version of this paper was presented at the 31st National Convention of the AAASS in St. Louis on 21 November 1999. Partial funding of the study was provided by the Ministry of Education in the form of a grant-in-aid for international scientific research on the inter-regional flow of financial resources in Russia. The author thanks Steven Rosefielde, Peter Rutland, Akira Uegaki and Sabrina Ramet for valuable comments given to earlier versions of this paper.

² In this paper regions mean the subdivisions of the Federation (republic, oblast, krai and so on). We do not analyze the relationship between a region and its sub-regions (city, *raion*, and so on).

³ Shinichiro Tabata, "Transfers from Federal to Regional Budgets in Russia: A Statistical Analysis," *Post-Soviet Geography and Economics*, Vol. 39, No. 8, (1996).

⁴ See Tabata, "Transfers" for the detail of the FFPR. We will discuss later how this fund is distributed among regions.

⁵ *Sobranie zakonodatel'stva RF*, No. 13 (1998), pp. 2706-2821; No. 9 (1999), pp. 1687-1880; and No. 1 (2000), pp. 12-255. As for 2000, there was no description of the rules determining the size of this fund.

⁶ For example, as for 1997, the data published in the *Goskomstat statistical handbook (Rossiiskii statisticheskii ezhegodnik (RSE))*, (Moscow: Goskomstat Rossii, 1999), pp. 492) were not reconcilable with the data obtained from a regional budget outlay report released by the Ministry of Finance (Ministerstvo finansov Rossiiskoi Federatsii, "Svodnyi mesiachnyi otchet ob ispolnenii mestnykh biudzhetrov na 1-oe ianvaria 1999 goda" (1999), unpublished report).

⁷ See Tabata, "Transfers," pp. 447-452 for the correspondence of the categories shown in Tables 1 and 2.

⁸ "Mutual settlements" are a budget outlay item and are not reported in the budget authorization. They represent a net balance of various transactions between federal and regional budgets. See Tabata, "Transfers," pp. 450-451

⁹ The scheme of FFPR offset against VAT has been adopted because in the period 1994-1995 FFPR was formed from federal VAT receipts and the regions were allowed to offset payments of VAT revenues they owed to the federal budget by corresponding FFPR transfers from the federal budget (Tabata, "Transfers," pp. 453-454).

¹⁰ See, for example, Kitty Stewart, *Are Intergovernmental Transfers in Russia Equalizing?* UNICEF International Child Development Centre Innocenti Occasional Papers, Economic and Social Policy Series No. 59 (1997), pp. 37.

¹¹ K. Laikam, "Optimizatsiia raspredeleniia nalogov mezhdru federal'nym i regional'nym urovniami biudzhetnoi sistemy," *Voprosy ekonomiki*, No. 10 (1998).

¹² There are discrepancies between 1994 planned figures and 1995 actual figures, as indicated in footnotes of the table.

¹³ Tabata, "Transfers," pp. 454. As for 2000, there seem to be considerable changes in this scheme. See, Moskovskii tsentr Instituta 'Vostok-Zapad', *Federal'nyi biudzhets i regiony: opyt analiza finansovykh potokov* (Moscow: Dialog-MGU, 1999), pp. 56-61.

¹⁴ Again, there are problems in reliability of data concerning 1995 actual figures. In addition, there are inconsistencies in local budget data between those published in *Regiony Rossii* (Moscow: Goskomstat Rossii, 1998), on the one hand, and unpublished reports of the Ministry of Finance and other publications, on the other. We are obliged to use both series of data in calculating 1995 figures.

¹⁵ *Natsional'nye scheta Rossii v 1991-1998 godakh* (Moscow: Goskomstat Rossii, 1999), pp. 107. Sum of region's GRP have been by 8-9 per cent smaller than Russia's GDP in the period 1995-1997 (Ibid., pp. 108-110).

¹⁶ *Natsional'nye scheta Rossii v 1989-1995 godakh* (Moscow: Goskomstat Rossii, 1997).

¹⁷ As for methodological problems of compiling GRP indicators, see A. Ponomarenko, "Gross Regional Product for Russian Regions: Compilation Methods and Preliminary Results," in Kimitaka Matsuzato, ed., *Regions: A Prism to View the Slavic-Eurasian World* (Sapporo: Slavic Research Center, Hokkaido University, 2000) and A. Granberg, I. Masakova and Iu. Zaitseva, "Valovoi regional'nyi produkt kak indikator differentsiatsii ekonomicheskogo razvitiia regionov," *Voprosy statistiki*, No. 9 (1998).

¹⁸ As for the years 1994 and 1997-1998, data on regional budget tax revenues by regions were available from regional budget execution reports compiled by the Ministry of Finance (Ministerstvo Finansov Rossiiskoi Federatsii, "Svodnyi mesiachnyi otchet ob ispolnenii mestnykh biudzhetrov," unpublished reports for the years 1994, 1997 and 1998).

¹⁹ "A Statistical Look at Russia's Regions," *Russian Economic Trends* (March 1997).

²⁰ "Passing the Buck - A Guide to Fiscal Federalism in Russia," *MFK Renaissance Research* (March 1998).

²¹ The higher volumes for Ingush and Kalmyk Republics were explained by the functioning of the so-called offshore zone in these republics (Moskovskii, *Federal'nyi*, pp. 44).

²² In Russia there has been a distinction between federal and local taxes and some taxes have been shared by both federal and local budgets. Although in principle, uniform tax sharing rules have been adopted across the country, there are some differences in these rules among regions. The differences in tax retention rates among regions might be attributed to these differences and the differences in structure of tax revenues in a region. See Moskovskii, *Federal'nyi*, pp. 35-53; OECD, *Russian Federation* (Paris: OECD Economic Surveys, March 2000), pp. 116-129.

²³ As for cluster analysis, we adopt the Ward method, using standardized squared Euclidean distance.

²⁴

Eigenvector	1 st Component	2 nd Component
Total tax revenues/GRP	0.61	-0.21
Per capita GRP	0.47	0.54
Tax retention rate	-0.21	0.81
Share of FFPR	-0.60	-0.08
Eigenvalue	2.07	1.24
Proportionate contribution	51.73%	30.97%
Cumulative proportionate contribution	51.73%	82.70%

²⁵ In the northern area, due to a higher cost of living, prices are generally higher than in the other areas. This factor certainly contributes to the higher level of such indicators in the northern area, as per capita GRP and tax revenues, measured at current prices.

²⁶ Stewart, *Intergovernmental Transfers*, pp. 11; World Bank, *Fiscal Management in Russia* (Washington, DC: World Bank, 1996), pp. 17. With regard to three republics (Tatarstan, Bashkir, Sakha), see also OECD, *Russian Federation*, pp. 121-123; Moskovskii, *Federal'nyi*, pp. 50-51.

²⁷ The difference between the third and fourth groups is not big. If we redo our cluster analysis using four groups, these two groups are merged into one. See Chart 3.

²⁸ "Analiz tendentsii razvitiia regionov Rossii v 1992-1995 godakh," *Voprosy ekonomiki*, No. 6 (1996), pp. 58-62. Lavrov's typology was based upon the data of 1994, while our analysis refers to the data of 1996.

²⁹ It goes without saying that we have to confirm the findings of the preceding section, extending our analysis to other years.

Endnotes for "An Analysis of Russia's Embryonic Globalization: Regional Foreign Trade and Foreign Currency Receipts" by Aldra Uegaki

¹ This paper uses data on trade and foreign currency flows between Russia's regions and foreign nations to gauge regional integration into the global economy. This is seldom done for regions in Western countries, but could be undertaken if analysts and policymakers desired. The *Russian Statistical Yearbook* and other statistical handbooks contain data on "foreign trade by region" and "receipts of foreign currency by region." There is a customs office in almost every federal administrative unit (even in inland regions), enabling Goskomstat to gather the data separately. Also it should be noted that some autonomous republics have signed foreign trade treaties independently of Russia which give them special economic status as semi-independent economic regimes. According to Russian legal journals, there were 10 customs bureaus and 105 customs offices by the end of 1993. Therefore there is not a customs bureau in every one of the 11 economic regions of the Russian Federation and there is sometimes more than one in the 89 federal districts. Dagestan and Tatarstan have customs bureaus, but the Central Chernozem Region does not. There are three customs bureaus in Moscow, including Vnuukovo and Sheremet'vo (*Zakon*, No. 12, 1993, pp. 39-41). On the transfer from the federal to regional budgets, see Shinichiro Tabata, "Transfer from Federal to Regional Budgets in Russia: A Statistical Analysis," *Post-Soviet Geography and Economics*, Vol. 39, No. 8 (1998). Concerning the relation between foreign economic activities at the regional level and the Russian federal system, see A. Gumilevskii, V. Maksimov and A. Shishkov, "Normativno-pravovoe regulirovanie vnesheekonomicheskoi deiatel'nost' sub'ektov Rossiiskoi Federatsii," *Vneshniaia torgovlia*, No. 1 (1995), pp. 2-5.

² One of the main sources of trade data is the *Russian Statistical Yearbook of 1996* (*Rossiiskii statisticheskii ezhegodnik*, 1996 hereafter, *RSE* 1996) which on pp. 898-903 provides a table on trade volume by region covering 1990-1995. (Hereafter, the '90-'95 table.) The figures in the '90-'95 table are incomplete because part of the trade in oil, gas and oil products has been omitted and

“shuttle trade” excluded from the ‘90-’95 table. The omission of shuttle trade diminishes the usefulness of the import. It is also important to note that the ‘90-’95 table only includes trade with the so called “distant foreign countries.” Trade data with the CIS were not published before 1994, when the customs clearance data were first issued. Therefore, the coverage of the ‘90-’95 table is scant. The other main source of trade data is the *Russian Statistical Yearbook of 1998 (RSE 1998)*, which includes a table on regional foreign trade in 1997 in US dollar values. (Hereafter, the ‘97 table.) According to a note, the table is based on the data of the State Customs Committee. So here we can confirm that the ‘97 table omits shuttle trade because customs offices do not count them (*Metodologicheskie polozheniia po statistike* Vol. 1 (Goskomstat Rossii, 1996), Logos, pp. 413-415 and 420-421). In the ‘97 table the total trade volume of the Russian Federation is similar to the sum of regional trade volumes. Still, it is curious that Moscow’s exports and imports suddenly rose in 1997 reaching 30-40 per cent of total Russian trade. It seems that the bulk of trade, which had been excluded from the ‘90-’95 table, began to be counted as Moscow’s trade in 1997. Trade with CIS countries is included in the ‘97 table. The second set of the data is provided in tables labeled “Basic indexes of movement of funds in foreign currency” or “Movement of funds of enterprises and organizations in foreign currency in their current accounts” (*RSE 1996*, pp. 936-938 and Goskomstat Rossii, *Finansy Rossii* (1998), pp. 117-119. Goskomstat’s publication, *Vneshneekonomicheskie sviazi respublik, kraev i oblastei Rossiiskoi Federatsii v 1992 godu*, (Moscow: 1993) also has data for “receipt and consumption of foreign currency” for 1992). These data represent receipts and uses of foreign currency at the regional level. Russian enterprises and organizations can hold two types of foreign currency accounts in the so called “agent banks” which are given licenses by the Central Bank of Russia to operate foreign currency transactions. One of the accounts is named “transition account” and the other “current account.” Foreign currency earned by exports or other transactions is registered in the transition account first, and after the compulsory sales of foreign currency, the rest is transferred to the current account (I.K. Platonova, ed., *Valiutnyi rynek i valiutnoe regulirovanie* (Moscow: Izdatel’stvo BEK, 1996), pp. 38) The “receipt of foreign currency” is an inflow of foreign currency into the current account of an enterprise or organization, located in the region concerned. This inflow results from exports of goods and services and other financial transactions. If an enterprise in a region borrows foreign currency

from a foreign bank this increases the “receipt” of the region. A table in *Finansy Rossii* (1998) indicates that goods and services export earnings were only 29.7 per cent of the total receipts of foreign currency in Russia in 1996. The “uses” which are also recorded in the above mentioned tables are almost the same as “receipts” (see Table 8). This means that most of the foreign currency registered in the current accounts is used for the import of goods and services and repayment of debt or exchanged for domestic currency. Therefore our analysis only requires data on “receipts.”

³ Tiumen', Krasnoiarsk, Vologda, Sakha Republic, Khakass Republic, Lipetsk and Kemerovo.

⁴ Using the data of *RSE* 1998, pp. 970-975.

⁵ Karelian Republic and Arkhangel'sk.

⁶ More than 50 per cent of the regional industrial production was produced by forestry in 1995 (*RSE* 1998, pp. 970).

⁷ In Kamchatka, the share of the food in industrial production in 1995 was more than 60 per cent (*RSE* 1998, pp. 975). Here the food industry means the fish-processing industry.

⁸ As is mentioned above, Moscow's export in the '97 table is supposed to include the large part of the trade omitted from the data of the '90-'95 table. When we compare the trend in 1990-1995 with the structure in 1997, we must exclude Moscow's data from the '97 table.

⁹ The import data of these regions in the first data set do not show any special characteristics. That is, when the amount of exports is small, the amount of import is also small. The import data do not include illegal goods. We must consider the amount of goods that are imported elsewhere and brought to the region by inland shuttle traders.

¹⁰ One researcher classified Russian regions into five groups in terms of social-economic conditions (from the regions in relatively good social-economic condition to the regions in critical condition) and pointed out that the better the condition, the more the region exported (L. Vardomskii, “Vneshneekonomicheskie faktory i

sostoianie ekonomiki regionov Rossii," *Vneshniaia torgovlia*, No. 12 (1995), pp. 3-4). This argument is connected to the problem of correlation between economic activities in general and international economic relations in particular at the regional level. The author has analyzed this problem using the data sets of GRP and Foreign Currency Receipt in another paper. Akira Uegaki, "Moscow and the Central Economic Area: Analysis of the Lack of Linkage," in Klaus Segbers, ed., *Explaining Post-Soviet Patchworks*, Vol. 3, (Burlington, VT: Ashgate, 2001).

¹¹ The argument here is a very tentative one, because the "coverage" of the '90-'95 table is scant.

¹² In the law "On foreign currency regulation and foreign currency control" (9 October 1992) and the provisions of the Central Bank of Russia prescribe the right of enterprises and organizations to hold foreign currency accounts in "agents banks" I. K. Platonova, *Valiutnyi rynok*, pp. 34-42. See also note 2. For dollar possession by individuals, see N. K. Vragova, "Ob inostrannykh investitsiakh i regional'nykh problemakh valiutnogo kontroliia v Amurskoi oblasti, *Den'gi i kredit*, No. 12 (1998), pp. 51. On the structure of the original foreign receipts data see Table 8.

¹³ In February 1998, a Russian newspaper article pointed out that more than 60 per cent of the accumulated foreign capital was in Moscow. It also indicated that the Central Economic Area (including Moscow) was one of the three areas that introduced portfolio investment January through September 1997 (the amount was not large). *Ekonomika i zhizn'*, No. 6 (1998), pp. 29.

¹⁴ Soviet and post-Soviet comparison cannot be made because of the absence of foreign currency receipt data before 1992.

¹⁵ The criterion of the selection is solely the availability of data. The statistical yearbooks or statistical handbooks of these three regions have relatively good trade series which show the situation both before and during the period of "Corridor." Although the selection is arbitrary, the three regions are appropriate examples for study because these represent better, worse and middle levels of international economic relations. That is, Vologda has been active in international trade, while Orel has been stagnant in foreign trade activity. The difference between the two regions is astonishing even after adjusting for population. Rostov stands between the

two. The population of each region as of January 1, 1997 is as follows: Vologda Oblast: 1,344,000, Orel Oblast: 910,000, Rostov Oblast: 4,420,000.

¹⁶ <<http://www.vologda.ru/~avo/Rus/Economy/htm>>

¹⁷ As is mentioned before, it is difficult to estimate the financial prosperity of Moscow City. If we assume that replicates or exceeds the old pattern, then, the effect of the “Corridor” is conservative.

Endnotes for “Russia’s Regional Labor Markets: Diversity and Structure” by Sadayoshi Ohtsu

¹ This paper is based on “Russian Regions: Economic Growth and Environment” (paper presented at the International Symposium on the Slavic Research Center, Hokkaido University, 21-24 July 1999).

² The International Labour Organization (ILO) survey definitions are similar to those used in the United States ‘Current Population (Household) Survey’, which differs significantly from the ‘Current Employment Statistic (Establishment) Survey,’ both compiled by the Bureau of Labor Statistics. Russia uses the CPS method, which in the United States entails a monthly survey of 50,000 households selected as representative of the US population

³ For a discussion of the incompleteness of Russian employment statistics see V. Kavalina and Z. Ryzhikova, “Incomplete Employment in Russia,” *Voprosy Ekonomiki*, No. 2 (1998), pp.131-142; Iu. Simagin, “An Estimation of the Scale of Additional Employment of the Population,” *Voprosy Ekonomiki*, No.1 (1998), pp.99-104; in Sadayoshi Ohtsu, ed., “How Far Hidden Is the “Hidden Unemployment” in Transitional Russia?” ed. Sadayoshi Ohtsu, *Transition and Unemployment in Russia and Eastern Europe* (Kobe University, 1998), <<http://www.econ.kobe-u.ac.jp/tema/ohtsu.html>>.

⁴ Tatiana Gorbacheva, “Features of the Formation of the Labor Market and its Statistical Measurement in Russia,” ed. Sadayoshi Ohtsu, *Transition and Unemployment*, pp. 10.

⁵ TACIS-Birmingham project, "Economic Transformation in the Russian Federation," *Analysis of Tendencies of Russia's Regions Development in 1992-1995*, Vol. 1 (1997); M. Garsiia-Iser, O. Golodets and S. Smirnov, "Critical Situation in the Regional Labor Market," *Voprosy Ekonomiki*, No. 2 (1997), pp. 114-124.

⁶ TACIS-Birmingham also uses some "overall" unemployment rate data elsewhere in the study.

⁷ Sadayoshi Ohtsu, "Labor and employment Statistics in Transition Russia" (in Japanese), Kobe Daigaku, *Kokumin Keizai Zasshi*, Vol. 173, No. 6 (August 1996).

⁸ *Voronezh Oblast in Figures, 1991-1996, 1997*.

⁹ For the first half of 1997, in one-third of the regions the delay was more than six months; in the other third, the delay was three months; and for the remaining one-third, the delay was less than three months. This is what was revealed when the author visited the Oblast Center in early September 1997.

¹⁰ Between April 1994 and September 1995, the number of unemployed willing to work in any profession grew by about 5 per cent. See *Voronezh Oblast in Figures, 1991-1996, 1997*.

¹¹ E. Motrich, "Population Dynamics in Russian Far East," *Discussion Paper Series B*, No. 15 (Hokkaido University, Department of Economics, July 1994).

¹² Nikolai Ulaev, "Foreign Workers in the Russian Far East," *Discussion Paper Series B*, No. 15 (Hokkaido University, Department of Economics, July 1994), pp. 17.

¹³ Iu. Kazakov, "Labor Market in Vladivostok," *Sociological Research* (in Russian) (July 1996).

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