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# Russian Revenues from Oil and Gas Exports: Flow and Taxation

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**Abstract:** A senior Japanese economist traces the flows of revenue derived from oil and gas exports through the Russian economy. The author examines the use of revenues and investigates their contribution to Russia's state and regional budgets in the form of taxes. After detailing the methodological difficulties encountered in measuring revenue streams statistically, he proceeds to approximate their magnitude through intensive use of input-output table data and budget statistics provided by the Russian Federation Ministry of Finance. His investigation of the list of destination countries for Russian oil and petroleum products exports has interesting implications for the study of capital flight from Russia to the West. *Journal of Economic Literature*, Classification Numbers: F14, H20, Q43. 10 tables, 37 references.

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## INTRODUCTION

It is difficult to overestimate the significance of revenues derived from Russia's oil and gas exports. They are increasingly important as potential sources of supply to the West, as well as a weighty factor contributing to the strength of the Russian economy. As shown in Table 1, exports of oil and gas accounted for approximately 40 percent of Russia's total exports during the period 1995–1999 and 50 percent in the years 2000–2001.<sup>2</sup> The table also confirms the pronounced orientation of Russia's oil and gas industry toward exports—nearly half of the oil and one-third of gas and petroleum products produced in Russia are exported. It is thus fairly clear that most revenues generated by the oil and gas industry are derived from exports, considering the low domestic prices of oil and gas and the acute problem of uncollected payments plaguing the fuel and energy sectors (Pinto et al., 2000a, 2000b).

The purpose of this paper is to clarify the flows of oil and gas export revenues through the Russian economy, briefly relate how the revenues are used, and consider whether they properly contribute to the state budget. It is, however, quite difficult to statistically measure the magnitude of the flows, due to the relative scarcity of data as well as the complex organizational structure of the industry. For example, Russian regional foreign trade statistics are of little value in allocating oil and gas export earnings among Russia's 89 regions. As shown in Table 2, roughly 37 percent of fuel and energy exports during the first six months of 2002 were registered as flows emanating from the city of Moscow, even though Moscow produced

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<sup>2</sup>Throughout this paper, reference to "oil and gas" includes petroleum products.

**Table 1.** Production and Exports of Russian Oil and Gas, 1995-2001

Commodity/product	Unit	1995	1996	1997	1998	1999	2000	2001
Oil								
Production	million tons	306.8	301.2	305.6	303.3	305.2	323.6	348.0
Export	million tons	127.4	126.0	127.3	137.2	134.5	144.4	162.1
Ratio of export to production	percent	41.5	41.8	41.6	45.2	44.1	44.6	46.6
Export	billion current dollars	13.3	15.9	14.8	10.3	14.1	25.3	24.6
Share in total export	percent	16.0	17.5	16.6	13.8	18.6	24.0	23.9
Natural gas								
Production	billion cubic meters	595	601	571	591	592	584	581
Export <sup>a</sup>	billion cubic meters	194.3	198.5	200.9	203.4	205.4	193.9	180.9
Ratio of export to production	percent	32.7	33.0	35.2	34.4	34.7	33.2	31.1
Export	billion current dollars	12.1	14.7	16.4	13.5	11.3	16.6	17.8
Share in total export	percent	14.6	16.2	18.4	18.0	14.9	15.7	17.3
Petroleum products								
Production	million tons	182	176	177	164	169	173	178
Export	million tons	47.1	57.0	61.3	53.9	50.8	62.6	63.5
Ratio of export to production	percent	25.9	32.4	34.6	32.9	30.1	36.2	35.7
Export	billion current dollars	5.0	7.5	7.3	4.3	4.7	10.9	9.4
Share in total export	percent	6.0	8.3	8.2	5.7	6.2	10.3	9.1
Oil, natural gas, and petroleum products								
Export	billion current dollars	30.4	38.1	38.5	28.1	30.1	52.8	51.8
Share in total export	percent	36.6	42.1	43.2	37.5	39.8	50.1	50.3
Total exports	billion current dollars	82.9	90.6	89.0	74.9	75.7	105.5	103.0

<sup>a</sup>Because in 1998–2000 the data from *Tamozhennaya* do not include trade data with the state of Belarus, they are derived from *Belarus*, 2001 and added to the *Tamozhennaya* data.

Sources: Compiled by the author from *Belarus*, 2001, p. 107; RSY, 2001, pp. 355-357, 604; *Rossiia*, 2002, pp. 189, 360; and *Tamozhennaya*, various years.

none of the oil or gas (only some petroleum products). Russian regional foreign trade statistics appear to be based on locations where producers were registered (i.e., where the companies were headquartered) or where exports cleared customs rather than on locations where oil and gas were physically extracted.<sup>3</sup> Given these circumstances, this paper represents a preliminary attempt to investigate the flows and taxation of oil and gas export revenues, through intensive use of input-output table data and budget statistics reported by the Russian Federation Ministry of Finance.

### FLOW OF OIL AND GAS EXPORT AND SALES REVENUES

Table 3, which is based on input-output tables, shows how sales revenues generated by the oil and gas industry have been distributed in the Russian economy.<sup>4</sup> To begin with, the table indicates that gross profits attributed to the oil and gas sector were relatively small, accounting for 11–14 percent of total sales revenues for the period 1995–1999. This was slightly above the average for all industry (10–12 percent) during this same period.

<sup>3</sup>These problems of Russian foreign trade statistics are discussed in Uegaki (2000), East-West Institute (2001, pp. 24-25), and Tabata (2001).

<sup>4</sup>Throughout this paper, including the tables, rouble values are expressed in “new rubles,” reflecting the denomination of January 1, 1998 at an exchange rate of 1000 old rubles = 1 new rouble.

**Table 2.** Share of Russian Regions in Production and Exports of Oil and Gas during the First Half of 2002 (in percent of Russian total)

Region	Industrial production	Production of oil	Production of gas	Primary refining of oil	Total exports	Exports of fuel and energy <sup>a</sup>
Russian total	100.0	100.0	100.0	100.0	100.0	100.0
Moscow city	6.2			5.2	25.6	36.5
Ryazan' Oblast	0.6			5.3	0.5	0.7
Yaroslavl' Oblast	1.2			6.4	0.4	0.3
Arkhangel'sk Oblast	0.9	1.2			0.7	0.3
Leningrad Oblast	1.6			8.1	2.2	2.7
Komi Republic	1.1	2.6	0.6		1.1	1.6
Krasnodar Kray	1.6	0.5	0.4		1.0	0.9
Astrakhan' Oblast	0.4	1.0	1.8		0.3	0.3
Volgograd Oblast	1.5	0.9		4.6	1.1	1.1
Nizhniy Novgorod Oblast	2.5			5.3	1.4	1.1
Samara Oblast	4.4	3.0		9.3	3.4	4.0
Orenburg Oblast	1.5	2.9	3.9		2.1	2.7
Perm' Oblast	2.5	2.6		6.0	2.2	1.9
Bashkir Republic	2.8	3.1		13.8	2.4	3.2
Tatarstan Republic	3.8	7.8			3.4	4.1
Udmurt Republic	1.1	2.1			0.9	0.8
Tyumen' Oblast	11.3	67.4	91.0	3.2	17.5	31.4
Krasnoyarsk Kray	3.4			2.7	4.0	0.0
Irkutsk Oblast	2.1			4.7	2.8	0.1
Omsk Oblast	0.8			7.2	0.8	1.0
Tomsk Oblast	0.7	2.4	0.7		0.5	0.2
Khabarovsk Kray	1.5			4.0	1.2	0.7
Sakhalin Oblast	0.4	0.6	0.3		0.3	0.3
Other regions (residuals)	46.1	1.8	1.3	14.1	24.2	4.1

<sup>a</sup>Foreign trade commodity classification code 27, including electricity, coal, and other fuels, in addition to oil, gas, and petroleum products.

Sources: Compiled by the author from GTK, 2002 and SEP, No. 6, 2002, pp. 245-282.

Second, in contrast, trade and transportation margins were large, as noted earlier in studies by Kuboniwa (2002a, 2002b). For the period 1995–1998, trade and transportation margins accounted for 23–27 percent and 17–20 percent, respectively.<sup>5</sup> This means that the shares of sales revenues generated by the oil and gas industry (altogether, 42–47 percent) were

<sup>5</sup>The substantial increase in trade margins and corresponding decrease in transportation margins in 1999 (Table 3) were due to a change in statistical classification. Our interviews with Goskomstat Rossii officials disclosed that in 1999 Gazprom's headquarters began to be classified as an economic unit in the foreign trade sector. In prior years, the headquarters apparently was classified as part of the transportation, administration, and foreign trade sectors. Quite likely as a result of this change, the bulk of transportation margins of the gas industry began to be registered as trade margins of the gas industry. Much to our surprise, Goskomstat Rossii officials related that Gazprom began to submit its annual report to Goskomstat only in 1999.

**Table 3.** Distribution of Sales Revenues Generated by the Russian Oil and Gas Industry, 1995-1999

Itemized distribution	1995	1996	1997	1998	1999
In billions of new rubles					
Production of oil and gas industry					
At purchasers' prices <sup>a</sup>	379.0	553.9	616.4	640.0	1,425.5
At basic prices	165.8	241.7	279.2	295.1	629.8
Intermediate consumption	79.4	116.0	130.8	140.5	280.4
Wages	8.9	16.5	21.8	23.0	35.7
Gross profits	53.4	71.3	76.8	70.5	202.5
Other taxes on production	17.2	29.7	37.3	40.0	71.8
Imports	6.8	8.2	12.6	21.2	39.3
Transportation margins	77.0	105.5	102.5	107.3	74.0
Domestic	54.0	86.2	69.6	69.2	37.9
Export	23.0	19.3	32.9	38.1	36.1
Trade margins	101.6	128.3	154.9	161.7	552.3
Domestic	46.7	41.7	63.1	62.8	134.9
Export	54.9	86.6	91.8	98.9	417.4
Net taxes on products	34.5	78.4	79.8	75.9	169.5
Import taxes	0.0	0.1	0.4		
VAT and special taxes	8.5				
Excises	18.3				
Other taxes	7.5				
Export taxes	2.0				
Subsidies on products	-1.8				
In percent of total					
Production of oil and gas industry					
At purchaser's prices <sup>a</sup>	100.0	100.0	100.0	100.0	100.0
At basic prices	43.7	43.6	45.3	46.1	44.2
Intermediate consumption	20.9	20.9	21.2	22.0	19.7
Wages	2.3	3.0	3.5	3.6	2.5
Gross profits	14.1	12.9	12.5	11.0	14.2
Other taxes on production	4.5	5.4	6.1	6.3	5.0
Imports	1.8	1.5	2.0	3.3	2.8
Transportation margins	20.3	19.0	16.6	16.8	5.2
Domestic	14.2	15.6	11.3	10.8	2.7
Export	6.1	3.5	5.3	6.0	2.5
Trade margins	26.8	23.2	25.1	25.3	38.7
Domestic	12.3	7.5	10.2	9.8	9.5
Export	14.5	15.6	14.9	15.5	29.3
Net taxes on products	9.1	14.2	12.9	11.9	11.9
Import taxes	0.0	0.0	0.1		
VAT and special taxes	2.2				
Excises	4.8				
Other taxes	2.0				
Export taxes	0.5				
Subsidies on products	-0.5				

<sup>a</sup>Purchaser's prices = basic prices + transportation margins + trade margins + net taxes on products.

Sources: Compiled by the author from *Sistema*, 2000, pp. 10-13, 16-21, 24-29, 38-45; 2002, pp. 8-11, 36-43, 116-119, 146-151, 158-163; *Tablitsy*, 2001, pp. 8-13, 16-21, 30-37, 94-99, 102-107, 116-123.

allocated to the trade and transportation sectors. In addition, Table 3 shows that approximately 44–51 percent of the trade and transportation margins can be traced to export activities, an observation also noted by Kuboniwa (2002a, 2002b).<sup>6</sup>

Third, the share of net taxes on products (i.e., indirect taxes) was 9–14 percent in the period 1995–1999; together with other taxes on production (e.g., property taxes), 14–19 percent of the sales revenues generated by the oil and gas industry were levied as taxes, excluding taxes on profits and personal income. These percentages were higher than the average for industry as a whole (5–8 percent and 7–10 percent, respectively).

Data detailing the distribution of natural gas export revenues, obtained by the author from Goskomstat Rossii, are shown in Table 4. One can ascertain that in the case of gas, trade and transportation margins were significantly large, accounting for ca. 70–90 percent of export revenues. In 1999, 70 percent of the gas export revenues were recorded as trade margins of Gazprom.<sup>7</sup>

Both Tables 3 and 4 demonstrate that most oil and gas export revenues are registered in Russian statistics as trade and transportation margins—a finding summarized in Table 5. The table shows that GDP (or value added) produced in the oil and gas industry, including net taxes on products, accounted for 7–9 percent of Russia's total GDP during the period 1995–1998. On the other hand, trade and transportation margins produced in the oil and gas industry in these years also accounted for 7–9 percent of Russia's GDP. In the years 1999–2000, the GDP created by the oil and gas industry accounted for 10–13 percent, and trade and transportation margins for 10–12 percent. It follows that half of the value added originating in the oil and gas industry was recorded in statistics outside of this production sector. Altogether, 15–17 percent of Russia's GDP during the period 1995–1998 originated in the oil and gas industry. The recent oil price increases raised the industry's share to 20 percent in 1999 and 24 percent in 2000 (Table 5).

Table 6 presents GDP data for the trade and transportation sectors. Recently, the trade sector accounted for 19–27 percent of Russia's GDP, while the transportation and communications sector's share was 8–11 percent.<sup>8</sup> The trade sector's share is comparable to that of industry and remarkably high by international standards. Table 6 also reveals that 20–24 percent of the trade sector's GDP originated in the oil and gas industry in the form of trade margins (during the period 1995–1998). The share rose to 32 percent in 1999 and reached 40 percent in 2000. This means that one of the decisive factors responsible for a significant expansion of Russia's trade sector can be attributed not only to flourishing retail trade activities but also to the trade margins originating in the oil and gas industry. With respect to the transportation and communications sector, the share of oil and gas industry transportation margins in its GDP fluctuated from 23 to 35 percent over the years 1995–1998, decreasing considerably in 1999, due to the aforementioned change in statistical definitions.<sup>9</sup>

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<sup>6</sup>In 1999 this share escalated to 72 percent, probably largely due to the change in statistical classification described above.

<sup>7</sup>Note the impact of the change in the statistical classification.

<sup>8</sup>These percentages were calculated on the basis of total GDP at market prices, in order to assure comparability with figures in Table 5. Usually, in the Russian SNA statistics, such as *Natsional'nyye* (2001, p. 44), the share of each sector is calculated against GDP at basic prices. In addition, as noted in notes to Table 6, the "trade sector" in Russian input-output tables includes some sectors that are shown independently in Russian SNA statistics (cf. *Sistema*, 2002, pp. 223–224).

<sup>9</sup>Correspondingly, the share of the oil and gas industry in total transportation margins was very high (52–60 percent) in the years 1995–1998.

**Table 4.** Distribution of Revenues Generated by Russian Natural Gas Exports, 1995–1999, in percent

Itemized distribution	1995	1998	1999
Total exports at purchasers' prices	100.0	100.0	100.0
Exports at producers' prices	8.9	11.8	6.9
Transportation margins	27.7	20.4	0.4
Trade margins	60.2	49.9	75.5
of which: those of Gazprom			70.2
Net taxes on products	3.2	17.9	17.2
of which: export duties	1.5	0.5	6.1

Sources: Obtained by the author from Goskomstat Rossii in August 2002.

**Table 5.** GDP Produced by the Russian Oil and Gas Industry, 1995–2000<sup>a</sup>

Components of GDP produced in oil and gas industry	1995	1996	1997	1998	1999	2000
Total	15.8	17.5	16.1	14.8	19.6	24.3
GDP at basic prices	5.2	5.5	5.4	5.0	6.5	8.0
Transportation margins	3.8	3.9	2.8	2.3	1.0	1.0
Trade margins	4.8	4.6	4.8	4.7	8.6	10.7
Net taxes on products	2.1	3.6	3.2	2.8	3.5	4.6

<sup>a</sup>Percentage of Russia's total GDP at market prices.

Sources: Data based on input-output tables and numbers obtained by the author from Goskomstat Rossii in August 2002.

### TAX REVENUES FROM THE OIL AND GAS INDUSTRY

Tax revenues from the oil and gas industry, largely based on data from input-output tables, are presented in Table 7. Taxes on production and imports in the input-output tables include indirect taxes, such as VAT, excises, import and export duties, as well as other taxes on production such as deductions for the regeneration of the mineral and raw material base (i.e., geology deductions) and property taxes. Not included in the input-output tables are profit taxes from enterprises, personal income taxes, and payments for the use of the subsoil (i.e., royalties) included in natural resource payments.<sup>10</sup>

All such taxes on production and imports levied from the oil and gas industry accounted for roughly 20 percent of total budget revenues of the Russian Federation (see second row in Table 7). If we add profit taxes and natural resource payments, the taxes from oil and gas industry reached almost 25 percent of total budget revenues in 1999.<sup>11</sup>

<sup>10</sup>*Metodologicheskoye* (1996, pp. 231–232) states that geology deductions are included in “other taxes on production” in SNA accounts, although they are taxed on the value of realized products. It also declares that royalties are treated as property income in the form of rents; such treatment essentially accords with the 1993 SNA methodology (*System*, 1993, p. 182).

<sup>11</sup>Gray (1998, p. 67) estimated that in the period 1993–1996 revenues from the oil and gas industry amounted to 15–20 percent of consolidated budget revenues. His estimates included VAT, excises, export duties, geology deductions, profit tax, royalties, property taxes, and some other taxes as well. Note that our estimate of VAT in 1999 in Table 7 excludes revenues levied by the State Customs Committee (GTK). Of special note are VAT revenues on oil and gas exported to CIS countries, which are excluded (see the second section of the Appendix, on “Export Duties”).

**Table 6.** GDP and the Margins of the Russian Trade and Transportation Sectors, 1995–2000<sup>a</sup>

Components	1995	1996	1997	1998	1999	2000 <sup>b</sup>
In millions of new rubles						
Trade margins	396.9	531.3	593.6	691.5	1,521.3	
of which: oil and gas industry	101.6	128.3	154.9	161.7	552.3	
GDP of trade sector at basic prices	320.7	416.3	495.6	604.6	1,284.8	1,944.3
of which: gross profits	181.0	265.7	317.2	388.2	955.2	
Transportation margins	131.6	173.8	195.8	187.9	211.0	
of which: oil and gas industry	77.0	105.5	102.5	107.3	74.0	
GDP of transportation and communications sector at basic prices	171.0	241.1	278.2	272.5	415.2	584.9
of which: gross profits	91.3	116.5	127.2	121.3	202.9	
Russian total						
GDP at market prices	1,540.9	2,152.8	2,523.5	2,694.1	4,819.6	7,302.2
Gross profits	642.3	827.0	945.0	938.7	2,125.6	
In percent of total GDP at market prices						
Total GDP (at market prices)	100.0	100.0	100.0	100.0	100.0	100.0
Trade sector (at basic prices)	20.8	19.3	19.6	22.4	26.7	26.6
of which: trade margins of oil and gas industry <sup>c</sup>	4.8	4.6	4.8	4.7	8.6	10.7
Transportation and communications sector (at basic prices)	11.1	11.2	11.0	10.1	8.6	8.0
of which: transportation margins of oil and gas industry <sup>c</sup>	3.8	3.9	2.8	2.3	1.0	1.0
In percent of total gross profits						
Total gross profits	100.0	100.0	100.0	100.0	100.0	
of which: trade sector	28.2	32.1	33.6	41.4	44.9	
of which: transportation and communications sector	14.2	14.1	13.5	12.9	9.5	

<sup>a</sup>The trade sector includes trade and public catering, procurements, real estate, and general commercial activities supporting the functioning of the market.

<sup>b</sup>Data obtained from Goskomstat Rossii in April 2002.

<sup>c</sup>Derived from Table 5.

Sources: Compiled by the author from *Sistema*, 2000, pp. 24-29, 38-49; 2002, pp. 36-47, 50-55, 144-155, 158-163; and *Tablitsy*, 2001, pp. 16-21, 30-41, 102-107, 116-127.

The largest amount of revenue was obtained in the form of excises. In the period 1998–2001, about 70–80 percent of these excises were forthcoming from gas and the balance from gasoline and crude oil.<sup>12</sup> Table 8 reveals a specific characteristic of excise payments.<sup>13</sup> The

<sup>12</sup>Calculated from data sources shown in footnote “d” in Table 7. Although excises on oil, gas, and gasoline have flowed exclusively to the federal budget, there have always been some differences between consolidated budget revenues (sum of federal and regional budget revenues) and federal budget revenues from these excises, which have been published in the monthly statistical publication *Sotsial'no-ekonomicheskoye polozheniye Rossii (SEP)*. In Table 7 we use the consolidated budget data for these excise revenues.

<sup>13</sup>Since 2001, the Ministry of Finance has calculated the tax potential of each region in order to determine the amount needed by the fund for the financial support of the region, using tax revenue data by branch. Table 8 was compiled from such data, derived from the website of the Ministry of Finance (the section on relations between federal and regional budgets).

**Table 7.** Tax Revenues from the Russian Oil and Gas Industry, 1995–2001  
(in billions of new rubles)

Type of taxation	1995	1996	1997	1998	1999	2000	2001
Taxes on production and imports <sup>a</sup>	53.5	137.7	154.0	115.9	241.4		
In percent of consolidated budget revenues	12.2	24.7	21.6	16.9	19.9		
Taxes on products <sup>b</sup>	36.3	108.0	116.7	75.9	169.5		
VAT <sup>c</sup>	8.5				22.1		
Excises <sup>d</sup>	18.3		45.0	42.5	70.3	112.8	166.3
Export duties <sup>e</sup>	2.0	7.1	0.0	0.0	16.0	100.4	148.7
Other (residuals)	7.5		71.7	33.4	61.1		
Other taxes on production	17.2	29.7	37.3	40.0	71.9		
Geology deductions <sup>f</sup>	1.8				19.1	46.7	32.6
Profit taxes <sup>c</sup>					36.5		
Natural resource payments <sup>c</sup>					24.0		
Consolidated budget revenues <sup>g</sup>	437.0	558.5	711.6	686.8	1,213.6	2,097.7	2,674.0

<sup>a</sup>Taxes on production and imports = taxes on products + other taxes on production.

<sup>b</sup>For 1996–1999, net taxes on products.

<sup>c</sup>For 1999, the author's estimates are from Ministerstvo finansov RF (2002a). They exclude revenues levied by the GTK (see Table 8).

<sup>d</sup>For 1997–1998 and 2001, data are from *SEP* (1999, No. 1, pp. 201-202; 2000, No. 1, p. 142; 2002, No. 1, pp. 165-166) and for 1999 and 2000 from *Ob ispolnenii* (2001, 2002). *SEP* data do not include excise revenues collected by the GTK.

<sup>e</sup>For 1996–2001, author's estimate calculated from export and tax rate data, excluding export duties on petroleum products.

<sup>f</sup>Estimated as 80 percent of geology deductions (see footnote 19 of the text), the data of which are from Ministerstvo finansov RF (1996, 2000, 2001b, 2002b).

<sup>g</sup>Sum of federal and regional budget revenues.

*Sources:* Compiled by the author from *RSY*, 2001, p. 529; *Sistema*, 2000, pp. 10-13, 24-29; 2002, pp. 8-11, 50-55, 116-119, 158-163; *Tablitsy*, 2001, pp. 8-13, 16-21, 94-99, 102-107.

bulk of the excises on gas (56.9 billion rubles in 1999)<sup>14</sup> was not paid by the gas industry, but by the transportation sector. On the other hand, excises on crude oil (5.0 billion rubles in 1999; see *SEP*, 2000, No. 1, p. 147) were mostly paid by the oil industry. This difference was explained by the different organizational structures of the two industries. In the gas industry, transportation companies (subsidiaries of Gazprom) that rent a high-pressure pipeline from the parent company pay excise taxes,<sup>15</sup> whereas in the oil industry the payments are made by oil-extracting enterprises.

Export duties represent another important source of tax revenues from oil and gas. The duties were abolished in 1996 in response to persistent urgings of the International Monetary Fund (IMF), but resumed in 1999 after the Russian financial crisis and the ensuing depreciation of the ruble. Because volumes of export duties on oil and gas have never been officially

<sup>14</sup>In order to be comparable with the data in Table 8, this amount includes only federal budget revenues and excludes those levied by the GTK (*SEP*, 2000, No. 1, p. 147).

<sup>15</sup>The organizational structure of Gazprom is detailed, for example, in OECD (2002, pp. 107-108).

**Table 8.** Russian Tax Revenues by Sector<sup>a</sup>

Sector	Total		VAT		Excise		Profit tax	Natural resource payment
	1998 <sup>b</sup>	1999	1998 <sup>b</sup>	1999 <sup>c</sup>	1998 <sup>b,c</sup>	1999 <sup>c</sup>	1999 <sup>c</sup>	1999 <sup>c</sup>
In billions of rubles								
Total	496.0	884.5	111.0	161.4	45.9	75.8	82.9	10.6
Industry	212.2	400.2	43.3	63.8	16.7	20.3	42.6	9.0
Electricity	29.3	30.2	10.8	7.7	0.0	0.0	2.1	0.2
Fuel	60.3	127.0	7.3	19.2	11.2	10.0	13.6	5.9
Oil		85.9		11.2		4.3	11.2	4.1
Oil refining		16.2		1.8		4.3	1.3	0.1
Gas		17.9		5.2		1.3	0.9	1.5
Metallurgy	18.6	46.4	0.0	-4.7	0.0	0.0	9.8	1.7
Chemicals	7.9	19.7	1.0	1.6	0.0	0.1	2.7	0.2
Machinery	33.2	61.3	9.0	16.9	0.4	-0.8	6.1	0.3
Wood and paper	5.9	15.2	0.9	1.4	0.0	0.0	2.2	0.4
Construction materials	6.3		1.8		0.0			
Textiles and footwear	3.0		1.0		0.0			
Food	38.8	70.8	9.9	14.7	5.0	10.9	3.6	0.1
Other industries	9.0	29.5	1.7	7.1	0.1	0.1	2.6	0.3
Agriculture	6.0	10.2	1.3	2.3	0.0		0.3	0.2
Construction	34.3	51.2	11.1	15.5	0.0	0.0	3.9	0.1
Transportation	75.5	134.1	17.9	25.4	23.3	52.2	9.4	0.1
Trade and catering	47.2	83.9	13.0	14.2	5.8	3.1	7.6	0.1
Housing and public utilities	14.5	19.2	4.0	5.1	0.0	0.0	1.0	0.2
Finance, credit, insurance, and pension		31.6		3.0		0.0	7.9	0.0
Other	106.2	154.2	20.5	32.1	0.0	0.1	10.2	0.8
In percent of total								
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Industry	42.8	45.2	39.0	39.5	36.4	26.8	51.4	84.9
Electricity	5.9	3.4	9.7	4.8	0.0	0.0	2.5	2.1
Fuel	12.2	14.4	6.6	11.9	24.4	13.2	16.4	55.6
Oil		9.7		6.9		5.7	13.5	38.8
Oil refining		1.8		1.1		5.7	1.6	0.9
Gas		2.0		3.2		1.7	1.1	14.0
Metallurgy	3.7	5.2	0.0	-2.9	0.0	0.0	11.8	15.7
Chemicals	1.6	2.2	0.9	1.0	0.1	0.1	3.2	1.6
Machinery	6.7	6.9	8.1	10.4	0.8	-1.1	7.3	3.0
Wood and paper	1.2	1.7	0.8	0.8	0.0	0.0	2.6	3.6
Construction materials	1.3		1.6		0.0			

*(table continues)*

Table 8. Continued

Sector	Total		VAT		Excise		Profit tax	Natural resource payment
	1998 <sup>b</sup>	1999	1998 <sup>b</sup>	1999 <sup>c</sup>	1998 <sup>b,c</sup>	1999 <sup>c</sup>	1999 <sup>c</sup>	1999 <sup>c</sup>
Textiles and footwear	0.6		0.9		0.0			
Food	7.8	8.0	8.9	9.1	11.0	14.4	4.4	0.9
Other industries	1.8	3.3	1.5	4.4	0.2	0.1	3.1	2.4
Agriculture	1.2	1.2	1.1	1.5	0.1		0.3	1.7
Construction	6.9	5.8	10.0	9.6	0.0	0.0	4.7	1.3
Transportation	15.2	15.2	16.1	15.7	50.7	68.9	11.3	1.2
Trade and catering	9.5	9.5	11.7	8.8	12.7	4.1	9.2	1.3
Housing and public utilities	2.9	2.2	3.6	3.2	0.0	0.0	1.2	2.3
Finance, credit, insurance, and pension		3.6		1.8		0.0	9.5	0.1
Other	21.4	17.4	18.5	19.9	0.1	0.2	12.3	7.3

<sup>a</sup>Excluding tax revenues levied by the GTK.

<sup>b</sup>Excluding data on finance, credit, insurance, and pension.

<sup>c</sup>Including only federal budget revenues.

Sources: Compiled by the author from Ministerstvo finansov RF, 2001a, 2002a.

reported, we proceeded to develop a set of estimates presented in Table 7.<sup>16</sup> As shown in that table, especially for the years 2000 and 2001, their contribution to the state budget grew considerably and approached the level contributed by excises. According to our estimates, for 2000 and 2001, roughly 77 percent of the combined export duties on oil and gas were collected from oil.

It is thus evident that the oil industry pays taxes mainly in the form of export duties, while the gas industry settles accounts in the form of excises. This tendency, as noted below, is gaining momentum in 2002.

Contributions of other forms of rent revenues from oil and gas—geology deductions and royalties—seem to be relatively small. However, unlike excises and export duties on oil and gas, which have flowed exclusively into the federal budget, most of these two rent forms have been identified as revenues of regional budgets.<sup>17</sup> Table 9 discloses that regional budgets received approximately 70–80 percent of these two revenue streams in the years 1999–2001.<sup>18</sup> The table also demonstrates that the revenue streams from geology deductions and royalties emanated from a small number of regions, chiefly those producing oil and gas (see

<sup>16</sup>Export duties in 1996–2001 (Table 7) were estimated using export data and statutory tax rates, reflecting legal tax obligations and disregarding widely observed tax exemptions and evasions (export duties for 1995 were reported in *Sistema*, 2000). Although the estimated duties exclude those on petroleum products, they are not entirely meaningless, at least with regard to recent years. For example, it was reported that export duties attributed to the fuel and energy sector amounted to 25 billion rubles in 1999 (*Ekonomika i zhizn'*, 2000, No. 13, p. 3), whereas the estimate reported in Table 7 is 16.0 billion rubles.

<sup>17</sup>Unless otherwise specified, “regional budgets” in this paper refers to consolidated budgets of subjects of the Russian Federation (Russia’s 89 regions), including local budgets (budgets of rayons, cities, and villages).

<sup>18</sup>In 2001, regional budget revenues from geology deductions decreased significantly (see Appendix).

**Table 9.** Revenues Attributed to Geology Deductions and Royalties, 1997–2001, in billion new rubles

Distribution	1997	1998	1999	2000 <sup>a</sup>	2001 <sup>a</sup>
Geology deductions			23.9	58.4	52.8
Federal budget			7.4	15.2	25.3
Regional budget	6.9	7.5	16.5	43.2	27.5
Share of regions (pct.)					
Khanty-Mansiysk AO	53.4	50.3		55.3	24.0
Yamal-Nenets AO	22.3	23.4		9.7	12.1
Tatarstan Republic	0.0	0.0		12.9	21.0
Bashkir Republic	0.0	5.1		4.1	4.8
Sakha Republic	4.1	5.1		2.8	5.6
Royalties			30.1	58.8	66.5
Federal budget			7.2	13.1	16.6
Regional budget	11.9	11.2	22.9	45.7	49.9
Share of regions (pct.)					
Tyumen' Oblast <sup>b</sup>	14.0	13.3		14.0	16.3
Khanty-Mansiysk AO	29.4	24.0		29.4	34.0
Yamal-Nenets AO	21.8	25.1		12.0	15.8
Tatarstan Republic	5.6	4.4		9.6	5.0
Bashkir Republic	2.3	2.4		5.6	1.2
Sakha Republic	3.3	6.2		5.4	5.8

<sup>a</sup>Regional budget data are derived from Ministerstvo finansov RF, 2001c and 2002c, and federal budget data are from Ministerstvo finansov RF, 2001b and 2002b.

<sup>b</sup>Refers to Tyumen' Oblast proper, not including the Khanty-Mansiysk or Yamal-Nenets autonomous okrugs.

Sources: Compiled by the author from Ministerstvo finansov RF, 1998, 1999, 2000, 2001b, 2001c, 2002b, 2002c.

Table 2), but also from the Sakha Republic. The share of Tyumen' Oblast with its two autonomous okrugs (AOs), Khanty-Mansiysk and Yamal-Nenets, has been overwhelmingly high.<sup>19</sup>

The most significant change in taxation of oil and gas since 1991 occurred in the beginning of 2002, when mineral extraction taxes (severance taxes) were introduced to replace excises on oil, geology deductions, and most royalties. In addition to that change, the new scheme was expected to increase tax revenues from oil and gas by providing more detailed and clarifying specifications, so as to increase the dependence of tax rates on world market prices (especially of oil) and concentrate these rent revenues in the federal budget (see Appendix for details). The effect of this major change on the economy remains to be seen.

### SURPLUS FROM OIL AND GAS EXPORTS

The research and interpretations presented in this paper suggest that the trade and transportation sector (and particularly the trade sector) absorbed significant portions of the profits

<sup>19</sup>The four regions, except for Sakha, listed in Table 9 (i.e., Khanty-Mansiysk AO, Yamal-Nenets AO, Tatarstan, and Bashkortostan) accounted for 76–82 percent of regional budget revenues from geology deductions in 1997–2000. Accordingly, we estimated that geology deductions from oil and gas were as high as 80 percent of the total (see Table 7). Sakha's geology deductions are largely a consequence of diamond production.

**Table 10.** Russian Exports of Oil and Petroleum Products to “Tax-Haven” Countries, 1995–2001<sup>a</sup>

Country and product	1995	1996	1997	1998	1999	2000	2001
Exports of oil and petroleum products	18.3	23.4	22.1	14.5	18.8	36.2	34.0
Oil	13.3	15.9	14.8	10.3	14.1	25.3	24.6
Petroleum products	5.0	7.5	7.3	4.3	4.7	10.9	9.4
Exports to “tax haven” countries	1.9	3.0	2.3	1.9	3.0	5.9	4.5
Oil	1.1	1.9	1.6	1.5	2.3	4.0	3.1
Petroleum products	0.8	1.1	0.7	0.4	0.7	1.9	1.5
Share of “tax haven” countries in those exports (pct.)	10.3	12.9	10.3	12.8	16.2	16.4	13.3
Oil	8.2	12.1	10.8	14.3	16.6	15.8	12.4
Petroleum products	16.0	14.8	9.5	9.0	15.1	17.6	15.6
Exports of oil and petroleum products to specific “tax-haven” countries							
Virgin Islands (UK)	1.3	1.6	0.6	0.9	1.7	3.2	2.8
Oil	1.0	1.2	0.5	0.8	1.4	2.7	2.3
Petroleum products	0.3	0.4	0.2	0.1	0.3	0.5	0.5
Share of oil and petroleum products (pct.)	98.3	98.7	80.5	83.4	95.8	95.8	94.7
Cyprus	0.1	0.2	0.2	0.1	0.1	1.6	1.2
Oil	0.0	0.0	0.1	0.1	0.0	0.7	0.5
Petroleum products	0.1	0.2	0.2	0.0	0.0	0.9	0.7
Share of oil and petroleum products (pct.)	29.3	33.0	36.0	22.3	45.9	92.8	78.1
Gibraltar	0.0	0.1	0.7	0.5	0.7	0.7	0.3
Oil	0.0	0.1	0.6	0.4	0.4	0.4	0.1
Petroleum products	0.0	0.1	0.1	0.1	0.3	0.4	0.1
Share of oil and petroleum products (pct.)	13.4	99.3	98.9	95.2	96.6	98.3	83.1
Panama	0.1	0.2	0.2	0.1	0.1	0.1	0.1
Oil	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Petroleum products	0.1	0.2	0.2	0.1	0.1	0.1	0.1
Share of oil and petroleum products (pct.)	58.2	69.8	81.3	80.0	83.2	78.7	44.3
Bermuda	0.0	0.2	0.1	0.1	0.3	0.1	0.1
Oil	0.0	0.2	0.1	0.1	0.3	0.1	0.1
Petroleum products	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Share of oil and petroleum products (pct.)	99.9	98.2	90.7	88.2	98.5	100.0	100.0
Bahamas	0.1	0.2	0.1	0.0	0.1	0.1	0.0
Oil	0.0	0.1	0.1	0.0	0.1	0.1	0.0
Petroleum products	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Share of oil and petroleum products (pct.)	96.2	92.7	89.7	65.9	80.0	91.4	19.5
Lichtenstein	0.1	0.1	0.2	0.1	0.1	0.1	0.0
Oil	0.0	0.1	0.1	0.1	0.1	0.1	0.0
Petroleum products	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Share of oil and petroleum products (pct.)	38.0	57.2	79.9	65.3	93.4	63.2	7.0

<sup>a</sup>In billions of current dollars unless otherwise noted. In addition to those countries listed explicitly in the table, other tax-haven countries include Antigua and Barbuda, Barbados, Belize, the Cayman Islands, Isle of Man, Liberia, Malta, Monaco, Nauru, Netherlands Antilles, Niue, Samoa, St. Vincent and the Grenadines, Vanuatu, and the Virgin Islands (U.S.). These countries were chosen by referring to the “Tax Haven Update” of the OECD website.

Sources: Compiled by the author from *Tamozhennaya*, for the respective years.

generated by the oil and gas industry in the form of “margins.” As shown in Table 6, the trade sector’s gross profits accounted for more than 40 percent of Russia’s total in 1998 and 1999, surpassing the sector’s share of total GDP (22–27 percent) and convincingly illustrating the concentration of profits in the sector. However, this sector has not contributed to the state budget proportionately. As shown in Table 8, the share of the “trade and catering” sector in the total tax payment was a mere 9.5 percent in 1998–1999. And more importantly, its share in profit tax payments was only 9.2 percent in 1999. We may thus posit that the oil and gas companies succeeded in evading tax payments by changing their organizational structure and transferring a substantial amount of profits to their subsidiaries in the trade and transportation sectors.

It is worth noting that the city of Moscow has been the center of the trade sector, not only due to the concentration of retail trading, but also because of the trade margins of the oil and gas industry. In 1999, 32.2 percent of Moscow’s GDP was produced by the trade sector—an amazing share when compared with the corresponding figure of 14.1 percent for Russia as a whole (*Regiony*, 2001, Vol. 2, pp. 296–297). While retail trade turnover in Moscow accounted for 32 percent of Russia’s total, the GDP of Moscow’s trade sector amounted to 37 percent of the country’s 1999 total.<sup>20</sup>

Kuboniwa (2002a) suggested that the oil and gas sector constituted one of the main conduits of Russia’s capital flight to bank accounts and investments in the West and elsewhere. Although we lack conclusive evidence to prove the point, Russian exports to the so-called “tax-haven” countries reveal an interesting fact. As shown in Table 10, as much as 10–16 percent of Russia’s exports of oil and petroleum products have gone to the tax havens since 1995. Moreover, the share of oil and petroleum products in Russia’s exports to each such country has often exceeded 90 percent. This means that some of these countries imported only oil and petroleum products from Russia. Although we have not investigated the energy consumption patterns of any of these countries, it is plausible that at least a part of the revenues from Russian exports has remained abroad, contributing to the flight of capital.<sup>21</sup>

### CONCLUDING NOTE

As this study demonstrates, detailed statistical research, which during the period of Communism was virtually the only tool available to Western students of the Soviet economy, continues to be useful nearly 11 years after the dissolution of the USSR. This study is based on such “Sovietological” methods, although the volume of data now accessible would have exceeded the wildest expectations of any Soviet-era investigator. That being said, in certain parts of the paper, such as those dealing with capital flight and tax evasion, the data remain inconclusive and only suggest directions for future research. It is possible that, given enough time, more information may become available to facilitate a probe of these murky waters. With regard to purely statistical findings, three basic conclusions appear to be warranted. First, it is rather apparent that a considerable portion of revenues derived from oil and gas exports are transferred from the extracting companies to the trade and transportation sectors. These transfers typically are executed by means of trade and transportation margins. Second, the tax burden of enterprises engaged in oil and gas extraction has been heavy and tax

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<sup>20</sup>Calculated from *Regiony* (2001, Vol. 2, pp. 293–294, 296–297). Here, the “trade sector” is defined narrowly, including only trade and catering.

<sup>21</sup>In other words, not all of the oil and oil products “imported” by these countries are actually consumed there, but rather are sold to customers in other destinations—*Ed, EGE*.

schemes have been frequently reformed. Finally, and in contrast to the situation experienced by the extracting enterprises, taxation of profits transferred from the oil and gas industry to the trade sector appears to have been far from adequate.

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APPENDIX ON TAXATION, 1995–2002<sup>22</sup>**Excises**

All excise revenues derived from oil and gas are included in the federal budget. Excises on oil were specific taxes paid by producers of oil in proportion to physical quantities of production. While prior to the year 2000, tax rates imposed on oil-extracting companies were not uniform, they were equalized at the level of 55 rubles per ton in the beginning of that year (Federal Law No. 2 of January 2, 2000). A year later, in 2001, the tax rate was increased to 66 rubles per ton (Article 193 of the Tax Code, put into effect on January 1, 2001). Excises have been levied on exported oil as well.<sup>23</sup> In the years 1996–2001, the excises on exported oil were levied by the GTK (Government Decree No. 908 of July 27, 1996). Those on oil were abolished in the beginning of 2002, at a time when severance taxes were introduced.

Excises on gas are ad valorem taxes paid by sellers (gas transportation companies) that sell gas to distribution companies or directly to final industrial users.<sup>24</sup> Until the end of 1998, the tax rate comprised 30 percent of the selling prices of gas, including exported gas. In the beginning of 1999, its domestic tax rate was reduced to 15 percent of the selling prices (Government Decree No. 81 of January 22, 1999).<sup>25</sup> Unlike the case of oil, excises on exported gas have been levied by the Ministry of Taxes and Duties (Government Decree No. 277 of March 11, 1997).<sup>26</sup> Excises on gas continue to be collected even after the recent introduction of severance taxes in 2002.

As for petroleum products, excise taxes have been levied on gasoline since 1994 (Government Decree No. 273 of March 31, 1994), and on diesel fuel, and diesel and carburetor engine oil since 2001 (Article 193 of the Tax Code). Exports of petroleum products are exempted from excises (Articles 183–184 of the Tax Code); prior to July 1, 2001, exports to CIS countries had been taxed by excises (see footnote 23 and Article 13 of Federal Law No. 118 of August 5, 2000).

**Export Duties**

All export duties on oil and gas are similarly incorporated into federal budget revenues. Until 1996, they had been levied on exports to all countries, and later, after resumption in 1999, exclusively on exports to non-CIS countries. Since mid-1999, export duties have been collected on exports to countries other than the member states of the Customs Union (namely, Belarus, Kazakhstan, Kyrgyzstan, and Tajikistan). This arrangement is roughly

<sup>22</sup>See Sagers et al. (1995, pp. 414-419) for taxation on oil and gas in the first half of 1990s and Sagers (2001, pp. 179-181) for a brief description of the following years.

<sup>23</sup>In Russia excises have been exempted, in principle, from goods exported to non-CIS countries. But exports of oil and gas have been treated as an exception (see Item 4, Article 3 of the Law on Excises in its version prior to February 14, 1998 or Item 1, Article 5 of that law in the version of February 14, 1998). Different descriptions were provided in the Tax Code (see Articles 182–184).

<sup>24</sup>Prior to 2000 see Instruction No. 58 of the Ministry of Taxes and Duties, approved by its Order of March 22, 2000. From 2001 onward, see Articles 182 and 188 of the Tax Code and Order of this Ministry of December 12, 2000.

<sup>25</sup>With respect to exports to Belarus, the excise tax rate was reduced to 15 percent as well.

<sup>26</sup>Government Decrees No. 359 of April 1, 1996 and No. 908 of July 27, 1996 stipulated that excises on exported gas would be levied by customs organizations. However, these two decrees were soon nullified by Government Decrees No. 482 of April 19, 1996 and No. 277 of March 11, 1997, respectively.

balanced by VAT taxes on exported oil and gas. In Russia, VAT on exported goods has been levied solely on exports to CIS countries, to which the principle of taxing the country of origin has been applied.<sup>27</sup>

Export duties on oil were abolished on July 1, 1996, but resurrected in January 1999. While in 1995 the tariff was set at 20–23 euros per ton, tariffs were gradually increased by government decrees from 2.5 euros in January 1999 to 48 euros two years later. In tandem with the introduction of severance taxes, a new scheme for the setting of export tariffs that depends on world prices on oil was introduced on February 1, 2002 (Federal Law No. 190 of December 29, 2001). Since October 1, 2002 the tariff has been set at \$26.20 per ton (Government Decree No. 671 of September 13, 2002).

Export duties on gas were abolished on April 1, 1996 and reintroduced in late December 1999. In 1995 the relevant tariff was only 2 euros per ton (1 ton = 1,150 cubic meters of gas). In 1999 export duties on gas became ad valorem taxes with a tariff set at 5 percent (at least 2.5 euros per ton; Government Decree No. 1403 of December 17, 1999).<sup>28</sup> Export duties on petroleum products were abolished on January 1, 1996 (Government Decree No. 1204 of November 30, 1995), and reintroduced on January 16, 1999 (Government Decree No. 45 of January 11, 1999).

### **Deductions for the Regeneration of the Mineral and Raw Material Base (geology deductions)**

Geology deductions are special-purpose taxes used primarily for geological surveys and evaluation of potential areas and deposits (Article 44 of the Law on the Subsoil of February 21, 1992). The tax rate on oil and gas has been set at 10 percent of the value of realized products (Resolution of the Supreme Soviet No. 4546 of February 25, 1993 and Federal Law No. 224 of December 30, 1995). However, since the Government Decree No. 1359 of December 30, 1993 permitted some extracting companies to finance geological exploration by themselves, actual tax rates ranging from 0 to 10 percent were specified by the Russian Federation Committee on Geology and Use of the Subsoil Resources (later the Ministry of Natural Resources, or Roskomnedra).<sup>29</sup>

Government Decree No. 597 of May 17, 1996 stipulated that geology deductions were to be distributed by Roskomnedra among different budgets according to federal and regional programs for geological surveying and regeneration of the mineral and raw material base (Vyskrebentsev, 2000, p. 28). During the period 1997–2000, the Fund for the Regeneration of the Mineral and Raw Material Base was structured as a budget fund (see Government Decree No. 986 of August 2, 1997). In 2001 the budget fund was abolished (Article 7 of the federal budget law for 2001), and as a result of this abolition, some regional budget revenues from geology deductions probably were reduced significantly. Finally, in 2002 all geology deductions were discontinued after the introduction of severance taxes.

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<sup>27</sup>Even after July 2001, when the principle of taxing the country of destination began to be applied in trades among CIS countries, exports of oil and gas (excluding petroleum products) were treated as an exception (Federal Laws Nos. 117 and 118 of August 5, 2000). The Russian side explained the situation by pointing to the considerably low export prices on oil and gas to the CIS states in comparison with world prices.

<sup>28</sup>A tax rate of 10 percent was applied during the four months from July to October 2001.

<sup>29</sup>See the Instructional Letter of Roskomnedra No. VO-25/77 of January 17, 1994.

### **Payments for the Use of Subsoil (royalties)**

Royalty tax rates for oil and gas ranged from 6 to 16 percent of the value of realized products, as specified in Government Decree No. 828 of October 28, 1992. According to this decree, actual rates for each deposit were to be determined by taking into account the quantity and quality of reserves, the physical geographic and mining conditions, and other factors. In reality, the rates were determined by negotiation (Sagers et al., 1995, p. 417). Article 42 of the Law on the Subsoil stipulated the distribution of royalties among different budgets in the following way: 40 percent was to be allocated to the federal budget, 30 percent to the regional budget, and 30 percent to the local budget.

The introduction of severance taxes in 2002 effected a fundamental change in the role of royalties. Article 39 of the revised version of the Law on the Subsoil, in effect since January 1, 2002, specified five forms of payment for the use of subsoil resources: (1) a one-time payment (bonuses); (2) regular payments (rentals); (3) payments for geological information; (4) fees for participation in auctions; and (5) fees for licenses. Although the specific character of these fees became more complex over time, the total amount or royalties is expected to be considerably smaller than in the past (Pavlova and Kanatayev, 2002; Salina, 2002).

### **Mineral Extraction Fees (severance taxes)**

So-called “severance taxes” were introduced by Chapter 26 of the Tax Code on January 1, 2002. Tax rates on oil and gas were set at a uniform rate of 16.5 percent of the value of realized products, regardless of the conditions and costs of extraction. However, with regard to oil, a special arrangement will be applied during 2002–2004; the tax rate initially is to be set at 340 rubles per ton, but adjusted using a formula tied to international market prices (Article 5 of Federal Law No. 126 of August 8, 2001). This temporary measure reportedly was enacted because “transfer prices” on oil reduced the tax base for severance taxes (Salina, 2002, p. 44), in effect transferring profits generated by oil-extracting companies to their subsidiaries in other sectors of the economy, as discussed above.

A lion’s share (80 percent) of severance tax revenues from oil and gas is distributed to the federal budget, while the balance (20 percent) is allocated to regional budgets. However, when oil or gas is extracted in an autonomous okrug, 74.5 percent accrues to the federal budget, 5.5 percent to the budget of the kray or oblast in which the okrug is located, and the remaining 20 percent to the okrug budget.<sup>30</sup> These shares suggest a further concentration of rent revenues in the federal budget.

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<sup>30</sup>See Article 11 of Federal Law No. 126 cited above, comprising an addition to Article 48 of the Budget Code.