Resource Curse and Post-Soviet Eurasia

Oil, Gas, and Modernization

Edited by Vladimir Gel'man
and
Otar Marganiya

LEXINGTON BOOKS
A division of
ROWMAN & LITTLEFIELD PUBLISHERS, INC.
Lanham • Boulder • New York • Toronto • Plymouth, UK

Published by Lexington Books
A division of Rowman & Littlefield Publishers, Inc.
A wholly owned subsidiary of The Rowman & Littlefield Publishing Group, Inc.
4501 Forbes Boulevard, Suite 200, Lanham, Maryland 20706
http://www.lexingtonbooks.com

Estover Road, Plymouth PL6 7PY, United Kingdom

British Library Cataloguing in Publication Information Available

Library of Congress Cataloging-in-Publication Data
Resource curse and post-Soviet Eurasia : oil, gas, and modernization / edited by Vladimir Gel'man and Otar Marganiya.
p. cm.
ISBN 978-0-7391-4373-5 (alk. paper) — ISBN 978-0-7391-4375-9 (electronic)
1. Petroleum industry and trade—Europe, Eastern. 2. Petroleum industry and trade—Russia (Federation) 3. Natural resources—Europe, Eastern. 4. Natural resources—Russia (Federation) 5. Post-communism—Economic aspects. I. Gel'man, Vladimir, 1965– II. Marganiya, Otar, 1959–
HD9575.E852R47 2010
338.2'7280947—dc22
2010010542

™ The paper used in this publication meets the minimum requirements of American National Standard for Information Sciences—Permanence of Paper for Printed Library Materials, ANSI/NISO Z39.48-1992

Printed in the United States of America

Contents

Figures and Tables

FIGURES

TABLES

3

The Impact of the Oil Shock on the Post-Soviet Regime Changes

Andrey Scherbak

Several scholarly approaches have been elaborated in political science to explain the failure of democratization in Russia and some other countries of the former Soviet Union, for example, the cultural approach (which focuses on illiberal and antidemocratic values and attitudes of citizens and elites of these states), the institutional approach (with an emphasis on the "perils of presidentialism"), and the path-dependency approach (which paid major attention to the authoritarian "legacies of the past"). The aim of this chapter is to propose an alternative political-economic explanation of the return of authoritarianism in a number of countries of the former Soviet Union. The explanation is based on the "resource curse" theory, which argues for the negative influence of large amounts of natural resources, in particular oil, on the economic and political development of countries with respective resources. The analysis used the data from 1996 to 2008, which covered the "oil shock" period of 2003–2008. This chapter demonstrates the negative impact between the amount of natural resources (especially oil and gas), which is measured by the export of mineral resources as a share of GDP, and the level of democracy. I also test two causal mechanisms that may explain this influence—the negative effect of oil rent on the public activism and citizen participation (rentier effect) and the use of oil rent to strengthen a coercive apparatus (repression effect). I advance the proposal that the inequality effect is increasingly significant for political development, which might be considered a side effect of the increase of the resource rent in oil-rich countries. Rulers of authoritarian political regimes destroy

ɔcratic institutions, aiming to maximize their control over rents :heir distribution.

The structure of the chapter looks as follows. The first part pres- an overview of the different aspects of the theory of the resource e, mainly concerning the political consequences of this phenom- . In this section I discuss the mutual dependency of regimes, nues, and inequality. The second part is devoted to the data and nodology. The third part presents the results of analysis and their pretation. Then, the application of the resource curse theory to ia's political developments is discussed. Preliminary conclusions utlined in the end of the chapter.

OURCE WEALTH—CURSE FOR DEMOCRACY?

literature devoted to analysis of the effects of large amounts of ral resources on the political and economic developments of us states and nations is extensive.[1] Below are some of the most lar explanations:

- The negative influence of export of natural resources on the economic development—the *"Dutch disease" effect*. The growth of revenues in the resource sector leads to a huge inflow of labor and capital from the production sector into the resource sector and the nontradable goods sector. This leads to a decline in labor productivity, and, as a consequence, to the economic stagnation.[2]
- The negative influence of export of natural resources on the economic development—the *rent-seeking effect* and the *voracity effect*. Economic agents in the resource-dependent economy (oriented toward an export of natural resources) experience a drastic increase in export rents and move from production sectors of economy to the parasitic rent-seeking. This sector is not involved in the production of goods or services, but grabs from the production sector, using coercive methods, and often with the use of violence. As a result, the greater the revenue from the coercive extraction of rents, the lower the revenue from the production sector, which leads to economic stagnation.[3] The "voracity effect" means that the increase in state expenditures grows more quickly that the increase of revenues from rent, in many ways because of aggressive pressure from special interest groups oriented toward rent-seeking.[4]

- The negative influence of export of natural resources on the political development of countries—the increase in likelihood of the *initiation of violent conflicts* (including civil wars), and also the encouragement to continue these conflicts. In many developing countries, control over sources of natural resources is the cause of the outbreak of violent conflicts (including civil wars). Also, the revenues from the sale of easily lootable resources are the major source of financing for the rebellious and separatist groups. Often in these conflicts, the means and the ends are mixed up; the fact is that an abundance of natural resources increases the risk of civil wars and violent political conflicts.[5]
- The negative influence of the export of natural resources on the political development of countries—*weakening of political institutions, decline of incentives for democratization, and the rise of authoritarian trends*, which contribute to preservation of political control over resource rents.[6]

This chapter will be focused on the last effect, that is, the mutual influence of the export of natural resources and the degree and quality of democracy and authoritarianism. Scholars proposed a number of arguments about the nature of the influence of export of natural resources on political regimes. First, when governments derive major revenues from the oil exports, they are likely to tax their populations lightly or not at all, and the public in turn will be less likely to demand accountability from—and representation in—their governments. Why collect taxes if it is easier and more advantageous to receive revenues from exports? Taxation issues are one of the most important incentives for citizens to participate in politics; thus, the interest of individual involvement in politics and as an influence on the political process declines in oil states. One might recall the famous slogan: "No taxation without representation." However, the opposite is also true: no representation without taxation.

Second, oil wealth may lead rulers to greater spending on mass patronage, which in turn dampens open and latent bottom-up pressures for democratization. Extra revenues allow the government to increase social payments, pensions, and benefits, and thus buy the political loyalty of citizens, providing them a showcase of economic efficiency and prosperity.

Third, revenues from export of natural resources encourages a weakening of democratic institutions thus undermining political accountability. The government aims to maximize its control over

resource rent and distribution of revenues, and is interested to make this process as nontransparent as possible.

Fourth, the government is inclined to spend more on the state machinery of coercion. This is caused by two reasons: (1) increase of its control over the political developments, because of fears of losing control over resource rent in case of losing political power, and (2) providing additional jobs in the respective agencies such as police and security apparatus because of the poor development of other sectors of the economy, thus averting social tensions.

Fifth, the government expands the state machinery (not just the law enforcement agencies) and the public sector as a whole in order to co-opt potential autonomous social groups and prevent dissenting individuals from political disloyalty and oppositional activism. Oil revenues provide a government with enough money; the government will use this opportunity to prevent the formation of organizations that are operated independently from the state and hence that may be inclined to demand political rights.

Sixth, resource-based economic growth as such may not lead to the process of modernization, which presumed fundamental social, cultural, and political changes. The lack of sociocultural shifts in resource-rich countries contributed to postponing of the modernization project, while export revenues were used merely for the increase in consumption and other current needs. Scholars also acknowledge that the export of different natural resources may have a different influence on these effects.[7]

One of the most seminal studies in this field is the article by Michael Ross, "Does Oil Hinder Democracy?,"[8] where he analyzed the linkage between political regimes and oil export in Europe, the Middle East, Africa, and Latin America. Ross included in his analysis 113 countries for the period between 1971 and 1997. The major conclusion is that there is a negative correlation between the export of oil and minerals and transitions to democracy. Ross proposed three causal mechanisms to explain this phenomenon. The first causal mechanism is the "rentier effect," that is, the low dependence of the government upon tax collection and upon state expenditures. Ross found both these factors as statistically significant for political regimes in oil-exporting states. The second causal mechanism, the "repression effect," involves the argument of coercion, that is, the influence of extra revenues from export of oil on the level of state expenditures on the military and law enforcement apparatus, and the number of employees in this sector. The level of expenditures on military, police, and security apparatus of the state was statistically insignificant, but the number

of military and law enforcement officers and servants demonstrated a strong significance: the degree of democratization is negatively correlated with the size of the coercive apparatus of the state. The third causal mechanism, the "modernization effect," proved to be of little statistical significance.

In his study, Ross did not make a special emphasis on countries of the former Soviet Union. This chapter aims to fill this gap. The idea of the analysis is to test the assumption on the dependence between the large amounts of natural resources and the level of democracy in post-Soviet countries. I will try to test the hypotheses advanced by Michael Ross based on the post-Soviet experiences. Indeed, the political paths of post-Soviet countries have diverged widely: from Estonia, Latvia, and Lithuania that were accepted into the European Union to the authoritarian patrimonial Turkmenistan. In the early 1990s, the initial political conditions in all countries were rather similar, while their economic conditions were different. After almost two decades, the political and economic trajectories of all the countries seriously differ. There are countries that are not much involved in the export of natural resources, and there are countries that primarily live due to their resources rents. Does this diversity affect democratization and authoritarianism in the post-Soviet world?

In the early study, the influence of natural resource wealth on the change of post-Soviet regimes has been analyzed.[9] I took data for the fifteen post-Soviet countries for the period of 1996–2004 and tested hypotheses proposed by Ross. An analysis demonstrated a negative link between large amounts of natural resources (especially oil and gas), which was calculated as a share of export in GDP, and the level of democracy. Among the causal mechanisms proposed by Ross, the repression effect was confirmed; the rise of authoritarian tendencies in post-Soviet countries can be explained by an increase in the size of the coercive apparatus of the state. For this chapter, I included in analysis the data for 2005–2008, the "oil shock" period, and test the same hypotheses. Furthermore, I make a special emphasis on the influence of the rise of inequality under the period of economic growth.

There is an alternative assumption that the resource abundance may also have a positive effect on democratization, although not a clear one. In Thad Dunning's recent book, *Crude Democracy*,[10] the argument is advanced that in a number of cases resource rent may be used to mitigate the class conflict, which is often a major hindrance for elites to commit themselves to democracy. When elites come to power in new democracies, they often pursue a populist redistributive policy. In this case, revenues from the export of natural resources

may be viewed as an alternative source of funding social programs directed toward improving the living standards of the major part of the population.[11]

The standard socioeconomic approach to democracy states that democracies, as a rule, are wealthier than authoritarian regimes.[12] This also mean that for democracy a certain level of socioeconomic development is required, and increasing the median income of the population is a prerequisite for establishing democracy. However, as part of the theory of the resource curse, increasing incomes in resource-rich countries does not always lead to an advance in the process of democratization. This clearly follows from the "rentier effect" proposed by Ross: increasing revenues from resource rents increases incentives for maximization of appropriation (or reclaiming) of rent by the ruling elites, which in their turn are interested in a weakening of mechanisms of political control and accountability. As a result, democratic institutions are eroded and inequality grows over time.

I propose that the success of democratization does not depend on an increase of the level of state revenues, but that its failure may be caused by an increase in export of natural resources and flow of petrodollars. To put it differently, democratization is caused in many ways by merely political factors, and not just socioeconomic factors. An increase in the individual income and well-being of the population during the oil shock period, a decline in poverty, and the rise of an urban middle class does not cause an increasing demand for expansion of political rights. Inequality seems to negatively affect democratization in the post-Soviet countries and elsewhere. With a high degree of inequality, the ruling elites are inclined to fear providing full-fledged political rights to impoverished citizens of their respective countries. Data on inequality is presented in table 3.1.

I focus on two causal mechanisms proposed by Ross: (1) the negative influence of export of natural resources on democratization through effects of taxation and social expenditures that hinder the degree of mass political participation, and (2) the negative influence of export of natural resources on democratization through a strengthening of the coercive apparatus of the state. In order to test these proposals, the following hypotheses are put forward:

1. An increase in export of natural resources (oil, gas, and minerals) leads to a decline in the level of democracy.
2. An increase in export of natural resources (oil, gas, and minerals) leads to a decline or, at least, stagnation in the share of taxes in the state revenues and an increase in social expenditures.
3. An increase in export of natural resources (oil, gas, and minerals) leads to an increase in expenditures on the coercive apparatus of the state and to an increase in the number of officers and servants in this apparatus.

Table 3.1. GINI Index in Post-Soviet Countries in 1994 and 2006

Country	*GINI in 1994*	*GINI in 2006*
Russia	44.1	45.1
Ukraine	47.4 (1995)	41
Belarus	37.3 (1995)	32.1
Moldova	37.9	32.7
Estonia	36	33
Latvia	32.5	39
Lithuania	39	39
Armenia	32.1	37
Azerbaijan	42.8	50.8 (2002)
Georgia	49.9	43.9
Kazakhstan	31.6	41.4
Kyrgyzstan	44.3	46
Tajikistan	44.3	39.7
Turkmenistan	N/A	N/A
Uzbekistan	31	39.7

Sources: TransMONEE Database, 2008; World Income Inequality Database, 2008; World Bank, 2008[13]

DATA AND METHODOLOGY

In this study, I use the multiple logistic regression analysis for testing hypotheses. I took a sample of the fifteen countries of the former Soviet Union, in a period from 1996 to 2008. The dependent variable will be the political regime for the corresponding year in a given country. The years from 1996 to 1998 were the period of a low international oil market, and from 1999 to 2000, a swift growth of world oil prices began. The choice of this period of time will allow testing the assumption about the positive influence of the fall of oil prices on democratization. For this variable, I will use annual data from Freedom House reports. The assessment of the political regime in the Freedom House ratings of political rights and civil freedoms may vary from 1.0 to 7.0, where 1.0 is the highest value (developed democracy with full-scale

Table 3.2. Freedom House Ratings for Countries of the Former Soviet Union (2003 and 2008)

Country	*2003*	*2008*	↑↓
Armenia	*4*	*5*	↑
Azerbaijan	*5.5*	*5.5*	
Belarus	*6*	*6.5*	↑
Georgia	*4*	*4*	
Kazakhstan	*5.5*	*5.5*	
Kyrgyzstan	*5.5*	*4.5*	↓
Latvia	*1.5*	*1.5*	
Lithuania	*1.5*	*1*	↓
Moldova	*3.5*	*4*	↑
Russia	*5*	*5.5*	↑
Tajikistan	*5.5*	*5.5*	
Turkmenistan	*7*	*7*	
Ukraine	*4*	*2.5*	↓
Uzbekistan	*6.5*	*7*	↑
Estonia	*1.5*	*1*	↓

Source: Freedom House, 2009 (free countries are in italics, non-free countries are bold)[14]

political rights and civil freedoms), and 7.0 is the lowest position (total lack of democracy).

From 2004 to 2008, several regime changes occur in the post-Soviet space. The data about these changes is presented in table 3.2.

The table shows that the freedom in the post-Soviet area in 2003–2008 did not decrease in general: the decline of democracy in five countries (Armenia, Moldova, Belarus, Russia, and Uzbekistan) was "compensated" for by an increase in freedom in four countries. It is interesting that two of these countries are Baltic States (this should be explained by the influence of the European Union), and in two other countries "color revolutions" took place in 2004–2005 (Ukraine and Kyrgyzstan).

The oil shock that began in 2004 increased the share of export of natural resources (and, therefore, revenues of exporting countries) in comparison with the period of 1999–2004. The data is presented in table 3.3.

As an independent variable for measuring the dependence of the country on oil, I took the share of oil export in GDP. By "oil," I understand products that meet the classification of the UN statistics division *SITC Rev.3* in section 3 (petroleum, petroleum products, natural gas, and electric current). I borrowed this data from the World Bank, UN Comtrade Database, and the Russian Federal State Statistics Service.[16] As an indicator of the country's dependence on the export of Minerals, I similarly took the share of export of minerals in GDP. By minerals, I understand goods that come under the classification *SITC Rev.3*, section 27 (crude fertilizers, crude minerals), section 28 (metalliferous ores and metal scrap), and section 68 (non-ferrous metals). I also borrowed this data from the World Bank, UN Comtrade Database, the Russian Federal State Statistics Service, and the Interstate Statistical Committee of the Commonwealth of Independent States.[17] As an independent variable Resources, I took the share of export of natural resources in GDP. This data is calculated by combining the export of oil and minerals.

Table 3.3. Change in the Average Indicators of Export of Natural Resources for Countries of the Former Soviet Union

	1996–2003	*1996–2008*
Percentage of export of resources in GDP	8.3%	11.4%
Percentage of export of oil in GDP	7.5%	8.5%
Percentage of export of minerals in GDP	2.1%	2.3%

Sources: UN Comtrade Database, 2009; World Bank, 2008[15]

As a control variable, I use $\text{Regime}_{(t-5)}$, which reflects the political regime in the country in the five years before the selected year. This will enable tracing of the trajectory of regime changes, which in many ways depend on the logic of the previous political development of the country. This path-dependency effect prevents major regime changes depending on the current oil prices: a democratic regime cannot suddenly become authoritarian because of oil, or vice versa.

The indicator for the importance of taxation for governments is the variable Taxes, which is the share of government revenues raised through taxes on goods, services, income, profits, and capital gains. I borrowed this data from the World Bank, the Russian Federal State Statistics Service, and the Interstate Statistical Committee of the Commonwealth of Independent States.[18] The variable Government Consumption is measured as a share of GDP and includes all current expenditures for purchases of goods and services by all levels of government, excluding state-owned enterprises. It also includes capital expenditures on national defense and security. I borrowed this data from the World Bank.[19] For the variable that shows Military Expenditures, I took expenditures of the national budget on the military as a share of GDP. I borrowed this data from the World Bank.[20] The variable showing Military Personnel measures the size of the military as a share of the labor force; it includes some paramilitary forces "if

those forces resemble regular units in their organization, equipment, training, or mission." Another name for this variable is *siloviki* (literally, "men of force" in Russian). I borrowed this data from the World Bank.[21] As control variable I took Income, measured as the natural log of per capita GDP corrected for purchasing power parity (PPP), in current international dollars. The data is obtained from the World Bank.[22] As the Gini variable, the Gini coefficient, one of the most widespread indicators of inequality, is used. This data is received from the Trans-MONEE Database, the World Bank, and the World Income Inequality Database.[23]

In order to record the specific regional features, I included two control dummy variables—the Baltic States and Central Asia. The Baltic States took a path toward European integration from the time of gaining their independence, and in 2004 joined the European Union; this factor had a positive influence on democratization. Central Asia has its own developmental trajectory, affected by several cultural and historical factors, including the predominance of Islam. Belonging to this region, I suspect, should have had a negative influence on democratization.

For all independent variables, I use a two-year lag (i.e., the Regime for 2004 will correspond to the value of all independent and control variables for 2002, etc.). While Ross used a five-year lag in his article, the time range of post-Soviet period does not allow me to use such a huge lag; post-Soviet politics is notable by its considerable dynamics, and I assume that less time is required between the event and its effect. I only took a five-year lag for the variable $Regime_{(t-5)}$. All regressions are calculated with dummy variables for each year, in order to record the peculiarities of the selected years in each of post-Soviet countries.

RESULTS AND EXPLANATIONS

Before testing the main hypotheses, let's have a look at which factors influence Income. As a dependent variable, I will take Income, and as independent and control variables, I will take Resources, Oil, Minerals, $Regime_{(t-5)}$, Gini, Baltic States, and Central Asia. Model 1 includes the variable Resources, and model 2 includes the variables Oil and Minerals (see table 3.4).

Results of the regression analysis demonstrated that an increase in income is determined by the growth of export of natural resources, while model 2 demonstrated that export of oil plays a dominant

Table 3.4. Influence of Export of Natural Resources on Income (dependent variable—Income)

	Model 1	*Model 2*
	Standardized Beta-coefficients	
Baltic States	0,483**	0,398**
Central Asia	−0,348**	−0,253**
$Regime_{(t-5)}$	−0,139	−0,267*
Resources	0,434**	—
Oil	—	−0,520**
Minerals	—	−0,025
Gini	−0,174**	−0,185**
R-square	*0,602*	*0,681*
Adjusted R-square	*0,587*	*0,667*
Observations	*135*	*136*

* significant at the 0.05 level
** significant at the 0.01 level

role here. Inequality has a negative value—the higher the income of citizens of a country, the lower the level of inequality. Furthermore, model 2 shows that the political regime as such is of little importance for the level of income, but the existence of a democratic regime has a positive influence on the growth of income of residents of post-Soviet countries. The goal of this chapter is not to analyze the factors that explain the growth of incomes in the post-Soviet area, but it is important that incomes depend strongly on the export of natural resources (particularly oil), with the partial exception of the Baltic States. Thus, one might suggest that oil-exporting countries could demonstrate higher incomes, if they had more democratic regimes and could solve the problem of inequality.

The basic regression model for further analysis is the following:

$$Regime_{i,t} = a_i + b_1(Regime_{i,t-5}) + b_3(Resources_{i,t-2}) + b_3(Oil_{i,t-2}) + b_4(Minerals_{i,t-2}) + b_5(Gini_{i,t-2}) + b_6(Baltic\ States_{i,t}) + b_7(Central\ Asia_{i,t}) + b_8(Year_1) + \ldots + b_{21}(Year_{13})$$

Model 1 includes the variable Resources, and model 2 includes the variables Oil and Minerals separately (see table 3.5).

These results confirm the hypotheses that were previously tested on the data from 1996 to 2004.[24] A regression analysis shows that the export of natural resources has an antidemocratic influence in the post-Soviet area. Model 1, which shows their effect as a whole,

Table 3.5. Influence of Export of Natural Resources on Political Regimes in the Post-Soviet Area (dependent variable—Regime)

	Model 1	*Model 2*
	Standardized Beta-coefficients	
Resources	0,113**	—
Oil	—	0,144**
Minerals	—	−0,020
$Regime_{(t-5)}$	0,543**	0,501**
Gini	−0,072*	−0,078*
Baltic States	−0,364**	−0,395**
Central Asia	0,059	0,088*
R-square	*0,910*	*0,917*
Adjusted R-square	*0,897*	*0,905*
Observations	*135*	*136*

* significant at the 0.05 level
** significant at the 0.01 level

demonstrates that with a large number of control variables included in the model, Resources remain significant as a major factor of influence on the political regime. When these natural resources are divided into oil and minerals, it turns out that the major factor responsible for the trend toward authoritarianism is oil, which is unsurprising given the extremely high oil prices in 2004–2008. At the same time, mineral wealth under conditions of the oil shock does not have a significant influence on the political regime. How can this be explained? Perhaps this is because the amount of revenues from export of minerals is incomparable in its effect to the export of oil. At the same time, it is clear that a major role is also played by the regional breakdown—belonging to the Baltic States has a strong democratic effect, and belonging to Central Asia has a weak antidemocratic effect. When the Income variable is included in the analysis, both models prove to be insignificant. Inequality in both models has a weak but statistically significant negative influence on democratization in the post-Soviet region. We explain this by the fact that elites are not much interested in preserving elements of democratic control over the distribution of revenues from export of natural resources. As a result, appropriation of rent, while democratic institutions are destroyed or don't exist at all, leads to a rise of the level of inequality.

How can we interpret the negative effect of natural resources on political regime changes in the post-Soviet area? I will try to test two causal mechanisms proposed by Ross. The first mechanism explains

the antidemocratic nature of the influence of natural wealth through the "rentier effect": first, the state spends extra revenues from exportation of natural resources on social programs (increase of state expenditures to GDP) aimed at buying the loyalty of the subjects, and second, the state, which receives its major revenues from export of natural resources, is not interested in taxing its citizens and nonexport sectors of the economy (individual income taxes and corporate profit taxes). Even though fiscal agencies exist in these states, their major function is not fiscal, but rather punitive. As citizens are relatively free from major tax burden, they are not much interested in political control over the government. I introduce two independent variables and include them into the model: Government Consumption/GDP, and Taxes. I expect that government expenditures will influence democratization negatively, and taxes positively. The results of the analysis are presented in table 3.6.

As in the analysis of 1996–2004 data, the hypotheses based on the rentier effect in fact have not been confirmed. This causal mechanism does not work. Only in model 1 was the growth of government expenditures to GDP statistically significant. But with a division of resources into oil and minerals, government expenditures no longer prove significant. The insignificance of the Taxes variable may indirectly show that post-Soviet countries are covering their budgets not only with revenues from oil export, but by collecting taxes from their companies and citizens. Belonging to the Baltic States is still statisti-

Table 3.6. "Rentier Effect" (dependent variable—Regime)

	Model 1[1]	*Model 2*
	Standardized Beta-coefficients	
Resources	0,130*	—
Oil	—	0,186**
Minerals	—	−0,026
$Regime_{(t-5)}$	0,524**	0,469**
Gini	−0,046	−0,068
Government consumption/GDP	0,101*	0,075
Taxes	0,031	−0,016
Baltic States	−0,427**	−0,448**
Central Asia	0,052	0,083
R-square	*0,901*	*0,908*
Adjusted R-square	*0,880*	*0,888*
Observations	*105*	*106*

1. Model is significant at the 0.05 level
* significant at the 0.05 level
** significant at the 0.01 level

cally significant, but not to Central Asia. Inequality proves to be an insignificant variable after all.

The other causal mechanism that attempts to explain the authoritarian influence of the wealth of mineral resources is the "repression effect." It is stated that the governments fear even the hypothetical possibility of losing power—and, as a consequence, their control over the distribution of extra revenues from export of natural resources. The ruling elite starts to spend extra revenues on preserving the status quo of the authoritarian regime, which first means increasing expenses on the military and security apparatus, in order to guarantee the loyalty of the *siloviki* in the case of a possible political crisis, and second, increasing the number of *siloviki*—in order to maintain control over the political developments in the country, and in order to create jobs for those who do not join the ranks of dissidents. In order to test this effect, I added two variables—Military Personnel, and Military Expenditures/GDP. It is expected that an increase of expenditures on *siloviki* and an increase of their number will have an antidemocratic effect. The results of the analysis are presented in table 3.7.

The results of the test demonstrate that the repression effect may serve as one of the key explanatory mechanisms of the negative influence of natural resource wealth on democratization in the post-Soviet area. In both models, with preservation of the value of all control and independent variables, the size of the military and security apparatus

Table 3.7. "Repression Effect" (dependent variable—Regime)

	Model 1	*Model 2*
	Standardized Beta-coefficients	
Resources	0,088*	—
Oil	—	0,124**
Minerals	—	−0,034
$Regime_{(t-5)}$	0,389**	0,366**
Gini	−0,072*	−0,078**
Military expenditures/GDP	0,037	0,037
Military personnel	0,197**	0,178**
Baltic States	−0,386**	−0,412**
Central Asia	0,193**	0,201**
R-square	*0,932*	*0,938*
Adjusted R-square	*0,921*	*0,927*
Observations	*132*	*133*

* significant at the 0.05 level
** significant at the 0.01 level

proves significant. In both models, Military Expenditures/GDP proves rather insignificant, though. Model 2 demonstrates that the major antidemocratic contribution belongs to oil. One should note that Minerals once again proves to be a statistically insignificant variable.

How should these results be interpreted? Regimes that enjoy extra revenues from oil export increase the size of the military and security without major increases in expenditures in these sectors. Roughly speaking, as a result these countries got numerous cheap "soldiers," who guard the oil wells, and the premises of the owners of these wells. Low financing of the military and security apparatus will mean a low professional quality of these "soldiers" and as a result numerous violations of law and abuse of power by the military and security officers and servants. Violations of human rights could initiate a conflict in which the government will be forced to protect its guards, and it will put more pressure on existing political institutions such as courts and the media. Furthermore, the large size of the military and security apparatus may be explained by the need to resolve the issue of employment. Since the oil-based economy does not provide everyone with a sufficient amount of highly paid jobs,[25] young unemployed people in these countries often face a dilemma—to join criminal gangs (often as the only option for a highly paid job beyond the government) or to join the soldiers; the government faces the same problem—to deal with a large number of bandits or soldiers? In choosing soldiers, the government contributed to the undermining of the possibilities of democratization.

The analysis has shown that a wealth of natural resources has an antidemocratic influence on post-Soviet political regimes. The abundance of natural resources, namely oil (not minerals!), which are regarded by both elites and the masses as a boon, have a rather contradictory influence on the development of the resource-rich countries. Economists talk of the pernicious influence of oil on economic development, claiming that oil export distorts the structure of the economy and even undermines prospects for economic growth (the Dutch disease). Our political analysis strengthens this argument: resource abundance does harm not only economic growth, but also political developments. Resource-abundant post-Soviet states become more authoritarian, which has a pernicious effect on the elites and the mass public in terms of their participation and political contestation. Export of minerals does not have such apparent effects, at least not in post-Soviet countries. Our analysis has also shown that natural resource wealth is linked not only with the rise of authoritarian trends, but also with the rise of inequality, which might be caused

by the aspiration of ruling elites to maximize the appropriation of resource rent.

Inequality seems to have a negative effect on democratization in the post-Soviet area and elsewhere in the world. One cannot say with certainty that the rise of inequality is a consequence of the "oil curse." Statistical data show that in the mid-1990s in most of the post-Soviet countries, the Gini index was quite high; however, in resource-rich countries in the late 1990s it increased even more but decreased in resource-poor countries. Perhaps the inequality, and not income, is the socioeconomic variable that explains the failure of democratization in resource-rich countries; this issue is worth further analysis. The contribution of revenues from the export of natural resources to the increase of individual income of the population in resource-rich countries is not so obvious. This is probably an addition to the argument of M. Steven Fish[26] on corruption in oil-rich states: if export revenues are not converted into income, then rents simply do not reach the ordinary people and disappear. To summarize: ruling elites of a number of oil-rich states aspire, first, to preserve their control over rents, and second, to maximize their share of the rent. In many ways, this is what leads to the rise of authoritarian trends in the post-Soviet area.

All the successful antiregime "color revolutions" in the post-Soviet area took place between 2003 and 2005 in the resource-poor countries (Georgia, Ukraine, and Kyrgyzstan). On the contrary, in oil-rich countries—Azerbaijan, Kazakhstan, Turkmenistan, and Russia—color revolutions either failed or did not take place at all. In these countries the governments have something more to lose if they lose power, especially with the rally of oil prices on world markets.

RUSSIAN "OIL BURDEN"?

My analysis included all post-Soviet countries, but the Russian case is the focus of this section. The period of 2003–2008 was the time of unprecedented growth of oil prices on world markets, and the extra revenues from oil export began flowing into Russia. There is every reason to assume that Russia may unfortunately become a textbook example of the negative influence of the resource curse. These assumptions are based on major changes in Russian politics in 2003–2008 in terms of state-business relations, the (lack of) rule of law, political institutions (including elections), and regional politics. The penetration of the oil and gas wealth into the flesh and blood of Russian society proved so important that according to a Public Opinion Foundation (FOM) survey of 2009, the young people of Russia regarded working at Gazprom as the most attractive job in the country.[27]

Economists were the first to sound the alarm, for example, Andrei Illarionov, the former economic advisor to Vladimir Putin who claimed that the inflow of revenues from the oil export would damage economic growth—through the Dutch disease effect.[28] Rents in the oil industry are higher than anywhere else, so entrepreneurs are not interested in investments in other sectors than oil. The labor productivity in nonexport sectors is falling, the competitive advantage of Russian goods is declining, and the sector of nontradable goods is increasing. In recent years, official statistics have begun to show a swift growth of import: 2004—$97.4 billion, 2005—$125.4 billion, 2006—$164.3 billion, 2007—$223.5 billion, 2008—$292 billion.[29] This data, at least, can indirectly confirm the argument of the Dutch disease effect, when the sector of nontradable goods grows sharply, and the market of tradable goods shrinks because of the increase of import.

If under President Boris Yeltsin, the overwhelming influence of large businesses (not least oil companies) on politics was widely criticized, under Putin the concept of "equal distancing of the state from oligarchs" was proclaimed. An informal agreement between Putin and major business leaders was reached on the nonencroachment of business into politics and on recognition (and nonrevision) of the results of privatization by the state. However, for a number of reasons this informal agreement was broken in 2003. On the eve of 2003 parliamentary elections, the Kremlin initiated a "war on oligarchs," which resulted in the Yukos affair. The Kremlin was afraid that business would try to convert its oil revenues into political influence. Yukos, the largest Russian private oil company, seemed to be the most suitable candidate for capture, especially because of the deep involvement of its top managers into political activism. After this, the trend for the gradual nationalization of the oil industry in Russia became clear. Yukos found itself on the verge of bankruptcy, and was deprived of its most important assets. Furthermore, Gazprom, the major state-owned company in Russia, acquired Sibneft assets in 2005. After this, most of the Russian oil industry came under state ownership.[30] Also, the process of nationalization of the Russian oil industry through major revisions of property rights had a dramatically negative impact for the rule of law like in the cases of Yukos[31] and Russneft, the private oil company acquired in 2007 by entrepreneur Oleg Deripaska, who is close to the Kremlin.[32] And this is not the only evidence of the erosion of major political and legal institutions under the influence of oil rents.

In 2004, the Russian government established the Stabilization Fund (SF), for sterilization of extra revenues from oil export. By January 2008, the SF had at least $160 billion.[33] Naturally, the faster that the volume of the SF grows, the more demands there will be to spend this money on "long-term investment projects." At the end of 2005, the government decided to take some of the money from the fund, creating a special Investment Fund. This is very similar to the "white elephants" model.[34] According to this model governments of oil-exporting countries strive to invest the majority of extra revenues from the export of natural resources into their economic development. However, due to the lack of strong political institutions, the major target of investment is not achieving the officially proclaimed economic efficiency, but purchasing political loyalty. As a result, rulers of these countries could stay in power permanently, but their economies stagnate. For example, following the Arab embargo of October 1973 the sharp increase in oil prices produced huge gains to oil exporters. The bulk of the oil rents were invested in large-scale projects but with no growth payoff (for OPEC countries as a whole GDP per capita on average decreased by 1.3 percent each year from 1965 to 1998).[35] In Russia, especially before the federal elections of 2007–2008, it becomes very likely that "long-term investment projects" will not be aimed at economic efficiency, but at ensuring the political loyalty of elites and the mass public. One should note that public discussions on the Russian economic policy of 2005–2008 in many ways focused on debates about the need to spend and/or invest money of the SF in certain projects.[36]

By controlling revenues from oil rent, the Kremlin uses it to strengthen its political influence. This can partially explain the results of the parliamentary elections of 2003. One of the main components in the victory of the major progovernment party, United Russia, was the dependency of the regional authorities on federal financial aid.[37] The source of this financial aid is extra revenues from oil export. Also, a certain increase in social expenditures using oil rent allows the Kremlin to reduce the influence of left-wing parties thus hindering political competition.

As early as the beginning of the 1990s, the abundance of natural resources had a negative influence on Russian regions and center-periphery relations. One of the most important problems of the Russian politics then was the separatist activism in a number of ethnic-based republics. In many cases, the economic basis for these trends was the abundance of natural resources in these republics, especially oil, as in Tatarstan and Bashkiria. In exchange for recognition of Moscow's rule,

these republics received the legal right to keep regional oil companies—Tatneft and Bashneft, respectively—under their control through "republican ownership." The reason for the separatist moods in the Sakha-Yakutia republic in the early 1990s was the demand to put the diamond industry under the control of the regional authorities. Oil in Chechnya was also one of the factors of the violent conflict, and still one of the hot issues causing tensions between Moscow and pro-Russian Grozny authorities due to the permanent demand by the leadership of the republic (former president Akhmad Kadyrov, and then his son Ramzan Kadyrov) to place the oil industry in Chechnya—Groznefteggaz company—under the control of republican government. Furthermore, the key point in the bilateral agreement between Chechnya and the federal center, proposed by republican leadership, was the transfer of control over the entire oil and gas sector to the republican government for a minimum of ten years.[38] The battle for control over Chechen oil may aggravate the already complicated relations between Moscow and Grozny.

A test of the political and economic system built in Russia was the international financial and economic crisis of 2008–2009. After the record $147 per barrel of oil, a sharp decline began, and the Russian economy faced a partial devaluation of the national currency, a drop in export revenues, and accordingly budgetary problems. For the first time in several years, the Russian budget showed a deficit, partially covered by the Stabilization Fund.[39] In 2009, a decline in GDP reached almost 8.5 percent, and there were suggestions that Russia could leave the BRIC group based on the consequences of the crisis.[40] The crisis demonstrated that the economic system that was built during the years of the oil shock was vulnerable, and all the calls of the government and expert community to diversity the Russian economy did not progress beyond the discussion stage.

The rich natural resources are slowly but irrevocably eroding already weak political institutions in Russia. One gets the impression that at the beginning of the 2000s, the oil and gas sector was mentioned in the discourse of Russia's rulers as a source of funding for large-scale modernization, as a source of investment in other sectors of the economy, and for social development, but more recently, especially after the record rise of oil prices on international markets, the control over the energy sector is the major item on the Kremlin's political and policy agenda. This will practically lead to the fact that Russia's domestic and foreign policies concentrated almost exclusively on taking measures to keep control over oil wells ("preemptive counterrevolution"),[41] or on spending extra revenues from oil rents

("national projects"), or on projects of new gas and oil pipelines. It is unlikely that this corresponds to the tasks that are faced by the Russian state and society.

CONCLUSION

The analysis in this chapter generally confirmed the results of the previous study about the negative influence of the resource curse on regime changes in countries of the former Soviet Union. Inclusion of the new data for 2005–2008 in the analysis, and the introduction of new variables, allows us to take a closer look at the effect caused by the oil abundance on the political and economic development of post-Soviet countries.

The oil shock of 2003–2008 led to a noticeable increase in income of the post-Soviet oil-rich countries and their citizens, which was however accompanied by a growth of inequality. The analysis shows that these factors influence the growth of authoritarian trends in the post-Soviet region. It should be noted that reverse causality is so far incorrect. The economic crisis, which in many ways was caused by the fall in oil prices, did not lead to any drive to democratization in the post-Soviet area, at least in the short-term perspective. Yet its clear consequences are the fall of GDP, the decline of revenues and income of the population, and the rise of unemployment. Perhaps an indirect democratic effect of the resource curse in a period of crisis is that elites of oil-rich countries are forced to demonstrate their governance skills. If the level of these skills is low, then in the future a major split in the ruling elites is possible, which may be a necessary condition for democratization.

NOTES

1. Michael Ross, "The Political Economy of the Resource Curse," *World Politics*, 51, no. 2 (1999), 297–322; Paul Collier and Anna Hoeffler, "Greed and Grievance in Civil War," *Oxford Economic Papers*, no. 56 (2004), 563–95; James A. Robinson, Ragnar Torvik, and Thierry Verdier, "Political Foundations of the Resource Curse," *Journal of Developmental Economics*, 79, no. 2 (2006), 447–68; Michael Ross, "A Closer Look at Diamonds, Oil and Civil War," *Annual Review of Political Science*, 9 (2006), 265–300; Halvor Mehlum, Karl Ove Moene, and Ragnar Torvik, "Cursed by Resources or Institutions?" *World Economy*, 29, no. 8 (2006), 1117–31; Thad Dunning, *Crude Democracy: Natural Resource Wealth and Political Regimes* (New York: Cambridge University Press, 2008); Yegor Gaidar, *Gibel' imperii: Uroki dlya sovremennoi Rossii* (Moscow: ROSSPEN, 2006).

2. Ragnar Torvik, "Learning by Doing and the Dutch Decease," *European Economic Review*, 45 (2001), 285–306.

3. Ragnar Torvik, "Natural Resources, Rent Seeking and Welfare," *Journal of Development Economics*, 67 (2002), 455–70; Halvor Mehlum, Karl Ove Moene, and Ragnar Torvik, "Parasites," in Samuel Bowles, Steven N. Durlauf, and Karla Hoff, eds., *Poverty Traps* (Princeton, N.J.: Princeton University Press, 2003), 79–94.

4. Aaron Tornell and Philip Lane, "The Voracity Effect," *American Economic Review*, 89, no. 1 (1999), 22–46.

5. James D. Fearon, "Primary Commodities Exports and Civil War," *Journal of Conflict Resolution*, 49, no. 4 (2005), 483–507; Michael Ross, "What Do We Know about Natural Resources and Civil War?" *Journal of Peace Research*, 41, no. 3 (2004), 337–56.

6. Michael Ross, "Does Oil Hinder Democracy?" *World Politics*, 53, no. 2 (2001), 325–61; Halvor Mehlum, Karl Ove Moene, and Ragnar Torvik, "Institutions and the Resource Curse," *Economic Journal*, 116, no. 1 (2006), 1–20.

7. Ross, "Does Oil Hinder Democracy?" 336.

8. Ross, "Does Oil Hinder Democracy?"

9. Andrey Scherbak, "'Neftyanoie proklyatie' i post-sovetskie rezhimy," *Obshchestvennyie nauki i sovremennost'*, no. 1 (2007), 47–56.

10. Dunning, *Crude Democracy*.

11. Dunning, *Crude Democracy*.

12. Seymour M. Lipset, "Some Social Requisites of Democracy: Economic Development and Political Legitimacy," *American Political Science Review*, 53, no. 1 (1959), 69–105.

13. TransMONEE Database, 2008, www.unicef-irc.org/databases/transmonee/#TransMONEE (accessed 20 October 2009); World Income Inequality Database, 2008, www.wider.unu.edu/research/Database/en_GB/wiid/ (accessed 20 October 2009); World Bank, 2008, *World Development Indicators*, go.worldbank.org/U0FSM7AQ40 (accessed 20 October 2009).

14. Freedom House. Freedom in the World. Country ratings, www.freedomhouse.org/template.cfm?page=439 (accessed 20 October 2009).

15. UN Comtrade, 2008, United Nations Commodity Trade Statistics Database, comtrade.un.org/db/ (accessed 20 October 2009); World Bank, 2008.

16. UN Comtrade, 2008; World Bank, 2008; Russian Federal State Statistics Service, www.gks.ru/wps/portal/english (accessed 20 October 2009).

17. UN Comtrade, 2008; World Bank, 2008; Russian Federal State Statistics Service; Interstate Statistical Committee of the Commonwealth of Independent States, www.cisstat.com/eng/index.htm (accessed 20 October 2009).

18. UN Comtrade, 2008; World Bank, 2008; Russian Federal State Statistics Service; Interstate Statistical Committee of the Commonwealth of Independent States.

19. World Bank, 2008.

20. World Bank, 2008.

21. World Bank, 2008.
22. World Bank, 2008.
23. TransMONEE Database, 2008; World Income Inequality Database, 2008; World Bank, 2008.
24. Scherbak, "'Neftyanoie proklyatie' i post-sovetskie rezhimy."
25. Pedro D. Bo and Ernesto D. Bo, "Workers, Warriors and Criminals: Social Conflict in General Equilibrium," Brown University, Department of Economics Working Paper no. 2004–11 (2004), www.brown.edu/Departments/Economics/Papers/2004/2004–11_paper.pdf (accessed 20 October 2009).
26. M. Steven Fish, *Democracy Derailed in Russia: The Failure of Open Politics* (New York: Cambridge University Press, 2005).
27. *Newsru.Com*, "Opros: rossiiskaya molodezh' bol'she vsego zhelaiet rabotat' v 'Gazprome'" (27 March 2009), www.newsru.com/finance/27mar2009/fom_opros.html (accessed 20 October 2009).
28. Igor Veletminskii, "Vse bolezni v odnom flakone," *Rossiiskaia gazeta*, no. 3787 (3 June 2005).
29. Russian Federal State Statistic Service, Foreign Trade of Russian Federation, www.gks.ru/bgd/regl/b09_12/IssWWW.exe/stg/d02/26–02.htm (accessed 20 October 2009).
30. See chapter 5 in this volume.
31. Andrey Gromov, "Protsess," *Expert*, no. 2 (2005), 80–82.
32. Lenta.ru, *Ukhod Guzirieva iz "Russnefti" i biznesa*, 2007, lenta.ru/story/russneft (accessed 20 October 2009).
33. Rossbalt, "Profitsit byudzheta RF v 1 polugodii prevysil 1,3 trln rublei" (9 July 2008), www.rosbalt.biz/2008/07/09/502376.html (20 October 2009).
34. James A. Robinson and Ragnar Torvik, "White Elephants," *Journal of Public Economics*, 89, no. 1 (2004), 197–210.
35. Robinson and Torvik, "White Elephants," note 2.
36. See chapter 6 in this volume.
37. Andrey Scherbak, "Ekonomicheskii rost i itogi dumskikh vyborov 2003 goda," *Politicheskaia nauka*, no. 2 (2005), 105–23.
38. Vedomosti, "Alkhanov: Peredacha 'Grozneftegazu' litsenzii na dobychu nefti reshit problem" (5 October 2005), www.vedomosti.ru/newsline/news/2005/10/05/183663 (accessed 20 October 2009); *Moskovskii komsomolets*, "Ramzana ozolotyat po-chernomu" (23 August 2005); Polit.Ru, "Gossovet Chechni nastaivaet na peredache kontrol'nogo paketa aktsii 'Grozneftegaza' v sobstvennost' respubliki" (27 April 2004), www.polit.ru/monitor/2004/04/27/1.html (accessed 20 October 2009).
39. Lenta.Ru, "Rezervnii fond za mesyats sokratilsya eshchyo na 146 milliardov rublei" (3 August 2009), lenta.ru/news/2009/08/03/minfin/ (accessed 20 October 2009).
40. Newsru.Com, "Iz-za padeniia VVP v 2009 godu Rossiia mozhet vyletet' iz BRIC, a po itogam 2008 analitiki konstatiruiut polnomasshtabnuiu retsessiiu" (27 January 2009), www.newsru.com/finance/27jan2009/recession.html (accessed 20 October 2009).

41. Andrey Ryabov, "Moskva prinimaiet vyzov 'tsvetnykh' revolyutsii," *Pro et Contra*, 9, no. 1 (2005), 18–27; Alexander Etkind and Andrey Scherbak, "The Double Monopoly and Its Technologists: The Russian Preemptive Counterrevolution," *Demokratizatsiya: The Journal of Post-Soviet Democratization*, 16, no. 3 (2008), 229–39.