

# GOOD AND BAD REGIONAL GOVERNANCE IN MODERN RUSSIA: CASE OF CENTRAL FEDERAL DISTRICT\*

Aleksei Sorbale<sup>a</sup>  
Andrei Starodubtsev<sup>b</sup>

National Research University “Higher school of Economics”  
St. Petersburg Doctoral School of Political Science

## Abstract

This research discusses the conditions for successful and unsuccessful activity of the governors and regional governments in modern Russia. The regions of the Central Federal District (CFD)<sup>1</sup> are taken as a pool of cases for analysis. The literature on bad governance is used to describe the problems that Russian governors and regional governments face in carrying out their immediate responsibilities. There are three sets of conditions that can affect the success / failure of governance in the regions: structural/economic, institutional, and actor-oriented. We test the following conditions for a potential impact on the success and failure of governance in the regions of CFD: (1) GRP per capita, (2) foreign investment, (3) private investment, (4) federal donations, (5) natural resources, (6) conflicts between the elites, (7) governor’s background, (8) background of the vice-governor and (9) linkage of the governor to Moscow. The general method of data analysis is qualitative comparative analysis of multiple values (mvQCA). The results of the analysis demonstrate that the conditions that underlay bad and good governance in the CFD regions are related to the actor-oriented and structural-economic blocks. The results of the mvQCA analysis are verified using statistical methods. In the long run, governance in the regions of the Central Federal District is determined by two key factors of the structural-economic bloc: the basic development of the regional economy and federal donations.

*Keywords:* Russian regions, regional governance, bad governance, mvQCA

## Introduction

In social sciences, Russia has become an important case of a country with *bad governance*, a clear example by which one can study the causes of the establishment of such a model of governance, its implementation features and effects. High level of corruption, inability of central authorities to enforce their own laws, low economic growth, unfair court sentences against not only political opponents of the ruling elite, but also a significant number of entrepreneurs, the absence of any civil accountability of the authorities, the prevalence of informal norms - such characteristics can be valid for modern Russia.

Researchers rarely find examples of successful governance in Russia, especially if it is not about individual policies or reforms, but about systemic policies aimed at long-term changes in a country's socio-economic development (Grigoriev 2017; Starodubtsev 2017).

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<sup>a</sup> 1st year PhD student at the Department of Applied Political Science, National Research University Higher School of Economics — St. Petersburg, Lecturer at the Department of Applied Political Science, National Research University Higher School of Economics — St. Petersburg.

<sup>b</sup> PhD in Political Science, Researcher at the Aleksanteri Institute of the University of Helsinki, Associate Professor at the Department of Applied Political Science, National Research University Higher School of Economics — St. Petersburg.

<sup>1</sup> Except Moscow and Moscow oblast.

However, the role of such cases is so significant that it is hardly justified to simply ignore them. Given the fact that the practices of bad governance in different countries demonstrate their vitality over long periods, it is these exceptions that become a resource for change, development and improvement of the lives of a large number of people. In addition, one should not underestimate the long-term impact of that individual success stories on the subsequent development of those areas, in which changes have occurred.

One of the areas for research of developmental changes is the analysis of current governance practices and the identification of conditions in which individual politicians and officials succeed in achieving the tasks that are formally set for them. “How can one adequately rule in bad governance conditions?” - this is how we formulate the central question of this research.

To answer it, it is necessary to abandon the strategy of studying reforms, which represent the highest degree of activity of the state apparatus, often causing a negative attitude on the part of voters and interest groups and requiring close attention from the highest state bodies. The logic of the success or failure of such projects is largely politicized. In turn, the current state administration processes, which are the most susceptible to all illnesses of bad governance, turn out to be more informative material for this kind of research.

In addition, to answer the question, it is necessary to find the object for analysis that meets the following requirements. First, these must be the authorities that have sufficient autonomy to implement their own policies, but do not have sufficient autonomy to ignore the characteristics of bad governance. Secondly, they must not be transformed for a relatively long time. Finally, for completeness of the findings, it is necessary to implement the comparative logic of the study, and therefore, to have cases of positive and negative experience under the approximately same conditions.

The study of Russia allows to meet all these needs, focusing the analysis on the study of the processes and results of the activities of regional governors and their subordinate governments. It is the regional governments that work within the limits of the essential powers transferred to them by the Constitution and the federal legislator, while being an integral part of the system of state authorities, and therefore obeying the formal and informal rules of the game and even reproducing and protecting them.

Thus, the question posed above can be reformulated as follows: **“What conditions determine good and bad governance in some Russian regions?”**

This work is divided into four parts. In the first part, we observe the main theoretical approaches that underlie research on good and bad regional governance in modern Russia.

In the second part of the article, we describe the cases for analysis and explain their validity for this study. The third part of the work is devoted to conducting mvQCA analysis for all the considered regions of the Central Federal District. In the fourth part we draw conclusions from the analysis.

### **Theoretical framework**

In general, there are three groups of conditions that influence the outcomes of socio-political processes: *institutional*, *structural-economic*, and *actor-oriented* (or *personalistic*).

The first group is the most popular among political scientists. It describes the features of the rules of the game in political, economic, and, more generally, social processes in a particular region. The pool of institutions under consideration usually include elections and accountability of the authorities, political stability and the absence of violence, the effectiveness of the state apparatus, the rule of law and control of corruption (Worldwide Governance Indicators, WGI).

One of the most popular areas of research within the framework of studying the features of regional governance is the analysis of influence of features of the political regime on the results of regional economic and political initiatives (Sharafutdinova 2009; Gel'man and Ryzhenkov 2011).

Statistical studies show the importance of the quality of bureaucracy for the efficient use of public funds in the region (Best, Hjort, and Szakonyi 2017). In turn, case studies demonstrate the importance of such institutional factors as the existence of effective mechanisms for representing the interests of influential groups and the formation of a consensus on the development strategy of a region (Yakovlev, Freinkman, Makarov and Pogodaev 2017).

The group of structural-economic theories discusses the conditions that promote or slow down the pace of socio-economic development of a region. These conditions include the region's dependence on the resources mined in the relevant territory, as well as the dependence on the financial assistance from the federal center (Ledyeva and Linden 2008; Oldfield 2017). Regional governments tend to fall into the resource curse traps, charging rent from existing natural resources or working under soft budget constraints provided by a significant infusion of federal funds into the regional economy (Remington 2018).

Finally, the third group of factors focuses on the personal characteristics of those in power, their orientation towards reforms, their belonging to one or another generation, the

level and features of education, ideological preferences, and much more (Khmelnitskaya 2015; Gel'man and Travin 2017; Dekalchuk 2017; Grigoriev 2017).

## Hypotheses

The hypotheses of the research are based on the three approaches to the study of good/bad governance described above: institutional, structural-economic and actor-oriented. The structural-economic block of factors includes: (1) GRP per capita, (2) foreign investment, (3) private investment, (4) federal donations and (5) natural resources. The institutional block of factors is about conflicts between the elites. Actor-oriented block of factors focuses on (1) governor's background, (2) background of the vice-governor and (3) linkage of the governor to Moscow.

Hypotheses of the structural-economic block are formulated as follows:

**H1.** The higher the GRP per capita of the region, the better the governance in the region.

**H2.** The higher the foreign investment in the region, the better the governance in the region.

**H3.** The higher the private investment in the region, the better the governance in the region.

**H4.** The less federal donations the region gets, the better the governance in the region.

**H5.** The less natural resources the region has, the better the governance in the region

The hypothesis for institutional block is formulated as follows:

**H6.** The less conflicts between the regional elites, the better the governance in the region

Finally, the actor-oriented hypotheses are as follows:

**H7.** If the governor is not "Varyag"<sup>2</sup>, then the region's governance is better.

**H8.** If the vice-governor is not "Varyag", then the region's governance is better.

**H9.** If the governor has the linkage to the federal level, then the region's governance is better.

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<sup>2</sup> Invited from another region or from the level of the federal center.

## Cases for analysis

We take the regions of the Central Federal District, except Moscow and Moscow region (these cases bring in too large fluctuations in the sample) as a pool of cases for analysis. The selection of this pool of cases is explained by low differentiation between the CFD regions in their basic socio-economic and structural conditions:

1. **The size of the territory of the regions.** Relatively small for all regions, therefore less institutional networks and resources are needed to keep the regions under administrative control;
2. **GRP per capita.** Relatively small variations in economic development, especially at the beginning of 2000s;
3. **Population size.** Relatively small differentiation in the pool as well;
4. **Proximity to Moscow.** An important indicator from the points of view of the structural and actor-oriented approaches. Central Federal District traditionally occupies a special economic and political position in the Russian federal system, since it includes the capital of the country (Chebankova 2005). This indicator is separately measured and verified using mvQCA analysis.
5. **Natural resources.** A distinctive feature of the regions of the Central Federal District is that almost all of them lack any kind of natural resources. Individual cases, such as the Lipetsk or Tambov regions, are discussed in the framework of the mvQCA analysis in a special order.

Despite the large number of similar features, one can talk about a significant difference in the CFD regions' investment potential and economic development. Lipetsk, Kaluga and Belgorod regions are among the leaders of the Central Federal District in terms of economic development and in terms of their wealth. From the economic perspective they are quite close to the Moscow region (Gomaleev and Tutin 2015; Russian regions 2017; Risin and Hariton 2018). Kostromskaya, Vladimirskaya and Orlovskaya *oblasts* are at the very end of the Central Federal District rankings by the level of development of the regional economy, and are more similar to some regions of the North Caucasus and the Far East (Kommersant 2000; Kommersant 2001; Vasiliev 2018). What is the reason for such a differentiation of regions in terms of economic development? The origins of the economic development should be sought in the area of regional development strategies that are adopted by the governors and regional administrations. A qualitative comparative analysis

of multiple values (mvQCA), which is described in the next block, brings together all the potential factors and conditions of influence that may have an impact on the formation and implementation of strategies for economic development of the regions of the Central Federal District.

### **Analysis: mvQCA models**

The encoding of the outcome variable is done with the help of the investment ratings of the Russian regions of the rating agency *Expert*. We measure the success of the governor's board by the *investment potential* of his or her region. The investment potential demonstrates two indicators that are essential for this: (1) initial structural and economic characteristics, which are important for investors and are used to assess the prospects for investing in the development of the region and (2) institutional characteristics that reflect how much investors trust the political and economic elites of the region, which are engaged in the redistribution of resources available in their subject. It is also important to note that the person of the governor himself or herself is also crucial for the investors. The governor is seen either as an effective or as an ineffective manager.

When encoding the outcome variable, two threshold values are distinguished: 3 and 5. Regions that have risen in the rating during the rule of a particular governor, less than 3 positions or moved down the rating, get a **value of 0**. Regions that gained more than 3 places up but less than 5 positions up get a **value of 1**. *Oblasts* that, thanks to the actions of their governors, have advanced in the rankings by more than 5 places up, are encoded with a **value of 2**.

For the condition variables of the structural/economic block, the following thresholds are set:

1. **GRP per capita**. To encode this variable, we take the rating of the regions of the Central Federal District in terms of GRP per capita at the time of the beginning of the reign of each governor.<sup>3</sup> The 5<sup>th</sup> and 10<sup>th</sup> places are taken as threshold values. All regions that were below the 10<sup>th</sup> place in the Central Federal District rating of GRP per capita at the beginning of the governor's office are encoded as **0**. All subjects that occupied the places from 5<sup>th</sup> to 10<sup>th</sup> received **1**. Finally, all regions

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<sup>3</sup> We use a rating system, rather than specific GRP per capita for encoding this variable, because this system eliminates errors and difficulties in correlating the values of a regional GRP with the prices of a particular year, which is considered the beginning of the governing board of a particular governor.

that were above the 5th place in the GRP per capita rating at the beginning of the governor's rule are encoded **as 2**.

2. **Large foreign investment in the region.** Dichotomous variable: encoded **as 1** if the number of employees of an enterprise / cluster of enterprises exceeds 10,000 people, and **as 0** if the number of employees of an enterprise / cluster of enterprises is less than 10,000 people.
3. **Large private investment in the region.** Dichotomous variable: encoded **as 1** if the number of employees of an enterprise / cluster of enterprises exceeds 10,000 people, and **as 0** if the number of employees of an enterprise / cluster of enterprises is less than 10,000 people.
4. **Natural resources in the region.** Dichotomous variable: **1** - there are resources (oil, gas, coal, mineral resources), **0** - there is no such type of resources.
5. **Federal donations.** Dichotomous variable: **1** - the region receives donations, **0** - the region is a donor.

The variables of the institutional block get the following encoding:

1. **Conflicts between the elites.** This variable is encoded using data from the Central Election Commission of the Russian Federation (CEC RF) on the results of presidential and parliamentary elections by region. For encoding, the arithmetic average of the results of United Russia and President V. Putin / D. Medvedev are used for the corresponding period of time in the relevant region. The following are taken as temporary periods: (1) 2000-2004, (2) 2004-2008, (3) 2008-2012, (4) 2012-2018.

For the period of 2000-2004, two thresholds are established: 30.99 and 49.99. All regions where the arithmetic average result of the ruling party and the incumbent / candidate from the ruling party is less than or equal to 30.99% receive a **value of 0**. Subjects where the arithmetic average of the results of United Russia and V. Putin is between 30.99% and 49.99% are encoded **as 1**. Regions where the arithmetic average of the results of the presidential and Duma elections for the ruling party and the incumbent / candidate from the ruling party are more than 49.99% receive a **value of 2**.

For the period of 2004–2008, two thresholds are established: 40.99 and 59.99. All regions in which the arithmetic average result of the ruling party and the incumbent / candidate from the ruling party is less than or equal to 40.99% receive a **value of**

**0.** Subjects where the arithmetic average of the results of United Russia and V. Putin / D. Medvedev is between 40.99% and 59.99% are encoded **as 1**. Regions where the arithmetic average of the results of the presidential and Duma elections for the ruling party and the incumbent / candidate from the ruling party are more than 59.99% **receive the value of 2**.

For the period of 2008-2012, the threshold values of 50.99 and 69.99 are established. All regions in which the arithmetic average result of the ruling party and the incumbent / candidate from the ruling party is less than or equal to 50.99% get the **value of 0**. Subjects, where the arithmetic average of the results of United Russia and V. Putin / D. Medvedev is between 50.99% and 69.99% are encoded **as 1**. Regions where the arithmetic average of the results of the presidential and State Duma elections for the party in power and the incumbent / candidate from the party in power are over 69.99% receive a **value of 2**.

Finally, for the period of 2012–2018, we put the same thresholds as for the period of 2008–2012.

The encoding of the condition variables of the personalistic block looks like this:

1. **Background of the governor.** The coding is as follows: **0** - “Varyag”, **1** - not “Varyag”.
2. **Background of the Vice-Governor for Economic Development.** The encoding of this variable is also dichotomous: **0** - “Varyag”, **1** - not “Varyag”.
3. **Linkage to Moscow.** The coding is as follows: **0** - the governor did not work in any of the federal authorities / departments, **1** - the governor worked in the federal authority / department.

Variable	Encoding rules	Source
Investment potential of the region ( <b>invest_main</b> )	$3 > N = \mathbf{0}$ $3 \leq N < 5 = \mathbf{1}$ $N \geq 5 = \mathbf{2}$	Investment ratings of the regions of the rating agency Expert (2000-2017)
GRP per capita ( <b>GRP</b> )	$10 > N = \mathbf{0}$ $10 \leq N < 5 = \mathbf{1}$ $N \geq 5 = \mathbf{2}$	Gross regional product per capita by region of the Russian Federation in 1998-2016
Large foreign investment in the region ( <b>for_cap</b> )	Number of employees $\geq 10\ 000 = \mathbf{1}$ Number of employees $< 10\ 000 = \mathbf{0}$	Information about the economic characteristics of the CFD regions on the official websites of the regions
Large private investment in the region ( <b>priv_cap</b> )	Number of employees $\geq 10\ 000 = \mathbf{1}$ Number of employees $< 10\ 000 = \mathbf{0}$	Information about the economic characteristics of the CFD regions on the official websites of the regions



Natural resources ( <b>nat_resource</b> )	There are natural resources = <b>1</b> No natural resources = <b>0</b>	Information about the economic characteristics of the CFD regions on the official websites of the regions
Federal danations ( <b>donat</b> )	There are donations = <b>1</b> There are no donations = <b>0</b>	List of regions not receiving federal donations for equalization of budgetary security in accordance with the laws on the federal budget (2000-2018)
Conflicts between the elites ( <b>reg_polit</b> )	<b>2000-2014</b> 30,99% > N = <b>0</b> 30,99% =< N < 49,99% = <b>1</b> N >= 49,99% = <b>2</b>  <b>2004-2008</b> 40,99% > N = <b>0</b> 40,99% =< N < 59,99% = <b>1</b> N >= 59,99% = <b>2</b>  <b>2008-2012</b> 50,99% > N = <b>0</b> 50,99% =< N < 69,99% = <b>1</b> N >= 69,99% = <b>2</b>  <b>2012-2018</b> 50,99% > N = <b>0</b> 50,99% =< N < 69,99% = <b>1</b> N >= 69,99% = <b>2</b>	Central Election Commission (CEC of the RF)
Background of the governor ( <b>bc_gov</b> )	“Varyag” = <b>1</b> Not “Varyag” = <b>0</b>	Information about the governors of the CFD regions on the official websites of the regions
Background of the Vice-Governor for Economic Development ( <b>bc_vice-gov</b> )	“Varyag” = <b>1</b> Not “Varyag” = <b>0</b>	Information about the administrations of the CFD regions on the official websites of the regions
Linkage to Moscow ( <b>Moscow_link</b> )	Worked at the federal level = <b>1</b> Did not work at the federal level = <b>0</b>	Information about the governors of the CFD regions on the official websites of the regions

**Table 1. Description of the encoding of the outcome variable and condition variables<sup>4</sup>**

## **Good and bad governance in the regions of the CFD: mvQCA analysis**

The successes and failures of regional governance can result from a combination of structural-economic, personalistic, and institutional factors. That is why as a key method of analysis, we use qualitative comparative analysis of multiple values (mvQCA). This method makes it possible to identify the key patterns that underlay the “economic miracles” and failures in the context of the economic development of the regions of the Central Federal District.

<sup>4</sup> Tables with full encoding of the variables and thresholds for mvQCA analysis are in the Appendix.

The link *governor-region* acts as a unit of analysis, since in this study we are interested in the specific successful and unsuccessful strategies of the governors as the main actors in the political arenas of the subjects of the Russian Federation. We construct three models that are used to conduct mvQCA. The first model is devoted to the regions with low growth rates of investment potential, the second model includes cases from regions where there was an average growth of investment potential, and finally, the third model describes *oblasts* where a sharp growth of regional investment potential occurred during the reign of specific governors.

The mvQCA analysis on the effectiveness of regional governance in the regions of the Central Federal District includes 15 regions of the Central Federal District and 45 governors, who carried out their activities in these regions from 2000 to 2018. The important cases in the analysis are long-lived governors: Anatoly Artamonov, who took the chair of the governor of the Kaluga region in 2000 and is in power to this day, Yevgeny Savchenko, who is the governor of the Belgorod region since 1993, Oleg Korolev, who ruled the Lipetsk region on over the past 18 years and Alexander Mikhailov, who occupied the chair of the governor of the Kursk region from 2000 to 2018.

### Low governance effectiveness in the CFD regions

We begin the analysis with a review of cases where the quality of regional governance, measured in the growth of investment potential, was low (**invest\_main = 0**)

Region	GRP	for_cap	priv_cap	nat_resou rce	donat	reg_polit	back_gov	back_vice-gov	Moscow_link	invest_main
BRN (BOG)	0	0	0	0	0	2	0	0	0	0
BRN (LOD)	0	0	0	0	1	0	0	0	0	0
VLD (VIN), VOR (KUL), IVA (TIH)	0	0	0	0	1	1	0	0	0	0
KST (SLU), KST (SIT)	0	0	0	0	1	1	0	0	1	0
TVR (SHE)	0	0	0	0	1	1	1	0	0	0
RZN (SPA)	0	0	0	0	1	1	1	0	1	0
VLD (ORL)	0	0	0	0	1	1	1	1	1	0

ORL (POT)	0	0	0	1	1	1	1	1	0	0
ORL (KOZ)	0	0	0	1	1	1	1	1	1	0
ORL (KLI)	0	0	0	1	1	2	1	1	0	0
TUL (GRU)	0	0	1	1	0	2	1	1	1	0
IVA (KON)	0	1	0	0	1	1	0	0	0	0
IVA (VOS)	0	1	0	0	1	2	1	0	1	0
TVR (RUD)	0	1	1	0	1	1	1	0	1	0
TVR (ZEL)	1	0	0	0	0	1	0	0	1	0
KST (SHE), SML (PRH)	1	0	0	0	1	1	0	0	0	0
TVR (PLT)	1	0	0	0	1	1	1	0	0	0
RZN (KOV), RZN (NLUB)	1	0	0	0	1	1	1	1	1	0
KUR (MIK), TUL (SRD)	1	0	0	1	1	1	0	0	0	0
ORL (STR)	1	0	0	1	1	1	0	0	1	0
TMB (NIK)	1	0	0	1	1	2	0	0	0	0
SML (MAS)	1	0	1	0	1	1	0	0	0	0
SML (OST)	1	0	1	0	1	1	1	1	1	0
VOR (GUS)	1	0	1	0	1	2	0	0	0	0
TUL (DUM)	1	0	1	1	0	2	1	1	1	0
TUL (DUD)	1	0	1	1	1	1	0	0	0	0
YAR (LIS), YAR (VAK), YAR (YAS)	2	0	0	0	0	1	0	0	0	0
YAR (MIR)	2	0	0	0	0	2	0	0	0	0
LIP (KOR)	2	0	0	1	0	0	0	0	1	0

**Table 2. The truth table for the regions of the Central Federal District with low growth rate of investment potential**

In the presented table one can find both large groups of links governor-region, and individual cases that require special attention. The first group of links includes Vladimir region under the governor Vinogradov, Voronezh region under the governor Kulakov, and Ivanovo region under the governor Tikhonov. The second group combines two links governor-region for the Kostroma region. The third group includes the Kostroma region under the governor Shershunov and the Smolensk region under the governor Prokhorov. The fourth group unites the governor-region links for the Ryazan region. Finally, in the fifth group there are combinations for the rule of the three governors of the Yaroslavl region: Lisitsyn, Vakhrukov and Yastrebov.

After removing 979 recurring and logically contradictory combinations of factors using the Boolean minimization procedure, we obtain a formula that can explain the reasons for the failures of a number of governors of the Central Federal District in attracting investment in their regions:

$$\mathbf{reg\_polit\{0\}*back\_gov\{1\} + GRP\{2\}*nat\_resource\{0\} + priv\_cap\{0\}*donat\{1\}}$$

This formula demonstrates the presence of three possible explanations for the failure of the investment policy of a number of governors of the regions of the Central Federal District. The first explanation relates to the personalist block of theories that I described in the first part of this article. The combination of high conflict potential of the regional political system with the “Varyag” origin of the governor led to a fall in the investment potential of such regions as Tver *oblast* under the governor Platov, Vladimir region under the governor Orlova and Oryol region under the governor Kozlov. The second explanation lies in the initial structural and economic characteristics of the regions. High economic development, coupled with the lack of natural resources, led some governors to “go with the flow” and not take steps to find opportunities for investment and improve the economic position of their regions (Vasiliev 2018). The most striking example in this context is the Yaroslavl region, which found itself in a state of deep crisis in the second half of the 2010s due to the actual lack of initiatives aimed at diversifying the region’s economy. The latter explanation is also related to the structure. For the investment potential of many regions, federal subsidies, in the absence of large private investments, played an extremely unfavorable role. The governors of the Bryansk, Vladimir, Tver, Smolensk and some other regions took advantage of federal assistance to fill holes in the budget, and not to develop the infrastructure and conditions for large private and foreign businesses (Glushkov 2016).

	Configurations		
	1	2	3
<b>Elite conflicts</b>			
High	●		
Low			⊖
<b>Governor</b>			
«Varyag»	●	⊖	
Not «Varyag»			
<b>GRP</b>			
High		●	
Low			
<b>Natural resources</b>			
Yes			
No		●	
<b>Private capital</b>			
Yes		⊖	
No			●
<b>Federal donations</b>			
Yes	⊖		●
No			
Constituency	0.90	0.91	0.93
Raw coverage	0.57	0.53	0.52
Unique coverage	0.09	0.07	0.05

● Core causal condition present  
 ● Contributory causal condition present  
 ⊖ Core causal condition absent  
 ⊖ Contributory causal condition absent

**Table 3. Configuration table for the regions of the Central Federal District with low growth rate of investment potential**

Factors	Cases explained	Raw coverage	Consistency
<b>reg_polit{0}*back_gov{1}</b>	BRN (LOD), BRN (BOG), VOR (GUS), IVA (VOS), ORL (KLI), TMB (NIK), TUL (GRU), TUL (DUM), YAR (MIR)	0.57	0.90
<b>GRP{2}*nat_resource{0}</b>	YAR (LIS), YAR (VAK), YAR (YAS), YAR (MIR)	0.53	0.91
<b>priv_cap{0}*donat{1}</b>	BRN (LOD), VLD (VIN), VOR (KUL), IVA (TIH), VLD (ORL), VOR (GOR), IVA (KON), IVA (VOS), KST (SHE), SML (PRH), KST (SLU), KST (SIT), KUR (MIK), TUL (SRD), ORL (STR), ORL (KOZ), ORL (POT), ORL (KLI), RZN (SPA), RZN (KOV), RZN (NLUB), TMB (NIK), TVR (PLT), TVR (SHE)	0.52	0.93

**Table 4. Explanatory formula for the regions of the Central Federal District with low growth rate of investment potential**

## Medium governance effectiveness in the CFD regions

In this block we turn to the cases of the regions where the activities of the governors led to an average growth of the investment potential (**invest\_main = 1**).

Region	GRP	for_cap	priv_cap	nat_resource	donat	reg_polit	back_gov	back_vice-gov	Moscow_link	invest_main
RZN (VLUB)	0	0	0	0	1	1	0	0	0	1
VOR (GOR)	0	0	0	0	1	1	1	1	1	1
BRN (DEN)	0	0	0	0	1	2	0	0	0	1
TMB (BET)	0	0	0	1	1	1	0	0	1	1
SML (ANT)	0	0	1	0	1	1	0	0	1	1

**Table 5. The truth table for the regions of the Central Federal District with an average growth rate of investment potential**

This model includes 5 cases: Ryazan region under the governor Lyubimov, Voronezh region under the governor Gordeyev, Bryansk region under the governor Denin, Tambov region under the governor Betin and Smolensk region under the governor Antonov. Each of the governor-region links under consideration represents a unique combination of conditions that predetermined a certain success of the heads of regions in the field of attracting investments.

After minimizing 279 repetitive and logically contradictory combinations of factors, we obtain the following formula explaining the reasons for the average growth of the investment potential of the five regions under consideration:

$$\begin{aligned} & \text{GRP}\{0\} * \text{priv\_cap}\{1\} * \text{back\_gov}\{0\} + \text{GRP}\{0\} * \text{nat\_resource}\{1\} * \text{back\_gov}\{0\} + \\ & \text{GRP}\{0\} * \text{donat}\{1\} * \text{reg\_polit}\{2\} * \text{back\_gov}\{0\} + \\ & \text{GRP}\{0\} * \text{for\_cap}\{0\} * \text{reg\_polit}\{1\} * \text{back\_gov}\{0\} \end{aligned}$$

The resulting formula provides four alternative explanations. The first explanation is a combination of two positive (or conditionally positive) factors (the presence of large private capital and the governor is “local” or not “Varyag”) and one negative factor (low level of development of the region). This combination was typical for the Smolensk region under the governor Antonov. The second configuration is a combination of the low level of development of the region and the “local” governor with the availability of natural resources. Such a combination was characteristic of the Voronezh region under the governor Gordeyev. The third part of the formula combines four conditions at once: a low level of development of the region, federal donations, a very stable political situation in the

region (no elite conflicts), and a “local” governor. Such a balanced combination was characteristic of the Bryansk region under the governor Denin. Finally, the fourth combination combines the low level of development of the region, the absence of large foreign investments, normal relations between the regional elites and the “local” governor. In general, as follows from the formula, the governors of the presented regions were able to achieve some success in attracting investments due to the fact that they openly negotiated with the local political elite, and some - secured financial support from Moscow. At the same time, the basic structural and economic indicators did not contribute to the full development of the potential of the regions, which are included in this mvQCA model.

	Configurations			
	1	2	3	4
<b>Elite conflicts</b>				
Medium				●
Low			●	
<b>Governor</b>				
«Varyag»			⊖	
Not «Varyag»	●	●	●	●
<b>GRP</b>				
High	●	●	●	●
Low				
<b>Natural resources</b>				
Yes		●		
No				
<b>Private capital</b>				
Yes	●			
No		⊖		
<b>Foreign capital</b>				
Yes				
No				●
<b>Federal donations</b>				
Yes	⊖		●	⊖
No				
Constituency	0.91	0.93	0.91	0.94
Raw coverage	0.55	0.54	0.51	0.67
Unique coverage	0.09	0.04	0.03	0.07

● Core causal condition present  
 ● Contributory causal condition present  
 ⊖ Core causal condition absent  
 ⊖ Contributory causal condition absent

**Table 6. Configuration table for the regions of the Central Federal District with average growth rate of investment potential**

Factors	Explained cases	Raw coverage	Consistency
$GRP\{0\} * priv\_cap\{1\} * back\_gov\{0\}$	SML (ANT)	0.55	0.91
$GRP\{0\} * nat\_resource\{1\} * back\_gov\{0\}$	VOR (GOR)	0.54	0.93

$GRP\{0\} * donat\{1\} * reg\_polit\{2\} * back\_gov\{0\}$	TMB (BET)	0.51	0.91
$GRP\{0\} * for\_cap\{0\} * reg\_polit\{1\} * back\_gov\{0\}$	RZN(VLUB), SML (ANT)	0.67	0.94

Table 7. Explanatory formula for the regions of the Central Federal District with an average growth rate of investment potential

### High governance effectiveness in the CFD regions

Finally, we consider three regions where the competent actions of the governors led to a sharp increase in the investment potential in the first years of their tenure ( $invest\_main = 2$ ).

Region	GRP	for_cap	priv_cap	nat_resource	donat	reg_polit	bcg_gov	bcg_vice-gov	Moscow_link	invest_main
BEL (SAV)	2	0	0	1	0	1	0	0	0	2
KAL (ART)	0	0	0	0	0	1	0	0	0	2
IVA (MEN)	0	0	0	0	1	1	1	1	1	2

Table 8. The truth table for the regions of the Central Federal District with a high growth rate of investment potential

This model includes the Belgorod and Kaluga regions with the long-living governors - Evgeny Savchenko and Anatoly Artamonov, as well as the Ivanovo region under Mikhail Men' (2005-2013).

The minimization of 264 repeating and logically contradictory combinations allows me to identify the following formula for explaining the governance success of the heads of these three regions:

$$GRP\{0\} * nat\_resource\{0\} * back\_vice-gov\{1\} + GRP\{0\} * donat\{0\} * reg\_polit\{1\} + GRP\{2\} * nat\_resource\{1\}$$

Each of the governor-region links has its own combination that leads to success in attracting investments. The growth of the investment potential of the Belgorod region under the governor Savchenko was largely determined by the initially high level of economic development of his region. In the 2000s, Savchenko focused on the development of production capacity and investment in the mining industry, which gave additional advantages to the economic development of the Belgorod *oblast* (Dolzhenko and Kamishenko 2016; Risin and Hariton 2018). Artamonov, in turn, enjoyed the loyalty of the local political elite, which later allowed him to implement major investment projects. The absence of federal donations in the case of the Kaluga region can be interpreted as a factor that had a positive impact on the economic development of the region. Unlike many regional governors of the Central Federal District, who used federal rent as an engine for the development of their regions, the Kaluga region under Artamonov was looking for



growth points on her own. As a result, during the first 10 years of the Artamonov government, the Kaluga region received a whole range of new production clusters: from automotive to pharmaceutical (Gomaleev and Tutin 2015). Finally, in the case of the Ivanovo region under the governor Men', the main factor determining the success of the region in attracting investments was stability in the relations between the head of the region and the elites. The absence of conflicts between the "Varyag" Men' and the "locals" was largely determined by the fact that the Moscow effective manager brought his entire team with him and appointed his proxies to key positions in the regional administration (Moi Business 2013). Creating an effective management structure allowed Men' to create a favorable investment environment in the Ivanovo region, even despite its low level of economic development. At the same time, it is worth noting that the lack of natural resources in the region played a positive role in attracting investors who were not associated with the extractive industry: the lack of the "resource rent" stimulated the diversification of the regional economy and the creation of large business clusters in the services sector.

	Configurations		
	1	2	3
<b>Elite conflicts</b>			
High			●
Medium			●
<b>Governor</b>			
«Varyag»	●		
Not «Varyag»		⊖	●
<b>GRP</b>			
High		●	
Low	●		
<b>Natural resources</b>			
Yes		●	
No	●		⊖
<b>Federal donations</b>			
Yes			●
No			
Constituency	0.92	0.93	0.91
Raw coverage	0.56	0.51	0.54
Unique coverage	0.08	0.04	0.05

● Core causal condition present  
 ● Contributory causal condition present  
 ⊖ Core causal condition absent  
 ⊖ Contributory causal condition absent

**Table 9. Configuration table for the regions of the Central Federal District with a high growth rate of investment potential**

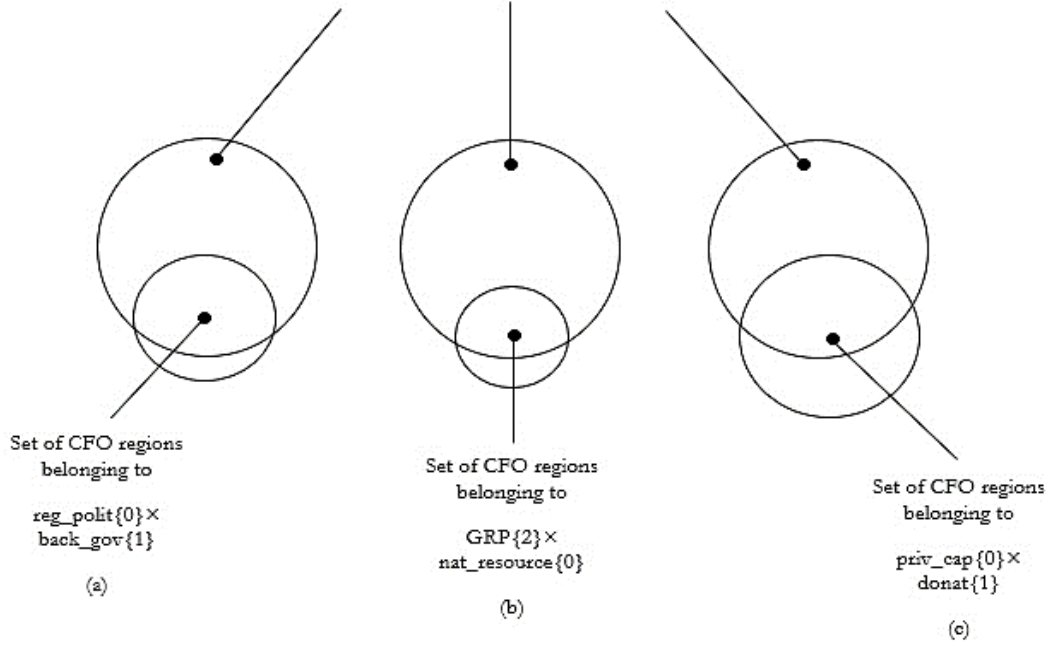
Factors	Explained cases	Raw coverage	Consistency
$GRP\{0\} * nat\_resource\{0\} * back\_vice-gov\{1\}$	IVA (MEN)	0.56	0.92
$GRP\{2\} * nat\_resource\{1\}$	BEL (SAV)	0.51	0.93
$GRP\{0\} * donat\{0\} * reg\_polit\{1\}$	KAL (ART)	0.54	0.91

**Table 10. Explanatory formula for the regions of the Central Federal District with a high growth rate of investment potential**

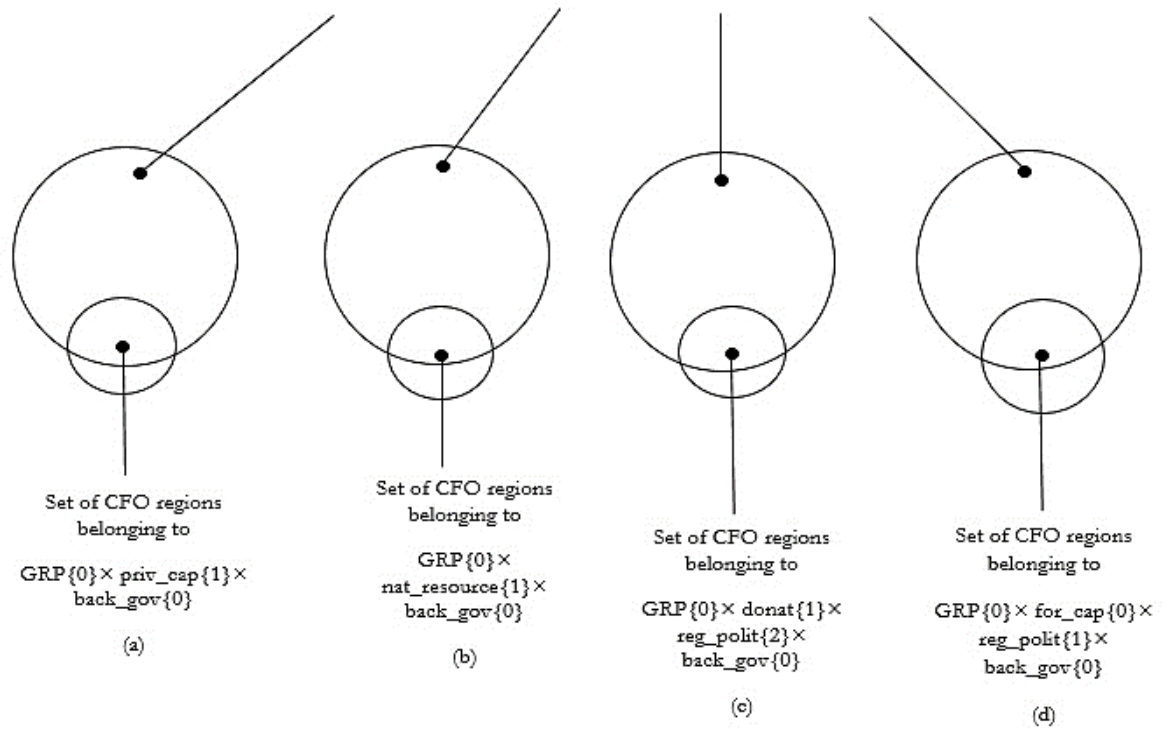
It follows from the analysis that in 2000-2018, the structural/economic and personalist factors had the greatest influence on the successes and failures of the governors of the Central Federal District. Initially, the high economic development of the region, coupled with federal donations, almost always led the region to the loss of its investment attractiveness due to the lack of incentives for the local political elite, primarily the governors, to look for alternative points of economic growth. On the contrary, the low level of development and lack of natural resources stimulated some governors to create new investment and production clusters from scratch, as happened in the Kaluga region under the governor Artamonov or in the Ivanovo region under the governor Men'. In addition to donations and basic economic development, the presence / absence of large private and foreign capital had a certain effect on the investment potential of the regions. However, in all the mvQCA models that were designed these two factors had only contributory effect.

An important role for the economic well-being of the region was played by the factor of internal political stability. The conflict potential of a region directly depends on who the governor and his/her administrative team are. It can be concluded that, in most cases, the "Varyag" governor and "local" administrations cannot agree on economic policy in their region. Bryansk region under the governor Lodkin, Yaroslavl region under the governor Mironov and Tambov region under the governor Nikitin can be cited as examples. The "local" governor and the "local" administration operate more successfully, as was the case in the Smolensk region under the governor Antonov. Equally effective are the "Varyag" governors, who bring the administrative team with them, as governor Men' did. The main results of the analysis are presented in the Euler diagram below.

Set of CFD regions with low growth rate of investment potential



Set of CFD regions with medium growth rate of investment potential



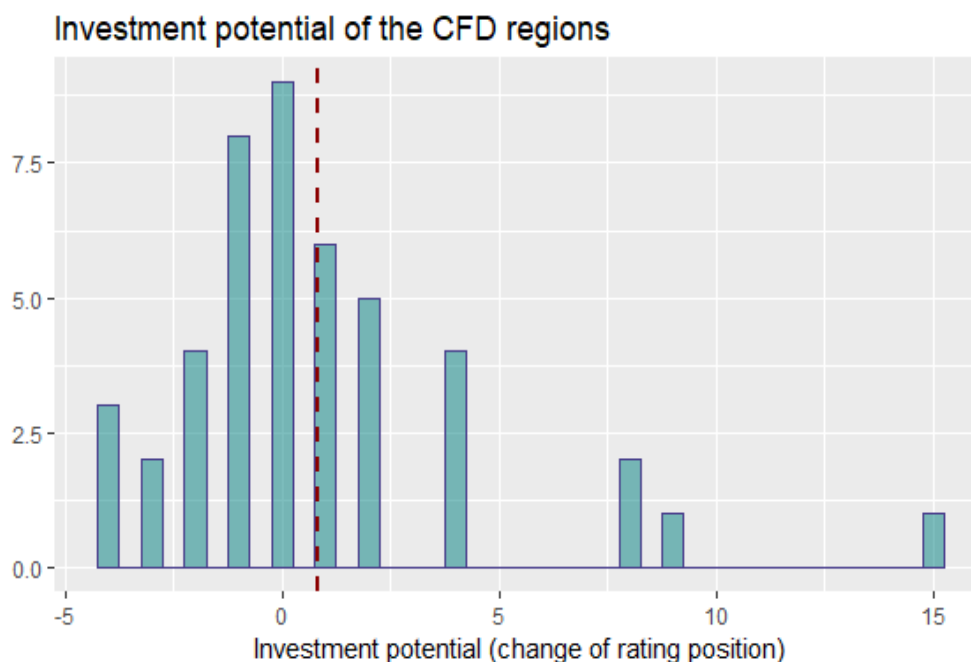


	<b>“Local” (n=29)</b>	<b>“Varyag” (n=16)</b>	<b>Overall (n=45)</b>
<b>Investment potential</b>			
Mean (SD)	1.17 (4.04)	0.250 (2.79)	0.844 (3.64)
Median [Min, Max]	0.00 [-4.00, 15.0]	0.00 [-4.00, 8.00]	0.00 [-4.00, 15.0]
<b>GRP per capita</b>			
Mean (SD)	0.759 (0.786)	0.313 (0.479)	0.600 (0.720)
Median [Min, Max]	1.00 [0.00, 2.00]	0.00 [0.00, 1.00]	0.00 [0.00, 2.00]
<b>Foreign investment</b>			
Mean (SD)	0.0345 (0.186)	0.125 (0.342)	0.0667 (0.252)
Median [Min, Max]	0.00 [0.00, 1.00]	0.00 [0.00, 1.00]	0.00 [0.00, 1.00]
<b>Private investment</b>			
Mean (SD)	0.138 (0.351)	0.250 (0.447)	0.178 (0.387)
Median [Min, Max]	0.00 [0.00, 1.00]	0.00 [0.00, 1.00]	0.00 [0.00, 1.00]
<b>Natural resources</b>			
Mean (SD)	0.276 (0.455)	0.313 (0.479)	0.289 (0.458)
Median [Min, Max]	0.00 [0.00, 1.00]	0.00 [0.00, 1.00]	0.00 [0.00, 1.00]
<b>Federal donations</b>			
Mean (SD)	0.690 (0.471)	0.875 (0.342)	0.756 (0.435)
Median [Min, Max]	1.00 [0.00, 1.00]	1.00 [0.00, 1.00]	1.00 [0.00, 1.00]
<b>Conflicts between the elites</b>			
Mean (SD)	1.10 (0.489)	1.25 (0.447)	1.16 (0.475)
Median [Min, Max]	1.00 [0.00, 2.00]	1.00 [1.00, 2.00]	1.00 [0.00, 2.00]
<b>Background of the governor</b>			
Mean (SD)	0.00 (0.00)	1.00 (0.00)	0.356 (0.484)
Median [Min, Max]	0.00 [0.00, 0.00]	1.00 [1.00, 1.00]	0.00 [0.00, 1.00]
<b>Background of the vice-governor</b>			
Mean (SD)	0.00 (0.00)	0.688 (0.479)	0.244 (0.435)
Median [Min, Max]	0.00 [0.00, 0.00]	1.00 [0.00, 1.00]	0.00 [0.00, 1.00]
<b>Linkage to Moscow</b>			
Mean (SD)	0.241 (0.435)	0.750 (0.447)	0.422 (0.499)
Median [Min, Max]	0.00 [0.00, 1.00]	1.00 [0.00, 1.00]	0.00 [0.00, 1.00]

**Table 11. Descriptive statistics on investment potential of the CFD regions**

As we noted in the previous part of the article, the pool of the CFD regions is strongly differentiated in terms of governance efficiency. Most of the regions (7 regions) showed no growth or negative growth of the investment potential under different governors. A smaller part of the pool of regions (5 regions) showed an increase of 3-5 points in the rating of investment potential during 2000-2018. Finally, only 3 regions: Ivanovo region under the governor of Men’, the Kaluga region under the governor

Artamonov, and the Belgorod region under the governor Savchenko can be considered subjects with “good” governance.



Below are the results of the regression analysis, with which we determine the most significant factors in the long-term regional governance. Model 1 includes only factors of the structural-economic block, factors of the institutional block are added to Model 2, Model 3 contains all the factors that we tested in the mvQCA analysis.

**Table 12. Regression results for investment potential of the CFD regions**

	<i>Dependent variable:</i>		
	Model 1	Model 2	Model 3
GRP per capita	-1.817* (0.901)	-1.891** (0.927)	-1.902* (0.981)
Foreign capital	-1.950 (2.222)	-1.866 (2.255)	-0.791 (2.581)
Private capital	-0.364 (1.403)	-0.240 (1.449)	-0.332 (1.515)
Natural resources	-0.345 (1.201)	-0.289 (1.222)	-0.482 (1.280)

Federal donations	-3.372** (1.463)	-3.518** (1.519)	-3.209** (1.575)
Conflicts between the elites		-0.506 (1.215)	-0.292 (1.297)
Background of the governor			2.626 (2.078)
Background of the vice-governor			-1.959 (2.325)
Linkage to Moscow			-0.536 (1.366)
Constant	4.777*** (1.608)	5.472*** (2.329)	4.964*** (3.483)
<hr/>			
Observations	45	45	45
R <sup>2</sup>	0.153	0.157	0.195
Adjusted R <sup>2</sup>	0.045	0.058	0.066

*Note:* \*p<0.1; \*\*p<0.05; \*\*\*p<0.01

In Model 1, the most significant factors are the basic economic development of the region (*GRP per capita*, p<0.1) and financial support from the federal center (*Federal donations*, p<0.05). It is important to note that both factors negatively affect the investment potential of the region. As we noted in the previous part of the paper, the high level of initial development of the regional economy, as well as federal donations, reduce the incentives for diversifying the regional economy and searching for the growth points, which later results in the increased risks for external and internal investors during financial crises.

The inclusion of the variable *Conflicts between the elites*, which represents the institutional block of explanatory theories to Model 2, increased the strength of the model (Adjusted R<sup>2</sup> = 0.058 comparing to 0.045 in Model 1), but *GRP per capita* and *Federal donations* still remained the only significant variables.

Model 3, which contains a full pool of variables, has a greater explanatory power than the two previous models (Adjusted  $R^2 = 0.066$ ), thanks to the inclusion of the variables of the actor-oriented block. Once again, only the variables of the structural-economic block demonstrate significance in the model.

The analysis shows that if we consider governance in the Russian regions in a long-run perspective (in the case of this study, from 2000 to 2018), the most significant are the structural-economic factors namely, the basic development of the regional economy and financial assistance from the federal center. Nevertheless, if we take shorter periods of time and focus not on the overall picture, but on the constituent parts of this picture, as we did in the previous part of this research, the explanatory model of the regional empirical reality is complemented by institutional and actor-oriented factors.

## **Conclusion**

The general institutional background of bad governance in Russia creates conditions under which one can rarely observe “success stories” at the regional level. However, as this study of governance in the regions of the Central Federal District (CFD) demonstrates, there are such stories, and in most cases they are determined by both the personal characteristics of the governor and the structural and economic patterns. The main structural and economic characteristics that influence the success and failures of governance in the Russian regions include the basic economic development of the region, federal donations and the availability of natural resources. In turn, the personal characteristics of the governor are, first of all, his background as “Varyag” or “local” in relation to regional political elites. We found out that from the point of view of the governor's origin, the most successful combinations for a successful regional government are the combinations of “local” governor - “local” administration and “Varyag” governor - “Varyag’s” administrative team. In turn, the combination of the “Varyag” governor and “local” administration in most cases leads to conflicts between regional political elites and, as a result, to inefficient regional governance.

The statistical analysis showed that long-term governance in the regions of the Central Federal District is determined by two main factors of the structural-economic bloc: the basic development of the regional economy and federal donations.



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## APPENDIX

Region	GRP per capita (thousands) (GRP)	Big foreign investment in the region (for_cap)	Big private investment in the region (priv_cap)	Natural resources (nat_resource)	Federal donations (donat)	Conflicts of the elites (reg_polit)	Background of the governor (bc_gov)	Background of the Vice-governor (bc_vice-gov)	Linkage to Moscow (Moscow_link)	Investment potential (invest_main)
<b>BEL (SAV)</b>	5	0	0	1	0	35.49	0	0	0	8
<b>BRN (LOD)</b>	17	0	0	0	1	30.97	0	0	0	2
<b>BRN (DEN)</b>	17	0	0	0	1	70.56	0	0	0	4
<b>BRN (BOG)</b>	17	0	0	0	0	71.81	0	0	0	2
<b>VLD (VIN)</b>	13	0	0	0	1	34.14	0	0	0	1
<b>VLD (ORL)</b>	14	0	0	0	1	59.42	1	1	1	-3
<b>VOR (KUL)</b>	15	0	0	0	1	35.33	0	0	0	1
<b>VOR (GOR)</b>	11	0	0	0	1	55.42	1	1	1	4
<b>VOR (GUS)</b>	7	0	1	0	1	78.88	0	0	0	0
<b>IVA (TIH)</b>	18	0	0	0	1	44.41	0	0	0	-4
<b>IVA (MEN)</b>	18	0	0	0	1	50.97	1	1	1	8
<b>IVA (KON)</b>	18	1	0	0	1	42.38	0	0	0	-1
<b>IVA (VOS)</b>	18	1	0	0	1	71.37	1	0	1	0
<b>KAL (ART)</b>	11	0	0	0	0	36.16	0	0	0	15

<b>KST (SHE)</b>	7	0	0	0	1	39.65	0	0	0	0
<b>KST (SLU)</b>	13	0	0	0	1	54.57	0	0	1	-1
<b>KST (SIT)</b>	17	0	0	0	1	52.63	0	0	1	-2
<b>KUR (MIK)</b>	9	0	0	1	1	36.44	0	0	0	-2
<b>LIP (KOR)</b>	3	0	0	1	0	28.72	0	0	1	1
<b>ORL (STR)</b>	7	0	0	1	1	46.16	0	0	1	-1
<b>ORL (KOZ)</b>	16	0	0	1	1	45.87	1	1	1	-1
<b>ORL (POT)</b>	14	0	0	1	1	47.93	1	1	0	0
<b>ORL (KLI)</b>	12	0	0	1	1	76.77	1	1	0	0
<b>RZN (VLUB )</b>	12	0	0	0	1	33.13	0	0	0	4
<b>RZN (SPA)</b>	11	0	0	0	1	58.96	1	0	1	-2
<b>RZN (KOV)</b>	8	0	0	0	1	57.13	1	1	1	1
<b>RZN (NLUB )</b>	8	0	0	0	1	76.34	1	1	1	0
<b>SML (PRH)</b>	10	0	0	0	1	52.49	0	0	0	1
<b>SML (MAS)</b>	7	0	1	0	1	43.94	0	0	0	-3
<b>SML (ANT)</b>	16	0	1	0	1	54.44	0	0	1	9
<b>SML (OST)</b>	10	0	1	0	1	59.43	1	1	1	1
<b>TMB (BET)</b>	16	0	0	1	1	32.11	0	0	1	4

<b>TMB (NIK)</b>	10	0	0	1	1	72.66	0	0	0	2
<b>TVR (PLT)</b>	8	0	0	0	1	39.67	1	0	0	0
<b>TVR (ZEL)</b>	9	0	0	0	0	65.16	0	0	1	2
<b>TVR (SHE)</b>	11	0	0	0	1	55.71	1	0	0	-4
<b>TVR (RUD)</b>	14	1	1	0	1	59.77	1	0	1	-1
<b>TUL (SRD)</b>	8	0	0	1	1	38.70	0	0	0	0
<b>TUL (DUD)</b>	7	0	1	1	1	55.24	0	0	0	-4
<b>TUL (GRU)</b>	13	0	1	1	0	60.39	1	1	1	-1
<b>TUL (DUM)</b>	8	0	1	1	0	79.20	1	1	1	2
<b>YAR (LIS)</b>	3	0	0	0	0	42.56	0	0	0	-1
<b>YAR (VAK)</b>	5	0	0	0	0	58.37	0	0	0	-2
<b>YAR (YAS)</b>	5	0	0	0	0	46.48	0	0	0	-1
<b>YAR (MIR)</b>	5	0	0	0	0	71.84	0	0	0	0

**Table 13. Encoding of the variables for mvQCA analysis of the investment potential of the regions of the Central Federal District**

Region	GRP per capita (thousands) (GRP)	Big foreign investment in the region (for_cap)	Big private investment in the region (priv_cap)	Natural resources (nat_resource)	Federal donations (donat)	Conflicts of the elites (reg_polit)	Background of the governor (bc_gov)	Background of the Vice-governor (bc_vice-gov)	Linkage to Moscow (Moscow_link)	Investment potential (invest_main)
BEL (SAV)	2	0	0	1	0	1	0	0	0	2
BRN (LOD)	0	0	0	0	1	0	0	0	0	0
BRN (DEN)	0	0	0	0	1	2	0	0	0	1
BRN (BOG)	0	0	0	0	0	2	0	0	0	0
VLD (VIN)	0	0	0	0	1	1	0	0	0	0
VLD (ORL)	0	0	0	0	1	1	1	1	1	0
VOR (KUL)	0	0	0	0	1	1	0	0	0	0
VOR (GOR)	0	0	0	0	1	2	1	1	1	1
VOR (GUS)	1	0	1	0	1	2	0	0	0	0
IVA (TIH)	0	0	0	0	1	1	0	0	0	0
IVA (MEN)	0	0	0	0	1	1	1	1	1	2
IVA (KON)	0	1	0	0	1	0	0	0	0	0
IVA (VOS)	0	1	0	0	1	2	1	0	1	0
KAL (ART)	0	0	0	0	0	1	0	0	0	2
KST (SHE)	1	0	0	0	1	1	0	0	0	0

<b>KST (SLU)</b>	0	0	0	0	1	1	0	0	1	0
<b>KST (SIT)</b>	0	0	0	0	1	1	0	0	1	0
<b>KUR (MIK)</b>	1	0	0	1	1	1	0	0	0	0
<b>LIP (KOR)</b>	2	0	0	1	0	0	0	0	1	0
<b>ORL (STR)</b>	1	0	0	1	1	1	0	0	1	0
<b>ORL (KOZ)</b>	0	0	0	1	1	1	1	1	1	0
<b>ORL (POT)</b>	0	0	0	1	1	0	1	1	0	0
<b>ORL (KLI)</b>	0	0	0	1	1	2	1	1	0	0
<b>RZN (VLUB)</b>	0	0	0	0	1	1	0	0	0	1
<b>RZN (SPA)</b>	0	0	0	0	1	1	1	0	1	0
<b>RZN (KOV)</b>	1	0	0	0	1	1	1	1	1	0
<b>RZN (NLUB)</b>	1	0	0	0	1	2	1	1	1	0
<b>SML (PRH)</b>	1	0	0	0	1	2	0	0	0	0
<b>SML (MAS)</b>	1	0	1	0	1	1	0	0	0	0
<b>SML (ANT)</b>	0	0	1	0	1	1	0	0	1	2
<b>SML (OST)</b>	1	0	1	0	1	1	1	1	1	0
<b>TMB (BET)</b>	0	0	0	1	1	1	0	0	1	1
<b>TMB (NIK)</b>	1	0	0	1	1	2	0	0	0	0
<b>TVR (PLT)</b>	1	0	0	0	1	1	1	0	0	0

<b>TVR (ZEL)</b>	1	0	0	0	0	2	1	0	1	0
<b>TVR (SHE)</b>	0	0	0	0	1	1	1	0	0	0
<b>TVR (RUD)</b>	0	1	1	0	1	1	1	0	1	0
<b>TUL (SRD)</b>	1	0	0	1	1	1	0	0	0	0
<b>TUL (DUD)</b>	1	0	1	1	1	1	0	0	0	0
<b>TUL (GRU)</b>	0	0	1	1	0	1	1	1	1	0
<b>TUL (DUM)</b>	1	0	1	1	0	2	1	1	1	0
<b>YAR (LIS)</b>	2	0	0	0	0	1	0	0	0	0
<b>YAR (VAK)</b>	2	0	0	0	0	1	0	0	0	0
<b>YAR (YAS)</b>	2	0	0	0	0	0	0	0	0	0
<b>YAR (MIR)</b>	2	0	0	0	0	2	0	0	0	0

**Table 14. Setting thresholds for variables of the mvQCA analysis of investment potential of the regions of the Central Federal District**