

Oligarchs and social capital in Russian regions: a quantitative assessment

Lidwina Gundacker^{1,2} · Jarko Fidrmuc^{1,3,4,5}

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Abstract After the collapse of the Soviet Union a new class of entrepreneurs, the so called ‘oligarchs’, have emerged in Russia. Using individual survey data for Russia in combination with unique regional data on oligarchic dominance, we try to illuminate the relationship of oligarchs and levels of social capital in Russian regions. We further examine the interplay of oligarchs and public governance. The analysis reveals that social capital in terms of informal network strength and trust is significantly higher in regions with stronger oligarchic dominance. While the quality of all levels of public governance is perceived to be worse in oligarchic regions, this effect is especially pronounced for the local government.

Keywords Russia · Oligarchs · Social capital · Trust · Network density · Institutions

JEL Classification Z13 · L22 · P36

✉ Jarko Fidrmuc
jarko.fidrmuc@zu.de

Lidwina Gundacker
lidwina.gundacker.16@ucl.ac.uk

¹ Zeppelin University, Am Seemooser Horn 20, 88045 Friedrichshafen, Germany

² School of Slavonic and East European Studies, University College London, London, UK

³ Institute of East and Southeast European Studies (IOS), Regensburg, Germany

⁴ IES, Charles University in Prague, Prague, Czech Republic

⁵ Kaunas University of Technology, Kaunas, Lithuania

1 Introduction

In post-Soviet Russia, the reform process of the past quarter-century has changed politics, economics and society in numerous ways. Among others, it called a new entrepreneurial class into existence, the so called ‘oligarchs’. Their emergence and especially their close relationship with the political elite have been well studied, while it is more difficult to understand their impact on the Russian society. Surprisingly little research, however, focusses on the socioeconomic characteristics which are associated with the rise of the oligarchs during the past 25 years. In order to fill this gap in the literature, we try to reveal whether there is a relationship between oligarchic dominance and levels of social capital in Russian regions.

The concept of social capital has become increasingly popular in sociology, political science, and economics. Several authors have proved that social capital is a pivotal factor for the economic and regional developments (see literature surveys in Durlauf and Fafchamps 2005; Ananyev and Guriev 2015). While initially social capital was viewed as a highly persistent social and economic feature (Putnam et al. 1994), more recent research reveals that it can change rather quickly, especially in the face of large social, economic, and political events. Fidrmuc (2012) shows a quick convergence of social capital in re-settled regions to national levels after the Second World War. Ananyev and Guriev (2015) show that the 2008–2009 financial crisis caused a major decline in trust in Russia. An immediate significant impact of the conflict in East Ukraine on social capital in terms of pro-social behavior in Russian regions is documented by Guriev and Melnikov (2016).

Therefore, the dominance of the oligarchs in Russian society and the economy for several decades is likely to be related to the level and composition of social capital in Russian regions. Indeed, our results show that regions dominated by oligarchs have significantly different levels of social capital, although it is difficult to identify causal directions. The effects are surprisingly complex. Depending on the indicator employed, oligarchic regions may have higher or lower levels of social capital. Our analysis reveals that social capital in terms of the density of informal networks is considerably higher in oligarchic regions. By contrast, the analyzed forms of trust give mixed results. Although somewhat contradictory at first glance, the results show that a higher network density does not necessarily correlate with a higher level of trust between family members, friends or business partners. In fact, however, a low level of trust may instead require much more frequent interactions between people in order to guarantee their cooperation in a weak institutional environment like Russia.

This view is further strengthened by our finding that the quality of public governance is perceived to be significantly lower in oligarchic regions than in other regions. In other words, the performance of the formal rulers in oligarchic regions is viewed highly critically by the resident population.

The paper is structured as follows. We will first briefly introduce the concept of social capital and how to apply it empirically to Russian regions. Moreover, this section discusses the available definitions of ‘oligarchs’ and briefly reviews their short record in Russian history. Section 3 describes our data set and the estimation

strategy. Section 4 analyses the relationship between oligarchic presence and the most popular proxies of social capital, namely the meeting frequencies with and trust to relatives and friends. It also provides some robustness checks. The last section concludes.

2 Literature review

2.1 Social capital

The concept of social capital was initially developed in sociology but it has become increasingly popular in other fields. In economics, social capital usually refers to informal norms of behavior determining the quantity and quality of social interactions and trust. It is generally accepted as an important factor of long-term economic and social development including regional developments (Putnam et al. 1994; Guiso et al. 2004). However, the large body of research following Putnam's initial study on economic development in North and South Italy (Putnam et al. 1994) also pointed at the highly problematic feature of social capital research: it is used to explain economic and political outcomes, while at the same time, it is an outcome of past and present economic, political and institutional structures (Portes 1998).

Originally, the French sociologist Pierre Bourdieu defined social capital as “resources that accrue to an individual or a group by virtue of possessing a durable network of more or less institutionalized relationships of mutual acquaintance and recognition” (Bourdieu 1992, 119). For Coleman, social capital represents commonly shared norms and values of a particular social context, and is available to those individuals who share access to this context (Coleman 1990). Coleman's interconnected dimensions of trust and networks are generally considered to be one of the main drivers of social and economic outcomes on the individual as well as on the aggregated level (Lin 1999; van Tubergen et al. 2004; Bauman 1991).

Social capital has been analyzed by several authors in order to explain recent economic and political developments in Russia and Eastern Europe. Explaining different transition outcomes in post-Communist countries (concerning economic growth and democratization), various scholars praised social capital as the missing piece in the puzzle (e.g. Hjøllund et al. 2001; Titov 2013; Paldam and Svendsen 2001; Marsh 2000). However, attention must be paid to the definitions and proxies used. In these studies, the commonly applied indicators capture social capital on the organizational level, i.e. participation in civic organizations, trust in formal institutions, and active social involvement. In these terms, for Russia the authors generally conclude that there are low levels of social capital in the country. Concerning trust, large gaps are revealed between trust in general and trust in people of the personal surrounding (Rose 2001). The importance of informal networks in Russian society is emphasized, amongst others, by Rose and Weller (2003). The most important network seems to be friends and neighbors.

This highlights that the engaged definition of social capital and the choice of the indicators are crucial. We are particularly interested in informal networks and trust

on an individual level, as they may compensate a lack of rules and low institutional trust.

2.2 Russian oligarchs

As in the case of social capital, the term “oligarch” is ambiguously defined in the literature as well. The word oligarchy originates in the Greek words ‘*oligarchía*’ meaning “rule by a few”, under which the dominating political power was concentrated in the hands of a small number of people or families in a society.

For contemporary Russia the term of the oligarchs is used to describe the new business elite that has evolved since the collapse of the Soviet Union: “a class of entrepreneurs and people in finance had been emerging in Russia, who on the one hand profited by their proximity to politics and on the other hand influenced politics in various ways” (Schröder 1999, p. 957).¹ We will use the definition given by Guriev and Rachinsky (2005): an oligarch is a business man with considerable resources that enable him to influence politics at the national level.² In addition to market power, an oligarch thus possesses also significant political influence.

The influence of publicly well-known oligarchs has declined since the mid-2000s. A decade of privatization and state capture has left public policy highly dependent on the interests of a few (Yakovlev 2006; Guriev et al. 2010). When Vladimir Putin came into power in 2000, he announced the re-centralization of power and a cut with the intrusion of oligarchs into politics (Kryshtanovskaya and White 2005).³ These efforts, however, encouraged entrepreneurs to increasingly focus on control at the regional level instead, by supporting candidates or pursuing governorships themselves (Sharafutdinova 2006; Kryshtanovskaya and White 2005; Gehlbach et al. 2010). Guriev et al. (2010) also highlight the particularly strong effect of local business lobbying on local politics. The increased integration of local politics and businesses in the 2000s emphasizes the need to examine the socioeconomic developments associated with it on the individual level in the Russian regions.

3 Empirical analysis

3.1 Data

We merge two sets of data: individual data on levels of social capital and other individual characteristics of Russian residents across the regions, and regional data on the oligarchic presence (see variable definitions in Table 1). The descriptive

¹ Ironically, it is less known that Lenin (1916) already used the term financial oligarchy in order to describe the importance of the financial sector in imperialism.

² Guriev and Rachinsky (2005) define businessmen as oligarchs if their controlled annual sales exceed 20 billion rubles (in 2003) or if total controlled employment exceeds 20,000 people.

³ In 2000, the new administration forced two media moguls (Boris Berezovsky and Vladimir Gusinsky) into exile, and Mikhail Khodorkovsky, who controlled Yukos and made serious attempts to enter the political stage, was arrested (see for an in-depth analysis Goldman 2004).

Table 1 Definition of variables

| Variable | Description |
|---|--|
| (A) Dependent variables, indicators of social capital | |
| Strong network ties (relatives/friends) | Dummy equal to 1 if respondent meets relatives/friends once a week or more often, and 0 otherwise. |
| Very strong network ties (relatives/friends) | Dummy equal to 1 if respondent meets relatives/friends on most days, and 0 otherwise. |
| Trust in general/family/friends/neighbors | Dummy equal to 1 if the individual has some or complete trust, and 0 otherwise. |
| Local/regional/federal government performance | Dummy equal to 1 if government performance rated good or very good, and 0 otherwise. |
| Variable | Description |
| (B) Explanatory and control variables | |
| Oligarchs | Oligarchic employment as share of total regional employment (in %). Source: Fidrmuc and Gundacker (2017) |
| Gender | Dummy equal to 1 if gender is female, and 0 otherwise |
| Age | Age in years |
| Married | Dummy equal to 1 if the respondent is married |
| Household members | No. of people living in the same household |
| Subsistence wage | Dummy equal to 1 if respondent has no savings at end of a typical month, and 0 otherwise |
| Higher education | Dummy equal to 1 if the highest level of education is post-secondary education or above, and 0 otherwise |
| Rural | Dummy equal to 1 if respondent lives in rural, 0, and 0 otherwise |
| Dist to Moscow | Peripheral location, distance to Moscow in km |
| Impact crisis | Dummy equal to 1 if crisis affected the individual “a great deal” or “a fair amount”, and 0 otherwise |
| Employed | Dummy equal to 1 if respondent has worked for income during the past 12 months, and 0 otherwise |
| Retired | Dummy equal to 1 if respondent is retired, and 0 otherwise |
| Student | Dummy equal to 1 if respondent is currently a student, and 0 otherwise |
| Pensions | Dummy equal to 1 if state pensions are source of livelihood, and 0 otherwise |

Source: EBRD, Life in Transition Survey 2010, if not indicated differently

statistics are reported in “Table 6 in the [Appendix](#)”. For the individual data, we use the 2010 Life in Transition Survey (LiTS) provided by the European Bank of Reconstruction and Development (EBRD) and the World Bank. The LiTS are surveys across numerous countries including Russia to measure the impact of the transition, globalization, the global financial crisis, and other economic developments. Alongside individual characteristics and opinions it also captures standard proxies of social capital. For Russia, the 2010 survey includes 1600 respondents.

Data on oligarchic presence is based on the data set collected by Guriev and Rachinsky (2005) on the ownership structure in Russia in 2003. Guriev and Rachinsky tracked down the ultimate owners for the largest firms of the largest sectors and divided them into groups (oligarch, other private domestic owner, foreign owner, regional government, Russian federal government), ending up with a list of 627 ultimate owners. Included in this list are 22 oligarchs or oligarch groups holding roughly 700 firms. We identify in a manual research process the locations of the individual oligarchic firms of the sample (firms with yearly sales exceeding one million Rubles in 2003), taking into account also additional branches, subsidiaries or production sites that are not located with the headquarter (see Fidrmuc and Gundacker 2017). In particular, 233 firms have been manually attributed to 560 different addresses in total, operating in nearly all Russian regions. This precisely constitutes the strength of the data as it does not remain with the city a firm is administratively registered in, but also distinguishes where the firms actually operate. The presence of oligarchs in the regions is measured as the share of the employment their firms hold of total regional employment. This reflects that the higher the share of employees, the bigger the political and economic weight of a businessman.

The data represents ownership structures for 2003, which was the peak of oligarchic dominance in the Russian economy (as briefly described in Sect. 3). Thus, oligarchic penetration is likely to exercise a strong influence on socio-economic developments. While social capital is a long lasting and slowly changing resource that adjusts over decades or even centuries, Fidrmuc (2012) shows that the persistence of social capital may be surprisingly low in highly dynamic transition societies which are subject to frequent societal shocks.

3.2 Estimation strategy

Are oligarchs and social capital in Russia related? To answer this question, we estimate the determinants of social capital (that is, the importance of relatives and friends on the one hand and trust to them on the other). The level of oligarchic dominance is indicated by the regional employment share of oligarchs. Thus, we analyze selected indicators of social capital, *soc*, for individual respondent *i* in probit regressions,

$$P(soc_i = 1) = \alpha \text{oligarch}_r + \sum_{v=1}^V \beta_v \text{contr}_{vi} + \varepsilon_i. \quad (1)$$

The dependent variables are equal to 1 if the respondents own the analyzed feature of social capital (for example, the individual meets his relatives at least once a week) and 0 otherwise. We report marginal probability effects evaluated at the mean of the independent variables. The standard errors are based on residuals (denoted by ε) which are clustered for the seven main regions (see Table 6 for the list of regions and descriptive statistics by regions). For categorical independent variables—most of the control variables are categorical—the reported marginal effect is for their discrete change from 0 to 1.

The main explanatory variable in all estimations is the strength of oligarchs, *oligarch*, in the region of the respondent, r . This variable is measured as a share of employment oligarchs hold of total regional employment in 2003, which was the peak year of oligarchic dominance in Russia. All survey variables are for 2010. This feature should help to alleviate the possible endogeneity problems between social capital and the oligarchic share. Nonetheless, we interpret the estimated coefficient α as a correlation between oligarchs and social capital, rather than as a causal effect.

All estimations also include selected demographic control variables, *contr*, such as sex, age, educational level, marital status and the number of persons living in the same household. Higher education equals 1 if a surveyed individual has completed a degree on the secondary level or above. A higher level of education may also indicate a better job position and/or a higher social status. We further include the respondent's occupational status (employed, studying, retired or relying on social welfare benefits such as unemployment or disablement payments). Furthermore, all estimations contain selected characteristics for the 75 individual cities and settlements including the region type (rural/urban) and the distance to Moscow.

Finally, we include control variables for the economic situation of the individual. Most importantly, we include an indicator of subsistence income and financial restrictions, *subsistence wage*. It equals 1 if a household cannot achieve any savings in a typical month. Similarly, we control for the impact of the economic crisis on the individual level, *crisis*, which equals 1 if the respondent indicated that the economic crisis has affected her household in the past two years “a great deal” or “a fair amount”, and equals 0 if he responded “just a little” or “not at all”.

4 Results

The previous literature discusses two main categories of social capital: network density and social trust. Correspondingly, we try to answer the question whether oligarchic regions show significantly different patterns in social capital levels as proxied by network density and social trust. Are informal networks found to be strong especially in oligarchic regions? And if so, are they in fact correlated with higher social trust, as Coleman (1988) and Putnam (1993) suggest? For these purposes, trust is not only considered in general terms but for different levels of trust in the family, in friends, and neighbors.

4.1 Network density

Following the earlier literature (Fidrmuc 2012), we use the frequency to meet with relatives on the one hand and with friends on the other hand as a proxy for social network density. Different social networks may be characterized by different features, e.g. how frequently contacts between network participants occur. Therefore, we present estimations for strong network ties (indicated by meeting relatives/friends once a week or more often) and very strong network ties (meeting on most days), although this is an admittedly arbitrary distinction given the abstract concept of social interactions.

Table 2 Determinants of network density

| | Strong network ties | | Very strong network ties | |
|--------------------|---------------------|----------------------|--------------------------|----------------------|
| | Relatives (1) | Friends (2) | Relatives (3) | Friends (4) |
| Oligarchs | 1.850*** (0.434) | 0.147 (1.072) | 0.790** (0.308) | 0.498** (0.241) |
| Gender | 0.021 (0.014) | −0.015 (0.028) | 0.004 (0.009) | −0.012 (0.013) |
| Age | −0.002** (0.001) | −0.006*** (0.001) | −0.001*** (0.000) | −0.002*** (0.000) |
| Married | 0.011 (0.027) | −0.113** (0.047) | −0.002 (0.023) | −0.084*** (0.020) |
| Household members | 0.011 (0.010) | 0.010 (0.009) | 0.013 (0.010) | −0.004 (0.003) |
| Higher education | −0.030 (0.024) | −0.108*** (0.024) | −0.019 (0.019) | −0.058*** (0.019) |
| Subsistence wage | 0.076 (0.056) | 0.027 (0.026) | 0.057** (0.022) | 0.004 (0.019) |
| Rural | 0.132** (0.065) | 0.105* (0.056) | 0.057*** (0.011) | 0.033 (0.025) |
| Distance to Moscow | 0.008 (0.007) | −0.007 (0.006) | 0.011*** (0.004) | 0.004 (0.005) |
| Employed | −0.016 (0.057) | −0.027 (0.040) | −0.025 (0.019) | −0.069*** (0.015) |
| Retired | 0.105** (0.052) | −0.091 (0.064) | 0.068** (0.028) | −0.072** (0.030) |
| Student | 0.056 (0.128) | 0.130* (0.073) | −0.056 (0.035) | 0.177*** (0.064) |
| Pensions | −0.016 (0.027) | −0.024 (0.035) | −0.009 (0.028) | 0.008 (0.030) |
| Crisis | −0.028 (0.030) | −0.010 (0.024) | 0.003 (0.015) | −0.013 (0.025) |
| Observations | 1540 | 1540 | 1540 | 1540 |

Standard errors adjusted for clustering at the district level in parentheses

***, **, and * denote significance at 1, 5, and 10%, respectively. Marginal probability effects are evaluated at the mean of explanatory variables. Dependent variable in (1) and (2) equals 1 if respondent meets with relatives/friends once a week or more often and 0 otherwise. Dependent variable in (3) and (4) equals 1 if respondent meets with relatives/friend on most days and 0 otherwise

The results (see Table 2) show that in general, in terms of meeting frequency networks are more closely tied together in regions where oligarchs are more present. People are much more likely to meet especially with their relatives in the regions with strong oligarchic presence. The effect is highest for meeting relatives once a week or more often. The probability that people residing in regions with a

1 percentage point higher share of oligarchic presence meet their relatives is nearly 2 percentage points higher. With respect to friends, such an effect can be found for meeting on most days, but the size of the effect is much smaller. Respondents in regions where oligarchic presence is 1 percentage point higher are more likely going to meet their friends on most days by almost 0.5 percentage points.

Furthermore, the results for control variables provide some interesting insights: among other things, married people meet their friends significantly less often. More educated people are less likely to meet their friends but not their relatives. People living on subsistence wages are instead more likely to meet their relatives, while friendship networks are not affected significantly. Additionally, living in a rural region is found to increase family network density. Retired people have more contact with their family and less with their friends, whereas students are more likely to have very strong network ties with their friends. The financial crisis does not show any significant impact on network density.

4.2 Levels of trust

Another phenomenon closely related to tight community networks is trust. Can higher or lower social trust be observed in regions where oligarchs are stronger? And looking at it more closely, which groups are especially trusted and which are not?

Trust is a very broad phenomenon and researchers have to rely on the subjective rating of individuals. General trust is a commonly used indicator of social capital, but it does not provide very precise information about trust among the respondents (Fukuyama 2000), especially regarding their relative propensities to cooperate with family, community members etc. That is why we include four trust categories: not only trust in general but also trust in family, friends, and neighbors. The trust variables equal 1 if the individual has some or complete trust.

The results (Table 3) show that trust in the family is likely to be lower in oligarchic regions. Trust in friends does not show different patterns, while trust in neighbors is likely to be much higher. Combining this with the results from the previous analysis, it indicates that the meeting frequency with relatives increases, but trust in family members decreases. Given the overall very high levels of trust to the family and the small variance of the variable (see Appendix), these results should however not be over-interpreted. In contrast, people put more trust in the people that live next door—notably higher trust: If the oligarchic presence is higher by 1 percentage point, the probability to trust in the neighbor completely or to some extent increases by more than 1 percentage point.

While this finding might seem surprising at the first glance, it may reflect that large multi-regional oligarchic firms put people together from different regions and ethnic groups. Oligarchic regions provide employment opportunities, attracting not only locals but giving incentives to move in from all over the country. After the fall of the Soviet Union many state firms were handed over into private hands. The new owners restructured businesses and invested in their productivity (see e.g. Guriev and Rachinsky 2005; Orttung 2004). For many in the urgent need of a job in the early years of transition (on poverty and unemployment in Russia before 1995 see

Table 3 Determinants of trust to other people

| | General trust (1) | Trust to family (2) | Trust to friends (3) | Trust to neighbors (4) |
|--------------------|----------------------|------------------------|-------------------------|---------------------------|
| Oligarchs | 0.567 (1.072) | −0.185*** (0.030) | 0.562 (0.619) | 1.165*** (0.328) |
| Gender | 0.027 (0.034) | 0.004 (0.004) | 0.001 (0.024) | 0.012 (0.016) |
| Age | 0.002*** (0.001) | −0.000** (0.000) | −0.000 (0.001) | 0.001 (0.001) |
| Married | 0.060** (0.028) | 0.009 (0.006) | −0.022 (0.028) | −0.003 (0.038) |
| Household members | 0.028 (0.019) | 0.004* (0.003) | 0.017 (0.014) | 0.031 (0.023) |
| Higher education | 0.020 (0.024) | 0.007 (0.008) | 0.010 (0.017) | 0.009 (0.038) |
| Subsistence wage | −0.102*** (0.039) | 0.007 (0.006) | 0.045** (0.021) | −0.029 (0.027) |
| Rural | 0.006 (0.072) | 0.007 (0.008) | 0.055 (0.042) | 0.060** (0.024) |
| Distance to Moscow | −0.006 (0.006) | −0.004*** (0.001) | −0.004 (0.007) | −0.004 (0.003) |
| Employed | 0.035 (0.056) | 0.027*** (0.006) | −0.021 (0.029) | −0.008 (0.029) |
| Retired | 0.089 (0.080) | 0.024*** (0.004) | 0.019 (0.056) | 0.116 (0.073) |
| Student | 0.169*** (0.042) | 0.012** (0.006) | 0.018 (0.067) | −0.024 (0.050) |
| Pensions | −0.014 (0.033) | −0.005 (0.008) | −0.006 (0.035) | 0.032 (0.042) |
| Crisis | −0.021 (0.039) | −0.005 (0.006) | −0.061** (0.024) | −0.004 (0.025) |
| Observations | 1540 | 1540 | 1540 | 1540 |

Standard errors adjusted for clustering at the district level in parentheses

***, **, and * denote significance at 1, 5, and 10%, respectively. Marginal probability effects are evaluated at the mean of explanatory variables

e.g. World Bank 1995; Eggers et al. 2006), oligarchs' businesses offered job opportunities across the country, providing incentives for people to relocate to areas experiencing economic development. For 2010, Karachurina (2013) finds that only slightly more than half of the male rural population works at their place of birth. Having resettled in a new area, neighborhood communities grow as a new informal network of mutual help, facilitating trust in an otherwise unknown surrounding.

4.3 Perception of public governance

Having revealed substantially different patterns of social capital in oligarchic regions we now swiftly turn to government institutions. Given the powerful position oligarchs have especially at the local level (Yakovlev 2006; Guriev et al. 2010), residents may evaluate the performance of the governments on the local, regional and national level differently wherever oligarchs are more dominant. Acemoglu (2008, 36) considers it possible that “those enriched by the oligarchic regime can use their resources to sustain the system that serves their interests”, shaping economic and political outcomes (such as regime changes, redistribution policies, trade and entry barriers). Again, the causal direction cannot ultimately be concluded on. Less effective governance can as well facilitate oligarchic penetration.

The dependent variable in each specification equals 1 if the respondent rated the overall performance of the government good or very good, and 0 otherwise. Table 4 shows a strong negative correlation between oligarchic presence and an evaluation of government performance on local and regional levels.⁴ The effect is strongest for the local level, decreases for the regional level and disappears for the national government. This indicates that oligarchic firms exempt their economic and political power most visibly on the local and regional level. Lobbying on the federal level is either less intense or simply less observable to the public. Moreover, the recentralization policies at the beginning of the last decade increased the oligarchs’ activities on the local political level and caused a withdrawal of oligarchs from visible political involvement on the federal level (Sharafutdinova 2006).

4.4 Robustness analysis

Our main estimations suggest that different aspects of social capital are significantly correlated with the regional importance of oligarchs. However, this finding could as well be caused by unobservable characteristics of the regions. Therefore, we analyzed the sensitivity of the main results to changes in the specification and the data sample. First, we included regional effects for the seven main Russian districts (see Table 5), which cover any region-specific characteristics. While the effect of the oligarchic dominance on very strong network ties with friends is now marginally significant, the coefficients for network density with relatives remain intact. This confirms the importance of family networks in oligarchic regions. Concerning the specifications for trust, the oligarchic share now becomes significant at the 10% level for general trust (Table 5, column 5). Trust in the community continues to be significantly higher in oligarchic regions. Moreover, regional characteristics seem to explain differences in the trust in the family. Yet as mentioned, trust in the family is overall fairly high in all regions and does not vary much. Finally, the results for the perception of public governance remain essentially unchanged if regional effects are included.

⁴ An extended model also includes an indicator of political resignation as a factor, but it does not prove significant. Detailed results are available upon request from the authors.

Table 4 Determinants of the perception of public governance

| | Local government (1) | Regional government (2) | Federal government (3) |
|--------------------|-------------------------|----------------------------|---------------------------|
| Oligarchs | −2.303*** (0.665) | −1.218** (0.566) | −0.751 (1.387) |
| Gender | 0.021 (0.027) | 0.034 (0.038) | 0.050** (0.025) |
| Age | −0.000 (0.001) | −0.001 (0.001) | −0.001 (0.001) |
| Married | −0.021 (0.026) | −0.009 (0.037) | 0.031 (0.021) |
| Household members | 0.017 (0.014) | 0.009 (0.019) | 0.001 (0.015) |
| Higher education | −0.039 (0.037) | −0.062*** (0.022) | −0.008 (0.023) |
| Subsistence wage | −0.078 (0.058) | −0.094** (0.038) | −0.050 (0.046) |
| Rural | 0.029 (0.033) | 0.073* (0.044) | 0.138*** (0.036) |
| Distance to Moscow | −0.003 (0.005) | 0.004 (0.009) | −0.004 (0.004) |
| Employed | −0.048 (0.039) | −0.066* (0.038) | −0.049 (0.035) |
| Retired | 0.086** (0.043) | 0.093** (0.043) | 0.069 (0.055) |
| Student | 0.061 (0.061) | 0.022 (0.036) | 0.060 (0.059) |
| Pensions | −0.029 (0.056) | −0.053* (0.032) | 0.009 (0.034) |
| Crisis | −0.064* (0.037) | −0.065*** (0.024) | −0.060*** (0.021) |
| Observations | 1540 | 1540 | 1540 |

Standard errors adjusted for clustering at the district level in parentheses

***, **, and * denote significance at 1, 5, and 10%, respectively. Marginal probability effects are evaluated at the mean of explanatory variables

As an additional robustness check we exclude selected regions. Given the more dynamic populations of large cities, these living spaces tend to be more anonymous than non-metropolitan areas. In the peripheral regions, in contrast, social capital (especially in terms of social networks) can have different features, also in light of the present economic constraints. In the Far East and in Siberia, around half of the sample cannot achieve any savings at the end of the month (see in Appendix), making family networks to rely on relatively more important. We therefore first exclude Moscow and St. Petersburg, and second, the peripheral regions of Siberia

Table 5 Overview of robustness analysis, coefficients for oligarch share

| | Network density | | | | Trust | | | | Perception of public governance | | | | Number of observ. | | |
|-----------------------------|---------------------|-------------|------------------------|-------------|---------------|-------------|---------------|---------------|---------------------------------|-----------------|---------------------|-----------------|-------------------|--------------------|--|
| | Strong network ties | | Very strong nt.w. ties | | General Trust | | Trust to | | Local government | | Regional government | | | Federal government | |
| | Relatives (1) | Friends (2) | Relatives (3) | Friends (4) | family (5) | friends (6) | neighbors (7) | neighbors (8) | government (9) | government (10) | government (11) | government (12) | | | |
| Basic specification | 1.850*** | 0.147 | 0.790** | 0.498** | 0.567 | -0.185*** | 0.562 | 1.165*** | -2.303*** | -1.218** | -0.751 | 1540 | | | |
| Including regional effects | 2.096*** | 0.910 | 0.579*** | 1.110* | 2.058* | -0.020 | -0.157 | 1.974*** | -2.375*** | -1.592* | -1.448 | 1540 | | | |
| Excl. Moscow/St. Petersburg | 1.611*** | -0.270 | 0.847** | 0.346 | 0.590 | -0.209*** | 0.197 | 1.285*** | -2.275*** | -1.301** | -0.679 | 1247 | | | |
| Excl. Siberia and Far East | 1.117** | -0.727 | 0.216 | 0.487* | 1.406 | -0.098* | -0.348 | 1.845*** | -1.607*** | -0.820** | -0.180 | 1201 | | | |
| Only Orthodox religion | 1.497*** | -0.229 | 0.774** | 0.182 | 0.706 | -0.256*** | 0.874 | 0.911** | -1.943*** | -1.171* | -0.212 | 1247 | | | |
| Excluding outlier regions | 2.036*** | -0.619 | 0.867* | 0.451 | 0.778 | -0.108*** | 0.711 | 1.240*** | -2.162*** | -1.501* | -2.819*** | 1500 | | | |

***, **, and * denote significance at 1, 5, and 10% based on standard errors adjusted for clustering at the district level, respectively. Marginal probability effects are evaluated at the mean of independent variables. Dependent variable in (3) and (4) equals 1 if respondent meets with relatives/friend on most days and 0 otherwise. The number of observations is the same for all estimations reported in the same line

and Far East from the data sample. Indeed, we can see that relatives play a more important role than friends if the metropolitan cities are excluded. Simultaneously, the importance of relatives declines in the non-peripheral regions (i.e., when Siberia and the Far East are excluded). Nevertheless, family networks in particular are used significantly more often where the oligarchic share is higher. In the meantime, the results for the different patterns of trust and for the perception of public governance remain largely unchanged in these two subsamples.

Moreover, different features of social capital available to an individual can be related to her association with a religion (Fukuyama 2001). Therefore, we restrict the estimations only to respondents with Orthodox religion, who represent the main religion in Russia (about 85% of the sample).⁵ We can see that meeting friends is less important for respondents with an Orthodox background. Finally, we exclude the regions with the highest oligarchic shares (more than 10%), because they might represent outliers and drive the results. In this specification the effect of oligarchs on the perception of government performance becomes significant and negative also at the federal level.

In sum, the main results remain intact. In oligarchic regions network density is significantly higher, in particular in the case of family networks. The neighborhood community is found to be significantly more trustworthy, while the performance of local and regional governments is perceived significantly worse.

5 Conclusions

Is there a link between oligarchic dominance and levels of social capital in Russian regions? In order to shed more light on this question, we analyzed individual level data on several aspects of social capital in oligarchic regions in Russia. We merged the individual data with unique regional data on oligarchic dominance based on a World Bank data set collected by Guriev and Rachinsky (2004, 2005). Our analysis is, to the best of our knowledge, the first attempt to address the interplay of social capital, public governance and oligarchic dominance in Russia. This data set, which also is available to other researchers for further analysis, offers a first starting point for the quantitative analysis of the oligarchs' role in Russian politics and society on a regional level.

Our results reveal that informal networks are stronger in regions where oligarchs are more powerful. In turn, the relationship between oligarchic presence and trust is ambiguous: trust is especially high in the neighborhood community in oligarchic regions, while the family is less trusted. A higher presence of oligarchic firms presumably attracts workers from all over the country, increasing social heterogeneity and making new community networks more important. Finally, the quality of public governance tends to be evaluated as significantly worse by the residents of oligarchic regions, especially at the regional level. In other words, in regions with higher oligarchic penetration informal networks are more pervasive, and the governing bodies perform worse.

⁵ The other possibilities include atheists (9%), Muslims (4%), and other religions (2%).

Overall, the results of the analysis suggest that the presence of oligarchs and levels of social capital in Russian regions are correlated; however, we do not want to conclude on the direction of the causal effects. In fact, our analysis shows that the relationship is highly complex; important features of social capital, like trust in the family, are lower in the oligarchic regions, while they are counterweighted by other aspects of social capital, e.g. higher community trust and denser informal networks. It remains the task of future research to deeper explore the causal relationship of social capital and oligarchs, possibly addressing endogeneity issues in more detail. In particular, several mechanisms may possibly work at the same time. On the one hand, specific initial informal structures might contribute to the emergence of oligarchs in a given region. On the other hand, oligarchs possibly influence the evolution of denser informal networks and the levels of trust within these different networks.

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Appendix

Table 6 Descriptive statistics for the main Russian regions

| Regions | Number of obs. | Strong networks | | Very strong networks | | Trust | | | |
|------------|------------------------|-----------------|------------|----------------------|-----------------|-------------|-----------------|------------------|-----------------|
| | | Relatives | Friends | Relatives | Friends | General | Family | Friends | Neighbors |
| Central | 333 | 0.294 | 0.396 | 0.048 | 0.126 | 0.556 | 0.991 | 0.748 | 0.736 |
| Far East | 83 | 0.434 | 0.410 | 0.181 | 0.193 | 0.494 | 0.940 | 0.783 | 0.687 |
| North West | 172 | 0.314 | 0.314 | 0.081 | 0.093 | 0.436 | 0.959 | 0.895 | 0.686 |
| Siberian | 276 | 0.428 | 0.438 | 0.170 | 0.174 | 0.507 | 0.978 | 0.822 | 0.699 |
| South | 280 | 0.521 | 0.621 | 0.168 | 0.250 | 0.589 | 0.989 | 0.854 | 0.743 |
| Ural | 101 | 0.327 | 0.337 | 0.069 | 0.059 | 0.505 | 0.980 | 0.802 | 0.594 |
| Volga | 339 | 0.398 | 0.466 | 0.086 | 0.206 | 0.572 | 0.971 | 0.867 | 0.687 |
| Regions | Government performance | | Oligarchs' | | Gender (Female) | Age (Years) | Househ. members | Higher education | |
| | Local | Regional | Federal | Share | | | | Married | Househ. members |
| Central | 0.372 | 0.390 | 0.523 | 0.016 | 0.471 | 49.679 | 2.372 | 0.526 | 0.778 |
| Far East | 0.373 | 0.398 | 0.518 | 0.006 | 0.434 | 48.554 | 2.795 | 0.639 | 0.735 |
| North West | 0.343 | 0.384 | 0.610 | 0.043 | 0.587 | 49.657 | 2.395 | 0.448 | 0.773 |
| Siberian | 0.330 | 0.435 | 0.482 | 0.035 | 0.482 | 45.406 | 2.297 | 0.525 | 0.754 |
| South | 0.336 | 0.400 | 0.521 | 0.013 | 0.500 | 52.646 | 2.611 | 0.496 | 0.650 |
| Ural | 0.337 | 0.366 | 0.535 | 0.039 | 0.495 | 47.871 | 2.248 | 0.535 | 0.723 |
| Volga | 0.389 | 0.428 | 0.469 | 0.033 | 0.413 | 52.012 | 2.581 | 0.519 | 0.634 |

Table 6 continued

| Regions | Subsistence wage | Rural | Employed | Retired | Student | Pensions | Crisis | Distance to Moscow (th. km) |
|------------|------------------|-------|----------|---------|---------|----------|--------|-----------------------------|
| Central | 0.270 | 0.120 | 0.598 | 0.252 | 0.033 | 0.426 | 0.279 | 0.175 |
| Far East | 0.566 | 0.518 | 0.675 | 0.229 | 0.000 | 0.470 | 0.229 | 9.117 |
| North West | 0.198 | 0.116 | 0.634 | 0.267 | 0.029 | 0.442 | 0.215 | 1.019 |
| Siberian | 0.493 | 0.315 | 0.641 | 0.228 | 0.029 | 0.409 | 0.254 | 3.883 |
| South | 0.411 | 0.550 | 0.525 | 0.325 | 0.029 | 0.493 | 0.361 | 1.334 |
| Ural | 0.604 | 0.198 | 0.634 | 0.218 | 0.030 | 0.337 | 0.416 | 1.864 |
| Volga | 0.460 | 0.192 | 0.540 | 0.292 | 0.044 | 0.490 | 0.265 | 0.997 |

Source: EBRD, own computation

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